

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

Contributors

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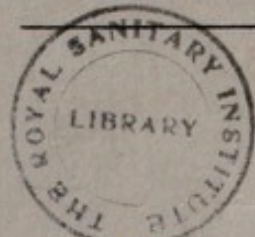
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ANNUAL REPORT
 OF THE
Department of Public Health
 PROVINCE OF ALBERTA
 INCLUDING
Vital Statistics Branch
 1948

PUBLISHED BY ORDER OF THE LEGISLATIVE ASSEMBLY



EDMONTON
 PRINTED BY A. SHNITKA, KING'S PRINTER FOR ALBERTA
 1950

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Edmonton, December 31, 1949.

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 1948.

I have the honour to be, Sir,

Your obedient Servant,

WALLACE WARREN CROSS,

Minister of Health.

Edmonton, December 21, 1918

Dear Sir,

J. G. Brown

Assistant Commissioner of the Province of Alberta

Sir,

I have the honor to transmit herewith the Annual Report of the Department of Public Health for the year 1918.

I have the honor to be, Sir,

Your obedient servant,

WILLIAM WATSON CROSS

Minister of Health

Edmonton, December 31, 1950.

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

Administration Building, Edmonton, Alberta.


SIR:

I have the honour to submit herewith, the Thirtieth Annual Report of the Department of Public 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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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

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

REGULATIONS PASSED DURING THE YEAR

O.C. 1117-48—Regulations Governing Food and Drink amended to provide the following:

- (a) Requirements in Eating Establishments for cleansing utensils of either:
 - (1) Mechanical equipment of suitable design, or
 - (2) Where installation is made before January 1, 1949, 2 sinks or containers, or
 - (3) Where installation is made after January 1, 1949, 3 sinks.
- (b) Requirements in respect to the methods by which utensils shall be washed, rinsed and sterilized.
- (c) Permit the use of chlorine solutions or quaternary ammonium compounds or water at a temperature of 170°F., for sterilizing utensils.
- (d) Approve a standard for cleansing and sterilizing utensils. A plate count of not more than 100 bacteria per utensil was set as the standard.

- (e) Permit local boards of health to order an eating establishment to close where in the opinion of the local board or the Medical Officer of health, any condition existing in an eating establishment which makes such action advisable, and order that such eating establishment remain closed until the condition is rectified.

O.C. 1118-48—Regulations Relating to Bakeshops amended to provide a definition of "bread".

O.C. 1119-48—Regulations Governing Mattresses and Upholstery amended to provide that furniture or mattresses or other household effects infested with fleas, bedbugs or other vermin may not be sold or transferred without first notifying the local board of health and disinfecting the articles.

O.C. 1120-48—Regulations Governing Restaurants amended to provide the following:

- (a) A wider definition of the term, "restaurant" so as to include canteens, cafeterias and dining rooms on the premises of educational institutions and on commercial and industrial premises.
- (b) A requirement that where construction or alteration takes place after January 1, 1949, rooms containing closets or urinals shall be separated from rooms where food is stored, served, kept or prepared, by an intervening well ventilated room or passage with self-closing doors.

O.C. 1121-48—Regulations Respecting Plumbing and Drainage amended to provide the following:

- (a) Permit local boards of health to require the removal of privies where plumbing fixtures have been installed and connected to water and sewer mains.
- (b) Permit the provision of one clean-out only at the soil stack where the house drain leaves the basement within 15 feet of the soil stack.
- (c) Permit septic tanks at school houses and public buildings to have a minimum capacity of not less than two cubic feet per person, providing no septic tank shall have a working capacity of less than forty cubic feet. The minimum capacity of six cubic feet per person and not less than a total of forty cubic feet for any tank continues in effect for all other buildings.

O.C. 1122-48—Regulations Respecting Nuisances and General Sanitation Nuisances amended to provide the following:

- (a) Permit Executive Officers of the Provincial Board or a local board of health to act as agents of the Provincial Board or local board for the purpose of prosecuting any person for violating The Public Health Act or Regulations without receiving specific instructions in any particular case.
- (b) Altered wording of sections governing the investigation of complaints respecting nuisances by requiring that an executive office "if necessary hear the statement of any person in connection therewith" instead of "if necessary hear the evidence of any person in connection therewith."

- (c) Altered procedure following investigation of complaints respecting nuisances by providing that an executive officer may issue written notice where premises are unsatisfactory. Previously, the Executive Officer was required to issue written notice.

O.C. 1207-48—Regulations Re Embalmers amended to provide that when a Board of Examiners is appointed to examine applicants for Embalmers Licenses that remuneration considered just by the Provincial Board of Health shall be paid to the members of the Board of Examiners by the Vital Statistics Branch of the Department of Public Health.

O.C. 1379-48—Regulations Respecting Nuisances and General Sanitation Nuisances amended to provide for renumbering certain regulations passed by O.C. 1122-48.

O.C. 1380-48—Regulations Regarding Plumbing and Drainage amended to provide that betuminized fibre or asbestos sewer pipe, the specifications of which have been approved by the Provincial Board of Health may be used for house sewers. Previously only salt-glazed vitrified tile was permitted.

O.C. 1381-48—Regulations Governing Food and Drink amended to provide as follows:

- (a) A requirement that when a Local Board of Health issues an order to an eating establishment to close and remain closed until unsatisfactory conditions are rectified, that the order shall give the proprietor seven days in which to close.
- (b) Permit the owner or operator of an eating establishment ordered to close by the Local Board of Health to appeal such order to the Provincial Board of Health within seven days of receipt of the order.

LEGISLATION PASSED DURING THE YEAR

An Act to Incorporate the Associated Hospitals of Alberta (Chapter 22).

This Act incorporates The Associated Hospitals of Alberta whose main purpose will be to operate a voluntary plan for the provision of hospitalization on a prepayment basis which is generally referred to as "The Blue Cross Plan".

Section 1 creates the persons named and future members as the Corporation.

Section 2 sets out the general purposes and objects of the Corporation.

Section 3 authorizes the Corporation to arrange and operate a plan; afterwards referred to in the Act as "The Blue Cross Plan." For this purpose the Corporation is authorized to make contracts and adopt rules covering the plan, to collect fees, etc. Provision is made for the annual appointment of a committee of control to administer the Plan. The composition of this committee is set out in the section. Paragraph (c) authorizes the making of contacts with approved hospitals. Paragraph (e) deals with the banking accounts, and the Reserve Fund.

Section 4 makes the funds of the Blue Cross Plan exempt from attachment except under a judgment on a claim arising out of the operation of The Blue Cross Fund.

Section 8 provides for the election of a Board of Directors in accordance with the by-laws. This Board is to administer the affairs and property of the Corporation and all directors must be members or employees of a hospital board.

By section 10 it is provided that the Lieutenant Governor in Council may at any time require an audit and inspection of the banking accounts, Reserve Fund and records of the Blue Cross Fund.

Section 11 authorizes the directors to make by-laws and regulations relating to the matters set out in the section.

Section 12 provides that by-laws made by the directors shall cease to have force unless confirmed by a general meeting of the Corporation.

Section 13 provides that individual members of the Corporation shall not be liable for the debts or defaults of the Corporation, but it is further provided that no hospital or employee of a hospital is relieved from liability to which it or he would have been liable if this Act had not been passed.

Section 14 relieves the Corporation from liability for any act or omission of a hospital with which it has a contract.

Section 17 provides that sections 105 to 107, 117 and 225 of The Companies Act shall not apply to the Corporation. These sections relate to the appointment and duties of auditors, the annual report to be made by companies to the Registrar of Companies and the fees required to be paid by the Registrar.

This Act came into force on March 31st, 1948.

Lloydminster Hospital Act (Chapter 19).

At the present time a hospital is being operated jointly at Lloydminster on the Saskatchewan side of the border by the Lloydminster Municipal Hospital Board organized under The Municipal Hospitals Act of Alberta, and the Lloydminster and District Hospital Board organized under the corresponding Saskatchewan Act. This is done pursuant to an agreement between the two Boards ratified by the Legislatures of both Provinces. The two Boards meet together for the transaction of the business of the hospital but have no joint corporate existence. Both Boards are desirous of extending the hospital, and as soon as possible, erecting a new one. For this purpose it will be necessary to issue debentures which cannot be done under the present arrangements. Both Boards desire legislation to amalgamate the two districts and establish a new district incorporating all the territory now in the two districts, and a new board to administer such new district. A vote was taken in November last to get the opinion of the voters of each district on the proposed amalgamation of the districts and a substantial majority in each district favoured the amalgamation. In order to effect the proposed amalgamation, legislation in both Alberta and Saskatchewan is necessary and an Act identical in every material detail with this Act was passed by the Saskatchewan Legislature.

The Act is based on The Municipal Hospitals Act of Alberta and the Saskatchewan authorities have agreed on the Act as it now appears.

The new district will consist of part of the Municipal District of Vermilion River on the Alberta side, the Town of Lloydminster (a portion of which is on the Alberta side), and the Rural Municipality

of Britannia and part of the Rural Municipality of Wilton on the Saskatchewan side. The different municipalities in the district will be represented on the new Board by the same number of members as represented them on the former two Boards and the joint Boards together will act as a Provisional Board until a new Board is elected in December. The assets of the two Boards will be vested in the new Board. The existing Alberta Board has substantial assets in cash and securities which will be transferred to the new Board and held in trust for the purpose of meeting requisitions made on the Vermilion River Municipal District.

Debenture by-laws must receive the assent of sixty per cent of the ratepayers voting thereon and must also be approved by both the Board of Public Utility Commissioners of Alberta and the Local Government Board of Saskatchewan.

The division of the total requisition among the municipalities is fixed by section 29 of the Act but provision is made for a review after January 1st, 1950, of this distribution in the manner set out in section 33. At the same time the number of Board members and the number representing each municipality may be reviewed and altered. The provisions as to qualifications for election of Board members and of voters on debenture by-laws are substantially the same as under The Municipal Hospitals Act, and except where otherwise provided, the electoral procedure as set out in The Municipal District Act is made applicable.

This Act comes into force on April 15th, 1948.

Municipal Hospitals Act Amendment Act (Chapter 59).

Section 1 of this Act amends the definition of "ratepayer" in the Act. Ratepayers as defined get a special rate in a municipal hospital and the former definition included "any person liable to deliver a share of the crop as rental on Provincial Government lands in a special area within the (hospital) district". By striking out the words "in a special area", all lessees of Government lands, such as agricultural lessees become "ratepayers" for the purpose of the Act as soon as they become liable to deliver a share of the crop.

Subsection (3) of section 49, which is amended by section 2 of this Act provided for notice of a vacancy on a hospital board being sent to the proper officer of the municipality concerned. The change from "municipality" to "contributing council" is made because the definition of "municipality" does not include an improvement district or special area, while that of "contributing council" does.

Section 3 of this Act adds a new subsection to section 67 which authorizes the signatures on coupons on debentures to be engraved or lithographed. The debentures themselves must still be signed by the chairman and secretary-treasurer of the district.

Section 4 of this Act amends section 71 of the Act. The purpose of the amendment is to enable a district to borrow up to three thousand dollars for additional capital expenditures not provided for in the scheme which has been voted upon without the necessity of a vote of the ratepayers. Under the provisions formerly in force any borrowing in excess of one thousand dollars was required to be submitted to the ratepayers.

Section 5 and 6 of this Act amend Forms E and G in the Schedule to the Act dealing with by-law debentures and the debentures

themselves. The form of by-law formerly was limited to debentures in equal annual instalments of principal and interest and other forms are frequently asked by underwriters. The purpose of the amendment is to extend the classes of debentures that may be issued. This change is approved by the Board of Public Utility Commissioners to whom the debentures must be submitted.

This Act came into force on March 31st, 1948.

Registered Nurses Act Amendment Act (Chapter 77).

This Act amends The Registered Nurses Act.

Section 4 of the Act is struck out and three new sections are substituted therefor.

The sections set out who are eligible for registration in the Alberta Association of Registered Nurses and what qualifications they must possess. The qualifications are not changed materially from the present provisions, but they are clarified and set out in somewhat greater detail. The applicant for registration is required to produce evidence—

- (a) as to her character, professional reputation and practice;
- (b) as to her educational qualifications which must be a minimum of Grade XI with credits in certain listed science courses;
- (c) that she has passed the qualifying nurse registration examinations;
- (d) that she has paid the registration fee;
- (e) that she is a graduate of an approved school of nursing, setting out particular requirements in respect of Alberta graduates, graduates from elsewhere than the Province and graduates from shortened courses in nursing education.

Section 4a contains certain exceptions to the general requirements applying to nurses who graduated or commenced their training prior to the nineteenth day of April, 1916, and provision is made for their registration if they apply prior to the thirty-first day of December, 1950.

Section 4b contains a further exception to the general rule applying to nurses who graduated after the nineteenth day of April, 1916, but who did not write or pass their nurse registration examinations. This section contains provision for those persons to write any regular nurse registration examinations in Alberta, and upon successful completion of them under certain conditions, they are eligible for registration in the Association.

This Act came into force on March 31st, 1948.

Vital Statistics Act Amendment Act (Chapter 31).

This Act amends the Vital Statistics Act.

A coroner holding an inquest usually issues his warrant to bury the body immediately after the coroner and jury have viewed the body. Sometimes an adjournment of several weeks is necessary in order to obtain the evidence of a witness who may be in hospital or otherwise temporarily unavailable and until all the evidence is heard, no finding can be made as to the cause of death. Section 26 of The Vital Statistics Act required the coroner to send the Registrar a certificate of the cause of death "before issuing his warrant for

burial under The Coroner's Act". The amendment corrects this difficulty by striking out the words quoted above.

This Act came into force on March 31st, 1948.

DEPARTMENT OF PUBLIC HEALTH

REVENUE AND EXPENDITURE FOR THE FISCAL YEAR ENDED MARCH 31st, 1949

	Salaries	Expenses	Revenue
601. Administration (General)	\$ 4,079.25	\$ 326.88	\$
602. Administration (General)	25,185.78	2,548.36	490.32
616. Administration (Chiropractic Act) .....	.....	.....	260.00
618. Administration (Postage) .....	.....	2,594.15	.....
636. Administration (Election of Rep. Municipal Hospital Boards) .....	.....	209.77	.....
603. Grants for approved Hospitals .....	.....	986,334.60	.....
603. Expenses Hospital Inspection	8,747.98	1,314.47	110.00
605. Communicable Diseases	10,780.27	78,360.66	1,800.82
605. Sanitary Engineering	12,921.82	7,074.08	7,033.00
606. Public Health Nursing	77,807.05	20,824.50	15,563.32
607. Vital Statistics	43,978.61	11,518.71	83,741.85
608. Municipal Hospitals	4,659.04	2,750.66	.....
609. Insulin .....	.....	8,893.45	.....
610. Social Hygiene	31,858.82	14,577.39	.....
619. Grants to University Hospital .....	.....	20,000.00	.....
621. Travelling Clinic (not operating) .....	.....	.....	15.00
622. Mental Health	18,787.43	11,707.51	.....
626. Grants to University Lab. ....	.....	5,250.00	.....
631. Poliomyelitis .....	.....	55,572.82	.....
633. Cancer Treatment & Prevention	29,701.72	239,391.26	.....
637. Maternity Hospital Service	2,915.98	798,742.28	.....
638. Civil Service Nurse	2,290.76	1,452.25	.....
639. Public Health Education	4,432.62	3,078.91	.....
640. Division of Entomology	7,410.19	8,852.63	.....
641. Grants to Health Units .....	.....	89,883.32	.....
642. Health Units Training Centre	2,568.75	176.79	.....
643. Nursing Aides	4,152.90	629.27	705.00
644. Pensioners—Hospital and Medical Services	6,019.12	876,037.72	.....
SW--42. Dominion Govt. Health Grants	22,839.08	96,288.73	44,919.70
SW-58. Hospital Construction Grants .....	.....	34,749.99	5,661.00
Institutions			
612-1. } Prov. Mental Institute, Oliver	434,549.50	242,105.73	145,112.69
613-2. }	149,029.05	87,776.80	66,080.55
612-2. } Prov. Training School, Red Deer .....	.....	.....	.....
612-3. }	620,292.10	412,852.44	262,067.00
613-1. } Prov. Mental Hospital, Ponoka	24,575.90	25,088.51	10,149.15
612-4. } Auxilliary Hospital, Claresholm	32,797.72	21,239.38	9,127.90
612-5. } Auxilliary Hospital, Raymond .....	.....	.....	.....
604. } Tuberculosis Control and Central .....	.....	.....	.....
604-C } Alberta Sanatorium, Calgary	316,947.86	483,252.01	104,800.68
	<u>\$1,899,329.30</u>	<u>\$4,651,456.03</u>	<u>\$ 757,637.98</u>
Total Expenditure Public Health Department			\$6,550,785.33
Less: Public Health Revenue			757,637.98
Net Expenditure, Department of Public Health			<u>\$5,793,147.35</u>

VITAL STATISTICS

Vital Statistics registered during the year were as follows:

Births	24,075
Marriages	8,844
Deaths	6,987

In all cases where rates are shown, such rates are based on a population of 846,000, 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 1943 to 1948:

Year	No. of Births	Birth Rate	No. of Marriages	Marriages Rate	No. of Deaths	Death Rate
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
1948	24,075	28.50	8,844	10.50	6,987	8.30

The birth rate for 1948 is 28.5 as compared with 30.0 for 1947. The marriage rate for 1948 is 10.5 as compared with 10.7 for 1947. The death rate for 1948 is 8.3 as compared with 8.0 for 1947.

General Health Conditions.

The deaths of 6,987 persons were registered in Alberta in 1948. Of these, 4,254 were males and 2,733 females. There were 444 more deaths than in the previous year.

There were 362 deaths from Pneumonia in 1948, 12 less than in the previous year, and 36 deaths from Influenza, a decrease of 34 as compared with the previous year.

Deaths from all forms of Tuberculosis totalled 259, of which 200 were deaths from Pulmonary Tuberculosis. Of this number 131 were Indians. The death rate for Tuberculosis (all forms) was 30.6 and for Pulmonary Tuberculosis 23.6 as compared with previous years' rates of 32.0 and 26.0.

The chief cause of death is heart disease, 1,896 deaths having been registered as due to this cause, giving a rate of 224.1 per 100,000 population, as compared with 213.5, the rate for the previous year.

Deaths from Cancer registered in 1948 number 975, a rate of 115.2 per 100,000 population, as compared with 878 deaths and a rate of 106.8 in 1947.

Deaths from violence excluding suicides number 593 as compared with 484 in 1947. The respective rates being 70.1 and 59.0.

The infantile mortality rate for 1948 is 39 as compared with 37 for 1947. Special reference to the infantile death rate will be found in another section of this report.

The maternal mortality rate for 1948 is 1.2 as compared with .9 for 1947. Detailed information concerning deaths from puerperal causes will be found in another section of this report.

Eleven deaths were reported as due to Whooping Cough in 1948 as compared with 9 deaths from this cause in 1947. Of these 11 deaths, 9 were infants under one year of age. It is gratifying to note a material reduction in the number of deaths from Whooping Cough in recent years. Children, and especially those under two years of age, should be immunized against Whooping Cough. The vaccine required for this purpose is provided free of charge by the Department on the request of physicians and local health authorities.

There were 2,086 cases of Measles with 7 deaths, and 289 cases of Rubella with no deaths, reported in 1948. There was a decline of 2,543 in the number of cases, and a fall of 14 in the number of deaths reported from Measles in 1948, as compared with 1947, during which a Measles epidemic occurred. Detailed information concerning cases of Measles and Rubella will be found in the report of the Communicable Disease Division.

Fifty-two cases of Diphtheria with 6 deaths were reported in 1948 as compared with 86 cases and 7 deaths in 1947. Of the 52 cases reported, 4 were reported by cities, 3 by towns and villages and 45 by rural districts. The death rate for Diphtheria in 1948 is .7 as compared with .9 in 1947. Twenty-six Diphtheria carriers were discovered during the year.

I wish to again point out that Diphtheria is an entirely preventable disease. The toxoid for immunization of children is provided free of charge by the Department, 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 throughout the Province, Diphtheria would soon disappear.

No cases of Smallpox were reported in 1948. The Province has been free from Smallpox for many years, but it should be remembered that the only effective means of prevention is through vaccination. It has been demonstrated over and over that when Smallpox appears in an unvaccinated community, it spreads with great rapidity, and when the disease is of the malignant type the consequences are disastrous. It cannot be too often emphasized that children should be vaccinated against Smallpox within the first six months of life. Vaccination should be repeated at the time the child starts school, and need not again be done unless on exposure to the disease in after-life. Smallpox vaccine is provided free of charge by the Department to physicians, local boards of health and local school authorities.

In 1948, 248 cases of Scarlet Fever were reported with no deaths, as compared with 225 cases and no deaths in 1947. The low incidence of this disease noted in previous years has continued.

There were 13 cases of Typhoid Fever and 25 cases of Paratyphoid Fever reported in 1948 as compared with 17 cases and 10 cases respectively in 1947. No deaths were reported from either Typhoid or Paratyphoid Fever in 1948.

The supervision and control of Typhoid and Paratyphoid carriers is a matter of vital importance. The full co-operation of all local health authorities is essential in the investigation of sources of infection and 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 is a safeguard of first importance, providing protection not only against Typhoid and Paratyphoid, but also against other milk-borne diseases.

Poliomyelitis.

An epidemic of this disease occurred in 1948, with 380 cases and 28 deaths being reported. There were 126 cases of Poliomyelitis reported by cities, 82 by towns and villages, and 172 by rural districts. Forty-five cases of the disease were reported in July, 112 in August, 113 in September, and 61 in October.

The age distribution of cases reported is as follows:

Under 1 year	5
1 to 4 years	61
5 to 14 years	164
15 to 19 years	53
20 years or over	95
Not stated	2

It will be noted that 230, or 60%, of the 380 cases reported were under 15 years of age and 95, or 25%, were 20 years of age and over.

The incidence of Poliomyelitis was highest in the northern part of the Province.

Under the provision made for free treatment of persons suffering from paralysis due to Poliomyelitis, 237 patients were admitted to the University Hospital, Edmonton, and 13 to the Junior Red Cross Hospital, Calgary.

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

Tuberculosis.

In 1948, 259 deaths were reported from Tuberculosis as compared with 263 deaths in 1947. Of these 259 deaths, 131 were deaths of Indians. The death rate for all forms of Tuberculosis in 1948 including Indians is 30.6. Excluding deaths of Indians, the death rate is 15.1 (per 100,000 population), as compared with 16.3 in 1947.

Division of Entomology.

This Division deals with epidemiological problems associated with insect-borne diseases, with special reference to Sylvatic Plague, Rocky Mountain Spotted Fever and Tularaemia. The survey with reference to the migration of rats in Western Canada and the Western United States was completed.

During the course of the Rocky Mountain Spotted Fever survey, 155 collections of ticks were made, consisting of 1,812 host ticks and 5,230 drag ticks taken from 906 animals. None of these ticks were found positive for Rocky Mountain Spotted Fever.

There were 1,854 inoculations given against Rocky Mountain Spotted Fever during the year: 750 at Manyberries, 841 at Redcliff, 143 at Thelma-Elkwater, and 120 at Medicine Hat.

During the course of the Sylvatic Plague Survey, 231 collections were made, consisting of 1,298 animals. These animals yielded 1,114 fleas and 193 tissue specimens. One positive report for plague infection was found in fleas taken from 16 Richardson Ground Squirrels on the south of Township 18, Range 12, West of the 4th meridian, near Tilley.

Tularaemia investigations were carried on as in previous years. One collection of ticks taken on Section 14, Township 7, Range 15, West of the 4th Meridian, near Foremost, was reported positive for Tularaemia.

Educational work in regard to the prevention and control of insect-borne diseases was carried on along much the same lines as in previous years, through articles in the press, movie 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 1,896 deaths in 1948 as compared with 1,756 in 1947. These 1,896 deaths represent 27 per cent of the deaths from all causes reported for the year, giving a death rate of 224.1 (per 100,000 population), as compared with 213.5 in 1947.

Diseases of the arteries were reported as the cause of 140 deaths in 1948 as compared with 117 in 1947. The aging of our population and the tempo of living are factors 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 prompt attention by skilled physicians would prevent much disability resulting from diseases of the heart and circulatory system, and would prolong many lives.

Cancer.

In 1948, 975 deaths were registered as due to Cancer, as compared with 878 during the previous year. The death rate from Cancer in 1948 is 115.2 (per 100,000 population) as compared with 106.7 in 1947. Cancer occupies second place in the list of causes of death and in 1948 accounted for 13.9 per cent of the total deaths registered in the Province. Early recognition of Cancer is of the most vital importance, and if followed by prompt and effective treatment by skilled physicians, would result in the saving of many lives.

The importance of educational work in the Cancer programme, cannot be over-emphasized. Educational work has been carried on as in previous year 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 for a maximum of 14 days, where, in the opinion of the Cancer Diagnostic clinics, admission of a patient to hospital is necessary for the purpose of establishing the diagnosis.

The following is a brief summary of the work done by the Diagnostic Clinics in 1948:

EDMONTON CLINIC:		
Examinations of new patients	2,053	
Re-examinations	2,085	
		4,138
CALGARY CLINIC:		
Examinations of new patients	1,167	
Re-examinations	937	
		2,104
Total for both Clinics		6,242

Of the new patients examined at the Clinics in 1948, 43 per cent were found to be suffering from Cancer. There were 1,748 patients referred by the Clinics for X-ray diagnosis, 1,045 were referred for radium or x-ray treatment, and surgical operations were authorized in 1,783 cases. Authorizations for surgical operations were acted upon in 1,396 cases, and 1,824 patients were referred to hospitals by the Cancer Diagnostic Clinics.

Deaths Due to Violence.

Deaths reported as due to violence (excluding suicides) numbered 593 in 1948, as compared with 484 in 1947, representing 8.4 per cent of the total deaths registered for the year, and giving a

death rate of 70.1 (per 100,000 population), as compared with 59.0 in 1947.

There were 84 suicides in 1948 as compared with 67 in 1947.

Highway accidents accounted for 136 deaths, of which 129 were due to motor vehicle accidents. These statistics indicate that highway accidents now constitute one of the important causes of death. In view of the number of deaths and the serious injuries suffered by many persons involved in highway accidents, in many cases resulting in permanent disabilities, this is a problem of major importance.

There were 53 deaths from drowning in 1948 as compared with 30 in 1947, an increase of 23 deaths. There is a great need for extensive educational work in the field of water safety.

There were 32 deaths due to conflagration in 1948, as compared with 16 in 1947. Most of these deaths resulted from destruction of homes by fire, in some cases with parents absent from home and children of tender years left to their own devices. More education is needed if such tragedies are to be prevented. Starting kitchen fires with kerosene and gasoline are other serious hazards which recur each winter and frequently result in tragedies.

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

Suicides	84	Injury by animals	6
Homicides	10	Hunger or thirst	1
Railway accidents including motor vehicles	24	Excessive cold	12
Motor vehicle accidents	129	Excessive heat	1
Street car and other transport accidents	7	Lightning	1
Water transport	20	Food poisoning	1
Air transport	10	Accidental absorption of poisonous gas	18
Accidents in mine and sand quarries	14	Acute accidental poisoning of solids or liquids	6
Agriculture and forestry	40	Conflagration	32
Other accidents involving machinery	15	Accidental burns (conflagration excepted)	16
Accidental drowning	53	Accidents due to electric currents	3
Accidental mechanical suffocation	18	Other accidents	30
Accidental injury by firearms	17	Legal executions	1
Accidental injury by cutting or piercing instruments	1		
Accidental injury by fall or crushing	107		677

Infantile Mortality.

There were 930 deaths of children under one year of age registered in 1948, as compared with 915 such deaths in 1947, an increase of 15 deaths. The infantile mortality rate for 1948 is 39 as compared with 37 in 1947.

Of the 930 deaths of children under one year of age in 1948, 612 or 65.8 per cent occurred within the first month of life, of which number 481 occurred within the first week, and 285 on the first day of life. In the further expansion of our preventive health programme and through the organization of additional full time rural health units, we may look forward with confidence to the solution of this problem. In districts which have had the advantage of the service provided by rural health units for a number of years, 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. 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 1,000 living births) in 1948 is 1.2 as compared with 0.9 in 1947.

The following are the chief causes of maternal deaths registered in 1948:

Abortion with mention of infection	3
Abortion without mention of infection	1
Toxaemia of pregnancy, death prior to delivery	3
Other diseases and accidents of pregnancy, death prior to delivery	1
Haemorrhage of childbirth and puerperium	4
Infection during childbirth and the puerperium	7
Puerperal toxaeias following delivery	6
Other accidents of childbirth	4
Total	29

The fall 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 rates 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 1948, 96.6 per cent occurred in approved hospitals.

Full-time Rural Health Units.

The work of the Full-time Rural Health Units has been conducted along the same lines as in recent years. During the year, full-time medical officers of health were in charge of six of these Units, and part-time service of medical officers of health was provided in two. Frequent changes and shortages in the public health nursing staff have created difficult problems for the district boards of health. The eight Health Units which were established in 1944 and the one established in 1945, with one public health nurse in charge of the service in each of these Units, have continued to operate. In November of this year the Drumheller Health Unit was established. Until more medical officers of health and public health nurses are available, it is not possible to meet the requests received from municipalities for the establishment of additional health units.

The activities of full-time health units include the prevention and control of communicable diseases, child and maternal hygiene, the medical examination and supervision of the health of pre-school and school children, immunization, health education, the supervision of water and milk supplies, food inspection, general sanitation, routine laboratory services, 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. More than one-hundred publications issued by this Department and other organizations are distributed by this Division. Approximately 110,000 copies of such publications were distributed during the year. There were 926 health films shown or loaned to various organizations requesting the same, the audiences totalling some 32,000.

The Department's radio programme "On Guard for Health", which is broadcast over Station CKUA, was continued as in previous years. Other radio stations presenting our programmes as a public service feature, included CJCJ Calgary, CFGP Grande Prairie, and CJOC Lethbridge. We wish to express our appreciation to all the above mentioned Radio Stations for the kind assistance they have given in this work.

Health education is one of the most important activities in the field of public health, and we are finding an ever-increasing demand

for more literature, films, radio talks and lectures on various phases of health.

More detailed information concerning health educational activities, will be found in the report of that Division.

Nutrition.

Our Public Health Nutritionist has worked in close co-operation with the staff of the District Health Units, the District Nurses, the Division of Health Education and other Divisions of the Department, as well as other agencies in the Province, interested in nutrition.

A nutrition survey which was carried on in the Foothills Health Unit in 1947 under the direction of Dr. L. B. Pett, Director of the Division of Nutrition, Department of National Health and Welfare, Ottawa, with the assistance of the staff of that Division and the assistance of Dr. H. K. Brown, Director of the Division of Dental Health of the Department of National Health and Welfare, was completed in 1948. The physical and dental examinations and blood tests were made during the month of May. Following completion of the survey, a report and recommended changes in the individual dietary pattern were sent to the people co-operating in the survey. A pamphlet dealing with the findings of the survey was distributed throughout the Foothills Health Unit and to other interested persons. Splendid co-operation was given by the people residing in the district served by the Foothills Health Unit, and the staff of the Health Unit, in this survey. The staff of the Foothills Health Unit plan on following-up this survey in the course of their activities in the district. I wish to express the sincere appreciation of the Department for the assistance extended by Dr. Pett and his staff and Dr. Brown in connection with this survey.

Detailed information concerning the work of the Division of Nutrition will be found in the report of that Division.

Public Health Nursing.

The following organized districts are served by Provincial District Nurses:

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

In 27 of these districts the district nursing service was on a full-time basis, and in five on a part-time basis during 1948. In addition, the Public Health Nursing Division operated four child hygiene clinics, one with headquarters in Calgary serving the Calgary district; one with headquarters in Drumheller serving the Drumheller district; one with headquarters in Medicine Hat serving the Medicine Hat district; and one with headquarters in Vegreville serving the Municipal District of Norma and the Town of Vegreville.

With the establishment of the Drumheller Health Unit in November, 1948, the work of the Child Welfare Clinic at Drumheller was merged with the Health Unit, and the Child Welfare Station operated by the Department was closed.

There were 455 child hygiene clinics held in Calgary, Bowness, Medicine Hat, Redcliff, Drumheller and Vegreville, with a total attendance of 16,121 infants and pre-school children.

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

No. of Districts	32
Treatment Consultations	18,373
Miscellaneous Public Health Consultations	7,056
Antepartum Consultations	1,446
Postpartum Consultations	294
Infant and Pre-school Consultations	4,162
Treatment Home Visits	4,758
Miscellaneous Public Health Home Visits	820
Communicable Disease Home Visits	344
Maternal Welfare Home Visits	459
Infant and Pre-school Home Visits	914
Deliveries	98
Abortions	34
Cases sent to Hospital or Doctor	1,188
Deaths (under 1 year)	10
Deaths (over 1 year)	26
Communicable Disease Cases reported	290
Public Health Literature Distributed	3,434
IMMUNIZATIONS:	
Diphtheria Toxoid	3,777
Scarlet Fever Toxin	2,104
Smallpox Vaccine	860
Whooping Cough Vaccine	2,903
Typhoid Fever Vaccine	411
Diphtheria Anti-Toxin	36
Measles Prophylactic Serum	5
Total Number of Doses	<u>10,096</u>

In spite of the shortage of well qualified public health nurses, suitable replacements have been found for nearly all the vacancies occurring on our public health nursing staff. We have been very fortunate in the high quality of the service given by our nurses in this, as in previous years.

Detailed information concerning the activities of the Division of Public Health Nursing will be found in the report of this Division.

Social Hygiene.

Six clinics were operated by the Division of Social Hygiene, one in Edmonton, one in Calgary, one in Medicine Hat, one at High Prairie, one at McLennan, and one in the Slave Lake district. In addition, clinics were operated in each of the Provincial Gaols.

A considerable expansion of the Venereal Disease Control programme including the establishment of a modern clinic in Lethbridge, and the establishment of a mobile clinic in the northern part of the Province, and the provision of increased personnel for the Edmonton and Calgary Clinics, has been planned under the increased Grants which have been made available under the Dominion Government public health programme. It is expected that the personnel required can be recruited so that this programme can be put in effect in 1949.

New cases under treatment in all clinics during 1948 were as follows: Syphilis 347, Gonorrhoea 1,903, making a total of 2,250.

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

The work of the Division of Social Hygiene has been carried on along the same lines as in previous years.

A project which has been approved under the Dominion Public Health Research Grant, will enable the Department to survey the results of the Malaria Pyrexia Therapy in neuro-syphilis in Alberta during the past 25 years.

Detailed information concerning the activities of this Division will be found in the report of the Division.

Provincial Laboratory.

The staff of the Provincial Laboratory made 161,083 examinations in 1948. The estimated value of the work done by the Provincial Laboratory in 1948 on the basis of minimum commercial charges for the various examinations made is \$272,209.10.

The work of the Provincial Laboratory includes examinations of water, ice, sewage, milk, food, various examinations in connection with communicable disease control, bacteriological, seriological 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 central depot for the distribution of vaccines and sera which are made available by the Department for the prevention and treatment of communicable diseases.

Provision has been made for the construction and equipment of a branch of the Provincial Laboratory, to be located on the grounds of the Central Alberta Sanatorium, in order to make public health laboratory services more readily available in the southern part of the Province, and also provide laboratory services for Central Alberta Sanatorium. This branch laboratory will be operated under the direction of the Director of the Provincial Public Health Laboratory, and it is expected that this service will be in operation by the fall of 1949.

All public health laboratory service is provided free of charge excepting only examinations which involve highly specialized procedures. This service is of vital importance in the maintenance of an efficient public health programme.

Detailed information concerning the work of the Provincial Laboratory will be found in the report of the Laboratory.

Provincial Sanitary Engineering and Sanitation.

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

The great expansion in the construction of waterworks and sewage disposal plants in cities, towns and villages which was noted in recent years, continued on an even greater scale in 1948. So great has been the activity in this field that by 1951 the number of towns and villages served with community water and sewer systems will be more than three times the number served in 1940. The 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 an additional staff of sanitary inspectors are required.

The tourist camp inspection and classification programme, inaugurated in 1947 in co-operation with the Department of Trade

and Industry, was carried out during the summer of 1948. There were 151 inspections made in connection with this programme, and a marked improvement in sanitation, as well as in the general facilities of these camps, was effected.

The tremendous increase in the number of plumbing installations, to which reference was made in the report of 1947, continued in 1948. 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; 1948, \$6,732.

Each year in this report, attention is directed to the responsibility of 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 sooner or later result in a serious outbreak of water-borne disease.

It is also necessary to direct the attention of municipal authorities to their responsibility for the supervision and control of milk supplies. Municipalities permitting the sale of unsafe milk are inviting serious trouble. It is encouraging to note the increasing number of municipalities passing by-laws requiring pasteurization of their milk supplies. Six new pasteurization plants were installed during the year.

Detailed information concerning the activities of the Sanitary Engineering Division will be found in the report of the Division.

Hospital and Medical Services Division.

In 1948 there were 99 approved hospitals in the Province, and 24 private hospitals were licensed under The Private Hospitals Act. In addition to these hospitals, the Lloydminster United Municipal Hospital located on the Saskatchewan side of the border, and the Fort Smith Hospital in the Northwest Territories received the Government Grant covering Alberta patients admitted to these hospitals. On the basis of returns from the above mentioned 99 approved hospitals, the total bed capacity, including cribs and bassinets, is 5,792 and the total bed complement 6,500.

On the basis of a population of 846,000, there was one hospital bed available (including cribs and bassinets) for every 146 of our population, or 6.8 per thousand. Excluding bassinets, there was one hospital bed available for every 170 of our population. If the beds excluded from this year's statistics were included, the beds per thousand population would be approximately the same as for 1947.

Patient days (excluding new born) in 1948 totalled 1,408,337. There were in addition 201,935 patient days for the new born. Of the births registered in Alberta in 1948, 96.6% occurred in approved hospitals.

Construction of the following new hospitals was started in 1948: Junior Red Cross Hospital, Calgary, and St. Theresa Hospital, Fort Vermilion.

Construction of additions to the following hospitals was undertaken in 1948: Olds Municipal Hospital, Vulcan Municipal Hospital, Lacombe Municipal Hospital, St. Mary's Hospital, Camrose, St. Gabriel Hospital, Ft. McMurray, St. Vincent's Hospital, Pincher Creek, and Immaculata Hospital, Westlock.

There were 45 Municipal Hospitals in operation in 1948, with a total capacity of 1,398 beds, including bassinets.

The daily average number of patients in hospital was 4,417, and the average stay in hospital 9.6 days. Excluding D.V.A. patients, orthopaedic, poliomyelitis and Tuberculosis Division patients in general hospitals, the average stay in hospital was 8.9 days.

The shortage of nurses to which reference was made in previous reports has continued, particularly in the smaller hospitals. As of December 31st, 188 nursing aides have been certified under The Nursing Aides Act. These nursing aides have given excellent service in the various hospitals in which they have been placed.

The cost of hospital construction and equipment, and the cost of practically all supplies used by hospitals, have continued to rise and show no indication of levelling off. These rising costs have created very difficult problems for hospital authorities.

Detailed statistical information concerning the various approved hospitals will be found in the report of the Division of Hospital and Medical Services.

Canadian Red Cross Blood Transfusion Service.

This service, which was instituted in the Province in 1947 by the Canadian Red Cross Society, has during the year 1948 given blood transfusions to 9,564 patients. This frequently meant two or more 500 c.c. bottles per patient. In addition, plasma was provided for the transfusion of 1,639 patients. Examinations in connection with typing of blood and other blood examinations, numbered many thousands. From the Central Depot in Edmonton and the Sub-Depot in Calgary, this life-saving service has been made available free of charge throughout the Province.

There has been a fine public response in the donation of blood, and we sincerely trust that the keen interest of the public in this service will continue so that the increasing demands for blood transfusions in serious illnesses, in which transfusions are of vital importance, can be met.

Division of Tuberculosis Control.

The number of treatment beds available for Tuberculosis was increased by 22, with the re-opening of the Tuberculosis Ward in the University Hospital on June 1st, bringing the total number of beds to 489. Patient days for all sanatoria for 1948 total 141,395, as compared with 128,942 in 1947.

During the year, the diagnostic services were extended to 163,357 people, representing an increase of more than 30,000 over those examined during the previous year.

As a result of all the Tuberculosis activities, some 2,656 new cases of Tuberculosis, both active and inactive, were discovered in 1948, approximately 1.6 per cent of those examined. Of these new cases, approximately 17 per cent were considered active and 83 per cent inactive.

There were 433 patients admitted to all sanatoria in 1948, and 797 patients received institutional care and treatment, an increase of 55 over the previous year.

With two Mobile X-ray Clinics in operation, the total number of x-ray examinations made in 1948 was 146,619, an increase of 28,475 over the previous year. These Units, since they were placed in operation in 1943, have covered practically the entire Province, and plans are now being made for second visits to the first districts

covered. The Edmonton x-ray survey was completed, and approximately 80 per cent of the population x-rayed. In the Lethbridge and Medicine Hat surveys the percentages were even higher. The response of the public has been outstanding. The assistance of the Alberta Tuberculosis Association in making these X-ray Units, which are operated by the Department, available and their continued splendid co-operation have proven of great value in the campaign against Tuberculosis.

It is noteworthy that the death rate from all forms of Tuberculosis in 1948 is 30.6 as compared with 63.8 in 1928. This means that during this twenty-year period the Tuberculosis death rate has been cut in two.

Construction of the new Aberhart Memorial Sanatorium, which will provide accommodation for 300 patients, began on July 23, when the first sod was turned by the Honourable Dr. Cross, Minister of Health. The site of this new institution on the University campus near the University of Alberta Hospital, is an excellent one. The construction of this modern Sanatorium, designed to meet the needs of northern Alberta, marks a great forward step in the campaign against Tuberculosis.

Toward the end of the year, construction of the Southern Alberta Branch of the Provincial Public Health Laboratory began. This building, when completed in 1949, will make modern public health laboratory services more accessible to the people in southern Alberta and will also provide laboratory services for the Central Alberta Sanatorium.

Construction also began in 1948 of a Recreation Building, providing an adequate auditorium and rooms for occupational therapy.

Construction of a Home for domestic female staff; of a Chapel and Library; and of a Workshop, also got underway this year. These buildings will provide additional facilities which will be of great value to the patients and staff of the Central Alberta Sanatorium.

Mental Health Division.

On January 1st, 1948, there were 3,185 patients in all Mental Institutions, and on December 31st, 3,131, a decrease of 54. This reduction is, however, more apparent than real, as during the year 174 patients were discharged from the various mental hospitals and admitted to Rosehaven, the Home established at Camrose.

There were 566 patients admitted to the Provincial Mental Hospital, Ponoka, in 1948—287 males and 279 females. This was 74 patients fewer than in 1947. There were 79 patients transferred to other mental institutions in the Province, and 21 patients were transferred to the Mental Hospital at Ponoka from other mental institutions in the Province.

Discharged patients numbered 473, of which 59 were admitted to Rosehaven, and 77 patients died during the year.

There were 1,258 patients in the Provincial Mental Institute at Oliver at the beginning of 1948 and 1,271 patients at the end of the year. There were 261 patients admitted to the Provincial Mental Institute in 1948—118 males and 143 females. Patients discharged numbered 172, of which five were transferred to other Mental Institutions, and 47 patients died during the year.

In the Auxiliary Mental Hospital at Claresholm there were 99 female patients in residence on January 1st, 1948, and the same number at the end of the year. During the year 11 patients were admitted, 6 discharged, 3 transferred to other mental hospitals and 2 deaths occurred.

In the Auxiliary Mental Hospital at Raymond there were 118 female patients in residence on January 1st, 1948, and 113 at the end of the year. During the year 13 patients were received from the Provincial Mental Hospital, Ponoka, 5 patients were transferred to the Provincial Mental Institute, Oliver, 2 patients were on parole, and 2 deaths occurred.

During the year 36 patients were admitted to the Training School for Mental Defectives at Red Deer, 15 were discharged, 2 were transferred, and 10 deaths occurred. There were 289 patients in residence at the beginning of the year and 298 at the end of the year.

The construction programme planned to provide additional accommodation at Ponoka, Edmonton, Red Deer and Raymond, included a new laundry building at Ponoka, a new unit providing accommodation for 100 female patients at Edmonton, which was completed and occupied, 3 new dormitories each providing accommodation for 76 patients at Red Deer. In addition, work began on the complete renovation of the Administration Building at Red Deer and on the construction of a small addition to the Auxiliary Mental Hospital at Raymond. This construction programme when completed will add much to the facilities available for the care of patients in our various institutions.

Guidance Clinics.

The services provided by the Provincial Guidance Clinics were expanded in 1948, with the establishment of a full-time Guidance Clinic with headquarters in Edmonton, and by augmenting the staff of the full-time Guidance Clinic in Calgary, making it possible to provide guidance clinic services to many additional centres in the Province. It is planned to establish additional guidance clinic centres in other districts, as a project under the Federal Health Grants, as the trained staff required become available.

During the year 1,143 new cases were presented at the Guidance Clinics, and there were 4,060 follow-ups and interviews. The total case-load for 1948 was 5,721. Since the inception of this service in 1929, 7,448 cases have been examined.

Eugenics Board.

The work of the Eugenics Board is carried on under the authority of The Sexual Sterilization Act. Five meetings of the Board were held at the Mental Hospital at Ponoka, and two at the Provincial Training School at Red Deer, in 1948. During the year 106 cases were presented to the Board. Since The Sexual Sterilization Act was proclaimed in 1929, 2,469 cases have been presented to the Board. During 1948, 16 male and 22 female cases were sterilized. The total number of cases operated on from the inception of this service up to the end of 1948 is 1,128, 455 male and 673 female. All operations are performed at the Provincial Mental Hospital, Ponoka.

The Department wishes to express to the members of the Eugenics Board, the honorary surgeons, and the staffs of the various

Provincial Mental Institutions and Guidance Clinics its sincere appreciation of the splendid service rendered in discharging the duties for which they are responsible.

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

Board of Visitors.

All Institutions which come under the administration of the Department were visited by the Board of Visitors during the months of October and November.

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

The Department desires to express to the members of the Board its sincere appreciation of the splendid service they have rendered.

General Administration.

A statement of revenue and expenditure for the year ending March 31st, 1949, will be found on page 15 of this Report. An analysis of this statement shows that the total expenditure for all activities of the Department was \$6,550,785.33. The total revenue was \$757,637.98. The net expenditure of the Department was \$5,793,147.35. The sum of \$2,050,307.13 was expended for the maintenance and operation of the various Mental Institutions coming under the administration of the Department. The sum of \$800,199.87 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 in other hospitals, and in providing diagnostic and other services for tuberculosis patients. The sum of \$986,334.60 was expended in grants to approved hospitals. The sum of \$801,658.26 was expended in providing free maternity hospitalization; \$882,056.84 was expended in providing hospital, medical, dental and other services for pensioners, those in receipt of mother's allowances and their dependents; \$269,092.98 was expended in providing cancer diagnostic and treatment services; \$98,631.55 was expended in providing public health and district nursing services; \$89,883.32 was expended in grants to full-time district health units; \$46,436.21 in venereal disease prevention and control. The expenditures for various other activities are shown in the above mentioned statements of revenue and expenditure.

In concluding this summary of the activities of the Department for the year 1948, I desire to express my sincere appreciation for the fine spirit of co-operation and excellent service rendered by the Directors and members of the staff of all Divisions, including the Superintendents and the members of the staff of the various Institutions coming under the administration of the Department. This Department is most fortunate in the high quality of its personnel.

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*)

(J. A. Gillett, M.D., was appointed Director of the Division on August 14th, consequent on the appointment of Dr. A.

Somerville as Director of the Alberta Health Survey.)

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.

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

TYPHOID FEVER (Cases 13, Deaths 0)

PARATYPHOID (Cases 25, Deaths 0)

Only a few sporadic cases of Typhoid Fever were reported during the year and there were no deaths registered as due to this cause.

There were 25 cases of Paratyphoid reported in 1948 and no deaths from this cause. Two local outbreaks of Paratyphoid occurred which accounted for most of these cases. In the course of these cases four Paratyphoid carriers were discovered.

Carriers of Typhoid and Paratyphoid now constitute the most important sources of infection, and constant vigilance is required by all health authorities in locating such carriers and keeping them under careful supervision.

PULMONARY TUBERCULOSIS (Cases 860, Deaths 200)

The number of cases of Pulmonary Tuberculosis reported declined from 991 in 1947 to 860 in 1948. The deaths from this disease also dropped to a new low of 200 in 1948. Of these deaths, 131 or 65% were Indians.

Further information concerning Tuberculosis will be found in the report of the Division of Tuberculosis Control.

WHOOPING COUGH (Cases 1,178, Deaths 11)

The number of cases of Whooping Cough reported increased from 972 in 1947, with 9 deaths, to 1,178 with 11 deaths in 1948, of which number 9 were infants under one year of age.

The increasing use of pertussis vaccine for the protection of infants and pre-school children appears to be a factor in the decline of the deaths from Whooping Cough in recent years. The combined Diphtheria pertussis vaccine is being widely used.

MEASLES (Cases 2,086, Deaths 7)

The number of cases reported is less than half of the number for the previous year, while the deaths in 1948 are one-third of the number for 1947, which was an epidemic year.

POLIOMYELITIS (Cases 380, Deaths 28)

A widespread epidemic of Poliomyelitis occurred in 1948, 380 cases and 28 deaths being reported, with the incidence of the disease highest in the northern part of the Province. There were 126 cases reported by cities, 82 by towns and villages, and 172 by rural districts. Forty-five cases were reported in July, 112 in August, 113 in September, and 61 in October. Sixty per cent of the 380 cases of Poliomyelitis were under 15 years of age, and 25 per cent were 20 years of age and over. The number of cases of the disease reported in 1948 (380) is higher than the number reported in 1927, the previous high year, when 354 cases were reported with 65 deaths.

SCARLET FEVER (Cases 248, Deaths 0)

For the second year in succession, no deaths have been reported from Scarlet Fever in Alberta.

SMALLPOX (Cases 0, Deaths 0)

This is the fifth year in succession without a single case of Smallpox. We should not, however, fail to realize that this disease may appear in a benign or malignant form at any time. Vaccination is the only effective means of preventing Smallpox.

DIPHTHERIA (Cases 52, Deaths 6)

There was a decline in the number of cases of Diphtheria reported in 1948, and one less death than in the previous year.

Diphtheria is the best example we have of an entirely preventable disease. There need not be a single case, let alone a death, from this cause if parents will take advantage of the means of prevention which is readily available through the various health agencies and private physicians.

Twenty-six Diphtheria carriers were located, one-half of these in rural districts and one-half in cities, towns and villages.

One case of Anthrax was reported in 1948. Through the co-operation of the R.C.A.F., anthrax serum and penicillin was dis-

patched to the attending physician and the patient made a good recovery. The diagnosis was confirmed by the Provincial Laboratory.

Two cases of Tularaemia were reported, both in rural districts.

Forty-seven cases of Undulant Fever were reported in 1948—17 by cities, 5 by towns and villages, and 25 by rural districts. This number of cases serves to emphasize the importance of pasteurization of all milk supplies.

DIPHTHERIA CARRIERS

1948	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	8	2	3	3	3	4	4	3	2	1	3	4	4	4	1	3			1	3
City: Edmonton	4	8	2	3	3	3	4	4	3	3	2	1	3	3	4	4	1	1	3	12	
Towns and Villages	1	1	1	3	3	3	3	3	3	2	1	1	1	1	1	1	1	1	1	1	
Rural Districts	7	6	3	3	3	3	3	3	3	2	1	1	1	1	5	7	7	1	1	13	
Totals	11	15	6	9	9	9	10	10	9	8	6	4	5	6	9	12	1	4	4	26	

ACTINOMYCOSIS

Rural Districts	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
Totals	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2

MEASLES

Cities:	21	22	4	2	1	2	2	7	3	2	4	10	6	10	2	15	21	3	2	43
Calgary	627	655	18	19	62	96	253	328	128	60	11	10	76	221	80	412	717	11	28	1282
Edmonton	2	4	2	1	1	1	2	2	1	1	1	1	1	1	1	2	3	3	2	6
Lethbridge	2	2	2	2	2	2	2	2	2	1	1	1	1	1	2	4	1	1	2	6
Medicine Hat	3	5	2	2	1	2	2	2	7	30	49	32	155	103	25	146	390	36	9	8
Red Deer	65	64	17	27	1	8	3	2	2	7	6	8	25	25	12	25	84	1	6	129
Towns and Villages	311	305	55	28	18	8	34	71	33	30	49	32	155	103	25	146	390	36	9	616
Rural Districts	1031	1055	98	76	83	117	294	410	171	93	72	50	262	360	122	605	1216	52	45	2086
Totals	1031	1055	98	76	83	117	294	410	171	93	72	50	262	360	122	605	1216	52	45	2086

PULMONARY TUBERCULOSIS

Cities:	48	49	13	8	12	5	12	7	6	5	5	8	5	11	5	11	6	74	1	97
Calgary	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Drumheller	135	170	41	29	56	48	56	26	5	10	19	8	1	6	1	8	14	280	20	305
Edmonton	9	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	16	9	20
Lethbridge	8	11	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Medicine Hat	8	11	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Red Deer	26	35	9	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Towns and Villages	174	189	30	10	59	24	57	20	45	44	30	19	5	20	1	16	39	44	255	61
Rural Districts	402	458	95	52	129	79	130	56	61	73	63	44	27	51	2	26	66	70	684	860
Totals	402	458	95	52	129	79	130	56	61	73	63	44	27	51	2	26	66	70	684	860

RUBELLA

1948	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	12	10	2	1	1	2	2	1	1	3	1	2	5	2	4	5	12	1	4	3		22
Edmonton	68	59	8	26	19	14	13	9	8	5	2	3	7	13	30	49	40	1	1	4		127
Red Deer	7	2	2	4	1	1	1	1	1	1	1	1	1	1	2	3	2	2	3	1		9
Towns and Villages	26	20	24	1	2	3	4	3	1	2	8	2	3	4	4	18	21	2	2	3		46
Rural Districts	52	33	3	11	8	6	7	1	15	6	1	3	21	4	11	25	44	2	2	1		85
Totals	165	124	27	42	30	25	26	15	25	17	11	10	36	25	51	101	119	5	9	4		289

SCARLET FEVER

1948	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	28	35	8	3	6	2	2	2	3	1	2	5	20	12	27	34	1	1	1		63	
Drumheller	1	1	15	13	16	12	2	1	3	1	3	9	5	13	3	25	44	12	8	1		93
Edmonton	42	51	2	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		3
Lethbridge	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		1
Red Deer	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		1
Wetaskiwin	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		1
Towns and Villages	18	11	11	2	1	1	1	1	3	3	4	3	7	4	11	16	2	2	1	1		29
Rural Districts	29	28	10	8	5	2	3	6	3	3	4	5	7	1	15	33	1	5	3	3		57
Totals	118	130	44	26	28	17	7	8	9	7	10	23	39	30	3	80	129	17	15	4		248

MUMPS

1948	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	357	355	75	67	103	92	124	116	36	24	34	24	15	2	2	58	576	24	52		712	
Edmonton	96	103	25	27	18	17	19	20	16	15	8	7	15	12	1	39	100	10	30	19	199	
Lethbridge	62	26	40	7	22	2	1	1	1	1	1	1	14	2	7	75	2	4	4		88	
Medicine Hat	4	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1	2	1	7	
Red Deer	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	4	
Towns and Villages	65	63	2	3	11	3	17	15	12	13	13	13	17	12	3	12	85	7	21	1	128	
Rural Districts	155	139	53	17	27	65	22	14	14	6	10	7	42	17	2	38	185	31	27	11	294	
Totals	742	690	207	122	182	179	183	165	79	46	66	51	105	47	8	156	1026	75	137	30	1432	

Division of Entomology

The following is a summary of the Fifth Annual Report of the Division of Entomology and the Eleventh Annual Report of the Rocky Mountain Spotted Fever and Sylvatic Plague Survey, for the year ended December 31, 1948.

During the course of the Spotted Fever Survey, 155 collections were made, consisting of 1,812 host and 5,230 drag ticks. The host ticks were taken from 906 host animals, of which 8 were trapped and 898 shot. No Spotted Fever positives were found.

A total of 1,854 treatments were given against Rocky Mountain Spotted Fever. Of this total 750 treatments were given at Manyberries, 841 at Redcliff, 143 at Thelma-Elkwater and 120 at Medicine Hat.

During the course of the Sylvatic Plague survey 231 collections were made consisting of 1,298 animals, of which 1,175 were shot, 118 were trapped, and 5 were found dead. These animals yielded 1,114 fleas and 193 tissue specimens. One positive, 2-41-48, was found in the fleas taken from 16 Richardson Ground Squirrels on the south half of Twp. 18, Rg. 12, W.4, near Tilley.

A considerable amount of Tularaemia investigation was undertaken. One collection, 2-11-48, taken on Sec. 14, Twp. 7, Rg. 15, W.4, near Foremost was positive for Tularaemia.

During the year two papers were published—one in the Canadian Field-Naturalist and the other in the Canadian Journal of Alberta Public Health. They are:

Distribution of the House Mouse in Alberta. J. H. Brown, M.Sc.
The Canadian Field-Naturalist. 62(5). 1948.

Alberta: The Only Rat-Free Province in Canada. J. H. Brown,
M.Sc. Canadian Journal of Public Health, September, 1948.

The Director was able to attend the International Northwestern Conference on Diseases of Nature Communicable to Man, which was held at the Dominion Livestock Insect Laboratory and Laboratory of Hygiene, Kamloops, B.C., during August 23rd to 25th, 1948.

Personnel.

Mr. C. E. Collins, University of British Columbia, was Officer-in-Charge of Crew No. 1. Mr. A. E. Sovereign, 2nd year Pre-Medical student, University of Alberta, was Officer-in-Charge of Crew No. 2. Mr. J. W. King, 1st year Science Student, University of Alberta, was assistant on Crew No. 1. Mr. J. S. Little, 1st year Pre-Dentistry student, University of Alberta, was assistant on Crew No. 2.

Excellent service was rendered, as all of these men had a keen interest in the field work.

Cancer Services

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

The following figures indicate the activities of the Edmonton and Calgary Clinics for the year 1948:

NUMBER OF PATIENTS EXAMINED			
	New	Follow-up	Total
Edmonton	2,053	2,085	4,138
Calgary	1,167	937	2,104
Totals	3,220	3,022	6,242

It will be noted that the total number of new cases is 3,220 compared with 2,916 in 1947, 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, 1,845 were found to be non-malignant and therefore did not require treatment under the Cancer Clinics.

A summary of the anatomical distribution of the cancerous lesions in order of frequency is attached herewith, 1,375 in number.

The total number of surgical operations authorized for 1,948 was as follows:

Edmonton	1,133
Calgary	650
Total	1,783

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

Edmonton	976
Calgary	420
Total	1,396

The total number of cases referred to hospitals:

Edmonton	1,424
Calgary	400
Total	1,824

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

Edmonton	607
Calgary	438
Total	1,045

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

Edmonton	1,316
Calgary	432
Total	1,748

The total number of cases referred for miscellaneous examinations and treatments was:

Edmonton	170
Calgary	41
Total	211

The total number of cases referred for cystoscopies, pyelograms, genito-urinary opinions by the Edmonton Clinic was 162.

The total number of cases referred for bronchoscopic, bronchograms and oesophagoscopy by the Edmonton Clinic was 104.

The total number of cases referred for complete blood counts, gastric analysis, etc., by the Edmonton Clinic was 400.

Since the opening of the Clinics in 1941, the total number of cases examined, exclusive of re-examinations, is 15,912. Of these 7,827 were diagnosed as cancer, or 49.1%.

1948 ANATOMICAL DISTRIBUTION OF CANCEROUS LESIONS IN ORDER OF FREQUENCY

EDMONTON		CALGARY	
Breast	86	Skin	151
Skin	83	Breast	121
Lip	61	Lip	65
Stomach	59	Cervix	56
Colon	47	Stomach	54
Cervix	37	Colon	39
Lung	30	Uterus	37
Rectum	28	Rectum	29
Brain	27	Bladder	20
Prostate	26	Abdomen	18
Uterus	15	Hodgkin's	15
Bladder	15	Mouth	14
Pancreas	11	Prostate	13
Ovary	11	Ovary	11
Kidney	9	Larynx	10
Mouth	9	Parotid	10
Leukemia	9	Kidney	9
Lymphosarcoma	9	Bone	7
Lymphoblastoma	6	Leukemia	7
Hodgkin's	5	Lung	7
Thyroid	5	Testicle	5
Larynx	4	Caecum	4
Bone	4	Liver	4
Primary Unknown	4	Brain	3
Oesophagus	3	Jaw	3
Gall Bladder	2	Nose	3
Mixed Tumour	2	Vulva	3
Liver	2	Chest	2
Bile Duct	2	Eye	2
Testicle	2	Leg	2
Penis	2	Oesophagus	2
Neurogenic Sarcoma	2	Pancreas	2
Angeo Sarcoma	1	Arm	1
Round Cell Sarcoma	1	Foot	1
Eye Melanotic Sarcoma	1	Gall Bladder	1
Myxosarcoma	1	Hand	1
Myxoneurofibroma	1	Neck	1
Fibrosarcoma Subcutaneous	1	Penis	1
Myeloma	1	Salivary Gland	1
Parotid	1	Scapula	1
Ear Canal	1	Thyroid	1
Fallopian Tubes	1	Tonsil	1
Recto-vaginal Septum	1	Ureter	1
Vulva	1	Vagina	1
Spine	1		
Gastric or Thoracic	1		
Antrum	1		
Metastatic Epithelial Type	1		
Recto-Sigmoid Junction	1		
Face—Jaw	1		
Total	635		740

Health Education

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

Evaluation of Health Education Practices.

The Health Education program of a health department consists of developing opportunities and experiences which motivate people to change. Evidently the job is one for the whole department, since physicians, nurses, sanitarians and other specialists in the health department team are as much interested in seeing new attitudes towards health practices as is the health educator.

A health department might well take an inventory of the degree to which it is carrying on an educational program. The health education report for 1949 will open this stocktaking with a series of questions and answers based on the year's work experience.

What methods are now being used to inform the public concerning the work of the health department and gain budgetary support for an expanded program?

Educational Media.

Each year we have found increasing need for new approaches to the old subjects. Pamphlet material on communicable diseases has been revised for content, illustrative design added and attractive covers developed. Our largest group of recipients for this class of material is the teaching profession. Much of this material is distributed through our health unit and district nursing staff.

As a result of many new federal publications being added to our stock, more films, filmstrips and displays we found it advisable to prepare a larger health education services catalogue. This is a loose leaf booklet to which supplements may be added periodically. The new publication lists all the films available from our library, health education literature Provincial, Dominion and voluntary agency, filmstrips and panel displays.

Audio-Visual.

New films and filmstrips have been purchased for our library. They have been selected for use in programmes concerned with Child Welfare, Human Biology, Mental Health, Nutrition, Sanitation and Sex Education. These films are in greatest demand from the schools. Health Units, self-operating and supplementary National Film Board circuits, public health nurses, physicians and voluntary organizations follow in the order given; films shown total 926 with an approximate attendance of 32,000. Many reports are returned from borrowers of films, without information on attendance.

During the year the Department of Economic Affairs established a film depot for all government prints. Since June of 1948 this Provincial Film Library has been responsible for the maintenance and distribution of our films. Requests are received at the Division of Health Education, then channelled through this office to the Film Library. The service worked in low gear until the borrowers became educated to the need for movement of films on a scheduled

basis. By the end of the year a much improved situation was apparent.

Radio.

It is not an easy task to prove that your radio health programmes have a listening audience. Occasionally we received a card from someone mentioning the fact that they heard our health broadcast and would like bulletins on Cancer or Rheumatoid Arthritis. Then, too, many of the large number of requests for health literature could be the result of ideas that were born during a health talk. We have continued approval from our radio station managers for free broadcast time. This we submit in support of the contention that our radio fare is a worthwhile service to the Province.

During 1948 the various divisions of the Department supplied speakers to present 15 minute radio talks or plays. Some of the subjects chosen were: Water Supply and Sewerage for Small Towns, Cancer of the Mouth, Rats-Exclusion Methods, and School Lunches. Specialists in the field of medicine assisted in our educational program with talks like The Family Doctor—His Place in Preventive Medicine, and Coronary Heart Diseases.

Each week over CKUA at 8:15 Thursday evening our slogan "On Guard for Health" would introduce a new health story or broadcast an old one with that new look.

Other stations presenting our programmes as a public service feature are CJCJ Calgary, CFGP Grande Prairie and CJOC Lethbridge. We wish to thank these organizations for their services.

Scripts for our programmes are prepared by Mr. Cantelon, Publicity Branch, Department of Economic Affairs. Source materials are selected from files in this office and the completed script is finally checked through this division for the stamp of approval from the Department of Health.

Displays.

A display should be a work of art if it is to arouse interest. There should be a centre or focal point toward which the interest can be directed once aroused. Then, too, there should be a message—this as brief as possible. These three factors in the composition of a display are often out of proportion. If so, the impact of this educational tool is softened and even dulled.

Our displays for the year have been added to, through "ready-made" material from the Department of National Health and Welfare, Ottawa. These include 3-panel units suitable for use in store windows, Health Unit centres and the local post offices in a district nursing area.

Exhibits displayed at the Edmonton Fair in July were representative of work being done by the various divisions or the result of instruction given through the divisions.

The arts and handicraft work done by the Mental Hospital patients at Ponoka and Oliver is a display of the very finest craftsmanship. The tuberculosis control division featured a motion picture, "Tuberculosis Can be Wiped Out", produced by the Health Education Division and the Publicity Branch of the Provincial Government. Flanking the screen were a viewing box of X-ray plates, articles of leathercraft, knitted wear and shell work. A fine new display showing the progress of rat migration through

Canada highlighted the contribution from the Division of Entomology. In addition to organizing the complete exhibit of Health work, the Division of Health Education prepared a model of a town showing modern health facilities. This exhibit will be completed next year when additional features will appear.

The animated food models in the Nutrition display were an inspiration of the artistic mind, designed to teach a lesson in food selection and simultaneously appeal to the appetite.

One display which captivated the interest of a large number of people was the viewing of communicable disease stained organisms seen through microscopes. A technician from the Provincial Laboratory explained the work of the division and answered questions on communicable diseases.

Thousands walked through the Women's Building to view our displays. Many of these people lingered to ask questions or hear the lecture on tuberculosis control, or view the health films which were shown in the small theatre room.

Literature.

Leaflets, pamphlets, booklets, posters and blotters on Child Welfare, Communicable Diseases, Nutrition, Personal Hygiene, Sanitation, Safety and miscellaneous health topics were in strong demand all year. About 110,000 pieces of literature were distributed by this office. In addition to this, Health Units and District Nurses received from this division large supplies of health educational material for local consumption. The source for most of our educational literature is the Division of Information Service, National Health and Welfare. Smaller supplies of excellent material are obtained from voluntary agencies like the Metropolitan Life Insurance Co. Our own publications endeavour to offer a "local solution to a local problem." Any piece of material dealing with general health, the same everywhere, should be prepared centrally, i.e., Ottawa; to do otherwise results in duplication, waste, and usually inferior quality.

School Health Education.

I always enjoy a visit to our schools. Each year I make as many calls as time will permit to schools in the more remote areas to bring to them a taste of one phase of education they seldom receive. When the teacher announces possibly a month in advance that a visitor from the Health Department is coming to talk to them and show health films, as much excitement is set free as is developed on Christmas morning. How they do enjoy a film, especially if they have been prepared for it by the teacher, and doubly so when the subject is given dramatic treatment. The opportunity for teaching an effective lesson in immunization or sanitation or services of the Health Department is never better than in these situations.

Often in the outlying places the parents will be present. They take a keen interest in the subject matter and are as anxious to receive as we are to give. After the discussion period, and they have wheedled another film out of your list, there is an ever ready group of helpers to assist in packing the equipment. The climax comes when one of the boys offers, "That was a good show. When are you coming back again, Mister?"

We managed to visit 75 schools this year. The Public Health Nutritionist accompanied me to some of the points. She contributed

valuable assistance to teachers and pupils desiring information on school lunches and nutrition in general.

There is need in this division for an assistant to carry health education to the schoolroom.

Lecture Service.

Lecture service from the Department of Health is often channelled through this division. Requests for a talk on Tularaemia or child behaviour would be referred to the divisions of Entomology and Child Guidance respectively. This division conducted ten adult meetings during the year. Subjects covered were Services of the Health Department, Social Hygiene, Human Growth, and Health Education. Groups requesting the service were Home and School, Teacher's Institutes, Summer School in constructive medicine and local organizations.

Many high schools were visited where talks were given on Social Hygiene and Health Services.

Public Health Information.

A college student in one of the American Universities wishes to prepare a thesis on "Social Services of Other Countries." A questionnaire is submitted to us with a request for detailed information. A public health man in South Africa is interested in a copy of our legislation on municipal hospitals. Alberta people would like to know something about prepaid medicine and so on. Service of this nature often requires considerable research and requests continue to come. This is the logical place to supply the information, but the demand upon one person's time is too great.

The reference library for the staff is in need of current editions for its shelves. Our files of reference pamphlets, articles, etc., on most recent public health information have much use during each school year. Teachers and pupils, doctors and nurses, speakers and housewives all apply to us for assistance in their particular field of interest.

Nutrition Services

ELVA M. PERDUE, B.Sc., *Public Health Nutritionist.*

BESS MORRISON, B.Sc. (*Household Economics*).

In 1948 the Nutritionist, Department of Public Health, working with the Nutrition Division, Department of National Health and Welfare, Ottawa, completed the Nutrition Survey of the family type. The survey had been commenced in August, 1947, in four areas of the Foothills Health Unit—High River, Milo and Queens-town, Royalties and Okotoks.

In January, 1948, the winter dietary records of the families taking part in the survey were completed. The medical examinations for the Nutrition Survey were conducted by Dr. L. B. Pett and Dr. H. K. Brown of the Department of National Health and Welfare in May, 1948. Of the 450 people who helped by keeping records of their diets, 239 followed through to the physical and dental examinations and blood tests.

Following the completion of the survey a report on recommended changes in the individual dietary pattern were sent to the people co-operating in the survey. A pamphlet dealing with the findings of the Family Dietary Survey was distributed throughout the Foothills Health Unit and to other interested persons. Vitamin capsules and other medications were made available to those requiring them.

The Nutrition Division worked closely with the Health Education Division of the Department of Public Health when visiting schools and distributing nutrition publications. Talks on nutrition were given to the students, and copies of the available nutrition publications were left at the schools.

The majority of the literature distributed by the office of the Nutritionist through the Health Education Division was produced by the Department of National Health and Welfare, Ottawa, and various voluntary agencies. When new literature is produced or received, the policy has been to distribute it to persons—public health personnel, district home economists, teachers—who, because of their actual and potential contributions in the field of nutrition education, can utilize it to full advantage. It has been realized that the efforts of the Nutritionist to render direct service to the public will reach only a few and that her real contribution is to promote the use of local talent and facilities for nutritional betterment by timely suggestion, correlation and co-operation.

The number of requests for publications and information was considerably larger than the previous year. Assistance was given to both teachers and public health nurses in planning and organizing school lunch programmes. Materials dealing with low cost meal planning and budgeting were provided for nurses working with immigrant families.

Exhibits, including a set of animated food models of balsa wood were prepared. These displays were used at the Edmonton Exhibi-

tion in July, 1948, and were made available to the Health Units and to the District Nurses. An exhibit publicizing the nutrition work and services of the Department of Public Health was produced for display in the rotunda of the Parliament Buildings.

Radio talks dealing with various phases of nutrition were broadcast as part of the "On Guard for Health" series. Lectures were given to various women's organizations on request.

In order to establish a closer bond, and at the same time to relay information to the other public health department personnel a mimeographed pamphlet entitled "Nutrition News" was included in the programme. This publication will enable the field personnel to keep abreast of the advances in the science of nutrition since the new discoveries are valuable only to the extent that they are put to practical use in feeding people. This pamphlet is published every two months.

In line with this policy of closer co-operation with the Health Units and in-the-field personnel, the Foothills Health Unit at High River and the Rosebud Health Unit at Didsbury were visited. While in the Units, Baby Clinics were attended and feeding problems dealt with. Lectures and film were given to schools and Women's Institute groups.

In September the Public Health Nutritionist was granted a year's leave-of-absence to gain experience in the administration of a dietary department in a small hospital, and to pursue further studies towards a Master's degree in Public Health Nutrition. During the absence of Miss Perdue, the nutrition programme in Alberta was capably discharged by Miss B. Morrison.

A Vitamin D campaign was conducted by the Federal Nutrition Division across Canada. The Nutritionist and the field personnel carried out the work in Alberta.

The Nutritionist attended a combined meeting of the Dominion Provincial Nutrition Committee and the Health Educators Conference in Ottawa. The programmes and proposed plans to be carried out in the provinces were discussed. The kinds, types and need for new literature were outlined.

Visitors to the division from the Nutrition Division, Department of National Health and Welfare, Ottawa, in 1948 were: Miss Paulette Jegard, Nutritionist; Miss Helen Sackville, Nutritionist; Miss Ann Burns, Nutritionist.

Public Health Nursing Division

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

While the nursing picture brightened somewhat during 1948, the Division suffered a severe loss when Miss Jean S. Clark, R.N., B.Sc., M.P.H., Director of the Division, was granted leave of absence to act on the Dominion-Provincial Health Survey Committee. Miss M. A. Evans, R.N., B.Sc., M.A., was appointed Acting Director, and Miss B. A. Emerson, R.N., was appointed as Acting Assistant Director. Miss Evans resigned in December to be married, and Miss Emerson was appointed Acting Director of the Division.

There were 14 full-time appointments to the staff and one temporary appointment for emergency duty. Five full-time nurses resigned, three to be married, one to take a post-graduate course in the East, and one half-time married nurse resigned for domestic reasons. Three nurses returned from leave of absence, and the following were granted leave of absence to attend the University of Alberta: Miss Laura Attrux and Mrs. J. C. Somerville to take the Advanced Course in Practical Obstetrics, and Miss Mary K. Anderson to take the Public Health Course.

It was possible to make more supervisory visits to the districts than in former years. Many problems that arose were settled at their source, and it is no doubt due to this fact that fewer nurses resigned from the service. The Supervisor met with District Nursing Committees wherever possible, and at all places with officials of the Committee, with the result that much has been done to improve living conditions for the nurses.

The services of Miss May Deane-Freeman were secured from April 28th to June 15th, to do an Emergency Health Programme at Drumheller during the flood. In conjunction with the Sanitary Committee, instruction was given the public through the press and over the radio regarding the danger of contaminated water and the necessary steps to be taken to purify the water system and to chlorinate wells. During the six-week period a weekly Child Welfare Clinic was held with a total attendance of 120. The Red Cross supplied canned milk through the Clinic, with 433 cans being distributed for infants on formula. There were 525 inoculations given, of which 494 were against Typhoid.

Mrs. Barbara Eben, who conducted the Course in Advanced Practical Obstetrics at the University of Alberta, is a former member of our staff.

No new centres were opened during the year, although several applications were considered. Due to a shift in population it was deemed advisable to close the district nursing service at Grouard, also the district nursing service at Newbrook was temporarily suspended pending a financial arrangement with the M.D. of Smoky Lake No. 89 for their share of the cost of the service for the ratepayers resident in the nursing district.

The Child Welfare Station at Drumheller was closed during the period of reorganization of Drumheller Nursing Service into a Rural Health Unit.

The organized centres are as follows:

Urban: Calgary, Drumheller, Medicine Hat, Vegreville.

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

Twenty-seven districts had a full-time nursing service. With one exception, all districts were given service over the greater part of the year.

Staff Education.

The Quarterly News Letter sent to all members of the staff continues to keep them informed on newer trends in treatments and drugs, and is used as reference material. Besides its educational value, it contains information concerning matters of administration, and a page is devoted to news of fellow workers. The staff also write articles on matters of interest to the whole group.

The Spring Conference held in St. John Ambulance House was well attended. It was in the nature of a request programme, as the nurses had previously been asked to suggest topics on which they desired information. The Director and Assistant Director discussed Personnel Policies with them, while Drs. Vant, Huston, Roy Anderson and Levy held discussions on the following subjects respectively: "Painless Childbirth"; "Newer Drugs"; "Acute Abdominal Surgical Cases"; "Eye Conditions, their Recognition and Treatment." Mr. J. H. Brown spoke on Entomology; Miss Ruth McClure on the Public Health Training Centre; Mr. J. H. McDougall on a Rural Mental Hygiene Programme; Miss E. Bell Rogers on A.A.R.N. Activities; Miss Frances Ferguson on the School for Nursing Aides. Dr. G. M. McCallum on the Medical Care of Pensioners and Maternity Hospitalization.

Nurses were encouraged wherever possible to take post-graduate courses to better fit them for the work and to add to their knowledge and interest in the whole field of preventive work. The nurses who took the Course in Advanced Obstetrics at the University of Alberta were granted four months on half-pay with the understanding that they return to the staff for a further period of at least one year. Fees were also paid for the nurse taking the Public Health Course at the University of Alberta.

Statistical report of the work done is herewith presented. Due to the fact that more districts operated during the year than in the previous year, the service rendered was proportionately higher.

The cost of drugs and equipment is offset by the collection of a small fee for home treatment visits and office treatments given plus the cost of the drugs:

Fees collected	\$10,545.03
Total cost of drugs and equipment	9,562.37
Cr. Balance.....	\$ 982.66

The revenue received from municipalities covering district nursing services in their areas amounted to \$5,720.00, making a total revenue of \$16, 265.03, although we are not a revenue producing Division.

Urban Service.

The nurses in the four Child Welfare Clinic centres at Calgary, Medicine Hat, Vegreville and Drumheller for part of the year continued their excellent preventive programme, the details of which are outlined in Table No. 2, the highlights being as follows:

Besides a Child Welfare Programme, a consultant service and a very extensive immunization programme, Miss Black of Vegreville was able to carry on an effective school programme in that area.

Miss Hagerman of Medicine Hat held regular clinics in that centre; spent ten and a half days at the Redcliff School examining the school children, and held 38 Baby Clinics at that centre with an average attendance of 17.7.

Miss Hagerman also conducted an immunization programme at Redcliff Airport, Medicine Hat, Suffield and Elkwater. One-day Baby Clinics were held at Orion, Walsh, Irvine, Iddesleigh and Manyberries; assisted at eight Rocky Mountain Spotted Fever Clinics, where 531 people completed the series of inoculations. Miss Hagerman's programme also included attendance at Guidance Clinics, T.B. Clinics and V.D. Clinics. Seventeen nurses in training from the Medicine Hat General Hospital received special instructions at the Baby Clinic, and 4,050 babies and pre-school children attended the Child Welfare Clinics.

Miss Lavell reports that at Calgary, 8,425 infants and 2,314 pre-school children attended the clinics, making a total of 10,739. Complete physical examinations were given to 1,418 children between the ages of three and four; 209 rural children attended the clinic.

While the attendance dropped a trifle from that of the previous year, this was due to the change in the transit system, as baby carriages cannot be carried on the buses. This increased the number of telephone consultations to a marked degree. Twenty-six students from the Calgary General, Holy Cross Hospitals and B.Sc. students from the University of Alberta were given intensive instruction. Forty-five students from the Holy Cross Hospital attended afternoon clinics for observation and instruction, and 38 students from the Nursing Aide classes were in for observation and instruction. Field experience has also been provided this group when possible. There were 9,953 letters sent out in connection with clinic work.

It is with regret we announce the death of Dr. Geraldine Oakley, who had served faithfully and well on the medical staff of the clinic for many years. Dr. Margaret West was appointed in her place.

Miss Lavell spoke to three meetings on health subjects. There were 330 Nursery inspections made up until November when those inspections were taken over by the Department of Public Welfare.

One Nurse Health Units.

The Division of Public Health Nursing has continued to provide supervision for the eight One Nurse Health Units in the Province. Too much cannot be said in praise of the excellent health programme that has been carried out by these nurses who work alone. Their

days are long and arduous; they drive miles in all kinds of weather holding Baby Clinics, giving prenatal advice and inspecting school children, also carrying out an immunization programme; speaking at meetings on matters pertaining to health, addressing school conventions; promoting hot lunches for school children, maintaining regular office hours at which time they are consulted on all matters pertaining to the health and welfare of the people whom they serve. Many letters are received by the Director from these nurses dealing with their individual problems, and many kind words have been said on their behalf by members of the School Division Boards for whom they work. This service is carried out at the following points: Athabasca Health Unit, Colinton; Brooks Health Unit, Brooks; Macleod Health Unit, Granum; Pembina Health Unit, Barrhead; Rocky Mountain Health Unit, Rocky Mountain House; Spirit River Health Unit, Spirit River; Wainwright Health Unit, Wainwright; Wheatland Health Unit, Strathmore, Alta.

The year was a busy one for the Director and Assistant. In addition to administrative and supervisory duties, classes were held in Public Health at the four Schools of Nursing in Edmonton, and talks were given to many outside groups. Radio scripts were prepared and many meetings attended connected with health projects.

Our thanks are due to the three Provincial organizations, the I.O.D.E., W.I., and U.F.W.A., who sponsor the Alberta Maternity Cupboard for the beautiful mothers' gowns and layettes they provided for needy mothers. Thirty-eight layettes were distributed during the year, and many letters of gratitude were received from the recipients.

We appreciate the fine relationships enjoyed with all the Divisions in the Department who come to our rescue whenever called upon. To the Department of Public Welfare who have solved the many difficult problems we have brought to their attention. We are grateful for the excellent medical support both in urban and rural communities given us by the medical profession; to our Nurses Home Committees for their co-operation, and to the teachers and School Divisions who have assisted the nurses in their work.

We appreciate greatly the sympathetic attention given by the Minister, Hon. Dr. Cross, and Dr. Bow, the Deputy Minister, to our problems. Also, we should like to pay a tribute to all the members of our staff for the faithful services they have rendered under what was at times exceedingly difficult circumstances, and to Mrs. Hawkes, our able office assistant, who did so much to make the wheels run smoothly.

In conclusion, we should like to point out that while statistics are a necessary part of any report, they cannot in any way express that enjoyable relationship which exists between the nurse and those she serves, and which is responsible for the success and satisfaction attained in the effort spent.

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

	1948
Number of Districts	32
Treatment Consultations	18,373
Miscellaneous P.H. Consultations	7,056
Antepartum Consultations	1,446
Postpartum Consultations	294
Infant and Pre-school Consultations	4,162
Treatment Home Visits	4,758
Miscellaneous P.H. Home Visits	820
Communicable Disease Home Visits	344
Maternal Welfare Home Visits	459
Infant and Pre-school P.H. Home Visits	914
Deliveries	98
Abortions	34
Cases sent to Hospital or Doctor	1,188
Deaths (under 1 year)	10
Deaths (over 1 year)	26
Cases Communicable Disease Reported	290
Pieces P.H. Literature Distributed	3,434
Fees Collected	\$10,545.03
Amount Collected under Contracts with M.D's	5,720.00
IMMUNIZATIONS:	
Diphtheria Toxoid	3,777
Scarlet Fever Toxin	2,104
Smallpox Vaccine	860
Whooping Cough Vaccine	2,903
Typhoid Fever Vaccine	411
Diphtheria Antitoxin	36
Measles Prophylactic Serum	5
Total Number of Doses	10,096

TABLE 2
REPORT OF CHILD WELFARE CLINICS, 1948 (EXCLUSIVE OF WORK
DONE IN SCHOOLS)

Clinics, 1948.	Calgary (including Bowness)	Drumheller (including Rosedale and East Coulee)	Medicine Hat Redcliff	including Vegreville
Baby Clinic:				
No. of Names on Roll	2,671	351	2,278	154
New Cases Admitted	1,529	60	534	61
Old Cases Readmitted				
Referred to Family Doctor	53	1	66	8
Discharged			92	
Deaths	4			
Transferred to Pre-school Clinics			112	
No. in Attendance	8,425	302	1,858	358
Breast Fed	1,233	17	817	89
Bottle Fed	3,686	233	2,106	199
Other Feedings	3,506	49	865	70
Pre-School Clinic:				
No. of Names on Roll	6,735	367	586	23
New Cases Admitted	481		681	
Old Cases Readmitted				
Referred to Family Doctor			19	
Discharged			627	
Deaths				
No. in Attendance	2,314		999	
Visits:				
Baby Visits	5,060		370	41
Pre-school Visits			110	22
Pre-natal Visits		1		1
Special Visits	481		20	
Summary:				
Total No. Home Visits	5,541		732	73
Total No. Clinics Held	244	23	147	41
Total No. in Attendance	10,739	302	4,722	358
Total No. seen by Doctor	2,441			
No. Letters Written on work	9,953		200	48
Immunizations:				
Total No. of Children completing Inoculations for:				
Diphtheria			65	
Scarlet Fever		6	94	
Whooping Cough		10	11	
Typhoid Fever		160		
Diphtheria and Whooping Cough Combined			345	
Total No. Doses—Different Sera		522	2,196	
No. Vaccinated Smallpox			393	

TABLE 3

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

28 Districts	1948
1. Visits to Schools	274
2. Individual Inspections	4,200
3. Suspected Defects	2,843
(a) Defective Vision	617
(b) Defective Hearing	17
(c) Diseased Tonsils	1,130
(d) Unsound Teeth	2,047
(e) Eye Diseases	32
(f) Ear Diseases	20
(g) Enlarged Cervical Glands	576
(h) Enlarged Thyroid Glands	135
(i) Malnutrition	696
(j) Nervous Disorders	53
(k) Faulty Posture	408
(l) Orthopaedic Defects	2
(m) Ringworm	10
(n) Impetigo	36
(o) Scabies	71
(p) Pediculosis	109
(q) Other Skin Conditions	153
(r) Exclusions, Suspect Comm. Disease	14
4. Correction of Defects	456
5. Classroom Talks	100
6. Sanitary Inspection of Schools	36
7. Consultations with Teachers	261
8. Consultations with Parents	268
9. School Follow-up Home Visits	123
1. Total number of doses of the following:	
(a) Diphtheria Toxoid	1,842
(b) Scarlet Fever Toxin	673
(c) Smallpox Vaccine	448
(d) Whooping Cough Vaccine	856
(e) Typhoid Fever Vaccine	3
(f) Diphtheria Antitoxin	3
Total	3,825
Mantoux Tests and Patch Tests	62
Schick Tests	15

REPORT OF HEALTH DISTRICTS FOR THE YEAR 1948

Services Offered	Athabasca	Brooks	High Prairie	Macleod	Pembina	Rocky Mtn.	Spirit River	Wainwright	Wheatland	Total
School Health Programme:										
1. Visits to Schools	170	35		112	86	122	108	140	204	977
2. Students Inspected	335	535		908	1074	1090	790	1217	395	6344
3. With Suspected Defects	172	386		201	131	531	149	631	185	2386
(a) Defective Vision	16	42		67	101	67	53	116	31	493
(b) Defective Hearing	15	9		3	9	1	5	7	2	51
(c) Diseased Tonsils	69	196		106	108	212	85	321	106	1203
(d) Unsound Teeth	87	238		150	363	325	265	334	123	1885
(e) Eye Diseases	5				1	10		2		18
(f) Ear Diseases	7	3		13	11			1		35
(g) Enlarged Cervical Glands	29	28			50	6	47	20	19	199
(h) Enlarged Thyroid Glands	1	1		6		1	15		22	46
(i) Malnutrition	41	25		2	6		21	87		182
(j) Nervous Disorders	10	18			4	2	8	8		50
(k) Faulty Posture	14	23		1	5	1	15	9	3	71
(l) Orthopaedic Defects		1			2		4			7
(m) Ringworm		1		8				3		12
(n) Impetigo	13	7				1	4	2		27
(o) Scabies	2	1				13	5	2		24
(p) Pediculosis	1					1				2
(q) Other Skin Conditions	23	14		7	18	1	3	8	5	79
(r) Exclusions, Suspected Communicable Disease	3				4					7
4. Correction of Defects	24				10		94	243	56	427
5. Classroom Talks	83	10			27	3	34	58	62	277
6. Sanitary Inspection of Schools	2	15		51	7	1	11	81	43	211
7. Consultations with Teachers	34	40		94	57	59	65	113	331	793
8. Consultations with Parents		7		10	60	5	119	43	1503	1747
9. School follow-up Home Visits	48	14		9	5	147	214	25	22	484
10. Pre-school Children seen at School Clinics:	147	74			40	14	84	15		374
1. Child Welfare Clinics Held	62	51	10	69	30	56	241	56	83	658
Attendance:										
(a) Infants	108	300	87	649	84	332	205	360	712	2837
(b) Pre-schools	509	547	256	575	310	763	16	435	551	3962
2. Pre-natal Home Visits	11			1	1		12	14		39
3. Infant Welfare Visits	9			18	5	1	54	7	41	135
4. Pre-school Home Visits	73	10		24	2	46		35	45	235
5. Tuberculosis Clinics Held										
Attendance:										
6. Tuberculosis Home Visits	2	2			1	12	10	3	4	34
7. Mental Hygiene Home Visits	1	18		11	2	1	7	16	9	65
Immunizations:										
1. Total No. of Doses of the following:										
(a) Diphtheria Toxoid	214	264	15	450	362	212	163	830	727	3237
(b) Scarlet Fever Toxin	1218	235		132	75	606	93	57	1466	3882
(c) Smallpox Vaccine	358	147	68	175	203	129	227	126	399	1832
(d) Whooping Cough Vaccine	38	44	3	117	44	71	21	101	447	886
(e) Typhoid Fever Vaccine		136		8						144
(f) Whooping Cough Vaccine and Diphtheria Toxoid	543	425	241	815	228	281	417	385	686	4021
2. Mantoux Tests and Patch Tests	4	1		1		38	1	175		220
3. Schick Tests			2	1						10
4. Dick Tests				11				1	54	66
Communicable Disease Control:										
1. Visits to Cases, Contacts, Suspects	45	18		58	11	35	39	36	145	387
2. Cases Quarantined or Isolated	16			8	24		3	51		102
(a) Scarlet Fever	2			13		3	2	1	3	24
(b) Measles		2		9	31	2		8	9	61
(c) Chickenpox	4	12		17	7	28		13	11	92
(d) Mumps				6		4			20	30
(e) Whooping Cough				26	17	6		9	22	80
(f) Rubella	13					1	2	4	3	23
(g) Skin Conditions	1	1			2		1	2		7
(h) Other Conditions	18	4						14	1	37
3. Contacts Isolated	11			13	9	4	3	4	17	61
4. Throat Cultures Taken									96	96
Health Education:										
1. Interviews	334	50		392	14	73	40		174	1077
2. Lectures	28	4		27	2	9		2	6	78
Attendance	718	155		45		195		86	358	1557
3. Literature Distributed (approx.)	625	900	30	39	318	47	131	130	1699	3919
4. Films Shown	1	3			2					8
5. Newspaper Publicity		51		74	3	4			132	264
6. School Health Papers Published		225			240			10	375	850
7. Letters and Circulars	1510	380		927	4	223	177	6	542	3769

Division of Social Hygiene

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

In spite of the increase in population during the year, there were actually 293 fewer cases of gonorrhoea and 136 fewer cases of syphilis than during the preceding year.

The Dominion Government grants which were made available during the latter part of the year made it possible for us to plan for a greatly expanded programme of Venereal Disease Control. We propose to open a modern clinic in Lethbridge, to establish a mobile clinic in the northern part of our Province, to increase the professional personnel of our Edmonton and Calgary clinics, and to undertake a statistical research of results of the Malaria Pyrexia Therapy in the treatment of neuro-syphilis in this Province during the past twenty-five years.

Unfortunately we have been unable to institute any of the projects because it has proved impossible to get the necessary professional personnel.

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

ALLEGED SOURCES OF VENEREAL INFECTION OR CONTACTS For the Period January 1st, 1948—December 31st, 1948

Location of Source of Infection or Contact	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	675	580	86%
Calgary	337	285	85%
Lethbridge	16	10	63%
Medicine Hat	12	9	75%
Slave Lake Area	109	107	98%
Rest of Province	426	347	80%
Alberta Totals	1575	1338	85%
Sources of Infection or Contacts reported outside Province and located in Alberta	11	11	100%
Sources of Infection or Contacts reported in Alberta and located outside	88	29	33%
Sources of Infection or Contacts reported in Alberta, not located outside	88	59	67%
Totals	1674	1378	82%
Unit Forwarding Information	Number of Sources of Infection or Contacts Reported	Number of Sources of Infection or Contacts Located	Percentage Sources of Infection or Contacts Located
Armed Forces	107	76	71%
Private Doctors and Provincial Clinics	1476	1247	84%
Other Provinces	91	55	60%
Totals	1674	1378	82%

Inadequate Information Cases in Alberta, 237.

Sources of Infection that could not be located by authorities outside of Alberta, 59.

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.
Pick-ups	515 31%	Boarding house or rooming house	34 2%
Introduction	97 5%	Restaurant or beer parlor	266 16%
Friend	31 2%	Dance hall	135 8%
Marital Partner or Common-law wife	123 7%	Street	200 12%
House of Prostitution	12 0.7%	Friend	128 8%
Appointment	55 3%	Hotel	92 7%
No data available	841 51%	Marital partner	125 7%
		Recreation, private party	132 8%
		Train, railway station, bus depot	3 0.2%
		House of Prostitution	12 7%
		Taxi, Taxi office	19 1.0%
		Service station, garage	3 0.2%
		No data available	525 32%
		At work	1 0.6%

DETAILS OF INFORMATION OBTAINED ON THE CONTACT INVESTIGATION

Place of Exposure	Approx.	Occupation of Source of Infection or Contact	Approx.
Rooming house	208 12%	Waitress	195 12%
Private house	249 15%	Housewife	127 8%
Outdoors	67 4%	Prostitute or street walker	108 6%
Car or truck	123 7%	Domestic, hotel, hospital maid, porter	117 7%
Train, boat, auto camp	9 1%	Clerk, salesman, steno, teacher, cashier	62 4%
House of prostitution	12 7%	Factory or plant worker	22 1%
House, room or shack	232 14%	Service personnel	2 0.12%
Taxi	2 12%	Unemployed	49 3%
Hotel	231 14%	Laundress or dry cleaners	17 1%
No data available	541 32%	Truck or taxi driver	17 1%
		Farmers, trappers, fisherman	23 1%
		Student	10 0.5%
		Dressmaker, hairdresser, barber	11 0.6%
		Labourer-transient	59 3.5%
		Business man, conductor	5 0.2%
		Mechanic, electrician, plumber	9 0.5%
		No data available	838 5.0%
		Trainman or railwayman	3 0.2%

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.	M. F.	M. F.	M. F.	M. F.			
Gonorrhoea (all forms)			1	1	2	30	31	455	102				622
Syphilis (congenital)					2								2
Acquired—Primary							1	22	5				28
Acquired—Secondary							1	2	8				11
Acquired—Latent							2	3	9				14
Acquired—Tertiary (Cardiovascular)													
Acquired—Tertiary (Neurosyphilis)									1				1
Acquired—Tertiary (other)							1	2	7				10
Type Undetermined													
Totals			1	1	4	30	36	485	131				688

Number of cases of syphilis—Male 30, female 36 66

Number of cases of gonorrhoea—Male 486, female 136 622

Number and results of Wassermann tests: 6,228, of which 501 were positive.

Number and results of Cerebrospinal Fluid tests: 87, of which 12 were positive.

Number and results of Bacteriological tests for gonococci: 5,134, of which 788 were positive.

Number and results of cultures: 2,948, of which 118 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)					2		11	45	282	163			503
Syphilis (congenital)													
Acquired—Primary									15				15
Acquired—Secondary								1	7	10			18
Acquired—Latent								1	15	7			23
Acquired—Tertiary (Cardiovascular)													
Acquired—Tertiary (Neurosyphilis)													
Acquired—Tertiary (other)									1				1
Type Undetermined									2	2			4
Totals					2		11	47	322	182			564

Number of cases of syphilis—Male 40, female 21

61

Number of cases of gonorrhoea—Male 293, female 210

503

Number and results of Kahn and Wassermann tests: 3,551, of which 578 were positive.

Number and results of Cerebrospinal Fluid tests: 32, of which 9 were positive.

Number and results of Bacteriological tests for gonococci: 3,576, of which 379 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)								1	6	6			13
Syphilis (congenital)	1		1										2
Acquired—Primary									1				1
Acquired—Secondary													
Acquired—Latent													
Acquired—Tertiary (Neurosyphilis)													
Acquired—Tertiary (Cardiovascular)													
Acquired—Tertiary (other)									2				2
Type Undetermined													
Totals	1		1					1	9	6			18

Number of cases of syphilis—Male 4, female 1

5

Number of cases of gonorrhoea—Male 6, female 7

13

Number and results of Kahn and Wassermann tests: 170, of which 108 were positive.

Number and results of Cerebrospinal Fluid tests: 2, of which none were positive.

Number and results of Bacteriological tests for gonococci: 45, of which 4 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)									4				4
Syphilis (congenital)													
Acquired—Primary													
Acquired—Secondary													
Acquired—Latent													
Acquired—Tertiary (Cardiovascular)													
Acquired—Tertiary (Neurosyphilis)													
Acquired—Tertiary (other)													
Type Undetermined									2				2
Totals									6				6

Number of cases of syphilis—Male 2

2

Number of cases of gonorrhoea—Male 4

4

Number of prisoners examined

976

Number and results of Kahn and Wassermann tests: 1,056, of which 91 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)							10	4	24				38
Syphilis (congenital)									2				2
Acquired—Primary									3				3
Acquired—Secondary							1	2	4				7
Acquired—Latent													
Acquired—Tertiary (Cardiovascular)													
Acquired—Tertiary (Neurosyphilis)													
Acquired—Tertiary (other)									1	2			3
Type Undetermined													
Totals							11	9	33				53

Number of cases of syphilis—Male 5, female 10

15

Number of cases of gonorrhoea—Male 4, female 34

38

Number and results of Kahn and Wassermann tests: 1,602, of which 107 were positive.

Number and results of Cerebrospinal Fluid tests: 21, of which 1 was positive.

Number and results of Bacteriological tests for gonococci: 3,574, of which 103 were positive.

HIGH PRAIRIE CLINIC—High Prairie, Alberta

From January 1, 1948 to June 30, 1948

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

	Under 1 yr.		1-4 yrs.		5-14 yrs.		15-19 yrs.		20 yrs. & over		Age not stated		Totals
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Gonorrhoea (all forms)							1	3	24	4		1	33
Syphilis (congenital)													
Acquired—Primary									1				1
Acquired—Secondary									1	2			3
Acquired—Latent													
Acquired—Tertiary (Cardiovascular)													
Acquired—Tertiary (other)													
Type Undetermined													
Totals							1	3	26	6		1	37

Number of cases of syphilis—Male 2, female 2

4

Number of cases of gonorrhoea—Male 25, female 8

33

Number and results of Kahn and Wassermann tests: 180, of which 17 were positive.

Number and results of Bacteriological tests for gonococci: 40, of which 14 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)							2	1	13		2		18
Syphilis (congenital)													
Acquired—Primary													
Acquired—Secondary													
Acquired—Latent									1				1
Acquired—Tertiary (Cardiovascular)													
Acquired—Tertiary (Neurosyphilis)													
Acquired—Tertiary (other)													
Type Undetermined													
Totals							2	1	13	1	2		19

Number of cases of syphilis—Male 0, female 1

1

Number of cases of gonorrhoea—Male 17, female 1

18

Number and results of Kahn and Wassermann tests: 285, of which 15 were positive.

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

Number and results of Bacteriological tests for gonococci: 80, of which 45 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	7	30	27	1		68
Syphilis (congenital)					1	1							2
Acquired—Primary							1		1	1			3
Acquired—Secondary													
Acquired—Latent													
Acquired—Tertiary (Cardiovascular)													
Acquired—Tertiary (Neurosyphilis)													
Acquired—Tertiary (other)													
Type Undetermined									1	1			2
Totals					1	1	3	8	32	29	1		75

Number of cases of syphilis—Male 4, female 3

Number of cases of gonorrhoea—Male 34, female 34

Number and results of Kahn and Wassermann tests: 484, of which 58 were positive.

Number and results of Cerebrospinal Fluid tests: 5, of which 1 was positive.

Number and results of Bacteriological tests for gonococci: 130, of which 30 were positive.

PRIVATE PHYSICIANS REPORTING CASES

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

	Under 1 yr.		1-4 yrs.		5-14 yrs.		15-19 yrs.		20 yrs. & over		Age not stated		Totals
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Gonorrhoea (all forms)	2				3	4	16	32	354	87	51	23	572
Syphilis (congenital)	1		1	1	1	1				1			6
Acquired—Primary							2	42	13	10	4		71
Acquired—Secondary							2	8	10	2			22
Acquired—Latent							4	18	13	4	4		43
Acquired—Tertiary (Cardiovascular)									2	1	2		5
Acquired—Tertiary (Neurosyphilis)									5	3	3		11
Acquired—Tertiary (other)									2	1			3
Type Undetermined							2	5	5	9	3		24
Totals	1	2	1	1	4	5	16	42	436	134	81	34	757

Number of cases of syphilis—Male 115, female 70

Number of cases of gonorrhoea—Male 424, female 148

Number of doctors in the Province receiving consultative service

Number of doses of Arsenicals distributed to private physicians

Number of doses of Bismuth distributed to private physicians

Number of units of Penicillin distributed to private physicians: 196 vials (3,000,000 units)

Procaine-G in oil; 133 cartridges in oil and wax (300,000); 1,031 bottles (200,000)
aqueous Penicillin.

NEW CASES OF SYPHILIS AND GONORRHOEA REPORTED IN ALBERTA, 1948

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

	Under 1 yr.		1-4 yrs.		5-14 yrs.		15-19 yrs.		20 yrs. & over		Age not stated		Totals
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Gonorrhoea (all forms)	2		1	4	8	63	130	1202	413	54	26		1903
Syphilis (congenital)	1	1	2	1	2	4			1				12
Acquired—Primary							1	4	84	19	10	4	122
Acquired—Secondary							4	18	30	2			54
Acquired—Latent							8	39	36	4	4		91
Acquired—Tertiary (Cardiovascular)									2	1	2		5
Acquired—Tertiary (Neurosyphilis)									6	3	3		12
Acquired—Tertiary (other)									5	1			6
Type Undetermined							3	13	17	9	3		45
Totals	1	3	2	2	6	12	64	149	1369	521	84	37	2250

Total number of cases of syphilis—Male 203, female 144

Total number of cases of gonorrhoea—Male 1323, female 580

2250

RECAPITULATION
NEW PATIENTS ADMITTED TO THE VARIOUS CLINICS OF THE DIVISION
OF SOCIAL HYGIENE IN 1948

Sex	Syphilis	Gonorrhoea	Totals
Males	87	869	956
Females	74	430	509
Totals	<u>161</u>	<u>1299</u>	<u>1460</u>

CASES REPORTED BY DOCTORS AND MILITARY AUTHORITIES

	Private Physicians	Armed Forces	Totals
Syphilis	185	1	186
Gonorrhoea	572	32	604
Total number of cases of syphilis reported in Alberta			347
Total number of cases of gonorrhoea reported in Alberta			1903
			<u>2250</u>
Total number of cases of syphilis reported in Alberta exclusive of armed personnel			346
Total number of new cases of gonorrhoea reported in Alberta exclusive of armed personnel			1871
			<u>2217</u>

Report of the Provincial Laboratory

R. M. SHAW, *Director.*

Routine Examinations.

The appended tables give a very clear picture of the work of the staff during the year. The total number of examinations made was almost identical with that of the year immediately preceding, viz. 161,083 for 1948 as compared to 160,772 for 1947. Small increases are noted in a considerable number of the items reported, whereas the decreases mainly affected three types of examination. Among the decreases is the test relating to the determination of the Rh factor in bloods. This work was taken over by the Red Cross Blood Donor Service, by whom it could be more effectively done.

Building Projects.

During the year plans were drawn up for a branch laboratory in Calgary and for a new main laboratory in Edmonton. Construction of the former was begun on the selected site on the grounds of the Central Alberta Sanatorium. It is expected the building will be ready for occupation by August, 1949. The ground floor and basement of the extension to the East Wing of the Medical Building were occupied by the Provincial Laboratory and the University Departments of Bacteriology and Pathology in the early autumn of 1948.

New Equipment.

The Department of Pathology of the Provincial Laboratory was greatly benefited by the receipt of a Scopicon, a gift from the Cancer Association, Alberta Division. This apparatus, because of its unique design in permitting ten persons to view, at one and the same time, a prepared slide under the one microscope, is most useful for instruction of internes and students. It is of particular value also for projection of microscopic and gross preparations on to screens and for photography permitting the preparation of coloured slides for projection.

Internes.

During the past two years, four internes, graduates in Medicine from the University of Alberta, have been permitted three months each general instruction and experience in all the bacteriological and serological activities of the Provincial Laboratory. This instruction forms a part of the basic education required by these young doctors in their training as specialists.

The Provincial Laboratory contributes in no small measure to the training of internes in the Department of Pathology.

Weekly conferences in the Department held in conjunction with the other Pathologists in city hospitals are an added feature of the training programme.

Interneships in the Department of Pathology of the Provincial Laboratory are offered on a six month or yearly basis, although shorter or longer periods of training are occasionally requested.

It is of interest to report that over the period from 1927 to the present time, 75 medical graduates have served interneships in the

Department of Pathology. It is felt that the training offered should prove of lasting value in whatever field of Medicine the candidate may choose to follow.

Reference to Staff.

Dr. J. H. Stirrat, who was appointed to the position of Assistant Bacteriologist in the Provincial Laboratory and Associate Professor in the Department of Bacteriology and Hygiene of the University, reported for duty September 1st, 1948.

During the year, Miss Margaret Finlayson, B.Sc., and Miss Ethel Shelene, B.Sc., were granted leave of absence for purposes of special study. Miss Finlayson in January and February received her special two months' training in the bacteriology of enteric infections at the Salmonella Centre, Division of Laboratories, The Ontario Department of Health, Toronto, while Miss Shelene attended a three weeks course in September on the serology of syphilis given at the Laboratory of Hygiene, Ottawa. These courses have been of great benefit not only to the technicians concerned but have brought improvement generally in the work and reports of the laboratory, and have had a very beneficial effect on the morale of the staff generally.

There was during the year a rather larger than usual number of changes in the technical and clerical staffs. Desire to pursue studies elsewhere, claims of family and matrimony were given as reasons for resigning. Replacements have been difficult, and some shortage of permanent staff still exists.

It is a pleasure to record, however, that loyal and cheerful support has been given by all members during the period under review.

TABLE 1

WORK PERFORMED IN THE PROVINCIAL LABORATORY DURING THE YEAR 1948

	Total, 1947	Total, 1948	Increase	Decrease
Sputum Examinations	680	768	88	.....
Diphtheria and Haemolytic Streptococci	3,278	3,713	435	.....
Typhoid Fever (Agglutination test)	1,433	1,698	265	.....
Milk	1,146	1,278	132	.....
Water	4,038	4,608	570	.....
Guinea Pig Inoculations	1,377	1,886	509	.....
Miscellaneous Bacteriology	7,040	6,805	.....	235
Blood Cultures	701	764	63	.....
Enterobacteria and Intestinal Parasites	915	1,362	447	.....
Urinalysis	19	10	.....	9
Medico-Legal Examinations (Blood, seminal, etc.)	8	5	.....	3
Cerebro-Spinal Fluids for the Wassermann Test	2,849	2,958	109	.....
Bloods for Quantitative Kahn test	2,741	2,815	74	.....
Bloods for the Wassermann Test	9,256	10,322	1,066	.....
Bloods for the Standard Kahn Test	8,810	9,992	1,182	.....
Bloods for the Presumptive Kahn Test	74,156	74,635	479	.....
Smears for the Gonococcus	15,482	14,202	.....	1,280
Cultures for Gonococcus	4,554	2,897	.....	1,657
Van Den Bergh Determinations	269	189	.....	80
Bloods for Rh factor	3,078	.....	.....	3,078
Pathological Histological Material	10,761	11,089	328	.....
Blood Smear Examinations	175	250	55	.....
Post-mortem Examinations	310	367	57	.....
Ascheim-Zondek Tests	472	472	.....	.....
Comparative Series	38	8	.....	30
Fluids for Cancer Cells .....	.....	116	116	.....
Bone Marrows .....	.....	56	56	.....
Cerebro-Spinal Fluid Examinations (Colloidal Gold, Pandy)	3,024	3,233	209	.....
Bacteriological Examinations (P.M.)	111	159	48	.....
B. abortus Examinations (Agglutination test)	1,433	1,719	286	.....
B. tularensis (Agglutination test)	1,433	1,698	265	.....
B. melitensis (Agglutination Test) .....	.....	3	3	.....
Cattle Blood (Bang's Disease Agglutination test)	1,185	1,046	.....	139
Total.....	160,772	161,083		

TABLE 2

	1947	1948
Number of milks examined bacteriologically	951	1,278
Number of milks examined for butterfat	116	135
Number of milks examined for B. coli	178	384
Number of milks tested by the Phosphatase Test	27	52
Number of ice creams examined	123	59
Number of rinse waters examined bacteriologically	72	32

TABLE 3

DETAILS OF THE BACTERIOLOGICAL AND CHEMICAL EXAMINATIONS OF WATER PERFORMED THROUGHOUT THE YEAR 1948

	1947	1948
Number of samples of water examined bacteriologically and found fit for human consumption	1,987	2,455
Number of samples of water examined bacteriologically and found unfit for human consumption	818	758
Number of samples of water examined bacteriologically and chemically and found fit for human consumption	198	256
Number of samples of water examined bacteriologically and chemically and found unfit for human consumption	258	262
Number of samples of water examined chemically and found fit for human consumption	544	575
Number of samples of water examined chemically and found unfit for human consumption	218	274
Number of samples of ice examined bacteriologically and found fit for human consumption	15	24
Number of samples of ice examined bacteriologically and found unfit for human consumption .....	.....	4

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	514	128	128	24.9%	386	75.1%
Urine	469	76	76	16.2%	393	83.8%
Pleural Fluids	154	34	34	22.0%	120	78.0%
C.S.F.	135	18	18	13.3%	117	86.7%
Joint Fluids	53	6	6	11.3%	47	88.7%
Abdominal Fluids	13	6	6	46.1%	7	53.9%
*Miscellaneous Specimens	152	43	43	28.2%	109	71.8%
Total	1,490	311	311		1,179	
Sputums examined by smear only	842	96	96	11.4%	746	88.6%
Grand Total	2,332	407	407		1,925	

*Miscellaneous 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	7
Penicillin blood level	24
Streptomycin sensitivity of Mycobacterium tuberculosis isolated from cases	28
Streptomycin sensitivity of other bacteria	3
Streptomycin blood level	73
Streptomycin urine level .....	.....

TABLE 6

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

Stool and urine cultures	1,110
Blood cultures	1,751
Bloods examined by agglutination test for typhoid and related fevers, undulant fever and tularaemia	1,719

Details of Results

Source	Salmonella Typhi	S. paratyphi B.	Other Salmonella	Shigella	Negative	Total
Stool cultures	39	109	47	22	847	1,064
Urine cultures	2	5	1	.....	38	46
Blood cultures	8	10	2*	.....	.....	1,751
Duodenal drainage	1	4	.....	.....	.....	.....
Osteomyelitis	1	.....	1†	.....	.....	.....
Autopsy .....	.....	.....	1‡	.....	.....	.....
Total isolations	51	128	52	22	.....	.....
Number of cases	11	19	25	19	.....	.....
Number of carriers	4	2	.....	.....	.....	.....

*S. singapore, S. oranienberg.

†S. paratyphi C., osteomyelitis tibia.

‡S. singapore from liver abscess and intestine (Chinese).

Details of Salmonella Cases and Carriers

S. typhi cases (including 4 carriers)	15	S. singapore	3
S. paratyphi B. cases (including 2 carriers)	21	S. bredeney	1
S. typhi-murium	11	S. paratyphi C.	1
S. newport	6	Total cases	62
S. oranienberg	4		

Cultures received from Animal Sources Supplied by Dr. E. E. Ballantyne, Provincial Veterinarian

Cultures from Poultry:		From other animals:	
S. oranienberg	10	S. paratyphi B. (2 from mink)	3
S. bareilly	7	S. typhi-murium (from calf)	1
S. gallinarum	5	Unidentified	2
S. typhi-murium	4		
S. cholerae-suis	1		
Total	27		

Shigella Isolations

Sh. sonnei	12	Sh. paradysenteriae Boyd 103	1
Sh. paradysenteriae Flexner V	3	Sh. paradysenteriae Aikalescens	1
Sh. paradysenteriae Flexner Willa	2	Total cases	19

TABLE 6A

INTESTINAL PARASITES

Number of specimens examined and found negative for parasites—243.		Gross worms or portions:	
Protozoa identified:		Enterobius vermicularis	
Giardia lamblia cysts	3	Ascaris lumbricoides	7
E. coli cysts	4	Taenia saginata	3
E. histolytica cysts	4	Diphyllobothrium	1
E. nana cysts	1	"Fly Maggot" (myiasis)	1
I. butschlii	1		
	13		13
Ova:		Total	
Trichuris trichiura	1		277
"Hookworm"	1		
Chlonorchis sinensis	3		
Enterobius vermicularis	2		
Ascaris lumbricoides	1		
	8		

Many appendices showed Enterobius, but no record of numbers was kept.

TABLE 7

BLOOD AND CEREBRO-SPINAL FLUID EXAMINATIONS BY SEROLOGICAL TESTS FOR THE DIAGNOSIS OF SYPHILIS DURING THE YEAR 1948

Bloods Examined—Presumptive Kahn	74,635
Standard Kahn	9,992
Quantitative Kahn	2,815
Wassermann (Kolmer)	10,322
Cerebro-spinal fluids examined by Wassermann (Kolmer) Test	2,958
Bloods and cerebro-spinal fluids unsuitable for examination (N.S.Q., A.C., Haem., Accidentally broken)	1,492
Bloods broken and leaked in transit	303
Bloods and cerebro-spinal fluids "Positive" to reaction	2,678
Bloods and cerebro-spinal fluids "Negative" to reaction	72,538
Bloods and cerebro-spinal fluids giving "Doubtful Please Repeat" reaction	1,006
Bloods giving "Please Repeat" reaction	1,717
Bloods giving "Report as is"	149
Bloods giving "N.S.Q. Please Repeat"	298
Number of bloods and cerebro-spinal fluids examined in 1947	77,005
Number of bloods and cerebro-spinal fluids examined in 1948	77,593
Increase in number of specimens examined	588
Increase in per cent	.76%

TABLE 8

BLOOD AND CEREBRO-SPINAL FLUID EXAMINATIONS BY SEROLOGICAL TESTS FOR THE DIAGNOSIS OF SYPHILIS, BY THE MONTH, DURING THE YEAR 1948

	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	5,818	797	203	833	252	121
February	5,047	572	210	602	232	118
March	5,451	633	229	672	236	137
April	5,943	810	289	843	271	96
May	5,681	801	256	826	227	70
June	7,215	993	240	1,019	263	81
July	6,600	976	268	1,007	262	106
August	6,130	848	252	860	265	91
September	6,511	934	221	957	268	91
October	7,112	1,012	249	1,041	227	84
November	7,294	996	225	1,031	228	105
December	5,833	620	173	631	227	392
Totals	74,635	9,992	2,815	10,322	2,958	1,492

TABLE 9
PREMARITAL BLOODS SUBMITTED FOR SEROLOGICAL TESTS FOR SYPHILIS
DURING THE YEAR 1948

	Negative	Positive	Doubtful Please Repeat	Please Repeat	N.S.Q. Please Repeat	Report as is	Unsuit- able	Total
January	791	.....	3	8	3	.....	18	823
February	584	1	2	9	2	.....	25	623
March	834	5	.....	6	1	.....	25	871
April	941	11	2	8	4	.....	23	989
May	992	3	.....	8	1	1	17	1,022
June	1,796	13	7	25	.....	1	22	1,864
July	1,388	4	2	29	2	5	20	1,450
August	1,282	2	1	14	.....	3	26	1,328
September	1,220	3	2	9	.....	1	13	1,248
October	1,638	6	1	6	6	.....	21	1,678
November	1,471	3	2	7	3	3	29	1,518
December	894	4	1	6	1	.....	99	1,005
Total	13,831	55	23	135	23	14	338	14,419

TABLE 10
SEROLOGICAL TESTS FOR SYPHILIS DONE FOR THE MILITARY AUTHORITIES
DURING THE YEAR 1948

	Airforce	Army	Navy	Total
Wassermanns:				
Bloods	39	10	.....	49
C.S.F.	2	12	.....	14
Kahns:				
Presumptive	1,747	368	.....	2,115
Standard	38	10	.....	48
Quantitative	4	4	.....	8
Total	1,830	404	.....	2,234

TABLE 11
SERA AND VACCINE DISTRIBUTED—JANUARY 1948 TO DECEMBER 1948

	Total 1947	Total 1948
Smallpox Vaccine:		
1 point	2,172	2,022
10 points	4,114	4,402
Diphtheria Antitoxin, in syringe:		
1,000 units	457	453
5,000 units	94	89
20,000 units	343	295
Diphtheria Toxoid:		
1 person	4,073	3,712
3 c.c.	630	287
6 c.c.	801	640
Diphtheria Toxoid and Pertussis (combined):		
1 person (3x2 c.c. ampoules)	8,557	6,128
6 persons (6x6 c.c. ampoules)	1,872	1,193
Diphtheria Toxoid and Pertussis (combined), new:		
1 person (4x1 c.c. ampoules)	784	4,394
9 persons (6x6 c.c. ampoules)	179	1,008
Schick Test: 25 persons	517	487
Scarlet Fever Antitoxin:		
3,000 units (syringe)	292	98
9,000 units (vial)	82	152
9,000 units (syringe)	105	144
Scarlet Fever Toxin:		
Strength "A"—30 doses (large)	69	106
Strength "B"—30 doses (large)	169	271
Strength "C"—30 doses (large)	88	110
Strength "D"—30 doses (large)	90	131
Strength "E"—30 doses (large)	262	183
1 person	2,694	2,807
6 persons	1,809	1,605
3 c.c. (Tannic Acid Precipitated)	100	400
Dick Test: 10 persons	610	663
Tetanus Toxoid: 1 person	185	185
Tetanus Antitoxin:		
1,500 units	561	663
5,000 units	17	11
10,000 units	30	13
Pertussis Vaccine:		
1 person (3x2 c.c. ampoules)	3,618	1,997
6 persons (6x6 c.c. ampoules)	429	331

SERA AND VACCINE DISTRIBUTED DURING THE YEAR 1948

	Total 1947	Total 1948
Pertussis Vaccine, new:		
1 person (4x1 c.c. ampoules).....	298	1,975
9 persons (6x6 c.c. ampoules).....	11	331
Staphylococcus Toxoid: 2 c.c. vial.....	226	213
Staphylococcus Antitoxin:		
10,000 units.....	2	5
20,000 units.....		
Gas Gangrene Antitoxin:		
4,000 units.....	110	163
10,000 units.....	94	86
Typhoid-Paratyphoid Vaccine:		
1 person.....	602	585
10 c.c.....	1,207	1,208
Anti-Measles Serum: 5 c.c.....	808	1,171
Diluted Diphtheria Toxoid:		
1 person.....	9	8
2½ c.c. (Reactors).....		1
Anti-H. Influenza Serum: Type B (Serum-Rabbit).....	5	3
T.A.B.T. Vaccine: 3 c.c.....		58
Rocky Mountain Spotted Fever Vaccine: 1 c.c.....		878
Other Vaccines:		
Autogenous Vaccine, 25 c.c. bottle.....	35	40
Stock Vaccine, 25 c.c. bottle.....	11	3

TABLE 12

AMOUNT OF AUTOGENOUS AND OTHER VACCINE PREPARED AND DISTRIBUTED DURING THE YEAR 1948

	Total, 1947	Total, 1948	Increase	Decrease
Autogenous Vaccine (25 c.c. quantity).....	35	40	5	
Stock Vaccine (25 c.c. quantity).....	11	3		8
	46	43		

TABLE 13

COMMERCIAL VALUE OF WORK IF MINIMUM CHARGE WERE MADE, 1948

Sputum Examinations.....	768	\$ 1.00	\$ 768.00
Diphtheria and Haemolytic Streptococci.....	3,713	1.00	3,713.00
Typhoid Fever (Agglutination tests).....	1,698	1.00	1,698.00
Milk.....	1,278	3.00	3,834.00
Water.....	4,608	10.00	46,080.00
Guinea pig inoculations.....	1,886	3.00	5,658.00
Miscellaneous Bacteriology.....	6,805	3.00	20,415.00
Blood cultures.....	764	3.00	2,292.00
Enterobacteria and Intestinal Parasites.....	1,362	3.00	4,086.00
Urinalysis.....	10	1.00	10.00
Medico-Legal (Blood, seminal, etc.).....	5	5.00	25.00
Cerebro-Spinal Fluids for Wassermann Test.....	2,958	1.00	2,958.00
Bloods for the Quantitative Kahn Test.....	2,815		
Bloods for Wassermann Test.....	10,322	1.00	10,322.00
Bloods for Standard Kahn Test.....	9,992	1.00	9,992.00
Bloods for Presumptive Kahn Test.....	74,635	1.00	74,635.00
Smears for the Gonococcus.....	14,202	1.00	14,202.00
Cultures for Gonococcus.....	2,897	1.00	2,897.00
Van Den Bergh Determination.....	189	1.00	189.00
Pathological Histological material.....	11,089	5.00	55,445.00
Blood Smear Examinations.....	230	2.00	460.00
Ascheim-Zondek Tests.....	472	5.00	2,360.00
Comparative Series.....	8	3.00	24.00
Fluids for Cancer Cells.....	116	5.00	580.00
Bone Marrows.....	56	5.00	280.00
Cerebro-Spinal Fluid Examinations (Colloidal Gold, Pandy).....	3,233	2.00	6,466.00
Bacteriological Examinations (P.M.).....	159	5.00	795.00
Agglutination Test:			
B. abortus Examinations.....	1,719	.50	859.50
B. tularensis Examinations.....	1,698	.50	849.00
B. melitensis (Agglutination Test).....	3	.50	1.50
Cattle Blood (Bang's Disease Agglutination Test).....	1,046	.10	104.60
Autogenous Vaccine.....	40	5.00	200.00
Stock Vaccine.....	3	3.50	10.50
Total.....			\$272,209.10

Report of Routine Mycology carried out at the Provincial Laboratory during the year 1948.

The tissues and exudates of 300 patients were examined for the presence of fungi, and in 83 of them pathogenic fungi were demonstrated.

Sanitary Engineering Division

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

The post-war economic prosperity which prevailed throughout 1948 continued to create new sanitation problems as quickly as old ones were solved. The continued high rate of building made it very difficult for communities to provide water and sewer service and for plumbers to install the necessary plumbing facilities. In communities without water or sewerage facilities, the building boom created greater problems in the disposal of sewage and refuse, etc. The increased interest of the general public in sanitation was gratifying to those who understand its public health significance, but it greatly increased the demands on the small staff of the division.

Mr. A. L. Milligan, Chief Plumbing Inspector, who had been with the division since April, 1938, retired on October 31st. Mr. Milligan first organized the plumbing inspection service of the division in 1938, and was in no small way directly responsible for a very much improved standard of work and consequent protection of the public health which has been evident since that time.

It is expected that four additional sanitary inspectors approved under the Dominion Public Health Grants programme, will be appointed early in 1949 and located in different areas of the Province.

The tourist camp inspection and classification programme which was inaugurated in 1947 in co-operation with the Department of Trade and Industry was carried out through the summer of 1948. There were 151 inspections made in connection with this programme, and a very great improvement in the sanitation as well as accommodation was effected during the year. In connection with the sanitation, particular attention was paid to assuring a proper safe water supply for each tourist camp as well as satisfactory methods of sewage and waste disposal.

During the year there were 235 complaints and requests for inspections which resulted in inspections being carried out on new cemeteries, waste disposal ground sites, restaurants, dairy farms, milk plants, and bakeshops.

The proper sanitary control of milk supplies not looked after by health units or cities with health departments continued to be a major problem in 1948. Close co-operation was maintained at all times with the Dominion and Provincial Departments of Agriculture in the control of diseases of cattle transmissible to man. The Dairy Branch of the Department of Agriculture was very co-operative in collecting milk samples when requested, and kept the division well informed of any inspections and reports they made on dairy plants or supply farms. Six pasteurizing plants were added to those already in operation.

The condition of eating establishments in the Province continued to be a source of trouble. The public, because of considerable publicity given by the press, have become well aware of the need for improved sanitary conditions, and many complaints have been received from tourists as well as native Albertans. It is felt that

the routine inspection service which it is proposed to inaugurate will greatly improve the existing conditions.

Copies of reports on 2,221 bacteriological and 694 chemical analyses carried out on water samples by the Provincial Laboratory were sent to the division. In cases where tests indicated that the water was dangerous to drink, persons concerned were advised as to what steps to take to protect their supplies.

The use of hydrocyanic acid gas for disinfestation is controlled by regulations administered by the division. Since the advent of D.D.T., the use of hydrocyanic acid gas has decreased considerably, and only seven certificates were issued to disinfestors in the Province allowing them to use this gas.

The activity in the waterworks and sewerage construction fields continued at an unprecedented rate. The Towns of Leduc, Olds, Peace River and Three Hills undertook construction of water and sewer systems. Bow Island, Granum and Fairview installed water systems. The Village of Penhold completed its sewer system. Its waterworks system was completed the previous year. With the shortage of trained and experienced men, the operation of many of the new and even old waterworks and sewerage systems is not being carried out in the best interests of public health and economy. It is necessary to provide more professional supervision over the operation of these utilities, and to give even a minimum of this supervision it would be necessary to appoint at least one additional sanitary engineer to the staff.

The following certificates were issued by the Provincial Board of Health in 1948, covering waterworks, sewage works and hospital construction:

1. City of Calgary, Certificate No. 588-48. Extension to Sewerage Works. Estimated cost, \$90,000.00.
2. Town of Athabasca, Certificate No. 589-48. Replacement and Addition to Waterworks System. Estimated cost, \$76,000.00.
3. Town of St. Paul, Certificate No. 590-48. Proposed Sewerage System. Estimated cost, \$76,000.00.
4. Town of Nanton, Certificate No. 591-48. Proposed Water System. Estimated cost, \$97,937.00.
5. Devon Estates, Certificate No. 592-48. Proposed Sewerage System. Estimated cost, \$16,000.00.
6. Town of Camrose, Certificate No. 593-48. Extension of Sewerage System. Estimated cost, \$5,102.00.
7. Town of Leduc, Certificate No. 594-48. Proposed Waterworks. Estimated cost, \$31,600.00.
8. Town of Leduc, Certificate No. 595-48. Proposed Sewerage System. Estimated cost, \$28,000.00.
9. Town of Rimbey, Certificate No. 596-48. Proposed Waterworks System. Estimated cost, \$67,965.00.
10. Town of Rimbey, Certificate No. 597-48. Proposed Sewerage System. Estimated cost, \$48,915.00.
11. City of Lethbridge, Certificate No. 598-48. Proposed Storm Sewers. Estimated cost, \$30,688.00.
12. City of Calgary, Certificate No. 599-48. Proposed Sewer Extensions. Estimated cost, \$153,420.00.
13. Devon Estates, Certificate No. 600-48. Proposed Waterworks. Estimated cost, \$167,673.00.
14. Town of Daysland, Certificate No. 601-48. Proposed Sewerage System. Estimated cost, \$38,500.00.
15. City of Calgary, Certificate No. 602-48. Proposed Sewer Extensions. Estimated cost, \$21,500.00.

16. City of Calgary, Certificate No. 603-48. Sewer Extensions. Estimated cost, \$36,000.00.
17. Town of Hanna, Certificate No. 604-48. Proposed Water Supply and Treatment Works. Estimated cost, \$100,000.00.
18. Town of Three Hills, Certificate No. 605-48. Water and Sewer Extensions. Estimated cost, \$9,129.00.
19. Village of Fairview, Certificate No. 606-48. Water Supply Project. Estimated cost, \$30,000.00.
20. Devon Estates, Certificate No. 607-48. Storm Sewer System. (No definite cost.)
21. City of Calgary, Certificate No. 608-48. Proposed Sewer Extensions. Estimated cost, \$9,000.00.
22. Town of Grande Prairie, Certificate No. 609-48. Proposed Water and Sewer Extensions. Estimated cost, \$68,343.00.

The plumbing inspection work carried out by the division continued to increase over the previous years. The magnitude of the increase is indicated by the yearly revenues, which were as follows for the years 1945, 1946, 1947, and 1948 respectively: \$2,008, \$2,928, \$5,237, and \$6,732. On this basis, the plumbing inspection work carried out by the division in 1948 was 3.35 as much as was done in 1945, which at the time was considered to be a busy year. In order to increase the efficiency of the inspection work, the co-operation of public works foremen in many of the towns has been obtained in reporting any installations being made and in some cases assisting in the inspection work. Such arrangements have greatly increased the efficiency of the plumbing inspection work.

A breakdown of the plumbing inspection work in the Province is as follows in Tables 1 and 2:

TABLE 1

Inspections Made	New Construction Total No. Fixtures	Reconstruction and Extensions	Permits Granted	Charges Made
Provincial	5,351	52	1,010	\$ 6,732.50
Edmonton	9,586	1,596	1,928	8,450.00
Calgary	4,697	76	1,674	7,065.50
Lethbridge	1,826	429	313	701.25
Medicine Hat	1,274	126	207	535.00
Drumheller	24	8	14	96.00
Red Deer	579	28	107	161.00
High River	83	41	26	.....
Claresholm	37	3	11	22.00
Hanna	15	.....	19	57.00
Grande Prairie	45	2	13	30.50
Banff	532	34	47	187.50
Jasper (not reported) .....	.....	.....	.....	.....
Waterton	24	3	6	12.00
Total	24,073	2,398	5,375	\$24,050.25

TABLE 2

Location	W.C.	Lavatory Basin	Showers and Bath	Sinks	Laundry Tubs	Special Fixtures	Septic Tanks	Outside Toilets Eliminated
Provincial	1,430	1,726	989	929	62	275	439	497
Edmonton	2,947	3,074	2,276	2,431	96	258	14	36
Calgary	1,230	1,222	1,086	1,200	2	33	.....	.....
Lethbridge	553	520	384	415	3	380	.....	62
Medicine Hat	422	347	256	330	4	41	2	47
Drumheller	10	9	6	7	.....	.....	.....	.....
Red Deer	170	186	93	129	5	24	4	9
High River	29	47	19	23	2	4	1	12
Claresholm	12	10	7	9	.....	2	2	3
Hanna	5	5	2	3	.....	.....	.....	5
Grande Prairie	15	15	8	8	1	.....	.....	9
Banff	152	164	57	61	11	38	.....	.....
Jasper (not reported) .....	.....	.....	.....	.....	.....	.....	.....	.....
Waterton	6	8	3	6	.....	4	6	2
Totals	6,981	7,343	5,186	5,551	186	1,059	468	683

Hospital and Medical Services Division

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

The year 1948 did not see the opening of any new hospitals in the Province. However a considerable number of our hospitals have added or are adding to their existing bed capacity.

The number of nurses in the Province continues much the same as in previous years. There is a lack of possibly 200 to 300 nurses. The School of Nursing Aides in Calgary as of December 31, 1948, had certified 188 Aides and at that time there were 67 in training. This to a minor extent will help to compensate for the lack of nurses as mentioned above.

Approved Hospitals.

The approved hospitals in the Province are divided as follows:

	1948	1947
Catholic	31	32
Protestant	6	6
Municipal	46	45
Municipally Operated	7	8
Industrial	4	6
Service Group	2	2
Lay Corporation	2	2
University	1	1
	<hr/>	<hr/>
	99	102

The difference between the number of hospitals in 1947 and in 1948 is accounted for by the fact that the hospital at Wayne is closed and the Isolation Hospitals in Edmonton and Calgary are not listed as separate from the city hospitals.

Private Hospitals.

In 1948 there was again a decrease in the number of Private Hospitals, with a total of 24 licensed under the Act.

Statistics.

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

- (1) Bed capacity, bed complement, patients under care during year, admissions, discharges, deaths and stillbirths.
- (2) Patient days, patients discharged or died, average stay in hospital, and 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 tables are enclosed herewith. The totals for the year 1947 are also shown for comparative purposes.

DEPARTMENT OF PUBLIC HEALTH

HOSPITAL BEDS

	1948		1947	
	Capacity	Complement	Capacity	Complement
Adult beds	4,371	4,791	4,602	4,654
Cribs	532	646	549	663
Bassinets	889	1,063	902	1,014
	<u>5,792</u>	<u>6,500</u>	<u>6,053</u>	<u>6,331</u>
Beds per thousand population (excluding Bassinets)	5.8	6.5	6.3	6.5
Patients accommodated per bed per year .....	.....	26.1	.....	25.5

PATIENT DAYS

	1948	1947
Adults and children	1,408,337	1,377,193
Newborn	201,935	218,632
All patients	1,610,272	1,595,825

PATIENTS UNDER CARE DURING THE YEAR

	1948	1947
Adults and children	147,656	139,085
Average stay	9.7	9.1
New born	22,572	22,374
Average stay	9.2	9.7
Total	170,228	161,459
Average stay	9.6	9.1
Average in hospital daily	4,417	4,372
% of population in hospital daily .....	.52	.53
% of population admitted per year	20.1	18.8

STAFF

	1948	1947
Administration:		
Executive	131	122
Clerical	307	284
Professional:		
Salaried doctors	21	35
Internes	89	37
Technicians	135	116
Nurses:		
Graduate	960	920
Student	904	862
Probationers	284	208
Affiliates	41	25
Total	<u>2,189</u>	<u>2,015</u>
Dietitians:		
Graduate	25	24
Student	13	14
Orderlies and ward helpers	561	590
Other employees	1,697	1,464
Total Staff	<u>5,168</u>	<u>4,701</u>

BIRTHS

	1948	1947
Births (excluding Indians) in approved hospitals	22,110	21,823
Total stillbirths	349	373
Percentage of births in hospitals to total births in Province (excluding Indians)	96.6	93.1

NURSES IN TRAINING

	1948	1947
Number of schools	10	10
Number graduated	315	275

FINANCIAL

	1948	1947
Total operating revenue	\$10,585,077.46	\$8,783,193.46
Total operating cost	10,363,011.54	8,784,464.07
Revenue per patient day	6.56	5.50
Cost per patient day	6.42	5.50
Salaries and wages	45.94%	47.02%
Supplies	36.88%	36.52%
Purchased services	3.50%	4.50%
Insurance .....	.97%	.93%
Depreciation	3.80%	3.58%
Repairs and replacements	4.90%	4.29%
Interest and exchange	2.19%	1.73%
Miscellaneous	1.82%	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.	Total	Adults and Children	Newborn	Adults and Children	Newborn	Adults and Children		Newborn		
	Adult	Cribs	Bassnets	Adult	Cribs	Bassnets															Total	
							Adults and Children	Newborn	Adults and Children	Newborn	Adults and Children	Newborn	Adults and Children	Newborn	Adults and Children	Newborn	Adults and Children	Newborn				
Athabasca, Municipal	24	3	8	35	31	3	5	39	412	575	83	74	495	649	1,144	971	155	958	153	12	2	3
Banff, Mineral Springs	40	1	6	47	78	4	82	4	408	458	28	29	436	487	923	801	55	787	54	8	3	3
Barrhead, St. Joseph's	20	4	8	32	30	4	10	44	435	647	107	97	542	744	1,286	1,067	201	1,044	196	11	6	3
Bassano, Municipal	24	2	6	32	25	2	6	33	99	138	16	24	115	162	277	224	40	214	39	18	4	4
Beaverlodge, Municipal	9	...	6	15	10	2	6	18	186	383	57	49	243	432	675	557	105	544	102	18	3	...
Bentley, Municipal	7	...	4	11	10	3	13	26	175	257	15	29	190	286	476	327	43	323	44	3	...	...
Berwyn, Municipal	11	...	4	15	13	1	5	19	179	227	31	40	210	267	477	394	68	391	70	8	...	3
Bonnyville, K. H. P.	8	...	5	6	19	12	5	19	155	258	34	42	189	300	489	405	73	400	69	4	5	...
Bonnyville, St. Louis	26	5	6	37	34	6	8	48	407	638	75	77	482	715	1,197	1,036	151	1,020	145	5	2	4
Brooks, Municipal	27	4	6	37	28	6	9	43	472	720	126	102	598	822	1,420	1,174	226	1,150	216	16	9	2
Cadomin, General	9	...	3	14	8	2	3	13	90	130	26	19	116	149	265	217	44	218	41	1	3	2
Calgary, General	295	27	60	382	293	27	60	380	3,719	6,406	866	795	4,585	7,201	11,786	9,880	1,623	9,479	1,565	410	54	38
Calgary, Holy Cross	268	27	33	328	242	27	48	317	3,224	5,830	918	869	4,142	6,999	10,841	8,846	1,754	8,589	1,704	244	34	30
Calgary, Isolation	...	...	...	50	...	...	...	60	65	70	...	...	65	70	135	130	122	122	...	3	...	...
Calgary, Junior Red Cross	...	...	...	50	...	...	...	60	81	88	...	...	81	88	169	114	...	121	...	...	...	...
Calgary, Salvation Army Grace	25	...	28	53	25	...	28	53	507	855	236	240	236	747	983	485	455	502	468	...	...	6
Camrose, St. Mary's	44	4	12	60	55	4	17	76	1,006	1,663	205	185	1,211	1,848	3,059	2,632	379	2,587	377	48	2	4
Canmore, Canmore Hospital	10	1	3	14	12	2	4	18	179	181	10	21	189	202	391	357	31	351	30	6	1	...
Cardston, Municipal	22	2	8	32	29	3	9	41	397	774	99	101	496	875	1,371	1,163	199	1,127	188	29	9	4
Carmanagay, Little Bow Municipal	18	2	3	23	16	2	4	22	131	194	17	21	148	215	363	317	37	316	35	4	2	...
Castor, Our Lady of the Rosary	23	2	8	33	28	2	8	38	341	384	37	36	378	420	798	716	70	691	66	22	1	1
Cereal, Municipal	9	...	3	12	11	1	5	17	94	139	25	13	119	152	271	227	37	224	34	5	3	...
Clareholm, Municipal	25	...	6	31	28	2	6	36	414	663	59	55	473	718	1,191	1,058	111	1,036	109	22	2	2
Cold Lake, John Neil	18	3	6	27	18	4	6	28	85	204	32	33	117	237	354	286	63	279	64	3	...	...
Coleman, Miners' Union	13	1	...	14	12	1	13	13	199	185	...	...	199	185	384	377	...	375	...	6	...	...
Consort, Municipal	20	2	8	30	24	2	8	34	180	271	29	31	209	302	511	441	60	427	59	12	2	2
Coronation, Municipal	16	2	3	21	18	2	6	26	198	271	39	34	237	305	542	467	73	455	68	3	2	2
Daysland, Providence	20	4	6	30	20	4	6	30	198	298	28	41	226	339	565	489	67	483	66	7	2	...
Desmarais, St. Martin's	18	2	2	22	14	1	1	16	15	50	5	3	20	53	73	65	8	64	8	1	1	1
Didsbury, Municipal	25	...	7	32	23	2	10	35	255	425	62	58	317	483	800	668	117	654	116	7	1	...
Drumheller, Municipal	82	4	10	96	80	6	14	100	1,067	1,390	178	192	1,245	1,582	2,827	2,401	362	2,362	354	53	6	4
Eckville, Municipal	16	2	6	24	16	3	8	27	369	539	52	52	421	591	1,012	888	103	883	97	12	3	...
Edmonton, Beulah Home	10	4	8	22	10	4	8	22	120	120	70	50	70	170	240	114	114	118	118	118	118	...
Edmonton, General	357	34	25	416	357	34	25	416	2,857	4,168	419	376	3,276	4,544	7,820	6,874	780	6,720	762	156	20	9

TABLE No. 1—Continued

Hospitals	Bed Capacity			Bed Complement			Patients Under Care During Year						Admissions		Discharges		Deaths		Stillbirths
	Adult	Crib	Bassinets	Adult	Crib	Bassinets	Total	Adults and Children		Newborn		Total	Adults and Children	Newborn	Adults and Children	Newborn	Adults and Children	Newborn	
								M.	F.	M.	F.								
								Total		Total									
(a) T.B. Division	201	45	64	310	226	18	62	306	165	192	839	921	1,728	197	33	56	24	33	24
Edmonton, Misericordia	385	103	80	568	457	103	80	640	3,004	5,907	1,208	1,382	1,728	8,624	1,664	126	56	24	33
Edmonton, Royal Alexandra									4,838	8,225	351	451	2,547	12,432	2,490	315	49	48	48
(a) Isolation									351	451	377	413	776	46	18	15	18	15	15
(b) T.B. Division									40	53	377	413	8,244	8,042	765	198	12	4	4
Edmonton, University of Alberta	574	19	33	626	596	19	30	645	4,595	3,882	1,516	35	1,409	1,405	35	35			
(a) D.V.A.									139	154	139	154	256	262					
(b) Polio									31	31			31	9					
(c) T.B.									539	576	100	86	1,093	183	1,071	175	20	5	4
Edson, St. John's	34	3	5	42	32	3	5	40	625	676	74	631	1,390	1,390	146	23	5	1	3
Elk Point, Municipal	29	10	39	42	7	10	59	59	74	631	28	135	256	61	243	58	7	3	3
Elnora, Municipal	15		6	21	15	4	6	25	101	158	32	19	349	49	630	50	8	1	1
Empress, Municipal	19	2	4	25	20	5	25	25	317	336	76	446	614	1,060	899	138	897	137	14
Fairview, Community	13	5	5	18	13	1	5	19	380	538	66	76	446	614	1,060	899	138	897	137
Ft. McMurray, St. Gabriel's	14	4	4	22	16	5	7	28	215	273	31	31	246	304	550	475	62	466	58
Ft. Vermillion, St. Theresa	9		4	13	8	2	4	14	80	148	24	24	104	163	267	228	39	218	39
Galahad, St. Joseph's	25	3	6	34	18	8	8	34	326	451	27	37	353	488	841	771	61	756	58
Grande Prairie, Municipal	33	6	6	42	42	2	16	60	665	1,012	141	128	806	1,140	1,946	1,650	268	1,617	254
Hanna, Municipal	31	4	9	44	30	3	9	42	218	291	83	49	301	340	641	493	127	473	128
Hardisty, St. Anne's	20	1	7	28	20	2	8	30	282	356	34	40	316	396	712	630	73	614	67
High Prairie, Providence	33	8	12	53	49	9	12	70	1,003	1,312	150	117	1,153	1,429	2,582	2,277	260	2,234	256
High River, Municipal	48	9	15	72	46	7	15	68	689	974	110	108	799	1,082	1,881	1,641	214	1,585	210
Innisfail, Municipal	33	3	6	42	36	3	8	47	323	498	79	77	402	575	977	800	147	783	148
Islay, Municipal	10		4	14	4	2	2	8	150	181	23	23	4	173	185	327	27	25	5
Jasper, Seton	15	4	4	19	15		15	15	195	138	20	21	215	159	374	329	41	219	39
Killam, General	16	1	4	21	25	5	8	38	338	581	68	67	406	648	1,054	905	131	893	131
Lacombe, Municipal	23	2	10	35	30	3	11	44	405	909	117	129	522	1,038	1,560	1,263	241	1,263	238
Lac la Biche, St. Catherine's	18	5	8	31	25	11	8	44	407	649	93	83	500	732	1,232	1,031	170	1,021	165
Lamont, Public	64	8	10	82	84	12	12	108	1,097	1,488	94	101	1,191	1,589	2,780	2,542	189	2,504	187
Lethbridge, Galt	84	8	8	100	98	8	17	123	1,350	2,187	254	241	1,604	2,428	4,032	3,459	486	3,357	465
Lethbridge, St. Michael's General	86	12	18	116	109	21	40	170	1,921	2,788	291	274	2,212	3,062	5,274	4,639	556	4,543	537
Lethbridge, Isolation	16			16	14	2		16	8	8			8	8	16	16		13	
Macleod, Municipal	14		6	20	14		6	20	191	236	27	34	218	270	488	443	61	410	58
McLennan, Sacred Heart	25	4	4	33	27	8	8	43	506	755	99	105	605	860	1,465	1,228	195	1,234	192

Magrath, Municipal	8	4	15	8	15	4	19	139	195	28	27	158	222	380	320	53	314	50	5	1	
Manning, Battle River	10	4	12	14	12	5	19	148	160	31	36	179	196	375	405	67	394	65	6	1	
Mannville, Municipal	21	3	5	29	18	5	28	215	358	58	41	273	399	672	558	103	561	99	7	1	
Mayerthorpe, Municipal	20	6	8	34	23	6	11	40	223	369	57	48	280	697	578	103	581	99	4	2	
Medicine Hat, General	106	12	10	128	137	16	35	1,889	2,774	364	365	2,253	3,139	5,392	4,575	715	4,473	699	108	12	
Medicine Hat, Isolation	11	4	11	11	11	4	188	1,889	2,774	364	365	2,253	3,139	5,392	4,575	715	4,473	699	108	12	
Mundare, General	24	2	4	30	22	4	4	304	455	20	26	324	481	805	751	44	726	44	17	2	
Myrnam, Municipal	17	1	3	21	15	1	5	259	357	40	25	299	382	681	601	63	598	63	10	1	
Nordegg, General	13	3	17	14	14	1	18	107	87	19	24	126	111	237	187	42	188	43	6	1	
Olds, Municipal	19	2	5	26	19	2	6	201	439	82	90	283	529	812	630	170	601	167	21	4	
Oyen, Municipal	15	2	5	22	15	3	5	128	196	25	19	153	215	368	316	41	305	42	6	1	
Peace River, Municipal	20	4	24	24	24	7	33	391	546	56	50	447	596	1,043	918	103	892	98	25	5	
Pincher Creek, St. Vincent's	23	2	9	34	27	2	9	423	546	44	61	467	609	1,076	950	103	928	97	22	2	
Ponoka, Municipal	26	4	10	40	24	4	9	363	599	86	115	449	714	1,163	947	198	936	198	9	3	
Provost, Municipal	20	2	8	30	20	2	8	160	313	46	47	206	360	566	458	88	458	89	7	2	
Radway, St. Joseph's	14	6	20	20	20	1	6	203	437	81	73	284	510	794	631	153	624	141	5	7	
Raymond, Municipal	15	3	5	23	16	3	7	165	279	50	51	215	330	545	441	100	425	98	12	4	
Red Deer, Municipal	50	2	11	63	71	5	12	887	1,506	219	205	1,066	1,711	2,777	2,312	415	2,254	406	46	7	
Rimbye, St. Paul's	18	1	9	28	21	3	6	285	374	44	49	329	423	752	651	93	632	92	15	8	
Rocky Mountain House, Municipal	20	2	6	28	20	2	5	320	471	61	59	381	530	911	775	118	760	111	15	6	
Spirit Lake, George McDougall	11	4	6	21	16	3	6	188	272	33	35	221	307	528	450	66	443	65	5	3	
Spirit River, Holy Cross	14	3	4	21	24	8	6	339	351	29	34	368	385	753	682	63	659	60	16	2	
Stettler, Municipal	31	2	6	39	36	4	10	609	1,108	111	136	720	1,254	1,964	1,682	244	1,642	236	41	9	
St. Paul, St. Theresa	33	2	5	40	45	8	12	722	1,128	147	128	869	1,256	2,125	1,832	272	1,802	257	19	7	
Taber, Municipal	27	4	31	29	29	6	8	484	739	100	113	584	852	1,436	1,197	204	1,182	207	20	3	
Tofield, Municipal	23	5	28	19	4	5	28	354	474	50	36	404	510	914	819	86	808	82	10	3	
Trochu, St. Mary's	22	6	28	20	2	6	28	228	393	58	65	286	458	744	612	121	600	117	11	4	
Turner Valley, Oilfields General	8	5	8	21	18	2	8	245	322	46	52	291	374	665	559	97	542	94	8	6	
Two Hills, Municipal	25	7	32	21	5	10	36	291	473	44	50	335	523	858	755	93	753	91	4	1	
Vegreville, General	82	5	14	101	70	9	16	779	1,350	109	108	888	1,458	2,346	2,097	212	2,063	198	30	9	
Vermilion, Municipal	33	3	6	42	40	2	10	466	625	73	94	539	719	1,258	1,080	165	1,049	160	29	1	
Viking, Municipal	24	2	4	30	21	3	7	260	350	41	49	301	399	700	599	88	585	83	14	5	
Vilna, Our Lady's	13	4	3	20	15	3	4	115	292	41	51	156	343	499	399	90	396	91	7	2	
Vulcan, Municipal	16	8	24	19	2	6	27	321	376	44	67	365	443	808	691	107	671	104	12	5	
Wainwright, Municipal	17	2	5	24	40	11	10	413	622	83	77	496	699	1,195	1,016	157	989	155	22	3	
Westlock, Immaculata	26	4	8	38	38	6	9	884	1,224	156	146	1,040	1,370	2,410	2,070	293	2,052	290	28	8	
Wetaskiwin, Community	43	3	13	59	41	6	15	864	1,274	174	169	1,038	1,443	2,481	2,099	333	2,054	324	46	9	
Willingdon, General	24	5	2	31	25	6	6	241	353	38	33	279	386	665	576	69	572	68	13	3	
Total	4,371	532	889	5,792	4,791	646	1,063	6,500	59,564	88,092	11,548	11,024	71,112	99,116	170,228	144,389	22,110	141,073	21,538	3,132	530
Less D.V.A., Orthopaedic, Pollio, and T.B. Division Cases	528	90	618	618	618	618	618	1,941	553	553	553	1,941	553	2,494	2,094	2,040	2,040	91	91	91	91
	3,843	442	889	5,174	4,791	646	1,063	6,500	57,623	87,539	11,548	11,024	69,171	98,563	167,734	142,295	22,110	139,033	21,538	3,041	530

N.B.—Not included: Blairmore, Hythe, Three Hills
Bed Capacity: 62 9 25

TABLE No. 2

Hospitals	TOTAL OF ALL PATIENT DAYS										Occu- pancy
	Total of all Patients, 1948		Total Patients Discharged or Died		Average Stay of Patients Dis- charged or Died		Total		Total		
	Adults and Children	Newborn	Adults and Children	Newborn	Adults and Children	Newborn	Adults and Children	Newborn	Adults and Children	Newborn	
	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	
Athabasca, Municipal	5,794	1,368	7,162	5,855	1,374	7,229	6.0	8.9	6.4	55.5	
Banff, Mineral Springs	25,351	4,226	25,777	26,542	434	26,976	33.4	7.6	31.7	168.2	
Barrhead, St. Joseph's	7,696	1,902	9,598	7,843	1,908	9,751	7.4	9.4	7.8	87.5	
Bassano, Municipal	3,743	406	4,149	3,501	408	3,909	15.1	10.5	14.4	38.4	
Beaverlodge, Municipal	3,386	570	3,956	3,395	571	3,966	6.0	5.4	5.9	100.0	
Bentley, Municipal	2,487	355	2,842	2,314	358	2,672	5.4	8.1	5.7	85.7	
Berwyn, Municipal	3,232	751	3,983	3,278	759	4,037	8.2	10.8	8.6	72.7	
Bonnyville, K. H. P.	3,297	696	3,993	3,041	692	3,733	7.5	9.3	7.8	69.2	
Bonnyville, St. Louis	9,692	1,744	11,436	9,518	1,727	11,245	9.3	11.7	9.6	83.8	
Brooks, Municipal	7,569	1,563	9,132	7,533	1,561	9,094	6.5	6.9	6.5	64.5	
Cadomin, General	1,124	382	1,506	1,119	385	1,504	5.1	8.6	5.7	27.2	
Calgary, General	104,492	16,466	120,958	103,376	16,665	120,041	10.4	10.3	10.4	101.4	
Calgary, Holy Cross	89,198	15,965	105,163	85,840	15,914	101,754	9.7	9.6	9.6	82.7	
Calgary, Isolation	1,862	1,862	1,862	1,808	1,808	1,808	14.5	14.5	14.5	10.0	
Calgary, Junior Red Cross	21,107	21,107	21,107	26,551	26,551	26,551	219.4	219.4	219.4	114.0	
Calgary, Salvation Army Grace	5,438	4,089	9,527	5,364	4,216	9,780	11.1	8.9	10.1	56.0	
Canrose, St. Mary's	15,982	3,551	19,533	16,007	3,557	19,564	6.1	9.4	6.5	89.5	
Canmore, Canmore	2,079	155	2,234	1,998	155	2,153	5.6	5.0	5.5	45.4	
Cardston, Municipal	6,776	1,634	8,410	6,722	1,624	8,346	5.8	8.2	6.2	75.0	
Cardangay, Little Bow Municipal	2,550	301	2,851	2,548	293	2,841	8.0	7.9	8.0	30.0	
Castor, Our Lady of the Rosary	4,667	719	5,386	4,799	704	5,503	6.6	10.5	6.9	48.0	
Cereal, Municipal	2,167	363	2,530	2,369	261	2,630	10.3	7.0	9.9	55.5	
Claresholm, Municipal	9,592	1,197	10,789	9,358	1,197	10,555	8.8	10.7	9.0	104.0	
Cold Lake, John Neil	1,749	582	2,331	1,702	586	2,288	6.0	9.1	6.6	14.2	
Coleman, Miners' Union	2,768	2,768	2,768	2,745	2,745	2,745	7.2	7.2	7.2	50.0	
Consort, Municipal	5,805	614	6,419	6,988	609	7,597	15.9	10.3	15.2	63.6	
Coronation, Municipal	7,229	4,951	12,180	7,177	4,887	12,064	9.2	10.2	9.2	61.1	
Daysland, Providence	3,786	636	4,422	3,769	636	4,405	7.7	9.4	7.9	41.6	
Desmarais, St. Martin's	569	61	630	569	61	630	8.8	7.6	8.6	5.0	
Didbury, Municipal	6,093	1,190	7,283	5,771	1,193	6,964	8.7	10.2	8.9	64.0	
Drumheller, Municipal	21,166	2,844	24,010	21,023	2,807	23,830	8.7	7.8	8.6	66.2	
Eckville, Municipal	5,302	834	6,136	5,185	801	5,986	5.8	8.0	6.0	77.7	
Edmonton, Beulah Home	2,189	2,265	4,454	2,230	2,306	4,536	18.9	19.5	19.2	35.7	
Edmonton, General	67,072	6,764	73,836	69,198	6,709	75,907	10.0	8.6	9.9	79.8	
(a) T.B. Division	46,889	46,889	46,889	50,511	50,511	50,511	214.9	214.9	214.9	8.8	
Edmonton, Misericordia	77,506	14,388	91,894	78,257	14,442	92,699	8.9	8.3	8.3	8.3	

Edmonton, Royal Alexandra	125,380	147,771	127,244	22,229	149,473	9.0	8.7	9.7	81.5
(a) Isolation	7,463	7,463	8,227		8,227	10.4		10.4	
(b) T.B. Division	12,173	12,173	10,545		10,545	164.7		164.7	
Edmonton, University	111,438	119,673	110,629	8,248	118,877	13.4	10.6	13.2	78.6
(a) D.V.A.	46,616	46,616	48,107		48,107	33.4		33.4	
(b) Folio	7,608	7,608	7,092		7,092	27.1		27.1	
(c) T.B.	4,493	4,493	1,154		1,154	128.2		128.2	
Edson, St. John's	2,000	9,989	8,165	1,994	10,159	7.5	11.1	8.0	59.7
Elk Point, Municipal	1,301	11,614	10,174	1,306	11,480	7.2	8.6	7.3	96.5
Elnora, Municipal	594	3,021	2,232	600	2,832	9.3	9.8	9.4	40.0
Empress, Municipal	536	5,250	4,390	551	4,941	6.9	10.8	7.2	52.3
Fairview, Community	5,172	6,256	5,216	1,084	6,301	5.7	7.8	6.0	107.6
Ft. McMurray, St. Gabriel's	5,238	5,671	5,383	425	5,808	11.3	7.1	10.8	77.7
Ft. Vermilion, St. Theresa	1,969	2,302	1,903	333	2,236	8.5	8.5	8.5	55.5
Galahad, St. Joseph's	4,425	5,034	4,348	602	4,950	5.7	9.9	6.8	42.8
Grande Prairie, Municipal	13,089	14,940	12,734	1,809	14,543	7.7	7.0	7.6	100.0
Hanna, Municipal	6,124	7,412	5,769	1,308	7,077	11.7	10.2	11.4	45.7
Hardisty, St. Anne's	4,786	5,451	4,682	651	5,333	7.5	9.3	7.7	61.9
High Prairie, Providence	17,227	19,296	17,512	2,078	19,590	7.7	7.9	7.7	114.6
High River, Municipal	12,589	14,407	12,444	1,814	14,258	7.6	8.5	7.7	59.6
Innisfail, Municipal	9,024	10,601	7,672	1,640	9,312	9.6	10.6	9.8	66.6
Islay, Municipal	3,037	294	3,033	284	3,317	9.3	10.9	9.4	80.0
Jasper, Seton	2,589	2,952	2,483	355	2,838	7.7	9.1	7.8	46.6
Killam, General	6,653	1,480	6,990	1,491	8,481	7.7	11.2	8.1	105.8
Lacombe, Municipal	9,839	2,262	9,862	2,253	12,115	7.6	9.3	7.9	104.0
Lac la Biche, St. Catherine's	6,822	8,577	6,846	1,735	8,581	6.6	10.2	7.1	78.2
Lamont, Public	19,647	21,293	19,145	1,617	20,762	7.5	8.5	7.6	73.6
Lethbridge, Galt	35,173	39,882	32,474	4,658	37,132	9.4	9.7	9.5	104.3
Lethbridge, Isolation	160	160	155		155	11.1		11.1	2.5
Lethbridge, St. Michael's	37,294	42,520	35,612	5,255	40,867	7.7	9.4	7.9	104.0
Macleod, General	4,093	4,711	4,031	618	4,649	9.5	10.1	9.6	78.5
McLennan, Sacred Heart	9,436	11,001	9,663	1,558	11,221	7.7	7.8	7.7	86.2
Magrath, Municipal	1,988	2,407	1,957	409	2,366	6.1	8.0	6.4	55.5
Manning, Battle River	2,451	2,976	2,434	518	2,952	6.1	8.0	6.3	60.0
Manville, Municipal	4,086	4,979	4,198	902	5,100	7.4	9.2	7.6	45.8
Mayerthorpe, Municipal	4,858	5,893	4,866	1,025	5,891	8.3	10.1	8.6	50.0
Medicine Hat, General	41,048	48,235	42,010	7,209	49,219	9.2	10.1	9.3	94.9
Medicine Hat, Isolation		Not Reporting				Not Reporting			
Mundare, General	5,189	433	5,165	450	5,615	6.9	9.8	7.1	53.8
Myrnam, Municipal	3,823	602	3,868	608	4,476	6.4	9.6	6.7	57.7
Nordegg, General	1,267	385	1,383	391	1,774	7.1	9.1	7.5	21.4
Olds, Municipal	6,033	1,871	5,994	1,918	7,912	9.6	11.3	10.0	76.1
Oyen, Municipal	2,156	417	2,195	437	2,632	6.8	10.4	7.3	29.4
Peace River, Municipal	8,595	996	8,895	999	9,894	9.7	9.7	9.7	115.0
Pincher Creek, St. Vincent's	980	7,916	7,057	962	8,019	7.4	9.7	7.6	64.0
Ponoka, Municipal	6,853	8,583	6,615	1,734	8,349	7.0	8.7	7.3	60.0
Provost, Municipal	2,955	3,524	3,066	583	3,649	6.6	6.4	6.6	36.3
Radway, St. Joseph's	3,795	5,420	3,884	1,585	5,469	6.2	10.7	7.0	71.4
Raymond, Municipal	2,827	3,708	2,699	874	3,573	6.2	8.8	6.7	38.8

TABLE No. 2—Continued

Hospitals	PATIENT DAYS										Occu- pancy
	Total of all Patients, 1948		Total Patients Discharged and Died				Average Stay of Patients Dis- charged and Died				
	Adults and Children	Newborn	Adults and Children	Newborn	Total	Adults and Children	Newborn	Total	Adults and Children	Newborn		Total
Red Deer, Municipal	19,572	4,000	23,572	20,146	4,000	24,146	8.8	9.7	8.8	9.7	101.8
Rimbey, St. Paul's	4,585	930	5,515	4,568	936	5,504	7.1	10.2	7.1	10.2	63.1
Rocky Mountain House, Municipal	5,365	1,159	6,524	5,361	1,158	6,519	6.9	9.9	6.9	9.9	63.6
Smoky Lake, George McDougall	2,572	597	3,169	2,579	615	3,194	5.8	9.0	5.8	9.0	46.6
Spirit River, Holy Cross	5,319	646	5,965	5,011	640	5,651	7.4	10.3	7.4	10.3	82.3
Stettler, Municipal	13,632	1,970	15,602	14,627	1,976	16,603	8.7	8.1	8.6	8.6	112.1
St. Paul, St. Theresa	12,328	978	13,306	12,045	2,133	14,178	6.6	8.0	6.8	8.0	94.2
Taber, Municipal	8,644	1,806	10,450	8,631	1,846	10,477	7.2	8.8	7.4	8.8	85.1
Tofield, Municipal	4,857	604	5,461	4,861	595	5,456	5.9	7.2	6.0	7.2	56.5
Trochu, St. Mary's	4,267	1,202	5,469	4,125	1,210	5,335	6.7	10.0	7.3	10.0	50.0
Turner Valley, Oilfields General	4,908	872	5,780	4,795	862	5,657	8.7	9.2	8.8	9.2	100.0
Two Hills, Municipal	3,992	760	4,752	4,261	749	5,010	5.6	8.1	5.9	8.1	40.0
Vegreville, General	15,937	1,901	17,838	15,844	1,834	17,678	7.6	8.9	7.7	8.9	49.4
Vermilion, Municipal	8,622	1,790	10,412	8,428	1,768	10,196	7.8	10.9	8.2	10.9	63.8
Viking, Municipal	4,878	822	5,700	4,891	835	5,726	8.2	9.5	8.3	9.5	50.0
Vilna, Our Lady's	2,354	972	3,326	2,356	978	3,334	5.8	10.7	6.7	10.7	35.2
Vulcan, Municipal	4,182	975	5,157	3,994	994	4,988	5.8	9.1	6.0	9.1	68.7
Wainwright, Municipal	9,285	1,481	10,766	9,098	1,485	10,583	9.0	9.4	9.0	9.4	131.5
Westlock, Immaculata	13,052	2,622	15,674	13,062	2,634	15,696	6.3	8.8	6.6	8.8	116.6
Wetaskiwin, Community	11,916	2,494	14,410	11,827	2,449	14,276	5.6	7.4	5.7	7.4	69.5
Willingdon, General	3,796	601	4,397	3,946	653	4,599	6.7	9.1	7.0	9.1	34.4
Total	1,408,337	201,935	1,610,272	1,409,655	203,081	1,612,736	9.8	9.2	9.7	9.2	78.4
Less D.V.A., Orthopaedic, Polio and T.B. Division cases	138,886		138,886	143,960		143,960					
Total	1,269,451	201,935	1,471,386	1,265,695	203,081	1,468,776	8.9	9.2	8.9	9.2	81.2

N.B.—Not included: Blairmore, Hythe, Three Hills.

TABLE No. 3—STAFF

Hospital	STAFF														No. of Doctors	Training School	Affiliation with other Institutions	Graduated during the year		
	Administrat'n		Professional			Nurses				Dietitians			Others						Total	Medical Staff
	Executive	Clerical	Salaries	Doctors	Internes	Technicians	Graduate	Student	Probationers	Aftiliates	Graduate	Student	Orderlies and Ward Helpers	All other Employees						
Athabasca, Municipal	6					5							4	7	24	Yes	No	No		
Banff, Mineral Springs	3					19							8	33	73	Yes	No	No		
Barrhead, St. Joseph's	1					4							8	7	22	No	No	No		
Bassano, Municipal	1					3							2	4	10	No	No	No		
Beaverlodge, Municipal	1					4							2	5	12	No	No	No		
Bentley, Municipal	3					4					1			3	11	No	No	No		
Berwyn, Municipal	1					1								2	9	No	No	No		
Bonnyville, K. H. P.	1					5		3					4	5	15	No	No	No		
Bonnyville, St. Louis	1					2								6	14	No	No	No		
Brooks, Municipal	1					8							6	6	23	No	No	No		
Cadomin, General	1					1			1					1	4	No	No	No		
Calgary, General	3			1	16	60	138	34	3	3	3	10	18	129	430	Yes	Yes	54		
Calgary, Holy Cross	4			1	6	58	168	44		2				104	437	Yes	Yes	47		
Calgary, Isolation						3								4	7	No	No	No		
Calgary, Junior Red Cross	1					15						1		16	39	Yes	Yes	No		
Calgary, Salvation Army Grace	1					3		4	2					4	18	Yes	No	No		
Canmore, St. Mary's	1					12								13	45	Yes	No	No		
Canmore, Canmore	2					3								2	8	Yes	No	No		
Cardston, Municipal	1					8						1		7	18	No	No	No		
Cardmangay, Little Bow Municipal	3					3								3	11	Yes	No	No		
Castor, Our Lady of the Rosary	1					5						4		7	19	Yes	No	No		
Cereal, Municipal	1					1								6	8	No	No	No		
Clareholm, Municipal	1					9						1		8	21	No	No	No		
Cold Lake, John Neil						3								4	9	No	No	No		
Coleman, Miners' Union	6					4								1	13	No	No	No		
Consort, Municipal	1					1								5	16	No	No	No		
Coronation, Municipal	1					3								6	14	No	No	No		
Daysland, Providence	1					3								3	14	No	No	No		
Desmarais, St. Martin's	1					1								2	3	No	No	No		
Didsbury, Municipal	1					4								3	13	No	No	No		
Drumheller, Municipal	1					16								26	64	Yes	No	No		
Eckville, Municipal	1					3								1	13	No	No	No		
Edmonton, Beulah Home	1					2								3	13	No	No	No		
Edmonton, General	4			2	11	16	87	39		3			37	105	383	Yes	Yes	49		

TABLE No. 3—Continued

Hospital	STAFF														Total	Medical Staff	No. of Doctors	Training School	Affiliation with other Institutions	Graduated during the year
	Administr'n		Professional			Nurses				Dietitians			Others							
	Executive	Clerical	Salaries Doctors	Interns	Technicians	Graduate	Student	Probationers	Affiliates	Graduate	Student	Orderlies and Ward Helpers	All other Employees							
Edmonton, Misericordia	6	16	1	11	9	49	132	34	...	2	1	32	122	416	Yes	104	Yes	No	34	
Edmonton, Royal Alexandra	2	48	3	29	31	115	146	34	...	3	...	22	266	699	Yes	150	Yes	Yes	49	
Edmonton, University of Alberta	5	55	10	34	18	85	112	30	10	6	11	98	203	677	Yes	78	Yes	Yes	43	
Edson, St. John's	1	1	...	...	...	6	...	...	...	...	...	1	10	17	No	...	No	No	...
Elk Point, Municipal	1	1	...	...	...	3	...	...	...	...	...	1	8	22	No	...	No	No	...
Elnora, Municipal	...	...	...	...	...	3	...	...	...	...	...	1	4	9	No	...	No	No	...
Empress, Municipal	...	...	...	...	...	3	...	...	...	...	...	4	5	13	No	...	No	No	...
Fairview, Community	...	...	...	...	...	3	...	...	...	...	...	4	4	15	No	...	No	No	...
Ft. McMurray, St. Gabriel's	1	1	...	...	...	6	2	...	...	...	...	4	4	16	No	...	No	No	...
Ft. Vermilion, St. Theresa	1	1	...	...	...	2	...	...	...	...	...	6	4	16	No	...	No	No	...
Galahad, St. Joseph's	1	1	...	...	...	1	...	...	...	...	...	3	7	15	No	...	No	No	...
Grande Prairie, Municipal	1	2	...	...	...	3	...	...	...	...	...	2	1	33	No	...	No	No	...
Hanna, Municipal	2	1	...	...	...	14	...	...	...	...	...	10	4	33	No	...	No	No	...
Hardisty, St. Anne's	1	1	...	...	...	6	...	...	...	...	...	6	13	27	Yes	3	No	No	...
High Prairie, Providence	1	1	...	...	...	4	...	...	...	...	...	9	9	14	Yes	2	No	No	...
High River, Municipal	3	3	...	...	...	6	...	...	...	...	...	13	18	43	No	...	No	No	...
Innisfail, Municipal	1	1	...	...	...	15	...	...	...	...	...	14	14	30	No	...	No	No	...
Islay, Municipal	1	1	...	...	...	8	...	...	...	...	...	2	11	23	Yes	4	No	No	...
Jasper, Seton	1	1	...	...	...	4	...	...	...	...	...	1	4	9	Yes	1	No	No	...
Killam, General	1	1	...	...	...	3	...	...	...	...	...	2	3	10	No	...	No	No	...
Lacombe, Municipal	1	1	...	...	...	3	...	...	...	...	...	3	5	12	No	...	No	No	...
Lac la Biche, St. Catherine's	1	1	...	...	...	13	...	...	...	...	...	5	12	31	No	...	No	No	...
Lamont, Public	1	5	...	...	...	4	...	...	...	...	...	4	7	16	No	...	No	No	...
Lethbridge, Galt	3	7	2	2	2	7	29	16	...	1	...	18	33	29	Yes	5	Yes	Yes	12	
Lethbridge, Isolation	1	1	...	...	...	14	36	...	...	1	...	1	1	115	Yes	31	Yes	Yes	9
Lethbridge, St. Michael's	4	8	1	...	4	29	...	...	...	1	...	22	39	108	No	...	No	No	...
Macleod, Municipal	2	1	...	...	...	4	...	...	...	...	...	9	3	18	Yes	33	No	No	...
McLennan, Sacred Heart	1	1	...	...	...	4	...	...	...	...	...	8	11	24	No	...	No	No	...
Magrath, Municipal	1	1	...	...	...	1	...	...	...	...	...	3	2	10	No	...	No	No	...
Manning, Battle River	1	1	...	...	...	3	...	...	...	...	...	3	9	9	No	...	No	No	...
Mannville, Municipal	1	1	...	...	...	3	...	...	...	...	...	3	3	10	No	...	No	No	...
Mayerthorpe, Municipal	1	1	...	...	...	6	...	...	...	...	...	3	6	17	No	...	No	No	...
Medicine Hat, General	1	1	...	...	...	2	...	...	...	...	...	9	81	179	Yes	14	Yes	Yes	13
Medicine Hat, Isolation	3	7	Not Reporting	Not Reporting	2	25	33	18	...	1	Not Reporting	9	81	179	Yes	14	Yes	Yes	13	

Mundate, General	1	1	1	3				3			3	7	15	No	No	
Myrnam, Municipal	5	1	1	3				3			4	4	18	Yes	No	
Nordegg, General																
Olds, Municipal	1	1	1	4				4				7	18	No	No	
Oyen, Municipal				2				2				4	8	No	No	
Peace River, Municipal	1	1	1	8				4				7	20	No	No	
Pincher Creek, St. Vincent's	1			4				3				6	14	Yes	No	
Ponoka, Municipal				7				7				10	19	No	No	
Provost, Municipal				4				2				6	12	No	No	
Radway, St. Joseph's	1	1	1	3				3				10	19	No	No	
Raymond, Municipal	1	1	1	4				1				4	10	No	No	
Red Deer, Municipal	2			4				4				22	62	Yes	No	
Rimbey, St. Paul's	1	1	1	3				3				6	13	No	No	
Rocky Mountain House, Municipal																
Smoky Lake, George McDougall																
Spirit River, Holy Cross	1	1	1	3				3				6	12	Yes	No	
Stettler, Municipal	2			10				2				6	18	No	No	
St. Paul, St. Theresa				6				6				13	36	Yes	No	
Taber, Municipal				8				4				9	22	Yes	No	
Tofield, Municipal				6				3				5	14	No	No	
Trochu, St. Mary's	1	1	1	6				3				7	18	No	No	
Turner Valley, Oilfields General				4				4					9	No	No	
Two Hills, Municipal	5	1	1	9				5				7	20	No	No	
Vegreville, General	3	3	3	7				2				7	68	Yes	Yes	
Vermilion, Municipal	1	1	1	4				4				9	20	No	No	
Viking, Municipal	1	1	1	4				2				7	13	No	No	
Vilna, Our Lady's	1	1	1	4				1				6	12	No	No	
Vulcan, Municipal	1	1	1	5				1				6	14	No	No	
Wainwright, Municipal	1	1	1	11				2				16	32	No	No	
Westlock, Immaculata	1	3	3	7				8				14	33	No	No	
Wetaskiwin, Community	1	1	1	11				1				11	25	Yes	No	
Willingdon, General	1	1	1	3				3				6	14	No	No	
Total	131	307	21	89	135	960	904	284	41	25	13	561	1697	5153	869	315

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	\$ 18,966.83	\$ 15,449.95	\$ 2,050.43	\$ 518.29	\$ 2,038.42	\$ 1,279.91	\$ 8.05	\$ 1,132.46	\$ 41,444.34
Banff, Mineral Springs	88,666.65	69,274.59	6,894.56	2,500.25	5,040.31	4,698.09	99.71	1,741.33	178,915.49
Barrhead, St. Joseph's	20,766.48	14,963.02	2,380.63	227.91	1,100.00	2,617.25	565.78	365.07	42,986.14
Bassano, Municipal	13,013.20	5,604.36	2,893.37	181.44	1,672.60	772.10	28.50	87.95	24,251.52
Beaverlodge, Municipal	10,774.26	9,884.33	1,669.58	161.60	1,703.95	819.66	208.98	127.50	25,349.86
Bentley, Municipal	8,300.49	7,495.79	414.90	81.00	1,703.95	1,218.45	117.37	103.74	17,731.74
Berwyn, Municipal	10,100.15	6,942.67	1,178.83	163.02	2,200.00	2,985.53	.....	1,248.20	22,131.40
Bonnyville, K. H. P.	9,651.31	9,536.70	968.99	285.40	4,010.96	1,395.79	.....	978.02	22,530.81
Bonnyville, St. Louis	17,126.29	13,593.80	1,034.57	198.18	3,750.00	2,339.78	3,291.03	304.46	39,595.48
Brooks, Municipal	26,735.05	21,101.86	1,486.35	198.18	3,750.00	2,339.78	.....	364.50	59,266.75
Cadomin, General	.....	Not Reporting	.....	.....	Not Reporting	.....	.....	Not Reporting	.....
Calgary, General	454,319.01	307,620.38	19,491.99	6,993.14	50,895.51	40,737.05	8,906.20	20,531.05	858,598.82
Calgary, Holy Cross	331,198.76	246,613.01	15,979.21	5,910.65	50,895.51	39,409.59	2,620.96	27,000.94	719,628.63
Calgary, Isolation	14,690.75	7,576.20	875.21	198.11	.....	144.42	.....	730.42	28,166.95
Calgary, Junior Red Cross	58,717.63	28,341.54	7,129.15	250.00	418.56	.....	.....	197.38	95,054.26
Calgary, Salvation Army Grace	17,532.22	18,282.59	739.20	410.41	580.19	2,029.97	.....	2,033.42	41,628.00
Camrose, St. Mary's	57,751.41	45,843.09	5,232.21	2,066.74	7,679.18	1,247.95	4,805.53	588.93	125,215.04
Canmore, Canmore Hospital	10,629.20	11,803.58	1,593.49	.....	.....	38.68	54.27	1,031.55	25,150.77
Cardston, Municipal	23,217.34	22,091.27	1,990.18	372.15	3,565.58	3,766.66	287.26	662.15	55,952.59
Carmangay, Little Bow Municipal	8,639.75	6,964.40	1,284.42	216.75	.....	798.86	1.97	.....	17,906.15
Castor, Our Lady of the Rosary	13,400.00	14,992.13	1,298.57	36.45	1,246.96	867.88	57.83	111.34	31,085.45
Cereal, Municipal	8,354.46	6,497.82	1,648.75	178.90	1,512.25	1,723.09	1,250.64	2,336.11	19,233.64
Clareholm, Municipal	27,422.37	18,858.49	2,018.57	318.26	.....	2,505.06	.....	318.00	53,927.53
Coleman, Miners' Union	7,139.20	4,118.32	499.21	325.93	350.00	107.92	.....	139.57	18,429.44
Consort, Municipal	10,588.06	6,152.01	1,115.95	368.32	.....	1,412.36	.....	241.90	29,629.56
Coronation, Municipal	11,950.45	13,685.98	1,337.86	.....	.....	.....	612.69	.....	29,960.84
Daysland, Providence	10,416.78	10,967.97	1,530.67	92.52	3,700.00	2,306.56	.....	282.21	29,296.71
Desmarais, St. Martin's	2,760.00	6,168.50	459.00	133.75	360.00	235.00	.....	202.50	10,318.75
Didsbury, Municipal	18,462.25	18,187.12	1,801.42	368.49	5,661.67	1,866.81	3,811.62	646.58	50,805.96
Drumheller, Municipal	75,668.99	57,944.29	8,127.44	854.54	5,712.75	7,288.24	143.71	2,186.25	157,926.21
Eckville, Municipal	.....	.....	.....	.....	.....	.....	.....	.....	.....
Edmonton, Beulah Home	9,796.90	11,406.00	550.13	407.92	1,318.59	2,403.55	.....	639.95	40,618.53
Edmonton, General	320,694.33	230,187.54	15,806.77	9,519.13	40,870.45	13,912.93	4,376.33	3,003.23	638,370.71
Edmonton, Misericordia	218,811.65	199,080.81	8,526.55	1,479.06	30,221.65	13,023.10	33,873.27	26,275.52	531,291.61
Edmonton, Royal Alexandra	660,485.76	427,189.25	30,784.29	35,655.64	19,823.81	43,552.91	31,457.85	7,835.52	1,256,585.03
Edmonton, University of Alberta	762,927.03	481,835.10	45,378.87	4,792.24	.....	73,236.91	26,031.32	10,759.93	1,404,961.20
Edson, St. John's	22,146.02	20,024.31	1,655.91	368.95	4,119.27	4,349.94	46.30	379.45	53,090.15
Elk Point, Municipal	18,452.44	24,619.09	1,850.87	251.87	2,675.49	.....	83.38	443.11	48,376.25
Elnora, Municipal	.....	Not Reporting	.....	.....	Not Reporting	.....	.....	Not Reporting	.....

TABLE No. 4—OPERATING EXPENDITURES—Continued

Hospitals	Salaries and Wages	Supplies	Purchased Services	Insurance	Depreciation	Repairs and Replacements	Interest and Exchange	Miscellaneous	Total Expenditure
Turner Valley, Oilfields General	11,696.77	12,593.24	1,277.97	183.58	842.62	928.02	55.21	638.19	28,215.60
Two Hills, Municipal	17,999.58	15,478.41	2,767.09	631.82	6,456.35	.....	5,138.90	102.86	48,575.01
Vegreville, General	37,781.70	30,517.28	5,418.75	1,237.45	9,781.59	4,050.69	.....	2,531.28	91,318.74
Vermilion, Municipal	19,601.63	16,646.27	2,658.37	23.11	3,708.76	2,509.57	378.89	101.50	45,628.10
Viking, Municipal	13,478.61	11,180.31	1,817.53	316.68	800.68	1,828.89	.....	120.66	29,543.36
Vilna, Our Lady's	11,667.92	7,129.05	341.58	200.40	1,382.00	1,813.80	16.88	703.30	23,254.93
Vulcan, Municipal	13,580.53	9,940.12	1,905.39	246.06	2,250.00	1,469.37	.....	369.83	29,761.30
Wainwright, Municipal	23,961.37	23,026.86	4,855.94	1,859.89	3,161.33	.....	.....	656.36	57,521.75
Westlock, Immaculata	30,644.94	28,008.07	3,339.69	298.25	2,073.57	.....	6,668.04	1,235.40	72,267.76
Wetaskiwin, Community	29,223.12	24,110.75	3,066.86	424.15	6,759.41	3,333.45	18.17	410.45	67,346.36
Willingdon, General	15,548.25	9,077.38	758.58	125.40	1,662.21	1,672.03	.....	3,937.63	32,781.48
Total	\$4,729,657.99	\$3,796,145.22	\$ 334,341.83	\$ 98,800.27	\$ 365,694.37	\$ 493,132.35	\$ 206,167.29	\$ 168,597.17	\$10,363,011.54

Not Reporting: Cadomin, Medicine Hat Isolation, and Elnora.

Estimated for: Coronation, Eckville, Macleod, Nordegg, and Oyen.

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	\$ 26,272.50	\$ 8,226.58	\$ 34,499.08	\$ 18,104.50	\$ 16,394.58	\$ 27,180.60	\$ 941.15	\$ 413.65	\$ 44,929.97
Banff, Mineral Springs	117,690.57	25,979.39	143,669.96	19,699.65	123,970.31	10,659.60	35,624.01	614.65	170,868.57
Barrhead, St. Joseph's	29,267.87	9,661.31	38,929.18	1,990.76	36,938.42	6,717.90	.....	25.00	43,681.32
Bassano, Municipal	15,129.70	1,346.90	16,476.60	8,515.00	7,961.60	11,527.13	.....	3,580.32	23,069.05
Beaverlodge, Municipal	8,307.15	4,157.49	12,464.64	3,000.00	9,464.64	13,758.70	2,340.15	462.00	28,725.49
Bentley, Municipal	11,816.00	3,822.93	15,638.93	8,221.59	7,417.34	9,563.25	.....	1,861.50	18,842.09
Berwyn, Municipal	13,765.75	2,811.13	16,576.88	6,682.50	9,894.38	14,616.60	.....	776.00	25,286.98
Bonnyville, K. H. P.	59,292.50	13,336.47	72,628.97	1,000.00	71,628.97	4,648.60	1,714.53	8,288.12	25,273.19
Bonnyville, St. Louis	21,299.74	7,191.50	28,491.24	33,545.93	32,938.07	7,819.00	1,521.33	545.00	43,016.60
Brooks, Municipal	.....	8,275.52	29,575.26	1,095.37	28,479.89	37,438.60	.....	240.57	67,680.39
Cadomin, General	.....	Not Reporting	.....	.....	Not Reporting	.....	.....	Not Reporting	.....
Calgary, General	494,493.20	171,881.16	666,374.36	187,101.94	479,272.42	287,552.10	7,491.89	12,770.08	774,316.41
Calgary, Holy Cross	462,610.68	246,118.92	708,729.60	72,973.15	635,756.45	72,378.00	.....	.....	720,904.53
Calgary, Isolation	1,307.30	321.37	1,628.67	.....	1,628.67	27,004.78	.....	.....	28,633.45
Calgary, Junior Red Cross	.....	.....	.....	.....	.....	28,426.57	.....	66,627.69	95,054.26
Calgary, Salvation Army Grace	19,823.55	2,481.55	22,305.10	3,527.21	18,777.89	19,780.15	.....	3,000.00	41,558.04
Camrose, St. Mary's	71,197.05	46,675.50	117,872.55	17,670.70	100,201.85	13,448.40	.....	2,670.76	116,321.01
Canmore, Canmore	1,368.35	30,612.71	31,981.06	.....	31,981.06	3,142.10	.....	.....	35,123.16
Cardston, Municipal	12,634.90	6,571.45	19,206.35	.....	19,206.35	37,195.86	.....	998.00	57,400.21
Carmangay, Little Bow Municipal	4,757.55	2,587.34	7,344.89	.....	7,344.89	11,717.50	.....	329.01	19,391.40
Castor, Our Lady of the Rosary	11,164.03	4,523.06	15,687.09	.....	15,687.09	7,765.25	623.67	5,369.42	29,021.76
Cereal, Municipal	2,728.80	1,240.18	3,968.98	.....	3,968.98	.....	.....	15,889.50	20,482.15
Claresholm, Municipal	18,461.21	7,853.34	26,314.55	.....	26,314.55	37,159.97	.....	315.00	63,789.52
Cold Lake, John Neil	.....	4,213.35	4,213.35	200.00	4,013.35	3,071.50	.....	6,619.56	13,704.41
Coleman, Miners' Union	11,072.57	1,507.05	12,579.62	.....	12,579.62	2,775.00	702.00	2,078.11	18,134.73
Consort, Municipal	9,626.35	1,863.54	11,489.89	.....	11,489.89	3,864.70	.....	20,214.43	35,569.02
Coronation, Municipal	.....	.....	.....	.....	.....	.....	.....	1,255.20	40,691.59
Daysland, Providence	14,942.19	5,316.11	20,258.30	1,059.96	19,198.34	2,972.93	.....	2,490.00	23,426.47
Desmarais, St. Martin's	8,696.00	323.00	9,019.00	5,445.95	3,573.05	3,133.75	.....	88.65	9,196.80
Didsbury, Municipal	14,886.27	7,466.75	22,353.02	.....	22,353.02	34,738.80	.....	.....	57,180.47
Drumheller, Municipal	52,684.79	30,051.42	82,736.21	5,123.45	77,612.76	79,408.50	.....	474.28	157,495.54
Eckville, Municipal	.....	.....	.....	.....	.....	.....	.....	.....	42,254.24
Edmonton, Beulah Home	7,599.78	.....	7,599.78	.....	7,599.78	9,744.30	.....	9,486.36	26,830.44
Edmonton, General	483,469.84	154,444.79	637,914.63	34,645.43	603,269.20	67,745.95	.....	3,250.03	674,205.18
Edmonton, Misericordia	328,271.45	191,277.23	519,548.68	39,981.48	479,567.20	73,016.80	8,521.90	45,906.48	607,012.38
Edmonton, Royal Alexandra	739,210.45	333,604.24	1,072,814.69	152,302.53	920,512.16	286,014.55	19,840.30	16,131.30	1,242,498.31
Edmonton, University of Alberta	972,027.10	356,238.83	1,328,265.93	99,971.80	1,228,294.13	200,343.57	97,458.88	.....	1,526,096.58
Edson, St. John's	35,344.73	14,140.10	49,484.83	5,811.70	43,673.13	6,720.70	.....	.....	50,393.83
Elk Point, Municipal	21,079.55	6,240.71	27,320.26	.....	27,320.26	27,743.49	.....	Not Reporting	55,063.75
Elora, Municipal	.....	Not Reporting	.....	.....	Not Reporting	.....	.....	Not Reporting	.....
Empress, Municipal	15,940.43	5,758.19	21,698.62	.....	21,698.62	7,095.10	.....	378.95	29,172.67

DEPARTMENT OF PUBLIC HEALTH

TABLE No. 5—OPERATING REVENUE—Continued

Hospitals	Day Rate Services	Special Services	Gross Earnings	Deductions	Net Earnings	Grants	Out-Patient Earnings	Other Revenue	Total Revenue
Fairview, Community	15,706.71	7,739.00	23,445.71	716.32	22,729.39	14,369.40	1,936.05	15.15	39,049.99
Ft. McMurray, St. Gabriel's	9,997.97	1,924.09	11,922.06	1,081.07	10,840.99	13,656.50		1,321.67	25,819.16
Fort Vermillion, St. Theresa	6,186.70	964.00	7,150.70	544.80	6,605.90	1,102.80		5,760.00	13,468.70
Galahad, St. Joseph's		19,422.31	19,422.31		19,422.31	3,550.60		1,151.15	24,124.06
Grande Prairie, Municipal	29,148.26	13,057.40	42,205.66	2,203.75	40,001.91	47,902.10		897.84	88,801.85
Hanna, Municipal	12,388.85	4,248.82	16,637.67	2,936.95	13,700.72	30,122.06		1,705.22	49,124.70
Hardisty, St. Anne's	21,607.60	4,314.97	25,922.57	2,936.95	22,985.62			3,780.00	27,673.87
High Prairie, Providence	72,939.90	31,418.37	104,358.27	38,299.29	66,058.98	44,011.40		2,613.48	82,540.31
High River, Municipal	25,440.04	6,719.02	32,159.06	470.98	31,688.08	25,853.42		3,011.25	78,716.73
Innisfall, Municipal	13,405.25	7,963.76	21,369.01		21,369.01			2,906.68	50,129.11
Islay, Municipal	3,221.50		3,221.50		3,221.50	17,269.70		225.00	20,716.20
Jasper, Seton	11,862.69	2,102.61	13,965.30	1,070.71	12,894.59	4,697.54		9,655.95	29,026.08
Killam, General		28,304.46	28,304.46		28,304.46	5,693.80		4,631.09	38,629.35
Lac la Biche, St. Catherine's	31,326.26	6,425.70	37,751.96	1,520.00	36,231.96	6,418.48		10,000.00	53,370.94
Lacombe, Municipal	27,699.65	6,567.25	34,266.90		34,266.90	55,132.48		130.00	90,104.38
Lamont, Public	87,200.15	32,718.38	119,918.53	13,766.53	106,152.00	13,075.89		7,268.36	126,496.25
Lethbridge, Galt	149,190.94	60,280.25	209,471.19	23,886.17	185,585.02	42,294.62		1,820.71	229,700.38
Lethbridge, St. Michael's General	165,450.55	117,552.31	283,002.86	19,050.50	263,952.36	28,001.40		1,420.20	293,373.96
Lethbridge, Isolation			332.40		332.40	117.60			450.00
Lethbridge, Municipal									
Macleod, Municipal									
McLennan, Sacred Heart	39,424.92	9,243.62	48,668.54	18,188.40	30,480.14	7,481.60		21,088.90	59,108.80
Magrath, Municipal	3,113.40	2,310.06	5,423.46	150.00	5,273.46	20,861.25		191.00	26,433.16
Manning, Battle River	7,595.00	3,041.54	10,636.54	1,615.66	9,020.88	9,293.40			19,040.82
Mannville, Municipal	8,939.75	1,784.69	10,724.44		10,724.44	13,536.99		207.38	24,958.16
Mayerthorpe, Municipal	15,680.72	7,103.09	22,783.81	234.43	22,549.38	33,130.05			55,966.43
Medicine Hat, General	172,327.73	54,938.10	227,265.83	31,287.76	195,978.07	66,404.30		12,952.00	275,334.37
Medicine Hat, Isolation									
Mundare, General	21,846.00	4,171.15	26,017.15	15,999.35	10,017.80	8,579.40		15,829.76	34,426.96
Myrnam, Municipal	5,181.00	2,863.81	8,044.81		8,044.81	34,225.25		929.49	43,199.55
Nordegg, General									41,394.98
Olds, Municipal									51,419.40
Oyen, Municipal									14,730.49
Peace River, Municipal	18,634.95	10,586.53	29,221.48	1,912.16	27,309.32	21,751.85		588.90	49,650.07
Pincher Creek, St. Vincent's	27,664.17	7,744.95	35,409.12	1,960.41	33,448.71	10,883.90		13,020.00	57,352.61
Ponoka, Municipal	9,747.18	5,429.96	15,177.14		15,177.14			47,989.10	64,580.87
Provost, Municipal	6,723.40	4,011.55	10,734.95		10,734.95	23,386.80		43.00	34,630.15
Radway, St. Joseph's	16,853.00	5,148.09	22,001.09	3,181.39	18,819.70	3,731.70		1,640.50	25,881.15
Raymond, Municipal	3,202.45	3,771.34	6,973.79	169.70	6,804.09	20,308.20			27,771.71
Red Deer, Municipal	60,814.60	18,355.12	79,169.72	1,000.00	78,169.72	41,711.07		2,415.57	122,296.36
Rimbeey, St. Paul's	16,792.70	4,299.75	21,092.45	345.35	20,747.10	3,800.30		185.61	24,733.01
Rocky Mountain House, Municipal	13,148.45	4,703.30	17,851.75	250.00	17,601.75	21,289.60		759.84	39,651.19

Smoky Lake, George McDougall	9,747.00	6,118.32	15,865.32	536.57	15,328.75	1,995.00	.....	6,419.35	23,743.10
Spirit River, Holy Cross	19,606.50	5,814.89	25,421.39	2,748.17	22,673.22	8,074.60	.....	6,949.00	37,696.82
Stettler, Municipal	28,742.30	6,494.25	35,236.55	1,720.77	33,515.78	74,694.12	1,558.97	824.30	110,593.17
St. Paul, St. Theresa	41,671.75	7,127.70	48,799.45	2,450.00	46,349.45	17,363.79	.....	.....	63,713.24
Taber, Municipal	19,191.92	11,045.96	30,237.88	9,367.96	30,237.88	37,080.10	.....	.....	67,317.98
Tofield, Municipal	17,677.75	9,361.59	27,039.34	280.75	29,329.64	4,290.75	.....	3,470.40	43,055.10
Trochu, St. Mary's	22,948.65	6,661.74	29,610.39	1,914.90	27,753.29	3,986.80	.....	420.00	37,090.79
Turner Valley, Oilfields General	25,453.50	4,214.69	29,668.19	35,666.56	15,190.20	40,693.45	2,139.95	907.76	56,791.41
Two Hills, Municipal	9,941.72	5,248.48	15,190.20	76,915.14	41,248.58	46,813.09	.....	.....	90,201.62
Vegreville, General	67,212.60	9,702.54	76,915.14	21,976.09	21,976.09	26,791.70	.....	120.29	48,888.08
Vermilion, Municipal	18,592.10	3,483.99	21,976.09	10,498.38	10,498.38	20,013.20	407.94	992.66	31,942.18
Viking, Municipal	10,062.27	436.11	10,498.38	12,483.41	10,773.69	2,064.30	664.05	785.41	14,287.45
Vilna, Our Lady's	9,701.25	2,782.16	12,483.41	1,709.72	10,527.70	23,083.68	.....	1,800.72	35,412.10
Vulcan, Municipal	9,807.25	720.45	23,930.74	9,232.64	23,930.74	59,988.73	2,691.87	25,399.83	86,611.34
Wainwright, Municipal	12,630.19	11,300.55	69,522.72	800.00	60,290.08	11,651.29	1,240.74	30.00	98,581.94
Westlock, Immaculata	51,355.85	18,166.87	60,907.93	9,802.01	60,107.93	9,449.30	130.10	.....	69,717.33
Wetaskiwin, Community	46,884.11	14,023.82	21,157.80	.....	11,355.79	8,473.70	.....	13,489.16	33,318.65
Willingdon, General	15,188.00	5,969.80	.....	.....	.....	.....	.....	.....	.....
Total	\$5,684,963.05	\$2,348,024.37	\$8,052,230.24	\$983,043.33	\$7,069,187.91	\$2,655,114.80	\$201,312.83	\$472,607.78	\$10,585,077.46

Not Reporting: Cadomin, Elnora, and Medicine Hat Isolation.

Estimated for: Coronation, Eckville, Macleod, Nordegg, and Oyen.

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	\$ 5.78	45.76	37.27	4.94	1.25	4.90	3.06	.20	2.62	6.27
Banff, Mineral Springs	6.95	49.55	38.64	3.81	1.36	2.81	2.62	.25	.96	6.63
Barrhead, St. Joseph's	4.47	48.31	34.67	5.53	.82	2.51	6.08	1.24	.84	4.55
Bassano, Municipal	5.84	53.58	23.07	11.91	.77	6.92	3.19	.17	.39	5.55
Beaverlodge, Municipal	6.40	42.49	38.99	6.57	.67	6.78	3.28	.79	.43	7.25
Bentley, Municipal	6.24	46.88	42.27	2.33	.45		6.85	.65	.57	6.62
Berwyn, Municipal	5.54	45.62	31.35	5.34	.74	9.93	1.37			6.33
Bonnyville, Katherine H. Prittie	5.63	42.78	42.29	4.32	.72	10.15	6.21	8.16	.79	6.32
Bonnyville, St. Louis	3.45	43.28	34.28	2.62		6.34		5.55		3.75
Brooks, Municipal	6.48	45.11	35.58	2.51	.35		3.94		.62	7.39
Cadomin, General		Not Reporting			Not Reporting			Not Reporting		
Calgary, General	7.10	52.85	35.82	2.27	.84		4.76	1.06	2.40	6.40
Calgary, Holy Cross	6.83	45.95	34.23	2.28	.85	7.08	5.48	.37	3.76	6.85
Calgary, Isolation	15.10	52.13	26.86	3.11	.71		.53	14.07		15.35
Calgary, Junior Red Cross	4.50	61.69	29.81	7.52	.29	.48				4.50
Calgary, Salvation Army Grace	4.36	41.57	45.05	1.72	.88		4.66			4.35
Camrose, St. Mary's	6.40	46.06	36.58	4.19	1.68	6.15	.99	3.86	.49	5.94
Canmore, Canmore	11.25	42.13	46.84	6.68			.12	.19	4.04	15.70
Cardston, Municipal	6.65	41.52	39.46	3.56	.67	6.37	6.74	.50	1.18	6.82
Carmangay, Little Bow Municipal	6.27	48.20	38.85	7.14	1.25		4.50	.06		6.79
Castor, Our Lady of the Rosary	5.76	43.09	48.22	4.16	.14	4.02	4.51	.29	.37	5.38
Cereal, Municipal	7.58	43.43	33.78	8.56	.93	7.86	3.20	2.32	4.33	8.09
Claresholm, Municipal	5.01	50.85	34.97	3.74	.59		16.71		2.12	5.87
Cold Lake, John Neil	6.39	47.70	27.48	3.34		2.65	.58		.78	6.54
Coleman, Miners' Union	6.65	57.43	33.37	6.06	1.78			2.06	.89	5.53
Consort, Municipal	4.61	40.28	46.16	4.59	1.26		4.76			8.20
Coronation, Municipal	6.03									5.29
Daysland, Providence	6.62	35.51	37.44	5.26	.32	12.64	7.88		.95	6.01
Desmarais, St. Martin's	16.34	26.73	59.73	4.46	1.29	3.50	2.31		1.98	5.58
Didsbury, Municipal	6.96	36.36	35.78	3.55	.73	11.17	3.61	7.49	1.31	14.59
Drumheller, Municipal	6.57	47.86	36.64	5.14	.54	3.65	4.66	.09	1.42	7.83
Eckville, Municipal	6.60									6.54
Edmonton, Beulah Home	5.94	36.98	42.95	2.05	1.61	4.92	9.04		2.45	6.87
Edmonton, General	5.29	50.16	36.10	2.47	1.52	6.39	2.19	.68	.49	6.01
Edmonton, Misericordia	5.78	41.16	37.46	1.60	.28	5.69	2.48	6.36	4.97	5.58
Edmonton, Royal Alexandra	7.49	52.68	34.12	2.44	2.74	1.53	3.40	2.48	.61	6.53
Edmonton, University of Alberta	7.87	54.26	34.30	3.22	.34		5.23	1.89	.76	7.41
Edson, St. John's	5.30	41.59	37.82	3.13	.69	7.79	8.19	.08	.71	8.55

TABLE No. 6—Continued

Hospitals,	Operating Cost Per Patient 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
Tofield, Municipal	8.12	35.10	26.15	6.26	.87	15.18	2.87	10.68	2.89	7.87
Trochu, St. Mary's	7.04	46.90	28.47	3.41	1.16	15.84	2.36	1.20	.66	6.77
Turner Valley, Oilfields General	4.87	41.41	44.62	4.52	.66	2.98	3.30	.22	2.29	5.55
Two Hills, Municipal	10.21	37.06	31.86	5.68	1.30	13.30	.....	10.60	.20	11.94
Vegreville, General	5.11	41.30	33.40	5.92	1.38	10.74	4.46	.....	2.80	5.05
Vermilion, Municipal	4.37	43.00	36.50	5.81	.04	8.11	5.50	.82	.22	4.68
Viking, Municipal	5.17	45.64	37.83	6.14	1.08	2.72	6.19	.....	.40	5.59
Vilna, Our Lady's	6.98	50.16	30.66	1.50	.86	5.94	7.80	.07	3.01	4.28
Vulcan, Municipal	5.76	45.60	33.38	6.39	.85	7.61	4.94	.....	1.23	6.85
Wainwright, Municipal	5.34	41.65	40.00	8.43	3.24	5.50	.....	.....	1.18	8.05
Westlock, Immaculata	4.60	42.40	38.74	4.63	.41	2.90	.....	9.22	1.70	6.28
Westkiwin, Community	4.66	43.38	35.82	4.55	.63	10.03	4.95	.03	.61	4.83
Willingdon, General	7.44	47.43	27.69	2.31	.39	5.07	5.10	.....	12.01	7.56
Total	\$ 6.42	45.94	36.88	3.50	.97	3.80	4.90	2.19	1.82	\$ 6.56

Not Reporting: Cadomin, Elnora, Medicine Hat Isolation.

Estimated for: Coronation, Eckville, Macleod, Nordegg and Oyen.

Division of Tuberculosis Control

DR. A. H. BAKER, B.A., M.B., F.R.C.P. (C),
Medical Superintendent and Director.

The question is frequently asked, "Is there anything being accomplished in reducing tuberculosis in Alberta?" The best available evidence is in the comparison of the number of deaths. If we compare the year 1948 with the year 1928, we find that, while the population of the Province has increased by almost 230,000, the deaths last year were only 259 as compared with 394 in 1928. The death rate per hundred thousand of population was 30.6 as compared with 63.8 twenty years ago. This marked improvement is undoubtedly due, to some extent at least, to the effort put forth by the provincial government as well as by the general population in its efforts to combat this disease.

Federal Grants.

The amount of money allocated for tuberculosis work in Alberta under these grants was \$183,203.00. The projects suggested and accepted for development were as follows:

1. Free treatment for non-pulmonary tuberculosis.
2. Diagnostic clinic physicians (2).
3. Free streptomycin.
4. Sanatorium affiliation with training schools for nurses.
5. Clinic X-ray equipment.
6. Travelling X-ray technician instructor.
7. Improvement in sanatorium libraries.
8. Equipment—Central Alberta Sanatorium.
9. Technical equipment—William Aberhart Memorial Sanatorium, Edmonton.
10. Technical equipment for diagnostic clinic, Central Alberta Sanatorium.

It is expected that during 1949 most, if not all, of these projects will be completed or partially developed.

New Construction.

On July 23 the Honourable the Minister of Health, Dr. W. W. Cross, turned the first sod of the William Aberhart Memorial Sanatorium in Edmonton. This institution will be located near the University Hospital and will provide an up-to-date hospital for the treatment and diagnosis of all forms of tuberculosis.

On August 27 it was announced that a Southern Alberta Branch of the Provincial Laboratory would be established on the Sanatorium property at Calgary. This building, at the close of the year, is under construction and will undoubtedly provide more direct services to the people living in Southern Alberta than has previously been possible.

Additional Buildings at Central Alberta Sanatorium.

Recreation Building: This will give an adequate auditorium and also rooms for Occupational Therapy.

Chapel and Library: The Chapel will seat 125 people.

Dormitory or Home for Domestic Female Staff: Accommodation has been provided for 53.

Workshop: This building will provide much needed facilities for the general maintenance of the numerous buildings at this institution.

Diagnostic Services.

Stationary clinics and mobile X-ray surveys have been conducted as last year. The Division of Tuberculosis gave diagnostic services, chiefly X-ray, to 155,674 people. The Indian Affairs Branch examined 7,683 Indians. It may be said that free diagnostic services were extended to some 163,357 people in Alberta last year. This is an increase of almost 30,000 over 1947.

The mobile X-ray units operated by the Division X-rayed 146,619 persons, which is 28,000 more than in 1947. These units, since put into operation in 1943, have reached almost every town in Alberta and some are now being covered for the second time. The Edmonton survey was completed and approximately 80% of the population X-rayed. Lethbridge and Medicine Hat gave percentages even higher.

This response on the part of the public is essential in the effort to locate all cases of tuberculosis. It is believed that some 2,656 new cases of tuberculosis, both active and inactive, have been discovered this year. This is approximately 1.6% of those examined. (For the numerical details of the clinic work, please consult the Statistical Section.)

Treatment Services.

On June 1, the tuberculosis ward in the University Hospital, which had been temporarily given up for other work, was again re-opened. This added 22 more beds to the Edmonton accommodation.

During the year, 797 patients received institutional care and treatment, an increase of 55 over last year. Admissions numbered 433, an increase of 30.

The tendency to relapse in this disease is an ever present cause of anxiety. One out of every five admissions last year had been a former patient. The prevention of this is difficult, but with earlier diagnosis and more competent collapse and operative procedure, and a sufficient period of treatment, it is hoped to reduce the number of relapses.

Collapse therapy by various surgical procedures continues to play an important part. Details of this work will be found in the Operating Room report.

In addition to the above number of patients treated by the Division of Tuberculosis, the number of Indians treated in the Charles Camsell Hospital was 399.

Sanatorium Schools.

Full-time fully qualified teachers are employed in both Edmonton and Calgary, and in each city approximately 60 patients are

continuously enrolled. Their studies vary from those of Grade I to University and Business College curricula.

Affiliation with Training Schools for Nurses.

An instructress has been employed and agreements have been completed with the Holy Cross Hospital, Calgary, the Galt Hospital, Lethbridge, and the Medicine Hat General Hospital. Early in 1949 these hospitals will send senior nurses from their training schools to the Sanatorium in Calgary for eight weeks' training in tuberculosis work. Last year affiliation was accomplished with the school for Nurses' Aides. This effort helps to meet the need for nurses familiar with tuberculosis work who may choose later to seek sanatorium employment.

Acknowledgments.

No report of this Division would be complete without reference to the contributions being made by the Alberta Tuberculosis Association and the Indian Affairs Branch of the Federal Department of National Health and Welfare.

Alberta Tuberculosis Association.

Mass X-ray surveys throughout the Province would not have been possible except for the two X-ray units provided by the Tuberculosis Association. Mr. E. R. Baxter, organizer, has successfully conducted a campaign resulting in the largest number of people ever X-rayed in one year.

The rehabilitation work, under Mr. Stan Cameron, has been of real assistance to many patients. In carrying out this work, the Tuberculosis Association relieves the Division of a real responsibility.

This Association has made provision to supply the equipment for the new Occupational Therapy Department in the Recreation Building at the Central Alberta Sanatorium. They have also continued their assistance both in Edmonton and Calgary.

May I present the following excerpts from the Annual Report of Mr. E. R. Read, President of the Alberta Tuberculosis Association:

"Public Education: I will try to tell you as briefly as I can of some of these other forms of attack. Education is one. We have dozens of films on tuberculosis and public health in constant circulation throughout the Province, shown regularly and widely by the National Film Service, the University Extension Department, the Department of Education and the Department of Health. Pamphlets and much other educational material are distributed freely to schools, libraries and other places where it will be useful. The Press and the Radio assist us in the dissemination of information about tuberculosis."

"Professional Education: We have provided thousands of dollars by which doctors of the Tuberculosis Divisions, Provincial and Federal, can take special post-graduate training. Prizes and fellowships are made available to medical students to encourage interest in tuberculosis work. Doctors are regularly sent pamphlets, professional articles on T.B., and other useful information about the activities of the Association and the Department of Health."

Steps are now being taken by Mr. C. Robert Dickey, Association Secretary, to encourage the X-ray chest examination of all general

hospital admissions. A number of hospitals have accepted financial grants and an increasing number of hospital admissions are being routinely X-rayed. In the event that tuberculosis is found, the patient is benefited by an earlier diagnosis and the hospital personnel can adopt the necessary technique to safeguard its health.

The Indian Affairs Branch of the Department of National Health and Welfare.

The work of this Branch is being developed rapidly and efficiently. The various Reserves are regularly X-rayed, and active cases of tuberculosis given Sanatorium treatment. This treatment compares very favourably with that provided for the non-Indian population. Undoubtedly the white population of this Province will profit very materially by having the situation on the Reserves improved.

In the more outlying parts, X-ray equipment is flown in and examinations conducted, not only of Treaty Indians, but of the whole population. This brings to many people diagnostic opportunities which otherwise would be lacking. We are indebted to Dr. H. Meltzer, Director of the Charles Camsell Hospital, for co-operating with this Division in carrying out this service for us.

Services to Physicians and Hospitals.

The Division has continued its policy of giving laboratory service, of providing tuberculin for diagnosis, and in the free interpretation of X-ray films submitted. During the year the number of X-ray films sent in and interpreted was 5,857.

Staff.

It has been impossible to maintain a full staff of physicians. One of the chief handicaps is that the remuneration of Departmental physicians is so far out of line with that of the general profession that tuberculosis work is not attractive.

The nursing situation has improved somewhat this year, but the large turn-over of nurses causes much difficulty in maintaining a satisfactory service.

At the time of the preparation of this report, four of the five recommendations made last year are in the process of being implemented. The William Aberhart Memorial Sanatorium is under construction; the Tuberculosis Regulations have been widened to include all forms of tuberculosis; a Recreation Building is being constructed at Central Alberta Sanatorium; two houses for physicians are under construction.

Administrative Section.

FISCAL YEAR ENDING MARCH 31, 1949

Sanatorium Patient Days:	
Central Alberta Sanatorium	79,430
Edmonton General Hospital	46,834
Royal Alexandra Hospital	19,883
University Hospital (from June, 1948, only)	6,428
	<u>152,575</u>
Gross Operating Cost—Central Alberta Sanatorium	\$426,904.62
Revenue	57,364.97
Net Operating Cost	369,539.65
Gross Cost per Patient Day	5.38
Net Cost per Patient Day	4.66
Hospital Costs—Edmonton and elsewhere	319,000.13
Cost of Clinic Service:	
Treatment—Out Patient Pneumothorax	\$ 4,339.00
Mobile Units	20,912.35
Other Diagnostic Services	10,816.08
	<u>36,067.43</u>
Gross Cost under Tuberculosis Act	\$781,972.18

On the basis of a population of 946,000, the per capita cost for Tuberculosis Control was 92c.

The total number of meals served at Central Alberta Sanatorium was 391,602. The cost of food per meal was \$0.2596, an increase of \$0.0292 over that of last year.

Recommendations.

1. The speedy completion of the William Aberhart Sanatorium.
2. The construction of a building for nurses and female domestic staff at this new Sanatorium.
3. The construction of a laundry at the new Sanatorium.
4. An addition to the Administration Building at Central Alberta Sanatorium to provide adequate Operating Room facilities, extension of X-ray Department, and provision of adequate room and facilities for the hundreds of people coming for diagnosis. This is an urgent and vital matter, if the scope of the Tuberculosis Act is to be realized.
5. Improved transportation facilities from Calgary to the Sanatorium. This will involve the improvement of the road from the Bowness highway to the Sanatorium.
6. Co-operation with the general hospitals and the Alberta Tuberculosis Association in promoting the X-ray chest examinations of all hospital admissions.
7. The salary schedule, especially of technical staff, needs revision.

Acknowledgments.

I wish to thank the Honourable Dr. W. W. Cross, Minister of Health, Dr. M. R. Bow, Deputy Minister, for their sympathetic consideration of the problems of tuberculosis and their efforts in making possible the work accomplished.

Grateful acknowledgment is made of the assistance given by numerous voluntary organizations.

The year's work in Edmonton has been made possible through the co-operation of the management of the University Hospital, the General Hospital and the Royal Alexandra Hospital. To all of

them we express our appreciation. To the physicians, nurses, and all other members of our staffs in Calgary and Edmonton, I wish to say, "Thank you" for loyal support and conscientious devotion to the task which is ours.

DIAGNOSTIC 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	50	12	12	.....	.....	223	198	421
Central Alberta Sanatorium	104	33	103	3	2	1079	1312	2391
Drumheller	1	.....	2	.....	.....	7	22	29
Edmonton	157	160	268	1	.....	1842	1496	3338
Lethbridge	6	7	18	.....	.....	137	136	273
Medicine Hat	9	4	5	.....	.....	69	122	191
Red Deer	6	3	3	.....	.....	66	120	195
Stettler	1	.....	.....	.....	.....	19	7	26
Total	334	219	411	4	2	3442	3422	6864

TRAVELLING CLINICS:

None during 1948.

TUBERCULIN TESTING SURVEYS CONDUCTED BY PUBLIC HEALTH NURSES, TEACHERS, BUSINESS FIRMS, ETC.

	No. Tested	Positive	X-rayed	New Cases of T.B.
Student Nurses' Aides	133	27	238	2
Red Cross Blood Transfusion Service .....	.....	.....	18	.....
Drumheller Hospital Admissions .....	.....	122	122	2
Medicine Hat Seal Survey .....	.....	.....	99	.....
Normal School Survey, Calgary	181	12	14	.....
Horseshoe Inn, Calgary	14	7	7	.....
University of Alberta	842	88	by M. Unit	.....
Salvation Army Booth Memorial Home, Calgary	83	10	12	.....
College Heights .....	.....	17	18	.....
Stettler Health Unit	821	56	.....	.....
Edmonton	117	37	37	.....
Total	2191	376	565	4

N.B.—Two of the new cases of tuberculosis were examined by a regular Tuberculosis Clinic, where the diagnosis was definitely established and these two cases show in the Clinic Report figures.

MOBILE UNIT, 1948

Place	Number X-Rayed	Probable Tub.		Admission Advised	Admitted	Further Exam. Required	Non-Tub.	Pleurisy		No Disease
		Active	Inactive					Active	Inactive	
Airdrie	714	2	8 (3R)			14	16		9	665
Athabasca	1371	5 (1R)	8	11	1	9	13		3	1326
*Atikameg	4	4	1			1	2			
Banff	1117	1	13 (1R)	1	1	18	24		13	1046
Bashaw	1146		2			13	20		7	1103
Bellevue	1091		8			4	14		10	1040
Berwyn	854	5 (1R)	8	1	1	5	3		5	826
Blairmore	988		9 (4R)			11	35		9	921
Bowden	986	2	5			12	14		6	947
Boyle	882	2 (2R)	9 (1R)	1	1	12	6		1	843
*Calling Lake		1	2							
Canmore	731	1 (1R)	5			11	22		8	684
Canyon Creek	440	2	5	1	1	2	2	1	1	426
Carstairs	1546	1	7			25	38		15	1460
Claresholm	1690		8			18	30		17	1615
Coaldale	1761	1	9 (2R)			9	22		16	1703
Cochrane	1000		6 (3R)			17	13		8	956
Coleman	1816	1	13 (4R)			16	58		19	1694
Colinton	543	2 (2R)	6	1	1	1	2			531
Crossfield	925	2	2			10	23		7	880
*Desmarais			2				2		1	
Didsbury	1423		6 (1R)			13	28		8	1368
Dixonville	322		3				2		1	316
Edmonton	61710	61 (8R)	1376 (102R)	19	16	318	283		191	59311
Exshaw	326		4 (1R)			16	6		6	294
Fairview	1481	2	14	1	1	10	3		8	1444
Falher	1200	4 (2R)	17 (4R)			6	11		3	1159
Faust	439		7 (2R)			2	3		1	424
*Ft. Chipewyan		4 (1R)	4	5	1	5	3			
*Ft. McMurray		4	5	4	1	7	5			
*Ft. Vermilion		4 (1R)	4 (2R)	3	3	1	2			
Granum	677		5			7	11		2	652
Grossmont	286		2			1				282
Grimshaw	466	3	6 (1R)	1			4			452
*Grouard, Little Red River, Sandy Lake, Hay Lake, Slave River, Trout Lake)		4				1	2			
High Prairie	1892	5 (1R)	22 (3R)	3	1	9	12			1834
High River	2313		13 (3R)			25	46	1	11	2216
Hillcrest	534		3 (1R)			3	7		4	514
Hines Creek	1052	2	7	1		4	2		3	1033
Keg River	302	1 (1R)	7	1	1	2	2		1	289
Kinuso	380		3			3			6	371
Leduc	3040	4 (1R)	15 (2R)	3	3	14	18			2976
Lethbridge	14838	2	123 (65R)	3	3	146	287		158	13807
Lethbridge Gaol	227		10 (3R)			3	4		6	201
Manning	826	1	4			1	4		6	809
Medicine Hat	12491	9 (1R)	148 (46R)	2	2	132	241		144	11753
Millet	1084	1	4			6	4		2	1062
McLennan	549	1	8 (1R)			11	1		1	527
Nanton	1494	3	10	1	1	19	32	1	12	1414
Olds	1428		12 (2R)			8	38		15	1352
Oliver Mental Inst.	783		2			20	9	1	4	746

MOBILE UNIT SURVEYS—Continued

Place	Number X-Rayed	Probable Tub.		Admission Advised	Admitted	Further Exam. Requested	Non-Tub.	Pleurisy		No Disease
		Active	Inactive					Active	Inactive	
Peace River	1247	6	10 (1R)	4	1	10	6	.....	.....	1206
Perryvale	292	.....	1 (1R)	.....	.....	1	4	.....	1	283
Raymond Mental Hospital	141	3	9	.....	.....	2	6	.....	2	119
Rycroft	854	1	10	1	1	7	4	.....	.....	832
Sexsmith	623	.....	6 (1R)	.....	.....	5	2	.....	1	607
Ponoka	1941	4	14 (1R)	.....	.....	45	45	.....	18	1801
Slave Lake	332	5 (1R)	6 (2R)	1	.....	3	3	.....	.....	313
Smith	483	1	7	.....	.....	2	4	.....	2	461
Spirit River	1147	1	7	.....	.....	3	6	.....	3	1124
Stavely	484	1	.....	.....	.....	7	10	.....	3	463
Suffield	425	.....	4 (4R)	.....	.....	1	9	.....	7	404
University Hospital	861	8 (7R)	2 (1R)	.....	.....	5	3	.....	2	840
*Wabasca .....	.....	5	5	4	.....	.....	.....	.....	.....	.....
Wanham	544	.....	3	.....	.....	3	1	.....	6	531
*Waterways .....	.....	4	1	4	1	6	2	.....	1	.....
Wetaskiwin	4519	1	22 (3R)	.....	.....	24	27	.....	12	4419
*Points included in Northern Survey carried out by Department Indian Affairs Unit. Total X-rayed and Negatives for all points included in this figure. These are non Indians	1562	.....	.....	.....	.....	.....	.....	.....	.....	1455
Total	146619	183 (29R)	2079 (274R)	81	42	1125	1566	4	806	140130

SUMMARY—CLINICS AND SURVEYS

	No. Sessions	New Cases Tuberculosis				Total Exam. & Surveyed
		Pulmonary Active	Pulmonary Inactive	Non-Pulmonary Active	Non-Pulmonary Inactive	
Stationary Clinics	334	219	411	4	2	6864
Travelling Clinics .....	.....	.....	.....	.....	.....	.....
Surveys, all types	11	1	1	.....	.....	2191
Indians	16	113	35	6	5	7683
(Work done by Rept. of National Health and Welfare)	.....	.....	.....	.....	.....	.....
Mobile Unit Surveys	72	154	1805	.....	.....	146619
	433	487	2252	10	7	163357

In addition to the above, 178 persons reported to Central Alberta Sanatorium for X-rays. These people were not contacts of known cases of tuberculosis nor were they referred by general practitioners. Verbal reports were given and if the film was abnormal the patient was examined.

SOURCES OF DISCOVERY OF NEW CASES OF TUBERCULOSIS

	1947	%	1948	%
Clinics	690	64.3	636	64.2
Referred for admission by family physicians	113	10.5	141	14.2
Surveys .....	.....	.....	2	.2
Indians (work carried out by Dept. Health and Welfare (National))	165	15.4	159	16.1
Referred by D.V.A.	54	5.0	22	2.2
Provincial Laboratory (1 Indian included)	11	1.0	11	1.1
Staff, Central Alberta Sanatorium .....	.....	.....	.....	.....
Staff, Edmonton General Hospital	1	.1	.....	.....
Other sources (1 Indian included)	39	3.6	19	1.9
	1073		990	

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 990 NEW CASES OF TUBERCULOSIS

Active pulmonary tuberculosis	482
Inactive pulmonary tuberculosis	475
Non-pulmonary tuberculosis	33
	990

(10 of these non-pulmonary cases are Indians)

CLASSIFICATION OF 990 NEW CASES OF ACTIVE AND INACTIVE PULMONARY TUBERCULOSIS (Indians not included)

Minimal	432	53.6
Moderately advanced	186	23.1
Far advanced	92	11.4
Primary	84	10.4
Tuberculosis pleurisy with effusion	12	1.5
Tuberculous pleurisy without effusion .....	.....	.....
	806	
Non-residents diagnosed as having tuberculosis	19	1.9
Persons advised to have Sanatorium care (exclusive of Indians)	349	
Accepted for treatment	319	
Admitted	310	

EXAMINATION OF CONTACTS OF NEW CASES OF TUBERCULOSIS

Known contacts of newly discovered cases	1732
Known to be examined	922 53.6

ALBERTA INDIAN SURVEYS—CHARLES CAMSELL INDIAN HOSPITAL

(Department of National Health and Welfare)

Agency	Date 1948	No. X-Rayed		Pulmonary Tuberculosis		Non-Pulmonary Tuberculoses		Indians tub. adm. to Chas. Camsell, 1948
		Ind.	White	Active	Inactive	Active	Inactive	
Athabasca	Sept.	1027	.....	50	165	1	.....	26
Blackfoot	Dec.	290	36	2	37	.....	.....	7
Blood	Dec.	970	38	27	84	1	.....	7
Edmonton	April	140	.....	1	22	.....	1	} 12
	Nov.	118	5	.....	.....	11	.....
	Sept.	179	.....	1	4	.....	.....
Fort Vermilion	June	910	.....	54	107	.....	.....	7
Hobbema	April	1119	21	19	108	2	1	31
Lesser Slave Lake	May	292	.....	3	50	.....	1	} 9
	June	578	.....	36	28	.....	.....
Peigan	April	558	4	13	44	1	.....	8
Rocky Mtn. House	May	14	1	.....	4	.....	.....	1
Saddle Lake	Oct.	629	39	5	55	.....	1	6
Sarcee	April	143	3	1	21	.....	.....	1
Stony	April	493	27	5	32	.....	1	4
Stony (Nordegg)	May	49	.....	1	8	.....	.....	.....
		7509	174	218	820	5	5	119

TUBERCULIN MAILING LIST, 1948

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.
Public Health Nurse	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.
Suffield Military Hospital	Suffield, Alberta.
Taber Municipal Hospital	Taber, Alberta.
Red Deer Municipal Hospital	Red Deer, Alberta.
Miscellaneous:	
Dr. Y. Blayney	High River, Alberta.
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. H. Lander	Black Diamond, Alberta.
Dr. Gorrell	Calgary, Alberta.

In addition to the above the following was sent in response to requests: Dilution No. 5, 2 bottles; Dilution No. 4, 5 bottles; Dilution No. 3, 254 bottles; Dilution No. 2, 42 bottles; Patches, 1,281.

INSTITUTIONAL REPORTS

	Central Alberta Sanatorium	Edmonton General Hospital	University	Royal Alexandra Hospital
Patients under treatment January 1, 1948	198	133	.....	33
Patients admitted, 1948	164	208	2	59
Patients transferred in	10	16	33	2
	<hr/> 372	<hr/> 357	<hr/> 35	<hr/> 94
Discharged and died	160	192	12	53
Patients transferred out	2	43	4	12
Total	<hr/> 162	<hr/> 235	<hr/> 16	<hr/> 65
Patients under treatment Dec. 31, 1948	214	122	19	29
Patient days, 1948	77,514	47,093	4,583	12,205
Number of individuals who received treatment in Sanatorium beds during 1948—797.				

DIAGNOSIS ON ADMISSION OF 433 PATIENTS ADMITTED, 1948

	Central Alberta Sanatorium	Edmonton Sanatoria	Total
Non-tuberculous	10	5	15
For diagnosis .....	.....	20	20
Pleural Effusion	3	6	9
Tuberculosis, Inactive	1	.....	1
Primary tuberculosis	2	6	8
Tuberculous pleurisy .....	.....	.....	.....
Non-Pulmonary Tuberculosis	2	.....	2
Pulmonary tuberculosis active:			
Minimal	20	46	66
Moderately advanced	58	120	178
Far advanced	65	63	128
Miliary	3	3	6
	<hr/> 164	<hr/> 269	<hr/> 433
Number with positive sputum on admission.	108	122	230
Number with negative sputum on admission, positive later	8	2	10
Number persistently negative	48	145	193
	<hr/> 164	<hr/> 269	<hr/> 433
Of the above 433 admissions, re-admissions were	41	49	90

OPERATING ROOM REPORTS

	Central Alberta Sanatorium	Edmonton General Hospital	Royal Alexandra Hospital	Total
THORACOPLASTY:				
Number stages	57	.....	.....	57
Number cases	23	.....	.....	23
Pneumolysis (closed)	24	27	.....	51
Phrenicophraxia	3	14	.....	17
Thoracoscopy .....	.....	9	.....	9
Aspirations from pleural space	552	72	.....	624
Other aspirations	8	27	.....	35
Pelvic examinations	6	.....	.....	6
Vital capacities	40	3	.....	43
Plaster casts	5	.....	.....	5
Lumbar punctures	140	14	2	156
Intracavity pressure and Monaldi drainage...	3	2	.....	5
Epididymectomy	1	.....	.....	1
Excision ischio rectal abscess	3	.....	.....	3
Excision of moles	3	.....	.....	3
Tuberculin therapy .....	.....	1	.....	1
Paracentesis .....	.....	5	.....	5
Cavernostomy .....	.....	2	.....	2
Summary of Pneumothorax Cases:				
Under treatment Jan. 1, 1948, in patients ..	174	95	15	284
Under treatment Jan. 1, 1948, out patients ..	63	65	9	137
Under treatment on Admission	10	11	.....	21
	<hr/> 247	<hr/> 171	<hr/> 24	<hr/> 442
Cases discontinued	68	41	10	119
Number transferred out of Alberta	21	2	.....	23
Number transferred to other sections of Division	3	8	4	15
	<hr/> 92	<hr/> 51	<hr/> 14	<hr/> 157
Under treatment December 31, 1948	155	120	10	285
Unsuccessfully attempted	14	10	5	29
Refills:				
Resident	6,229	4,188	410	10,827
Out patient	4,179	2,569	334	7,082
Total	<hr/> 10,408	<hr/> 6,757	<hr/> 744	<hr/> 17,909
Summary Pneumo-Peritoneum Cases:				
Under treatment January 1, 1948	6	3	.....	9
New cases started during 1948 .....	.....	3	1	4
Cases discontinued	4	2	1	7
Under treatment December 31, 1948	2	4	.....	6
Number of refills	127	137	3	267

In addition to the above, 656 refills were given to 53 ex-sanatorium patients at the following places: Banff, Beaverlodge, Drumheller, Elk Point, High Prairie, Lacombe, Lamont, Lethbridge, Medicine Hat, Peace River, Ponoka, Provost, Red Deer, Stettler.

X-RAY DEPARTMENT REPORT

	Central Alberta Sanatorium	Edmonton General Hospital	Royal Alexandra Hospital	University	Total
RADIOGRAPHS MADE:					
Thorax	4,390	4,567	217	55	9,229
Spine	29	34	2	1	66
Pelvis	8	10	.....	1	19
Knee	5	3	.....	.....	8
Skull	1	1	.....	.....	2
Sinuses	3	2	.....	.....	5
Teeth	29	29	.....	.....	58
Shoulder	3	.....	.....	.....	3
Hand	2	1	.....	.....	3
Wrist	4	.....	.....	.....	4
Arm	1	.....	.....	.....	1
Elbow	4	.....	.....	.....	4
Thumb	1	.....	.....	.....	1
Jaw	1	.....	1	.....	2
Ischium	1	.....	.....	.....	1
Ankles	2	13	.....	.....	15
Feet	3	1	.....	.....	4
Abdomen	9	11	.....	.....	20
Kidneys, ureters, bladder	6	.....	.....	.....	6
Intravenous pyelogram	5	2	1	.....	8
Bladder	1	.....	.....	.....	1
Gastro Intestinal Tract	6	.....	.....	.....	6
Gall Bladder	1	.....	.....	.....	1
Finger .....	.....	1	.....	.....	1
Hips .....	.....	1	.....	.....	1
Ribs .....	.....	1	.....	.....	1
	4,515	4,677	221	57	9,476
FLUOROSCOPIC EXAMINATIONS:					
Thorax	7,073	4,669	472	16	12,230
Colon	6	84	7	.....	97
Gastro Intestinal Tract	4	.....	.....	.....	4
	7,083	4,753	479	16	12,331
Films referred for Interpretation	2,506	3,351	.....	.....	5,857
Basal Metabolism Rate	15	1	.....	.....	16

LABORATORY REPORTS

	Central Alberta Sanatorium				Edmonton General Hospital	Royal Alexandra Hospital	University Hospital	Total
	In Pts.	Out Pts.	Staff	Total C.A.S.				
SPUTUM EXAMINATIONS:								
Positive	1,087	79	.....	1,166	713	247	.....	2,126
Negative	1,602	614	.....	2,216	1,010	432	37	3,695
URINE EXAMINATIONS	3,557	30	.....	3,587	593	2,213	68	6,461
BLOOD EXAMINATIONS:								
Blood count	308	19	54	381	824	72	3	1,280
Sedimentation	635	390	5	1,030	715	180	60	1,985
Blood sugar	13	.....	.....	13	10	16	4	43
Non-protein nitrogen	6	.....	.....	6	.....	.....	.....	6
Bleeding, clotting, typing	18	.....	.....	18	.....	.....	.....	18
MISCELLANEOUS:								
Pleural fluid	29	10	.....	39	19	.....	.....	58
Gastric lavage .....	.....	.....	.....	.....	97	.....	.....	97
Gastric analysis	14	.....	.....	14	4	2	.....	20
Guinea pig inoculation	92	91	.....	183	46	.....	.....	229
Spinal fluid	153	.....	.....	153	29	.....	.....	182
Cultures	90	.....	.....	90	35	.....	.....	125
Others	178	.....	.....	178	131	2	.....	311
WASSERMAN REPORTS:								
Positive	9	.....	.....	9	4	1	.....	14
Negative	157	.....	.....	157	144	49	.....	350
	1,948	1,233	59	9,240	4,374	3,214	172	17,000

HELIO THERAPY REPORT

	Central Alberta Sanatorium	Edmonton General Hospital	Total
Patients treated	21	29	50
Number of treatments	1,381	296	1,677

DENTAL REPORT

	Central Alberta Sanatorium	Edmonton General Hospital	Royal Alexandra	Total
Number of patients examined	155	133	53	341
Number patient treatments	179	.....	.....	179
Number prophylactic treatments	177	22	15	214
Number of fillings	518	172	38	728
Number of extractions	277	74	54	405
Number new dentures and repairs	21	2	7	30
Number of bridges .....	.....	2	.....	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. For diagnosis	37	20	17	.....	.....	23	10	4
2. Primary tuberculosis	7	1	6	.....	.....	7	.....	.....
3. Re-infection type pulmonary tuberculosis clinical:								
Minimal	63	12	51	6	22	31	3	1
Moderately advanced	62	9	53	5	16	36	2	3
Far advanced	11	3	8	.....	.....	5	2	4
Re-infection type pulmonary tuberculosis bacillary:								
Minimal	3	.....	3	.....	1	2	.....	.....
Moderately advanced	87	6	81	.....	20	49	10	8
Far advanced	128	20	108	.....	16	35	13	64
Milliary	6	1	5	.....	.....	.....	.....	6
4. Tuberculous pleurisy	8	6	6	.....	.....	7	1	.....
5. Non-pulmonary tuberculosis	5	.....	5	.....	2	2	.....	1
Total active tuberculosis	380	54	326	11	77	174	31	87
Total treated .....	.....	.....	343	2	70	180	20	71
Total untreated .....	.....	74	.....	9	7	17	21	20
Grand total	417	74	343	11	77	197	41	91

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".

CLASSIFICATION ON ADMISSION OF 417 DISCHARGED PATIENTS:

	Central Alberta Sanatorium	Edmonton Sanatoria	Total
Observation	7	14	21
Non-Tuberculous	10	6	16
Tuberculosis, Inactive .....	.....	.....	.....
Childhood Tuberculosis	7	.....	7
Pulmonary Tuberculosis, Active	131	229	360
Tuberculous Pleurisy	2	6	8
Non-Pulmonary Tuberculosis	3	2	5
	160	257	417

DIAGNOSIS ON DISCHARGE OF 37 PATIENTS ADMITTED FOR DIAGNOSIS:

	Central Alberta Sanatorium	Edmonton Sanatoria	Total
Tuberculosis .....	.....	3	3
Tuberculous Pleurisy	2	.....	2
Non-Tuberculous Pleurisy	3	1	4
Silicosis .....	.....	2	2
Lung Abscess .....	.....	4	4
Bronchiectasis .....	.....	1	1
Pulmonary Fibrosis	4	.....	4
Fungus infection of lungs	1	.....	1
Odenoma of Thyroid	1	.....	1
Carditis .....	.....	3	3
Carcinoma Brochogenic	2	1	3
Carcinoma, pulmonary metastasis, primary in uterus	1	.....	1
Carcinoma, pulmonary metastasis, secondary to carcinoma of breast	1	.....	1
Abdominal mass, probably carcinoma	1	.....	1
Observation	1	5	5
No Disease .....	.....	.....	.....
	17	20	37

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

On Admission:	Number	On Discharge		Died
		Improved	Not Improved	
Minimal	54	50	3	1
Moderately Advanced	134	116	9	9
Far Advanced	116	53	9	54
Primary	6	6	.....	.....
Miliary	5	.....	.....	5
Non-Pulmonary Tuberculosis	5	4	.....	1
Tuberculosis Pleurisy	6	6	.....	.....
	<u>326</u>	<u>235</u>	<u>21</u>	<u>70</u>

SEX:

	Central Alberta Sanatorium	Edmonton Sanatoria	Total
Male	88	133	221
Female	72	124	196
	<u>160</u>	<u>257</u>	<u>417</u>

SOCIAL STATUS:

	Central Alberta Sanatorium	Edmonton Sanatoria	Total
Single	64	120	184
Married	86	123	209
Divorced	1	2	3
Widowed	2	9	11
Separated	7	3	10
	<u>160</u>	<u>257</u>	<u>417</u>

VII.—OCCUPATIONS—WOMEN:

	Central Alberta Sanatorium	Edmonton Sanatoria	Total
At Home	3	17	20
Bander (Pottery)	1	.....	1
Cashier .....	.....	1	1
Clerk (Sales) .....	.....	3	3
Comptometer Operator	3	.....	3
Cook .....	.....	2	2
Dental Assistant	1	.....	1
Domestic	2	3	5
Housewife	36	62	98
Infant	1	.....	1
Laundry .....	.....	1	1
Manager (Department Store)	1	.....	1
Nursing Aide	1	.....	1
Nurse (Graduate)	2	.....	2
Nurse (Student)	3	1	4
Packing plant .....	.....	2	2
Physician .....	.....	1	1
Religious	1	2	3
Seed Sorter	1	.....	1
Stenographer	7	3	10
Student	5	19	24
Teacher	2	.....	2
Waitress	2	2	4
Ward Aide .....	.....	5	5
	<u>72</u>	<u>124</u>	<u>196</u>

MEN:	Central Alberta Sanatorium	Edmonton Sanatoria	Total
At home	1	10	11
Artist	1	.....	1
Attendant .....	.....	2	2
Attendant (Park)	1	.....	1
Baker .....	.....	1	1
Barber .....	.....	1	1
Bookkeeper .....	.....	2	2
Brakeman	1	.....	1
Bulldozer operator .....	.....	2	2
Bus driver .....	.....	2	2
Butcher	1	.....	1
Carpenter .....	.....	5	5
Clerk (Sales)	2	1	3
Clerk (Office)	2	5	7
Cook	1	1	2
Core Driller	1	.....	1
Doormaker (Woodwork)	1	.....	1
Electrician	2	1	3
Engineer(Chemical	1	.....	1
Engineer, Steam	1	.....	1
Farmer	20	36	56
Glazier .....	.....	1	1
Grain Buyer	1	.....	1
Grocer .....	.....	1	1
Hatchery .....	.....	1	1
Implement dealer	1	.....	1
Jeweller .....	.....	1	1
Laboratory technician .....	.....	2	2
Laundry .....	.....	1	1
Lumberman .....	.....	5	5
Labourer, farm	6	.....	6
Labourer, excavation	1	.....	1
Labourer, steam plant	1	.....	1
Labourer, munitions	1	.....	1
Labourer, pottery	1	.....	1
Labourer, cement plant	1	.....	1
Labourer, miscellaneous	8	9	17
Manager, theatre	1	.....	1
Manager, Greyhound Bus	1	.....	1
Manager, Lumber Co.	1	.....	1
Manager, hotel	1	.....	1
Manager, office .....	.....	3	3
Mechanic	2	3	5
Millwright (brass foundry)	1	.....	1
Miner (1 hard rock)	4	6	10
Minister	1	.....	1
Packing plant .....	.....	1	1
Painter .....	.....	2	2
Plasterer	1	.....	1
Postmaster	1	.....	1
Printer .....	.....	1	1
Pre-school	1	2	3
Projectionist	1	.....	1
Real estate .....	.....	1	1
Retired .....	.....	4	4
Section hand .....	.....	1	1
Serviceman (vacuum cleaner)	1	.....	1
Shipper	1	.....	1
Student	5	12	17
Tool dresser	1	.....	1
Trapper .....	.....	1	1
Truck driver	4	2	6
Waiter	1	2	3
Warehouseman (Dairy)	1	.....	1
Welder .....	.....	2	2
Unknown	1	.....	1
	<u>88</u>	<u>133</u>	<u>221</u>

RESIDENCE OF DISCHARGED PATIENTS:

	Central Alberta Sanatorium	Edmonton Sanatoria	Total
CITIES:			
Calgary	53	.....	53
Drumheller	1	.....	1
Edmonton	14	105	119
Lethbridge	6	.....	6
Medicine Hat	7	.....	7
Red Deer	1	.....	1
Wetaskiwin .....	.....	.....	.....
	<hr/> 82	<hr/> 105	<hr/> 187
TOWNS:			
Athabasca .....	.....	2	2
Banff	3	.....	3
Barrhead .....	.....	2	2
Bassano	1	.....	1
Blairmore	2	.....	2
Brooks	2	.....	2
Camrose .....	.....	3	3
Carbon	1	.....	1
Cardston .....	.....	1	1
Castor .....	.....	1	1
Coleman	1	.....	1
Coronation	1	.....	1
High River	1	.....	1
Leduc .....	.....	3	3
Lloydminster .....	.....	1	1
Nanton	2	.....	2
Olds	2	.....	2
Peace River .....	.....	1	1
Ponoka	2	.....	2
St. Albert .....	.....	3	3
St. Paul	1	2	3
Stettler	2	.....	2
Toffield .....	.....	4	4
Turner Valley	1	.....	1
Wainwright .....	.....	2	2
Westlock	1	.....	1
	<hr/> 23	<hr/> 25	<hr/> 48
VILLAGES:			
Alliance .....	.....	1	1
Airdrie	1	.....	1
Andrew .....	.....	1	1
Bawlf .....	.....	1	1
Bentley	1	.....	1
Black Diamond	2	.....	2
Bonnyville .....	.....	2	2
Bruderheim .....	.....	2	2
Derwent	1	.....	1
Cochrane	1	.....	1
Duchess	1	.....	1
Eckville	1	.....	1
Elk Point .....	.....	1	1
Forest Lawn	1	.....	1
Fairview .....	.....	5	5
Falher	1	.....	1
Forestburg	1	1	2
Grimshaw .....	.....	1	1
Hairy Hill .....	.....	1	1
High Prairie	1	2	3
Hillcrest	1	.....	1
Holden .....	.....	1	1
Lac La Biche	2	.....	2
Lamont	1	.....	1
Manville .....	.....	5	5
Minburn	1	.....	1
Mundare	1	.....	1
McLennan .....	.....	1	1
Onoway .....	.....	1	1
Provost	1	.....	1
Radway .....	.....	1	1
Rycroft .....	.....	2	2
Sedgewick .....	.....	2	2
Two Hills .....	.....	4	4
Vilna .....	.....	1	1
Waskatenau	1	1	2
	<hr/> 14	<hr/> 43	<hr/> 57

ENLARGED MUNICIPAL DISTRICTS:

No.	Central Alberta Sanatorium	Edmonton Sanatoria	Total
32	1	.....	1
40	.....	1	1
43	1	.....	1
48	2	.....	2
49	1	.....	1
54	1	.....	1
55	2	.....	2
63	1	3	4
64	3	.....	3
66	1	.....	1
67	1	.....	1
71	1	1	2
73	1	1	2
74	1	.....	1
75	.....	1	1
81	1	2	3
82	1	4	5
86	.....	2	2
89	.....	4	4
90	.....	2	2
92	.....	2	2
93	.....	3	3
103	.....	1	1
127	.....	1	1
135	.....	4	4
	<u>19</u>	<u>32</u>	<u>51</u>

LOCAL IMPROVEMENT DISTRICTS:

No.			
10	3	.....	3
15	1	.....	1
22	2	.....	2
28	2	.....	2
46	3	.....	3
69	.....	1	1
76	2	5	7
78	.....	1	1
79	.....	2	2
85	.....	2	2
95	.....	5	5
96	.....	1	1
101	.....	1	1
102	.....	5	5
107	.....	2	2
109	.....	2	2
122	.....	2	2
124	.....	4	4
125	.....	4	4
130	.....	1	1
131	1	.....	1
132	1	1	2
134	1	.....	1
138	1	.....	1
143	.....	7	7
144	.....	2	2
145	.....	4	4
Special Areas	2	.....	2
	<u>19</u>	<u>52</u>	<u>71</u>
Non-residents	3	.....	3

SUMMARY:

Cities	82	105	187
Towns	23	25	48
Villages	14	43	57
Enlarged Municipal Districts	19	32	51
Local Improvement Districts	19	52	71
Non-residents	3	.....	3
	<u>160</u>	<u>257</u>	<u>417</u>

RELIGION:	Central Alberta Sanatorium	Edmonton Sanatoria	Total
Anglican	33	24	57
Baptist	5	11	16
Brethren	1	1	1
Church of God	1	1	1
Christian Science	1	1	1
Confucian	1	1	1
Greek Catholic	3	19	22
Greek Orthodox	6	24	30
Jewish	1	1	1
Latter Day Saints	1	1	1
Lutheran	15	18	33
Methodist	4	1	4
Pentecostal	1	2	2
Presbyterian	10	7	17
Roman Catholic	30	92	122
Seventh Day Adventist	3	3	3
United	38	55	93
Undenominational	12	1	12
	<hr/> 160	<hr/> 257	<hr/> 417
AGE ON ADMISSION:			
From 1 to 9 years	2	3	5
From 10 to 14 years	1	11	12
From 15 to 19 years	13	41	54
From 20 to 29 years	50	75	125
From 30 to 39 years	41	46	87
From 40 to 49 years	23	31	54
From 50 to 59 years	16	24	40
From 60 to 69 years	9	14	23
From 70 and over	5	12	17
	<hr/> 160	<hr/> 257	<hr/> 417
NATIVITY:			
Alberta	72	136	208
Canada (other Provinces)	30	46	76
Austria	2	9	11
Belgium	1	1	1
China	1	1	2
Czechoslovakia	2	3	5
Denmark	1	1	1
England	15	16	31
Germany	1	1	1
Greece	1	1	1
Holland	1	1	1
Hungary	3	1	3
Ireland	4	1	4
Italy	2	1	3
Jugoslavia	1	1	1
Norway	3	6	9
Poland	2	16	18
Roumania	2	2	2
Russia	3	2	5
Scotland	4	3	7
Sweden	2	1	2
Ukraine	2	2	2
United States	12	10	22
Wales	1	1	1
	<hr/> 160	<hr/> 257	<hr/> 417
RESIDENCE IN ALBERTA:			
Born in Alberta	72	136	208
1 year or less	4	4	8
1 to 5 years	11	12	23
6 to 9 years	9	5	14
10 to 14 years	5	10	15
15 to 19 years	13	13	26
20 to 30 years	20	38	58
30 years or more	26	39	65
	<hr/> 160	<hr/> 257	<hr/> 417

RACIAL ORIGIN:	Central Alberta Sanatorium	Edmonton Sanatoria	Total
Austrian	2	5	7
Belgian	1	1	2
Chinese	1	1	2
Czechoslovakian	3	3	6
Danish	4	4	8
Dutch	4	2	6
English	39	42	81
Finnish	1	1	2
French	7	19	26
German	6	5	11
Greek	1	2	3
Hungarian	3	2	5
Irish	20	11	31
Italian	1	1	2
Japanese	2	1	3
Jewish	1	1	2
Jugoslavian	1	1	2
Manx	1	1	2
Metis	7	48	55
Negro	1	1	2
Norwegian	7	20	27
Polish	3	9	12
Roumanian	1	1	2
Russian	6	3	9
Scottish	25	20	45
Swedish	5	3	8
Ukrainian	7	53	60
Welsh	1	1	2
Unknown	1	1	2
	160	257	417

LENGTH OF STAY IN SANATORIUM OF 417 DISCHARGED PATIENTS

DEATHS:			
Number in Sanatorium under 31 days	6	14	20
Number of patient days	49	146	195
Average number patient days	8.1	10.4	9.8
Number in Sanatorium 31 or more days	29	42	71
Number of patient days	12,832	15,258	28,090
Average number patient days	442.5	363.2	395.6
DISCHARGES:			
Number in Sanatorium under 31 days	12	42	54
Number of patient days	147	725	872
Average number patient days	12.3	17.3	16.1
Number in Sanatorium more than 31 days	113	159	272
Number of patient days	51,328	33,712	85,040
Average number patient days	453.9	212	312.6
Total number deaths and discharges	160	257	417
Total patient days	64,356	49,841	114,197
Average number patient days	402.2	198.6	244.6

DONATIONS AND ENTERTAINMENTS

CENTRAL ALBERTA SANATORIUM

ENTERTAINMENT—Canadian Red Cross Society, Christmas Party; Weekly showing of 16 mm. Films; Elks Concert Party, Concert; Hallowe'en Party; Whist Party; Cribbage Tournament; Billiard Tournament; Picture Shows; St. Michael's and All Angels' Choir, Calgary, Christmas Music.

DONATIONS—Ladies' Auxiliary B.E.S.L., Bellevue, Alberta, Cash; Women's Auxiliary B.E.S.L., Rocky Mountain House, Alta., Cash; Lethbridge Nursing Mission, Gifts; Simmons Ltd., Candy; Mrs. A. L. Fraser, Barons, Alta., Cash; Mrs. R. K. Gordon, Edmonton, Alberta, Cash; Mrs. J. H. Woods, Calgary, Alberta, Cash; Lakeside Social Workers, Lacombe, Alta., Scrap Books, Crossword Puzzles; Mothers' Group, Calgary, Alberta, Gifts; Hillhurst United Church Evening Auxiliary W.M.S., Calgary, Alta., Gifts; Anglican Women's Auxiliary, Calgary, Alberta, Gifts; J. J. Harrison & Son, Bowness, Alberta, Christmas Cake; League of Mercy, Salvation Army Citadel, Calgary, Alta., Gifts; Masonic Lodges, Calgary, Alberta—Candy, Gifts; Hudson's Bay Company, Calgary, Alberta, Decorations; Canadian Red Cross Society, Gifts; Children's Hospital Aid, Calgary, Alberta, Gifts; Sisters of Ste. Famille, Calgary, Alberta, Gifts; Catholic Women's League, Calgary, Alberta, Gifts; Women's Auxiliary, Canadian Bank of Commerce, Calgary, Alberta, Gifts; McGavin Ltd., Calgary, Alberta, Shortbread; Ontario Laundry, Calgary, Alberta, Candy, Cigarettes.

EDMONTON GENERAL HOSPITAL

ENTERTAINMENTS—Cribbage Tournaments; Picture Shows; Valentine Party; Hallowe'en Party; Christmas Concert; Church Choirs.

DONATIONS—Mrs. Patzig, Cash; Mr. W. F. Kvill, Cash; Mr. and Mrs. J. D. Person, Cash; Gladys and Pete Staal, Cash; I.O.D.E., Magazine Subscriptions; Patients' Recreation Fund, Magazine Subscriptions; Alberta Tuberculosis Association, Library

Books; Dr. McPherson, Library Books; Mr. and Mrs. George Smith, Library Books; Ukrainian Ladies' Goodwill Club, Gifts; Joyeux Noel Club, Gifts; Les Bonnes Aimes Jrs., Gifts; Ed. Berg, Yellowknife, N.W.T., Gifts; Ft. Edmonton Chapter I.O.D.E., Gifts; Provincial Command, Canadian Legion Ladies' Auxiliary, Gifts; Rene Flowers, Gifts monthly); Junior Chamber of Commerce, Ladies, Cookies and Candy (monthly).

ROYAL ALEXANDRA HOSPITAL

ENTERTAINMENTS—Picture Shows; Bingo Parties; Valentine Party; Easter Party; Hallowe'en Party; Christmas Party, Salvation Army Choristers; R.A.H. Choral Club.
 DONATIONS—R.A.H. Women's Auxilliary, Bedside Tables, Bingo Prizes, Fruit and Candy; Ukrainian Benevolent Society, Magazines; Winodausis Society, Plants and Cut Flowers; Salvation Army, Fruit and Candy.

Mental Health Division

RANDALL R. MACLEAN, M.D., *Director of the Mental Health Division.*

Separate reports are submitted for each branch of the Division, namely:

- Provincial Guidance Clinic.
- Provincial Mental Hospital, Ponoka.
- Provincial Auxiliary Mental Hospital, Claresholm.
- Provincial Auxiliary Mental Hospital, Raymond.
- Provincial Mental Institute, Edmonton.
- Provincial Training School for Defectives, Red Deer.

The patient population of the above-mentioned Institutions of this Division stood at 3,185 (1,974 males and 1,211 females) on January 1, 1948. On December 31st, 1948, the patient population was 3,131 (1,940 males and 1,191 females). It will be noted that there was a reduction of the population by some 54 patients. This reduction is more apparent than real as, during the year 174 patients (109 males and 65 females) were discharged from the various Mental Hospitals and admitted to "Rosehaven", a residence established for them in the town of Camrose.

In the year 1948, 566 patients were admitted to the Provincial Mental Hospital, Ponoka (287 males and 279 females). This was some 74 patients fewer than in 1947. The reduction is probably accounted for by the fact that the Provincial Mental Institute, Edmonton, participated more actively in the admission of patients than formerly. The Provincial Mental Institute, Edmonton, admitted some 261 patients (118 males and 143 female) in 1948, whereas in 1947, 139 (97 males and 42 females) were admitted.

During 1948, 36 children (22 males and 14 females) were admitted to the Provincial Training School for Defectives, Red Deer. The activities of this Institution were hampered, due to much new construction which interfered with the movement of the population of it.

Transfers involving some 362 patients were made in 1948. All the Institutions in the Division were concerned in the transfers to a greater or lesser extent.

Also during the year a considerable amount of discussion took place with the University of Alberta Hospital authorities in Edmonton and the General Hospital authorities in Calgary, in connection with plans for the construction of a psychiatric Ward in each of the aforementioned hospitals, in the new wings which were to be added to each hospital. Final construction plans in respect to these wards were drawn up and arrangements were completed whereby the Provincial Government would give financial assistance towards construction to each of the hospitals concerned.

In 1948 a considerable amount of construction of new buildings was begun, involving several of the Institutions. Among the buildings commenced were the following: New Laundry Building, Pro-

vincial Mental Hospital, Ponoka; a new unit for Tuberculosis cases, Provincial Mental Institute, Edmonton; three new wards, Provincial Training School, Red Deer; complete renovation of the Administration Building, Provincial Training School, Red Deer; a small ward at the Provincial Auxiliary Mental Hospital, Raymond; and new quarters were prepared for the Provincial Guidance Clinic, Edmonton.

The services provided by the Provincial Guidance Clinics were expanded during 1948. With the establishment of a full-time Guidance Clinic in Edmonton, and with additions to the Calgary Clinic, it was possible to provide services to a great many more points throughout the Province than formerly. There was also an increase in the General Public Education activities in the nature of radio talks, round-table discussions with interested groups, and talks to various school organizations.

There was improvement during the year in the availability of trained staff members for the institutions and the clinics.

Five meetings of the Eugenics Board were held at the Provincial Mental Hospital, Ponoka, and two at the Provincial Training School, Red Deer, during the year. A total of 105 cases were presented for the Board's consideration (37 males and 68 females). The total number of cases operated upon to December 31st, 1948, was 1,128 (455 males and 673 females). The operations were performed by duly appointed honorary surgeons, assisted by the medical staff of the Provincial Mental Hospital, Ponoka.

ADMISSIONS ON A BROAD DIAGNOSIS, 1948

Hospital	Psychotic			Not Psychotic			Mentally Deficient			Grand Totals		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Ponoka	225	243	468	62	36	98	18	20	38	287	279	566
Oliver	90	119	209	28	24	52	14	10	24	132	153	285
Red Deer .....	.....	.....	.....	.....	.....	.....	22	14	36	22	14	36
Claresholm .....	.....	11	11	.....	.....	.....	.....	.....	.....	.....	11	11
Raymond .....	.....	13	13	.....	.....	.....	.....	.....	.....	.....	13	13
Totals	315	386	701	90	60	150	54	44	98	441	470	911

TABULATED SUMMARY—INSTITUTIONS: MOVEMENT OF PATIENTS

Hospital	Patients in Hosp.									Patients in Hosp.								
	Jan. 1, 1948			Admissions			Discharges			Deaths			Dec. 31, 1948					
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.			
Ponoka	810	611	1421	287	279	566	230	322	552	51	26	77	809	541	1350			
Oliver	1007	251	1258	118	143	261	115	57	172	35	12	47	966	305	1271			
Red Deer	157	132	289	22	14	36	7	10	17	7	3	10	165	133	298			
Claresholm .....	.....	99	99	.....	11	11	.....	9	9	.....	2	2	.....	99	99
Raymond .....	.....	118	118	.....	13	13	.....	16	16	.....	2	2	.....	113	113
Total	1974	1211	3185	427	406	887	352	414	766	93	45	138	1940	1191	3131			

"Discharges" includes Transfers to other Institutions.
Institutional Transfers numbered 362.

PROVINCIAL MENTAL HOSPITAL, PONOKA

Patient Population Changes.

On January 1st, 1948, there were in residence 1,421 patients, of whom 810 were male and 711 female. On December 31st, 1948, there were in residence 1,350 patients, 809 male and 541 female, representing an overall decrease of 71 patients. During 1948, 79 patients were transferred to other mental institutions in the Province, 7 of these being male and 72 female. Twenty-one patients were transferred to this hospital from other mental institutions in

the Province, 8 being male and 13 female. The latter transfers were effected in order that the facilities of this hospital might be made available for their particular needs.

Admission of Patients.

The number of admissions for the year, exclusive of transfers to this hospital from other mental institutions, was 545; of these, 279 were male and 266 female. This represents a decrease in the admission rate for the previous year of 73. Detailed information as to admissions and transfers appear on Table 1.

There were 118 patients admitted voluntarily; 146 by medical certificates; 276 by Warrant of the Attorney General, and 5 under The Mental Defectives' Act.

The decrease in admissions was probably due to the admission of patients to one of the other mental hospitals in the Province.

Seventy-one of the admissions were diagnosed as having one of the Senile Psychoses. This was approximately 13% of the admissions, and was a percentage increase over the preceding year.

Thirty-six patients were admitted suffering from Syphilis of the nervous system, most of whom were referred by the Division of Social Hygiene. Twenty-four of these were not considered psychotic. There would appear to be a definite decrease in the number of neurosyphilitic patients admitted.

Nine non-psychotic alcoholic patients were admitted, and also 16 patients with an alcoholic psychosis.

Of the 383 first admissions, 227 were of Canadian birth; 29 of American birth and 42 were born in the British Isles. The remainder were mainly from the various European countries, the exact details being given in Table 4.

Separation of Patients.

Separations for the year totalled 629, 281 being male and 348 female.

There were 473 discharged, and of these 59 were admitted to Rosehaven.

Seventy-seven died, this being an increase of 11 over the previous year.

Seventy-nine patients were transferred to other mental institutions, 40 of these being transferred to the Provincial Mental Institute, Edmonton, and the remainder to the Raymond and Claresholm Auxillary Mental Hospitals and the Provincial Training School, Red Deer.

Accidents and Elopements.

Among the patients there were 15 fractures, 8 of these being men and 7 women. The majority of these were in the older age group. With the increase in admissions of the senile, the possibility of fractures is a mounting risk.

There was one suicidal death. With a great number of suicidal patients at any one time in the hospital, continual vigilance on the part of the staff is necessary to protect patients from self-destructive tendencies.

There were 20 elopements during the year, all being men; the majority of whom were returned either by the staff of the hospital or the police authorities.

General Health.

In general, the health of the patients was good during the year. During the last two months there was an epidemic of enteritis, which caused the death of a number of elderly people. With effective measures, the epidemic was brought under control.

All the tuberculosis patients were isolated in special sections in the hospital. There has been no increase in the number of tuberculous patients, but it was obvious that these patients would receive more beneficial treatment in an institution with full facilities for their care.

Whenever possible, patients were allowed outdoors either independently or under supervision in the airing courts, open verandahs or on walking parties on the grounds.

Clinical Work.

On June 1st, 1948, the Medical Superintendent was promoted in the services to the position of Director of the Division of Mental Health, and his position was filled by promotion of the Assistant Medical Superintendent. Later in the year the Senior Physician was promoted to the position of Assistant Medical Superintendent.

A fully qualified and certified Psychiatrist was appointed to the newly created position of Clinical Director. One junior physician resigned to pursue advanced study in Psychiatry. His position was filled by a recent graduate in medicine. Two other experienced physicians were also appointed.

The treatment programme was active, and in general was similar to that of the previous year.

Treatment of Patients.

All patients on admission were fully examined and routine laboratory tests carried out. This included X-ray examinations of the chest, Serological tests and all other examinations indicated.

Treatment for all patients was instituted as soon as possible, and this was from necessity individualized as to the patients' needs. The majority of patients had a variety of forms of treatment. Many patients required treatment for physical disorders as well as special therapies for mental disorders.

Psychotherapy.

All patients to a greater or lesser degree were treated in this manner. This necessitates prolonged and repeated interviews.

Electro Shock Therapy.

This form of treatment continues to give favourable results in a great many cases. It was administered not only to new and acute cases, but also to cases on the continued treatment wards.

Indications are that it tends to shorten the period of mental illness and to lessen the incidental problems in ward routine. Furthermore, by lessening the disturbance on the wards it improves the environmental influence for the individual patient. At any given time approximately 30 patients were receiving Electric-Shock Therapy.

Insulin Shock Therapy.

An Insulin Treatment Unit has been maintained in operation and from 10-12 carefully selected cases were continuously receiving

this form of Therapy. A unit of this nature requires a staff specially trained, and whereas the expense was considerable, the feeling was that many patients were helped to recover who would have otherwise relapsed into a state of chronic illness. In general, only those patients who have not responded to Electro Shock Therapy are given advantage of this form of treatment.

Fever Therapy.

Fever Therapy was continued as the treatment of choice for neurosyphilis. All neurosyphilitics whose physical condition so permitted it were given fever therapy. In most instances this was induced by malarial inoculations. It has been obvious for the past two years that the admission rate of neurosyphilitics has been dropping, and this gave rise to some difficulty in that it was not always easy to maintain the malarial strain. Accordingly, plans were made for administering Fever Therapy by mechanical means if the decrease in the admission of neurosyphilitics should continue.

Penicillin, arsenic preparations and bismuth were given in conjunction with fever. The results were in many instances very satisfactory.

Hydrotherapy and Physiotherapy.

These forms of treatment were continued. They were used more extensively among the male patients because of the difficulty of obtaining the services of trained female staff.

There has been no desire in this hospital to minimize the value of hydrotherapy and physiotherapy because of the popularity of other forms of physical treatments.

Occupational Therapy.

This Department has continued to carry on a very active programme. Classes were conducted for patients in the active treatment wards, and also the continued treatment wards. Upward of 200 patients daily attended these classes.

Occupational Therapy continues to hold its established place in the treatment of mental disorders.

The Occupational Therapy staff supervises, to a large extent, the recreational activities of the patients. Recreation varied and as many patients as possible were included in the participating groups.

Toward the close of the year much appreciated assistance was rendered in the entertainment field for the service veterans in particular, and the patients in general, by groups of artists sponsored by the Department of Veterans' Affairs and the Provincial Command of the Canadian Legion in co-operation with the Ponoka Branch of the Canadian Legion.

Frequent social parties were held on wards, and there were also concerts, outdoor sports, curling and a variety of other entertainments.

The regular hospital bazaar was held as formerly. Articles produced during the year in the Occupational Department were sold to the general public. The usual exhibit was entered at the Edmonton Exhibition, and much interest was shown by the public.

All student nurses and graduate nursing students spent specified periods in the Occupational Department where they received instruction and in turn assisted with the therapy of the patients.

The patients' library and canteen continued to function satisfactorily.

Beauty Parlour.

This Department continued to be very active, and without a doubt was a most valuable form of treatment. Patients from the female wards were permitted in turn to avail themselves of the facilities. The usual beauty parlour procedures were carried out by the regular hospital staff, but permanent waving was done by a professional beautician at the expense of the patient.

Religious Services.

Religious services were conducted regularly throughout the year. These services were conducted by clergymen of the major denominations, and they were well attended and obviously much appreciated by the patients. Whenever requested the clergy had been only too pleased to assist individual patients.

Eugenics Services.

The Eugenics Board held five meetings at this hospital during the year. Some 86 cases, 29 male and 57 female, were examined by the Board. The cases were presented to the Board by the hospital medical staff and social workers.

Surgical Services.

Dr. J. W. Richardson and Dr. J. Ross Vant continued to act as honorary surgeons. They were most helpful, not only in their regular surgical activities, but also as consultants to the medical staff whenever requested to act as such.

The following is a summary of the various operative procedures:

Operations	Male	Female	Total
Laparotomy	3	3
Cholecystectomy	1	1
Salpingectomy	19	19
Orchidectomy	6	6
Vasectomy	6	6
Oophorectomy	2	2
Herniotomy	3	3
Saphenous Ligation	1	1
Dilatation and Curettage	1	1
Repair Laceration of Neck	1	1
Amputation of Right Arm	1	1
Reduction of Fractured Femur	1	1
Ligation of Vein	1	1
Totals	20	26
			46

Dental Department.

This Department continued to function under the supervision of a full-time dentist and dental treatment has been maintained on a high level. All incoming patients were examined and treatment carried out as required. All continued treatment cases were likewise seen regularly and treated when necessary.

The following is a summary of the work of the Dental Department:

Patient appointments	2319	Sundry operations (X-rays, denture adjustments, etc.)	296
Operations (all types)	3963	New dentures	31
Operations are divided as follows:		Repair dentures	49
Examinations, including new admissions	1754	Bridges (new)	.....
Teeth filled	473	Bridges (repaired)	7
Extractions	424	Inlays	2
Scalings and prophylaxis	541		
Peridental treatments	386	Total	3963

X-Ray Department.

This Department has continued to give a very adequate service. It was obvious, however, that with the increasing number of examinations necessary the present equipment was proving inadequate.

Basal Metabolism tests were also done in this Department.

The X-ray Department was staffed by a capable nurse technician.

The following is a summary of the procedures carried out by this Department:

Chests	1483	Alimentary Tract	1
Dorsal Spines	457	Abdomen	26
Lumbar Spines	21	Pyelogram	1
Cervical Spines	5	Barium (Stomach)	7
Skulls	38	Barium (Enema)	4
Nose	2	Gall Bladder	6
Jaw	5	Dental	37
Ribs	14	Patella	4
Shoulders	22	Sinuses	16
Elbow	8	Clavicle	3
Wrist	22	Sacro-iliac	2
Hand	34	Coccyx	3
Fingers	8	Scapula	2
Arm	26	Eye	1
Pelvis	37	Sternum	1
Hips	16	Mastoid	1
Femur	9	Esophagus	6
Knee	20	Skull (sterio)	2
Leg	11		
Ankle	33	Total	2409
Foot	14		

Laboratory Service.

This Department functioned in a similar manner to the previous year. For some months the regularly appointed technician was assisted by a non-registered refugee European physician. The laboratory staff as well as carrying out the usual procedures, assisted with post-mortem examinations.

The following is a list of the examinations done:

Urinalysis	1713	Specimens to Prov. Laboratory:	
Blood Counts	1397	C.S.F.	628
C.S.F., cell counts	628	Blood Wassermann	680
Sputum	294	Widal, Urea, etc.	30
Smears	58	Stool Specimens	55
Blood Chemistry	197		
Differential Blood Counts	156	Total	1363
Gastrics (Blood Grouping) Misc.	75	Post-mortems:	
		Routine Sections to Prov. Lab.	21
Total	4518	Total	5902

Nurses' Training School.

Miss Edith D. Kemp assumed the position of Superintendent of Nurses early in the year. Miss Kemp is a graduate of this hospital, and was formerly Assistant Superintendent of Nurses here. She has had a great deal of experience and training in a number of leading Canadian hospitals, and prior to returning here to the staff was on the teaching staff of the Vancouver General Hospital.

The teaching staff was brought up to strength by the addition of two qualified nursing instructors. The full programme of undergraduate and graduate training in Psychiatric Nursing was carried on. Thirty-one student nurses, 10 graduate nurses and 21 male attendants were given instruction.

There was still a definite shortage of graduate nurses, but there was some improvement in the general staff situation.

During the year, 13 nurses' aide trainees from the School of Nurses' Aides at Calgary spent eight weeks at this hospital in order to gain practical experience. Some of these trainees joined the

staff and have proved to be a very valuable acquisition. It would appear very definitely that graduates from this school should be encouraged to join the staff of this hospital.

Thirteen Bachelor of Science and Public Health students of the University of Alberta spent two weeks here as part of their field work. These students were given instruction in the classroom and on the wards, with the object of giving them some insight into Psychiatric Nursing.

Teaching of Medical Students.

Instruction was given at the University of Alberta by the Medical Superintendent and Assistant Medical Superintendent to senior and junior medical students. Three medical students acted as undergraduate interns on the staff during the summer months.

Medical Library.

Medical journal subscriptions were renewed and a number of new books were added to the Library. A need was felt, however, for a renewal of many of the text-books. Since the war years these had been unobtainable.

Visitors to the Hospital.

From time to time during the year visits were made to the hospital by Dr. W. W. Cross, Minister of Health, and Dr. Malcolm R. Bow, Deputy Minister of Health. The interest and direction of both was much appreciated by the staff and also by the patients.

Two graduate nurses from Denmark and one from Holland on educational tours visited the hospital. All showed genuine interest in our methods and gave valuable information as to hospital procedures in their respective countries.

Patients were visited by friends and relatives daily, and all possible courtesies were extended to them by the staff. Many visitors showed an interest in the hospital activities, and they were given every possible opportunity to observe the nature of the work done here.

The Eugenics Board, acting as a Visiting Committee, inspected the hospital and made careful inquiry into the details of patients' care. In general, the Board was satisfied with the hospital administration.

Department of Maintenance.

This Department has continued to operate efficiently under the Department of Health.

During the year the roofs of the staff dining hall, the main kitchen and the laboratory had been replaced with 20 year bonded covers. The roofs of 11 of the residences and the recreational hall have also been replaced and repairs made to other roofs.

Natural gas has been piped to all residences on the grounds and into the hospital and farm dormitory kitchens.

A number of residences have been repainted. Much painting and repair work has been done to many of the service buildings.

During the year a new farm dormitory building was completed, and approximately 80 patients were transferred there in December. This building has, to a considerable degree, relieved the congestion of the male wards, and the accommodation in this wing has proved to be very adequate.

Two new residences for staff were completed and occupied.

Work continued on the installation of a more adequate heating system in various parts of the hospital buildings.

Construction was continued on the new laundry building.

General repairs and maintenance were effectively handled by the Maintenance Department.

Fire Protection.

Regular fire practices were held, and the fire fighting equipment has been maintained in proper condition.

Business Office.

There has been no lessening in the responsibilities of the Business Superintendent and his office staff. Collection of maintenance accounts have been very satisfactory. The difficulties of the purchasing of supplies were considerably lessened.

Farm.

An average crop was harvested. The crops in general were average and there was an exceptionally good crop of hay. Twenty-five Registered Holstein cows were purchased in an effort to improve the dairy herd. There was a good production of pork, and some surplus was sold. Poultry and egg production was ample for the hospital requirements, and a sufficient number of turkeys were raised to supply this hospital and other institutions of this Department.

Cannery.

This Department operated in a most satisfactory manner. Over 21,000 No. 10 cans were processed and delivered to the hospital and shipped to other Government institutions. Much of the fruit canned was home grown, that is, berries and rhubarb.

It has been felt that this plant could be extended and the building structure made more permanent.

Print Shop.

This Department continued to provide most of the printing and also the book-binding for the hospital. A considerable amount of printing was also done for other branches of the Health Department.

Gardens.

The average production of vegetables was maintained. Some 230,000 pounds were placed in storage, and a considerable amount of fresh vegetables in season were delivered to the hospital kitchen. It was apparent that continued effort should be made to improve the storage facilities for vegetables.

Stores Department.

All stores supplies were efficiently handled. Considerable work was done by this Department for the Auxiliary Mental Hospitals.

Laundry.

This Department continued to operate under considerable handicap, but in general the work was carried on satisfactorily. It was obvious that the new laundry plant would readily facilitate the laundry needs of the hospital.

Tailor Shop.

New equipment installed in this Department has added to its efficiency. Some 38,000 yards of material were manufactured into garments of all types. Mattresses, strong blankets, pillow cases, hand towels, curtains and dozens of other items were produced.

Shoe Shop.

Repairing of patients' shoes was maintained. It is obvious that the modern machinery in this Department has been well worth the investment. When necessary, special shoes to meet the needs of individual patients were manufactured.

Department of Housekeeping.

Careful inventories were made of all Hospital Departments, including the Nurses' Home and various residences. Supplies and condemned materials were dealt with routinely as in previous years. Patients' clothing was given all possible attention, but it has been felt that some thought should be given to the establishment of a central store room for patients' personal clothing. Every effort has been made to improve the personal appearance of the clothing worn by patients.

Furnishings and general ward equipment have been repaired and replaced when necessary. The general cleanliness of the hospital was the responsibility of this Department.

Linen Room.

In this Department, linen for the wards was sorted, mended and distributed. The volume of work averaged about 25,000 pieces per week. It also provided constructive occupation for approximately 30 patients. Thought was given to extending the usefulness of this Department by including the care of men's clothes, the women's clothes being now cared for by it.

Sewing Room.

During the year, 23,939 articles were manufactured. This included patients' clothes, nurses' uniforms, window drapes, and a variety of other articles. It has been felt that the efficiency of this Department might be increased by the installation of more modern equipment. Quality of materials obtainable still left considerable to be desired, but there was some evidence of gradual improvement.

Dietary Department.

The diet of all patients and staff was supervised by this Department. Due to the increased variety of foods available, there was some improvement during the year. The Dietitian assisted in the instruction of student nurses and visiting student dietitians.

Department of Chief Engineering.

Adequate heat, light and water was supplied to the hospital and repairs adequately maintained. There was at all times a most satisfactory degree of co-operation between the personnel of this Department and the Public Health staff of the hospital.

Conclusion.

The hospital activities for the year gave encouraging results. The general staff increase lessened many of the more pressing problems and resulted in improved care and services to the patients. Every effort has been made to keep the treatment facilities at a high level.

TABLE 1
MOVEMENT OF PATIENT POPULATION DURING 1948

	Male	Female	Total	Male	Female	Total
In residence December 31, 1947				810	611	1421
On leave or otherwise absent				5	7	12
Admissions:						
First Admissions:						
(a) Voluntary	41	36	77			
(b) Certificates	39	66	105			
(c) Warrant	130	68	198			
(d) M.D. Act	2	1	3			
				212	171	383
Re-Admissions:						
(a) Voluntary	16	25	41			
(b) Certificates	12	29	41			
(c) Warrant	38	40	78			
(d) M.D. Act	1	1	2			
				67	95	162
Transfers in	8	13	21			
				8	13	21
Total Admissions				1102	897	1999
Separations:						
Discharges	223	250	473			
Deaths	51	26	77			
Transfers out	7	72	79			
Totals				281	348	629
				821	549	1370
In residence as of December 31, 1948				809	541	1350
On leave or otherwise absent				12	8	20

TABLE No. 2
RESIDENT PATIENT POPULATION BY PSYCHOSES, DECEMBER 31, 1948

Psychoses		Male	Female	Total
01	Psychoses with syphilitic meningoencephalitis (general paresis)	51	13	64
02	Psychoses with other forms of syphilis of the central nervous system	2	...	2
021	Meningo-vascular type	7	...	7
023	Other types (Taboparesis)	4	2	6
03	Psychoses with epidemic encephalitis	...	1	1
04	Psychoses with other infectious diseases:			
044	With other infectious disease	1	...	1
05	Alcoholic psychoses	3	...	3
054	Acute hallucinosis	5	1	6
055	Other types (Chronic Hallucinosis)	2	...	2
06	Psychoses due to drugs or other exogenous poisons	1	...	1
07	Traumatic psychoses	1	...	1
071	Traumatic delirium	...	1	1
072	Post-traumatic personality disorders	1	...	1
073	Post-traumatic mental deterioration	2	...	2
08	Psychoses with cerebral arteriosclerosis	29	16	45
09	Psychoses with other disturbances of circulation:			
091	With cerebral embolism	1	1	2
093	Other types (specify)	5	...	5
10	Psychoses with convulsive disorders	3	...	3
101	Epileptic deterioration	9	10	19
102	Epileptic clouded states	6	2	8
103	Other epileptic types	2	...	2
11	Senile psychoses:			
111	Simple deterioration	6	2	8
115	Paranoid types	5	1	6
12	Involuntional melancholia:			
121	Melancholia	8	13	21
122	Paranoid types	1	...	1
13	Psychoses due to other metabolic, etc., diseases:			
135	With other somatic diseases (specify)	2	1	3
15	Psychoses associated with organic changes:			
151	With multiple sclerosis	4	1	5
152	With paralysis agitans	1	...	1
153	With Huntington's chorea	3	...	3
154	With other brain or nervous diseases	3	...	3
16	Psychoneuroses	3	...	3
161	Hysteria	...	1	1
162	Psychasthenia or compulsive states	...	1	1
163	Neurasthenia	...	1	1
165	Reactive depressions	...	4	4
167	Mixed Psychoneuroses	...	1	1
17	Manic-depressive psychoses:			
171	Manic type	25	35	60
172	Depressive type	15	23	38
174	Mixed type	1	...	1
177	Other types	...	1	1
18	Dementia Praecox (Schizophrenia):			
181	Simple type	9	12	21
182	Hebephrenic type	35	15	50
183	Catatonic type	229	202	431
184	Paranoid type	146	69	215
185	Other types	1	2	3
19	Paranoia and paranoid conditions	1	2	3
191	Paranoia	14	3	17
192	Paranoid conditions	34	21	55
20	Psychoses with psychopathic personality	5	...	5
21	Psychoses with mental deficiency	58	35	93
22	Undiagnosed psychoses	6	12	18
23	Without psychoses	5	1	6
231	Epilepsy:			
2311	Epilepsy only	8	4	12
2312	Epilepsy with mental deficiency	1	5	6
232	Alcoholism	2	...	2
234	Mental deficiency	28	...	28
2341	Idiot	...	2	2
2342	Imbecile	3	1	4
2343	Moron	5	...	5
2344	Unspecified	3	19	22
235	Disorders of personality due to epidemic encephalitis	1	2	3
236	Psychopathic personality	2	1	3
2362	With Pathological Emotionality	...	1	1
241	Tabes Dorsalis	...	1	1
Totals		809	541	1350

TABLE No. 3
ADMISSION BY PSYCHOSES, 1948

Psychoses		Male	Female	Total
01	Psychoses with syphilitic meningoencephalitis (general paresis).....	7	1	8
02	Psychoses with other forms of syphilis of the central nervous system:			
023	Other types (Taboparesis).....	3	1	4
03	Psychoses with epidemic encephalitis.....		2	2
04	Psychoses with other infectious diseases:			
044	With other infectious disease.....		2	2
05	Alcoholic psychoses:			
052	Delirium tremens.....	4	.....	4
053	Korsakow's psychosis.....	1	.....	1
054	Acute hallucinosis.....	7	1	8
055	Other types.....	3	.....	3
07	Traumatic psychoses:			
072	Post-traumatic personality disorders.....	1	.....	1
073	Post-traumatic mental deterioration.....	1	.....	1
08	Psychoses with cerebral arteriosclerosis.....	32	15	47
09	Psychoses with other disturbances of circulation:			
092	With cardio-renal disease.....	1	.....	1
10	Psychoses with convulsive disorders:			
101	Epileptic deterioration.....		1	1
102	Epileptic clouded states.....	8	4	12
103	Other epileptic types.....	1	3	4
11	Senile psychoses:			
111	Simple deterioration.....	6	6	12
112	Presbyophrenic type.....		1	1
113	Delirious and confused types.....	2	.....	2
114	Depressed and agitated.....		2	2
115	Paranoid types.....	4	3	7
12	Involitional psychoses:			
121	Melancholia.....	7	14	21
122	Paranoid types.....		2	2
13	Psychoses due to other metabolic, etc., diseases:			
135	With other somatic diseases (specify).....	1	.....	1
15	Psychoses associated with organic changes:			
151	With multiple sclerosis.....	1	.....	1
154	With other brain or nervous diseases.....	2	.....	2
16	Psychoneuroses:			
161	Hysteria.....		1	1
162	Psychasthenia.....		1	1
163	Neurasthenia.....		2	2
164	Hypochondriasis.....	2	2	4
165	Reactive depression.....	3	8	11
166	Anxiety state.....	1	7	8
167	Mixed psychoneurosis.....		1	1
17	Manic-depressive psychoses:			
171	Manic type.....	6	14	20
172	Depressive type.....	15	18	33
173	Circular type.....		1	1
177	Other types.....	2	6	8
18	Dementia praecox (Schizophrenia):			
181	Simple type.....	5	2	7
182	Hebephrenic type.....		2	2
183	Catatonic type.....	51	84	135
184	Paranoid type.....	17	14	31
185	Other types.....	4	5	9
192	Paranoid conditions.....	7	5	12
19	Paranoia and paranoid conditions:			
20	Psychoses with psychopathic personality.....	1	.....	1
21	Psychoses with mental deficiency.....	7	5	12
22	Undiagnosed psychoses.....	10	7	17
23	Without psychoses.....	7	4	11
231	Epilepsy:			
2311	Epilepsy only.....	2	.....	2
2312	Epilepsy with mental deficiency.....	1	.....	1
232	Alcoholism.....	7	2	9
233	Drug addiction.....	1	.....	1
234	Mental deficiency:			
2341	Idiot.....	1	1	2
2342	Imbecile.....	7	8	15
2343	Moron.....	6	9	15
2344	Unspecified.....	4	2	6
236	Psychopathic personality.....	6	.....	6
241	Tabes Dorsalis.....	7	.....	7
242	Neurosyphilis.....	13	4	17
24	Primary behaviour disorders.....			
241	Simple adult maladjustment.....	2	3	5
242	Primary behaviour disorders in children.....		1	1
	Totals.....	287	279	566

TABLE No. 4
NATIVITIES OF FIRST ADMISSIONS DURING 1948

Nativities	Male Female Total			Nativities	Male Female Total		
	Male	Female	Total		Male	Female	Total
Austria	7	.....	7	Jugoslavia	1	.....	1
Belgium	1	.....	1	Norway	3	1	4
Canada	112	115	227	Poland	6	5	11
China	4	.....	4	Roumania	2	.....	2
Czechoslovakia	2	1	3	Russia	3	3	6
Denmark .....	.....	2	2	Scotland	10	7	17
England	18	11	29	Sweden	8	2	10
Germany	5	1	6	United States	19	10	29
Holland	1	3	4	Other Countries	1	3	4
Hungary	4	1	5	Not given	1	1	2
Ireland	2	4	6				
Italy	2	1	3	Totals.....	212	171	383

TABLE No. 5
AGES OF PATIENTS ADMITTED DURING 1948

Ages	First Admissions			Re-admissions			Totals		
	M.	F.	T.	M.	F.	T.	M.	F.	T.
Under 15 years	3	3	6	.....	2	2	3	5	8
15 to 19 years	12	8	20	6	6	12	18	14	32
20 to 24 years	13	19	32	3	9	12	16	28	44
25 to 29 years	19	22	41	8	8	16	27	30	57
30 to 34 years	12	22	34	9	13	22	21	35	56
35 to 39 years	15	23	38	8	14	22	23	37	60
40 to 44 years	29	12	41	10	12	22	39	24	63
45 to 49 years	23	12	35	7	12	19	30	24	54
50 to 54 years	15	11	26	7	10	17	22	21	43
55 to 59 years	14	11	25	6	8	14	20	19	39
60 to 64 years	17	5	22	5	7	12	22	12	34
65 to 70 years	20	6	26	2	3	5	22	9	31
Over 70 years	20	17	37	4	4	8	24	21	45
Total	212	171	383	75	108	183	287	279	566

TABLE No. 6
DISCHARGES BY PSYCHOSES AND CONDITION ON DISCHARGE

	Rec.		Imp.		Unimp.		Totals		
	M.	F.	M.	F.	M.	F.	M.	F.	T.
01. Psychoses with syphilitic meningo-encephalitis (general paresis)			2			1	2	1	3
02. Psychoses with other forms of syphilis of the central nervous system:									
023 Other types (Taboparesis)				1				1	1
03. Psychoses with epidemic encephalitis					2		2		2
04. Psychoses with other infectious diseases:									
044 With other infectious disease		2						2	2
05. Alcoholic psychosis:									
052 Delirium tremens	3						3		3
053 Korsakow's psychoses	1						1		1
054 Acute hallucinosis	4		3				7		7
055 Other types	1						1		1
08. Psychoses with cerebral arteriosclerosis	3	1	2	2	19	13	24	16	40
10. Psychoses with convulsive disorders:									
101 Epileptic deterioration					1		1		1
102 Epileptic clouded states	5	1	1	1		1	6	3	9
103 Other epileptic types				1				1	1
11. Senile Psychoses:									
111 Simple deterioration				1	12	9	12	10	22
112 Presbyophrenic type				1				1	1
113 Delirious and confused types					3		3		3
114 Depressed and agitated types					1	1	1	1	2
115 Paranoid types				1	6	3	6	4	10
12. Involutional psychoses:									
121 Melancholia	1	2	1	7		4	2	13	15
122 Paranoid types				1				1	1
16. Psychoneuroses:									
161 Hysteria		1						1	1
162 Psychasthenia or compulsive states				1				1	1
163 Neurasthenia			1	2			1	2	3
164 Hypochondriasis			1	1		1	1	2	3
165 Reactive depression	2	3	1	1			3	4	7
166 Anxiety state				6		1		7	7
17. Manic-depressive psychoses:									
171 Manic type	2	5	2	3	1	2	5	10	15
172 Depressive type	5	14	2	6		1	7	21	28
173 Circular type		1		2				3	3
174 Mixed type				1		1		2	2
177 Other types	1	1	1	4			2	5	7
18. Dementia Praecox (Schizophrenia):									
181 Simple type	1				1	1	2	1	3
182 Hebephrenic type					1		1		1
183 Catatonic type	13	30	22	33	11	11	46	74	120
184 Paranoid type	1	1	6	6	9	9	16	16	32
185 Other types	1	1	2	2	1		4	3	7
19. Paranoia and paraoid conditions:									
192 Paranoid conditions			3	3	7	6	10	9	19
20. Psychoses with psychopathic personality				1				1	1
21. Psychoses with mental deficiency	1		2	1	1		4	1	5
22. Undiagnosed psychoses	2	4	2	4	4	2	8	10	18
23. Without psychoses				1	3	3	3	4	7
231 Epilepsy:									
2311 Epilepsy only					2	1	2	1	3
2312 Epilepsy with mental def.					1		1		1
232 Alcoholism	1		1	1	3		5	1	6
233 Drug addiction			2				2		2
2342 Imbecile					2	2	2	2	4
2343 Moron					2	2	2	2	4
2344 Unspecified					1	5	1	5	6
236 Psychopathic personality			1		2		3		3
2361 With pathological personality					1		1		1
241 Tabes dorsalis					7		7		7
242 Neurosyphilis			4	1	8	2	12	3	15
24. Primary behaviour disorders:									
241 Simple adult maladjustment				4	1	1	1	5	6
Totals	48	67	62	100	113	83	223	250	473

TABLE No. 8
RECORD OF DEATHS DURING 1948

Sex.	Age.	Time in Hospital			
		Years.	Months.	Days.	
M	65	....	....	12	Pulmonary Tuberculosis, General Paresis.
M	65	....	....	12	Cerebral Hemorrhage, Hypertension.
M	76	4	6	4	Taboparesis, Senility.
M	78	7	6	1	Chronic Myocarditis, Senility, Psychosis.
M	68-68	4	11	19	Multiple decubitus ulcers, Psychosis with Cerebral Arteriosclerosis.
M	76	....	....	23	Chronic Myocarditis, Senility.
M	42	....	2	10	General Paresis of the Insane.
M	82	13	6	12	Cerebral Hemorrhage, Hypertension, Senility.
M	67-68	....	11	....	Decubitus ulcers, General Arteriosclerosis, Psychosis.
M	60	....	....	24	Chronic Myocarditis, Myocardial Degeneration.
M	53	4	5	4	Cerebral Hemorrhage.
M	63	10	31	15	Cerebral Hemorrhage.
M	64	....	1	2	Generalized Arteriosclerosis, Hypertension.
M	70	5	2	13	Generalized Arteriosclerosis.
M	67	....	2	19	Haemoptysis, Inanition, Liver Carcinoma.
M	69	2	6	7	Generalized Arteriosclerosis.
M	55	1	2	5	Rupture of the Aortic Aneurism.
M	68	....	1	19	Generalized Arteriosclerosis, Exhaustion.
M	67	3	3	18	Cerebral Hemorrhage.
M	70	....	....	11	Sclerotic Gangrene of heels and buttocks.
M	75	1	11	14	Arteriosclerosis with Cardiac Decompensation.
M	89	....	....	3	Generalized Arteriosclerosis.
M	80	....	....	7	Senility, Chronic Nephritis.
M	64	....	9	27	Infarct of right lung, Chronic Endocarditis.
M	62	10	3	10	Carcinoma of the Rectum.
M	51	7	8	19	Huntington's Chorea.
M	63	2	8	2	Congestive Heart Failure, Rheumatic Heart Disease, Cerebral Vascular Accident.
M	18	2	8	1	Right Spastic Hemiparesis.
M	69	....	3	11	Cancer of the Stomach.
M	43	....	....	18	Pneumonia with necrosis, Right Epididymitis.
M	28	3	4	28	Bronchopneumonia, Epilepsy.
M	65	....	3	3	Coronary Occlusion.
M	78	2	1	11	Cerebro Vascular Accident, Generalized Arteriosclerosis.
M	22	15	5	19	Intercranial Hemorrhage, Epilepsy.
M	66	....	1	4	Congestive Heart Failure, Hypertension, Rheumatic Heart Disease.
M	58	1	1	23	General Degeneration and Inanition.
M	76	....	2	....	Cardiac Decompensation, Generalized Arteriosclerosis.
M	66	2	4	21	Generalized Arteriosclerosis.
M	42	....	2	6	Circulatory Failure, Therapeutic Hyperpyrexia.
M	68	2	6	....	Coronary Occlusion.
M	69	6	2	5	Bilateral Bronchopneumonia.
M	59	3	6	4	Flexner Dysentery.
M	67	....	10	3	Suppurating Cervical Adenitis, Generalized Arteriosclerosis.
M	62-63	....	6	13	Diarrhoea and Enteritis.
M	71	....	1	24	Diarrhoea and Enteritis.
M	58	1	8	....	Diarrhoea and Enteritis.
M	42	1	10	....	Convulsive Seizure.
M	44	4	6	16	Suicide by Hanging.
M	59	....	5	21	Cerebral hemorrhage.
M	76	1	7	6	Generalized Arteriosclerosis.
M	39	1	2	....	Subdural Hemorrhage.
F	72	7	3	25	Gangrene of the Bowel, Thrombosis of Superior Mesentery Artery.
F	76	....	10	23	Cerebral Hemorrhage, Hypertension.
F	64	2	5	16	Coronary Occlusion, Arteriosclerosis.
F	69	28	5	20	Tuberculosis.
F	36	....	2	26	Exhaustion due to Manic Depressive Psychosis.
F	94	11	6	9	Hypostatic Pneumonia, Chronic Myocarditis.
F	49	9	....	12	Thrombosis, Cerebral Hemorrhage.
F	42	....	....	14	Cachexia, Pseudomyxoma Peritonei.
F	30	....	1	11	Chronic Endocarditis.
F	30	3	8	8	Hypoglycemia, Incidental to Insulin Shock Therapy.
F	70	....	6	15	Sudden Death, Myocardial Failure, Myocardial Degeneration.
F	56	12	6	18	Idiopathic Epilepsy.
F	51	32	1	9	Bronchopneumonia, Congestive Heart Failure.
F	66	2	5	23	Coronary Thrombosis, Generalized Arteriosclerosis.
F	51	....	....	5	Mitral Stenosis, Rheumatic Heart Disease.
F	76	....	2	8	Bronchopneumonia, Septicemia.
F	68	27	3	10	Bronchopneumonia.
F	57	....	8	5	Chronic Myocarditis, Senile Psychosis.
F	47	1	5	24	Generalized Arteriosclerosis.
F	51	3	....	25	Pulmonary Tuberculosis.
F	65	16	10	4	Sarcoma of Right Mandible.
F	78	2	2	5	Chronic Myocarditis.
F	68	37	3	1	Cancer of the Breast.
F	72	....	2	20	Exhaustion, Agitated Depression.
F	47	4	7	23	Exhaustion with Huntington's Chorea.
F	63	29	6	27	Chronic Myocarditis.

Totals: Male 51, Female 26.

TABLE No. 9
DEATHS DURING 1948 BY PSYCHOSES

Psychoses		Male	Female	Total
01	Psychoses with syphilitic meningoencephalitis (general paresis).....	4	.....	4
02	Psychoses with other forms of syphilis of the central nervous system:			
023	Other types (Tagoparesis)	2	.....	2
05	Alcoholic psychoses:			
053	Korsakow's psychoses	1	.....	1
055	Other types	1	.....	1
08	Psychoses with cerebral arteriosclerosis	20	5	25
09	Psychoses with other disturbances of circulation:			
092	With cardio-renal disease	1	.....	1
10	Psychoses with convulsive disorders	3	1	4
11	Senile psychoses:			
111	Simple deterioration	3	5	8
114	Depressed and agitated types .....	.....	1	1
115	Paranoid types	1	.....	1
12	Involuntional psychoses:			
121	Melancholia	1	.....	1
14	Psychoses due to new growth:			
142	With other neoplasms (specify)	1	.....	1
15	Psychoses associated with organic changes:			
153	With Huntington's chorea	1	1	2
16	Psychoneuroses:			
165	Reactive depressions .....	.....	1	1
17	Manic-depressive psychoses:			
171	Manic type .....	.....	3	3
172	Depressive type	1	.....	1
18	Dementia Praecox (Schizophrenia):			
182	Hebephrenic type .....	.....	1	1
183	Catatonic type	2	5	7
184	Paranoid type	1	.....	1
185	Other types	1	.....	1
19	Paranoia and Paranoid conditions:			
192	Paranoid conditions	2	.....	2
21	Psychoses with mental deficiency	1	.....	1
22	Undiagnosed psychoses	2	1	3
23	Without psychoses:			
231	Epilepsy:			
2311	Epilepsy only .....	.....	1	1
234	Mental deficiency	1	1	2
2341	Idiot	1	.....	1
	Totals	51	26	77

AUXILIARY MENTAL HOSPITAL, CLARESHOLM

Movement of Patients.

On January 1st, 1948, there were 99 patients in residence, and on December 31st, 1948, there were 99 patients. There were 11 patients transferred to this hospital. These were all transferred from the Provincial Mental Hospital, Ponoka.

Accidents and Elopements.

There were no elopements during the year and no accidents of a serious nature.

General Health.

The general health of the patients and staff has been very good. There were two deaths due to degenerative causes.

The Mobile X-ray Clinic visited the hospital in October, and all patients and staff were X-rayed. The survey showed that the X-rays of three patients were abnormal, but there were no cases of active Tuberculosis.

Dentistry.

The Dentist from the Provincial Mental Hospital, Ponoka, visited the hospital and gave the patients the necessary dental care. Emergency work was done by the local dentist.

Occupational Therapy.

This Department continued to do excellent work, and there was an increase in the number of patients attending the classes. A sale of this work was held with very gratifying results.

Library.

New books were added to the Library each month and were greatly enjoyed by the patients.

Buildings.

Improvements and repairs to all the buildings were carried out during the year by the Public Works staff. The Occupational Therapy room was enlarged. Additional staff quarters were provided by utilizing a war surplus building from the local Airport.

Gardens and Grounds.

The garden produced an abundance of vegetables and sufficient vegetables were grown for the year.

Religious Services.

United Church services were conducted twice a month, and Anglican services once a month by the local clergymen. Catholic services are conducted once a month.

Recreation and Entertainment.

The patients continued to attend the regular matinees at the local theatre twice a month. More than half the patients attend these, and the outings are very much enjoyed.

The United Church Choir kindly presented their special Christmas and Easter music.

The Pentecostal Church kindly entertained the patients with lantern slides and sacred music at Christmas.

Parties were held during the year, as well as the Annual Sports Day.

A local pianist very kindly played the piano for the parties during the year.

Staff Changes.

There were numerous minor staff changes, and a shortage of staff at times.

Medical Staff.

There is no resident Physician, but a local physician continues to give the patients the necessary medical care. His interest is greatly appreciated.

Visitors.

Visits were made to the hospital by the Director periodically. Members of the Eugenics Board, acting as a Visiting Board, visited and inspected the hospital in November. Visits were also made to the hospital by representatives of the Department of Public Works and Fire Inspectors.

Friends and relatives of the patients continued to visit the hospital.

TABLE No. 1
MOVEMENT OF PATIENT POPULATION DURING 1948

	Male	Female	Total	Male	Female	Total
In residence January 1, 1948				100	100	
Admissions:						
(a) Voluntary						
(b) Certificate						
(c) Warrant						
(d) Order						
(e) Transfers		11	11			
Re-Admissions:						
(a) Voluntary						
(b) Certificate						
(c) Warrant						
(d) Order						
(e) Transfers					11	11
				110	110	
Discharged during the year:						
(a) As Recovered						
(b) As Improved						
(c) As Unimproved		6	6			
(d) As Without Psychoses						
(e) Transferred to other hospitals		3	3			
(f) Eloped						
(g) Deported to other countries						
(h) Deaths		2	2			
					11	11
				99	99	

TABLE 2
SHOWING THE PSYCHOSES OF PATIENTS IN RESIDENCE IN 1948

	Female
03 Psychoses with epidemic encephalitis	2
08 Psychoses with cerebral arteriosclerosis	4
10 Psychoses with convulsive disorders:	
101 Epileptic deterioration	1
11 Senile Psychoses:	
115 Paranoid type	1
12 Involutional Psychoses:	
121 Melancholia	4
16 Psychoneuroses:	
163 Neurasthenia	1
17 Manic-depressive psychoses:	
172 Depressive type	2
177 Other types, defective basis	1
18 Dementia praecox (Schizophrenia):	
181 Simple type	3
182 Hebephrenic type	4
183 Catatonic type	23
184 Paranoid type	22
185 Other types, undetermined	1
19 Paranoia and paranoid conditions:	
191 Paranoia	9
21 Psychoses with mental deficiency	9
23 Without psychoses:	
231 Epilepsy with mental deficiency	2
2342 Imbecile	4
2343 Moron	1
2344 Unspecified	5
Total	99

TABLE 3
RECORD OF DEATHS DURING THE YEAR 1948

Register No.	Sex	Age	Time in Hospital			Cause of Death
			Years	Months	Days	
12684	F	77	2	11	10	Cardial Renal Disease.
1717	F	72	29	7	7	Lobar Pneumonia.

TABLE 4
CLASSIFICATION OF DEATHS ACCORDING TO PSYCHIATRIC DIAGNOSIS, 1948

Miss Elsie K. Wood	No. 12684	Simple Deterioration.
Mrs. Agnes B. Volk	No. 1717	Paranoid and paranoid conditions.

AUXILIARY MENTAL HOSPITAL, RAYMOND

Movement of Patients.

On January 1, 1948, there were 118 patients in residence. During the year there were 2 deaths; 13 patients were received from the Provincial Mental Hospital, Ponoka; 9 patients were discharged to Rosehaven; 5 patients were transferred to Oliver; 2 patients were out on parole, making a total of 113 patients in residence on December 31, 1948.

Accidents and Elopements.

There were no elopements or attempts during the year. There were two accidents during the year, both persons involved having made satisfactory recoveries.

General Health.

All patients and staff were inoculated against Typhoid Fever in March. All patients and staff were X-rayed by the Tuberculosis Mobile Clinic, at which time 141 plates were taken. Three patients were reported "Probable Pulmonary Tuberculosis active"; 9 patients were "Probable Pulmonary Tuberculosis inactive"; 1 patient and 1 staff member "Further Examinations Requested"; 2 patients "Pleurisy Inactive"; and 6 patients "Non-Tuberculous conditions". Necessary examinations and tests were done by the local physician. Patients and staff receive one "Cod liver oil with minerals" capsule daily during the winter months. General health of the patients has remained good.

Dentistry.

In September the dentist from the Provincial Mental Hospital, Ponoka, visited this hospital for several days, examining and doing all the work necessary on all patients with teeth. Dentures that were broken during the year were repaired.

Occupational Therapy.

This consists mainly of light tasks about the hospital and approximately 75 patients participate. The Occupational Parlour is reserved for needlework, sewing, knitting and other crafts.

Library.

The Library is situated in the Occupational Parlour, and one of the patients has the responsibility for listing new books and checking books in and out to the patients. Books that become torn are mended and some recovered. The Occupational Fund buys one new book each month. The Ladies' Missionary Society in Lethbridge and some local citizens donate large collections of magazines and Sunday School papers from time to time. Many of the patients receive magazines monthly.

Religious Services.

The United Church minister, Rev. W. Ward of Magrath, holds church services for the patients one Sunday each month. One of the patients plays the piano for the services and the sermons are generally well received. The Catholic priest holds services for the Catholic patients once each month also. These ministers also preside at patients' funerals.

Recreation and Entertainment.

Twice each month the nurses accompany about 50 patients to town to a special afternoon picture show. These shows of the current pictures are quite a stimulus to these ladies. They dress up in their best clothes, have their hair dressed for the occasion, and enjoy the long walk to and from town. The pictures are told to and discussed with the patients who are not able to attend them.

Twice each week an instructress comes to the hospital to give the patients "Keep Fit" exercises. After the exercises the patients play group games, which are enjoyed.

On special days, such as Valentine's, Easter, Hallowe'en, etc., the wards are decorated suitably and a party and dance given to the patients. A pianist from town is engaged to supply the music. On the last Tuesday of each month a dance is held for the patients. This is being enthusiastically received and a light lunch is generally served.

In July the Annual Picnic and Sports' Day was held, and competition was keen in the many races and games. Three prizes for each race were provided. Fresh fruit, ice cream cones, candy and punch were served all afternoon, and supper on the lawn drew the day to a close.

At Christmas time the patients were well remembered with parties. The Women's Choir gave a two-hour concert and Santa visited with a sack of oranges. The ladies served ice cream cones and fancy cakes. A special party was held in the Occupational Parlour for the workers, with a gift from the tree for each. A large Christmas tree in the dayroom added to the decorations, and the gifts from the hospital were placed under it Christmas Eve, to be given out the next morning. Several groups of young people came in trucks and sang carols outside the windows on several occasions. The Rotary Club sent up 70 sacks containing oranges, candy bars and salted peanuts. Fancy table cloths, crackers, candy cups, and so on, encouraged hearty appetites to a turkey dinner with all the trimmings. Parcels from the patients' relatives and friends were held until Christmas Day.

The radio on the ward is a constant source of entertainment. Several of the patients play the piano.

During the summer the entire patient population is taken out on the lawns all afternoon. Some play games and others wander about or rest on blankets. Several patients have afternoon and evening parole.

Staff Changes.

There were no major staff changes during the year.

Visitors.

The hospital has been visited periodically by the Director of the Mental Health Division. The Eugenics Board, acting as a Board of inspection visited and inspected the hospital in November. The hospital has also been inspected by Fire Inspectors. Several members of the Department of Public Works, Maintenance and Boiler Inspectors, have visited and discussed measures to improve the grounds and buildings. The garden was inspected by the Department of Agriculture, and the cows were tested for Bang's Disease and Tuberculosis.

Gardens and Grounds.

The harvest from the vegetable garden was poor this year, due to an extremely wet spring. Some re-seeding had to be done in July.

New Buildings.

This year a two-car garage was built. An annex for approximately 20 patients was also started in the fall, and it is to be finished next year.

Conclusion.

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

MOVEMENT OF PATIENT POPULATION DURING 1948

	Male	Female	Total	Male	Female	Total
In residence January 1, 1948				118		118
Admissions:						
(a) Voluntary						
(b) Certificates						
(c) Warrant						
(d) Order						
(e) Transfers		13	13			
				13		13
Re-Admissions:						
(a) Voluntary						
(b) Certificates						
(c) Warrant						
(d) Order						
(e) Transfers						
Discharges During the year:						
(a) As recovered						
(b) As improved		9	9			
(c) As unimproved		2	2			
(d) Transferred to other hospitals		5	5			
(e) Eloped						
(f) Deported						
(g) As without Psychoses		2	2			
(h) Deaths						
				18		18
				113		113
In residence December 31, 1948				113		113

TABLE 2
SHOWING THE PSYCHOSES IN THOSE ADMITTED IN 1948

Psychoses		
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	4 4
103	Other epileptic types (arteriosclerotic)	1 1
11	Psychoses—senile:	
111	Simple deterioration	2 2
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	8 8
183	Catatonic type	19 19
184	Paranoid type	25 25
19	Paranoia and paranoid conditions:	
192	Paranoid conditions	11 11
21	Psychoses with mental deficiency	8 8
23	With psychoses:	
234	Mental deficiency:	
234b	Imbecile	6 6
234d	Unspecified	12 12
234e	Mongoloid	2 2
235	Disorders of personality due to epidemic encephalitis	1 1

TABLE 3
RECORD OF DEATHS DURING 1948

Register No.	Sex	Age	Time in Hospital			Cause of Death
			Years	Months	Days	
9479	F	61	9	5	19	Small intestinal obstruction with perforation.
11034	F	93	6	4	24	Arteriosclerosis, gangrene of left leg.

PROVINCIAL MENTAL INSTITUTE, EDMONTON

Patient Population Changes.

On January 1, 1948, there were 1,007 male and 251 female patients in residence, making a total of 1,258. On December 31, 1948, there were 966 males and 305 females, making a total of 1,271 patients; that is an increase during the year of 13.

During the year a total of 261 patients were admitted. In addition, there were 46 cases remanded by the police authorities for full investigation. These involved as much work as new admissions. Also, 8 juvenile delinquents were referred by the Child Welfare authorities. This gives an actual total of 269 admissions. Besides this, 45 patients were transferred from other hospitals. Of the admissions, 19 were mental defectives without psychosis. About 10% were in the senile group.

Beginning in September, the building for juvenile delinquents was opened. During the remainder of the year a total of eight of this group were admitted through the Child Welfare Department. Full investigation from a psychiatric and general medical viewpoint was carried out on all cases. A full-time programme was developed, including the provision of Correspondence School Courses. We were assisted in this work by Mr. Bruce and Mr. Aldridge of the Department of Education.

During the year 167 patients were discharged and 47 died. Commonest causes of death were cardiovascular diseases. Nearly all the deaths were in the old age group.

General Health.

There were five fracture cases, only one of which was serious, during the year. There were many minor injuries. There were no suicidal deaths. The general health of the patients remained good. There were no epidemics. Routine chest X-ray examinations continued to be done on all admissions. All cases remaining in hospital more than a year were also X-rayed. This was done by the mobile clinic. We appreciate their help very much. T.A.B. injections were given to all patients.

Treatment of Patients.

The increased active treatment was continued. Electric shock treatment was given to 141 patients. They had a total of approximately 240 courses of treatment. Insulin treatment continued to be carried out and the scope of treatment was increased. The total number of patients given insulin shock treatment was 80. All new patients were given whatever treatment was required in the form of shock, insulin, and hydrotherapy, although the facilities available were cramped and at times inadequate. Three cases of neurosyphilis were admitted and two were transferred to the Provincial Mental Hospital for malarial treatment. The hydro-therapeutic equipment was used constantly on both morning and afternoon shifts.

Occupational Department.

This department carried out an extremely heavy programme during the year. The average daily attendance varied from 60 to 75. Nearly all new patients passed through the department. In addition, special programmes were carried on for patients receiving insulin and electric shock. This department worked under high pressure throughout the year. Their work was very valuable. In addition, they carried on the recreational programme. During the winter this consisted of skating, shows, dances, card parties, daily walks, and some hockey games were seen. During the summer there were picnics, parties, baseball games, and visits to the Edmonton Fair. An exhibit was entered in the Edmonton Exhibition which was very popular.

Library.

The patients' library was added to considerably, and is in constant use.

Beauty Parlour.

This continued to function. Unfortunately this is not yet a full-time activity, but approximately ten patients a week were looked after.

Religious Services.

Religious services were held throughout the year. The average attendance was over 200. Presbyterian, United, and Roman Catholic services were given.

X-Ray Department.

This department worked at full capacity throughout the year. A total of 1,454 major examinations were carried out in addition to a number of minor ones.

Laboratory.

The work of this Department continued at a high level. A total of 3,238 examinations were done. In addition to that, mantoux tests were carried out on all new staff and B.C.G. vaccine given when required.

Surgical Service.

Most of the surgical work was carried out by the hospital staff. Several of the Major cases were referred to the University Hospital.

Dental Department.

This department carried out full-time service throughout the year. A total of 1,584 patients were seen. Actually, all patients in the hospital were seen during the year. The work was handicapped for a while by the dentist's absence because of illness.

Training School.

The enrolment in all three years remains very high. Ten men and two women graduated in psychiatric nursing, completing a three-year course.

Department of Building Maintenance.

A new 100-bed female dormitory was completed and occupied. This was originally designed for convalescing and co-operative patients. Unfortunately, overcrowding necessitated using it for some disturbed patients. Repair work required throughout the year was done. Considerable difficulty in obtaining staff still existed. This especially applied to painters.

Fire Protection.

Monthly fire practices were held and all new staff given instruction. Spot examinations on staff were held throughout the year.

Farm.

Milk production was satisfactory throughout the year. The field crops were considerably better than the year before. We had to purchase only a small quantity of feed. The production of hogs was stopped during the year.

Garden.

This department continued to function smoothly. The work they do is very valuable. The production of vegetables was adequate except for minor amounts.

Laundry.

This department also was extremely busy.

Department of Chief Engineer.

Heat and light were provided throughout the year. We continued to have difficulty with the water supply because of poor connections with the city. However, the addition of a reservoir has helped considerably.

Guidance Clinic.

The Guidance Clinic in Edmonton was run by the medical staff until the end of September. The time spent in this clinic was in-

creased. The time spent there was extended to two full days a week. Clinics were held monthly at Lamont.

Police Court.

Full service to the city and R.C.M.P. courts was continued throughout the year. This work is very desirable from a psychiatric viewpoint, but throws a heavy additional burden on the medical staff.

Office.

The business office continued in its usual efficient manner.

Dietary Department.

A full time dietitian was added early in July, resulting in considerable improvement in the dietary situation. Courses of instruction were given to the graduating class.

Staff.

The staff situation on the male side has remained good. There is very little staff movement. Several senior members left for better jobs and some of the new members had to be released because they were unsuitable. The situation on the female side remains bad. There is an almost constant exchange of personnel, and we were unable to increase the number of graduate nurses.

Dr. Fraser was added to the medical staff. He has had extensive experience in internal medicine and has rapidly increased his psychiatric knowledge. The shortage of medical staff throughout the year has been serious and has required a lot of extra work on the part of the medical staff. This has been particularly undesirable in regard to night and week-end work.

D.V.A.

The assistance given by this Department in the recreational field has continued. We were given one to two movies a week throughout the year, one stage show a month, and one dance orchestra a month. Sixty to seventy patients were taken for a bus ride once a week throughout the year. The D.V.A. has also assisted us in recreational equipment. We consider their work invaluable.

Visitors.

The hospital was visited at frequent intervals throughout the year by the Minister of Health, Dr. Cross, and also by Dr. Bow. Dr. R. R. MacLean visited us at frequent intervals. In addition, we were visited by several groups of M.L.A.'s. The Visiting Board inspected the hospital in late October.

TABLE No. 1
MOVEMENT OF POPULATION

	Males	Females	Total
Patients on books January 1, 1948:			
In Hospital	1007	251	1258
On Probation	9	4	13
Eloperments	2	...	2
On Special Parole	11	3	14
Total	1029	258	1287
Admissions During Year:			
First Admissions	93	63	156
Re-admissions	25	35	60
Transfers	...	45	45
Total	118	143	261
Total Received During Year:			
Transfers	...	44	44
Re-admissions	24	35	59
Warrant	19	12	31
Voluntary	16	10	26
Certificates	46	36	82
Mental Defectives Act	13	6	19
Total	118	143	261
Discharged During Year:			
Recovered	18	24	42
Improved	23	18	41
Unimproved	70	14	84
Without psychosis	...	...	...
Transfers	4	1	5
Died	35	12	47
Total	150	69	219
Patients on Books End of Year:			
In Hospital	966	305	1271
On Probation	16	16	32
Eloperments	6	...	6
On Special Parole	9	11	20
Total	997	332	1329
Total admitted since opening	2072	492	2564
Total discharged since opening	716	310	846
Total deaths since opening	537	37	574

TABLE No. 2
NUMBER OF OFFICERS AND EMPLOYEES

	Males	Females	Total
Medical Superintendent	1	...	1
Assistant Medical Superintendent	1	...	1
Medical Officers	3	...	3
Dentist	1	...	1
Laboratory and X-ray Technician	1	...	1
Business Superintendent	1	...	1
Stenographers and Clerks	3	6	9
Graduate Nurses	...	10	10
Other Female Nurses	...	6	6
Ward Aides	...	52	52
Male Nursing Staff	110	...	110
Tailor	1	...	1
Seamstresses	...	2	2
Shoemaker	1	...	1
Occupational Therapists	2	2	4
Bakers and Cooks	12	1	13
Laundry	2	3	7
Gardeners	13	...	13
Engineers and Mechanics	17	...	17
Other Employees	23	7	30
Total	192	91	283

TABLE No. 3

PSYCHIATRIC AND INDUSTRIAL CLASSIFICATION OF PATIENTS

Psychiatric:	Males	Females	Total
Patients (psychotic)	852	272	1124
Epileptics (not psychotic)	21	7	28
Mental deficiency (not psychotic)	114	50	164
Alcoholics (not psychotic)	1	2	3
Drug addicts (not psychotic) .....	.....	.....	.....
Neurosyphilitics (not psychotic) .....	.....	.....	.....
All other types (not psychotic)	9	1	10
Total	997	332	1329

TABLE No. 4

NATIVITY OF PATIENTS IN RESIDENCE

	Males	Females	Total		Males	Females	Total
Australia	1	.....	1	Japan	2	1	3
Austria	70	12	82	Norway	26	3	29
Belgium	4	.....	4	Poland	54	30	84
Canada	367	175	542	Rumania	8	2	10
China	6	.....	6	Russia	39	15	54
Denmark	9	.....	9	Scotland	31	12	43
England	91	18	109	Sweden	22	2	24
Finland	5	1	6	Switzerland	8	1	9
France	8	.....	8	United States of America	116	26	142
Germany	28	5	33	Wales	7	1	8
Holland	1	1	2	Other Countries	37	12	49
Hungary \$	7	3	10	Unascertained	19	5	24
Ireland	20	6	26	Total	997	332	1329
Italy	11	1	12				

TABLE No. 5

DENTAL REPORT

No. of patients	1814	Dentures Repaired	17
Examinations of Dental and Oral conditions and requirements and chart-of same	206	Dentures Partial	27
Complete Dentures	89	Reline Dentures	9
Extractions	560	Consultations	1585
Local Anesthetics Administered	551	Fillings:	
General Anesthetics	165	Amalgam	232
Scaling	121	Cement	135
Prophylaxis	115	Miscellaneous	909
Periodontal Treatments	115	Number of patients for whom all required dental work has been completed	364

TABLE No. 6

	F.	F.	Total
Psychoses			
01 General Paresis	40	5	45
02 With other forms Syphilis	4	.....	4
03 With Epidemic Encephalitis	3	1	4
04 With other Infectious Diseases .....	.....	.....	.....
05 Alcoholic	5	1	6
06 Due to Drugs, etc. ....	.....	.....	.....
07 Traumatic	4	.....	4
08 Cerebral Arteriosclerosis	18	10	28
09 With other Disturbances of Circulation	3	.....	3
10 With Epilepsy	28	11	39
11 Senile	20	5	25
12 Involutional	2	3	5
13 Due to other Metabolic Diseases	2	.....	2
14 Due to New Growth .....	.....	.....	.....
15 With Organic Changes of Nervous System	4	1	5
16 Psychoneuroses	3	4	7
17 Manic Depressive	36	31	67
18 Schizophrenia	566	162	728
19 Paranoia and Paranoid Conditions	47	7	54
20 Psychopathic Personality	2	.....	2
21 With Mental Deficiency	61	29	90
22 Undiagnosed	5	3	8
Without Psychoses:			
23 231	21	7	28
232	1	2	3
234	113	48	161
235	2	1	3
236	3	1	4
24 Behaviour Disorder:			
2422	3	.....	3
2423	1	.....	1
Total	997	332	1329

TABLE 7

CAUSE OF DEATH, BY PRINCIPAL PSYCHOSES, WITH AGE AT DEATH AND DURATION OF HOSPITAL LIFE

	M.	F.	T.	Cause of Death	Age Years	Years	Hospital Life Months	Days
02 Psychoses				Luetic Endarteritis of the cerebrum	55	.....	1	28
08 With other forms of Syphilis	4	1	1	Cerebral hemorrhage	76	.....	9	13
			4	Chronic Myocarditis	66	.....	1	12
				Myocarditis Degeneration	79	19	1	21
10 Perforation of Sigmoid Colon	2	.....	2	Myocarditis Degeneration	60	29	8	5
				Asphyxiation	23	9	9	.....
11 Chronic Myocarditis	5	2	7	Chronic Myocarditis	69	5	9	22
				Myocardial Degeneration	81	.....	.....	15
				Senility with Senile Dementia	81	.....	.....	16
				Carcinoma of the Stomach	76	7	8	29
				Acute Intestinal Obstruction	86	.....	.....	2
				Cerebral Haemorrhage	76	1	3	.....
				Cerebral Haemorrhage	83	4	.....	.....
				Cerebral Haemorrhage	66	2	9	3
13 Due to other Metabolic Diseases	1	2	3	Cerebral Haemorrhage	69	13	.....	22
				Chronic Myocarditis	65	12	10	15
				Chronic Myocarditis	68	12	8	4
17 Manic Depressive	2	.....	2	Pylonephritis	51	6	.....	14
				Pulmonary Tuberculosis	63	17	10	4
18 Schizophrenia	13	4	17	Cerebral Haemorrhage	63	17	.....	17
				Chronic Phthisis	63	27	3	26
				Chronic Phthisis	25	5	4	22
				Cerebral Thrombosis	51	25	6	24
				Gangrene of the Ileum	61	9	4	.....
				Myocardial Degeneration	65	19	3	11
				Asphyxiation	54	.....	5	6
				Acute Pulmonary Oedema	74	28	2	21
				Left Coronary Occlusion	65	31	8	20
				Mesenteric Thrombosis	61	1	9	.....
				Cirrhosis of the Liver	68	37	2	19
				Acute Oedema of the Lungs	21	.....	.....	26
				Chronic Endocarditis	31	9	9	11
				Arteriosclerosis	47	16	6	19
				Acute Heart Failure	46	.....	.....	11
				Generalized Peritonitis	37	7	2	5
19 Paranoia and Paranoid Conditions	3	.....	3	Pulmonary Tuberculosis	34	14	.....	2
				Myocardial Degeneration	71	17	9	29
				Atheroma of left Coronary Artery	65	28	5	22
				Heart Failure	78	13	4	8
21 With Mental Deficiency	3	.....	3	Intestinal Obstruction	52	12	2	11
				Acute Pulmonary Oedema	67	36	11	21
				Myocardial Degeneration	67	21	1	24
				Pulmonary Tuberculosis	31	3	11	11
23 Without Psychoses: 231	2	1	1	Pulmonary Tuberculosis	17	3	5	28
234	2	2	4	Myocardial Degeneration	67	17	.....	25
				Hypostatic Pneumonia	35	.....	6	7
				Mesenteric Bien Thrombosis	29	.....	3	.....
	35	12	47					

X-RAY REPORT

TABLE No. 8

Roentgenograms of:	
Chest	1175
Bone	146
Spine	126
Gastro-intestinal	7
Dental	57
Total	1511

TABLE No. 9

LABORATORY REPORT

Examinations of:	
Blood	1504
Urinalysis	1427
Bacteriological	21
Blood chemistry and complement fixation	245
Spinal fluid	41
Total	3238

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. 10
INCREASE OF PATIENTS DURING THE YEAR, BY PRINCIPAL PSYCHOSES

Psychoses	M.		F.		T.		M. F. T.		Re-Admission		Transfer	
	M.	F.	Total	M.	F.	T.	M.	F.	T.	M.	F.	T.
01. General Paresis	1	1	2	1	1	2	1	1	1	1	1	1
02. With other forms of syphilis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
03. With Epidemic Encephalitis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
04. With other Infectious Diseases	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
05. Alcoholic	4	4	8	2	2	4	2	2	2	.....	.....	.....
06. Due to Drugs, etc.	1	1	2	1	1	2	1	1	.....	.....	.....	.....
07. Traumatic	8	7	15	8	4	12	1	4	.....	.....	.....	.....
08. Cerebral Arteriosclerosis	2	2	4	2	2	4	2	2	.....	.....	.....	.....
09. With other Disturbances of Circulations	1	6	7	1	1	2	1	3	.....	.....	.....	.....
10. With Epilepsy	9	6	15	9	6	15	1	1	.....	.....	.....	.....
11. Senile	3	5	8	3	2	5	3	3	.....	.....	.....	.....
12. Involutional	1	2	3	1	2	3	.....	.....	.....	.....	.....	.....
13. Due to Other Metabolic Diseases	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
14. Due to New Growth	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
15. With Organic Changes of Nervous System	3	6	9	2	4	6	1	1	.....	.....	.....	.....
16. Psychoneuroses	11	14	25	5	4	9	1	10	.....	.....	.....	.....
17. Manic Depressive	39	64	103	27	29	56	12	6	.....	.....	.....	.....
18. Schizophrenia	4	1	5	4	.....	4	.....	.....	.....	.....	.....	.....
19. Paranoia & Paranoid Conditions	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
20. Psychopathic Personality	2	5	7	1	.....	1	2	.....	.....	.....	.....	.....
21. With Mental Deficiency	1	1	2	1	.....	1	.....	.....	.....	.....	.....	.....
22. Undiagnosed	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
23. Without Psychoses:	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
231	2	3	5	2	2	4	.....	.....	.....	.....	.....	.....
232	3	2	5	3	1	4	.....	.....	.....	.....	.....	.....
233	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
234	14	10	24	14	7	21	.....	.....	.....	.....	.....	.....
236	4	1	5	3	.....	3	1	.....	.....	.....	.....	.....
24. Behaviour Disorders:	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
241	1	1	2	1	1	2	.....	.....	.....	.....	.....	.....
242	4	4	8	4	4	8	.....	.....	.....	.....	.....	.....
Total	118	143	261	93	63	156	25	35	60	45	45	45

TABLE No. 11
DECREASE OF PATIENTS DURING THE YEAR, BY PRINCIPAL PSYCHOSES

Psychoses	Total		Recovered		Discharged		Unimproved		Transfer		Death	
	M.	F. T.	M.	F. T.	M.	F. T.	M.	F. T.	M.	F. T.	M.	F. T.
01. General Paresis	4	4					4	4			1	1
02. With other forms of syphilis					1	1	1	1				
03. With Epidemic Encephalitis												
04. With other infectious Diseases							2	2			2	2
05. Alcoholic												
06. Due to Drugs, etc.												
07. Traumatic												
08. Cerebral Arteriosclerosis	7	1 8			4	4	4	1 15	1	1	2	2
09. With other Disturbances of Circulation												
10. With Epilepsy	1	1			2	2	3	2 5	1	1	1	1
11. Senile	13	6 19			5	2 7	18	8 26				
12. Involutional	1	1					2	4 6	1	3 4		
13. Due to Other Metabolic Diseases	1	1 2			1	2 3	2	4 6	1	1 1		
14. Due to New Growth												
15. With Organic Changes of Ner. System												
16. Psychoneuroses	1	1	1	1					1	1 2		
17. Manic Depressive	9	9			2	2	22	7 29	9	6 15	2	1 3
18. Schizophrenia	14	3 17			13	4 17	44	23 67	5	10 15	12	6 18
19. Paranoia & Paranoid Conditions	9	9			3	3	13	13			1	1
20. Psychopathic Personality												
21. With Mental Deficiency	1	1			3	3	5	5			1	1
22. Undiagnosed	1	1					1	1				
23. Without Psychoses:												
230							1	1	1	1		
231												
232	1	1			1	1	3	3			1	1
233	5	5					2	8 10	1	1	1	7 8
234	2	2	3	3	2	2 4	11	2 13	1	1		
235							3	3				
24. Behaviour Psychoses:												
241	1	1 2					1	1 2				
242							1	1 1				
243					1	1	1	1			1	1
Total	70	14 84	4	1 5	35	12 47	1	1				

PROVINCIAL TRAINING SCHOOL, RED DEER

Changes in Population.

The year began with 289 patients (157 male, 132 female) in residence.

Incoming patients totalled 36 (22 male, 14 female). Of these, 30 were first admissions (18 male, 12 female), 3 (1 male, 2 female) were re-admissions, and 3 (all males and two of the only small boys) were admitted by transfer from the Provincial Mental Institute at Oliver.

Outgoing patients totalled 27 (14 male, 13 female). Of these, 15 were discharged (6 male, 9 female), 2 who were unmanageable (1 male, 1 female) were transferred to the Provincial Mental Hospital at Ponoka, and 10 (7 male, 3 female) died.

The year ended with 298 patients (165 male, 133 female) in residence, a net increase of 9 (8 male, 1 female).

An analysis of these figures shows that 10 of the 36 incoming patients were admitted to purely custodial wards, 10 to the infirmaries, 12 to the Sense Training and Grade School dormitories, and 4 (3 of them re-admissions) to the adult workers' wards.

Eight of the 36, or 22% of the total incoming patients were epileptics, 3 were mongols and 3 had been adjudged delinquent by the Juvenile Courts.

Of the 15 patients discharged, six returned to their parents, seven went to work, one (a temporary re-admission was married from the Training School, and one was taken off the patient roster and engaged as staff. Two of the seven patients placed in homes to work were imbeciles, one of whom had been almost 30 years in residence, the other over 11 years. One moron allowed out to work was an epileptic of 13 years' residence. Had not Trimedone stopped her exceedingly frequent petit mal attacks and automatisms completely, she could not have gone out to work. Five other patients were sent out to work on trial but returned as unsatisfactory for various reasons.

Other details of patients admitted and discharged, and information as to types in residence are given in Tables 1 to 10, attached to this report. Reference to Table 10 shows an upward trend in delinquent admissions and a slight increase in custodial cases (Infirmary Types, Mongols and Mongoloids).

Despite the fact that through lack of staff, 17 beds were lying idle all year in the farm dormitory, patient days for the year were 107,731 as against 102,707 for 1947, and 98,868 for 1946.

Waiting Lists.

Forty-five new applications for admission (26 male, 19 female) were filed during the year. This brings the total awaiting admission to 319 (161 male, 158 female) as against 283 (142 male, 141 female) at the end of 1947.

Eighteen other cases (9 male, 7 female, 2 sex unknown) were reported as defectives, but their admission was not asked for. This brings the total number so reported during the past ten years to 317 as against 328 at the end of 1947.

Not counting the many defectives now in the various mental hospitals, this gives at the end of the year a total of 934 known defectives:

	M.	F.	T.
P. T. S.	165	133	298
Waiting lists	161	158	319
Reported	170	129	
Sex Unknown		18	317
	496	438	934

Eugenics.

Twenty-four cases were prepared, but only 20 were presented to the Eugenics Board. One of these was not in residence.

Sterilization was sanctioned in 19 cases (7 male, 12 female) and the operation carried out in 16 (7 male, 9 female.)

This brings the cumulative totals for the Training School during the twenty years the Act has been in effect to:

	M.	F.	F.
Presented	81	86	167
Operations	67	80	147
Deferred	1	1	2
Not operated	13	5	18

Of those sterilized, 36 (18 male, 18 female) are still in residence—12.08% of the resident patient population.

In addition to these, there are in residence 15 (4 male, 11 female) who were sterilized before admission to the Training School—a total of 53 (22 male, 31 female) sterilized patients in residence.

Care of Patients.

The year 1948 was an exceptionally active and busy one. There was a widespread spirit of unrest amongst the patients. The new building programme, with consequent disruption of old routines, the chronic shortage of female staff, the lack of experienced staff, were all contributing factors. Despite these difficulties, most of them normal institutional "growing pains" and all of which were met somehow, most routine patient activities were maintained. Some special seasonal activities, however, had to be dropped—the Patrick's Day dance, the Valentine party, Sports day, Hallowe'en kiddies afternoon party and evening masquerade dance and, worst of all, the Summer Camp. To compensate for these disappointments, groups of about 100 were sent at different times to picture shows in Red Deer.

Forty-one different patients went home for holidays—four of them twice—for periods varying from a week to a month. Friends and relatives visited 125 patients, some of them a number of times. Three with homes in the neighborhood went home most week-ends.

School and Occupational classes were fully maintained, and as far as possible the usual health, recreational and character building activities.

Outdoor activities included the usual sleighing, skating and walking parties with as many as 25 to 30 in each group, ice hockey, ball games, football and picnics with truck rides and lunches for school and Occupational Therapy groups up to 25 to 50 in each.

The C.G.I.T. group of the past few years was dropped for lack of leadership and an attempt made, not too successfully, to revive

Guides, with 18 girls in three patrols. They did meet, however, and samples of their handiwork were sent to the Provincial Girl Guide Rally in Calgary in June. Six girls went both days to a C.G.I.T. Conference in Red Deer in March and six others both days to a Guide Rally in December.

The Scouts lapsed entirely for lack of a leader.

Two girls attended choir practices and sang in one of the local church choirs fairly regularly all year.

The Red Deer Fair at the end of July was attended by 112 boys and girls.

From October on, when we had to get along without the "gym", picture shows (usually attended by about 100 in the "gym") had to be shown on four individual wards each week; boys and girls for lack of space could only attend church service on alternate Sundays, as the combined groups number about 80; Sunday school (about 70 pupils) had to be limited to classes held on the wards; the nightly 7-8 p.m. recreational activities (except for skating) had also to be held on the wards; and low grades confined entirely to their wards during the week, all of which added to the load on the under-strength ward staffs.

Before Christmas, 94 patients were taken down town in small groups to do their Christmas shopping.

When Christmas came we were fortunate indeed that one of the new buildings was sufficiently advanced to let us, with a little ingenuity, hold our Christmas Concert there, followed in turn by the main institutional Christmas tree and Christmas party—with the usual numbers and an increased number of visitors, but relieved of the usual gross overcrowding.

In April, Mr. Bridges, the Assistant Chief Fire Inspector, and Mr. Bedard made their annual inspection and some very impressive movie films were shown to all staff on duty who could be spared and any off duty who could be rounded up. In June they paid a second visit to witness a fire drill. Following their first visit fire drills were held weekly until well into October at irregular and unexpected hours and pulling switches that had not been pulled for years. Many unsuspected defects were uncovered, and the majority rectified and improvements carried out; without exception the most intensive and prolonged fire preparedness campaign ever carried in the history of the Training School.

In July, at the suggestion of the General Superintendent, arrangements were made for treating 17 of the 39 patients on the adult infirmary as permanent bed patients. All were entirely helpless and nonambulant. This avoided much heavy lifting for the staff and has greatly reduced, if not abolished, complaints of back strain.

From the end of October on, much thought was given to improving and expanding the work of the Training School with the help of grants from the Dominion Government under their Mental Health Programme, and a list of suggested requirements—equipment and personnel—was submitted. This, with our own Provincial programme already launched, presages well for the growing usefulness of the Training School.

Staff Changes and Activities.

The year began with a shortage of 13 female staff and ended with a shortage of 10. Despite frequent advertising we were 8 to 10 female staff short most of the year—and to keep at even that strength, educational status, age and even character qualifications had to be lowered.

The disproportion between inexperienced and seasoned staff was also a serious handicap. In the spring, five seniors graduated. A very pleasant graduation ceremony was held in May, at which Dr. R. R. MacLean, General Superintendent, gave the graduating address and with the Matron, Miss Blaikie, S.R.N., A.R.R.C., presented the Graduating Certificates and pins.

The Fall Class consisted of 8 seniors, 8 intermediates and 12 juniors.

On the male side during the staff holiday period a number of shifts had to be dispensed with and inexperienced men placed in responsible positions.

Amongst the summer relief attendant staff were five University students (2 male, 3 female), and the medical staff were fortunate to have a medical student as intern for five months.

The staff turnover continues to be high: 77 left, 80 were appointed. For a 48-hour period during the year we were at full strength. Of the 77 disengagements from our staff, 12 left to further their educations; 11 definitely stated they were to be married; 10 were dismissed, and the balance had secured more suitable employment or left because of their own or family illness.

Social activities were well maintained in the early part of the year, sleigh rides and skating parties, treasure hunts, a Valentine party and a farewell dance with presentation for Miss Butler, R.N., who resigned at Matron to be married. Chief highlight of the year, however, was a series of keenly contested ladies' fastball games with other local teams, ending with the P.T.S. winning the Central Alberta Ladies' Fastball Cup.

Health of Patients and Staff.

On the whole, this was very satisfactory all year. Amongst the patients there were six cases of Chickenpox early in the year, and an undoubted but non-paralytic case of Polio in September—with clinical and positive C.S.F. findings—as well as a couple of suspects and a number of what were probably "abortive" cases. There were cases of Polio in Red Deer and vicinity at the same time, and one ex-patient working on a farm three miles from the Training School developed paralysis.

Angeritis Obliterans in a restless and difficult-to-treat idiot resulted in the loss of only two smaller toes, although at first the whole foot seemed involved.

Two waves of "influenzal" colds caused a number of cases of Tonsillitis, Otitis Media, Sinusitis, and a few Pneumonias.

There was, of course, the usual run of cuts to be stitched, abscesses to be opened, and teeth to be pulled.

Reference to Table 9 shows 10 deaths—4 due to Pneumonias, 2 to Epilepsy, 1 to Septicaemia and multiple Pyaemic Abscesses following infected Chickenpox in a restless, excitable idiot, 1 to

Acute Glomerule-Nephritis and Uremia in a Mongol, and 2 due to Acute Intestinal Obstruction.

OTHER INSTITUTIONAL ACTIVITIES

New Construction.

Work continued all year on the two new units begun in the fall of 1947, one for 76 male and the other for 76 female patients.

A third unit of similar size and design was begun in September.

Also in September, work was started on a fine new Recreation Building.

Early in the year the natural gas-line was laid from Red Deer as far as the Power House.

Alterations and Maintenance.

The outside of the main building was repainted and the roof re-stained.

The floor of the upper verandah of the Boys' Cottage was recovered with galvanized iron and a straight, slide-type fire escape. The joists, flooring and pillars of the west-end porch were repaired, strengthened or replaced where needed.

A similar type of slide fire escape was installed at the east end of Ward VIII.

The inside of the Farm Dormitory was repaired and generally overhauled in anticipation of its being reopened.

In October the enlargement and remodelling of the main kitchen was begun.

The main greenhouse was completely renovated. The whole of the under structure was replaced, the window and roof sashes repaired or replaced as needed, all the inside benches and work tables removed and replaced by new ones, and the heating overhauled and the whole repainted.

The carpenter shop and pasteurizing unit was stuccoed.

The cement floors of the stalls on the east side of the cow barn were raised. The two boxstalls were moved from near the centre to the north end of the barn.

With the exception of the kitchen renovation, the stuccoing and the painting, our own carpenters (with some help in the laundry) did all the above maintenance work.

Garden.

The weather in the early part of the year was good, and everything pointed to an excellent crop. A very heavy hailstorm, however, in July hit the vegetable crop and seemed to have completely ruined it. The ensuing weather, however, was favourable and we garnered a fairly average crop after all, as will be seen by reference to Table 17.

Fortunately, before the hail came, quantities of spinach, peas and beans had been trucked to the Provincial Mental Hospital, Ponoka, for canning. We got back 231 tins of spinach (105 oz. size), 164 tins of peas and 155 tins of beans, the greatest quantity we have had canned for us so far. This will be particularly welcome next spring when vegetables at the Training School always run short.

Farm.

On the farm the same severe hailstorm in July caused about 50% reduction in yield of oats and barley—the only grain crops planted in 1948. There was, however, an exceptionally good crop of hay and greenfeed (see Table 17).

About thirty acres of timbered farm land was partly cleared by hired tractor and is ready for breaking next spring.

Half a mile of new fencing was completed and about three-quarters of a mile repaired, mostly by the boys, who worked well all year.

In June, abortion due to Bang's Disease broke out in the herd, and in December vaginitis. Both these factors, by cutting off calves, will adversely affect the milk supply.

Kitchen and Dining Room.

The kitchen staff worked under difficulties during the year, due to renovations taking place.

Laundry and Sewing Room.

Tables 15 and 16 show that with more patients and a larger staff to be cared for, the output of work by these departments, although an improvement over last year's figure, is still well below that of the peak years of 1945 and 1946.

School and Occupational Therapy.

The work in these sections was again carried on very successfully and without interruption; the schoolroom and sense training rooms at capacity with 19 in one and 22 in the other; some 20 or more in the 2:00 to 3:00 p.m. occupational class on one of the infirmaries; an average of about 45 girls in the 3:00 to 4:00 p.m. classes; groups of 6 to 8 girls in the 4:00 to 5:00 p.m. dressmaking classes; and 23 school and other junior boys in the two afternoon carpentry classes. All groups were in charge of capable and interested leaders. The usual handicraft display was sent to the Edmonton Exhibition and articles displayed and sold at the Red Deer Fair. In addition, there were two successful sales of work at the Training School. The boys' work is especially in demand and their funds are at a high level.

Several very enjoyable picnics were arranged for the occupational groups as such, and the Christmas Concert was held.

EXTRA-INSTITUTIONAL ACTIVITIES

During the year five Guidance Clinics were attended at the Full-time Health Unit in Red Deer. Thirty-two cases were seen, 27 new and 5 for review.

At the request of the Superintendent of Schools for the Rocky Mountain House School Division, a Guidance Clinic was held at Rocky Mountain House in November. Seven cases were seen.

A few other cases were seen at the Training School, two for the R.C.M.P. and others for physicians, or brought by parents, whilst letters from teachers and students wanting information about mental hygiene or mental defectives were replied to fully.

In April, 13 students from the Provincial Mental Hospital, Ponoka (5 post-graduate, 7 second-year students and a supervisor) visited the Training School, made rounds of the wards, school rooms,

occupational classes and other departments, and were shown a number of patients typical of the various clinical types and degrees.

Apart from Government officials on business and relative and friends seeing individual patients, there was the usual stream of visitors all year, singly, in pairs and in groups, including students from the Red Deer Composite High School interested in Psychology, others taking the Dominion Health and Recreation Course there during the summer months, some teachers, several R.N.'s, and two workers from the Department of Child Welfare.

Amongst the many official visitors were the Hon. Dr. W. W. Cross and Dr. M. R. Bow, Minister and Deputy Minister of Public Health respectively.

Thanks and Acknowledgments.

In closing, I would like to record my appreciation of the many kindnesses voluntarily shown to so many patients by various members of the staff, taking them to picture shows in town, on shopping expeditions, to supper or parties in their own homes, to concerts, back and forth to choir practices and Church, for car rides, as well as my thanks to those who have given presents, taught Sunday School and taken Guides. The sum total of such contributions to the happiness of the patients in the course of a year is great.

Thanks are also due to Dr. J. Waddell for giving the First Aid Lectures, and to Dr. R. M. Parsons and Dr. G. Hancock for acting as examiners; to the Red Deer Fair Board for admitting patients to the Grounds and the evening Grandstand performance free of charge; to Mrs. Graves and the Red Deer Guides for singing Christmas carols at the Training School, and donating a large hamper of lovely toys, dolls and candies; to Mrs. Hugh Taylor of Red Deer for taking six of the girls to the two-day C.G.I.T. Rally; to several rural groups for scrapbooks, toy, etc.; to the Red Deer Rotary Club for a substantial donation to the Christmas Tree fund, and to a number of individuals for presents of clothing, toys, used Christmas cards, etc. The co-operation of the various foremen in charge of construction and renovation projects has also been warmly appreciated, particularly in letting us have the use of one of the buildings for our Christmas Concert.

TABLE 1
MOVEMENT OF FEEBLE-MINDED POPULATION

	Male	Female	Total
Defectives on books of Institution at January 1st, 1948:			
In Provincial Training School, Red Deer, Alberta	157	132	289
ADMISSIONS:	Male	Female	Total
1. First admissions, voluntary	18	12	30
2. Re-admissions	1	2	3
3. Transfers from P.M.H., Ponoka	3	—	3
Total number of admissions	22	14	36
OUTGOING:			
Total number of Defectives on books during 1948...	179	146	325
1. Parole	6	9	15
2. Transfers	1	1	2
3. Deaths	7	3	10
Total number outgoing	14	13	27
Defectives on books of the institution at Dec. 31st, 1948.	165	133	298

TABLE 2

RESPONSIBILITY FOR MAINTENANCE OF PATIENTS IN RESIDENCE, DEC. 31, 1948

	In Residence	Percent.
Wards of the Province of Alberta	18	6.04
Wards of the Municipal Districts of Alberta	235	78.86
Wards of the Department of Municipal Affairs of Alberta	36	12.08
Private cases in Residence	1	.34
Wards of the Department of Pensions and	2	.67
Wards of the Dominion Government	2	.67
Health, Ottawa	2	.67
Responsibility unascertained	4	1.34
	<u>298</u>	

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	7	4	11							1	4	11
Imbecile	8	3	11				1		1	9	3	12
Moron	3	5	8	1	2	3	2		2	6	7	13
Totals	18	12	30	1	2	3	3		3	22	14	36

TABLE 4

NATIVITY OF INCOMING PATIENTS AND OF THEIR PARENTS

	Patients			Parents Male Patients			Parents Female Patients		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
British Columbia	1		34	3	7	10	1	4	5
Alberta	20	14		2	2	2			
Saskatchewan	1		1	2	2	4	1	1	2
Manitoba				1	1	1		1	1
Ontario				1		1			
New Brunswick							1		1
Canada				4	1	5	1	1	2
England							1		1
Wales							1		1
Scotland				1		1		1	1
Ireland				1	1	2	1	1	2
Germany				1		1			
Roumania				3	2	5	1	1	2
Russia							1		1
Denmark				2	1	3			
Norway				1	4	5	3	3	6
United States							1		1
Belgium				3	1	4	1	1	2
Unascertained									
				22	22	44	14	14	28

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.
0-4	1	1	2	1		1				2	1	3
5-9	2	2	4	4		4	1	1	2	7	3	10
10-14	3	1	4	3	3	6	3	3	6	9	7	16
15-19							1	1	2	1	1	2
20-24				1		1				1		1
25-29							1	1	2	1	1	2
30-34								1	1		1	1
35-39	1		1							1		1
Totals	7	4	10	9	3	12	6	7	13	22	14	36

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.
0-4	1	1	2	1		1				2	1	3
5-9	2	5	7	11	6	17	5	1	6	18	12	30
10-14	14	7	21	18	7	25	16	16	33	49	30	79
15-19	14	8	22	10	9	19	5	15	20	29	32	61
20-24	10	3	13	17	5	22	1	4	5	28	12	40
25-29	3	3	6	15	5	20	2	2	4	20	10	30
30-34	5	7	12	3	5	8	1	2	3	9	14	23
35-39	2	4	6	3	9	12	1	1	2	6	14	20
40-44		2	2	2	2	4				2	4	6
45-49		3	3	1	1	2				1	4	5
50-54				2		1				1		1
Totals	51	43	94	82	49	131	32	41	73	165	133	298

TABLE 6
ENVIRONMENT OF ADMISSIONS

	Idiot			Imbecile			Moron		
	M.	F.	T.	M.	F.	T.	M.	F.	T.
Rural	6	1	7	6	2	8	3	6	9
Urban	1	3	4	3	1	4	3	1	4
Totals	7	4	11	9	3	12	6	7	13

TABLE 7
RELIGION OF ADMISSIONS

Denominations	Idiot			Imbecile			Moron		
	M.	F.	T.	M.	F.	T.	M.	F.	T.
Roman Catholic	2	2	4	1	1	1	1	2	3
United Church	1	1	1	4	1	5	2	1	3
Church of England	2	1	3	2	1	3	1	1	1
Lutheran	1	1	2	1	1	1	1	1	1
Greek Orthodox	1	1	1	1	1	1	1	1	1
Greek Catholic	1	1	1	1	1	1	1	1	1
Latter Day Saint	1	1	1	1	1	1	1	1	1
Evangelist	1	1	1	1	1	1	1	1	1
Salvation Army	1	1	1	1	1	1	1	1	1
Unascertained	1	1	1	1	1	1	1	1	1
Totals	7	4	11	9	3	12	6	7	13

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	4	1	5	2	1	3	1	1	1
Marginal	3	3	6	5	2	7	3	2	5
Dependent	1	1	1	2	2	2	3	4	7
Totals	7	4	11	9	3	12	6	7	13

TABLE 9
OUTGOING PATIENTS CLASSIFIED WITH REFERENCE TO MENTAL STATUS AND
CHRONOLOGICAL AGE
A—PAROLES

Age Group	Imbecile			Moron			Residence Residence
	M.	F.	T.	M.	F.	T.	
5-9	1	1	1	1	1	1	0/5
10-14	1	1	1	1	1	1	0/9
15-19	1	1	1	1	1	1	1/7
20-24	1	1	1	1	1	1	1/0
30-34	1	1	1	1	1	1	2/11
40-44	1	1	1	1	1	1	0/1
Totals	2	1	3	4	3	7	7/6
	1	1	1	1	1	1	0/7
	1	1	1	1	1	1	3/9
	1	1	1	1	1	1	3/1
	1	1	1	1	1	1	2/9
	1	1	1	1	1	1	13/9
	1	1	1	1	1	1	11/4
	1	1	1	1	1	1	0/2
	1	1	1	1	1	1	29/9
	2	1	3	4	3	7	79/5

OUTGOING PATIENTS CLASSIFIED WITH REFERENCE TO MENTAL STATUS
AND CHRONOLOGICAL AGE
B—TRANSFERS

Age Group	Imbecile			Moron			Years in Residence
	M.	F.	T.	M.	F.	T.	
15-19	1	1	1	1	1	1	11/2
Totals	1	1	2	1	1	2	4/10
	1	1	2	1	1	2	16/0

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.	
Bronchopneumonia	5-9	...	1	1	...	...	...	...	...	...	0/0
Epilepsy	15-19	...	...	...	...	...	...	1	...	1	4/6
Purulent Infection		1	...	1	...	...	...	...	...	...	0/10
Lobar Pneumonia		1	...	1	...	...	...	...	...	...	0/10
Intestinal Obstruction ...	20-25	1	...	1	...	...	1	1	...	...	5/11 11/6
Status Epilepticus	20-25	...	...	...	1	...	1	...	...	...	11/2
Virus Pneumonia	25-29	1	...	1	...	...	...	...	...	...	11/2
Uraemia	30-35	...	1	1	...	...	...	...	...	...	6/4
Lobar Pneumonia	35-39	1	...	1	...	...	...	...	...	...	6/4 0/6
Totals		5	2	7	1	1	2	1	...	1	42/5

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.	
Infirmary Type:													
(a) Physically helpless	19	14	33	14	9	23	4	1	5	37	24	61	20.5
(b) Mentally helpless	30	27	57	21	10	31	2	...	2	53	37	90	30.2
M.D. and Epileptic	14	11	25	12	6	18	6	7	13	32	24	56	18.8
M.D. and Delinquent .....	...	...	...	...	...	...	4	4	8	4	4	8	2.7
M.D. and Psychotic .....	...	1	1	...	...	...	1	...	1	1	1	2	.7
Mongols and Mongoloids	6	1	7	15	9	24	1	...	1	22	10	32	10.7
Totals	69	54	123	62	34	96	18	12	30	149	100	249	83.6

TABLE 11
APPLICATIONS AWAITING ADMISSION

Applications dated:	Male Female Total			Applications dated:	Male Female Total		
	Male	Female	Total		Male	Female	Total
1928 to 1940	24	30	54	1946	20	15	35
1941	12	13	25	1947	17	17	34
1942	11	12	23	1948	26	19	45
1943	15	15	30				
1944	16	19	35		142	141	283
1945	20	18	38				

TABLE 12
KNOWN DEFECTIVES

	M. F. T.			Reported during 1945	M. F. T.		
	M.	F.	T.		M.	F.	T.
Reported 1926 to 1938	132	111- ^{*9}	252	Reported during 1945	22	11- ^{*1}	34
Reported during 1939	16	18	34	1946	22	16- ^{*4}	42
1940	13	13	26	1947	17	14- ^{*6}	37
1941	10	9	19	1948	9	7-2	18
1942	27	15- ^{*1}	43				
1943	15	7- ^{*2}	24		302	240	27 569
1944	10	10- ^{*2}	40				

*Indicates sex unknown.

TABLE 13
EUGENICS SUMMARY

	Male	Female	Total
A—TRAINING SCHOOL CASES:			
Presented:			
P.T.S.	79	85	164
Out-patient	2	1	3
Deferred	1	1	2
Totals	80	85	165
Operations	67	80	147
Paroled, Transferred, etc.	49	62	111
In Residence	18	18	36
Percentage—12.08%.			
B—STERILIZED BEFORE ADMISSION.....			
Paroled, Transferred, etc.	8	51	59
In Residence	4	38	42
In Residence	4	13	17
C—TOTAL OF STERILIZED CASES			
Total of Paroled, etc.	75	131	206
In Residence	53	100	153
In Residence	22	31	53
D—PERCENTAGE OF POPULATION			
		17.78%	

TABLE 14
STAFF—DECEMBER 31, 1948

	M.	F.	T.		M.	F.	T.
Medical Superintendent	1		1	Night Supervisors, M.D.G.	2		2
Social Worker, voluntary.....				Attendants and W. Aides:			
Medical Assistant	1	1		Approved	5	3	8
Dentists				Student	9	18	27
Dietitian				Non-student	5	10	15
Teachers:				Farm Dormitory	2		2
Grade (Normal Grad.)....	1		1	Public Works:			
Sense Training		1	1	Boiler Room Staff	6		6
Occupational Therapist.....		1	1	Maintenance Staff	5		5
Gym Instructress				Night Watchman	1		1
Business Superintendent	1		1				
Stenographers		4	4		40	57	97
Clerks	1		1	Shortages:			
Kitchen Staff		4	4	Gym Instructress		1	1
Dining Room Staff		3	3	Kitchen Staff		1	1
Laundry Staff		4	4	Dining Room Staff		1	1
Sewing Room Staff		3	3	Surgery Nurse, R.N.		1	1
Gardener	1		1	Ward Aides, Student		5	5
Farmer and Farm Help.....	2		2	Farm Dormitory		1	1
Dairyman	1		1				
Matron, S.R.N. Eng.		1	1	Authorized Public Health			
Assistant Matron, acting				Quota	28	67	95
only, M.D.G.	1	1					
Surgery Nurse							

TABLE 15
SEWING ROOM—SUMMARY OF ARTICLES MADE AND REPAIRED IN 1948

Articles	Quantity	Articles	Quantity
Aprons, Staff and Rubber	122	Kneelers	35
Bandages, triangle	22	Laundry Bags	31
Bibs	181	Mats, Bath	3
Binders, T.	6	Napkins	109
Bedjackets	109	Night Gowns	203
Bloomers	362	Pillow Cases	40
Barber Shawl	1	Pot Holders	26
Brassieres	5	Rompers	64
Blouses	6	Sanitary Belts	41
Butcher Canvas	1	Scarves, Bureau, and Table Centres	21
Chemises	187	Sheets	333
Coveralls	76	Sheets, draw	77
Curtains	36	Skirts	1
Coats, Attendtn	14	Shorts	112
Covers: Cushion 3, Berpan 33, Iron- ing Board 4, Hotwater bottle 2, Dressing 60, Pillow 4, Press 30, Mattress 19	165	Serviettes	20
Cloths: Face 162, Silence 3, Table 44, Mangle 2, Tray 1	212	Slips	99
Dresses	291	Sleeves	92
Door Protectors	4	Suits, Canvas	15
Garter Waists	19	Tie Strings	6
Hankies	144	Towels: Huck 154, Tea 285	439
Isolation Caps	7	Uniforms: Nurses 115, Caps 6	121
Isolation Gowns	4	Uniforms: Dining Room 14, Cuffs 16, Caps 11, Collars 8	49
Kerchiefs	10	Total No. of articles made	3,921
Manufactured		Total No. of articles repaired	61,914
Repaired			
		1943	1944
		3,334	4,629
		4,106	4,989
		69,151	69,500
		75,322	59,165

TABLE 16
LAUNDRY

Articles laundered:	1944	1945	1946	1947	1948
	463,174	510,000	525,594	451,038	489,983

TABLE 17
A.—GARDEN PRODUCE FOR HOME CONSUMPTION

Product	1946	1947	1938
Beans, Green	1,210	1,465	1,840
PMH—Canning	1,270	2,000	685
Beets	9,600	9,630	5,135
Carrots	20,060	22,060	24,045
Farm Use	3,000	22,000	1,290
Cabbage	8,385	14,000	8,580
Chard, Swiss	1,900	1,800	2,050
Celery	645	920	600
Cucumbers	253	479	400
Cauliflower	1,340	1,850	710
Lettuce	2,235	2,605	2,400
Onions	1,560	1,270	1,000
Potatoes	147,450	113,860	140,200
Purchased		32,460	39,860
Parsnips	8,700	11,035	13,625
Peas, Green	1,385	1,320	2,095
PMH—Canning	1,220	2,700	1,640
Radishes	390	370	620
Rhubarb	3,460	2,470	685
Spinach	1,750	1,420	2,400
PMH—Canning	5,790	Hailed	2,400
Turnips	21,300	46,500	29,745
Tomatoes	395	482	585
Vegetable Marrows	900	1,270	285
ACREAGES:		HEDGES:	
Lawns and Flower Beds	12	Caragana	835 yds.
Vegetable Garden	10	Spruce	587 yds.
Potato Field	10	Willow	120 yds.

DEPARTMENT OF PUBLIC HEALTH

B.—FARM PRODUCE FOR HOME CONSUMPTION

Product	1946	1947	1948
Barley .....	.....	665	409
Purchased .....	.....	.....	340
Eggs	4,460	4,934	6,457
Purchased .....	.....	.....	3,420
Greenfeed	43,000	13,617	35,375
Purchased .....	.....	.....	2,725
Hay	20	85	65
Purchased .....	.....	.....	20
Oats	4,380	1,347	545
Purchased .....	.....	.....	3,907
Milk, Kitchen	269,924.5	296,132	254,956
Farm Feed .....	.....	1,4068	6,146
Purchased .....	.....	.....	33,710
Pork, dressed	10,331	13,996	13,649
Poultry, dressed	826	1,323	1,243
Wheat .....	.....	464	.....
Purchased .....	.....	.....	349

C.—FARM PRODUCE SOLD AT MARKET

	1946	1947	1948
To Calf sales	\$ 95.00	\$ 67.00	\$ 97.50
To Cattle sales .....	.....	240.00	787.00
To Hog sales	1,429.38	486.41	279.60
.....	.....	.....	261.39
To Horse sales .....	.....	25.00	12.00
To Lard sales	91.25	98.30	38.05
To Hog Head Sales .....	.....	.....	13.50
To Milk sales .....	.....	89.39	.....
	<u>\$1,621.63</u>	<u>\$1,006.10</u>	<u>\$1,489.04</u>

TABLE 18

STATEMENT OF REVENUE AND EXPENDITURE FOR THE YEAR ENDED
MARCH 31, 1948

REVENUE

		Cost per Patient Day
Patients' maintenance charges	\$ 51,305.50	
Less: Charges to indigent patients and uncollective charges	5,034.68	
	<u>\$ 46,270.82</u>	

EXPENDITURE

Administration	\$ 11,857.63	\$.11
Professional care of patients	97,034.75	.93
Occupational Activities	6,858.77	.07
Kitchen and Dining Room	48,908.09	.47
General House	9,659.73	.09
Transportation	1,373.45	.01
Stores Expense	1,354.39	.01
Farm, Garden and Grounds	Cr. 3,434.55	Cr. .033
Upkeep of Building and Power House	39,091.93	.38
	<u>\$212,704.19</u>	<u>\$ 2.04</u>
Total Expenditure	\$212,704.19	\$ 2.04
Cash Collected	46,270.82	
Net Cost to the Province	<u>\$166,433.37</u>	<u>\$ 1.60</u>

Guidance Clinics

The Provincial Guidance Clinics' Services were further expanded during the year 1948 by establishing of a full-time clinic team for the Edmonton district, with headquarters in Edmonton, with Dr. A. R. Schrog as Psychiatrist in charge. A completely staffed clinic in Edmonton was not possible because of the limited quarters available. The Guidance Clinic team in Calgary, under Dr. G. D. Carson, was strengthened by adding Mr. R. E. Pettifor to the staff as Clinic Psychologist.

Among the other developments during the year was a conference with the Department of Education officials, held at the Provincial Mental Hospital on September 24th. Among those present from the Department of Education were: Dr. W. H. Swift, Deputy Minister; Mr. W. E. Frame, Chief Superintendent of Schools; Mr. A. A. Aldridge, Director of Guidance; and Mr. M. L. Watts, Director of Curriculum. Mr. William P. Wagner, of the Edmonton School System, also attended. The purpose of the conference was to discuss plans for co-ordinating and bringing about greater mutual understanding of the work of the Provincial Guidance Clinic and the School Guidance Programme. During the conference, which was, in the main, in the nature of a round-table discussion, a number of pertinent topics were brought up, as a result of which it is believed that the Guidance Programmes of the two Departments can be more completely integrated.

On December 17, 1948, the first Guidance Clinic Staff Conference was held at the Provincial Mental Hospital, Ponoka. The complete Guidance Clinic staffs were present, and the conference was also attended by Dr. T. C. Michie, Medical Superintendent of the Provincial Mental Hospital; Dr. A. D. MacPherson, Medical Superintendent of the Provincial Mental Institute; Dr. D. L. McCullough, Medical Superintendent of the Provincial Training School; and Dr. Mary McCullough, of the medical staff at the Training School. The work of the clinics was reviewed and plans were discussed for probable further expansion in service, and for improvements within the existing services.

A series of clinics were planned for the Peace River-Grande Prairie area for September, 1948, but these clinics had to be cancelled because of the prevalence of Poliomyelitis at that time.

During the year there has been an increase in general public education activities through talks given by various members of the clinic staffs, by staff participation in round-table discussions, by radio talks and by staff assistance given to local programmes for discussion groups and local institutes. The staffs of the Guidance Clinics have also co-operated with the National Committee for Mental Hygiene in its general educational work, and in its radio broadcast programmes "In Search of Ourselves", and the discussion groups which followed these programmes in some areas.

One teacher from the Alberta School System attended the first special Course in Mental Hygiene given in co-operation with the University of Toronto, and sponsored by the National Committee

for Mental Hygiene (Canada). Clinic personnel assisted in the negotiations which led to the selection of this teacher. It is expected that when this teacher returns to Alberta, on completion of the course, she will help to improve further the liaison between the Department of Health Guidance Clinic Services and the Alberta School System.

The general policy of the Provincial Guidance Clinics continues to emphasize the need for prevention of mental disease and mental disability. The major portion of the clinic work has been with children. Of the 1,143 new cases seen in the clinics throughout the Province in 1948, 792 were in the school-age group and 97 in the pre-school-age group, while 254 were 19 years of age or over.

The Guidance Clinic Programme was materially assisted in 1948 by the Federal Health Grants. Through these grants the major share of the money necessary for the formation of the full-time Provincial Regional Guidance Clinic, located in Edmonton, was provided. The money provided also included amounts for medical and psychological equipment, and a clinic library.

Some further details of the clinic services in the Edmonton, Calgary, and Rer Deer regions are given below, followed by statistical tables which summarize the clinic work in each of the three regions mentioned. It is believed that the tables are largely self-explanatory. Below Table 1 are given the various clinic centres served in the three regions. It may be noted that 1948 is the first full calendar year in which a regional clinic team has been functioning in Calgary, and that in this year 684 new cases were seen, as compared with 214 new cases examined in 1947. It is also of interest to note that the total number of new cases seen in 1948 in all the clinics was 1,143, while the total number examined in 1947 was 487. In addition to the new cases seen, the full-time clinic services now offered in the Calgary and Edmonton regions allow for much more follow-up work to be done, and for many more return visits to the clinics by those who would benefit by further consultations and treatment periods. The use made of the clinic services in the areas visited and the continuing demand for the Mental Health Division to establish clinic centres in other areas not yet served, would seem one very real and practical indication that the clinics are providing a needed and worth-while community service.

Edmonton and District Guidance Clinics.

The clinics in Edmonton and district were operated from January to August, 1948, under the supervision of Dr. A. D. MacPherson, Medical Superintendent of the Provincial Mental Institute, with the assistance of Dr. F. B. Jordan, Senior Physician of the same hospital. In September the first full-time clinic team was organized, under the direct supervision of Dr. A. Ralph Schrag, who was transferred from the Calgary Guidance Clinic. In May, Mrs. R. Brown, Psychiatric Social Worker, left the service of the clinic and was replaced by Mrs. Helen Gemeroy. In September, Miss J. L. Dixon was added to the clinic staff as Psychologist. In October, Mrs. J. Fishleigh joined the clinic staff as Stenographer-Receptionist. The setting up of the full-time clinic team allowed the clinic service to Edmonton City and to Edmonton Rural areas to be increased. Also, the clinics at Holden and Wainwright, which had been closed during

the war, were opened again, and new clinics centres were established at Camrose, Wetaskiwin, Vegreville and Vermilion.

During the year in the Edmonton district a total of 397 new cases were seen, with a total work load of 2,407. This work was distributed as indicated below:

Edmonton City—During the year 231 new cases were examined and the work load was 1,647, as compared to 166 new cases and a total work load of 571 in 1947. The increased work load is accounted for by an expanding amount of Psychotherapy and agency and public contacts made possible by an enlarged full-time staff.

Edmonton Rural Clinics—These clinics were held in the Edmonton clinic offices as in the past. Appointments were made through Mr. John MacDougall, Mental Hygiene Supervisor, and the nursing staff of the Edmonton Rural Health Unit. The co-operation and devoted work of Mr. MacDougall and the nursing staff in interpreting the functions of the Guidance Clinics and the help they have given teachers and parents in working out the recommendations of the clinic have been invaluable. Ten clinics were held and 62 new cases were examined. The total work load was 343.

Camrose—Two clinics were held and 10 new cases were examined. These clinics were held in the Smith Clinic, Camrose.

Holden—Two clinics were held and 10 new cases were examined. These clinics were held in the Health Unit offices and schools of the Holden School Division.

Lamont—Four clinics were held and 21 new cases were seen. Clinics were held in the offices of the Lamont Health Unit.

Wainwright—Two clinics were held and 16 new cases were examined. Clinics were held in the offices of the Health Unit at Wainwright.

Wetaskiwin—Three clinics were held and 20 new cases were examined. Clinics were held in the Wetaskiwin City Schools and schools of the Wetaskiwin School Division.

Vegreville—Two clinics were held 14 new cases were examined. Clinics were held in the Court House in Vegreville, and in the schools of the Vegreville School Division.

Vermilion—Two clinics were held and 13 new cases were examined. Clinics were held in the Masonic Hall, Vermilion.

Calgary and District Guidance Clinics

The Provincial Guidance Clinic at Calgary completed its first year of operation on a full-time basis in 1948. There was a considerable increase in the number of clinics held in the southern part of the Province and, in addition, the work done in the City of Calgary itself showed a substantial increase. The year 1948 saw a number of staff changes. Mrs. Barbara Baker joined the staff as a full-time Stenographer-Receptionist in April. She replaced Mrs. R. Parsons, who left the clinic service in February. Mrs. Lois Alger joined the staff as a Social Worker on July 1st. Also in July, Dr. G. D. Carson, who had been on leave-of-absence from the Mental Health Services, returned from post-graduate studies to replace Dr. A. R. Schrag as Psychiatrist in charge of the clinic centre. Dr. Schrag was transferred to the Edmonton Guidance

Clinic. In September Mr. R. E. Pettifor joined the clinic staff as Psychologist. Miss J. Bingham terminated her services with the Guidance Clinic on May 31st.

During the year 1948, 684 new patients were seen by the Calgary Guidance Clinic. Of these, 230 were seen in Calgary, 145 in Medicine Hat, and 120 in Lethbridge. In these same centres in 1947, 185 new cases were seen. During the year a total of 595 Psychometric examinations were given. Some further details of the clinic work are as given below:

Calgary—The 230 new cases seen in Calgary came from many sources, the largest number being from the school-age group. Close liaison with the Calgary School System was maintained with Mr. H. E. Panabaker, Supervisor of Guidance for the Calgary Schools, and Miss Mary Sutherland, Visiting Teacher.

Medicine Hat—Two days were spent each month in Medicine Hat, and on each visit one day was spent in the schools and one day in quarters provided in the Court House, when the cases referred by physicians and others were examined. The help and assistance given by Miss M. Hagerman, Public Health Nurse, was particularly valuable in arranging appointments and contacting people.

Lethbridge—Two days a month were spent at this point, as in Medicine Hat, one day in the schools and the other day cases referred by physicians and others in the district were seen at the Nursing Mission. Several trips were made to the Provincial Gaol to examine prisoners there.

Didsbury—Ten monthly clinics were held at Didsbury and 70 new cases were seen. The clinics were held in the offices of the Rosebud Health Unit.

High River—Five clinics were held in High River and 16 new cases were examined. These clinics were held in the offices of the Foothills Health Unit.

Brooks—Five clinics were held at Brooks, approximately one every two months, and 38 new cases were seen. The clinics were held in the Divisional School Board offices.

Claresholm—Five clinics were held in Claresholm and 27 new cases seen. These clinics were usually held in the school.

Pincher Creek—Five clinics were held and 22 new cases were examined. The clinics in Pincher Creek were held in the offices of Dr. F. J. MacLean and Dr. L. B. Collins of that town.

Drumheller—The Drumheller Clinic was not re-opened until late in the year, and three clinics only were held, when 10 new cases were seen.

Crow's Nest Pass—One clinic only was held in the Crow's Nest Pass and 6 new cases were seen.

Red Deer and District Guidance Clinics.

The Red Deer region is that area between the district served by the Calgary Regional Guidance Clinic and that served by the Edmonton Regional Guidance Clinic. This area had no organized Guidance Clinic team during 1948, and was serviced through the Guidance Clinic Central Office and Psychiatrists from the Provin-

cial Mental Hospital, Ponoka, and the Provincial Training School, Red Deer. Clinics were held approximately every two months at Red Deer and Stettler, and a similar service was started at Rocky Mountain House, where the first clinic was held in November, 1948. Regular clinics were not held at Ponoka, but the practice of seeing cases by appointment was continued. In all, 13 clinics were held and 62 new cases were examined. Dr. T. C. Michie, Medical Superintendent of the Provincial Mental Hospital, attended one clinic at Stettler, and Dr. J. M. Byers, Assistant Medical Superintendent of the Provincial Mental Hospital, three clinics there. Dr. G. W. Murray and Dr. G. O. Patton, medical officers, Provincial Mental Hospital, each attended one clinic at Stettler. Dr. D. L. McCullough, Medical Superintendent, Provincial Training School, Red Deer, attended four clinics at Red Deer and the one clinic held at Rocky Mountain House. Dr. G. D. Carson attended the December clinic in Red Deer, as Dr. D. L. McCullough was unable to be present. Mr. E. J. Kibblewhite, Chief Psychiatric Social Worker, attended all the clinics held in this area. The clinics in both Red Deer and Stettler were held in the Health Unit quarters in the respective centres. The clinic in Rocky Mountain House was held in the School Division quarters.

The clinic work throughout the Province was materially helped by the splendid co-operation given by the Department of Education officials, including the Superintendents of Schools and school-teaching staffs and the Department of Health personnel, including Health Unit staffs and Public Health nurses. The sincere thanks of the Guidance Clinic staff is extended to all who have assisted in the Guidance Clinic activities. Special mention might be made of physicians in private practice who have provided office accommodation for the clinics at several points.

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 TREATMENT PERIODS, PSYCHOLOGICAL EXAMINATIONS AND INTERVIEWS

Location	M.	F.	T.	Interviews and Follow-ups	Treatment Periods	Psychol. Exams.	Outside and Agency Contacts	*Work Load	Total New Cases Since 1929
Edmonton and District	221	176	397	1935	117	330	25	2407	.....
Calgary and District	406	278	684	2011	500	535	91	3137	.....
Red Deer and District	43	19	62	114	.....	53	10	117	.....
Totals	670	473	1143	4060	617	918	126	5721	*7448

Edmonton and District includes Clinic service at Barrhead, Camrose, Holden, Lamont, Vegreville.

Calgary and District includes Clinic service at Brooks, Claresholm, Crow's Nest Pass, Didsbury, Drumheller, High River, Lethbridge, Medicine Hat, Pincher Creek.

Red Deer and District includes Clinic service at Ponoka, Rocky Mountain House, Stettler.

*Work Load includes actual examinations and interviews with patients and others directly concerned, and other interviews and consultations about the many phases of work in the Mental Health field.

†Sub-totals are not given here because of re-grouping of Clinics.

TABLE 2
AGE AND SEX CLASSIFICATION OF NEW CLINIC CASES, 1948

Age Group	Edmonton and District			Calgary and District			Red Deer and District			Total			Percentages		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
0-4	17	13	30	31	17	48	2	...	2	50	50	80	4.4	2.6	7.0
5-9	67	37	104	114	73	187	15	10	25	196	120	316	17.1	10.5	27.6
10-14	82	42	124	139	55	194	18	5	23	239	102	341	20.9	9.0	29.9
15-19	28	30	58	54	47	101	6	3	9	88	80	168	7.7	7.0	14.7
20-24	6	16	22	15	14	29	...	1	1	21	31	52	1.8	2.7	4.5
25-29	3	5	8	14	9	23	...	...	...	17	14	31	1.5	1.4	2.7
30-34	3	7	10	7	14	21	1	...	1	11	21	32	1.0	1.9	2.8
35-39	4	9	13	5	14	19	...	...	...	9	23	32	0.8	2.0	2.8
40-44	2	1	3	8	10	18	1	...	1	11	11	22	1.0	1.0	1.9
45-49	...	2	2	7	8	15	...	...	...	7	10	27	0.6	0.9	1.5
50 and over	4	10	14	12	16	28	...	...	...	16	26	42	1.4	2.3	3.7
Unknown	5	4	9	...	1	1	...	...	...	5	5	10	0.4	0.4	0.9
Totals	221	175	397	406	278	684	43	19	62	670	473	1143	58.6	41.6	100.0

M—Male; F—Female; T—Total.

TABLE 3a
CLASSIFICATION OF NEW CLINIC CASES—PRE-SCHOOL GROUP
(1 MONTH TO 5 YEARS 11 MONTHS)

Nature of Case	Edmonton and District			Calgary and District			Red Deer and District			Totals		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Educational Problems with Ade- Intellect	1	3	4	1	...	1	...	...	...	2	3	5
Intellectual Inadequacy	14	6	19	17	6	23	3	...	3	33	12	45
Emotional Disorders	1	5	6	5	5	10	...	...	...	6	10	16
Thinking Disorders	...	...	...	...	...	...	...	...	...	...	...	...
Disorders of Speech	2	1	3	6	1	7	...	...	...	8	2	10
Faulty Feeding Habits	...	...	...	...	4	4	...	...	...	...	4	4
Sleep Disturbances	...	...	...	1	2	3	...	...	...	1	2	3
Anti-Social Trends	...	...	...	5	...	5	...	...	...	5	...	5
Sexual Difficulties	...	1	1	2	1	3	...	...	...	2	2	4
Attack Disorders	1	...	1	...	1	1	...	...	...	1	1	2
Psychoneuroses	...	...	...	...	...	...	...	...	...	...	...	...
Psychoses	...	...	...	...	...	...	...	...	...	...	...	...
Non-Psychotic	...	...	...	...	1	1	1	...	1	1	1	2
Undiagnosed	...	1	1	...	...	...	...	...	...	1	1	1
Totals	18	17	35	37	21	58	4	...	4	59	38	97

TABLE 3b
CLASSIFICATION OF NEW CLINIC CASES—SCHOOL AGE GROUP
(6 YEARS TO 18 YEARS 11 MONTHS)

Nature of Case	Edmonton and District			Calgary and District			Red Deer and District			Totals		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Educational Problems with Ade- Intellect	30	11	41	82	22	104	2	...	2	114	33	147
Intellectual Inadequacy	72	49	121	93	48	141	11	9	20	176	106	282
Emotional Disorders	33	20	53	45	40	85	13	2	15	91	62	153
Thinking Disorders	2	3	5	7	6	13	...	...	...	9	9	18
Speech Disorders	9	5	14	14	7	21	4	1	5	27	13	40
Faulty Feeding Habits	...	1	1	1	1	2	...	...	...	1	2	3
Sleep Disturbances	...	...	...	1	4	5	...	...	...	1	4	5
Anti-Social Trends	18	4	22	36	17	53	3	2	5	57	23	80
Sexual Difficulties	4	...	4	7	5	12	...	...	...	11	5	16
Attack Disorders	3	5	8	5	8	13	3	...	3	11	13	24
Psychoneuroses	2	...	2	2	4	6	...	...	...	4	4	8
Psychoses	1	1	2	1	1	2	...	...	...	2	2	4
Non-Psychotic	1	2	3	...	...	...	1	3	4	2	5	7
Undiagnosed	2	3	5	...	...	...	...	...	...	2	3	5
Totals	177	104	281	294	163	457	37	17	54	508	284	792

TABLE 3c
CLASSIFICATION OF NEW CLINIC CASES—ADULT GROUP
(19 YEARS AND OVER)

Nature of Case	Edmonton and District			Calgary and District			Red Deer and District			Totals		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Educational Problems with Ade- quate Intellect	1	1		5		5				5	1	6
Intellectual Inadequacy	7	7		7	1	8				7	8	15
Emotional Disorders	1	3	4	4	4	8				5	7	12
Thinking Disorders	4	12	16		10	10		1	1	5	23	27
Speech Disorders												
Faulty Feeding Habits												
Sleep Disturbances				1	1	2				1	1	2
Anti-Social Trends	1	1									1	1
Sexual Difficulties	1	1	2	2		2				3	1	4
Attack Disorders	1	2	3	3	3	6		1	1	4	6	10
Psychoneuroses	10	15	25	16	37	53	1		1	27	52	79
Psychoses	7	11	18	19	32	51	1		1	27	43	70
Non-Psychotic	1		1	18	6	24				19	6	25
Undiagnosed	1	2	3							1	2	3
Totals	26	55	81	75	94	169	2	2	4	103	151	254
Table 3b Totals	177	104	281	294	163	457	37	17	54	508	284	792
Table 3A Totals	18	17	35	37	21	58	4		4	59	38	97
Grand Totals	221	176	397	406	278	684	43	19	62	670	473	1143

TABLE 4
SOURCES REFERRING NEW CASES TO CLINICS, 1948

Sources	Edmonton and District			Calgary and District			Red Deer and District			Totals		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
From Mental Hospitals*	4	4	8	5	2	7				9	6	15
From General Hospitals												
From Private Doctors	32	19	51	76	91	167	3	3	6	111	113	224
From Factory Doctors												
From Courts	1	1									1	1
From Schools	51	38	89	184	91	275	6		6	241	129	370
From Community Agencies†	113	85	198	101	57	158	31	16	47	245	158	403
Attended Voluntarily	17	25	42	19	26	45				36	51	87
From all other Sources	4	4	8	21	11	32	3		3	28	15	43
Totals	221	176	397	406	278	684	43	19	62	670	473	1143

*Includes referrals from all Mental Institutions.

†Includes referrals from Health Units, Child Welfare and Children's Aid.

TABLE 5
MAJOR RECOMMENDATIONS (DISPOSALS) MADE IN REGARD TO NEW CLINIC
CASES, 1948

Recommendation	Edmonton and District			Calgary and District			Red Deer and District			Totals		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
To Mental Hospitals*	22	26	48	22	28	50	1	1	2	45	55	100
To Psychiatric Hospitals or Psy- chiatric Wards in General Hospitals				2	2	4				2	2	4
To Convalescent or Nursing Homes†	15	11	26	29	20	49				44	31	75
Reported to Hospital Consult- ant or Private Doctor	20	16	36	24	24	48	3	3	6	47	43	90
Reported to Community Agencies	86	58	144	117	65	182	36	15	51	239	139	377
Advice to Patients or Relatives	74	53	127	193	129	322	3		3	270	182	452
Other Methods	4	12	16	19	10	29				23	22	45
Totals	221	176	397	406	278	684	43	19	62	670	473	1143

*Includes recommendations for admission to the Provincial Training School.

†Includes recommendations for Foster Home and Special Class placement.

TABLE 6
SUMMARY OF NUMBER OF MENTAL DEFECTIVES EXAMINED BY YEARS, 1948

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.					
Number of Mental Defectives examined to 1939 (based in part on estimates)													
										31.4%	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
1948	6	8	34	33	86	47	24	12	150	100	250	21.9%	2455

The Eugenics Board

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

The Eugenics Board held seven meetings during 1948 for the consideration of cases. Five meetings were held at the Provincial Mental Hospital, Ponoka, and two at the Provincial Training School, Red Deer, on the dates given below:

- 29 January, 1948—Provincial Mental Hospital.
- 29 January, 1948—Provincial Training School.
- 1 April, 1948—Provincial Mental Hospital.
- 9 June, 1948—Provincial Mental Hospital.
- 7 October, 1948—Provincial Mental Hospital.
- 8 October, 1948—Provincial Training School.
- 23 November, 1948—Provincial Mental Hospital.

Cases Presented.

The Board considered 106 new cases, of which number 1 male case was deferred for future consideration if indicated. The 105 cases passed by the Board were made up of 37 male cases and 68 female cases, most of which were subject to the consent of the patient or parent or guardian, or to both patient and parent or guardian.

Twenty-four of the 105 cases passed by the Board during the year had been first examined at a Provincial Guidance Clinic, although some of these had been institutionalized before presentation. This group of 24 cases was made up of 7 male and 17 female cases.

Operations.

Operations were performed on 38 cases during the year, 16 male and 22 female. All the operations but that on one female case were performed at the Provincial Mental Hospital. One female case was operated on at the University of Alberta Hospital, Edmonton, by special arrangement. In nine female cases the appendix was removed at the same time that the sexual sterilization operation was performed.

All the cases operated on during the year were presented and passed in 1948.

The operations were all performed by one of the surgical consultants, Dr. J. W. Richardson of Calgary, Dr. J. Ross Vant, or Dr. R. H. Horner of Edmonton.

Staff Changes.

There have been no staff changes in 1948.

Appreciation.

The Eugenics Board wishes to express its appreciation and thanks to Dr. R. R. MacLean, Director, Division of Mental Health, to Dr. T. C. Michie, Medical Superintendent, Provincial Health Hospital, and to Dr. D. L. McCullough, Medical Superintendent, Provincial Training School, Red Deer, and to their respective staffs for the courteous and friendly assistance given them in the carrying out of their duties during the year.

A tabular summary of the work of the Eugenics Board to December 31st, 1948, is appended.

CASES PRESENTED AND PASSED

(To December 31, 1948)

	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
1948	37	68	105	1220	1240	2469

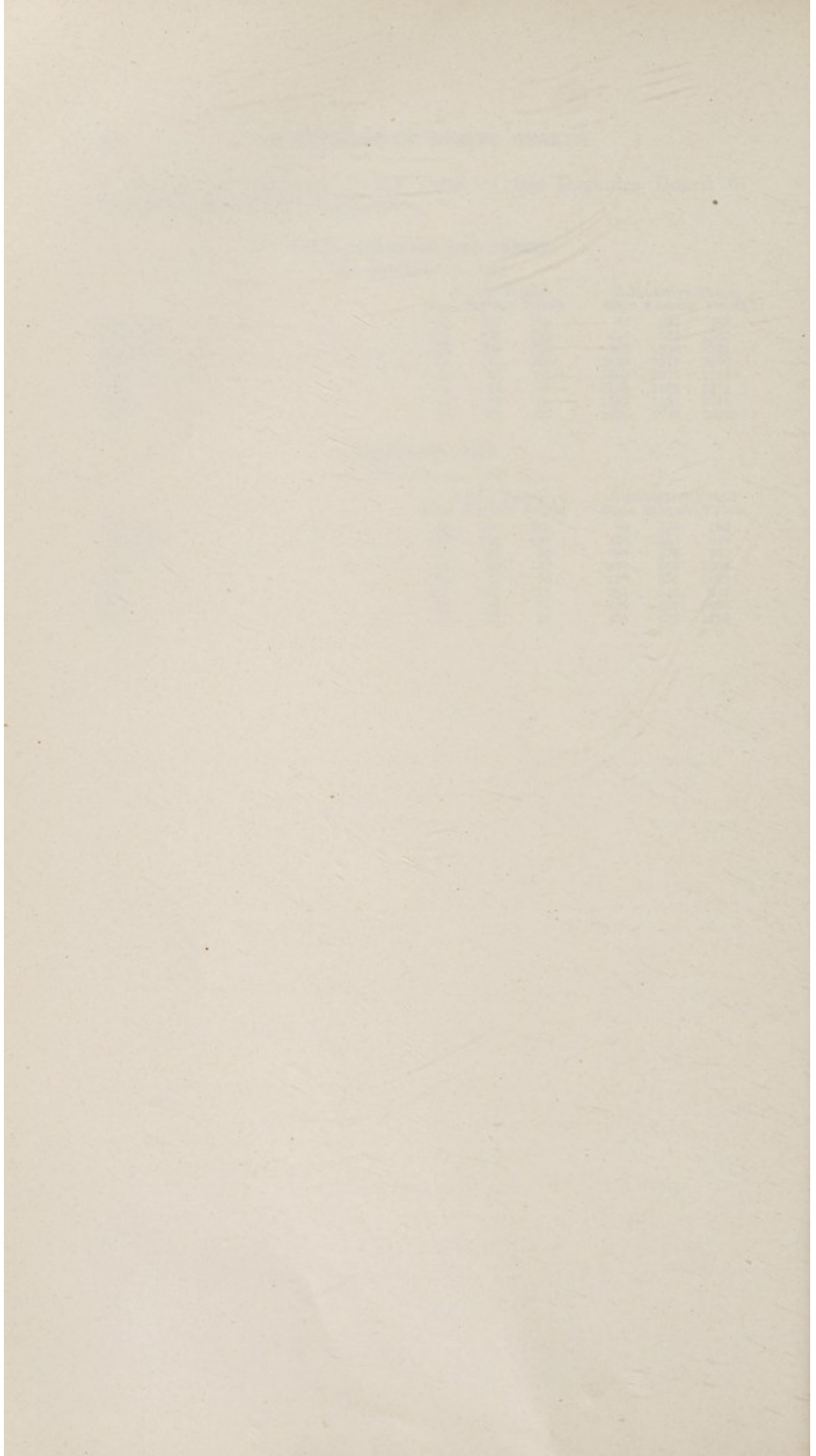
OPERATIONS ONLY

(To December 31, 1948)

	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
1948	16	22	38	455	673	1128

Vital Statistics Branch

DEPARTMENT OF PUBLIC HEALTH
PROVINCE OF ALBERTA



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

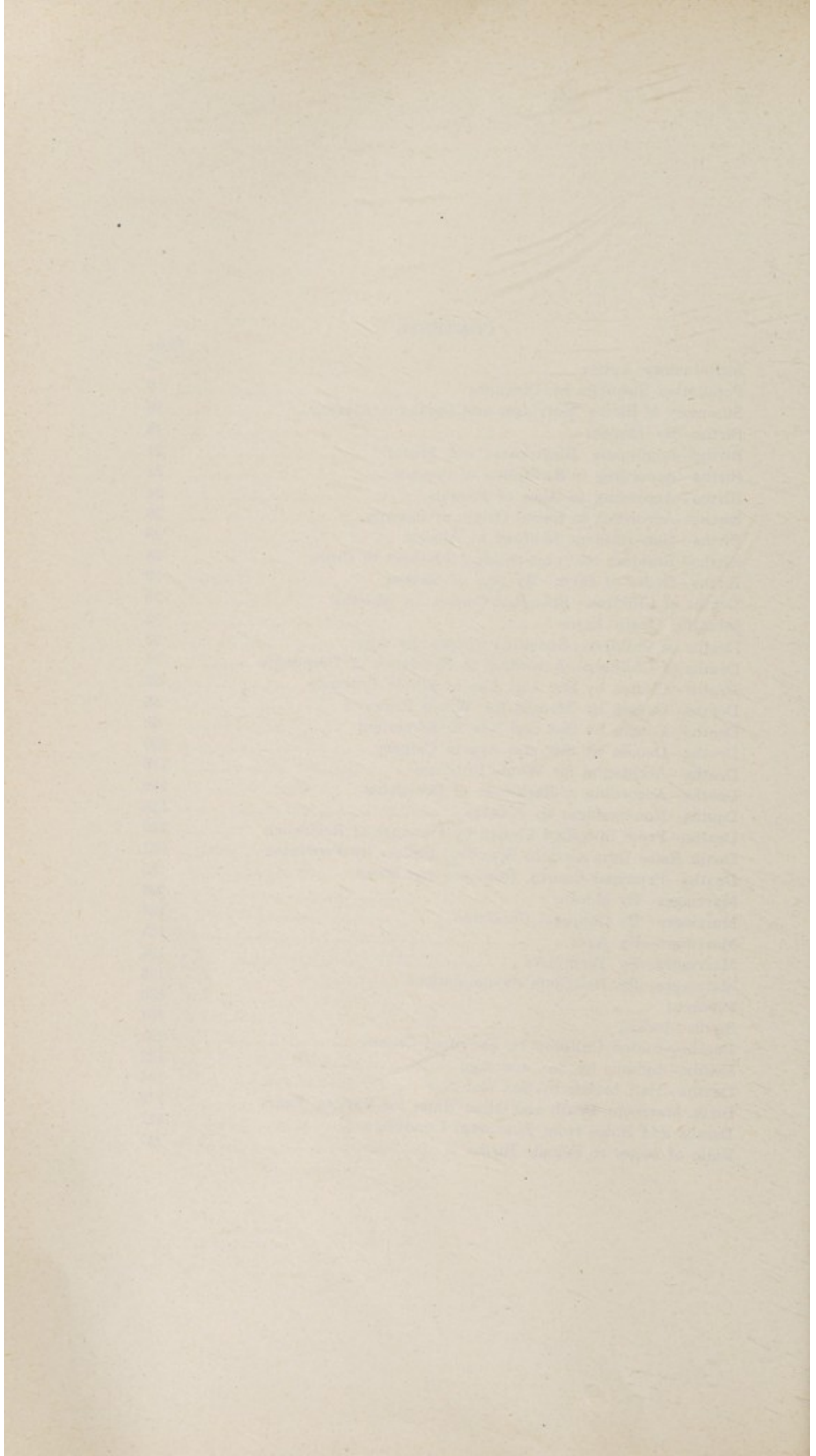
1948

Vital Statistics Branch

Department of Health and Welfare
Ottawa, Ontario

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VITAL STATISTICS BRANCH

(ARTHUR PACKFORD, *Deputy Registrar General*)

This is the 1948 Report of the Vital Statistics Division of the Department of Public Health of the Province of Alberta, and is the 44th report published since the establishment of the Province.

This report reveals a slight decrease in birth and marriage rates, and a small increase in the death rate. There was also a slight increase in the infantile and maternal mortality rates.

The death rates from communicable diseases are lower in all cases with the exception of whooping cough, which showed a slight increase; and poliomyelitis, the death rate from this cause being the highest recorded since the previous epidemic in 1927. There were no deaths from typhoid or scarlet fever.

Diseases of the heart and cancer, which have long been the chief causes of death, again showed a slight increase. There was also an increase in the number of violent and accidental deaths.

POPULATION

The population of the Province of Alberta for the year 1948 has been estimated by the Dominion Bureau of Statistics as 846,000. All rates in this report are, therefore, based on that figure.

BIRTHS

The number of live births registered during the year was 24,075, being a rate of 28.5 per 1,000 population. There were 571 less births than in the previous year, and a drop of 1.6 in the birth rate. Of these children, 12,331 were males and 11,744 were females, the ratio being 1,049 males to each 1,000 females. The multiple births comprised 294 twin births, and 9 cases of triplets. There were 1,222 illegitimate births, 63 more than the previous year, the rate being 5.0 of all live births.

The number of children born to residents of cities and towns of 1,000 population and over was 10,079, and to rural residents 13,996. There were 1,198 Indian births. The number of births to residents of the four large cities were as follows: Edmonton, 4,083; Calgary, 2,933; Lethbridge, 558; and Medicine Hat, 432. The actual number of births in these cities were: Edmonton, 6,013; Calgary, 3,809; Lethbridge, 1,043; and Medicine Hat, 716.

For purposes of comparison the following are the birth rates for Canada, the Provinces, Great Britain and certain other countries for the year 1948:

BIRTH RATES

Canada	27.0	Union of South Africa	27.4
Prince Edward Island	30.6	New Zealand	25.5
Nova Scotia	28.0	Australia	23.1
New Brunswick	34.4	United States	24.4
Quebec	30.2	Austria	17.2
Ontario	24.2	Belgium	17.6
Manitoba	24.9	Czechoslovakia	23.4
Saskatchewan	25.2	Denmark	20.3
ALBERTA	28.5	Hungary	19.1
British Columbia	24.0	Italy	21.6
England and Wales	17.9	Netherlands	25.3
Scotland	19.4	Norway	20.6
Northern Ireland	21.7	Sweden	18.5
Eire	21.9	Spain	23.0

MARRIAGES

Marriages registered during the year numbered 8,844, being 47 more than the previous year and is 713 more than the average for the five preceding years, the rate being 10.5 (the rate for 1947 was 10.7). Of the bridegrooms, 4.6 per cent were widowers and 6.0 per cent had been divorced; 5.6 per cent of the brides were widows and 5.6 per cent were divorcees. There were 172 brides of 16 years of age and under and 75 of the bridegrooms were 18 years of age and under; 2,118 of the brides were 17 to 19 years of age and 3,784 were 20 to 24 years of age; 175 bridegrooms and 99 brides were 60 years of age and over. Of these, 6 of the brides were over 70, and 4 of the grooms were over 80.

The following are the marriage rates for Canada, the Provinces, Great Britain and certain other countries for 1948:

MARRIAGE RATES

Canada	9.6	New Zealand	9.9
Prince Edward Island	6.8	Australia	9.7
Nova Scotia	8.0	United States	12.5
New Brunswick	9.2	Austria	10.0
Quebec	9.1	Czechoslovakia	10.6
Ontario	10.1	Belgium	9.3
Manitoba	9.7	Denmark	9.4
Saskatchewan	8.4	Hungary	10.4
ALBERTA	10.5	Italy	8.3
British Columbia	10.8	Netherlands	9.0
England and Wales	9.0	Norway	9.2
Scotland	8.5	Sweden	8.3
Northern Ireland	6.9	Spain	7.7
Eire	5.4	Switzerland	8.5

DIVORCES

There were 659 absolute decrees of divorce granted in the Province during the year. This is 223 less than the previous year and 7 less than the average for the preceding 5 years. There were 302 divorces granted to husbands and 357 to wives. In addition to the divorces, 7 decrees of nullity were issued.

DEATHS

There were 6,987 deaths registered during the year (including 447 Indians). Of these, 4,254 were males and 2,733 were females. There were 444 more deaths than in the previous year. The rate being 8.3 and the rate for 1947 was 8.0. At the time of death, 579 males and 464 females were 80 years of age and over, and 3 males and 5 females were 100 years of age and over.

The number of deaths of residents of our four large cities were as follows: Edmonton, 1,038; Calgary, 1,139; Lethbridge, 188; and Medicine Hat, 142. The number of deaths which occurred in these cities were as follows: Edmonton, 1,571; Calgary, 1,299; Lethbridge, 248; and Medicine Hat, 167.

The number of deaths from diseases of the heart, which has been the chief cause of death for many years, again shows an increase, the number being 1,896 as compared with 1,755 for the previous year, and the rates being 224.1 per 100,000 population compared with 213.5 for the previous year.

Cancer deaths show an increase to 975 from 877 the previous year, the rates being 115.2 and 106.7 respectively.

Deaths from pneumonia numbered 362; 12 less than the previous year, the rate being 42.8.

The number of deaths from tuberculosis, all forms, was 259. Of these, 131 were Indians. Of the deaths, 200 were from pulmonary

tuberculosis, and of this number 131 were Indians. The death rate for tuberculosis, all forms, was 30.6, and for pulmonary tuberculosis 23.6; as compared with the previous years' rates of 32 and 26.

Deaths from influenza numbered 36, the previous year's total being 70.

There were 28 deaths due to poliomyelitis as compared with 7 the previous year. The 1927 epidemic caused 65 deaths.

Deaths from violence numbered 677, an increase of 126. Motor vehicle accidents caused 129 deaths, an increase of 22. Street cars and other road transport accidents, 7. Railways accidents caused 24 deaths and Agriculture and Forestry accidents, 40. Suicides numbered 84, an increase of 17, and homicides numbered 10, 2 more than the preceding year.

The following are the death rates for Canada, the Provinces, Great Britain and certain other countries for the year 1948:

DEATH RATES			
Canada	9.3	Union of South Africa	9.1
Prince Edward Island	9.5	New Zealand	9.1
Nova Scotia	9.6	Australia	9.9
New Brunswick	9.9	United States	9.9
Quebec	8.9	Austria	11.8
Ontario	9.9	Belgium	12.7
Manitoba	8.8	Czechoslovakia	11.5
Saskatchewan	7.6	Denmark	8.6
ALBERTA	8.3	Hungary	11.2
British Columbia	10.5	Italy	10.5
England and Wales	10.8	Netherlands	7.4
Scotland	11.8	Norway	8.8
Northern Ireland	11.1	Sweden	9.9
Eire	12.2	Spain	10.9

MATERNAL MORALITY

There was an increase in maternal mortality, the number of puerperal deaths being 29 as compared with 22 for the previous year, the rates being 1.2 and .9 respectively.

MATERNAL MORTALITY RATES PER 1,000 BIRTHS			
Canada	1.5	Saskatchewan	1.0
Prince Edward Island	1.1	ALBERTA	1.2
Nova Scotia	1.1	British Columbia	1.1
New Brunswick	1.3	Scotland	1.5
Quebec	2.0	Eire	1.4
Ontario	1.2	Netherlands	1.2
Manitoba	1.5		

INFANT DEATHS

The number of children who died under one year of age numbered 930, an increase of 15 from the previous year. Of this number, 612 died under the age of one month, as compared with 561 in 1947. The infantile death rates per 1,000 live births were 39 and 37 respectively. The rates for infantile deaths under one month were 25 and 23.

The following are the infant mortality rates for Canada, the Provinces, Great Britain and certain other countries for the year 1948:

INFANT MORTALITY RATES PER 1,000 BIRTHS

Canada	44	Union of South Africa	37
Prince Edward Island	34	New Zealand	22
Nova Scotia	39	Australia	27
New Brunswick	61	Austria	76
Quebec	54	United States	32
Ontario	35	Czechoslovakia	83
Manitoba	41	Belgium	64
Saskatchewan	40	Denmark	35
ALBERTA	39	Switzerland	36
British Columbia	33	Italy	71
England and Wales	34	Netherlands	29
Scotland	45	Sweden	23
Northern Ireland	46	Spain	69
Eire	49	Portugal	100

There were 372 stillbirths, 43 less than the previous year, the rate being 15.5 per 1,000 live births.

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 are 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	1,408	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
Condale	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	14,749	15,518	Nanton	873	718
Rural	10,963	12,151	Okotoks	694	591
21. I.D.	1,927	2,404	Stavely	299	273
121. Many Islands (pt.)			Vulcan	786	732
I.D.	1,927	2,404	Villages:		
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	22. Turner Valley (pt.)	63	84
31. Highwood	3,497	3,552	222. I.D. (pt.)	63	84
159. Riley	1,686	1,721	39. 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	361. 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. Knechill	7,151	8,097	Buffalo National Park	17	4
278. Carbon	1,207	1,580			
279. Norquay	1,982	2,184	Urban	7,915	7,169
308. Ghost Pine	1,786	2,023	Towns:		
309. Stauffer	2,176	2,310	Castor	647	625
49. Mountain View	8,883	9,800	Coronation	633	581
280. Rosebud	2,141	2,233	Hardisty	494	457
281. Beaver Dam	2,080	2,327	Wainwright	1,261	980
310. Mountain View	2,231	2,580	Villages:		
311. Westerdale	2,431	2,660	Alliance	243	233
50. I.D.	899	1,085	Cadogan	—	99
282. I.D.	899	1,085	Chauvin	383	343
283. 284. I.D.	—	—	Consort	325	265
51. Banff National Park	2,214	2,545	Czar	121	139
Banff (not)	2,081	2,187	Edgerton	273	258
Indian Reserves	2,006	1,859	Forestburg	243	231
			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:					
Acme	282	285	Division No. 8	64,789	67,630
Airdrie	198	191	Rural	44,097	49,293
Beiseker	272	240	54. Stettler	6,093	7,167
Carbon	369	409	336. Success	1,236	1,389
Carstairs	385	371	337. Vimy	686	947
Cluny	151	138	365. Dublin	1,071	1,257
Cochrane	405	298	367. Waverly	1,790	1,893
Crossfield	433	409	396. Haig (pt.)	811	1,012
Forest Lawn	646	899	397. Lakeside (pt.)	499	669
Hussar	130	116	55. Red Deer (pt.)	6,681	7,792
Irricana	150	172	338. Hays	2,411	2,702
Langdon	—	95	339. Pine Lake	2,011	2,726
Rockyford	226	201	340. Arthur	2,259	2,364
Rosebud	—	99	63. Camrose	11,456	12,449
Standard	244	212	396. Haig (pt.)	413	542
Swalwell	—	114	397. Lakeside (pt.)	922	1,004
Trochu	515	480	426. Melrose	2,760	2,955
			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	172	172	512. Ethelwyn	2,815	3,158
Ferintosh	186	169	72. Minburn	6,218	7,052
Gadsby	120	141	453. Buffalo Coulee	1,130	1,370
Gull Lake	39	21	454. Lakeview	1,242	1,358
Halkirk	121	118	483. Melberta	1,716	1,894
Millet	348	325	484. Birch Lake	2,130	2,430
Mirror	562	570	73. Beaver (pt.)	3,173	3,683
New Norway	179	169	485. Patricia (pt.)	1,080	1,261
Ohaton	53	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. Lamont	10,427	12,470
312. Waterloo	1,482	1,402	486. Beaver Lake (pt.)	585	672
57. Raven	2,168	2,254	516. The Pines	2,966	3,547
342. Raven	2,168	2,254	546. Wostok	3,812	4,653
58. I.D.	116	94	547. Leslie	3,064	3,598
313, 314. I.D.	11	12	Urban	9,371	8,825
316. I.D.	4	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	Ranfurlly .....	.....	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. Vermillion River (pt.)	441	587
Indian Reserves	860	997	541. I.D. (pt.)	441	587
Urban	119,783	99,793	85. I.D.	360	512
Cities:			541. I.D. (pt.)	132	153
Edmonton	113,116	93,817	571. I.D.	228	359
Towns:			86. St. Paul	9,234	10,122
Beverly	1,171	981	542. Lincoln	1,079	1,221
Fort Saskatchewan	921	903	543. Laurier	2,792	3,066
Leduc	920	871	544. Champlain	1,964	2,213
Morinville	735	580	573. St. Vincent (pt.)	1,241	1,351
St. Albert	804	697	574. St. Lina	1,267	1,347
Stony Plain	720	566	605. Ashmont (pt.)	891	924
Tofield	608	551	87. Bonnyville	1,737	1,867
Villages:			572. Bonnyville	1,737	1,867
Alberta Beach	101	59	88. St. Vincent	1,628	1,965
Hay Lakes	199	154	573. St. Vincent (pt.)	1,628	1,965
Kapasawin			89. Smoky Lake (pt.)	4,103	4,837
Onoway	175	156	575. Vilna	3,087	3,590
Sangudo	236	173	605. Ashmont (pt.)	872	1,069
Seba Beach	77	84	635. I.D. (pt.)	144	178
Wabamun		201	101. I.D.	5,719	6,259
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.	173	57	Indian Reserves	938	1,154
728. I.D.	33	79			
729. I.D.	327	167	Urban	2,742	1,464
Urban	4,471	3,373	Towns:		
Athabasca	747	578	Peace River	997	873
Villages:			Villages:		
Barrhead	739	399	Fahler	279	244
Clyde	150	160	Grouard		347
Lac La Biche	642	517	High Prairie	643	
Legal	445	462	McLennan	823	
Radway	179				
Smoky Lake	457	430	Division No. 16	28,733	30,349
Waskatenau	258	237	Rural	23,480	26,349
Westlock	854	590	111. I.D. (pt.)	1	18
Division No. 15	17,097	17,484	741. I.D. (pt.)		12
Rural	14,355	16,020	742. I.D. (pt.)	1	6
108. I.D. (pt.)	638	917	127. Grande Prairie	9,505	10,687
641. I.D.	605	875	739. Grande Prairie	1,962	2,307
670. I.D.	31	42	740. Bear Lake	2,575	2,622
671. I.D.	2		741. I.D. (pt.)	1,382	1,632
109. I.D. (pt.)	134	160	742. I.D. (pt.)	387	462
613. I.D.	96	149	769. I.D. (pt.)	78	79
614. I.D.	1	3	770. I.D. (pt.)	352	418
642. I.D.	37	8	771. I.D.	1,682	1,946
643. I.D.			772. I.D.	1,087	1,221
110. I.D. (pt.)	76	75	132. I.D.	2,279	2,248
589. I.D. (pt.)	2		769. I.D. (pt.)	600	652
590. I.D. (pt.)	53	64	797. I.D.	964	884
617, 644, 645. I.D.	4		827. I.D.	154	166
618, 619, 646. I.D.	2	3	828. I.D.	561	546
622. I.D.	15	7			

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	128. I.D. (pt.)	2,031	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			

Macleod	43	18	25	27	13	14	3	1	1	2	1	1	24
Magrath	32	16	17	17	7	10	3	2	1	2	1	1	5
Olds	42	18	24	20	12	8	2	1	1	2	1	1	35
Pincher Creek	36	16	20	17	9	8	2	1	1	2	1	1	28
Ponoka	76	34	42	22	12	10	1	1	1	1	1	1	49
Raymond	59	30	29	26	14	12	1	1	1	1	1	1	34
Redcliff	38	19	9	9	6	3	1	1	1	1	1	1	11
Rocky Mountain House	62	30	32	24	14	10	3	2	1	1	2	1	24
St. Paul	59	30	29	18	11	7	3	1	1	2	1	4	39
Stettler	57	30	27	18	7	11	3	3	1	2	3	2	40
Taber	98	47	51	28	16	12	1	3	1	1	3	2	60
Vegreville	57	27	30	26	15	11	6	2	2	5	2	1	34
Vermillion	47	18	29	21	10	11	1	3	1	2	2	3	23
Wainwright	34	16	18	18	10	8	2	2	1	2	1	1	7
VILLAGES:													
Black Diamond	43	27	16	7	5	2	2	2	1	2	1	1	14
Turner Valley	39	11	28	5	5	5	1	1	1	1	1	1	1

TABLE 2.—GENERAL SUMMARY OF BIRTHS, DEATHS AND MARRIAGES IN ALBERTA BY DIVISIONS INCLUDING CITIES, TOWNS AND VILLAGES OF 1,000 POPULATION AND OVER, BY PLACE OF OCCURRENCE, 1948

PROVINCE AND DIVISIONS	Births (Exclusive of Still-births)			Deaths						Neo-natal deaths (under 1 month)			Stillbirths	Marriages		
	Total	Births		All Ages			Under 1 year			1-4 years					M.	F.
		M.	F.	Total	M.	F.	Total	Under 1 year		1-4 years						
								M.	F.	M.	F.	M.					F.
TOTAL FOR THE PROVINCE	23974	12285	11689	7009	4268	2741	525	403	102	76	342	270	371	8844		
Division No. 1	958	479	479	232	134	98	12	13	6	3	10	10	16	431		
Division No. 2	2112	1059	1053	600	359	241	58	33	8	11	41	26	29	683		
Division No. 3	325	178	147	91	59	32	5	8	3	5	4	6	6	95		
Division No. 4	472	223	249	161	93	68	8	10	1	1	5	8	10	146		
Division No. 5	218	135	83	79	57	22	4	2	2	1	3	2	1	76		
Division No. 6	4887	2481	2406	1728	1023	705	106	86	16	9	68	58	83	2259		
Division No. 7	805	402	403	224	134	90	12	16	6	3	11	12	11	197		
Division No. 8	2152	1067	1085	627	382	245	35	33	9	3	24	22	27	701		
Division No. 9	532	259	273	158	104	54	10	13	5	1	6	10	3	156		
Division No. 10	982	509	473	273	164	109	20	15	3	3	11	6	15	434		
Division No. 11	6181	3276	2905	1836	1150	686	136	86	18	17	88	60	88	2674		
Division No. 12	350	176	174	109	69	40	9	9	1	1	5	4	6	68		
Division No. 13	930	469	461	205	125	80	29	13	7	5	17	5	17	198		
Division No. 14	1165	611	554	236	143	93	23	19	3	5	17	15	24	292		
Division No. 15	685	348	337	169	98	71	31	22	3	10	18	12	10	139		
Division No. 16	899	448	451	190	128	62	17	12	4	4	9	10	21	248		
Division No. 17	321	165	156	91	46	45	10	13	7	7	4	4	4	47		

TABLE 3.—BIRTHS (EXCLUSIVE OF STILLBIRTHS) BY MONTHS, CLASSIFIED AS RURAL AND URBAN, BY DIVISIONS
IN ALBERTA, BY PLACE OF RESIDENCE OF MOTHERS, 1948

	Total	MONTHS											
		January	February	March	April	May	June	July	August	September	October	November	December
ALBERTA	24075	1968	1913	2101	2066	2124	2085	2078	2042	2002	1888	1870	1938
Rural	13996	1160	1111	1241	1192	1278	1214	1185	1190	1186	1064	1085	1090
Urban	10079	808	802	860	874	846	871	893	852	816	824	785	848
DIVISION No. 1	944	75	75	83	90	77	76	80	79	71	85	73	80
Rural	414	28	36	36	45	38	36	32	39	24	38	28	34
Urban	530	47	39	47	45	39	40	48	40	47	47	45	46
City of Medicine Hat	432	38	32	37	38	33	32	41	33	38	39	34	37
Town of Taber	98	9	7	10	7	6	8	7	7	9	8	11	9
DIVISION No. 2	1824	163	145	168	144	179	168	158	149	148	113	153	146
Rural	865	73	74	86	60	85	80	70	82	65	56	67	67
Urban	969	90	71	82	84	94	88	88	67	83	57	86	79
City of Lethbridge	558	44	44	49	47	53	49	48	50	49	33	53	49
Town of Blairmore	63	4	5	4	4	6	1	4	4	3	4	4	4
Cardston	52	10	5	8	3	6	7	4	2	5	2	8	3
Clareholm	76	6	2	2	7	7	7	5	1	6	5	3	1
Coleman	43	2	4	6	8	4	10	12	8	6	3	4	3
Macleod	32	5	1	5	4	9	2	3	5	2	3	7	1
Magrath	36	5	5	1	2	2	4	4	2	2	3	3	3
Pincher Creek	59	6	5	7	4	3	5	3	2	2	2	2	6
Raymond	449	38	28	47	43	37	56	34	38	31	31	39	27
DIVISION No. 3	349	34	20	34	34	30	39	25	29	25	29	30	20
Rural	100	4	8	13	9	7	17	9	9	6	2	9	7
Urban	62	2	2	10	9	7	11	2	7	1	1	4	6
Town of Brooks	38	2	6	3	.....	.....	6	7	2	5	1	5	1
Redcliff	751	61	67	58	62	75	65	65	63	57	65	57	56
Rural	615	47	50	49	49	66	51	53	54	53	51	47	45
Urban	136	14	17	9	13	9	14	12	9	4	14	10	11
Town of High River	54	6	10	2	7	4	5	4	4	3	6	1	3
Village of Black Diamond	43	5	3	2	3	4	4	3	3	1	3	8	4
Turner Valley	39	3	4	5	3	1	5	5	3	.....	5	1	4

DIVISION No. 5	412	38	33	25	35	39	30	39	43	21	39	31
Rural	356	33	27	18	33	33	29	38	34	18	33	25
Urban	56	5	6	7	2	4	1	1	9	3	6	6
Town of Hanna	56	5	6	7	2	4	1	1	9	3	6	6
DIVISION No. 6	4492	341	371	384	366	406	373	378	386	373	372	373
Rural	1422	111	118	118	108	127	109	123	123	95	145	126
Urban	3070	230	253	266	258	279	264	253	263	278	227	247
City of Calgary	2933	223	243	248	247	266	253	243	255	266	219	235
Drumheller	95	6	7	13	7	9	9	8	5	8	7	8
Town of Olds	42	1	3	5	4	4	2	4	3	4	1	4
DIVISION No. 7	807	68	55	72	70	56	80	83	60	61	48	74
Rural	773	65	55	66	63	56	76	81	59	59	48	71
Urban	34	3	6	6	7	6	4	2	1	2	2	3
Town of Wainwright	34	3	6	6	7	6	4	2	1	2	2	3
DIVISION No. 8	1998	161	152	188	170	189	168	168	160	141	162	161
Rural	1332	110	90	136	110	129	112	101	118	106	103	110
Urban	666	51	62	52	68	60	56	67	42	35	59	51
City of Red Deer	242	15	28	22	25	27	13	29	13	8	23	18
Wetaskiwin	87	5	7	8	9	5	7	9	4	9	12	6
Town of Camrose	87	8	7	6	7	9	9	7	3	3	8	8
Innisfail	50	4	3	1	4	5	4	8	3	3	6	2
Lacombe	67	6	8	5	9	5	7	6	3	2	2	5
Ponoka	76	10	5	3	6	8	9	3	7	7	3	8
Stettler	57	3	4	7	8	1	7	5	5	3	5	4
DIVISION No. 9	750	56	64	65	53	69	61	60	66	70	56	54
Rural	688	52	62	60	49	62	54	52	63	68	52	49
Urban	62	4	2	5	4	7	7	8	3	2	4	5
Town of Rocky Mountain House	62	4	2	5	4	7	7	8	3	2	4	5
DIVISION No. 10	1228	101	104	81	117	108	100	118	96	94	102	106
Rural	1124	94	91	78	108	93	90	110	89	90	93	90
Urban	104	7	13	3	9	15	10	8	7	4	9	16
Town of Vegreville	57	3	4	3	7	4	7	5	4	1	4	9
Vermilion	47	4	9	.....	2	4	3	3	3	3	5	7
DIVISION No. 11	5568	504	419	475	477	465	484	484	445	471	410	457
Rural	1459	167	118	124	117	117	132	113	109	112	96	103
Urban	4109	337	301	351	360	348	352	371	336	359	314	354
City of Edmonton	4083	331	300	349	356	348	351	371	330	356	313	353
Town of Beverly	26	6	1	2	4	.....	1	.....	6	3	1	1
DIVISION No. 12	488	39	39	44	49	31	40	37	44	44	29	40
Rural	426	33	29	38	43	29	35	32	41	37	28	35
Urban	62	6	10	6	6	5	5	5	3	7	1	5
Town of Edson	62	6	10	6	6	2	5	5	3	7	1	5

TABLE 3.—BIRTHS (EXCLUSIVE OF STILLBIRTHS), BY MONTHS, CLASSIFIED AS RURAL AND URBAN, BY DIVISIONS,
IN ALBERTA, BY PLACE OF RESIDENCE OF MOTHERS, 1948—Continued

	Total	MONTHS											
		January	February	March	April	May	June	July	August	September	October	November	December
DIVISION No. 13	1018	76	89	108	88	79	93	102	72	89	72	70	80
Rural	959	72	83	107	84	69	87	94	68	87	67	64	77
Urban	59	4	6	1	4	10	6	8	4	2	5	6	3
Town of St. Paul	59	4	6	1	4	10	6	8	4	2	5	6	3
DIVISION No. 14	1293	102	86	117	113	128	124	117	85	128	99	94	100
Rural	1293	102	86	117	113	128	124	117	85	128	99	94	100
DIVISION No. 15	760	52	65	69	70	72	67	57	69	71	50	73	45
Rural	760	52	65	69	70	72	67	57	69	71	50	73	45
DIVISION No. 16	918	65	81	77	79	87	69	72	92	74	69	72	81
Rural	796	59	67	65	74	76	62	61	79	64	60	63	66
Urban	122	6	14	12	5	11	7	11	13	10	9	9	15
Town of Grande Prairie	122	6	14	12	5	11	7	11	13	10	9	9	15
DIVISION No. 17	365	28	40	40	29	29	31	26	32	33	29	21	27
Rural	365	28	40	40	29	29	31	26	32	33	29	21	27

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, 1948

Province and Cities	Total Births			Legitimate			Illegitimate		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
TOTAL FOR THE PROVINCE	24075	12331	11744	22853	11724	11129	1222	607	615
Cities of 5,000 and over:									
Calgary	2933	1508	1425	2777	1429	1348	156	79	77
Edmonton	4083	2178	1905	3858	2063	1795	225	115	110
Lethbridge	558	289	269	536	277	259	22	12	10
Medicine Hat	432	213	219	409	202	207	23	11	12

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, 1948

Classification of Births	Number
TWIN BIRTHS	294
Two males (both living)	79
One male and one female (both living)	101
Two females (both living)	96
One male living and one male stillborn	5
One male living and one female stillborn	4
One male stillborn and one female living	5
One female living and one female stillborn	2
Two females (both stillborn)	2
TRIPLLET BIRTHS	9
Three males (all living)	3
Two males and one female (all living)	1
One male and two females (all living)	3
Two females living and one female stillborn	2
Total multiple births	Number 303
	Male 292
	Female 323
Total single live births	Number 23482
	Male 12049
	Female 11433
Total single stillbirths	Number 350
	Male 189
	Female 161
Total confinements	24135

Swedish	538	143	62	77	6	3	3	2	1	49	1	2	2	2	2	9	61	7	1	4	1
Ukrainian	1897	109	48	53	3	3	3	3	6	51	11	11	6	1	1	17	12	1333	2	2	1
Yugoslavic	31	6	3	1	1	1	1	1	1	3	1	1	1	1	1	4	2	3	2	4	1
Other	28	5	2	1	1	1	1	1	1	1	1	1	1	1	1	2	3	3	2	2	1
Asiatic	138	5	2	3	1	1	1	1	1	3	1	1	1	1	1	1	1	1	23	2	96
Chinese	28	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	23	1	2
Hindu (East Indian)	98	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	96
Japanese	11	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
Syrian	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Other	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Indian	833	9	6	2	1	1	1	1	1	10	1	1	1	1	1	1	1	1	3	797	1
Jewish	89	4	1	3	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	75	17
Negro	20	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Other races	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Unspecified	11	1	1	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
Children born to married mothers:																					
Total	22853	5724	2405	2991	297	117	74	74	3	197	254	68	1541	2262	12	162	36	131	15	772	817
Male	11724	2976	1245	1481	151	66	29	29	2	100	124	36	790	1178	7	74	15	75	9	400	392
Female	11129	2748	1160	1510	146	51	45	45	1	97	130	32	751	1084	5	88	21	56	6	372	425
Children born to un-married mothers:																					
Total	1222	200	107	141	8	4	1	1	1	8	8	4	89	88	9	3	2	1	20	35	22
Male	607	107	59	83	2	1	1	1	1	4	2	1	39	50	4	1	1	1	7	19	5
Female	615	93	48	58	6	3	1	1	1	4	6	3	50	38	5	2	1	1	13	16	17
Children born to all mothers																					
Total	24075	5924	2512	3132	305	121	75	75	4	205	262	72	1630	2350	12	171	39	133	16	792	852
Male	12331	3083	1304	1564	153	67	30	30	2	104	126	37	829	1228	7	78	15	75	10	407	411
Female	11744	2841	1208	1568	152	54	45	45	2	101	136	35	801	1122	5	93	24	58	6	385	441

TABLE 9.—TOTAL LIVE BIRTHS AND LIVE BIRTHS IN INSTITUTIONS BY PLACE OF OCCURRENCE AND PLACE OF RESIDENCE OF MOTHERS IN ALBERTA, 1948

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	23974	190	11	295	7	24075	22718	189	11	289	6	22813

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, 1948

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	3809	940	1	63	2	2933	3804	940	1	63	2	2928
Edmonton	6013	1985	2	56	1	4083	6008	1983	2	56	1	4080
Lethbridge	1043	497	.....	11	1	558	1041	495	.....	11	1	558
Medicine Hat	716	295	.....	11	.....	432	716	295	.....	11	.....	432

TABLE 11—ORDER OF BIRTH OF LEGITIMATE CHILDREN BORN IN 1948 (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	7053	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
2nd "	6634	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
3rd "	3965	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
4th "	2169	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5th "	1194	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
6th "	747	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
7th "	456	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
8th "	318	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
9th "	216	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
10th "	144	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
11th "	105	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
12th "	76	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
13th "	49	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
14th "	37	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
15th "	19	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
16th "	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
17th "	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
18th "	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
19th "	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
20th and over	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Not stated	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
TOTAL	23200	.....	5	45	143	420	747	1360	6879	7229	4572	2393	691	74	2	.....	.....

160 Injury at birth	96	64	32	9	3	3	5	7	6	3	3	6	10	4	3	2	6	3	7	3	2	4	7	1	
161 Other diseases peculiar to the first year of life	94	55	39	4	4	3	2	3	7	4	2	5	2	3	8	2	7	3	5	1	7	4	5	3	4
166-168 Homicides	1	13	19	1	1	2	4	1	2	1	2	3	1	1	1	2	2	1	1	2	1	1	1	3	3
169-195, 197 Other violent deaths	12	6	6	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	2
199, 200 Ill-defined and unknown causes of death	5	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2

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, 1948

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	Without physician	With physician	Not stated	Number of stillbirths	Rate per 1000 live births		
Division No. 1—Medicine Hat (City of Medicine Hat excepted)	29	15	512	36	476	1	9	17.6		
Division No. 2—Macleod (City of Lethbridge excepted)	46	59	1276	104	1171	1	18	14.1		
Division No. 3—Bow	36	16	449	9	440	1	6	34.4		
Division No. 4—Nanton	29	22	751	11	740	1	14	18.6		
Division No. 5—Acadia	24	10	412	13	397	2	1	2.4		
Division No. 6—Calgary (Cities of Calgary and Drumheller excepted)	44	64	1464	68	1394	2	29	19.8		
Division No. 7—Battle River	40	32	807	7	800	2	12	14.9		
Division No. 8—Red Deer (Cities of Red Deer and Wetaskiwin excepted)	29	48	1669	48	1608	2	17	10.2		
Division No. 9—Rocky Mountain House	41	31	750	22	728	1	8	10.7		
Division No. 10—Victoria	36	44	1228	21	1207	1	24	19.5		
Division No. 11—Edmonton (City of Edmonton excepted)	34	50	1485	61	1419	5	28	18.9		
Division No. 12—Edson	37	18	488	28	459	1	7	14.3		
Division No. 13—Beaver River	42	43	1018	130	883	5	20	19.6		
Division No. 14—Sturgeon	39	50	1293	115	1175	3	24	18.6		
Division No. 15—Clearwater	74	56	760	126	631	3	15	19.7		
Division No. 16—Peace River	34	31	918	48	869	1	21	22.9		
Division No. 17—Athabasca	66	24	365	148	148	11	5	13.7		
City of Edmonton	24	139	4083	1	4082	1	51	12.5		
City of Calgary	40	118	2933	3	2929	1	47	16.0		
City of Lethbridge	54	30	558	558	558	5	5	9.0		
City of Medicine Hat	32	14	432	432	432	6	6	13.9		
City of Red Deer	45	11	242	242	242	2	2	8.3		
City of Drumheller	21	2	95	95	95	1	1	10.5		
City of Wetaskiwin	34	3	87	87	87	2	2	23.0		
Divisions	39	613	15645	1064	14545	36	258	16.5		
Cities	38	317	8430	4	8225	1	114	13.5		
Whole Province	39	930	24075	1068	22970	37	372	15.5		

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, 1948

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	144	28	.....	2	.....	118	130	28	.....	2	.....	104
Edmonton	209	70	.....	.....	139	200	69	69	.....	.....	.....	131
Lethbridge	46	17	.....	1	30	43	17	17	.....	1	.....	27
Medicine Hat	15	3	.....	2	14	14	3	3	.....	2	.....	13

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, 1948

Total for the Province	All Deaths under one year						Deaths in Institutions					
	Place of occurrence	Residence elsewhere		Deaths of residents occurring elsewhere		Place of residence	Place of occurrence	Residence elsewhere		Deaths of residents occurring elsewhere		Place of residence
		In Canada	In United States	In Canada	In United States			In Canada	In United States	In Canada	In United States	
928	4	.....	.....	6	.....	930	695	4	.....	6	.....	697

TABLE 17.—CAUSES OF DEATH BY SEX AND AGE IN ALBERTA, BY PLACE OF RESIDENCE, 1948

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	
DEATHS—ALL CAUSES	6987	930	89	43	20	24	74	70	95	116	122	123	148	190	234	291	455	662	705	817	735	549	353	111	22	8	1	
Male	4254	526	54	22	13	11	43	46	56	77	78	69	80	107	143	162	288	451	460	516	472	327	192	44	13	3	1	
Female	2733	404	35	21	7	13	31	24	39	39	44	54	68	83	91	129	167	211	245	301	263	222	161	67	9	5	...	
CLASS I.—INFECTIOUS AND PARASITIC DISEASES	412	46	13	13	4	5	17	25	38	19	21	21	17	16	15	16	20	28	24	26	10	6	9	3	...	...	...
Male	227	27	5	4	3	3	9	11	21	8	9	7	8	10	10	12	13	21	18	12	9	4	3	...	...	...	...
Female	185	19	8	9	1	2	8	14	17	11	12	14	9	6	5	4	7	7	6	14	1	2	6	3	...	...	...
1 Typhoid fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2 Paratyphoid fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5 Undulant fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6 Cerebrospinal meningitis	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	
8 Scarlet 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	
9 Whooping cough	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
10 Diphtheria	6	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11 Erysipelas	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
12 Tetanus
13-22 Tuberculosis	127	10	2	2	2	2	4	6	14	4	6	6	5	5	8	5	8	12	9	5	7	3	2	...	...	...	...
Female	132	2	6	6	1	1	6	12	16	10	10	14	5	6	4	3	4	7	5	8	1	2	3	...	...	...	...
Male	97	5	1	1	1	2	2	4	9	3	4	5	4	5	8	5	7	11	6	4	7	2	2	...	...	...	...
Female	103	1	4	4	4	3	3	8	11	10	10	12	5	4	4	3	4	4	5	7	1	2	1	...	...	...	...
(a) With mention of occupational diseases of lungs	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
(b) Without mention of occupational diseases of lungs	84	2	3	2	1	1	2	4	8	3	4	5	3	5	7	5	6	9	5	4	7	2	2	...	...	...	...
Female	81	1	1	1	1	1	1	5	10	9	9	10	4	3	3	3	3	4	3	6	1	1	1	...	...	...	...

94 Diseases of the coronary arteries and angina pectoris	610	1	1	2	3	17	25	37	83	94	103	100	80	36	17	8	3	1
(a) Diseases of the coronary arteries	209	1	1	2	3	4	6	11	19	36	37	32	29	16	12	2	2	1
(b) Angina pectoris	607	1	1	2	4	6	11	11	83	94	102	99	80	35	17	8	3	1
Other diseases of the heart	209	1	1	2	4	6	11	11	11	36	37	32	29	16	12	2	2	1
Female	3	1	1	2	4	6	11	11	11	36	37	32	29	16	12	2	2	1
Male	77	1	1	2	2	2	5	6	4	7	13	8	18	10	3	3	2	1
Female	63	1	1	3	2	2	5	1	3	2	6	9	7	10	5	3	2	1
95 Other diseases of the heart	12	1	1	1	1	1	1	2	1	1	1	1	2	2	1	1	1	1
(a) Functional diseases of the heart (no organic lesion)	14	1	1	1	1	1	1	1	1	1	1	1	4	4	3	1	1	1
(b) Other diseases of the heart (rheumatic)	15	1	1	1	1	1	1	1	1	2	4	2	1	1	1	1	1	1
(c) Other diseases of the heart (non-rheumatic)	16	1	1	2	1	1	1	1	1	5	9	5	15	7	2	1	3	3
96 Aneurysm (heart and aorta excepted)	50	1	1	1	2	1	4	1	1	1	1	7	2	6	2	3	3	3
Female	33	1	1	1	2	1	4	1	1	1	3	1	1	1	1	1	1	1
Male	7	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1
Female	5	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1
97 Arteriosclerosis (coronary or renal sclerosis or cerebral haemorrhage excepted)	57	1	1	1	1	1	1	1	1	3	9	10	9	10	13	1	1	1
Female	43	1	1	1	1	1	1	1	1	3	5	6	5	15	4	7	1	1
Male	4	1	1	1	1	1	1	1	1	2	1	2	1	1	1	1	1	1
98 Gangrene	1	1	1	1	1	1	1	1	1	2	1	3	2	2	2	2	2	2
99 Other diseases of the arteries	12	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2
100 Diseases of the veins	8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
101 Diseases of the lymphatic system	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Female	7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Male	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
102 High blood pressure (idiopathic)	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Female	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Male	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
103 Other diseases of the circulatory system	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Female	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
CLASS VIII.—DISEASES OF THE RESPIRATORY SYSTEM	444	147	23	3	5	3	6	3	6	3	1	4	6	5	8	5	11	10
Total	258	80	13	2	3	1	3	1	3	3	1	1	4	2	2	1	6	8
Male	186	67	10	1	2	2	3	1	3	3	1	3	2	3	6	4	5	2
Female	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
104 Diseases of the nasal fossae and accessory sinuses	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Female	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Male	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
105 Diseases of the larynx	16	2	3	1	1	1	1	1	1	1	1	1	3	2	2	2	1	1
Male	13	5	3	1	1	1	1	1	1	1	1	1	3	2	2	2	1	1
Female	7	2	3	1	1	1	1	1	1	1	1	1	3	2	2	2	1	1
(a) Acute	5	4	3	1	1	1	1	1	1	1	1	1	3	2	2	2	1	1
(b) Chronic	8	1	1	1	1	1	1	1	1	1	1	1	3	2	2	1	1	1
(c) Unspecified	7	1	1	1	1	1	1	1	1	1	1	1	3	2	2	1	1	1
Male	7	1	1	1	1	1	1	1	1	1	1	1	3	2	2	1	1	1
Female	1	1	1	1	1	1	1	1	1	1	1	1	3	2	2	1	1	1

TABLE 18.—CAUSES OF DEATH BY SEX AND MONTH OF DEATH IN ALBERTA, BY PLACE OF RESIDENCE, 1948

CAUSES OF DEATH	Total	MONTHS											
		January	February	March	April	May	June	July	August	September	October	November	December
DEATHS—ALL CAUSES	6987	589	612	650	639	616	565	546	563	497	575	550	585
Male	4254	331	375	385	386	368	352	332	365	295	374	329	362
Female	2733	258	237	265	253	248	213	214	198	202	201	221	223
CLASS I.—INFECTIOUS AND PARASITIC DISEASES	412	46	43	36	40	32	23	28	35	37	32	34	26
Male	227	22	19	23	20	18	13	16	20	19	23	20	14
Female	185	24	24	13	20	14	10	12	15	18	9	14	12
1 Typhoid fever	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
2 Paratyphoid fever	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5 Undulant fever	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
6 Cerebrospinal meningitis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
8 Scarlet fever	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
9 Whooping-cough	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
10 Diphtheria	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
11 Erysipelas	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
12 Tetanus	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
13-22 Tuberculosis	127	10	8	15	15	7	12	10	6	10	11	17	6
Male	132	14	16	10	17	10	9	11	11	13	3	10	8
Female	97	8	7	12	13	5	7	8	6	5	9	12	5
(a) With mention of occupational diseases of lungs	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Male	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Female	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
(b) Without mention of occupational diseases of lungs	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Male	84	8	6	11	11	4	7	7	5	3	7	10	5
Female	81	8	10	9	11	7	5	6	3	6	2	8	6
(c) Unspecified site	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Male	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Female	20	3	4	1	2	1	1	3	2	2	1	2	.....

(d) Others under this title	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
CLASS II.—CANCER AND OTHER TUMOURS	1002	66	1068	81	97	178	82	84	166	86	77	163	89	79	168	100	88	188	88	73	161	100	88	188
45-55 Cancer and other malignant tumours	547	35	582	36	53	89	51	42	93	44	43	87	48	44	92	46	49	95	44	40	84	46	49	95
45 Cancer of the buccal cavity and pharynx	26	1	27	3	3	6	4	1	5	4	3	7	2	1	3	2	3	5	2	1	3	2	3	5
46 Cancer of the digestive organs and peritoneum	287	16	303	21	27	48	28	22	50	22	20	42	19	22	41	22	25	47	22	23	45	22	23	45
(a) Cancer of the oesophagus	165	8	173	13	18	31	12	14	26	14	12	26	15	18	33	14	10	24	15	9	24	14	10	24
(b) Cancer of the stomach	16	1	17	1	1	2	1	1	2	2	2	4	1	2	3	2	2	4	1	3	4	2	3	5
(c) Cancer of the Duodenum	116	7	123	10	14	24	6	9	15	11	12	23	8	5	13	19	12	31	8	3	11	19	12	31
(d) Cancer of the rectum and anus	59	2	61	4	7	11	1	11	22	5	2	7	5	9	14	5	4	9	5	4	9	5	4	9
(e) Cancer of the intestines	45	5	50	2	3	5	8	3	11	2	1	3	2	5	7	2	3	5	7	4	11	7	3	10
(f) Cancer of the liver and biliary passages	20	2	22	2	2	4	2	3	5	2	2	4	4	5	9	2	6	8	4	6	10	4	6	10
(g) Cancer of the pancreas	42	1	43	3	5	8	5	7	12	4	2	6	6	6	12	3	3	6	4	3	7	3	3	6
(h) Cancer of the mesentery and peritoneum	19	2	21	2	2	4	2	2	4	1	1	2	1	2	3	1	1	2	1	2	3	1	2	3
(m) Cancer of other and unspecified sites	16	2	18	2	3	5	2	2	4	2	3	5	1	2	3	1	1	2	2	1	3	1	2	3
47 Cancer of the respiratory system	30	1	31	2	3	5	2	2	4	2	4	6	4	2	6	2	4	6	4	2	6	2	4	6
(a) Of the Larynx	18	1	19	2	2	4	1	1	2	1	1	2	4	2	6	1	3	4	2	4	6	1	3	4
(b) Of the lung	5	1	6	1	1	2	1	1	2	1	1	2	5	11	16	6	3	9	6	4	10	6	4	10
(c) Of the Mediastinum and other sites	1	1	2	2	2	4	1	1	2	2	2	4	2	2	4	2	2	4	2	2	4	2	2	4
48 Cancer of the uterus	7	1	8	2	2	4	2	2	4	1	1	2	2	2	4	2	2	4	2	2	4	2	2	4
(a) Of the cervix	36	1	37	3	4	7	5	4	9	2	2	4	2	6	8	2	2	4	6	2	3	2	2	4
(b) Of other and unspecified sites	12	1	13	1	1	2	1	1	2	1	1	2	4	2	6	2	2	4	2	2	4	2	2	4
49 Cancer of other female organs	30	2	32	1	2	3	3	2	5	3	3	6	3	5	8	4	1	5	4	1	5	4	1	5
(a) Of the breast	8	1	9	1	1	2	2	1	3	2	2	4	2	3	5	2	2	4	2	2	4	2	2	4
(b) Of other and unspecified sites	53	3	56	3	7	10	2	5	7	6	6	12	2	6	8	2	5	7	6	5	11	2	5	7
50 Cancer of the breast	39	7	46	3	7	10	2	1	3	6	5	11	2	5	7	4	3	7	4	3	7	4	3	7
(a) Of other and unspecified sites	14	3	17	3	3	6	2	4	6	1	1	2	1	1	2	1	2	3	1	2	3	1	2	3
(b) Of other female organs	23	1	24	3	3	6	1	1	2	2	1	3	2	2	4	2	2	4	2	2	4	2	2	4
(c) Of the breast	1	1	2	1	1	2	1	1	2	2	1	3	1	2	3	1	1	2	1	1	2	1	1	2
Total	89	9	98	9	8	17	10	8	18	7	9	16	9	4	13	6	6	12	4	4	8	6	6	12

TABLE 18.—CAUSES OF DEATH BY SEX AND MONTH OF DEATH IN ALBERTA, BY PLACE OF RESIDENCE, 1948—Continued

CAUSES OF DEATH	Total	MONTHS												
		January	February	March	April	May	June	July	August	September	October	November	December	
180 Conflagration	14	5	2	1	1	1	2	1	1	1	1	2	1	5
Male	18	5	1	2	2	1	1	1	1	1	1	2	1	3
Female	10	1	1	1	1	1	1	1	1	1	1	1	1	2
181 Accidental burns (conflagration excepted)	6	1	1	1	1	1	1	1	1	1	1	1	1	1
Male	8	1	1	1	1	1	1	1	1	1	1	1	1	1
Female	10	1	1	1	1	2	1	1	1	1	1	1	1	2
182 Accidental mechanical suffocation	44	1	1	1	5	6	18	6	3	1	3	1	1	1
Male	9	1	1	1	2	2	1	2	2	2	1	1	1	1
Female	14	1	1	1	2	1	1	1	1	1	1	1	1	1
183 Accidental drowning	3	1	1	1	1	1	1	1	1	1	1	1	1	1
Male	57	7	6	5	5	9	2	3	6	2	6	1	5	5
Female	50	5	5	4	5	4	5	4	5	3	4	3	3	3
184 Accidental injury by firearms	44	5	6	4	4	7	1	3	3	2	4	1	4	4
Male	48	5	6	4	4	7	1	3	3	2	4	1	4	4
Female	13	2	1	1	1	2	1	4	5	3	4	3	3	3
185 Accidental injury by cutting or piercing instruments	2	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	2	1	1	1	1	1	1	1	1	1	1	1	1	1
186 Accidental injury by fall or crushing	57	7	6	5	5	9	2	3	6	2	6	1	5	5
Male	50	5	5	4	5	4	5	4	5	3	4	3	3	3
Female	44	5	6	4	4	7	1	3	3	2	4	1	4	4
(a) Accidental injury by fall	48	5	6	4	4	7	1	3	3	2	4	1	4	4
(b) Accidental injury by crushing	13	2	1	1	1	2	1	4	5	3	4	3	3	3
187 Cataclysm	2	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	6	1	1	1	1	1	1	1	1	1	1	1	1	1
188 Injury by animals	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Male	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Female	8	1	2	2	2	2	2	2	2	2	2	2	2	2
189 Hunger or thirst	4	1	2	2	1	1	1	1	1	1	1	1	1	1
Male	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Female	3	1	1	1	1	1	1	1	1	1	1	1	1	1
190 Excessive cold	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Male	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Female	3	1	1	1	1	1	1	1	1	1	1	1	1	1
191 Excessive heat	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Male	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Female	3	1	1	1	1	1	1	1	1	1	1	1	1	1
192 Lightning	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Male	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Female	3	1	1	1	1	1	1	1	1	1	1	1	1	1
193 Accidents due to electric currents	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Male	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Female	1	1	1	1	1	1	1	1	1	1	1	1	1	1
194 Attack by venomous animals (non-occupational)	14	1	1	1	1	1	1	1	1	1	1	1	1	1
Male	16	1	4	1	2	1	1	2	2	3	3	1	3	3
Female	16	1	4	1	2	1	1	1	1	1	1	1	1	1
195 Other accidents	16	1	4	1	2	1	1	2	2	3	3	1	3	3
(a) Sequelae of preventive immunization, inoculation or vaccination	16	1	4	1	2	1	1	2	2	3	3	1	3	3
Male	16	1	4	1	2	1	1	2	2	3	3	1	3	3
Female	16	1	4	1	2	1	1	2	2	3	3	1	3	3

TABLE 19.—CAUSES OF DEATH BY SEX AND AGE IN EDMONTON, BY PLACE OF RESIDENCE, 1948.—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
(e) With mention of arteriosclerosis	27																	2	3	10	5	3	2	1			
84 Mental disorders and deficiency (general paralysis of the insane excepted)	21													1						4	3	6	3	3			
(a) Schizophrenia (dementia praecox)	2	2																									
(b) Others under this title																											
85 Epilepsy	3	2																									
86 Convulsions (under 5 years of age)	1							1																			
87 Other diseases of the nervous system	3																										
(a) Chorea																											
(b) Neuritis																											
(c) Paralysis agitans																											
(d) Disseminated sclerosis	2																										
(e) Others under this title	2																										
88 Diseases of organs of vision	1																										
89 Diseases of the ear and of the mastoid process	1																										
(a) Otitis and other diseases of the ear																											
(b) Diseases of the mastoid process																											
Total	320																										
Male	210																										
Female	110																										

CLASS VII.—DISEASES OF THE CIRCULATORY SYSTEM

	(b) Premature separation of placenta	Female
	(c) Others under this title	Female
144	Toxaemias of pregnancy, death prior to delivery	Female
	(a) Eclampsia of pregnancy	Female
	(b) Albuminuria and nephritis of pregnancy	Female
	(c) Acute yellow atrophy of liver	Female
	(d) Others under this title	Female
145	Other diseases and accidents of pregnancy, death prior to delivery	Female
	(a) With mention of infection	Female
	(b) Without mention of infection	Female
146	Haemorrhage of childbirth and the puerperium	Female
	(a) Placenta praevia	Female
	(b) Premature separation of placenta	Female
	(c) Others under this title	Female
147	Infection during childbirth and the puerperium	Female
	(a) Puerperal pyelitis and pyelonephritis	Female
	(b) General or local puerperal infection	Female
	(c) Puerperal thrombophlebitis	Female
	(d) Puerperal embolism and sudden death	Female
148	Puerperal toxaeimias, following delivery	Female
	(a) Puerperal eclampsia	Female
	(b) Puerperal albuminuria and nephritis	Female
	(c) Acute yellow atrophy of liver	Female
	(d) Others under this title	Female
149	Other accidents of childbirth	Female
	(a) Laceration, rupture or other trauma of pelvic organs and tissues	Female

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	14	15
180	Conflagration	3	8
178	Accidental absorption of poisonous gas	11	7
	Accidental burns	26	15
169	Railway accident (excluding motor vehicles)	1	.....
170(c)	Automobile accidents (excluding trains or street-cars)	2	.....
173	Air transport accidents	2	.....
180	Conflagration	11	9
181	Accidental burns (conflagration excepted)	10	6
	Accidental Mechanical suffocation	10	10
174	Accidents in mines and quarries	1	.....
176	Other accidents involving machinery	1	.....
182	Accidental mechanical suffocation	8	10
	Accidental drowning	67	12
170(c)	Automobile accidents (excluding trains or street-cars)	1	.....
171(b)	Other road transport accidents (excluding street-cars, trains and motor vehicles) .....	.....	1
172	Water transport accidents	17	2
173	Air transport accidents	1	.....
175(a)	Accidents involving agricultural machinery and vehicles	1	.....
175(c)	Other agricultural accidents	1	.....
175(e)	Other forestry accidents	1	.....
176	Other accidents involving machinery	1	.....
183	Accidental drowning	44	9
	Accidental injury by cutting or piercing instruments	4	.....
170(c)	Automobile accidents (excluding trains or street-cars)	1	.....
171(b)	Other road transport accidents (excluding street-cars, trains, and motor vehicles)	1	.....
175(a)	Accidents involving agricultural machinery and vehicles	1	.....
175(b)	Injury by animals, in agriculture	1	.....
	Accidental injury by fall	56	49
169	Railway accidents (excluding motor vehicles)	2	.....
170(c)	Automobile accidents (excluding trains or street-cars)	2	.....
171(b)	Other road transport accidents (excluding street-trains and motor vehicles)	1	1
174	Accidents in mines and quarries	1	.....
175(a)	Accidents involving agricultural machinery and vehicles	2	.....
175(b)	Injury by animals, in agriculture	3	.....
175(c)	Other agricultural accidents	1	.....
186(a)	Accidental injury by fall	44	48
	Accidental injury by crushing	186	37
169	Railway accidents (excluding motor vehicles)	17	4
170(a)	Collisions with trains	10	3
170(c)	Automobile accidents (excluding trains or street-cars)	86	23
170(d)	Motorcycle accidents (excluding automobiles)	1	.....
171(a)	Street-car accidents (excluding trains and motor vehicles) .....	.....	1
171(b)	Other road transport accidents (excluding street-cars, trains and motor vehicles)	2	.....
173	Air transport accidents	7	.....
174	Accidents in mines and quarries	11	.....
175(a)	Accidents involving agricultural machinery and vehicles	11	.....
175(b)	Injury by animals, in agriculture	6	.....
175(c)	Other agricultural accidents	2	.....
175(e)	Other forestry accidents	9	.....
176	Other accidents involving machinery	9	4
187	Cataclysm	2	.....
186(b)	Accidental injury by crushing	13	2
	Accidents due to electric currents	3	.....
193	Accidents due to electric currents	3	.....

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, 1948

Cities	All Deaths						Deaths in Institutions					
	Place of occurrence	Residence elsewhere		Deaths of residents occurring elsewhere		Place of residence	Place of occurrence	Residence elsewhere		Deaths of residents occurring elsewhere		Place of residence
		In Canada	In United States	In Canada	In United States			In Canada	In United States	In Canada	In United States	
Cities:	1299	252	4	90	6	1139	898	230	1	58	4	729
Calgary	1571	613	6	81	5	1038	1291	586	3	40	4	746
Edmonton	2448	84	1	23	2	188	201	79	1	17	2	140
Lethbridge	167	34	.....	9	.....	142	128	33	.....	9	.....	104
Medicine Hat												

TABLE 23.—TOTAL DEATHS (EXCLUSIVE OF STILLBIRTHS) AND DEATHS IN INSTITUTIONS BY PLACE OF OCCURRENCE AND PLACE OF RESIDENCE IN ALBERTA, 1948

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	7009	121	23	92	30	6987	4264	82	7	62	10	4247

	157	158-161	162	163-198	163, 164	166-168	170	171	172	173	174	175	176	180	187	130	150	150
Congenital malformations	2,323	6,865	1,318	8,957	998	154	252	2,069	249	81	106	314	138	560	4	760	115	131
Diseases peculiar to the first year of life	16	35	17	57	4	4	5	97	7	3	15	6	2	3	1	2,557	304	398
Senility	35	17	134	375	38	4	13	112	1	1	4	14	4	1	1	332	481	462
Violent deaths	163-198	998	4	4	4	4	4	4	4	4	4	4	4	4	4	2,060	75	159
Suicides	163, 164	998	4	4	4	4	4	4	4	4	4	4	4	4	4	3,215	505	677
Homicides	166-168	154	4	4	4	4	4	4	4	4	4	4	4	4	4	130	79	1,079
Railway accidents (excluding motor vehicles)	166-168	154	4	4	4	4	4	4	4	4	4	4	4	4	4	390	85	163
Motor vehicle accidents	170	252	7	97	112	603	754	86	97	129	184	28	28	28	28	16	10	28
Street-car and other road transport accidents	171	92	2	23	15	44	91	12	14	20	28	7	13	13	13	7	7	13
Water transport accidents	172	249	1	7	4	27	16	7	7	7	7	7	7	7	7	10	10	7
Air transport accidents	173	81	1	4	4	4	4	4	4	4	4	4	4	4	4	2	2	13
Accidents in mines and quarries	174	106	15	15	15	15	15	15	15	15	15	15	15	15	15	3	3	20
Agricultural and forestry accidents	175	314	6	14	14	14	14	14	14	14	14	14	14	14	14	10	10	20
Other accidents involving machinery	176	138	2	2	2	2	2	2	2	2	2	2	2	2	2	23	23	40
Conflagration	180	560	3	30	31	97	1	1	1	1	1	1	1	1	1	54	12	11
Cataclysm	187	4,140	37	234	154	950	1,537	231	290	484	361	229	27	90	90	2	2	1
Other violent deaths	187	4,140	37	234	154	950	1,537	231	290	484	361	229	27	90	90	2	2	1
Other specified causes	187	3,848	28	195	140	1,155	1,270	231	290	484	361	229	27	90	90	2	2	1
Total specified causes	199, 200-III	118,713	876	6,038	4,798	33,483	42,245	6,475	6,960	11,224	229	27	90	90	90	6,614	6,960	11,224
Other unspecified causes	199, 200-III	639	11	59	161	108	108	21	27	90	231	27	90	90	90	56	27	90
All causes	199, 200-III	119,352	887	6,097	4,959	33,589	42,353	6,496	6,987	11,314	231	27	90	90	90	6,670	6,987	11,314

TABLE 25.—DEATH RATES PER 100,000 POPULATION FROM CERTAIN SPECIFIED CAUSES, BY PROVINCES, 1948

Int. list No.	Canada	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.
1-2 Typhoid fever	0.4	1.1	0.8	1.4	1.1	0.1	0.1	0.2	0.5	0.1
6 Cerebrospinal meningitis	0.5	1.1	0.6	0.4	0.7	0.1	0.1	0.1	0.1	0.4
8 Scarlet fever	0.3	1.1	0.6	0.2	2.7	0.4	0.9	0.9	1.3	0.4
9 Whooping cough	1.2	2.2	0.2	0.2	1.4	0.2	0.4	0.5	0.7	0.5
10 Diphtheria	0.7	2.2	0.2	0.2	1.4	0.2	0.1	0.1	0.1	0.1
11 Erysipelas	0.1	33.3	32.9	37.2	49.1	16.8	30.9	22.1	23.6	35.1
13 Tuberculosis of the respiratory system	31.2	6.5	6.0	8.5	9.4	2.4	7.1	4.7	7.0	5.6
14-22 Tuberculosis, other organs	5.9	1.1	0.6	0.4	0.2	0.2	0.4	0.2	0.4	0.1
24 Purulent infection and septicaemia	0.3	2.2	4.9	5.0	4.1	4.1	4.1	3.0	4.3	6.1
30 Syphilis	4.3	9.7	7.9	16.5	10.7	4.0	5.7	6.0	4.3	6.0
33 Influenza	7.1	9.7	7.9	16.5	10.7	4.0	5.7	6.0	4.3	6.0
34 Smallpox	1.8	1.1	0.3	5.4	3.1	1.4	1.6	0.9	0.8	0.3
35 Measles	0.6	1.1	0.6	0.6	0.2	0.5	0.5	0.4	3.3	0.5
36 Acute poliomyelitis and polioencephalitis	126.4	109.7	134.6	116.7	114.8	138.2	126.6	100.4	115.2	150.7
45-55 Cancer and other malignant tumours	2.8	3.2	3.5	2.8	2.6	2.7	2.5	2.9	3.2	3.9
56-57 Tumours, non-malignant and not specified	20.3	12.9	17.0	13.1	19.1	24.9	16.9	18.0	15.8	19.6
61 Diabetes mellitus	2.4	1.1	2.4	2.0	1.5	3.1	1.8	2.3	3.2	2.6
63 Diseases of the thyroid and parathyroid glands	2.5	4.3	3.1	3.2	2.2	3.3	2.2	1.4	0.9	1.8
73 Anemias	4.0	1.1	4.6	2.4	3.0	4.2	6.2	4.1	4.6	4.9
74 Leukaemias and aleukaemias	0.6	1.1	1.1	1.4	0.4	0.8	0.8	0.1	0.6	1.0
77 Alcoholism	2.2	4.3	1.4	2.4	4.6	0.9	1.3	0.8	1.5	1.5
81 Meningitis (non-meningococcal)	79.1	104.3	100.9	78.3	47.8	106.2	82.7	65.6	67.1	84.1
83 Intracranial lesions of vascular origin	79.1	104.3	100.9	78.3	47.8	106.2	82.7	65.6	67.1	84.1

TABLE 25.—DEATH RATES PER 100,000 POPULATION FROM CERTAIN SPECIFIED CAUSES, BY PROVINCES, 1948—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	3.2	2.8	1.2	0.8	1.2	0.8	0.9	0.9	0.6
85	Epilepsy	2.0	1.1	3.1	1.4	2.2	1.8	2.6	2.3	1.4	1.3
89	Diseases of the ear and of the mastoid process	2.0	1.1	1.3	0.6	5.0	0.8	0.3	0.2	0.7	0.9
90-95	Diseases of the heart	263.6	284.9	253.5	233.4	190.7	332.6	251.9	211.4	224.1	343.3
96, 97.											
99, 102	Diseases of the arteries	18.2	30.1	24.7	19.1	13.5	20.9	25.5	13.1	16.5	19.6
106	Bronchitis	3.1	3.2	4.1	2.0	2.7	3.4	4.9	3.6	3.4	1.8
107-109	Pneumonia	44.3	45.2	47.9	56.3	43.8	42.8	41.3	46.1	42.8	45.7
110	Pleurisy	1.0	1.1	0.2	1.0	1.5	0.9	0.7	1.1	0.5	1.0
111	Haemorrhagic infarction, congestion, oedema and thrombosis of the lungs	3.2	2.2	4.4	3.0	3.7	3.2	2.6	3.5	1.7	2.1
112	Asthma	1.9	2.2	1.4	1.0	1.7	1.9	2.1	2.2	2.5	1.9
115	Diseases of the buccal cavity and annexa, and of the pharynx and tonsils	1.4	2.2	1.3	1.8	1.6	1.3	1.2	1.2	1.8	0.6
116-118	Diseases of the stomach	7.8	6.5	5.2	7.4	7.6	8.3	6.3	6.4	7.0	10.5
119-120	Diarrhoea and enteritis	14.0	14.0	6.6	23.9	26.2	7.2	11.4	11.6	11.0	4.1
121	Appendicitis	3.7	3.2	2.5	4.8	4.9	2.5	2.8	5.9	4.0	3.8
122	Hernia, intestinal obstruction	6.7	8.6	6.5	4.8	6.8	7.0	6.3	7.0	6.7	6.8
124	Cirrhosis of the liver	5.1	4.1	2.6	2.6	5.3	5.2	5.3	3.5	4.1	8.0
125-127	Other diseases of the liver	5.2	5.4	2.8	3.6	5.0	5.1	5.9	5.9	6.3	6.5
130-132	Nephritis	52.9	55.9	56.5	43.5	88.9	39.4	28.3	28.6	25.9	39.6
137	Diseases of the prostate	6.2	4.3	6.8	4.0	5.0	6.5	4.6	7.5	9.0	7.8
140-150	Puerperal causes	4.0	3.2	3.0	4.6	6.1	2.9	3.7	2.6	3.4	2.7
157	Congenital malformations	18.1	17.2	16.4	21.3	20.0	18.6	15.2	15.3	17.7	12.9
158-161	Diseases peculiar to the first year of life	53.4	37.6	47.2	87.3	67.4	54.0	40.2	46.6	56.9	42.7
162	Senility	10.2	18.3	21.1	25.8	8.8	6.4	16.0	8.8	8.9	14.7
163-198	Violent deaths	69.7	61.3	73.1	74.6	54.3	74.8	69.4	59.1	80.0	99.7
163-164	Suicides	7.8	4.3	6.0	5.0	3.4	9.1	11.2	9.3	9.9	15.1
166-168	Homicides	1.2	1.1	0.6	0.2	0.7	1.4	2.1	1.1	1.2	2.6
169	Railway accidents (excluding motor vehicles)	2.0	7.5	0.8	2.6	1.3	2.4	1.5	1.9	2.8	2.6
170	Motor vehicle accidents	16.1	7.5	15.3	22.3	15.9	17.5	11.4	11.4	15.2	17.0
171	Street-car and other road transport accidents	0.7	1.1	0.5	0.2	0.8	0.7	0.7	0.2	0.8	1.2
172	Water transport accidents	1.9	2.2	3.6	3.0	1.2	2.1	1.6	1.6	2.4	2.6
173	Air transport accidents	0.6	1.1	1.1	0.8	0.7	0.4	0.9	0.2	1.2	0.6
174	Accidents in mines and quarries	0.8	2.4	2.4	0.2	0.5	0.5	1.3	0.4	1.7	1.8
175	Agricultural and forestry accidents	2.4	0.9	0.9	2.8	1.5	1.5	3.0	4.2	4.7	6.7
176	Other accidents involving machinery	1.1	1.1	0.3	0.8	0.6	1.3	1.6	1.9	1.8	1.0
180	Conflagration	2.8	3.2	4.7	6.2	2.6	2.1	2.0	2.3	3.8	3.7
187	Cataclysm	32.2	39.8	36.9	30.6	25.1	35.8	32.1	24.7	34.3	44.7
	Other violent deaths	29.9	30.1	30.7	27.8	30.5	29.6	31.6	27.0	27.1	33.4
	Other specified causes										
199, 200	Total specified causes	923.2	941.9	950.9	953.9	883.0	983.1	873.7	758.2	822.7	1037.3
	Ill-defined and unknown causes	5.0	11.8	9.3	32.0	2.8	2.5	7.4	2.5	3.2	9.3
	All causes	978.2	953.8	960.2	985.9	885.8	985.6	881.1	760.7	825.9	1,045.7

TABLE 26.—PRINCIPAL CAUSES OF DEATH BY NUMBERS AND RATES FOR EACH YEAR OF THE LAST DECENNIAL PERIOD

CAUSE OF DEATH	1948		1947		1946		1945		1944		1943		1942		1941		1940		1939	
	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	1896	224	1756	213	1721	214	1663	199	1534	186	1550	194	1483	184	1394	177	1086	137	997	126
Cancer	975	115	878	107	860	107	830	100	781	84	748	94	784	97	712	90	759	95	647	82
Diseases of the Arteries	28	3	117	14	102	12	138	16	121	14	116	14	97	12	86	11	517	65	550	79
Violent Deaths (Suicides excepted)	533	70	484	59	456	56	472	57	484	59	588	73	483	58	524	67	415	52	364	46
Pneumonia (all forms)	362	42	374	45	362	45	369	44	379	46	497	51	335	41	478	47	376	47	362	46
Pulmonary tuberculosis	200	23	215	26	233	29	200	25	229	27	224	28	214	26	254	32	232	29	217	27
Influenza	36	4	72	8	89	11	58	7	128	15	153	19	75	9	276	22	255	32	216	27
Nephritis	219	25	197	24	215	26	255	31	257	31	284	36	260	32	255	32	217	27	214	27
Appendicitis	34	4	36	4	46	5	42	5	54	6	77	9	69	8	91	11	96	12	109	14
Suicides	84	9	67	8	100	12	76	9	57	7	79	10	86	10	103	13	96	12	103	13
Cerebral Haemorrhage	568	67	523	63	503	62	513	62	454	55	472	59	450	56	501	64	116	15	96	12
Diabetes Mellitus	134	15	119	14	119	14	143	17	120	14	116	14	106	13	122	15	90	11	90	11
Diarrhoea and Enteritis	93	10	106	13	128	15	87	10	120	14	116	14	106	13	99	13	92	12	90	11
Puerperal Causes	29	3	22	3	32	4	48	5	31	3	52	6	43	5	54	7	69	9	59	8
Whooping Cough	11	1	9	1	19	2	43	5	42	5	11	1	12	1	23	3	56	7	33	4
Scarlet Fever	1	1	1	1	1	1	1	1	9	1	7	1	11	1	6	1	9	1	19	2
Diphtheria	10	1	7	1	7	1	9	1	8	1	12	1	11	1	6	1	12	2	7	1
Typhoid and Paratyphoid	7	3	3	3	8	8	6	2	10	1	19	2	2	1	5	3	3	3	7	1
Measles	28	3	21	3	21	3	6	2	10	1	19	2	2	1	30	4	6	1	6	1
Poliomyelitis	28	3	7	1	8	8	1	1	1	1	1	1	1	1	8	1	4	1	6	1

TABLE 27.—MARRIAGES IN THE PROVINCE OF ALBERTA, BY MONTHS, 1948

	MONTHS											
	January	February	March	April	May	June	July	August	September	October	November	December
Total	138	110	152	147	217	282	254	216	220	245	220	192
Edmonton	91	91	102	140	138	215	198	175	170	184	187	175
Calgary	27	24	20	27	22	36	38	29	33	33	43	30
Lethbridge	8	21	19	17	18	38	40	26	45	59	31	31
Medicine Hat	8	10	5	11	13	24	27	10	21	14	14	13
Red Deer	3	6	6	6	7	10	8	11	9	11	6	7
Drumheller	5	2	4	5	2	10	7	13	5	7	10	6
Wetaskiwin	175	161	177	164	215	425	434	337	247	455	497	255
Rural Districts												
Total for the Province	455	425	485	517	632	1040	1006	817	742	1008	1008	709

TABLE 28.—MARITAL STATUS OF BRIDEGRROOMS AND BRIDES IN ALBERTA, 1948

	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	Spinsters	Widows	Spinsters	Widows	Spinsters	Widows				
Total Marriages	7342	233	325	168	201	41	342	60	132	89.3	4.6	6.0	88.8	5.6	5.6	
Total for the Province	8844	7342	233	325	168	201	41	342	60	132	89.3	4.6	6.0	88.8	5.6	5.6

TABLE 32.—DIVORCES AND NULLITIES BY JUDICIAL DISTRICTS
FOR THE YEAR 1948 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	305	147	158	1	.....	1
Calgary	266	107	159	6	4	2
Lethbridge	18	8	10	.....	.....	.....
Medicine Hat	20	5	15	.....	.....	.....
Peace River	10	6	4	.....	.....	.....
Grande Prairie	6	4	2	.....	.....	.....
Hanna	2	2	.....	.....	.....	.....
Red Deer	19	15	4	.....	.....	.....
Drumheller	2	1	1	.....	.....	.....
Macleod	5	3	2	.....	.....	.....
Wetaskiwin	1	1	.....	.....	.....	.....
Vegreville	5	3	2	.....	.....	.....
Total	659	302	357	7	4	3

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
1948	302	357	659

TABLE 33.—BIRTHS OF INDIANS (EXCLUSIVE OF STILLBIRTHS), BY MONTHS AND BY PLACE OF RESIDENCE OF MOTHERS, ALBERTA, 1948

	Total	Months											
		January	February	March	April	May	June	July	August	September	October	November	December
Total for the Province	1198	96	113	123	110	93	99	83	98	99	84	92	108

TABLE 34.—LEGITIMATE AND ILLEGITIMATE BIRTHS OF INDIANS (EXCLUSIVE OF STILLBIRTHS) IN ALBERTA, BY PLACE OF RESIDENCE OF MOTHERS, 1948

	Total Births			Legitimate			Illegitimate		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total for the Province	1198	625	573	902	482	420	296	143	153

TABLE 35.—DEATHS OF INDIAN CHILDREN UNDER ONE YEAR (EXCLUSIVE OF STILLBIRTHS) FROM CERTAIN SPECIFIED CAUSES BY SEX IN ALBERTA, BY PLACE OF RESIDENCE, 1948

Int. list No.	Causes of Death	Total	Male	Female
	ALL CAUSES	134	75	61
6	Cerebrospinal meningitis	..	..	..
8	Scarlet fever	..	..	..
9	Whooping-cough	2	..	2
10	Diphtheria	..	..	..
11	Erysipelas	..	..	..
13	Tuberculosis of the respiratory system	6	5	1
14-22	Tuberculosis, other forms	3	2	1
27	Dysentery	..	..	..
30	Syphilis	2	1	1
33	Influenza	8	5	3
35	Measles	2	..	1
36	Acute poliomyelitis and polioencephalitis	..	..	..
64	Diseases of the thymus gland	..	..	..
81	Meningitis (non-meningococcal)	..	..	..
86	Convulsions	2	2	..
89	Diseases of the ear and of the mastoid process	1	..	1
105	Diseases of the larynx	..	..	..
106	Bronchitis	3	..	3
107	Bronchopneumonia	22	10	12
108, 109	Pneumonia	28	13	15
115	Diseases of the buccal cavity and annexa, and of the pharynx and tonsils	1	1	..
116-118	Diseases of the stomach	..	..	..
119	Diarrhoea and enteritis	11	11	..
130	Acute nephritis	..	..	..
157	Congenital malformations	9	4	5
	(a) Congenital hydrocephalus	..	..	..
	(d) Congenital malformations of the heart	3	1	2
	(b, c, e) Others under this title	6	3	3
158	Congenital debility	4	4	..
159	Premature birth	15	7	8
160	Injury at birth	1	..	1
161	Other diseases peculiar to the first year of life	9	6	3
166-168	Homicides	..	..	..
169-195, 197	Other violent deaths	4	1	3
	Other specified causes	1	..	1
199, 200	Ill-defined and unknown causes of death	..	..	..

