

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

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ANNUAL REPORT
OF THE
Department of Public Health
PROVINCE OF ALBERTA
INCLUDING
Vital Statistics Division
1952

PUBLISHED BY ORDER OF THE LEGISLATIVE ASSEMBLY

EDMONTON
PRINTED BY A. SHNITKA, QUEEN'S PRINTER
1954

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ANNUAL REPORT

Department of Public Health

PROVINCE OF ALBERTA

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Vital Statistics Division

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December 31, 1953

TO HIS HONOUR

J. J. BOWLEN,

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 1952.

I have the honour to be, Sir,

Your obedient Servant,

WALLACE WARREN CROSS,
Minister of Health.



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December 31, 1953

TO THE HONOURABLE DR. W. W. CROSS,
Minister of Health,
Administration Building, Edmonton, Alberta

SIR:

I have the honour to submit herewith, the Thirty-Fourth Annual Report of the Department of Public Health.

I have the honour to be, Sir,

Your obedient Servant,

A. SOMERVILLE, B.A., M.D., D.P.H.,
Deputy Minister.

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THIRTY-FOURTH ANNUAL REPORT OF THE
PROVINCIAL DEPARTMENT OF PUBLIC HEALTH
INCLUDING THE VITAL STATISTICS DIVISION

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.
10. Hospital and Medical Services.
11. Cerebral Palsy Clinics.
12. Canadian Red Cross Blood Transfusion Service.
13. Division of Tuberculosis Control.
14. Mental Health.
15. Vital Statistics.

Institutions: Provincial Mental Hospital, Ponoka.
Provincial Auxiliary Mental Hospital,
Claresholm.
Provincial Auxiliary Mental Hospital,
Raymond.
Provincial Mental Institute, Oliver.
Provincial Training School, Red Deer.
Rosehaven, Camrose.

Guidance Clinics.
Eugenics Board.

A report containing a summary of the work of each of these divisions is included herewith.

PROVINCIAL BOARD OF HEALTH

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

AMENDMENTS AND REGULATIONS PASSED DURING THE YEAR

O.C. 151-52. Amendments to Provincial Board of Health Regulations Regarding Plumbing and Drainage. These amendments placed the responsibility for providing plumbing inspection service in Cities, Towns and Villages having populations in excess of 3,000 and in Cities, Towns and Villages having water and/or sewer utilities on the Council of the City, Town or Village concerned. In other cases the service was to be continued by the Province.

O.C. 1604-52. Provincial Board of Health Regulations Governing Certificates, Permits and General Administration. The old regulations were rescinded and replaced with new regulations which provide that except where otherwise specified in the Act or Regulations, permits, orders, warrants, certificates and other documents issued by a Local Board of Health shall be signed by the Medical Officer of Health or Secretary of the Board. In the case of the Provincial Board of Health it is provided that the Chairman shall be the signing authority.

O.C. 1605-52. Provincial Board of Health Regulations Governing the Sale of Cheese in the Province of Alberta. These amendments altered the holding period for cheese made from unpasteurized milk from a minimum of 90 days to a minimum of 60 days. They also established a minimum holding temperature of 35°F. The regulations were also renumbered.

O.C.'s 315-52, 362-52, 849-52 and 850-52. These Orders-in-Council made no change in the context of regulations but renumbered the following Provincial Board of Health Regulations:

- Regulations governing Heating and Ventilating of Theatres.
- Regulations Respecting the Preparation, Manufacture, Processing and Sale of Canned Meat or Canned Meat Food Products.
- Regulations Respecting Water and Ice.
- Dental Regulations.

LEGISLATION PASSED DURING THE YEAR

Health Unit Act Amendment Act (Chapter 35).

This Act amends The Health Unit Act, being chapter 38 of the Statutes of Alberta, 1951.

Section 10 is amended. Subsection (1) is amended for clarification. A new subsection (2) is added which provides for the employment of dental officers by the Board of the health unit to provide dental services for children sixteen years of age and under. Subsection (3), formerly subsection (2), is amended to correct a cross reference.

This Act came into force on April 10th, 1952.

Hospital Act Amendment Act (Chapter 37).

This Act amends The Hospitals Act, being chapter 184 of the Revised Statutes of Alberta, 1942.

The majority of the amendments contained in this amending Act are made for the purpose of providing for an increase in the hospitalization grants payable to municipalities and municipal hospital districts. The amount of the grant which is at present fixed by the Act is equal to fifty (50) percent of the former basic standard ward rate in approved hospitals. Increased costs of providing hospital services resulted in an increase in the basic standard ward rate. The amendments provide that the hospitalization grant shall be fifty (50) per cent of the standard ward rate as set by regulation after one dollar per day has been deducted. The Act at present designates the number of dollars and cents of grant that will be paid in each case whereas under the amendment the amount of the grant becomes a fixed percentage of the standard ward rate as set by regulation, whatever that might be. The sections amended for this purpose are section 3a, subsection (2), section 3b, and subsections (2) to (6) inclusive, section 3g; section 3e is repealed for the same purpose and section 3d is amended to conform.

The increased grants were authorized by order-in-council subject to the enactment of this validating legislation. The order-in-council was effective the first of January, 1952 so these particular sections are made retroactive to that date.

Section 3 is amended by striking out subsection (1) and substituting a new subsection. The subsection now authorizes the Lieuten-

ant Governor in Council to pay to an approved hospital a per diem allowance in respect of each person hospitalized. The latter part of the subsection authorizes the Lieutenant Governor in Council to exclude certain persons or classes of persons from the operation of this section. The effect of the amendment is to enable the Lieutenant Governor in Council, in his discretion, to exclude designated hospitals from the operation of this section so that such hospitals would not receive the per diem allowance. A similar amendment is made to section 3b.

Section 3d lists the cases where a hospitalization grant is not payable. A new clause (c) is added to this section enumerating another case where a grant is not payable, namely, in respect of the hospitalization of a person who, in the opinion of the medical inspector of hospitals, does not require active treatment. Clause (a) is also amended so as to make the clause apply generally rather than to rate payers solely.

Section 6, subsection (4) is amended. This subsection provides that no local authority is liable to pay on account of the care or treatment of an indigent sick person more than three hundred dollars in any one year. The effect of the amendment is to increase the liability of the local authority from three to four hundred dollars.

Except as otherwise provided, the Act came into force on April 10th, 1952.

Maternity Hospitalization Act Amendment Act (Chapter 50).

This Act amends The Maternity Hospitalization Act, being chapter 9 of the Statutes of Alberta, 1944.

Section 3, subsection (2) is amended. The effect of the amendment is to permit payments to be made in accordance with the agreement entered into rather than to have the payments relate to the services, facilities and equipment available in the hospital and used for maternity services as was formerly the case.

Section 4 is amended to correct a cross-reference and to extend the section to include the new grant authorized under the new section 5c.

Section 5 is amended for clarification.

Section 5a, subsection (1), clause (a) is amended for clarification.

A new section 5b is added. It provides that the Minister may pay a hospitalization grant on a per diem basis for a woman who is entitled to hospitalization and who is hospitalized in an approved hospital which has not entered into an agreement under this Act with the Minister. The grant will be in such an amount as may be prescribed by regulations from time to time.

Section 5c is new and provides for the granting of a maternity grant of \$40.00 to a woman who provides for her own maternity services at home.

This Act came into force on April 10th, 1952.

Mental Diseases Act Amendment Act (Chapter 53).

This Act amends The Mental Diseases Act, being chapter 192 of the Revised Statutes of Alberta, 1942.

Section 27, subsection (2) is amended. By this amendment the superintendent of a mental disease hospital, who could permit a

mental patient to be absent from the hospital for a period not exceeding ten days, may now extend the ten day period from time to time upon receiving favourable reports from those in charge of the patient; but the accumulated periods of absence shall not exceed six months. A new subsection (3) has been added which redrafts a portion of the former subsection (2) and limits the amount of money which the superintendent of a hospital may give the mental patient for transportation and other expenses to forty dollars.

This Act came into force on April 10th, 1952.

Municipal Hospitals Act Amendment Act (Chapter 60).

This Act amends The Municipal Hospitals Act, being chapter 185 of the Revised Statutes of Alberta, 1942.

Section 2 is amended. Clause (b) is amended to correct the reference to the Minister administering special areas. Clause (g) at the present time provides that in the Act an improvement district includes a special area. By reason of the new subsection (1a) in section 73 there is an instance where an improvement district does not include a special area. Therefore, the words "Except where otherwise provided" are added to clause (g). Clause (h) is amended to include a special area within the definition of an included area. A new clause (n) is added defining "ward".

Section 3, subsection (2) is amended to refer to the correct Act.

Section 11 is amended by the addition of a new subsection (11). It provides that a board may issue a contract without charge to a person nominated to receive hospital benefits by a corporation or person under subsection (8) or (10) and the person so nominated shall then be deemed a contract holder under The Hospitals Act.

Section 31 is amended by the addition of a new subsection and by renumbering the existing subsection and correcting the cross references within the section. The new subsection authorizes the Minister to detach any defined area from a hospital district either before or after a vote has been taken to establish a district but before a debenture issue has been approved by the Board of Public Utility Commissioners, in a case where the Minister receives a resolution passed by the Board requesting the detaching.

Section 33 is amended for the purpose of clarifying its meaning.

A new section 60a has been added to the Act which concerns itself with the case where a county has been established under the provisions of The County Act. The new section provides that the following conditions prevail:

- (a) In the case where a hospital district lies either wholly or partly within a county, the county hospital committee may appoint members to the hospital board for that part of the hospital district within the county, pursuant to and subject to the provisions of The County Act.
- (b) Where the membership on the hospital board for the area of a hospital district lying wholly or partly within a county has been filled by persons who are elected as representatives of the area within the county under this Act, these elected members shall cease to be members upon the appointment by the hospital committee of members to represent the hospital district lying wholly or partly within a county.

- (c) In the case where a hospital district lies partly within and partly without the boundaries of a county, the Minister shall allocate the number of members on the board to represent the area outside the county and shall define the number of wards outside the county and may re-allocate the area of any such a ward. To allocate the number of members on a hospital board in these circumstances the Minister is given absolute discretion but the Minister, when so allocating membership, shall have regard to what proportion of the hospital district outside the county bears to the entire area of the hospital district with respect to assessment, population, area and such other matters as are pertinent.
- (d) Where, however, the area lying outside a county and that area is less than that which would constitute a ward it shall not be entitled to membership on the board by the members appointed pursuant to clause (a) or elected to the board pursuant to subsection (2).
- (e) In the case where a hospital district lies wholly or partly within a county and the hospital district contains two or more villages, the Minister may combine any two or more villages into one ward of the hospital district and the combined ward will be entitled to be represented on the board by one member who shall be elected.
- (f) In the case of a hospital district lying wholly or partly within the county, the hospital district containing a town, the boundaries of which are within the boundaries of the county, the town shall be represented on the board by one member who shall be elected. Subsection (2) of section 60a provides that where in subsection (1) provision is made for membership on the hospital board, other than by appointment by a county hospital committee, the method of procedure of electing the member shall be that provided by this Act.

Section 73 is amended. Subsection (1) advances the date for submission of the assessment to March 1st by reason of the fact that a new subsection (1a) in that section makes such advancement necessary. The new subsection (1a) is introduced into this section to provide that the proper officers of each of the included areas shall advise the hospital board of the amount of land, buildings and improvements which are assessable. Formerly the Act did not require this. The new subsection also requires that the proper officer of certain included areas advise the hospital board of the estimated nominal value of lands which are held under crop share lease under The Public Lands Act, and also in the case of special areas, advice is required as to the lands which are held under both crop share lease and grazing lease from the special areas board. Formerly lands held under lease were not included in the calculation of distribution of hospital requisition.

Section 75 is amended by advancing the date upon which requisitions are required to be forwarded in order to comply with the advancement of the date set out in section 73, subsection (1). Section 75 is also amended by providing that the hospital board shall distribute the amount of the requisitions among the various contributing units in the proportion that the values of the various units bear to the total amount of all requisitions issued. The amendment also provides that the tax levy shall be made only upon assessed

property and that the balance of a requisition shall be raised out of the general revenue of the contributing unit which in effect means that the rentals received from leased land will go into general revenue and therefore will be available for use in paying the part of the requisition which is not secured by the tax levy on assessed property.

Section 76 is struck out as it is obsolete.

Section 80 is amended to correct a cross reference.

This Act came into force on April 10th, 1952, except as otherwise provided.

Nursing Service Act Amendment Act (Chapter 54).

This Act amends The Nursing Service Act, being chapter 45 of the Statutes of Alberta, 1950.

Section 8a is added to the Act. It provides that a municipal nurse and the municipality appointing her shall not be liable for an act of a preventative or emergent treatment nature done in good faith by the nurse in performing the duties required of her under the Act or the regulations.

This Act came into force on April 10th, 1952.

Public Health Act Amendment Act (Chapter 68).

This Act amends The Public Health Act, being chapter 183 of the Revised Statutes of Alberta, 1942.

Section 7, subsection (1) is amended by the addition of a new clause. The Provincial Board of Health, subject to the approval of the Lieutenant Governor in Council, may make and issue orders, rules and regulations in respect of the purification and treatment of public water supplies and the addition of a chemical to public water supplies. The effect of the new clause is to give the Board authority to regulate and issue orders with respect to the addition of a chemical to a public water supply.

This Act came into force on April 10th, 1952.

Solemnization of Marriage Act Amendment Act (Chapter 87).

This Act amends The Solemnization of Marriage Act, being chapter 303 of the Revised Statutes of Alberta, 1942.

Section 14a is amended by adding at the beginning of subsection (1) the words "Notwithstanding section 6, subsections (2), (3) and (4)". Section 14a provides that where either of the parties to an intended marriage has obtained a decree of divorce or a declaration of nullity of marriage they must wait thirty days before a new marriage license can be issued. Section 6, subsections (2), (3) and (4) provide for special cases where the license issuer and the Registrar-General or his deputy may issue a license immediately without waiting for any period prescribed by the Act. The effect of the amendment is to make it clear that subsections (2), (3) and (4) of section 6 do not apply in that a marriage license cannot be issued to a person within thirty days of the entry of his decree of divorce or nullity.

This Act came into force on April 10th, 1952.

DEPARTMENT OF PUBLIC HEALTH

REVENUE AND EXPENDITURE FOR FISCAL YEAR ENDED MARCH 31st, 1953

	Salaries	Expenses	Revenue
601. Administration (General)	\$ 7,481.26	\$ 475.98	\$
602. Administration (General)	52,215.06	2,358.92	784.09
618. Administration (Postage) .....	.....	4,086.66	.....
603. Hospitals Division, Administration and Grants	8,149.33	1,251,758.59	60.00
605. Communicable Diseases	9,038.78	76,847.92	.....
605. Sanitary Engineering	19,139.45	14,393.59	4,534.00
606. Municipal Nursing	8,703.83	137,355.27	76,666.29
607. Bureau of Vital Statistics	54,184.33	10,542.32	99,496.23
608. Municipal Hospitals	6,370.50	1,909.60	.....
609. Insulin .....	.....	9,147.36	.....
610. Social Hygiene	50,954.20	18,972.35	34,830.78
622. Mental Health	23,904.43	12,515.69	.....
626. Public Health Laboratory .....	.....	215,383.17	.....
631. Poliomyelitis .....	.....	300,394.73	.....
633. Cancer Clinics	76,964.23	389,087.74	255,212.62
637. Maternity Hospitalization	4,041.20	1,385,815.29	.....
638. Civil Service Nurse	3,137.09	865.64	.....
639. Public Health Education	6,130.50	3,713.03	.....
640. Division of Entomology	8,472.71	4,637.51	.....
641. Health Units	5,000.33	289,397.30	.....
643. Nursing Aides Act	5,703.20	458.87	1,099.00
644. Pensioners, Hospital and Medical Services	13,959.67	1,836,633.99	.....
645. Health Services, Extension Programme	250,418.76	449,329.29	700,178.94
646. Hospital Construction Grants .....	.....	1,577,866.63	899,958.36
647. Grants to Local Authorities	15,732.12	1,475,946.51	.....
648. Grants for Public Health Services .....	.....	55,717.70	.....
649. Alcoholics, Research and Treatment .....	.....	1,339.71	.....
S.W. 49 Hospital Finance Fact-Finding Committee .....	.....	12,168.75	.....
Institutions			
604-1. Division of T.B. Control	28,480.84	114,047.95	.....
604-2. Central Alberta Sanatorium, Calgary	465,227.85	245,009.74	252,330.65
604-3. Aberhart Memorial Sanatorium, Edmonton	430,588.49	193,333.93	155,244.75
612-1. } Prov. Mental Institute, Oliver	767,946.43	344,109.40	221,081.28
612-2. } Prov. Training School, Red Deer	363,174.65	153,826.66	99,704.73
612-3. } .....	.....	.....	.....
613-1. } Prov. Mental Hospital, Ponoka	903,512.30	460,451.09	315,944.66
612-4. } Prov. Auxiliary Mental Hospital, Claresholm	43,931.76	35,260.00	17,829.51
612-5. } Prov. Auxiliary Mental Hospital, Raymond	60,135.53	28,836.62	17,848.20
	<u>\$3,692,698.83</u>	<u>\$11,113,995.50</u>	<u>\$ 3,152,804.09</u>
Total Expenditure Public Health Department			\$14,806,694.33
Less: Public Health Revenue			3,152,804.09
Net Expenditure, Department of Public Health			<u>\$11,653,890.24</u>

Vital Statistics.

Vital Statistics registered during the year are as follows:

Births	29,105
Marriages	9,514
Deaths	7,345

The population of the Province for 1952 has been estimated by the Dominion Bureau of Statistics as 970,000. The census taken on June 1, 1951 showed the population to be 939,501 at that time.

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 1947 to 1952:

Year	No. of Births	Birth Rate	No. of Marriages	Marriage Rate	No. of Deaths	Death Rate
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
1949	24,935	28.70	9,037	10.40	7,083	8.20
1950	25,625	28.70	9,294	10.40	6,856	7.70
1951	27,003	28.70	9,305	9.90	7,167	7.60
1952	29,105	30.00	9,514	9.80	7,345	7.60

The birth rate for 1952 is 30.0 as compared with 28.7 for the previous year. The marriage rate for 1952 is 9.8 as compared with 9.9 for 1951. The death rate for 1952 is 7.6 the same rate as for the previous year.

The deaths of 7,345 persons were registered in Alberta in 1952. Of this number, 4,561 were males and 2,784 females. There were 178 more deaths registered than in the previous year, but the rate remained unchanged. There were 298 deaths from Pneumonia in 1952, a decrease of 4 as compared with the previous year, and 47 deaths from Influenza, a decrease of 67 as compared with the previous year. Deaths from Pulmonary Tuberculosis numbered 91 in 1952 as compared with 119 for the previous year. The chief cause of death is heart disease, 2,247 deaths having been registered as due to this cause, giving a rate of 231.6 per 100,000 population, as compared with 224.8, the rate for the previous year. Deaths from cancer registered in 1952 number 1,072, a rate of 110.5 per 100,000 population, as compared with 1,065 deaths from this cause and a rate of 113.4 in 1951. Deaths from violence, excluding suicides and homicides, numbered 589 as compared with 563 in 1951. The respective rates were 60.7 and 60.0.

The infantile mortality rate for 1952 is 30, as compared with 33 for the previous year. Special reference to the infantile mortality rate will be found in another section of this report.

The maternal mortality rate for 1952 is 0.5, as compared with 0.6 for 1951. More detailed reference to the maternal mortality rate will be found in another section of this report.

Eight deaths were reported as due to Whooping Cough in 1952, as compared with 7 deaths from this cause in 1951. A remarkable reduction in the Whooping Cough death rate has occurred in recent years, largely due to the immunization of children against this serious disease. It is important that children, and more especially those under two years of age, be immunized against Whooping Cough. The Department provides the vaccine for this purpose free of charge on the request of physicians and local health authorities.

General Health Conditions.

There were 3,307 cases of Measles with 7 deaths, and 1,028 cases of Rubella with no deaths reported in 1952. More detailed information concerning Measles and Rubella will be found in the report of the Communicable Disease Division.

There were 11 cases of Diphtheria with no deaths reported in 1952, as compared with 2 cases and 1 death during the previous year. No Diphtheria carriers were reported in the investigation of the source of Diphtheria cases.

There have been no cases of Smallpox in the Province since 1943. As pointed out in previous reports, there are many areas in the province in which parents have not taken advantage of the opportunity to have their children vaccinated against Smallpox. Should the disease appear in such communities, it might spread with great rapidity, and if the outbreak should be of the malignant type, the results would be tragic.

In 1952, 3,767 cases of Scarlet Fever and 2 deaths from this cause were reported, as compared with 2,304 cases and 7 deaths in 1951. In many cases of this disease, the rash which follows a slight

sore throat is so transient that it is never seen by a physician. These are the types of cases that are largely responsible for the spread of infection.

There were 16 cases of Typhoid Fever and 9 cases of Paratyphoid Fever reported in 1952, as compared with 37 cases of Typhoid and 3 cases of Paratyphoid Fever reported in 1951. There were 2 deaths reported from Typhoid Fever in 1952. Constant vigilance in the supervision and control of local water, milk and food supplies is essential for the protection of the community.

Poliomyelitis.

In 1952 we had the largest epidemic recorded in the Province. Altogether 774 cases were reported with 81 deaths. In July the disease appeared in epidemic form, the peak being towards the end of August and falling off gradually after that. Benefits were extended under the Poliomyelitis Sufferer's Act to cover cases of paralysis during the 14-day isolation period. Also as the University Hospital, Edmonton, and the Jr. Red Cross Hospital, Calgary, did not have the capacity required to handle the cases, arrangements were made for treatment to be given at additional hospitals. Under the provisions made for free treatment of persons suffering from paralysis due to poliomyelitis, 189 patients were admitted to the University Hospital, Edmonton, 137 to the Red Cross Crippled Children's Hospital, Calgary, and 22 to the General Hospital, Edmonton.

Difficulty was encountered in supplying sufficient respirators at the height of the epidemic although all requests were met. Patients needing treatment in a respirator were usually taken to Edmonton, Calgary or Lethbridge. Respirators held by small hospitals were sometimes found to be unusable when required. A number of the more serviceable ones were brought into the cities to supplement those in use there. The maximum number in use at any one time was 12. A more detailed report of Poliomyelitis will be found in the report of the Communicable Disease Division.

Tuberculosis.

During 1952, 125 deaths were reported from tuberculosis (all forms) as compared with 146 deaths in 1951. Of these 125 deaths, 52 were deaths of Indians. The death rate for all forms of tuberculosis for 1952 (including Indians) is 12.9, excluding deaths of Indians the death rate is 7.5 (per 100,000 population) as compared with 8.3 for the previous year.

Rabies.

Rabies, though common in the United States has seldom been recorded in Canada. In July an epidemic in the wild life population, chiefly in foxes, was reported from Fort Fitzgerald. By October it was widespread in the northern half of the Province, in the next two or three months it occurred in animals in many other parts of the Province extending down to the Southern boundary. It was reported as occurring in almost every species of animal. A Central Rabies Control Committee was set up which held regular meetings. A bulletin of information was prepared for the public. In the northern part of the Province dogs were quarantined and their movements restricted. A wide belt was laid out for the destruction of wild animals.

For human protection, information on first aid was widely disseminated. Supplies of vaccine were obtained. In 1952 about 120 persons suspected of being infected were given Pasteur treatment. So far the policy of containing the disease and blocking its spread has appeared successful. It is also pleasing to report that no human cases have occurred. A more detailed report on Rabies will be found in the report of the Communicable Disease Division.

Entomology.

This Division deals with epidemiological problems associated with insect-borne diseases, more especially investigations in relation to Sylvatic Plague, Rocky Mountain Spotted Fever and Tularaemia.

In connection with Rocky Mountain Spotted Fever survey work, 1058 host and drag ticks were recovered in 58 collections. Of these, 321 were host ticks taken from small wild animals and 737 were taken by drag.

There were 682 persons vaccinated against Rocky Mountain Spotted Fever in 1952, 294 at Manyberries; 266 at Redcliff; 80 at Thelma-Elkwater; and 42 at Medicine Hat.

Further details are provided in the report of the Division of Entomology.

Diseases of the Heart and Circulatory System.

Diseases of the heart accounted for 2,247 deaths in 1952, as compared with 2,113 in 1951. These 2,247 deaths represent 30.6 per cent of the total deaths from all causes reported for the year, giving a death rate of 231.6 per 100,000 population, as compared with 224.8 in 1951.

Diseases of the arteries were reported as the cause of 136 deaths in 1952, as compared with 129 in 1951.

Cancer.

In 1952, 1,072 deaths were registered as due to Cancer, as compared with 1,065 during the previous year. The death rate from Cancer in 1952 was 110.5 (per 100,000 population) as compared with 113.4 in 1951. Cancer accounted for 14.6 per cent of the total deaths registered in the Province in 1952. Early recognition of cancer and prompt and effective treatment by competent physicians, would save many lives. "Early" is the word in Cancer.

The Diagnostic Clinics in Edmonton and Calgary were busy throughout the year, and the following is a brief summary of the work done by all Diagnostic Clinics in 1952:

NUMBER OF PATIENTS EXAMINED

	New	Follow-up	Total
Edmonton	2,435	2,945	5,380
Calgary	1,328	1,802	3,130
Lethbridge	447	334	781
Totals	4,210	5,081	9,291

It will be noted that the total number of new patients seen in 1952 is 4,210 as compared with 4,324 in 1951. Of these 4,210, 2,672 or 63 per cent were found to be non-malignant.

Statistical information concerning diagnosis and treatment will be found in the report of the Cancer Clinics.

Deaths Due to Violence.

Deaths reported as due to violence (excluding suicides and homicides) numbered 589 in 1952, as compared with 563 in 1951, representing 8.5 per cent of the total deaths registered in the province for the year and giving a death rate of 60.7 (per 100,000 population), as compared with 60.0 in 1951.

There were 84 suicides and 7 homicides in 1952, as compared with 86 and 5 respectively in 1951.

Highway accidents accounted for 262 deaths, of which 196 were due to motor vehicle accidents. It is apparent from these statistics that highway accidents constitute a major cause of death. When one takes into account the serious injuries suffered by many other persons involved in highway accidents and the great expense incurred in the provision of hospital and medical care, this problem is one of great importance from the standpoint of public health.

There were 49 deaths reported from drowning in 1952, as compared with 34 in 1951. The need for continued education in water safety is indicated.

As in previous years, several deaths have occurred as a result of the destruction of homes by fire, where, in a great many cases, parents were absent from the home and small children were left with no responsible person in charge. It is evident that there is still continued need for education.

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

Suicides	94	Accidents caused by machinery	39
Homicides	7	Accidents caused by fire and explosion	30
Motor vehicle accidents	196	Accidents caused by firearms	14
Other transport accidents	66	Accidental Drowning	49
Accidental poisoning	20	All other accidental causes	85
Accidental falls	90		
		Total	690

Infantile Mortality.

There were 879 deaths under one year of age registered in 1952, as compared with 889 such deaths in 1951, a decrease of 10 deaths. The infantile mortality for 1952 is 30 as compared with 33 for 1951.

Of the 879 deaths of children under one year of age in 1952, 537 or 61 per cent occurred within the first month of life, of which 542 occurred within the first week and 253 on the first day of life. In the continued expansion of our preventive health programme, and through the organization of additional full-time district health units now in progress, the solution of this problem will be found. In districts which have had the advantage of the service provided by full-time health units, for a number of years it has been found that the infantile death rate gradually falls to approximately the same level as in cities of the province with full-time public health services. An analysis of infant 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 1952 is 0.5 as compared with 0.6 in 1951. The following are the chief causes of maternal deaths registered in 1952:

Complications of Pregnancy	6
Abortion	6
Delivery without Complication	1
Delivery with Specified Complication	1
Complications of the Puerperium	1
Total	15

The progressive reduction in the maternal death rate in recent years is most gratifying. We can look forward with every confidence to further reductions in our maternal and infant death rates as we go forward with our preventive health program. Of the births registered in the province in 1952, 94.6 per cent occurred in approved hospitals.

Local Health Services.

Under the Public Health Act, public health is made the responsibility of local government agencies. However outside the two major cities, no local government authority in the province is large enough to maintain its own Public Health Nurse. Grouping the local government agencies into health units makes it possible for the group to receive the benefit of a well organized service, and the receipt by the Unit of a government grant, taking care of the major part of the cost, brings an efficient public health service within the reach of everyone in the province with the exception of a few living in the most sparsely settled areas.

In addition, the Health Unit acts as the serum centre storing and distributing the sera and vaccines supplied by the Provincial Health Department. They also make it possible for their residents to receive the full benefit of health services provided by the Provincial Government such as the mental health and tuberculosis services.

During 1952 additions were made to most of the eight units established in 1951, and a further six units were established. Listed below are the units so far established:

1951 or Previously	Formed in 1952
Drumheller	Athabasca
Red Deer	Medicine Hat
Sturgeon	Bow Valley
Minburn-Vermilion	Grande Prairie
Foothills	Vegreville
Mountain View	Stony Plain-Lac Ste. Anne
Alberta East Central	
Leduc-Strathcona	

The total population served by the units in 1952 was approximately 380,000.

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 100 publications issued by this Department and other organizations, are distributed by this Division.

The health film library was extended in 1952 by the addition of 15 new films, bringing the total films in the library up to 233. Six filmstrips were purchased during the year, bringing the total of these up to 75. Carefully selected health films are among the most valuable media we have in health education. It is estimated that the films loaned by the Health Education Division in 1952 were seen by approximately 80,000 people.

Health education occupies an important place in the modern public health program. There is an ever-increasing demand for health literature, films, radio talks and lectures, and almost invariably, the audience is a receptive one.

Detailed information concerning the various activities in the field of health education will be found in the report of the Division of Health Education.

Nutrition Services.

The work of the nutrition service has been carried on along much the same lines as in previous years. During the year, the bulletin "Institutional Supper Menus" continued to be prepared and distributed and contained, in addition to menus and recipes, information on food buying practices and food preparation.

During the year, three requests for assistance in obtaining the services of dietitians were received and information regarding suitable applicants was given.

Advice has been given on problems of budgets, everyday meal planning, marketing, serving, eating habits, food fads and low-cost meal planning. Additional consultation service was provided to local public health personnel through advisory articles in the publication "Nutrition News".

Organization and operation of school lunch programs and adequate lunches from home were discussed with teachers and parents. Food models, posters, films and other teaching materials were made available for teachers. A large number of inquiries from homemakers regarding food problems were answered weekly.

This is an important public health service in which there is evidenced a greatly increasing public interest.

More detailed information concerning nutrition services will be found in the report of the Public Health Nutritionist.

Public Health Nursing.

During 1952 the following nursing services came under the supervision of this division:

Municipal Nurses in Improvement Districts	27 nurses
Municipal Nurses in Municipal Districts	8 nurses
Well Baby Clinics	2 nurses
One-Nurse Health Units	6 nurses
Total	<hr/> 43 nurses <hr/>

Because of the turn-over a total of 57 nurses occupied these positions.

The Bow Island Municipal Nursing service was closed on March 31, 1952 and the area included in the Medicine Hat Health Unit.

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

Social Hygiene.

We take this opportunity to pay a last tribute to Dr. Harold Orr whose death in December of 1952 ended a long and inspiring chapter in the field of Venereal Disease Control in the Province of Alberta. Dr. Orr, internationally known as an authority on venereal disease, was instrumental in the organization of the Division of Social Hygiene in 1920 and through the years, under his directorship, venereal disease in this province has shown a steady decline.

Clinics have continued to operate in Edmonton, Calgary and Lethbridge, but it was found advisable during the last year to discontinue the Medicine Hat and McLennan Clinics owing to the decline in the number of cases in these districts. In their place the Mobile Clinic has done excellent work, and it is felt that this type of clinic will be more advantageous to the province as a whole.

Pre-marital blood testing continues to be a large and ever increasing part of the duties of this Division. By this means we are still discovering unsuspected cases of venereal disease.

Approximately 83 per cent of the alleged sources of venereal disease infection in Alberta were found, and where necessary, brought under treatment.

The total cases reported in Alberta in 1952, are as follows: Syphilis 145, Gonorrhoea 1,696, making a total of 1,841. Of these, 78 cases of Syphilis and 440 of Gonorrhoea were reported by physicians, and 1 case of Syphilis and 186 of Gonorrhoea were reported by the Armed Forces.

Information in more detail concerning the various activities of this Division is contained in the report of the Division.

Provincial Laboratory.

During 1952 the Provincial Laboratory of Public Health, Edmonton, and the Provincial Laboratory of Public Health (Southern Branch), Calgary carried out 252,780 examinations, which is an increase of 39,608 examinations or 18%. The estimated value of the work done by both Laboratories in 1952, on the basis of minimum charges only for the various examinations performed is \$309,609.50.

The work of the Provincial Laboratories of Public Health includes examinations of water, ice, sewage, milk, food, various examinations in connection with communicable disease control, bacteriological, serological and pathological examinations of specimens submitted by physicians, local health authorities and hospitals, various medico-legal examinations and many other examinations too numerous to detail.

The Provincial Laboratories serve as centres for the distribution of vaccines and sera which are provided by the Department without charge for the prevention and treatment of various communicable diseases.

All public health laboratory service is provided free of charge, with the exception of a few examinations which involve highly specialized procedures. Public health laboratory services is of vital importance in safeguarding the public health. We have been most fortunate since the inception of this service in 1907, in the high standard maintained by the staff.

Detailed information concerning the work of these divisions, will be found in the report of the Provincial Laboratories.

Sanitary Engineering.

During 1952 the construction of new waterworks and sewerage systems continued at a high rate as more towns and villages took advantage of Provincial Government financing. Eighteen municipalities completed the construction of new systems and twenty-two are planning the installation of these utilities during 1953. This rapid

expansion of sanitary facilities represents a significant rise in the standards of living throughout the Province. This expansion necessitates an increase in the amount of supervision required if proper maintenance and operation procedures and the necessary public health precautions are to be observed.

In August of 1952, Dr. D. R. Stanley, Director, left the Division as did Mr. J. A. Beveridge, A/Director. Mr. W. A. Dexter was appointed Director and Mr. H. L. Hogge, assistant.

The Stream Sanitation Section of this Division completed a pollution survey of the Bow River and its Tributaries, and a report was prepared and circulated to all concerned. Next year a stream pollution survey is planned for the South Saskatchewan drainage basin.

During the tourist season, tourist camps were inspected for sanitary conditions and classified in co-operation with the Department of Industries and Labour. Approximately 1,700 cabins in 193 tourist camps were licensed during the year and inspections were made and advice given to persons building or planning new tourist camps.

A total of 1,526 inspections were made by the Health Inspectors of the Department in 1952, and the necessary action taken or assistance extended to local health authorities to deal with unsanitary conditions found.

The marked increase in the number of plumbing installations referred to in previous reports has continued at an even more accelerated rate in 1952, and is shown in the following table:

New Construction, Total No. Fixtures	49,893
Reconstruction and Extensions	4,898
Permits granted	8,978
Charges made	\$46,650.75

During this year an Order-in-Council was passed making it mandatory for all urban municipalities with a population of 2,000 or more, or those having a water and/or sewerage system to appoint their own plumbing inspector. A two week course was given to familiarize the newly appointed plumbing inspectors with the regulations as well as with proper installation practices, etc.

The Town of Morinville and the Village of Grimshaw passed compulsory pasteurization by-laws during the year, increasing the total number of cities, towns and villages with such by-laws to 32 at the year's end. A new pasteurization plant was opened, while two discontinued operation, thus reducing the total number of plants supplying pasteurized milk to the public to 73 at the year's end. It cannot be too strongly emphasized to all municipal authorities the responsibility resting on them for the supervision and control of public milk supplies. Permitting the sale of unsafe milk, will sooner or later bring a serious outbreak of milk-borne disease.

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

Division of Hospital and Medical Services.

In 1952 there were 99 approved hospitals in the province, as compared with 101 in 1951. This decrease is due to the closing of the General Hospital at Cadomin and the union of the Lethbridge

Isolation Hospital with the Galt Hospital. There were 12 private hospitals licensed to operate under the Private Hospitals Act.

On the basis of bed capacity (including bassinets), the total number of hospital beds in 1952 is 6,774, and the complement 7,324. This represents 6.9 beds per 1,000 including bassinets, and 5.9 beds per 1,000, excluding bassinets.

The total patient days in 1952 are as follows:

Adults and children	1,614,151
Newborn	231,292
Total	1,845,443

94.6 per cent of the births registered in Alberta in 1952 occurred in approved hospitals.

Construction of the following new hospital was started in 1952, Coaldale Community, Bed Capacity—13.

Construction of additions to the following hospitals was undertaken in 1952:

Name of Hospital	Additional Beds (Excluding Bassinets)
Brooks Municipal	33
Salvation Army Grace, Calgary	15
Drumheller Municipal	62
Elk Point Municipal	25
Hanna Municipal	8
Ponoka Municipal	22
Provost Municipal	13
Rocky Mt. House Municipal	13
Viking Municipal	21

There were 51 municipal hospitals in operation in 1952, with a bed capacity of 1,490 beds and 388 bassinets.

The daily average number of patients in all approved hospitals in 1952 was 5,042. The average stay in hospital 8.9 days. The average stay of newborn 8.5 days.

The shortage of nurses to which reference has been made in reports of previous years was still evident in 1952, particularly in the smaller hospitals.

Three hundred and eighty-three nurses graduated from the 10 Schools of Nursing in Alberta in 1952.

One hundred and eighty-eight nursing aides were trained at the School for Nursing Aides. Since this School was opened in January 1946, 960 nursing aides have been trained. The nursing aides carry on their work under the supervision of graduate nurses and have given excellent service in the various hospitals in which they have been placed.

The cost of hospital construction and equipment is still rising as is the cost of practically all supplies used by hospitals. Thus we have the ever-increasing cost of hospitalization making hospital administration more difficult, and many problems for the public who require hospital service. The average cost per patient per day for all hospitals is \$10.20 in 1952, as compared with \$9.27 in 1951. It is significant that 52.6 per cent of the average cost per patient per day is due to salaries and wages and 31.1 per cent to supplies.

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

Cerebral Palsy Clinics.

The Cerebral Palsy Clinic established in 1950 in temporary quarters moved in 1952 to the new Clinic building provided by the Government at 115th Street and 74th Avenue. A similar clinic is now operating in Calgary.

On the staff is a physiotherapist, who gives training and treatment to release the tension in spastic muscles and also correcting any deformity; a Speech Therapist, to help them talk; an Occupational Therapist, who assists in muscle re-education and teaching handicrafts; and a teacher, who attempts to keep the child up on the ordinary school work, never forgetting that the primary function of the clinic is to re-educate the disabled muscles.

The parents are also remembered and special classes are operated periodically so that they may learn to carry on with certain of the procedures when the child goes home. Ordinarily a child attends the clinic for three months and then is home for three months until the best results have been obtained.

Many of these children are so disabled that they require special splints. Each splint is made specifically to fit a particular child in a special brace shop maintained at the Clinic.

The problems of recreation, transportation and boarding accommodation is handled by voluntary societies, mainly the Kiwanis Club, Associated Commercial Travellers and by the Calgary Active Club.

A total of 361 patients have been examined since the service started although not all of them were suitable for treatment.

More detailed information concerning the work of the Cerebral Palsy Clinic will be found in their report.

Canadian Red Cross Blood Transfusion Service.

The number of whole blood transfusions administered during 1952 as matched and 'bank' blood amount to 27,767½ five hundred c.c bottles, while the total number of patients receiving these transfusions amounted to 16,869. The total number of patients who received whole blood in 1951 was 15,630, so that there was an 8% increase in the number of hospital recipients. In 1952, 45,150 blood donations were received, an increase of 12½% on the previous year. Nine hundred and fifty-two patients received 1,768 bottles of plasma. From the Central Depot in Edmonton and the Sub Depot in Calgary, this service has been made available free of charge throughout the Province.

With the new building provided by the Province in Calgary and the new one in the course of construction in Edmonton, we look forward to a better donor response in 1953.

In the mobile clinics 15,413 bottles were collected.

Division of Tuberculosis Control.

The total number of patients admitted to all tuberculosis institutions in 1952 was 629, and the total number of patients treated during the year was 1,082. The total institutional patient days was 194,732 including 3,496 patient days paid for in other provinces under the reciprocal agreements in effect.

During the year, diagnostic examinations totalled 151,674, of which 151,674 were accounted for by the mobile x-ray unit.

Seven hundred and thirty-five new cases of active and inactive pulmonary tuberculosis (excluding Indians) were found in 1952. Of these, 355 or 48 per cent were considered minimal, 160 or 21 per cent moderately advanced, 58 or 8 per cent far advanced, 81 or 11 per cent primary, and 22 or 3 per cent tuberculous pleurisy with effusion.

During 1952 a further reduction in the death rate among Alberta residents has occurred and when official data is available it is expected that the figure will be considerably below the 1951 rate of 15.5 per 100,000. Although the death rate is continuing to fall, more cases of disease were admitted to sanatorium than in 1951. The health education programmes of the Departments of Health and Education and the Alberta Tuberculosis Association are playing an important part in bringing correct information on the subject to thousands of people.

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

Division of Mental Health.

On January 1st, 1952, there were 3,645 patients in all mental institutions, and December 31st, 3,791, an increase of 146 patients.

There were 694 patients admitted to the Provincial Mental Hospital, Ponoka, in 1952 (349 male and 345 female). Four hundred and fifty-eight patients were discharged during the year (228 male and 230 female). During the year, 75 deaths occurred (56 male and 19 female). There were 1,543 patients in hospital on December 31st, (910 male and 633 female).

Provincial Mental Hospital, Ponoka.

The teaching program for nurses was essentially unchanged. There were three qualified Instructors, and they received assistance from the Professional Personnel of the Hospital. Instruction was given to 21 students in the four year course in General and Psychiatric Nursing and to 32 Male Attendants in the three year Psychiatric Course. In addition, 32 affiliating student nurses from The Archer Memorial, Galt, and Medicine Hat General Hospitals received instruction. Twelve nurses completed the four year course in General and Psychiatric Nursing and 2 men graduated in Psychiatric Nursing. Twelve registered nurses received their diplomas in Psychiatric Nursing and 3 others were enrolled in the fall class. Ward Aides were given a short indoctrination course, suitable to the needs of the patients. Public Health Nursing students from the University of Alberta also spent short periods at the Hospital receiving instruction.

The new male dormitory providing accommodation for 96 patients was opened on November 15th, 1952. The construction of a second and similar building was commenced.

Provincial Mental Institute, Oliver.

The Tuberculosis Dormitory was completed and opened on the 1st of July. Transfer of patients from the Provincial Mental Hospital, Ponoka, and the Provincial Training School, Red Deer, was completed by the end of August. Construction of a new

administration building was commenced, and it is well on the way to being completed.

Provincial Auxiliary Mental Hospitals at Raymond and Claresholm.

There were no noteworthy changes during the year insofar as the administration of the Auxiliary Mental Hospitals at Claresholm and Raymond were concerned.

Provincial Training School for Mental Defectives, Red Deer.

The work of the Provincial Training School for Mental Defectives was carried on along much the same lines as in previous years. Two new wards are nearing completion and should be ready for occupancy early in 1953 and a third ward is well advanced in construction and may possibly be ready by the end of 1953. A new greenhouse was completed this year.

Rosehaven, Camrose.

On January 1st, 1952, the resident population numbered 206, (111 men and 95 women) and the total number in residence on December 31st, 1952 was 249 (148 men and 101 women). Admissions numbered 105, discharges 62. Admissions were sent from mental hospitals when beds were available, the number increasing this year due to the opening of a 34-bed unit.

Guidance Clinics.

The services of the Provincial Guidance Clinics were continued throughout the year. Clinics were held at some 50 to 60 key points in the Province.

During the year, 1,289 new cases were presented at the various Guidance Clinics. Since the inception of this service in 1929, 13,110 patients have passed through the Guidance Clinics.

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 during the year. A total of 58 cases was presented for the Board's consideration. Twenty-four operations (male 6—female 18) were performed during the year. The total number of cases operated upon to December 31st, 1952, was 1,323 (518 males and 805 females). As in previous years, all operations were performed at the Provincial Mental Hospital, Ponoka.

The Department again wishes to express to the members of the Eugenics Board, the honourary surgeons and the staff of our various Mental Institutions and Guidance Clinics, sincere appreciation of the fine services rendered by each and all in the discharge of their responsibilities.

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

Board of Visitors.

The Board of Visitors is constituted as follows: Dr. J. M. MacEachern, Chairman; Dr. R. Kenneth Thomson, Dr. E. R. Selby and Mrs. R. B. Gunn.

During the months of September, October and November 1952, the Board visited the various institutions coming under the administration of the Department, as well as the Provincial Guidance Clinics, and a detailed report on all these institutions and the Guidance Clinics has been submitted by the Board.

The Department desires to express to the Board its sincere appreciation of the excellent service it has rendered.

Respectfully submitted,

A. SOMERVILLE, B.A., M.D., D.P.H.,
Deputy Minister of Health.

Communicable Diseases

(N. BASTER, M.D., B.C.L., D.P.M., *Director*)

The work of the Division falls under two headings:

1. Communicable Disease Control.
2. Supervision of Health Units.

1. COMMUNICABLE DISEASES

This Division during the year continued to supervise generally the control of Communicable Diseases throughout the Province. Direct control is by the Local Health Authorities in organized areas, and these Authorities were advised where necessary in the action to be taken. In unorganized areas the Division acted directly. A consultation service was also provided to physicians in cases of infectious diseases.

The Division acts as the recording centre for Communicable Diseases, and every Local Health Authority sends in weekly returns of the Communicable Diseases in its area. The Division prepares a weekly statement of Communicable Diseases in the Province. Copies of this are circulated to all Local Health Authorities, neighboring Provinces, and States. These agencies outside the Province reciprocate, and the information received is of great value. From these statistics, it is possible to forecast trends in the incidences of the various diseases, and this assists in dealing with them, and the statistics also are of assistance in assessing the value of the various measures taken to check them.

Distribution of Biological Products.

The Communicable Disease Division is in charge of the distribution of vaccines, and other materials used for immunization.

Immunization is being carried out through local health departments as a routine against Diphtheria, Whooping Cough, Small Pox, and Tetanus. It is carried out to protect special groups at risk against Typhoid, and Paratyphoid, Rocky Mountain Spotted Fever, Rabies, and Measles. In addition, during the year, a large scale trial was given to the use of gamma globulin for the prevention of the paralysis following poliomyelitis. There are good reports as to the preparation of a vaccine having a much more general application, and giving fairly prolonged immunity. The extent of this programme showed a considerable increase during the year, and the cost was about \$70,000.00. The material is supplied by the Department at no cost to the recipients. It is distributed by the Provincial Laboratories, and through about thirty local centres throughout the Province, so that it is readily available.

Poliomyelitis Sufferers.

Under the Poliomyelitis Sufferers Act, free Hospital, medical and surgical care is afforded patients suffering from Poliomyelitis. On the termination of the acute infectious stage, patients may be admitted to either the University Hospital, Edmonton; or the Red Cross

Crippled Children's Hospital, in Calgary, on the approval of applications made by the attending physicians to the Department. During 1952, the largest epidemic of this disease ever suffered by the Province occurred and threw a heavy strain on the provincial facilities.

Regulations.

A complete revision of the Regulations for the Control of Communicable Diseases was completed during the year.

The new Regulations were formulated with a view to improving reporting, and the list of notifiable diseases was greatly reduced. Efforts are being made to simplify the Regulations by the various Provinces, and this matter was discussed at some length with Dr. Lossing of the Division of Epidemiology of the Federal Health Department. Our Regulations pertaining to specific diseases were made to conform as far as is practical with those approved by the World Health Organization. The Regulations dealing with general measures of control and the public health organization must, as far as we can see, remain peculiar to each province until the system of local health organization becomes uniform for the whole country.

As was expected, consequent on the establishment of more local health authorities in the form of Health Units notifications of cases of infectious disease showed an increase due purely to improved notification, and therefore the figures obtained are difficult to interpret. As indicated in the last report it will be several years before this situation will be clarified. However, the introduction of new Regulations designed to improve notification at the same time that the new health unit programme is nearing completion should provide more worthwhile figures in the coming years.

Two epidemics of special significance occurred during 1952, one affecting the human population, and one the animal. There was the highest number of cases of poliomyelitis ever recorded in the Province, and a most severe outbreak of rabies occurred in the animal population.

Rabies.

Rabies, although common in the United States has seldom been recorded in Canada. Cases were reported from the North periodically from 1946 onwards.

In July 1952 an epidemic of rabies in the wild life population, chiefly in foxes, was reported from Fort Fitzgerald. During the next six months, the disease spread rapidly southwards. By October it was widely scattered throughout the northern half of the Province, in the next two or three months it occurred in animals in other parts of the Province extending down to the Southern boundary. It was reported as occurring in almost every species of animal found in the Province, but basically it was a disease of the wild fox population. The years 1952 and 1953 were peak years in the wild fox population cycle, and this combined with the absence of any market for fox pelts which has led to absence of trapping produced a record for population in the Province. This undoubtedly formed the basis of the epizootic, and the disease spread widely in foxes, who in turn infected many other animals. In the sparsely settled north it was impossible to check the spread of the disease, and much economic loss ensued as cattle and swine in the scattered

farms were infected. The disease hit very hard in the Fort Vermilion district.

In order to control the disease, the following steps were taken:

1. A committee was set up, the Central Rabies Control Committee. On it were represented the Veterinary Services, both Federal and Provincial, the Public Health Service, the Lands and Forests Department of the Provincial Government, the R.C.M.P., and practising Veterinarians. This committee met frequently, and regularly, and the office of its Chairman, Dr. E. E. Ballantyne of the Department of Agriculture served as the clearing house for information.
2. A bulletin of information was prepared, and distributed to all interested, particularly to veterinarians, police, doctors, local health authorities, etc. The public at large were advised as to what to do when suspecting the disease in wild animals, and as to first aid after exposure to infection. They were told to report to either the police, the local veterinary authority, the local health authority, the local forest ranger's post, or their local doctor. These groups were well informed as to the action they should take.
3. The Province became a quarantined area for dogs, and penning and tethering was required, with an extensive vaccination programme. Their movement in and out of the area was restricted.
4. In a belt five to ten miles wide drawn to separate the north from the southern (settled) part of the Province, extensive destruction of wild animals was carried out by a sizable group of trappers hired by the Department of Lands and Forests. In addition intensive destruction of wild animals was carried out in areas surrounding the small settlements such as Fort Vermilion and Wabasca in the North. The idea of this was to limit the number of animals moving out of the north into the more settled areas, and in the case of the northern settlements to reduce the density of animals in those areas. The programme was under the supervision of Mr. E. S. Huestes of the Lands and Forests Department, and it was most energetically carried out, and to its success must be attributed the small incidence of the disease in the wild and domestic animals in the settled areas of the Province.
5. Co-operation between the Provincial and Federal Authorities gave a veterinary service covering the whole Province, and providing for the collection, transportation, and examination of specimens, the supervision of animals and a diagnostic service. In all parts of this Province, the services of veterinarians were available to investigate any reported rabies, and at each point where a veterinarian was located, a supply of containers for specimens was kept; these were sent to the Dominion Experimental Station at Lethbridge where they were examined by direct smear and mouse inoculation. In view of the very large number of specimens collected, a priority was given specimens where humans were involved, second to specimens from new species and from areas in which

the disease had not been previously reported, and the balance were examined as time permitted.

6. For human protection, information on first aid was widely disseminated. Doctors and health authorities were advised as to the indications for vaccine treatment. A supply of vaccine was obtained and was kept at the Provincial Laboratory in Edmonton except for a small depot at the Peace River Hospital. It is issued by the Laboratory upon receipt of instruction from the Department of Public Health.

The reasons for controlling the issue of vaccine are:

1. As the period of warranty is short, and the demand small, to disseminate the vaccine to many points would result in almost all of it having become out dated before it was required.
2. The requests made to this office included an account of the circumstances, and guidance was given on the advisability of using the vaccine. In addition, this Division informed the Veterinary Branch of the circumstances ensuring that the animal aspect was completely investigated, and whatever action necessary taken.

During 1952 about 120 persons suspected of being infected were given vaccine treatment. This treatment was cautiously advised, and the greatest reliance was placed on adequate first aid consisting of extensive irrigation and washing.

So far the policy of containing the disease and blocking its spread to the settled areas has appeared very successful, and there does not seem to have been any extensive invasion of the settled areas. It is also pleasing to report that no human cases have occurred.

Poliomyelitis.

This year saw the largest epidemic recorded in the Province. Altogether 774 cases were recorded with 81 deaths. No cases were recorded in January, February, and March, and only one in April, and one in May. In June, 9 cases were reported. In July the disease appeared in epidemic form with 107 cases recorded that month. In August 247 cases were recorded, falling to 183 in September, and 155 in October. 38 were reported in November, and 33 in December. The incidence showed much the same course as in previous years, the peak being towards the end of August, and the incidence rising more rapidly to the peak than the fall after the peak. August and September were again the two worst months. This has been the same for many years.

In view of the high incidence in July, a meeting of the Provincial Board of Health was called which the Medical Officers of Health of the cities attended. As a result of this, advertisements were inserted in all the Provincial newspapers giving information and advice to all the citizens at large. In addition, it was proposed to extend the benefits provided under the Poliomyelitis Sufferer's Act to cover cases of paralysis before the fourteenth day of illness. Arrangements were made for treatment to be given at additional hospitals as it became evident that the University Hospital, in Edmonton, and the Red Cross Crippled Children's Hospital in Calgary would not have the capacity required to handle the anticipated cases.

The epidemic appeared first and remained most severe in two areas—the Lethbridge-Calgary areas, and the Vermilion area. This

would suggest the importation of the disease into the Province from outside, and might explain the appearance of the epidemic before it was anticipated; from previous experience the epidemic year was expected to be 1953.

During September, the disease appeared to spread out from the areas of high epidemicity to nearby areas, and then to further areas. For the rest of the year it appeared in little above average numbers in various parts of the Province.

The epidemic in Vermilion was interesting as it appeared to be part of an epidemic centered in Saskatoon, its peak appearing several weeks after the peak was reached in Saskatoon. At first the epidemic was limited to the town, but later it appeared in scattered points around as far west as Vegreville. The Town Council opened an emergency hospital in the School of Agriculture. The Department of Agriculture were of great assistance in making accommodation available. The Nursing staff was obtained from Edmonton, but difficulty was encountered. Most of the time the temporary hospital was staffed by members of the Health Unit staff. It was very fortunate that Dr. E. R. Smith, Director of the Health Unit was experienced in the treatment of Poliomyelitis. It is interesting to report that in this outbreak, contacts to the number of 120 were given Gamma Globulin, and of them only one developed paralysis, and he had the treatment at a late stage of the incubation period.

After September the incidence fell steadily, but cases were being reported right up to the end of the year. For the purpose of indicating the poliomyelitis cycles, it would seem that a year June 1st to May 30th would give a better picture than a calendar year.

A research in to the epidemic by Dr. R. C. Ritchie showed that the incidence of the disease was twice as great in pregnant women as the rest of that age and sex group at risk, and that it struck most severely at women in the third trimester. Approximately one-third of the cases were over the age of eighteen.

Although difficulty was encountered in supplying sufficient respirators at the height of the disease, all requests for machines were met. It became increasingly clear that patients needing treatment in a respirator should be taken care of in special centres. It proved difficult at times to get patients suffering from poliomyelitis admitted to local hospitals, the main difficulty being the lack of nursing staff, and it would seem that serious thought should be given to encourage the provision of adequate isolation hospital facilities.

Respirators held by small hospitals were found to be unuseable when required in many instances. A number of the more serviceable ones were brought into the cities to supplement those in use there. The maximum number in use at any one time was twelve. A plan was recommended and is being adopted for the purchase of new respirators for the main hospitals. In addition, the reconditioning of ten Nuffield type machines was undertaken which were obtained from the smaller hospitals and held in a pool in Edmonton for supplementing the newer ones in emergency.

Diphtheria.

There was an upswing in the number of cases of diphtheria notified, however, the number was small and did not in any way indicate a return to the higher incidence of former years. The

organism causing diphtheria is widespread in its distribution, and for a number of years we can expect to record each year a small number of cases.

Typhoid.

Typhoid remains a constant hazard. There was no outbreak during the year, and the cases were sporadic, being reported from various parts of the Province, indicating a spread from unknown local carriers. However, the disease has been present for many years, and the carrier state can persist for so long that sporadic cases and even localized epidemic can be expected for some years to come. Most of the cases reported were very mild. It has been surprising that in the past few years typhoid, even without specific treatment, has appeared as a very mild illness. This is making the diagnosis more difficult, and quite a proportion of cases reported have been diagnosed by chance.

Whooping Cough.

The number of cases reported was up again this year. This is a disease where increased notification due to more adequate health services is going to be difficult to dissociate from an increased incidence, for some years. The extent of notification is going to be affected considerably by extended school health service, plus increased home visiting by nurses.

2. SUPERVISION OF HEALTH UNITS

Some years ago the supervision of health units was given to this Division, and has remained with it ever since. These Units consist of Local Government Authorities subscribing to a common Public Health Department. Under the Public Health Act, public health is made the responsibility of Local Government Agencies. Unfortunately outside the two major cities, no Local Government Authority in the Province is large enough to maintain its own Public Health Nurse. Grouping the Local Government agencies into health units makes it possible for the group to receive the benefit of a well organized service, and the receipt by the unit of a Government grant, taking care of the major part of the cost, brings an efficient Public Health service within the reach of everyone in the Province with the exception of those living in the most sparsely settled areas. It makes it possible for the residents of the areas served to receive a service the equal of the service they would enjoy in the major cities.

The services provided by the health units included the following:

1. The control of Communicable Diseases,
2. Tuberculosis control,
3. Sanitation,
4. Pre and post natal care,
5. School health,
6. Mental health,
7. Nutrition advice,
8. Health education.

In addition, the Health Unit acts as the serum centre storing and distributing the sera and vaccines supplied by the Provincial Health Department. They also make it possible for their residents to receive the full benefit of health services provided by the Provincial Government such as the Mental Health, and Tuberculosis service.

Each unit was in charge of a Public Health trained physician who in addition to serving as Director of the Unit acts as Medical Officer of Health for each of its contributing Authorities.

During the year additions were made to most of the eight units established in 1951, and a further six units were established. The units so far established are as follows:

Drumheller	*Bow Valley
Red Deer	*Grande Prairie
Sturgeon	Mountain View
*Athabasca	Alberta East Central
Minburn-Vermilion	Leduc-Strathcona
*Medicine Hat	*Vegreville
Foothills	*Stony Plain-Lac Ste. Anne

*Indicates formed in 1952.

The staff position was good, and by the end of the year apart from a few recently created positions, there were very few staff vacancies. Collectively the units employed the following staff:

Doctors	13
Public Health Nurses	58
Sanitary Inspectors	17
Stenographer-Technicians	20
Secretary-Treasurers	14
(Part Time)	

The total population served by the units in 1952 was approximately 380,000.

TABLE 1
NUMBER OF CASES OF COMMUNICABLE DISEASES REPORTED, 1951 AND 1952

	1951	1952		1951	1952
Acute Anterior Poliomyelitis	84	774	Paratyphoid Fever	3	7
Chicken Pox	4,621	4,470	Rocky Mountain Spotted Fever	1	....
Diphtheria	2	11	Rubella	1,466	1,017
Dysentery	2	9	Scarlet Fever and Septic Sore	2,328	3,829
Encephalitis	2	4	Throat	....	....
Erysipelas	19	11	Smallpox	....	....
Food Poisoning	1	4	Tetanus	....	1
Glandular Fever	....	1	Tuberculosis—Pulmonary	561	769
Infectious Hepatitis	45	38	Tuberculosis—Non-pulmonary	79	50
Infectious Mononucleosis	1	....	Tularemia	....	3
Jaundice	....	20	Typhoid Fever	37	16
Malaria	....	5	Trichinosis	....	6
Measles	8,204	3,515	Undulant Fever	6	2
Meningitis	11	9	Whooping Cough	827	1,105
Mumps	4,435	3,306	Weil's Disease	2	....

TABLE 2
DEATHS ASCRIBED TO COMMUNICABLE DISEASES IN THE PROVINCE OF ALBERTA FOR THE YEARS 1951-1952

Name of Disease	1951		1952	
	Total Deaths	Rate Per 100,000 Population	Total Deaths	Rate Per 100,000 Population
(Total)				
Acute Anterior Poliomyelitis and Polio-encephalitis	2	.2	81	8.1
Diarrhoea and Enteritis	60	6.2	77	7.8
Diphtheria	1	.1	1	.1
Influenza	114	11.8	47	4.8
Measles	12	1.3	7	.7
Meningococcal Meningitis	3	.3	2	.2
Pneumonia	0	0	298	30.7
Scarlet Fever	6	.6	2	.2
Small Pox	0	0	0	0
Tuberculosis Respiratory	119	12.7	91	9.4
Tuberculosis, Other	27	2.9	34	3.5
Typhoid	0	0	2	.2
Whooping Cough	7	.7	8	.8
Population—970,000				

ERYSIPELAS

[illegible]

FOOD POISONING

[illegible]

GLANDULAR FEVER

[illegible]

INFECTIOUS HEPATITIS

[illegible]

MALARIA

[illegible]

TABLE 3—Continued

MEASLES

1952	SEX		MONTHS												AGES					TOTAL
	Male	Female	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	0-1	1-4	5-14	15-19	20-over	
Calgary	225	164	210	56	37	24	24	16	8	3	3	8	2	1	14	148	219	3	5	389
Edmonton	226	258	52	64	86	63	49	35	31	27	2	21	20	32	45	211	190	9	16	484
Lethbridge	72	56	42	26	24	33	24	33	51	22	1	11	94	121	51	58	62	1	3	128
Rural	837	929	454	426	288	126	72	92	51	22	9	11	8	121	51	315	1,303	39	25	1,766
Urban	375	372	143	142	145	126	69	28	38	15	4	1	8	28	24	254	411	25	16	747
Medicine Hat	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
TOTAL	1,736	1,779	859	731	582	363	247	171	128	67	18	43	124	182	138	987	2,185	77	65	3,515

MENINGITIS

1952	SEX		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	0-1	1-4	5-14	15-19	20-over	TOTAL
	Male	Female																		
Calgary	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
Edmonton	4	1	1	1	1	1	1	1	3	2	2	2	2	2	1	1	1	1	3	5
Rural	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2
Urban	6	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	9
TOTAL																				

MUMPS

1952	SEX		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	0-1	1-4	5-14	15-19	20-over	TOTAL
	Male	Female																		
Calgary	34	26	4	12	4	5	8	2	1	1	1	5	18	35	2	22	29	2	5	60
Edmonton	229	211	24	23	38	24	14	22	25	19	57	64	95	7	2	102	265	21	44	440
Lethbridge	12	12	4	2	2	1	1	1	1	3	1	2	2	1	1	4	15	3	2	24
Medicine Hat	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Rural	245	240	68	44	52	65	25	14	15	24	14	41	78	45	3	60	237	49	78	485
Urban	175	120	31	87	44	34	26	20	36	36	1	1	8	8	1	38	198	23	35	295
TOTAL	697	609	131	170	140	129	74	59	77	46	73	113	199	95	8	226	745	98	165	1,306

TABLE 3—Continued
SEPTIC SORE THROAT

1952	SEX		MONTHS												AGES					TOTAL
	Male	Female	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	0-1	1-4	5-14	15-19	20-over	
Edmonton	13	8	4	13	1				1				2			1	7	4	9	21
Urban	4		3		1											1	3			4
Rural	24	13	9	6	7	10					2			3	1	8	20		5	37
TOTAL	41	21	16	19	9	10			1		2		2	3	1	10	30	4	14	62
TETANUS																				
Urban		1										1							1	1
TRICHINOSIS																				
Rural	4	2						1					5						1	6
TUBERCULOSIS (Pulmonary)																				
Calgary	51	60	2	4	9	11	6	2	17	17	5	17	15	6		9	6	2	83	111
Edmonton	146	123		9	41	40	34	22	36	30	18	11	17	11		11	9	21	195	269
Lethbridge	9	3			2	2	2	1	2	2	1			2		2	2		8	12
Medicine Hat	5	3		1	1		1	2	2	2				1				1	7	8
Rural	187	182	43	21	47	25	27	19	45	19	11	30	27	55	1	19	54	20	237	369
TOTAL	398	371	45	35	100	78	70	46	102	66	35	58	59	75	1	41	71	44	530	769
TUBERCULOSIS (Non-Pulmonary)																				
Calgary	4	3			1	3		1		1			1				1		6	7
Edmonton	2	1			2								1						3	3
Medicine Hat	16	1			1	8	4	1	8	1	1	4	3	4		4	6	2	1	1
Rural	23	23		1	4														20	39
TOTAL	22	28		1	8	11	4	2	8	2	1	4	5	4		4	7	2	30	50

TULAREMIA

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TYPHOID

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Calgary	2	4	2	1	1	1	1	1	1	1	1	2	1	1	1	1
Rural	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Urban	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
TOTAL	11	5	2	1	2	2	2	2	2	2	2	3	2	2	2	2

UNDULANT FEVER

Rural
Urban
TOTAL

WHOOPING COUGH

[illegible]

DEPARTMENT OF PUBLIC HEALTH

TABLE 4

INCIDENCE OF SOME OF THE MORE SERIOUS COMMUNICABLE DISEASES FOR
THE TEN YEAR PERIOD, 1942-1952

DIPHTHERIA				
Date	Population	Total Cases	Total Deaths	Mortality Rate
1942	805,152	58	11	1.4
1943	792,000	46	11	1.4
1944	818,000	57	5	0.6
1945	826,000	53	9	1.1
1946	803,330	48	7	0.9
1947	822,000	86	7	0.9
1948	846,000	52	6	.7
1949	871,000	59	12	1.4
1950	895,000	13	1	.1
1951	939,501	2	1	.1
1952	970,000	11	1	.1
TYPHOID FEVER				
1942	805,152	18	1	.10
1943	792,000	11	1	0.1
1944	818,000	101	8	1.0
1945	826,000	20	2	0.2
1946	803,330	9	0	0
1947	822,000	17	1	0.12
1948	846,000	13	0	0
1949	871,000	13	1	.11
1950	895,000	13	1	.1
1951	939,501	37	0	0
1952	970,000	16	2	.2
ACUTE ANTERIOR POLIOMYELITIS				
1942	805,152	8	0	0
1943	792,000	24	0	0
1944	818,000	107	1	0.1
1945	826,000	19	0	0
1946	803,330	78	8	1.0
1947	822,000	84	7	0.9
1948	846,000	380	28	3.3
1949	871,000	127	9	1.0
1950	895,000	143	7	.7
1951	939,501	84	2	.2
1952	970,000	774	81	8.1
WHOOPIING COUGH				
1942	805,152	1,131	12	1.5
1943	792,000	1,520	12	1.5
1944	818,000	757	42	5.7
1945	826,000	694	43	5.2
1946	803,330	308	19	2.3
1947	822,000	972	9	1.1
1948	846,000	1,178	11	1.3
1949	871,000	98	5	.57
1950	895,000	120	3	.3
1951	939,501	827	7	.7
1952	970,000	1,105	8	.8
SCARLET FEVER				
1942	805,152	2,265	11	1.4
1943	792,000	1,675	7	0.9
1944	818,000	2,615	9	1.1
1945	826,000	1,358	1	0.1
1946	803,330	482	1	0.1
1947	822,000	225	0	0
1948	846,000	248	0	0
1949	871,000	865	0	0
1950	895,000	2,309	0	0
1951	939,501	2,304	6	.6
1952	970,000	*3,829	2	.2
SMALL POX				
1942	805,152	1	0	0
1943	792,000	2	0	0
1944	818,000	0	0	0
1945	826,000	0	0	0
1946	803,330	0	0	0
1947	822,000	0	0	0
1948	846,000	0	0	0
1949	871,000	0	0	0
1950	895,000	0	0	0
1951	939,501	0	0	0
1952	970,000	0	0	0

*Represents combined total of Scarlet Fever and Septic Sore throat.

Division of Entomology

J. H. BROWN, B.Sc., M.Sc., F.A.P.H.A.

INTRODUCTION

The Division of Entomology deals with problems associated with insect-borne diseases, with particular attention being paid to Rocky Mountain Spotted Fever, Sylvatic Plague and Tularaemia. Other insect problems, such as fly and mosquito control and insect pests of institutions, fall within the scope of the work of the Division. Furthermore, a considerable amount of time is devoted to collecting and identifying arthropods that are incriminated in the transmission of human diseases.

Rocky Mountain Spotted Fever Survey.

During the course of the spotted fever survey a total of 1,058 host and drag ticks were recovered in 58 collections. Of these 321 were host ticks taken from 374 small wild animals, and 737 were taken by drag. Three spotted fever positives were recorded during 1952 as follows:

Fl-2-52 (8 drag ticks) west of Calgary, Alberta, May 8, 1952.

Fl-3-52 (10 drag ticks) west of Calgary, Alberta, May 8, 1952.

Fl-4-52 (1 drag tick) west of Calgary, Alberta, May 9, 1952.

The finding of infected ticks west of Calgary culminated a search that started in 1942 when two cases of Rocky Mountain spotted fever diagnosed on clinical basis by two prominent Calgary physicians were reported. Both of the cases had been in the Cochrane-Banff area during the exposure period and both reported tick bites.

The field verification of clinical diagnosis encourages the practising physician to consider the possibility of such diseases as spotted fever when confronted with unusual symptoms.

A total of 682 protective inoculations against Rocky Mountain spotted fever were made in the known infected areas. Of these 294 were made at Manyberries, 266 at Redcliff, 80 at Thelma-Elkwater, and 42 at Medicine Hat. The treatment were about equal as far as sex is concerned, with 300 females and 382 males being protected.

A suspected case of Rocky Mountain spotted fever, determined on clinical basis, occurred at Lethbridge in July. The patient was a female, age five, who made a good recovery. Investigation demonstrated that this child, along with her parents had been on a picnic in the river bottom at the junction of the St. Mary and Old Man Rivers a few days previous to the onset of the illness. Although no tick was actually removed from her person there is ample justification in assuming that this was a case of Rocky Mountain spotted fever because infected ticks were recovered from this area on May 1, 1939.

Sylvatic Plague Survey.

During the course of the Sylvatic Plague Survey 199 collections were made consisting of 1,418 animals, of which 614 were shot and

804 trapped. A total of 2,103 fleas and 231 tissue specimens, mostly from *Citellus richardsonii*, the prairie gopher, were recovered and submitted to the laboratory, for bacteriological examination. Three positives were recorded in 1952 as follows:

Pl-72-52-R.G.S.—20 fleas—15 animals—S½ 17-14-W4th Brooks.
Fleas and tissue positive for *Pasteurella pestis*.

Pl-73-52-R.G.S.—37 fleas—19 animals—S.E.¼ 16-19-W4th Lomond.
Fleas positive for *P. pestis*.

Pl-74A-52-R.G.S.—24 fleas—13 animals—N½ 16-20-W4th Lomond.
Fleas positive for *P. pestis*.

Lagurus pallidus in Relation to Plague.

During 1951 and 1952 specimens of *L. pallidus*, a vole type of rodent, were discovered in the plague areas of Hanna and Brooks. This discovery was of considerable importance because recent work in the State of Washington has demonstrated that this rodent is the main means of the perpetuation of plague infection in nature.

There is some evidence that the distribution of plague coincides with the distribution of this rodent. Therefore efforts were made during the year to collect this rodent in various parts of the province. This effort was not very successful but during ensuing years it is hoped that its distribution will be established.

Distribution of Plague.

The distribution of plague is fairly well outlined within the province, and from the recent experience of Saskatchewan with Foot-and-Mouth disease it is evident that a knowledge of the distribution of an infection is of prime consideration. From the knowledge presently available it would be possible to establish restrictions and implement control measures in certain areas of this province in the event of an outbreak of plague.

Tularaemia Survey.

During the course of the 1952 survey four collections of ticks and one collection of fleas were positive for *Pasteurella tularensis* as follows:

Fl-17-52—16 drag ticks—Eagle Butte, May 24, 1952.

Fl-18-52—120 drag ticks—Manyberries, May 27, 1952.

Fl-32-52—100 drag ticks—Foremost, June 16, 1952.

Fl-32A-52—42 drag ticks—Foremost, June 16, 1952.

Pl-103-52—28 fleas—15 R.G.S.—S½ 27-26-Wth.

Beiseker (First collection of *P. tularensis* from fleas).

The importance of tularaemia as a health problem is being increasingly recognized by physicians, with the result that a more precise diagnosis is now being made and the sources of infection established. The ramifications of tularaemia in nature in the province is now known to include such various and diverse sources as cats, field mice, gophers, grouse, gulls, minks, rabbits, sheep, skunk, swine and ticks.

Pasteurella tularensis in Fleas.

On July 13, 1952, fleas collected from gophers (*Citellus richardsonii*), shot in the neighborhood of Beiseker, proved positive for *P. tularensis*. This is the first record of *P. tularensis* in fleas in this province.

The Occurrence of Tularaemia at the Calgary Zoo.

During October an outbreak of tularaemia occurred at the Calgary Zoo infecting three of the monkeys and two of the seven attendants. The three monkeys died while the attendants recovered. An investigation into this occurrence has not yet been completed but there is some suggestion that the infection was introduced into the zoo by infected mice. It is proposed to conduct a further investigation during the coming year.

Information was received during December that tularaemia infection was suspected amongst muskrats and beavers in the Waterton district. Detailed investigation will be made during the coming year.

Fly Control.

During 1952, the Fly Control Campaign in the Lethbridge and District area was continued and good results achieved. A study of the available collection records indicates that the following flies of public health importance are present.

MUSCIDAE	CALLIPHORIDAE	OTHERS
<i>F. canicularis</i>	<i>C. elongata</i>	DROSOPHILIDAE
<i>F. scalaris</i>	<i>C. erythrocephala</i>	<i>Drosophila</i> sp.
<i>Hylemya</i> sp.	<i>C. latifrons</i>	SARCOPHAGIDAE
<i>M. domestica</i>	<i>C. vomitoria</i>	<i>Saracophaga</i> sp.
<i>M. stabulans</i>	<i>C. cadaverina</i>	<i>W. meigenii</i>
<i>M. mediatubunda</i>	<i>H. fulvicornis</i>	
<i>O. leucostoma</i>	<i>L. sylvarum</i>	
	<i>P. sericata</i>	
	<i>R. regina</i>	
	<i>P. terraenovae</i>	

Although the program is designed primarily to reduce the fly nuisance problem, it may also have some relation to the incidence of communicable diseases. Information on this part of the work is being compiled but no conclusions can be drawn for at least three years.

Mosquitoes.

With the tremendous development of irrigation in southern Alberta, considerable interest is being shown in the mosquito problem in the irrigated districts because mosquitoes are very abundant in irrigated districts where they cause considerable annoyance through their attacks on man and livestock. There is also a public health problem associated with mosquitoes as a number of species present in the southern part of the province are known transmitters of encephalomyelitis.

A compilation of the existing mosquito records indicates that the following species are well established in the irrigated areas south of the Red Deer River.

Genus <i>Aedes</i> Meigen	Genus <i>Anopheles</i> Meigen
<i>Aedes campestris</i> Dyer and Knab	<i>Anopheles earlii</i> Vargas
<i>A. dorsalis</i> Meigen	<i>Anopheles punctipennis</i> Say
<i>A. flavescens</i> Muller	Genus <i>Culex</i> Linnaeus
<i>A. nigromaculis</i> Ludlow	<i>Culex tarsalis</i> Coquillett
<i>A. spencerii</i> Theobald	Genus <i>Culiseta</i> Felt
<i>A. stimulans</i> Walker	<i>Culiseta inornata</i> Williston
<i>A. vexans</i> Meigen	

The following species, *Aedes dorsalis*, *A. nigromaculis*, *A. vexans*, *Culex tarsalis*, and *Culiseta inornata* are those which are known vectors of encephalomyelitis in nature.

It is suggested that particular care be exercised during the construction of irrigation dams and ditches so that the mosquito problem will not be increased by developing flood areas, stagnant pools, etc. Furthermore, an educational campaign on the proper use of irrigation water would do much toward reducing the number of mosquito breeding places.

Mites.

An infestation of mites in the operating room of a hospital in southern Alberta was investigated and effective control measures instituted. This infestation was traced to the nesting of sparrows and mice in the attic above the operating room.

A subject suffering from asthma, which presented all the evidence as being of the mite-produced type, was secured and sputum samples were run. However, this investigation was discontinued in the late fall when the subject left to spend the winter in Arizona. It is proposed to continue the investigation on his return in the Spring.

Chiggers.

Information was collected on the chiggers (*Trombiculidae*) of Alberta and a paper was published in conjunction with Dr. James M. Brennan of the United States Public Health Service. The paper listed seven species of which one, a new species, *Euschongastia campi*, was collected and described as being from Alberta. A knowledge of the distribution of chiggers is of importance because they are capable of transmitting a number of human infections, of which rickettsialpox is the most notable.

Chiggers are ecto-parasitic on a variety of small mammals and they have been collected over a wide area in Alberta. The following table lists the species in Alberta:

<i>Euschongastia criceticola</i> Brennan	<i>Trombicula montanensis</i> Brennan
<i>Euschongastia oregonensis</i> (Ewing)	<i>Trombicula myotis</i> Ewing
<i>Euschongastia sciuricola</i> (Ewing)	<i>Trombicula</i> sp.
<i>Trombicula microti</i> Ewing	

Encephalomyelitis.

Good progress has been made on collecting information relative to the native mosquito species and their relationship to equine encephalomyelitis. To date 31 species of mosquitoes are known to be present; six of these are transmitters of equine encephalomyelitis.

Culex tarsalis, which is of considerable importance in the transmission of encephalomyelitis is known to be well distributed throughout the province.

General.

An increasing number of requests are being received from Medical Officers of Health for assistance in the control of insect pests, particularly flies and mosquitoes. The usual procedure of keeping the provincial, city, municipal and Liquor Commission sanitarians informed on the latest methods of control of pest insects was continued through the medium of formal and informal meetings, bulletins, correspondence, etc.

Good progress has been made in arranging and determining the collection of native insects known to be incriminated in the transmission of various diseases.

The director of the Division was able to attend the 7th International Northwestern Conference on Diseases of Nature Communicable to Man which was held at Denver, Colorado, September 3-5, where he outlined the excellent results that are being achieved in spotted fever and plague work in Alberta.

During the year, the usual university lectures were given in the schools of Public Health Nursing and Household Economics. A series of lectures for third year medical students in relation to the control of insect-borne diseases was inaugurated under the Faculty of Medicine. This is an important step as it gives the Division an opportunity to put its information directly into the hands of the future practicing physicians.

Educational Work.

The usual educational work in regard to the control of insect-borne diseases was carried on through the media of newspapers, radio, motion pictures and addresses.

Publications.

During 1952 the following articles and papers were prepared and published:

1. Rocky Mountain Spotted Fever in Alberta, 1935-50. Malcolm R. Bow, M.D., D.P.H., and J. H. Brown, M.Sc. Canadian Journal of Public Health, 43 (3); 109-115; 1952.
2. A Note on the Chiggers (*Trombiculidae*) of Alberta. J. H. Brown and J. M. Brennan. Canadian Journal of Zoology, Vol. 30, No. 6; 388-343, 1952.
3. "Tick Paralysis". A Note on a Human Case Caused by a Male Tick. J. M. Brown, M.Sc. Journal of Economic Entomology, Vol. 45, No. 4; page. 737, 1952.

Cancer Services

The files for patients in the Clinic having reached in the neighbourhood of 25,000 had been previously arranged in a malignant section, a non-malignant section, a transitional section (awaiting reports) a non-reporting section (where the patient had never personally appeared at the Clinic) and a deceased section. This method was found to be outmoded owing to a new Soundex Index being completed. With this Index, a file can be found in a matter of a few minutes.

Owing to the increase in the diagnostic and x-ray work and to obviate the delay occasioned in sending patients to the various City Radiologists and hospitals, an appropriation of between \$40,000 and \$45,000 was set aside to build a solid cement building, as an addition to the Edmonton Cancer Clinic, to house diagnostic and x-ray equipment. An appropriation of \$55,000 was included in the 1952-53 budget for the purchase of x-ray equipment. A diagnostic unit 500 MA Picker Unit and a 270 Picker Rotational Therapy Unit was ordered from the Picker X-ray of Canada Ltd. and will be operating early in 1953.

The Government has engaged the services of Dr. Marcus Marlborough, M.B. Ch.B., B.Sc., D.M.R.T., who started his training in 1947 at the Liverpool Radium Institute as Resident Surgical Officer; Post Graduate Course in Radiation Therapy at the Western Infirmary, Glasgow; in 1949 took Post Graduate Diploma in Medical Radiology (Therapy) of The Royal College of Physicians and Surgeons of England and was thereafter employed as Registrar, Department of Radiation Therapy, Western Infirmary, Glasgow. He came to Canada in 1950 and was employed as radio-therapist at the Furlong Memorial Division of the Manitoba Cancer Institute.

An order has been placed and confirmation and reservation made for a Cobalt 60 tele-therapy unit with the Atomic Energy Commission of Canada.

Place	SUMMARY OF CASES			REFERRED		
	New	Repeat	Total	Hospital	X-Ray and Radium	Surgery
Edmonton	2,435	2,945	5,380	1,871	476	624
Calgary	1,328	1,802	3,130	466	297	270
Lethbridge	447	334	781	169	116	60
TOTALS	4,210	5,081	9,291	2,506	889	954

Place	DIAGNOSTIC PROCEDURES AUTHORIZED				
	Laparo- tomies	Small Biopsies	Curretages	Encephalo- grams and Ventricu- lograms	Broncho- scopes and Oesophago- scopies
Edmonton	130	838	255	17	123
Calgary	39	285	18	0	41
Lethbridge	16	136	18	0	2
TOTALS	185	1,259	291	17	166

Place	Sigmoid- oscopy	Cystoscopy	Consulta- tions	Laboratory	X-Ray
Edmonton	156	160	153	199	1,181
Calgary	2	49	10	*	401
Lethbridge	5	11	7	31	266
TOTALS	163	220	170	230	1,848

*Calgary Clinics has its own Laboratory facilities.

Health Education

MR. C. C. EVOY B.Sc., *Director*

Tours.

A number of health education tours to school divisions, health units, and municipal nursing districts were completed. These trips to the rural areas of the province were arranged through requests from the superintendents of schools, health unit officers and municipal nurses.

Areas covered were: Stony Plain School Division at thirty different points; New Brigden Municipal Nursing District, three meetings; Youngstown Nursing District, four centres; Sunnynook Nursing District, four talks; Hilda Nursing District, four meetings; Lomond Nursing District, two meetings; Barrhead School Division, seven centres; Clover Bar School Division, one school; Whitecourt Nursing District, four schools; Edson School Division and Peers Nursing District, ten schools; Lindale Nursing District, four centres; Winfield Nursing District, four centres; Alder Flats Nursing District, three schools.

At many of these points talks were given explaining the services of the Department of Health and by request "Services of a Health Unit" in areas which were contemplating establishment of a health unit program. Audiences consisted of parents, teachers, and municipal councillors.

It is of interest to note that these tours are followed by an increase in request for existing services from this and other divisions of the department. Information given at these public meetings has been of value in marshalling action for new services namely those of a health unit program.

Talks and Lectures.

Talks and lectures accompanied by films and discussions were given by the health educator at conferences, conventions, church groups, public meetings, Home and School Association meetings to a total audience of 1,076 for thirty-seven appearances.

Requests for talks on specialized areas of public health other than health education were received and speakers obtained either from the provincial staff or the local health service in our health units and municipal nursing districts.

Subjects were chosen from the fields of nursing, public health administration in local units, venereal disease, family relationships, sanitation and nutrition.

Nurses, medical doctors, teachers and others have used our reference library for source material in the preparation of talks to be given locally. The gratitude expressed by the recipients of this type of service is an endorsement of this phase of our program.

The health educator lectured to the provincial sanitary inspectors at their annual refresher course. Other opportunities to talk on various services of the Department of Health were made by the University of Alberta Summer School for teachers, Strathearn W. A.

and other church organizations besides a number of Home and School Associations in rural areas.

Literature.

The publication, "Your Health Services" outlining the services of the Department of Public Health was printed early in the year and 10,000 requested copies were distributed by early fall. This booklet received suitable publicity through press and radio. Quantity requests were granted the Social Credit League, the Guidance Branch, the Department of Education, Municipal Nurses, Superintendents of Schools, Health Units and the W. A. of the Social Credit League. A reprint will be necessary and possibly a revision for 1953 will be required.

A summary of the 1950 annual report was prepared for the February session of the Legislature. Mimeographed copies were made available to all members of the Legislative Assembly. This booklet received suitable publicity through press and radio.

A supplement to the Health Education Services catalogue consisting of five pages of description of new films and filmstrips was released for distribution.

Conferences.

A health educators' conference, sponsored by the Department of National Health and Welfare was held in Ottawa in October. A demonstration, Workshop Technique, was conducted by the health educator from Alberta. Keen interest was evident among the new and younger representatives who were not familiar with workshop methods of solving public health problems. We were also privileged to show two new filmstrips produced by this department. The first concerned Rural Water and Sewerage Systems; Housekeeping in Rural Schools was the subject of the second. Spirited discussion arose over the merits of these two visual aids to better health education.

At one staff conference two newly acquired films, "Our Schools Children's Health" and "How to Catch a Cold" were screened for the purpose of constructive criticism. Both films were approved by the directors of various divisions but not without certain recommendations regarding their use. Staff conferences of this type do give helpful suggestions concerning the relative scope of a film.

Other conferences attended and arranged included one for the medical officers of health units at which discussion centred around the production of a film on health unit services. A script presented by the health educator outlining a sequence of situations to be photographed was criticized, changes made and approved as being a suitable basis for the film. It is hoped that this film can be produced in 1953.

Films.

New films are a necessary factor in an expanding program of any audio-visual service. They supersede obsolete material, replace worn stock and often introduce a new approach in the changing pattern of public health education. Fifteen new films and six filmstrips were placed in our film library this year. Subjects included films in most divisions of the classified field of public health education.

Eight hundred and sixty-five films were booked for 1,400 screenings in the province by schools, health units, municipal nurses, Home and School groups, clubs, organizations, film councils and private individuals. It is estimated that over eighty thousand citizens of this province saw health films from our library this year. There is an indication of increased use of this media as each year's figures tell their story.

Audiences reached include school children, special study groups and general public meetings. Each year we supply the films necessary for programs on family relationships. This assistance is given to specialists who lecture to university and church study groups.

Radio.

Radio and health education should be concerned with the interpretation of health services and short dramas well prepared. Our efforts in this branch were confined to a better type of radio play which was presented over station CKUA weekly. The purpose of the four dramatic series was to try to develop better health attitudes through pleasant educational entertainment. Next year we will continue this part of our program and will present regular spot announcements on health services over a number of radio stations.

Mimeograph.

The mimeograph service, introduced a few years ago, turned out a large volume of material for this and other divisions of the department. Booklets and leaflets have been supplied for distribution to schools, hospitals, the Department of Education, the University of Alberta, Home and School Associations, factories and industrial organizations and to countless individuals to a maximum of approximately five thousand copies.

Exhibits.

The Edmonton Exhibition for 1952 marked definite progress in the field of visual health education. The committee, the same as for 1951 met early in April to formulate plans, and all were agreed that in order to realize the greatest gain in public education the Health exhibits must compete successfully with those in the Manufacturer's Building, the grandstand, and the midway. Consequently, picket fences marking definite boundaries, a permanent lighted sign box for direction, immediately inside the main door, were installed, and three new booths constructed.

Mr. Paul, manager of the Edmonton Exhibition offered to have the name of the building changed from Women's Building to something of our choice. It was agreed that Health Exhibits would be the most suitable. He also had offered the porch space of Health Exhibits if it were needed. The committee didn't think that the Department of Public Health would need the space this year, but asked to have jurisdiction over the type of concession which would be allowed there. At least one half of the porch would be a rest area with benches and flowers.

The directors of the divisions were invited to participate and almost all welcomed the opportunity, there being fourteen exhibits as well as a salesroom for the handicrafts from Oliver. A high standard had been asked of exhibitors and it was met in all cases. The Health Education booth included in its display interviews which

were recorded on tape and played back to the people. The physical changes in the building were commented on favorably, as were the various exhibits.

It should be noted in passing that the public relations between the various contributing integrated groups was of the first order. The exhibition board, merchants with whom the department dealt, other departments in the provincial government, and the divisions within the department of Public Health worked in harmony to produce a high quality display.

Exhibits were prepared for two class B fairs held at Vermilion and Camrose. The division of Health Education had the display material designed through co-operation with the local health units. Each exhibit featured health unit services, entomology, posters and health education publicity.

Displays were made also for our municipal nurses to assist in educational campaigns in their districts.

Invitations to display our services were accepted from two Edmonton public schools at their opening exercises. Over eleven hundred people viewed our work at these two receptions.

Equipment.

One Elliott addressing machine has been added to our equipment to facilitate and expedite the movement of mail from this and other divisions of the department. The new service will be established early in 1953.

Orientation.

To some extent this division does assist in the brief orientation of all new public health personnel who are going to stations in the province. Before leaving for the new positions doctors, nurses, and sanitary inspectors visit this division and are given some insight into the health education services available from the department. This introduction to our program has proved invaluable to new staff in establishing health education programs in their districts.

Nutrition Services

ELVA M. PERDUE, B.Sc. (H.Ec.)

The following report covers the work of Nutrition Services for the calendar year 1952.

Nutrition consultant services to small hospitals, school dormitories and other institutions was extended during the year. The office continued to prepare and distribute the mimeographed material entitled "Institutional Supper Menus". During the year the bulletin included in addition to menus and recipes, information on food buying practices and food preparation. Suitable recipes folders and booklets were obtained and distributed with the monthly release. Requests for information relative to the purchasing and care of kitchen equipment were received and dealt with.

During the year, three requests for assistance in obtaining the services of dietitians were received and information regarding suitable applicants was given.

Continued assistance to the Public Health personnel has largely been through consultant service to local staffs. This has resulted in a greatly expanded service of group teaching and individual instruction at Well Baby Clinics and during home visiting. The problems brought to our attention included: budgets, everyday meal planning, marketing, serving, eating habits and food fads. In most areas, the nurses have asked for direction in advising families on low-cost meal planning.

Field-trips were made by the nutritionist for the purpose of assisting with local staff education through provision and discussion of the latest information on various aspects of nutrition. During these visits individual conferences were held with the nurses to discuss the specific problems in their respective areas.

Additional consultation service was provided to local public health personnel through advisory articles in the publication Nutrition News. During the year a variety of problems have been dealt with in this manner.

The program for consultant service to field staff was planned in close co-operation with the Directors of Health Education and Public Health Nursing.

Sample copies of all nutrition materials available for local distribution were compiled in reference folders and distributed to all public health and industrial nurses.

Instruction in nutrition and special aid to teachers and students was continued. During her visits to the schools, the nutritionist made suggestions concerning teaching of nutrition and nutritional activities. Organization and operation of school lunch programs and adequate lunches from home were discussed with teachers and parents. An effort was also made toward improving the selection, preparation and service of food available at school and the elimination of non-essential foods being sold in school lunchrooms was encouraged.

Considerable information through correspondence and school lunch literature was provided to public-health personnel and executives of Home and School Associations. Requests for additional help, such as technical guidance, have been followed by a visit from the nutritionist whenever possible.

Technical data has been supplied also to the Director of School Broadcasts for teachers' reference in connection with broadcasts on school lunches.

Requests for information pertaining to various phases of nutrition were received from students during the year. Food models, posters, films and other teaching material were made available for teachers. A large number of inquiries from homemakers regarding food problems were answered weekly.

Mothers were contacted through study groups, mother's clubs, Women's Institutes, Church Groups, Home and School Associations and the Canadian Association of Consumers. In April, the nutritionist participated in the Consumer Fair for Thrifty Homemakers sponsored by the Canadian Association of Consumers.

The nutritionist has served as a consultant on articles, radio scripts and films for the Department of Health. To assist nutrition programs throughout the province, the Nutrition Services has prepared pamphlets dealing with specific topics and has supplied visual aids and outlines for adult study groups.

There were an increased number of requests for assistance with planning of adequate meals for summer camps. The comments and suggestions would appear to indicate a need for extension of this service in 1953.

This year, objectives and activities of Nutrition Services were outlined to key groups of students, including nurses and public health nurses at the University.

The nutritionist participated in a symposium on Community Nutrition at the convention of the Canadian Dietetic Association.

Nutrition Services provided a display for inclusion in the health exhibits at the Edmonton Exhibition. The exhibit has since been made available on loan to numerous community organizations in the province.

A cordial relationship was maintained with other agencies in an effort to bring about a co-ordinated nutrition program in the province.

Public Health Nursing Division

M. M. FITZSIMMONS, R.N., P.H.N., Director

During the year 1952 the following nursing services were operating in rural districts:

- 27 Municipal Nursing Services in Local Improvement Districts.
- 7 Municipal Nursing Services in Municipal Districts.
- 1 Part Time Nursing Services in a Municipal District.
- 2 Well Baby Clinics and
- 6 One-Nurse Health Units.

Municipal Nursing Services in Local Improvement Districts are as follows:

Alder Flats	Hines Creek	Sunnynook
Blueberry Mountain	Kinuso	Tangent
Bonanza	Lindale	Valley View
Breton	Lomond	Vauxhall
Breynat	New Brigden	Wanham
Dixonville	Peers	Whitecourt
Fawcett	Plamondon	Winfield
Fort Assiniboine	Slave Lake	Worsley
Hilda	Smith	Youngstown

Municipal Nursing Services in Municipal Districts are as follows:

- Bow Island in M.D. of Bow Island No. 13.
- Foremost in M.D. of Burlington No. 2.
- Grassland in M.D. of Athabasca No. 103.
- Milk River in M. D. of Warner No. 4.
- Warner in M.D. of Warner No. 4.
- Tulliby Lake in M.D. of Vermilion River No. 71.
- Whitemud Creek in M.D. of Smoky River no. 130.

The Bow Island Municipal Nursing service was closed on March 31, 1952 and the area included in the Medicine Hat Health Unit.

Regular Clinics in connection with the above centres are as follows:

Alder Flats	—Buck Lake
Bonanza	—Bay Tree and Cherry Point
Fawcett	—Flatbush and Jarvie
Foremost	—Etzikom, Hoping School, Orion, Manyberries and Lucky Strike
Fort Assiniboine	—Timeu and Doris
Hilda	—Schuler
Kinuso	—Faust
Milk River	—Coutts
Peers	—Haddock and Shining Bank
Slave Lake	—Canyon Creek and Widewater
Smith	—Chisholm
Tangent	—Eaglesham and Watino
Wanham	—Belloy
Warner	—Wrentham and New Dayton
Whitecourt	—Blue Ridge

The two Well Baby Clinic Centres at Vegreville and Medicine Hat were absorbed into Full Time Health Units.

The One-Nurse Health Units or nurses serving School Divisions were located at:

- Brooks Health Unit at Brooks.
- Wheatland Health Unit at Strathmore.
- Athabasca Health Unit at Colinton.
- Spirit River Health Unit at Spirit River.
- Wainwright Health Unit at Wainwright.
- MacLeod-Pincher Creek Health Unit at Granum.

The services at Brooks, Strathmore and Colinton were absorbed into Full Time Health Units, leaving nurses serving the Spirit River, Wainwright and MacLeod-Pincher Creek School Divisions.

There were a total of 58 nurses in the field and two nurses in the office including fourteen replacements. Nurses leaving the staff were as follows: Five nurses taking leave of absence to do post-graduate work; four nurses transferred to Full Time Health Units. One nurse retired; one nurse was only on temporary relief; eight resigned to be married and four resigned to take other employment.

Staff Education.

All nurses reported in to Edmonton for three days following the Easter weekend for the Spring Conference. The two-day Course on the Nursing Aspects of ABC Warfare was followed by one day of lectures and general discussion of problems presenting themselves in the district.

Three issues of the News Letter were sent to all staff members with general information on Newer Trends in Nursing applicable to the Municipal Nursing program and also changes in administration. New staff members were given a few days orientation in the office and with a senior nurse in a district before being left on her own in a district.

Supervision.

Thirty-one districts were visited by the office staff of the Nursing Division. Many local problems facing the nurse with regard to the service were discussed at this time. The Nurse's Home Committee held a meeting in each district visited in order to discuss their responsibilities and problems.

Each nurse sends in a monthly report of the work accomplished in her district.

Miscellaneous.

Two nurses took the Course in Administration for Public Health Nursing at the University of Alberta.

An evening Refresher Course consisting of eight lectures held in February at the University of Alberta on Modern Trends in Nursing was attended by the Director and Assistant Director.

The Course in Practical Advanced Obstetrics was given by Miss L. M. Attrux at the University of Alberta.

The Annual Meeting of the Alberta Association of Registered Nurses held in Banff was attended by the Director and Assistant Director who participated in the program.

The Alberta Public Health Association Convention held in Calgary was attended by the Director.

Lectures given by the office staff were as follows:

- 2 lectures and demonstrations on "Delivery in the Home."
- 1 lecture on Correlation of Preventive and Treatment Nursing Service.
- 6 lectures on "Nursing Aspects of ABC Warfare."
- 1 lecture each to two of the City Hospitals on "Municipal Nursing."
- 1 lecture to the Public Health students on "Municipal Nursing."
- 1 lecture to each of six groups of 4th year Medical Students on "Municipal Nursing."

I would like to extend our thanks to those who have assisted us in our work and have helped us to solve our many problems. Our thanks go to the Hon. Dr. W. W. Cross, Minister of Health; Dr. M. R. Bow, who retired as Deputy Minister; Dr. A. Somerville, newly appointed Deputy Minister; The Department of Municipal Affairs; the City Health Department and City Agencies, also to the various organized Municipalities, all Divisions of the Department of Public Health, and other Provincial and National Organizations.

I also wish to thank the medical profession, hospitals and teachers who have assisted the nursing staff in their work; and the nursing staff who have made it possible for this work to be carried out in the rural areas of Alberta and who continue to serve beyond the call of duty.

TABLE No. 1

REPORT OF MUNICIPAL NURSING CENTRES
(Exclusive of work done in schools)

	Total
No. Treatment Consultations	36,720
No. Miscellaneous P.H. Consultations	10,518
No. Antepartum Consultations	1,658
No. Postpartum Consultations	466
No. Infant and Preschool Consultations	7,988
No. Treatment Home Visits	9,403
No. Miscellaneous P.H. Home Visits	2,076
No. Communicable Diseases Home Visits	1,220
No. Maternal Welfare Home Visits	533
No. Infant and Preschool P.H. Home Visits	1,901
No. of Deliveries	61
No. of Abortions	43
No. Cases sent to Hospital or Doctor	2,001
No. Deaths under 1 year	3
No. Deaths over 1 year	21
Total No. Doses different Sera Given	14,718
No. Pieces P.H. Literature Distributed	5,266
Fees Collected	\$27,230.95

IMMUNIZATION WORK DONE AT OFFICE OR CLINICS:

Tetanus Vaccine	557
Measles Prophylactic Serum	48
Diphtheria Toxoid	5,757
Scarlet Fever Toxin	337
Smallpox Vaccine	1,725
Whooping Cough Vaccine	5,392
Typhoid Fever Vaccine	132
TOTAL	14,718
Patch Tests	159
Mantoux Tests	12

MISCELLANEOUS:

Old Age Pensions—Home Visits (free)	579
Old Age Pensions—Office Calls (free)	328
Lectures and Demonstrations	19
Films shown	13
Home Nursing Classes	7
First Aid Courses	2
Baby and General Clinics	119
1 Child sent to Guidance Clinic; 1 T.B. patient sent to Sanatorium.	
1 Child sent to Jr. Red Cross Hospital, Calgary.	
3 First Aid Kits placed in schools.	
2 Visits to C.G.I.T. Camp.	

DEPARTMENT OF PUBLIC HEALTH

TABLE No. 2

WELL-BABY CLINICS
(Part Year) Medicine Hat and Vegreville

No. in Attendance	1,048
No. Cases Admitted	255
No. Old Cases Re-admitted	9
No. Out of Town Cases	122
No. Referred to Family Doctor	73
No. of Names on Roll	960
Transferred to Pre-school Clinic	15
Breast Fed	226
Bottle Fed	452
Other Feeding	361
Nutrition	115
PRE-SCHOOL CLINICS:	
No. in Attendance	188
New Cases Admitted	15
Out of Town Cases	18
Discharged	52
No. of Cases on Roll	2,187
VISITS:	
Baby Visits	4
Pre-school Visits	2
School Visits	5
T.B. Visits	34
Guidance Visits	10
Social Hygiene	2
TOTAL No. of Visits	57
ATTENDANCE:	
No. of Clinics held	77
Total Number in Attendance	1,242
Total No. Seen by Doctor	56
Letters written re work	608
Interviews	71
IMMUNIZATIONS:	
Diphtheria Toxoid	58
Whooping Cough Vaccine	32
Smallpox Vaccine	175
Diphtheria and Whooping Cough Combined	1,164
Diphtheria, Pertussis and Tetanus Combined	15
TOTAL No. of Doses	1,444
Patch Tests	5
CLINICS:	
Child Health	5
Immunization	3
Combined Child Health and Immunization	22
Guidance	6
Social Hygiene	13
R.M.S.F.	6
T.B. Clinics	12
1 Day Rural Clinics at R.M.S.F., Thelma, Elkwater, Redcliff and Manyberries	
TOTAL Attendance	1,088
No. Schools Visited from Medicine Hat	9
No. Classrooms	30
Professional Visitors	14

TABLE No. 3
SCHOOL WORK

(Including work done by both Municipal Nurses and Child Welfare Clinic staffs)

	Total
1. No. of Visits to Schools	487
2. No. Students Inspected	8,160
3. No. with Suspected Defects	4,582
(a) Defective Vision	1,163
(b) Defective Hearing	105
(c) Diseased Tonsils	1,543
(d) Unsound Teeth	3,356
(e) Eye Diseases	63
(f) Ear Diseases	139
(g) Enlarged Cervical Glands	815
(h) Enlarged Thyroid Glands	84
(i) Malnutrition	657
(j) Nervous Disorders	162
(k) Faulty Posture	411
(l) Orthopaedic Defects	20
(m) Ringworm	11
(n) Impetigo	27
(o) Scabies	24
(p) Pediculosis	97
(q) Other Skin Conditions	91
(r) No. Exclusions (Suspect Communicable Diseases)	229
4. No. Correction of Defects	1,060
5. Classroom Talks	45
6. Sanitary Inspection of Schools	507
7. No. Consultations with Teachers	448
8. No. of Consultations with Parents	469
9. No. of School Follow-up Home Visits	423
10. No. Pre-school Children Seen at School	78

TOTAL NO. OF DOSES OF THE FOLLOWING:

(a) Diphtheria Toxoid	2,060
(b) Scarlet Fever Toxin	31
(c) Smallpox Vaccine	696
(d) Whooping Cough Vaccine	1,425
(e) Typhoid Fever Vaccine	7
(f) Whooping Cough, Diphtheria and Tetanus Combined	118
Mantoux Tests and Patch Tests	3
No. Lectures	20
No. Films Shown	20
22 Municipal Nursing Services in L.I.D.'s.	
6 Municipal District Nursing Services in M.D.'s.	
1 Metis Colony	
2 Well Baby Clinic Centres.	

TABLE No. 4
SERVICES GIVEN BY HEALTH DISTRICTS

Services Offered	Athabasca	MacLeod-Pincher Ck.	Spirit River	Wainwright	Wheatland	Total
SCHOOL HEALTH PROGRAMME:						
1. No. of Visits to Schools	96	180	59	69	38	442
2. No. Students Inspected	447	1,610	648	829	221	3,755
3. No. with Suspected Defects	290	791	360	334	95	1,870
(a) Defective Vision	55	240	115	71	31	512
(b) Defective Hearing	20	21	14	...	1	56
(c) Diseased Tonsils	177	167	102	181	19	646
(d) Unsound Teeth	316	409	216	209	57	1,207
(e) Defective Infected Gums .....	...	...	...	...	5	5
(f) Eye Diseases	12	4	...	1	...	17
(g) Nasal Obstruction .....	...	...	...	...	5	5
(h) Ear Diseases	7	...	...	...	...	7
(i) Enlarged Cervical Glands	76	58	230	41	...	405
(j) Enlarged Thyroid Glands	11	...	16	...	1	28
(k) Malnutrition	31	87	38	29	...	185
(l) Nervous Disorders	9	37	37	8	5	96
(m) Faulty Posture	16	21	28	39	3	107
(n) Anaemia .....	...	...	...	...	2	2
(o) Orthopaedic Defects	6	6	2	2	...	16
(p) Cysts .....	...	...	...	...	2	2
(q) Ringworm	5	5	3	15	...	28
(r) Speech Defects .....	...	...	...	...	5	5
(s) Impetigo	8	2	2	5	...	17
(t) Scabies .....	...	3	8	2	...	13
(u) Mentally Retarded .....	...	...	...	...	2	2
(v) Pediculosis .....	...	28	...	4	...	32
(w) Other Skin Conditions	3	5	32	1	...	41

TABLE No. 4—Continued
SERVICES GIVEN BY HEALTH DISTRICTS

Services Offered	Athabasca	MacLeod- Pincher Ck.	Spirit River	Wainwright	Wheatland	Total
SCHOOL HEALTH PROGRAMME—						
Continued:						
(x) No. exclusions, Suspected Communicable Disease	18	24	12	....	....	54
(y) 10% or more under average weight for height and age .....	....	....	....	....	20	20
4. No. Correction of Defects	61	65	160	141	....	427
5. Classroom Talks .....	....	10	18	32	....	60
6. Sanitary Inspection of Schools	7	31	5	45	....	88
7. No. Consultations with Teachers	93	212	72	82	....	459
8. No. Consultations with Parents	73	61	185	31	....	350
9. No. School follow-up Home Visits	10	51	97	51	40	249
10. No. Pre-school Children Seen at School	28	6	3	4	....	41
CLINICS:						
1. Child Welfare Clinics Held	28	68	59	29	15	199
Attendance: (a) Infants	179	824	275	398	115	1,791
(b) Pre-schools	87	623	233	313	57	1,313
(c) Schools .....	....	....	124	....	....	124
2. Pre-natal Home Visits .....	....	19	18	5	....	42
Post-natal Home Visits .....	....	10	....	....	....	10
3. Infant Welfare Visits	58	53	114	52	....	277
4. Pre-school Home Visits	29	55	115	2	....	201
5. Tuberculosis Clinics Held	2	....	....	....	....	2
Adult Consultations .....	....	....	....	....	2	2
Average attendance .....	....	....	....	....	11½	11½
6. Tuberculosis Home Visits	8	20	4	13	....	45
7. Mental Hygiene Home Visits	18	46	27	14	....	105
8. Referred to Guidance Clinic .....	....	35	....	....	....	35
IMMUNIZATIONS:						
1. Total No. of Doses of the following:						
(a) Diphtheria Toxoid	262	159	56	181	5	663
(b) Scarlet Fever Toxin	4	2	1	36	26	69
(c) Smallpox Vaccine	501	340	179	162	36	1,218
(d) Whooping Cough Vaccine .....	....	94	....	57	49	200
(e) Typhoid Fever Vaccine .....	....	18	329	....	....	347
(f) Whooping Cough Vaccine and Diphtheria Toxoid	1,421	450	254	452	210	2,787
(g) Triple .....	....	....	80	....	....	80
2. Mantoux Tests and Patch Tests	53	140	15	79	....	287
3. Whooping Cough Vaccine, Diphtheria Toxoid and Tetanus .....	....	309	....	....	....	309
4. Schick Tests .....	....	....	1	....	....	1
5. Tuberculin Skin Tests .....	....	....	....	....	4	4
6. Dick Tests .....	....	2	87	....	....	89
COMMUNICABLE DISEASE CONTROL:						
1. Visits to Cases, Contacts and Suspects	25	154	37	45	....	261
2. No. cases Quarantined or Isolated	8	....	85	83	....	176
(a) Scarlet Fever	36	9	....	5	4	54
(b) Measles	130	153	27	66	63	439
(c) Chickenpox	84	53	4	6	11	158
(d) Mumps	4	....	61	11	18	100
(e) Whooping Cough	75	13	....	7	6	101
(f) Rubella .....	....	27	....	2	....	29
(g) Skin Conditions	8	....	5	6	....	19
(h) Other Conditions	5	....	....	....	....	5
3. Contacts Isolated	12	....	12	....	....	24
4. No. Throat Cultures Taken	12	....	....	....	....	12
HEALTH EDUCATION:						
1. Interviews	4	98	102	....	....	204
2. No. Lectures	3	8	1	8	....	21
Attendance	31	....	25	106	....	162
3. Literature Distributed, (approximately)	294	599	25	....	....	918
4. Films Shown	3	8	....	7	....	18
5. Newspaper Publicity .....	....	65	....	....	....	65
6. Globulin .....	....	....	2	....	....	2
7. No. Letters and Circulars	553	558	25	....	....	1,136
8. Miscellaneous: Water Samples .....	....	26	....	....	....	26
First Aid .....	....	57	....	....	....	57

Division of Social Hygiene

PAUL L. RENTIERS, M.D., *Director*

I take this opportunity to pay a last tribute to Dr. Harold Orr whose death in December of 1952 ended a long and inspiring chapter in the field of Venereal Disease Control in the province of Alberta. Dr. Orr, internationally known as an authority on venereal disease, was instrumental in the organization of the Division of Social Hygiene and through the years, under his directorship, venereal disease in this province has shown a steady decline. His example in this field of endeavour will long serve as a model to those following him.

The Division has continued to operate clinics in Edmonton, Calgary, and Lethbridge. It was found advisable during the last year to discontinue the Medicine Hat and McLennan clinics owing to the decline in the number of cases in these districts. In their place the Mobile Clinic has done excellent work, and it is felt that this type of clinic will be more advantageous to the province as a whole.

As in previous years the Division has continued to distribute free of charge such drugs as penicillin and bismuth to private physicians and institutions for the treatment of venereally diseased patients. Arsenic in any form is used very little now and soon distribution of this drug will be stopped. During 1952 malaria pyrexia was discontinued in favour of massive penicillin therapy in late central nervous system syphilis. New antibiotics, such as aureomycin and streptomycin have been distributed in limited quantities in selected cases.

Pre-marital blood testing continues to be a large and ever increasing part of the duties of this Division. It is interesting to note that by this means we are still discovering unsuspected cases of venereal disease. The value of this procedure should not be underestimated.

Continued efforts in the field of education are being made with full co-operation from the Division of Public Health Education and its Director, Mr. C. C. Evoy.

With the continued suppression of organized prostitution in the province our main problem today exists in the Metis and Indian population among whom venereal disease is still far too common. It is hoped that further efforts by the greater utilization of the Mobile Clinic will be a value here. New cases have also been discovered in rather larger numbers than in the population of Alberta as a whole in the newly arrived immigrants from western Europe.

The number of patients seen and examined in the Alberta clinics has shown a steady increase despite the fact that fewer cases of disease, both syphilis and gonorrhoea, are being discovered. It is felt that this increase in the number of examinations done reflects well on the educational programme being carried out.

I wish to express my thanks and appreciation to the entire staff of the Division for their continued efforts in this work.

The tables attached give the statistical report of the work of the Division.

ALLEGED SOURCES OF VENEREAL INFECTION OR CONTACTS

For the Period January 1st, 1952 to December 31st, 1952

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	652	565	87%
Calgary	278	238	86%
Lethbridge	21	17	81%
Medicine Hat	20	16	80%
Remainder of Province	676	598	88%
ALBERTA TOTALS	1,647	1,434	87%
Sources of Infection or Contacts reported outside of the Province of Alberta	157	70	44%
TOTALS	1,804	1,504	83%

Unit Forwarding Information	Number of Sources of Infection or Contacts Reported	Number of Sources of Infection or Contacts Located	Percentage of Sources of Infection or Contacts Located
Armed Forces	181	122	67%
Private Doctors and Provincial Clinics	1,477	1,280	81%
Other Provinces	146	102	70%
TOTALS	1,804	1,504	83%

Sources of Infection in Alberta who could not be located by Authorities concerned	90
Sources of Infection outside of Alberta who could not be located by Authorities concerned	7
Number of Notification Cards (N.H. 1) with no information for contact finding	225

DETAILS OF INFORMATION ON THE FACILITATION PROCESS

How Informant Met Source of Infection or Contact	Where Informant Met Source of Infection or Contact
Pick-ups	Boarding House or Rooming House
Introduction	Restaurant or Beer Parlor
Friend	Dance Hall
Marital Partner	Street or Outdoors
Common-law Wife	Friend or Private House
House of Prostitution	Hotel
Appointment	Marital Partner
No Data Available	Recreation or Private Party
	Train, Railway Station, Bus Depot
	House of Prostitution
	Taxi or Taxi Office
	At Work
	No Data Available

DETAILS OF INFORMATION OBTAINED ON THE CONTACT INVESTIGATION

Place of Exposure	Occupation of Source of Infection or Contact
Rooming House or Apt	Waitress
Private House	Housewife
Outdoors	Prostitute or Street Walker
Car or Truck	Domestic, Hotel, Hospital
Train, Boat, Auto-Camp	Maid or Porter
House of Prostitution	Clerk, Salesman, Steno, Teacher or Cashier
Taxi or Taxi Office	Factory or Plant Worker
Hotel	Service Personnel
Room, House or Shack	Unemployed
No Data Available	Laundress or Dry Cleaner
	Truck, Taxi or Bus Driver
	Farmer, Trapper or Fisherman
	Student or Nurse
	Dressmaker, Hairdresser or Barber
	Laborer or Transient
	Business man, Conductor
	Tradesman, Electrician, Plumber, etc.
	Pinsetter, Usher or Usherette
	No Data Available

PROVINCIAL CLINIC—Provincial Building, 10048-101A Ave., Edmonton, 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)	27	46	489	155	.....	.....	717
Syphilis (Congenital)	1	.....	.....	.....	.....	.....	.....	.....	1
Acquired—Primary	15	2	.....	.....	17
Acquired—Secondary	1	3	.....	.....	4
Acquired—Latent	1	7	5	.....	.....	.....	13
Acquired—Tertiary (Cardiovascular)
Acquired—Tertiary (Neurosyphilis)
Acquired—Tertiary (Other)	1	.....	.....	.....	1
Type Undetermined	1	.....	.....	1
TOTALS	1	.....	27	47	513	166	.....	.....	754

Number of cases of Syphilis—Male 25, Female 12 37

Number of cases of Gonorrhoea—Male 516, Female 201 717

Number and results of Wassermann tests: 8,214 of which 478 were positive.

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

Number and results of Bacteriological tests for gonococci: 2,705 of which 661 were positive.

Number and results of Cultures taken for gonococci: 1,254 of which 198 were positive.

PROVINCIAL CLINIC—711-3rd Street East, Calgary, 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)	5	14	191	35	.....	.....	245
Syphilis (Congenital)	1	.....	1	.....	.....	.....	2
Acquired—Primary
Acquired—Secondary
Acquired—Latent	4	2	.....	.....	6
Acquired—Tertiary (Cardiovascular)
Acquired—Tertiary (Neurosyphilis)
Acquired—Tertiary (Other)	1	.....	.....	.....	1
Type Undetermined
TOTALS	6	14	197	37	.....	.....	254

Number of cases of Syphilis—Male 7, Female 2 9

Number of cases of Gonorrhoea—Male 196, Female 49 245

Number and results of Kahn and Wassermann tests: 3,457 of which 211 were positive.

Number and results of Cerebrospinal fluid tests: 12 of which 2 were positive.

Number and results of Bacteriological tests for gonococci: 2,715 of which 279 were positive.

Number and results of Cultures taken for gonococci: 191 of which 6 were positive.

PROVINCIAL CLINIC—315-10th Street, South, 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)	2	1	12	2	.....	.....	17
Syphilis (Congenital)	2	.....	.....	.....	.....	.....	.....	.....	2
Acquired—Primary
Acquired—Secondary	1	.....	.....	.....	1
Acquired—Latent	1	2	.....	.....	3
Acquired—Tertiary (Cardiovascular)
Acquired—Tertiary (Neurosyphilis)
Acquired—Tertiary (Other)
Type Undetermined
TOTALS	2	.....	2	1	13	5	.....	.....	23

Number of cases of Syphilis—Male 3, Female 3 6

Number of cases of Gonorrhoea—Male 14, Female 3 17

Number and results of Kahn and Wassermann tests: 179 of which 34 were positive.

Number and results of Cerebrospinal fluid tests: 18 of which 2 were positive.

Number and results of Bacteriological tests for gonococci: 83 of which 19 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)							1	20	12	49			82
Syphilis (Congenital)													
Acquired—Primary									1				1
Acquired—Secondary									1	3			4
Acquired—Latent							1		4	3			8
Acquired—Tertiary (Cardiovascular)													
Acquired—Tertiary (Neurosyphilis)													
Acquired—Tertiary (Other)													
Type Undetermined													
TOTALS							1	21	18	55			95

Number of cases of Syphilis—Male 6, Female 7 13
 Number of cases of Gonorrhoea—Male 13, Female 69 82

Number and results of Kahn and Wassermann tests: 2,755 of which 146 were positive.
 Number and results of Cerebrospinal fluid tests: 6 of which 1 was positive.
 Number and results of Bacteriological tests for gonococci: 1,330 of which 58 were positive.
 Number and results of Cultures taken for gonococci: 1,057 of which 78 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)							2		7				9
Syphilis (Congenital)													
Acquired—Primary													
Acquired—Secondary													
Acquired—Latent									1				1
Acquired—Tertiary (Cardiovascular)													
Acquired—Tertiary (Neurosyphilis)													
Acquired—Tertiary (Other)													
Type Undetermined													
TOTALS							2		8				10

Number of cases of Syphilis—Male 1 1
 Number of cases of Gonorrhoea—Male 9 9

Number of Prisoners admitted, 1,724.
 Number and results of Kahn and Wasserman tests: 1,423 of which 42 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)						3	28	29	303	50	21	6	440
Syphilis (Congenital)					1	1	1						3
Acquired—Primary							2		5	2			9
Acquired—Secondary							1		3	3			7
Acquired—Latent							1		17	20		2	40
Acquired—Tertiary (Cardiovascular)									1	2			3
Acquired—Tertiary (Neurosyphilis)									11	2			13
Acquired—Tertiary (Other)									1	1			2
Type Undetermined									1				1
TOTALS					1	4	31	31	342	80	21	8	518

Number of cases of Syphilis—Male 43, Female 35 78
 Number of cases of Gonorrhoea—Male 352, Female 88 440

Number of Doctors in the Province receiving consultative service, 250.
 Number of doses of Arsenicals distributed to Private Physicians, 1,052.
 Number of doses of Bismuth distributed to Private Physicians, 3,910.
 Number of Units of Penicillin distributed to Private Physicians, 852—Vials (3,000,000)
 Procaine G in Oil; 686—Vials (300,000) Units—Procaine G in Oil; 4—Vials (600,000)
 Units) Duapen.

NEW CASES OF SYPHILIS AND GONORRHOEA REPORTED IN ALBERTA—1952
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.	M. F.		
Gonorrhoea (all forms)	3	112	110	1150	293	22	6	1696	
Syphilis (Congenital)	4	1	2	1	.....	.....	.....	8	
Acquired—Primary	2	5	18	2	.....	27	
Acquired—Secondary	1	5	10	.....	.....	16	
Acquired—Latent	3	35	32	.....	2	72	
Acquired—Tertiary (Cardiovascular)	1	2	.....	.....	3	
Acquired—Tertiary (Neurosyphilis)	11	2	.....	.....	13	
Acquired—Tertiary (Other)	3	1	.....	.....	4	
Type Undetermined	1	1	.....	.....	2	
TOTALS	4	4	116	119	1225	343	22	8	1841

Total number of cases of Syphilis—Male 83, Female 62 145
Total number of cases of Gonorrhoea—Male 1,284, Female 412 1,696

TOTAL NUMBER OF CASES ADMITTED TO THE VARIOUS CLINICS OF THE
DIVISION OF SOCIAL HYGIENE IN 1952

Sex	Syphilis	Gonorrhoea	Total
Male	42	748	790
Female	24	322	346
TOTALS	66	1,070	1,136

CASES REPORTED BY DOCTORS AND MILITARY AUTHORITIES

	Private Physicians	Armed Forces	Total
Syphilis	78	1	79
Gonorrhoea	440	186	626
TOTALS	518	187	705

Total Number of cases of Syphilis reported in Alberta 145
Total number of cases of Gonorrhoea reported in Alberta 1,696
1,841

Total number of cases of Syphilis reported in Alberta exclusive of Armed Personnel 144
Total number of cases of Gonorrhoea reported in Alberta exclusive of Armed Personnel 1,510
1,654

Provincial Laboratories

R. D. STUART, M.D., *Director*

During 1952 the Provincial Laboratories carried out 252,780 examinations, the nature of which is shown in the accompanying tables. The work done has increased by 39,608 examinations or by 18%.

Special Trends.

This year, and for the first time, an attempt was made to obtain the benefits of bulk buying by combining many of the supply orders from our two laboratories. Much additional work fell on the staff of the Central Laboratory in consequence, but it was possible in a number of instances to obtain maximum quantity discounts of 10 to 15 per cent where individual orders might have received 5 per cent or less. This procedure will be continued, and it is hoped will become easier through experience.

In the Central Provincial Laboratory. In Edmonton, the importance of laboratory tests in the control of antibiotic therapy, suggested in last year's report, has been strikingly confirmed by the dramatic increase in such examinations. This is likely to be a continuing trend. So also is the provision of gonococcal culture facilities offered as a new service last year; by this means the number of smear examinations considered necessary in tests for cure has been reduced from seven to three, yet the laboratory tests are considered more reliable. The service has lately been extended to the Calgary Clinic and although it is being conducted temporarily by the Central Laboratory it will be transferred to the Southern Branch as soon as expedient. Continuing development is also shown in Mycology, a 35% increase in examinations being recorded. In sanitary bacteriology a new trend is shown in the increasing support of the laboratory to field testing of stream pollution carried out by the Division of Sanitary Engineering. This may develop into a regularly organized service.

Dr. Macgregor, Provincial Pathologist, records continuing increase in demand for smear diagnosis of malignant disease. Specimens of vaginal secretion, bronchial secretion and sputum, and gastric washings submitted for this purpose showed an increase of 32 per cent over last year.

The diminishing volume of medico-legal work being carried out is considered an inevitable and sensible trend. Certain aspects of this work, as the typing of bloods in criminal cases, cannot be carried out satisfactorily as sporadic examinations and might with advantage be transferred to a Forensic laboratory such as the R.C.M.P. Laboratory in Regina where a specially trained staff devotes its full time to the laboratory investigation of Medico-legal problems.

In the Southern Branch Laboratory. In Calgary, increasing interest continues in many aspects of bacteriological investigation. It is probable that even more distinct evidence of development would have been forthcoming had the activities of the laboratory not been inhibited by the unfortunate illness of the Director. Nevertheless, the fact that its general activities were so well maintained is a credit

to Dr. Shute's deputy, Dr. Crichton, and is evidence of the amount of assistance Dr. Shute himself provided even from his sick-bed.

New or Supplementary Services.

The Central Laboratory has established a new service for the identification of Leptospiral infections. The increasing importance of these, particularly in agricultural areas, is shown in an editorial of the December 6th, 1952 issue of the Journal of the American Medical Association.

During the year a method of wet film diagnosis for biopsies of brain specimens was introduced by the staff of the Pathology Department and proved to be an accurate procedure for the diagnosis of brain lesions. The value of this method is being further studied.

In tuberculosis, work on the haemagglutination tests mentioned in last year's report has been stopped. At the present stage of their development, the results were too unreliable to warrant continuation. Some interesting observations have been made on the use of fluorescence microscopy in smear diagnosis but this has not yet been applied to the service.

Regular Laboratory Services.

General Bacteriology. The general diagnostic services have been adequately used by hospitals and to a striking degree by certain individual practitioners even from quite remote areas. No large scale bacterial epidemics were encountered though a slight increase was recorded in the occurrence of diphtheria and tularemia. In one instance *Pasteurella tularensis* was itself isolated from autopsy material brought to the laboratory. The enterobacteriology section identified a small outbreak of paratyphoid infection in Yellowknife for the third year in succession. Much interest was aroused by the isolation of *Salmonella heidelberg* from four human cases; this is the first time this organism has been identified in Canada and the discovery led to an intensive investigation by the Provincial Veterinary Laboratory to determine its presence in certain poultry flocks from which it had apparently been conveyed to man. Our happy association with the Provincial Veterinary Laboratory has led to many such findings of mutual interest and an increasing realization of the epidemiological interdependence of the laboratories.

The increased number of examinations in syphilis serology in the Central Laboratory is mainly due to the examination of umbilical cord blood in an endeavour to detect neo-natal syphilis, a new line of investigation being pursued by the Division of Social Hygiene.

Sanitary Bacteriology.

The volume of work carried out in the Southern Laboratory and commented on last year has been maintained. In Edmonton, the number of milks and waters examined has increased considerably due mainly to a developing control program in certain Health Units.

Pathology.

The work in the Department of Pathology continued to follow the established pattern, with surgical tissue diagnosis assuming the major role. The value of the examination of all surgical tissue specimens, whether malignancy is suspected or not, is apparent from day to day. As an example, might be mentioned a case of Actinomycosis of a Fallopian Tube, picked up on routine examination recently in a patient in whom there was no clinical suspicion of this disease.

In the field of Cancer diagnosis, increasing numbers of biopsies lead to the recognition of many early cases of cancer, which might otherwise become advanced before clinical recognition becomes possible. There are undoubtedly many early cases of cancer cured by reason of the tissue diagnostic service offered through the Provincial Laboratory and many lives salvaged.

The numbers of gross and microscopic examinations carried out on surgical specimens totalled 10,545. This is a drop of about 1,000 over the previous year, accounted for by the fact that the Misericordia Hospital now has a full time Pathologist and the tissue work from that hospital is no longer done in the Provincial Laboratory. Making allowance for this, there has probably been a slight increase in tissues examined from rural points.

Staff.

In the Central Laboratory, Dr. J. H. Stirrat transferred from the Bacteriology Laboratory to the Pathology Laboratory. The transfer has relieved Dr. Macgregor of some portion of the enormous burden of routine histological diagnosis he was compelled to carry practically unaided. In the Southern Laboratory, the serious illness of Dr. Shute has deprived the laboratory of his immediate services since the end of August. The excellent organization of the laboratory and the willing cooperation of Dr. Crichton has enabled the laboratory to continue its services with efficiency. Fortunately, Dr. Shute has been able to give continued advice on many problems and to assist materially by determining many highly specialized histopathological diagnoses in his sick-room.

TABLE 1
WORK PERFORMED IN THE PROVINCIAL LABORATORY—Edmonton

	Total 1951	Total 1952	Increase	Decrease
Sputum Examinations	982	1,441	459	....
Diphtheria and Haemolytic Streptococci	5,312	4,915	....	397
Typhoid Fever (Agglutination test)	2,039	1,923	....	116
Milk	1,438	1,972	534	....
Water	4,233	5,250	1,017	....
Guinea Pig Inoculations	2,103	2,073	....	30
Miscellaneous Bacteriology	7,542	6,297	....	1,245
Blood Cultures	827	832	5	....
Enterobacteria and Intestinal Parasites	3,308	3,221	....	87
Urinalysis	15	10	....	5
Medico-Legal (Blood, seminal, etc.)	4	7	3	....
Cerebro-Spinal Fluids for the Wassermann Test	2,189	2,043	....	146
Bloods for Quantitative Kahn test	1,493	923	....	570
Bloods for the Wassermann Test	9,865	7,533	....	2,332
Bloods for the Standard Kahn Test	9,869	7,352	....	2,517
Bloods for the Presumptive Kahn Test	70,755	81,342	10,587	....
Smears for Gonococcus	9,263	10,320	1,057	....
Cultures for Gonococcus	802	5,460	4,658	....
Pathological Histological Material	11,572	10,545	....	1,027
Blood Smear Examinations	156	167	11	....
Post-mortem Examinations (Edmonton)	374	376	2	....
Post-mortem reports (outside points)	160	147	....	13
Ascheim-Zondek Tests	459	399	....	60
Frog Tests	....	73	73	....
Fluids for Cancer Cells	366	410	44	....
Cancer Cytology	53	75	22	....
Bone Marrows	26	23	....	3
Cerebro-Spinal Fluid Examinations (Colloidal Gold, Pandy)	2,421	2,459	38	....
Bacteriological examinations (P.M.)	33	70	37	....
B. abortus Examinations (Agglutination test)	2,516	1,928	....	588
P. tularensis (Agglutination test)	2,039	1,929	....	110
Antibiotic sensitivities, etc.	8,266	28,310	20,044	....
Mycological examinations	570	770	200	....
Weil Felix	4	3	....	1
Paul Bunnell Tests	....	731	731	....
T.B. Smears and Cultures	....	2,401	2,401	....
Autogenous Vaccine	22	19	....	3
Total	161,076	193,749	41,923	9,250

TABLE 2

EXAMINATION OF MILK—Edmonton Laboratory

Milk	1951	1952
Number of milks examined bacteriologically	1,393	1,935
Number of milks examined for butterfat	164	241
Number of milks examined for B. coli	497	1,076
Number of milks tested by the Phosphatase Test	146	365
Number of ice creams examined	45	37
Number of rinse waters examined bacteriological	0	0

TABLE 3

EXAMINATIONS OF WATER—Edmonton Laboratory

Water	1951	1952
Number of samples of water examined bacteriologically and found fit for human consumption	1,889	2,223
Number of samples of water examined bacteriologically and found unfit for human consumption	714	721
Number of samples of water examined bacteriologically and chemically and found fit for human consumption	293	433
Number of samples of water examined bacteriologically and chemically and found unfit for human consumption	275	368
Number of samples of water examined chemically and found fit for human consumption	715	993
Number of samples of water examined chemically and found unfit for human consumption	340	499
Number of samples of ice examined bacteriologically and found fit for human consumption	4	10
Number of samples of ice examined bacteriologically and found unfit for human consumption	3	3

TABLE 4

TUBERCULOSIS CONTROL EXAMINATION—Edmonton Laboratory

Specimen	Guinea pig, smear and culture	Smear and culture	Positive	% Positive	Negative	% Negative
Sputum and Gastric Washings	850	357	202	16.7	1,005	83.2
Urine	480	22	53	10.6	449	89.4
Pleural Fluids	180	12	26	13.5	166	86.5
C.S.F.	117	1	25	21.2	93	78.8
Joint Fluids	51	.....	5	9.8	46	90.2
Abdominal Fluids	27	1	2	7.1	26	92.9
Bronchial Aspirations ..	135	9	2	1.4	142	98.6
*Miscellaneous Specimens	133	16	20	13.4	129	86.6
Total	1,973	418	335		2,056	
Sputums examined by smear only		1,441	105	7.3%	1,336	92.7%
Grand Total		3,832	440		3,392	

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

TABLE 5

BACTERIOLOGICAL EXAMINATIONS FOR EVIDENCE OF TYPHOID FEVER,

DYSENTERY AND RELATED INFECTIONS—Edmonton Laboratory

Stool and urine cultures	846
Blood cultures	1,957
Blood examined by agglutination test for typhoid and related fevers, undulant fever and tularaemia	1,929
Other materials—waters 13, vomitus 1	14

Details of Results

Source	Salmonella Typhi	S. paratyphi B.	Other Salmonella	Shigella	Negative	Total
Stool cultures	14	16	28	13	735	806
Urine cultures .....	.....	.....	.....	.....	40	40
Blood cultures	12	1	1	1	1,943	1,957
Total isolations	26	17	29	13	2,718	2,803
Number of cases	14	8	19	11	.....	51
Number of carriers .....	.....	.....	.....	.....	.....	.....

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

Details of Salmonella cases and carriers		Salmonella from Poultry	
S. typhi-murium	11	S. typhi-murium	82
S. newport	3	S. gallinarum	37
S. bareilly	2	S. oranienburg	19
S. heidelberg	2	S. bareilly	14
S. manhattan	1	S. bredeney	6
		S. newport	5
Total	19	S. heidelberg	5
		S. thompson	3
		S. anatum	3
		S. san diego	2
		S. worthington	2
		S. enteritidis	1
		Total	179
Shigella Isolations		Salmonellae from Animal Sources	
Sh. sonnei	10	S. cholerae-suis	2
Sh. flexneri	3	S. paratyphi B	1
	6		
	1	Total	3
	2		
Total	13		

TABLE 6

INTESTINAL PARASITES—Edmonton Laboratory

Number of specimens examined and found negative for parasites		203
Showing cysts and Protozoa:		
Endolimax nana	2	
E. coli	7	
Giardia lamblia	1	
	10	10
Showing Ova:		
Ascaris lumbricoides	2	
Enterobius vermicularis	1	
	3	3
Worms or portions of worms:		
Taenia saginata	1	
Ascaris lumbricoides	5	
	6	6
TOTAL		222

TABLE 7

MYCOLOGICAL EXAMINATION—Edmonton Laboratory

Type of material examined	Number of specimens	Number found positive for pathogenic fungi
Skin and nail scrapings	401	92
Sputum	84	30
Scalp hairs	68	36
Beard hairs	66	35
Vaginal swabs	45	14
Mouth and throat	31	15
Miscellaneous	75	20
Total	770	242

Fungi identified	Source	No. of specimens
Candida albicans	sputum, vaginal smears, skin and nail scrapings, nose, throat and ear swabs, abscesses	84
Epidermophyton floccosum	skin scrapings	2
Geotrichum sp.	sputum	5
Mallassezia furfur	skin	1
Microsporum audouinii	hair	12
Microsporum canis	hair, skin scrapings	13
Mosaic fungus	skin scrapings	14
Nocardia sp.	culture	1
Trichophyton faviforme	hair, skin scrapings	12
Trichophyton mentagrophytes	hair, skin scrapings	103
Trichophyton rubrum	hair, skin, nails	19

TABLE 8

SEROLOGY TESTS FOR SYPHILIS—Edmonton Laboratory

Blood examined—Presumptive Kahn	81,342
Standard Kahn	7,352
Quantitative Kahn	923
Wassermann (Kolmer)	7,533
Cerebro-spinal fluids examined by Wassermann (Kolmer) test	2,043
Bloods and cerebro-spinal fluids unsuitable for examination:	
Unsuitable (fatty)	141
Haemolized	715
N.S.Q.	225
N.S.Q. Leaked	185
Accidentally broken	25
	1,291
Bloods broken and leaked in transit	203
Bloods and cerebro-spinal fluids "Positive" to reaction	732
Bloods and cerebro-spinal fluids "Negative" to reaction	80,868
Bloods giving "Reaction Not Interpreted"	1,789
Bloods and cerebro-spinal fluids giving "Anti-complementary" reaction	54
Number of bloods and cerebro-spinal fluids examined in 1951	73,216
Number of bloods and cerebro-spinal fluids examined in 1952	84,790
Increase in number of specimens examined	11,574
Increase in per cent	15.8%

TABLE 9

SEROLOGY TESTS FOR SYPHILIS BY MONTHS—Edmonton Laboratory

	Presumptive Kahn Test	Standard Kahn Test	Quantitative Kahn Test	Blood Wassermann	C.S.F. Wassermann	Unsuitable for Examination				
						Fatty	Haem.	N.S.Q.	N.S.Q. Leaked	Accid. Broken
January	5,532	656	96	668	202	9	138	17	18	...
February	6,257	933	115	944	177	7	54	6	13	10
March	6,391	722	81	742	180	7	26	4	21	2
April	6,887	729	89	752	176	13	69	18	4	...
May	7,104	840	83	860	173	5	46	30	5	2
June	6,899	601	78	610	155	13	43	16	10	1
July	7,836	525	52	546	151	17	57	22	9	1
August	7,257	556	81	570	178	17	67	25	11	2
September	6,642	381	52	394	162	12	74	24	23	2
October	7,376	428	60	436	184	7	45	28	15	3
November	6,967	551	81	559	150	16	42	20	24	2
December	6,194	430	55	452	155	18	54	15	32	...
Totals ..	81,342	7,352	923	7,533	2,043	141	715	225	185	25

TABLE 10

NUMBER OF PREMARITAL AND CORD BLOODS SUBMITTED FOR SEROLOGICAL TEST FOR SYPHILIS—Edmonton Laboratory

	Unsuitable for Examination									
Premarital	Negative	Positive	Reaction not Interpreted	Anti-Comp.	Fatty	Haem.	N.S.Q.	N.S.Q. Leaked	Accid. Broken	Total
January	466	...	9	...	...	25	3	4	...	507
February	526	...	9	...	...	7	...	2	...	544
March	458	...	7	...	...	1	...	3	2	471
April	847	1	12	...	1	8	5	1	...	875
May	951	1	10	...	...	4	3	1	2	972
June	1,364	1	10	1	2	10	5	1	...	1,394
July	1,389	1	10	...	1	10	2	1	1	1,415
August	1,088	3	4	...	...	14	2	...	...	1,111
September	799	1	3	...	...	8	2	4	1	818
October	1,307	2	6	...	1	7	4	8	...	1,335
November	1,025	2	6	1	...	3	...	...	...	1,037
December	698	2	11	...	1	3	2	5	...	722
Totals	10,918	14	97	2	6	100	28	30	6	11,201
CORD (not recorded separately previously)										
August	454	2	3	...	2	17	5	1	1	485
September	692	...	2	...	8	10	5	4	...	721
October	865	...	3	...	4	17	8	...	1	898
November	798	1	6	1	6	17	4	2	1	836
December	845	...	6	...	12	12	1	8	...	884
Totals	3,654	3	20	1	32	73	23	15	3	3,824

TABLE 11

SERA AND VACCINES DISTRIBUTED—Edmonton Laboratory

	Total 1951	Total 1952
Diphtheria:		
Schick Test Toxin—25 person pkg.	184	224
Toxoid—1 person pkg.	1,116	1,034
—6 x 3 c.c amp pkg.	86	93
—6 x 6 c.c amp pkg.	370	655
—Diluted Diphtheria Toxoid—25 person pkg. for re- action tests	1	3
— 1 person pkg. for immunization of re- actors	7	10
Diphtheria Combined:		
Diphtheria and Pertussis—1 person pkg.	6,489	5,266
9 person pkg.	1,617	1,266
Diphtheria, Pertussis and Tetanus—1 person pkg.	1,326	2,042
9 person pkg.	617	926
Diphtheria and Tetanus—1 person pkg.	97	266
9 person pkg.	68	10
Enteric—Typhoid-Parathyphoid combined (T.A.B.)		
1 person pkg.	328	504
5-7 person pkg.	1,042	914
Enteric Combined—T.A.B.T.—1 person pkg.	438	1,248
8 person pkg. ....	...	88
Measles—Anti-Measles—5 c.c. pkg.	1,055	743
Immune Serum Globulin— 2 c.c. pkg.	1,091	992
10 c.c. pkg.	107	...
Scarlet Fever—Dick Toxin—10 person pkg.	225	280
Scarlet Fever Toxin—1 person pkg.	1,234	967
6 person pkg.	593	436
Strength "A"—30 c.c pkg.	83	54
Strength "B"—30 c.c pkg.	103	86
Strength "C"—30 c.c. pkg.	149	66
Strength "D"—30 c.c. pkg.	71	76
Strength "E"—30 c.c. pkg.	77	71
Smallpox— 1 point pkg.	2,560	2,473
10 point pkg.	3,984	3,837
Staphylococcal Infection:		
Staphylococcus Toxoid—2 c.c. pkg.	120	86
Tetanus (see Diphtheria and Enteric combined):		
Tetanus Toxoid—1 person pkg.	128	277
Whooping Cough (see Diphtheria combined):		
Pertussis Vaccine—1 person pkg.	838	768
9 person pkg.	124	165
Vaccines, other—Autogenous Vaccine—25 c.c.	22	19

THERAPEUTIC AGENTS

	Total 1951	Total 1952
Diphtheria—Antitoxin 1,000 units (syringe)	221	593
Antitoxin 1,000 units (vial) ....	...	2
Antitoxin 10,000 units (syringe)	47	69
Antitoxin 20,000 units (syringe)	114	138
Gas Gangrene—Antitoxin—4,000 units	184	175
(B. welchii) 10,000 units	66	110
Rabies—14 dose treatment pkg.	2	80
Scarlet Fever—Antitoxin—3,000 units (syringe)	169	233
3,000 units (vial) ....	...	24
9,000 units (syringe)	28	90
9,000 units (vial)	27	91
Snakebite Antivenin—15 c.c.	4	...
Staphylococcus—Antitoxin—10,000 units	12	12
20,000 units ....	...	...
Tetanus—Antitoxin— 1,500 units (syringe)	405	912
10,000 units (syringe)	3	160
20,000 units (syringe)	1	143
20,000 units (vial) ....	...	27

TABLE 12

COMMERCIAL VALUE OF WORK IF CHARGED AT AVERAGE 1940 FIGURES

			Total
Sputum Examination	1,441	\$ 1.00	\$ 1,441.00
Diphtheria and Haemolytic Streptococci	4,915	1.00	4,915.00
Typhoid Fever (Agglutination tests)	1,923	1.00	1,923.00
Milk	1,972	3.00	5,916.00
Water	5,250	10.00	52,500.00
Guinea pig inoculations	2,073	3.00	6,219.00
Miscellaneous Bacteriology	6,297	3.00	18,891.00
Blood cultures	832	3.00	2,496.00
Enterobacteria and Intestinal Parasites	3,221	3.00	9,663.00
Urinalysis	10	1.00	10.00
Medico-Legal (Blood, seminal, etc.)	7	5.00	35.00
Cerebro-Spinal Fluids for Wassermann Test	2,043	1.00	2,043.00
Bloods for the Quantitative Kahn Test	923	2.00	1,846.00
Bloods for Wassermann Test	7,533	1.00	7,533.00
Bloods for Standard Kahn Test	7,352	1.00	7,352.00
Bloods for Presumptive Kahn Test	81,342	1.00	81,342.00
Smears for Gonococcus	10,320	1.00	10,320.00
Cultures for Gonococcus	5,460	1.00	5,460.00
Pathological Histological material	10,545	5.00	52,725.00
Blood Smear Examinations	167	2.00	334.00
Post Mortem Examinations (Edmonton)	376	25.00	9,400.00
Post Mortem Reports (Outside points)	147	10.00	1,470.00
Ascheim-Zondek Tests	399	5.00	1,995.00
Frog Tests	73	5.00	365.00
Fluids for Cancer Cells	410	5.00	2,050.00
Cancer Cytology	75	2.00	150.00
Bone Marrows	23	5.00	115.00
Cerebro-Spinal Fluid Examinations (Colloidal Gold, Pandy)	2,459	2.00	4,918.00
Bacteriological Examinations (P.M.)	70	5.00	350.00
B. abortus examinations (Agglutination Test)	1,928	.50	964.00
P. tularensis (Agglutination Test)	1,929	.50	964.50
Antibiotic sensitivities etc. (Discs)	28,310	.10	2,831.00
Mycological examinations	770	3.00	2,310.00
Weil Felix	3	1.00	3.00
Paul Bunnell Tests	731	2.00	1,462.00
T.B. Smears and Cultures	2,401	3.00	7,203.00
Autogenous Vaccine	19	5.00	95.00
Total			\$309,609.50

PROVINCIAL LABORATORY—Calgary Branch

D. SHUTE, M.D., *Director**Introductory.*

This third annual report of the work done at the Calgary Branch of the Provincial Laboratory of Public Health shows that there has been an increase of about 4.8% in spite of the fact that a full time Pathologist is now serving the two Lethbridge Hospitals and Lethbridge Cancer Clinic.

An estimate of the monetary value of this work, based on the Official Schedule of Fees approved by the Alberta College of Physicians and Surgeons, demonstrated clearly that the taxpayer has a good return for the money which is voted by the Provincial and Federal Governments for the maintenance of this laboratory.

Equipment.

The technical equipment is now complete except for any minor items and replacements made necessary by normal wear and tear.

Personnel.

There have been considerable changes in technical and secretarial staff and there is now only one individual remaining of the group which was originally seconded from the Edmonton Laboratory in 1949.

New members of the staff have been recruited both locally in Southern Alberta and from as far afield as Halifax, Nova Scotia and Vancouver, British Columbia.

Illness created considerable difficulty from August onwards but all co-operated loyally in helping Dr. Crichton to maintain an efficient service.

TABLE 1

SUMMARY OF WORK PERFORMED IN THE PROVINCIAL LABORATORY
SOUTHERN BRANCH, Calgary

During the Year 1952

	Totals	Unit Price	Estimated Total Value
Sputum Examinations	4,034	\$ 2.00	\$ 8,068.00
Diphtheria and Haemolytic Streptococci	600	1.00	600.00
Typhoid Fever (Agglutination Test)	902	5.00	4,510.00
Milk	789	3.00	2,367.00
Water	1,106	10.00	11,060.00
Guinea Pig Inoculations	897	10.00	8,970.00
Miscellaneous Bacteriology	832	5.00	4,160.00
Blood Cultures	112	10.00	1,120.00
Enterobacteria	322	5.00	1,610.00
Intestinal Parasites	47	10.00	470.00
Urinalyses	2,759	1.00	2,759.00
Medico-Legal (Blood, Seminal, etc.)			
Blood Counts	1,790	6.00	10,740.00
Biochemistry Investigations	541	4.00	2,164.00
Cerebro-spinal fluids for Wassermann Test	900	2.00	1,800.00
Blood for the Quantitative Kahn Test	380	2.00	760.00
Bloods for the Wassermann Test	3,163	2.00	6,326.00
Bloods for the Standard Kahn Test	2,911	2.00	5,822.00
Bloods for the Presumptive Kahn Test	23,419	2.00	46,838.00
Smears for Gonococcus	3,205	1.00	3,205.00
Van den Bergh Determinations	1	1.00	1.00
Pathological Histological Material	2,553	15.00	38,295.00
Blood Smear Examinations	123	5.00	615.00
Post Mortem Examinations	9	100.00	900.00
Histology from Post Mortems	22	15.00	330.00
Ascheim Zondek Examinations			
Bone Marrows	1	5.00	5.00
Fluids for Cancer Cells	105	10.00	1,050.00
Cerebro-spinal fluid examinations (Colloidal Gold, Pandy)	920	10.00	9,200.00
Bacteriological Examinations (P.M.)		5.00	
B. abortus Examinations (Agglutination Test)	902	2.50	2,255.00
P. tularensis (Agglutination Tests)	902	2.50	2,255.00
B. melitensis (Agglutination Tests)			
Cattle Bloods	2	1.00	2.00
Miscellaneous T.B. Smears	338	2.00	676.00
	54,587		\$178,933.00
Autogenous Vaccines	6	5.00	30.00
Antibiotic Sensitivites	331	5.00	1,655.00
Total			\$180,618.00

TABLE 2

MILK EXAMINATIONS—Calgary Laboratory

Number of milks examined bacteriologically	791
Number of milks examined for butterfat	18
Number of milks examined for B. coli	782
Number of milks examined by the Phosphatase Test	144
Number of ice creams examined	
Number of rinse bottles (waters) examined	33

TABLE 3

WATER EXAMINATIONS—Calgary Laboratory

Number of samples of water examined bacteriologically and found fit for human consumption	895
Number of waters examined bacteriologically and found unfit for human con- sumption	208
Number of samples of ice examined bacteriologically and found fit for human consumption	
Number of samples of ice examined bacteriologically and found unfit for human consumption	1
Water samples giving "Doubtful Please Repeat" reaction	1

TABLE 4
TUBERCULOSIS CONTROL EXAMINATIONS—Calgary Laboratory

Specimen	Examined by smear, animal inoculation and culture	Positive	% Positive	Negative	% Negative
Sputum and Gastric Washings	300	62	20.7 %	238	79.3 %
Urine	388	46	11.86 %	342	88.14 %
Pleural Fluids	45	3	6.7 %	42	93.3 %
C.S.F.	36	3	8.3 %	33	91.7 %
Joint Fluids	15	4	26.7 %	11	73.3 %
Abdominal Fluids	4	0	....	4	100.0 %
*Miscellaneous specimens	109	12	11.0 %	97	89.0 %
Total	897	130		767	
Sputums examined by smear only	4,034	1,007		3,027	
Miscellaneous examined by smear only	338	24		315	
GRAND TOTAL	5,269	1,161		4,109	

*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, STREPTOMYCIN, AUREOMYCIN, TERRAMYCIN AND CHLOROMYCETIN
Calgary Laboratory

Determination	No. Done
Penicillin sensitivity of a variety of organisms isolated from cases of infection	311
Streptomycin sensitivity of Mycobacterium tuberculosis isolated from cases	25
Streptomycin sensitivity of other bacteria	321
Aureomycin sensitivity of other bacteria	321
Terramycin sensitivity of other bacteria	321
Chloromycetin sensitivity of other bacteria	321
Sulphadiazine sensitivity of other bacteria	1

TABLE 6
BACTERIOLOGICAL EXAMINATIONS FOR EVIDENCE OF TYPHOID FEVER, DYSENTERY AND RELATED FEVERS—Calgary Laboratory

Stool and Urine Cultures	369
Blood Cultures	2
Bloods examined by agglutination test for typhoid and related fevers, undulant and tularemia	901

Source	Details of Results		Other		Negative	Total
	Salmonella typhi	S. paratyphi	Salmonella	Shigella		
Stool Cultures	8	....	10	14	257	289
Urine Cultures	2	....	1	....	59	62
McConkey Plates .....	....	....	1	....	....	1
Blood Cultures	2	....	....	....	....	2
Osteomyelitis .....	....	....	....	....	....	....
Autopsy .....	....	....	....	....	....	....
Total Isolations .....	....	....	....	....	....	....
Number of cases .....	....	....	....	....	....	....

Number of bloods examined by agglutination tests and found negative

Number of bloods unsuitable for agglutination test

Number of bloods examined by agglutination test and found positive

Details of Salmonella Cases:

Salmonella typhi	9
Salmonella tennessee	1
Salmonella typhi murium	5
Salmonella heidelberg	1
Blood Cultures	1

Details of Shigella Cases:

Shigella flexner	5
Shigella sonnei	5
Flexner II "a" type	1

	Positives
S. typhi	87
S. typhi and Paratyphoid A	70
S. typhi and Paratyphoid B	13
S. typhi and Paratyphoid A and Paratyphoid B	65
Paratyphoid B	20
Brucella abortus	21
P. tularensis	9
S. typhi, Paratyphoid A, Paratyphoid B and B. abortus	3
B. abortus and Paratyphoid B	3
Paratyphoid B and P. tularensis	1
S. typhi, Paratyphoid A, Paratyphoid B, B. abortus and P. tularensis	3
B. abortus and P. tularensis	1
Paratyphoid A and Paratyphoid B	2
Brucella abortus, S. typhi and Paratyphoid A	1
Paratyphoid A	1

300

TABLE 6A

INTESTINAL PARASITES—Calgary Laboratory

Number of specimens examined and found negative for parasites	45
Number of specimens examined and found positive for parasites	2
Ova Identified:	
Ascaris lumbricoides	1
Cysts Found:	
Endamoeba histolytica	1

TABLE 7

SEROLOGY TESTS FOR SYPHILIS—Calgary Laboratory

Bloods examined—Presumptive Kahn	23,419
Standard Kahn	2,911
Quantitative Kahn	380
Wassermann (Kolmer)	3,163
Cerebro-spinal fluids examined by Wassermann (Kolmer) test	900
Bloods and cerebro-spinal fluids unsuitable for examination (N.S.Q., A.C., Accidentally broken)	470
Blood broken and leaked in transit	79
Cerebro-spinal fluids broken and leaked in transit	9
Bloods and cerebro-spinal fluids "Positive" to reaction	328
Bloods and cerebro-spinal fluids "Negative" to reaction	24,336
Bloods and cerebro-spinal fluids giving "Doubtful, Please Repeat" reaction	172
Bloods giving "Please Repeat" reaction	417
Bloods giving "Report As Is" reaction	41
Bloods giving "N.S.Q. Please Repeat" reaction	119

TABLE 8

SEROLOGY TESTS FOR SYPHILIS BY MONTHS—Calgary Laboratory

	Presumptive Kahn Test	Standard Kahn Test	Quantitative Kahn Test	Blood Wasser- mann	C.S.F. Wasser- mann	Unsuit- able (N.S.Q., A.C., Haem.)
January	1,432	191	38	208	36	77
February	1,657	244	42	269	71	43
March	1,801	231	46	260	69	34
April	1,954	224	38	244	73	18
May	1,920	214	39	235	61	32
June	2,082	129	31	151	50	40
July	2,229	191	25	204	66	41
August	2,230	139	32	155	149	37
September	2,036	195	32	211	97	41
October	2,291	411	22	439	92	40
November	1,870	346	18	370	65	28
December	1,917	396	17	417	71	39
Totals	23,419	2,911	380	3,163	900	470

TABLE 9

PREMARITAL BLOODS FOR SEROLOGICAL TESTS FOR SYPHILIS

Month	Calgary Laboratory					Report As Is	Unsuit- able	Total
	Negative	Positive	Doubtful Please Repeat	Please Repeat	N.S.Q. Please Repeat			
January	317	....	....	6	....	....	16	339
February	348	....	....	3	....	1	10	362
March	391	2	....	5	2	....	6	406
April	523	....	....	2	....	....	4	529
May	628	....	....	1	1	....	11	641
June	821	1	....	6	3	....	11	842
July	744	....	2	4	1	....	5	756
August	719	2	2	1	....	....	7	731
September	699	1	....	1	....	1	9	711
October	820	....	....	1	1	....	5	827
November	634	1	....	....	....	....	5	640
December	532	....	2	....	1	....	7	542
Totals	7,176	7	6	30	9	2	96	7,326

TABLE 10
SERA AND VACCINE DISTRIBUTED—Calgary Laboratory

	Total 1952
Smallpox Vaccine:	
1 point	2,876
10 points	2,325
Diphtheria Toxoid:	
3 x 1 c.c. amps	1,090
6 x 3 c.c. amps	6
6 x 6 c.c. amps	268
Diphtheria Toxoid—Diluted Reactors:	
4 x 1 c.c. amps	12
Diphtheria Toxoid and Tetanus Toxoid—Combined:	
1 person (4 x 1 c.c. amps)	220
Diphtheria Toxoid and Pertussis Vaccine—Combined:	
1 person (4 x 1 c.c. amps)	3,472
9 persons (6 x 6 c.c. amps)	534
Diphtheria Toxoid, Pertussis Vaccine and Tetanus Toxoid—Combined:	
1 person (4 x 1 c.c. amps)	3,649
9 persons (6 x 6 c.c. amps)	206
Diphtheria Antitoxin:	
1,000 units (syringe)	76
10,000 units (syringe)	29
20,000 units (syringe)	52
Schick Test:	
25 tests	185
Scarlet Fever Toxin:	
1 person (5 x 1 c.c. vial)	856
6 persons (5 x 6 c.c. vials)	61
Strength "A"—30 doses (large)	4
Strength "B"—30 doses (large)	4
Strength "C"—30 doses (large)	4
Strength "D"—30 doses (large)	4
Strength "E"—30 doses (large)	4
Scarlet Fever Antitoxin:	
3,000 units (syringe)	193
9,000 units (vial)	348
Dick Test:	
10 tests	184
Typhoid—Paratyphoid Vaccine:	
1 person (3 amps)	357
5-7 persons (10 c.c. vial)	271
T.A.B.T. Vaccine:	
1 person (3 c.c. vial)	176
Pertussis Vaccine:	
1 person (4 x 1 c.c. amps)	843
9 persons (6 x 6 c.c. amps)	65
Tetanus Toxoid:	
1 person (3 x 1 c.c. amps)	118
Tetanus Antitoxin:	
1,500 units (syringe)	754
5,000 units (syringe)	6
10,000 units (syringe)	30
20,000 units (syringe)	2
Staphylococcus Toxoid:	
2 x 2 c.c. vials (A & B)	129
Staphylococcus Antitoxin:	
10,000 units (vial)	5
20,000 units (vial)	2
Gas Gangrene Antitoxin:	
4,000 units (vial)	128
10,000 units (vial)	94
Immune Serum Globulin (Human):	
2 c.c.	282
Anti-Measles Serum:	
5 c.c.	626
Antivenin North American Snakebite Serum:	
1 combination package	1
Autogenous Vaccine	6

TABLE 11

Clinical Pathology Investigations

CONDUCTED FOR THE CENTRAL ALBERTA SANATORIUM DURING THE YEAR 1952

Blood counts	1,790
Urinalysis	2,759
Biochemistry Investigations (Blood sugars, N.P.N.'s, etc.)	541

Sanitary Engineering Division

W. A. DEXTER, B.Sc. M.A.Sc., *Director*

The construction of new waterworks and sewerage systems continued at a high rate during 1952 as more towns and villages took advantage of Provincial Government financing at 2% interest. Eighteen municipalities completed the construction of new systems. Another twenty-two are planning the installation of these utilities during 1953.

A unique feature of this development is that systems are being installed in communities with populations as low as 320 persons. Previously these small villages could not consider such projects but with 2% money available from the Government they can manage the financing with little difficulty.

At the close of World War II there were 38 municipalities with water and/or sewerage systems. Today 95 communities enjoy the benefits of having these utilities installed. This rapid expansion of sanitary facilities represents a significant rise in the standards of living throughout the Province.

Engineering.

In August, Dr. D. R. Stanley, Director, left the Division to join a firm of Consulting Engineers.

In August, Mr. J. A. Beveridge, Assistant Director, left the Division to assume the position of Assistant City Commissioner, Red Deer, Alberta.

Municipal: With the large number of municipalities installing new systems the engineering staff were kept busy checking designs, plans and specifications. This work included field surveys of the projects and many meetings with town officials and designing engineers. In addition, an engineer from this Division was often asked to speak at general town meetings on behalf of the proposed projects.

A certain amount of time was spent assisting towns with operational problems although there is a tremendous amount of work to be done in this regard. The majority of communities with existing systems need technical advice and assistance but with the limited staff of two engineers it has been impossible to keep up with this phase of our work. For this reason it is imperative that the staff be increased by at least one engineer.

During the week of April 14 to April 18 this office conducted a short course on waterworks and sewerage systems. This course was designed to aid and train town foremen, treatment plant operators and municipal engineers. The response was very good and forty men registered. They represented cities, towns and villages throughout the whole province.

Another project completed this year was the publication of a booklet of Recommended Standards for Sewerage Systems and Sewage Treatment Plants. The primary objective is to establish

standards governing the preparation and submission of reports, and the general design of sewage works. These booklets are chiefly for the use of consulting and municipal engineers. This publication was the first of its kind in Canada and requests for copies were received from all parts of the Dominion. In addition, a leading technical magazine published the entire text.

Stream Sanitation: During 1952 the Stream Sanitation Section of this Division completed a pollution survey of the Bow River and its Tributaries. A report was prepared and circulated to municipal governments and other bodies directly concerned. Using this report as a basis, the Provincial Board of Health will presently be issuing directives to the City of Calgary and Town of High River stating minimum sewage treatment facilities to be provided.

Considerable information was collected on the operation of sewage detention ponds and sewage treatment plants. Sewage detention ponds are being used by numerous towns in the province where other treatment would make the installation of a waterworks and sewerage system too great a financial burden. Tests have shown that outside of aesthetic considerations correctly designed and operated sewage ponds provide treatment equivalent to secondary sewage treatment units.

Next year a stream pollution survey is planned for the South Saskatchewan drainage basin. This will include studies of wastes from Lethbridge, Taber, Medicine Hat, sugar refineries and canning factories.

The following certificates were issued by the Provincial Board of Health during 1952 covering waterworks, sewage works and hospital construction. The designs were checked by the engineering staff of this Division.

Certificate No.	Provisional or Final	To Whom Issued:	Proposed Works	Cost Estimated
790	F	Town of Vulcan	Water Extensions	\$ 14,800
791	F	Town of Barrhead	Water and Sewer Extensions	67,250
792	P	Village of Bashaw	Waterworks	79,000
793	P	Village of Bashaw	Sewerage System	46,900
794	F	Town of Grande Prairie	Water Extensions	52,969
795	F	Town of Grande Prairie	Sewerage Extensions	34,331
796		Viking Hospital	Extensions	131,000
797	F	City of Edmonton	Storm and Sewerage Extensions	1,434,200
798	P	City of Edmonton	Storm and Sewerage Extensions	1,675,000
799	P	Town of High Prairie	Waterworks	146,000
800	P	Town of High Prairie	Sewerage System	116,000
801	F	Village of Trochu	Waterworks Extensions	11,500
802	F	City of Calgary	Waterworks Extensions	1,000,000
803	F	City of Calgary	Storm Sewer Extensions	1,500,000
804	F	Town of Nanton	Water and Sewer Extensions	17,000
805	P	R.C.A.F.—Cold Lake	Sewage Disposal Plant	
806	P	Town of Redcliff	Sewerage System	120,500
807	F	City of Edmonton	Watermain Extensions	153,600
808	F	City of Calgary	Sanitary Sewers	150,000
809	P	Village of Coaldale	Waterworks and Sewer Additions	45,250
810	P	Village of Nobleford	Waterworks System	87,000
811	F	Town of Vegreville	Sewer Extension	1,256
812	F	City of Lethbridge	Sanitary Sewer Extensions	4,500
813	F	City of Edmonton	Waterworks Extensions	717,700
814	F	City of Edmonton	Sewer Construction	17,450
815	P	Village of Big Valley	Waterworks System	51,275
816	P	Village of Big Valley	Sewerage System	32,085
817	P	Town of Strathmore	Waterworks System	69,400
818	P	Village of Sedgewick	Sewerage System	54,000
819	F	City of Lethbridge	Extensions to Water Plant	500,000
820	F	Village of Carstairs	Sewerage System	65,007
821	F	Village of Carstairs	Waterworks System	77,615
822		Rocky Mtn. House Hospital	Extension	101,439
823	F	City of Lethbridge	Storm Sewer Extensions	117,000
824	P	Village of Carbon	Waterworks System	75,800
825	P	Village of Carbon	Sewerage System	35,000
826	F	Town of Brooks	Sewer Outfall & Sewage Plant	147,000
827	F	City of Calgary	Sanitary Sewers	245,000

DEPARTMENT OF PUBLIC HEALTH

Certificate No.	Provisional or Final	To Whom Issued:	Proposed Works	Cost Estimated
828	F	City of Calgary	Sewer & Waterworks Const.	3,000,000
829	P	Village of Sangudo	Sewerage System	58,211
830	P	Town of Claresholm	Waterworks & Sewer Additions	230,000
831	P	Town of Jasper Place	Waterworks System	274,000
832	P	Town of Jasper Place	Sewerage System	212,200
833	F	Town of Camrose	Sewerage System Extensions	2,000
834	F	Village of Grimshaw	Waterworks Extensions	43,930
835		Ponoka Hospital	Addition	108,300
836	P	Village of Picture Butte	Waterworks System	141,000
837	P	Village of Picture Butte	Sewerage System	100,500
838	F	Town of Ponoka	Waterworks Extensions	12,200
839	F	Town of Ponoka	Sewer Extensions	8,153
840	F	Village of Spirit River	Waterworks & Sewerage System	86,000
841	F	City of Red Deer	Sewerage Extensions	43,000
842	F	City of Red Deer	Waterworks Extensions	72,500
843		Royal Alexandra Hospital	Addition	1,401,141
844	F	Village of Big Valley	Waterworks System	51,275
845	F	Village of Big Valley	Sewerage System	32,085
846	F	Town of Brooks	Waterworks Extensions	7,970
847	F	Town of Brooks	Sewerage System Extensions	9,530
848		Brooks Hospital	Addition	123,000
849		Didsbury Hospital	Addition	100,000
850	F	Town of Gleichen	Waterworks Extension	4,000
851	P	Town of Stony Plain	Waterworks System	165,071
852	P	Town of Stony Plain	Sewerage System	69,927
853	P	Village of Crossfield	Waterworks System	73,100
854	P	Village of Crossfield	Sewerage System	33,700
855	P	Town of Bow Island	Sewerage System	108,000
856	F	Town of Peace River	Waterworks Extensions	55,000
857	F	Village of Sangudo	Sewerage System	58,211
858		Salvation Army Grace Hospital	Addition	261,600
859	F	City of Lethbridge	Water Main Replacements	193,000
860	F	Village of Carbon	Waterworks System	75,800
861	F	Village of Carbon	Sewerage System	35,000
862	F	Town of Camrose	Sewerage Extensions	5,000
863	F	City of Calgary	Sewerage Extensions	132,000
864		Elk Point Hospital	Addition	152,000
865	F	City of Edmonton	Waterworks Extensions	465,151
866	P	Town of St. Albert	Waterworks System	103,100
867	P	Town of St. Albert	Sewerage System	61,104
868	F	Village of Nobleford	Waterworks System	87,000
869	P	Village of Thorsby	Waterworks System	80,000
870	P	Village of Thorsby	Sewerage System	35,670
871	P	Village of Derwent	Water System	44,700
872	P	Village of Derwent	Sewerage System	32,800
873	P	Village of Smoky Lake	Waterworks System	102,256
874	P	Village of Smoky Lake	Sewerage System	55,363
875		Seton Hospital—Jasper	Addition	
876	P	Town of Stettler	Waterworks Extensions	55,200
877	P	Town of Stettler	Sewer Extensions	26,100
878	P	Town of Stettler	Storm Sewers	43,900
879		Provost Hospital	Addition	121,667
880		Coaldale Hospital	Addition	100,000
881	P	Town of High Prairie	Sewerage System	116,000
882	F	Town of Lacombe	Sewer Extensions	6,607
883	P	Town of Vermillion	Water and Sewer Extensions	67,600
884	F	Town of Leduc	Water and Sewer Extensions	24,120
885	F	Town of Rimbey	Water and Sewer Extensions	12,594
886	F	Town of Rimbey	Water and Sewer Extensions	40,748

Plumbing.

This year saw considerable progress towards the completion of a National Plumbing Code. The committee preparing this Code included representatives from every Province in the Dominion with Mr. J. A. Beveridge, Provincial Sanitary Engineer acting as the Alberta representative up until the time he resigned from the Department of Public Health. The Plumbing and Drainage Regulations of the Province of Alberta were used as a guide for the committee concerned as was the report of the Uniform Code Committee which was prepared in the United States. Reference was also made to some other reports.

During this year Order-in-Council numbered 151-52 was passed making it mandatory for all urban municipalities with a population of 2,000 or more, or those having a water and/or sewerage system to appoint their own plumbing inspector. This Order-in-Council became effective the first day of April 1952.

The effect of this Order-in-Council was to reduce the number of permits issued by this office as well as reduce the revenue received. During 1952 there were 878 plumbing permits issued to a value of \$6,450.00.

In order to assist the urban municipalities, a two week course was given to familiarize newly appointed plumbing inspectors with the regulations as well as with proper installation practices, etc. This course was well attended and a large number of requests have been received for the course to be held again this coming year.

There are 71 urban municipalities in the province responsible for their own plumbing inspections but this figure will be increased by at least 20 during 1953.

This Division is now mainly responsible for rural plumbing installations, however a considerable amount of time was devoted to assisting urban municipal inspectors. It was necessary on a few occasions to arbitrate disputes which arose between these inspectors and local plumbing contractors.

The past years have indicated a trend whereby farmers are becoming aware of the convenience of plumbing in farm homes and this year was no exception.

This office received a record number of requests for information concerning the installation of rural sewage disposal systems. Requests were received from every Province in the Dominion for our Rural Sewage Disposal Booklet which is one of the finest booklets of its kind in print at the present time. This public service is becoming more fully realized throughout the Province.

TABLE 1
ANNUAL PLUMBING REPORT—1952

Inspections By	New Con- struction Total No. Fixtures	Reconstruc- tion and Extensions	Permits Granted	Charges Made
Provincial	5,489	488	872	\$ 6,385.50
Edmonton	17,788	1,650	2,619	16,752.50
Calgary	17,321	1,200	3,189	15,618.50
Lethbridge	2,264	468	469	1,799.00
Medicine Hat	1,080	183	212	424.25
Red Deer	776	20	152	399.50
Wetaskiwin	240	69	46	276.50
Drumheller	38	12	22	123.00
Hanna	359	0	99	.....
Banff	285	98	54	162.00
Athabasca	6	1	2	7.00
Beaverlodge	93	0	21	107.00
Bassano	4	26	9	20.00
Bowness	35	13	7	35.00
Camrose	398	47	71	416.50
Claresholm	151	83	51	153.00
Coaldale	289	31	66	.....
Devon	44	19	15	.....
Didsbury	19	0	7	35.50
Fairview	81	0	29	29.00
Fort Saskatchewan	263	68	34	165.50
Grimshaw	26	1	1	.....
Hardisty	210	49	49	150.00
High River	79	30	30	81.00
Hythe	32	2	8	32.00
Jasper Place	11	0	2	.....
Lacombe	139	149	62	327.00
Leduc	124	12	32	157.50
Morinville	2	7	2	10.00
Milk River	50	4	15	60.00
Nanton	78	0	18	77.50
Okotoks	59	1	73	219.00
Olds	326	0	78	395.50
Peace River	96	13	114	.....
Pincher Creek	125	3	25	127.50
Ponoka	197	7	39	212.50
Raymond	41	4	12	60.00
Stettler	116	12	60	317.50
St. Paul	198	7	56	280.00
Stony Plain	238	2	54	270.00
Strathmore	43	.....	9	.....
Taber	346	95	121	565.50
Three Hills	157	5	35	200.00
Trochu	69	1	19	95.00
Vegreville	103	0	17	99.00
Vulcan	5	0	1	5.00
Total	49,893	4,898	8,978	\$46,650.75

TABLE 2
ANNUAL PLUMBING REPORT—1952

Location	W.C.	Lavatory Basin	Showers and Bath	Sinks	Laundry Tubs	Special Fixtures	Septic Tanks	Privies Eliminated
Provincial	1,573	1,608	1,127	1,149	125	395	528	515
Edmonton	5,498	5,546	3,255	3,271	240	1,626	12	139
Calgary	5,121	4,918	4,270	3,751	300	161	1	50
Lethbridge	732	776	435	513	11	265	0	92
Medicine Hat	367	350	206	265	5	70	2	14
Red Deer	223	211	141	165	11	45	1	32
Wetaskiwin	79	104	41	52	9	24	1	6
Drumheller	16	16	9	9	0	0	0	0
Hanna	93	88	83	93	0	2	0	93
Banff	86	77	37	62	13	40	0	0
Athabasca	2	2	2	1	0	0	1	1
Beaverlodge	23	31	16	20	1	2	0	17
Bassano	9	9	5	7	0	0	1	4
Bowness	16	13	7	8	0	4	6	2
Camrose	133	130	59	87	1	35	1	8
Claresholm	62	61	48	54	7	6	0	19
Coaldale	98	84	52	61	6	19	0	6
Devon	15	15	11	11	8	3	0	0
Didsbury	7	5	2	3	1	1	0	2
Fairview	27	21	7	21	0	5	0	18
Fort Saskatchewan	93	110	40	46	5	37	1	60
Grimshaw	8	14	4	0	0	0	0	0
Hardisty	59	52	39	45	8	7	0	11
High River	32	30	16	26	2	8	6	8
Hythe	8	7	7	8	0	0	0	2
Jasper Place	3	3	1	2	0	2	0	0
Lacombe	77	74	42	62	9	24	0	34
Leduc	39	41	17	28	4	7	0	6
Morinville	4	3	0	0	0	0	0	2
Milk River	20	18	17	18	1	0	0	14
Nanton	24	23	17	17	9	0	0	17
Okotoks	21	20	11	4	0	4	0	14
Olds	87	89	63	62	4	1	2	40
Peace River	35	35	21	21	0	2	1	30
Pincher Creek	29	20	18	25	0	0	0	7
Ponoka	59	53	37	42	1	5	3	10
Raymond	11	10	7	10	1	6	0	7
Stettler	39	38	19	29	1	2	0	8
St. Paul	61	56	37	42	5	4	0	56
Stony Plain	68	71	41	54	1	3	0	47
Strathmore	10	15	7	11	0	0	0	4
Taber	125	115	85	89	6	21	0	43
Three Hills	62	31	20	27	2	20	0	16
Trochu	19	17	11	18	2	3	0	13
Vegreville	32	31	13	23	3	1	0	5
Vulcan	1	1	1	1	0	0	0	0
Total	15,206	15,042	10,404	10,313	802	2,860	567	1,471

Sanitary Inspection.

The Sanitary Inspection Section of the Division commenced the year 1952 with a staff consisting of a Chief Sanitary Inspector and four provincial sanitary inspectors. Mr. E. Tyler, Cert. S.I.B., Provincial Sanitary Inspector, Wetaskiwin, transferred to the Civil Defence authority in February and was replaced by Mr. J. H. Broomhall, C.S.I. (C) who commenced his duties November 1, 1952. Mr. S. Johnsen, C.S.I. (C), Provincial Sanitary Inspector, Calgary passed away in July and had not been replaced to the year's end. Mr. H. Dean, Cert. S.I.B., Provincial Sanitary Inspector, Lethbridge, resigned from the staff effective November 30, 1952. The Sanitation Section therefore carried on through most of the year with a reduced staff which of course reduced the effectiveness of its program to a considerable extent.

The Town of Morinville and the Village of Grimshaw passed compulsory pasteurization by-laws during the year, increasing the total number of cities, towns and villages with such by-laws to 32 at the year's end. A new pasteurization plant was opened at Beaverlodge during the year while plants at Black Diamond, Magrath and Okotoks discontinued operation thus reducing the total number of plants supplying pasteurized milk to the public to 74 at the year's end. The communities where plants closed have been able to obtain pasteurized milk from other plants. Six private pasteurizing plants supplying milk to schools and institutions continued to operate.

Provisional Certificates of Approval were issued covering the sites selected for 17 new cemeteries during the year. Final Certificates were issued to 56 cemeteries, the majority of which covered cemeteries established prior to the coming in force of Regulations requiring such certificates.

The program of assisting Local Health Authorities in dealing with sanitary matters was continued though the amount of assistance was of necessity reduced due to staff limitations. Routine inspections of food handling establishments and as far as possible of milk producing establishments were made. A number of proposed waste disposal ground sites were inspected and where these were found satisfactory, approvals were granted. In addition, complaints and requests concerning sanitary matters received from the public were dealt with.

During the tourist season tourist camps were inspected for sanitary conditions and classified in co-operation with the Department of Industries and Labour. In excess of 1,700 cabins in 193 tourist camps were licensed during the year and inspections were made and advice given to persons building or planning new tourist camps.

A number of logging camps in the northern and central sections of the province were inspected during the winter months.

During the months of January and February the Division assisted the Mountain View Health Unit in carrying out a flood rehabilitation program in the Town of Bowness. This program assisted residents of the town in restoring their homes to a sanitary condition as well as providing for the safety of water supplies and sewage disposal. The Division devoted six man weeks of Sanitary Inspectors' time to this program.

A summary of the inspections made by the Provincial Sanitary Inspectors during the year 1952 is appended hereto. The total of inspections is 1,526, somewhat less than the 2,724 inspections made in 1951 but may be accounted for by the reduction in staff.

The restaurant inspection program carried out by the Provincial Sanitary Inspectors during the past few years has begun to show results in the improvement of sanitation standards in this industry. However it has been noted that where the inspection service became infrequent due to the reduced staff available that in many instances the rate of improvement was not continued and that in some cases there has been a return to lower standards.

The reduction in the number of inspectors employed during most of the year prevented the Division from continuing in full measure the program of dairy inspections commenced in 1951. It is therefore not possible to assess the results achieved but from such inspections as were made it appears there is need for an intensification of this program. Conditions under which milk is produced for human consumption are in many instances unsafe. In many communities this milk is distributed without pasteurization.

While no routine inspection program of waste disposal grounds was carried out, some of these were inspected in response to complaints and requests. These inspections and other observations indicate that a number of established waste disposal grounds are not satisfactory as to method of operation, encourage fly breeding and could become rat harborages and feeding grounds. It would appear that the Division should make provision for the routine inspection of waste disposal grounds particularly those located in areas endangered by rats.

The number of complaints which were received concerning sanitary conditions at logging camps increased. The inspections made in answer to these complaints and those made in a routine nature have indicated that in certain districts the sanitation standards in these camps are low though of course there are exceptions. The Division has great difficulty in providing inspection service to more than a token number of these camps due to the limitation of their operating season, remoteness, and limited staff available. About 1,000 of these camps operate during part of the winter throughout the province. Some of these will now be in Health Units which were established during the year but it is anticipated that the majority because of their remote locations will remain a responsibility of the Provincial Department.

SANITARY INSPECTIONS—1952

Classes of Inspections	Complaints	Request	Routine	Follow up	Total
1. Milk: Producers and Producer-Distributors	1	5	110	6	122
2. Milk: Milk Plants	1	24	42	8	75
3. Milk: Other than above .....	.....	3	11	6	20
4. Restaurants	5	1	637	40	683
5. Other Food Handling Establishments	1	3	79	5	88
6. Housing	1	3	5	.....	9
7. Industrial and Construction Camps	2	1	58	.....	61
8. Hotels, Tourist Camps, Trailer Camps, Recreation Camps	3	5	212	14	234
9. Sewage Disposal: Private Systems	7	5	14	1	27
10. Sewage Disposal: Public Systems .....	.....	.....	4	5	9
11. Water Supplies: Private	2	9	18	5	34
12. Water Supplies: Public .....	.....	3	15	4	22
13. Swimming Pools .....	.....	.....	2	.....	2
15. Nuisance Grounds	1	2	10	1	14
14. Cemetery Sites	4	7	41	1	53
16. Garbage Disposal	5	2	13	2	22
17. Town General Sanitation	2	1	3	.....	6
18. Slaughter Houses .....	.....	.....	4	.....	4
19. Stock Yards, Fur Farms, Piggeries, Livery Barns, etc. ....	.....	1	13	.....	14
20. Miscellaneous Inspections	2	13	8	4	27
Totals	37	88	1,299	102	1,526

Communicable Disease Investigations 7

Samples submitted for Laboratory Examination:

Water Bacteriological	81
Water Chemical	13
Milk	58
Other Material	10
Notices Issued	1

Hospital and Medical Services

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

The number of approved hospitals in the Province was decreased in 1952 by the closing of the General Hospital at Cadomin and the union of the Lethbridge Isolation Hospital with the Galt Hospital. The number of municipal hospitals was increased by one when the Oilfields General Hospital at Turner Valley became a Municipal Hospital in July.

There is still a shortage of over three hundred nurses in the Province as at December 31, 1952. However this is partially due to the increase in hospital beds throughout the Province. The increase in Certified Nursing Aides compensates to some extent for the shortage of nurses.

Approved Hospitals.

The approved hospitals in the Province at December 31st are as follows:

	1952	1951
Protestant	6	6
Municipal	51	50
Municipally operated	6	6
Industrial	2	3
Service Group	2	2
Lay Corporation	2	2
Provincial	1	1
Catholic	31	31
	<u>99</u>	<u>101</u>

The Isolation Hospitals in Edmonton, Calgary and Lethbridge are included with the respective city hospitals. The hospital at Hythe is a sub-hospital of Grande Prairie Municipal.

Private Hospitals.

There were 12 private hospitals licensed to operate in 1952.

Statistics.

The following tables give statistical data for each approved hospital in the Province.

Table 1—Bed Capacity, Bed Complement, Patients under Care during year;

Table 2—Patient Days and Occupancy;

Table 3—Staff;

Table 4—Operating Expenditures;

Table 5—Revenue for Operating Purposes;

Table 6—Distribution of Hospital Costs;

Table 7—Grants and Payments to Hospitals;

Table 8—Hospitalization Payments to Local Authorities;

Table 9—Hospitalization of Alberta Population by Age;

Table 10—Length of Stay in Hospital by Patient Type.

The information concerning hospitals in operation for a part of the year only is given separately at the end of each table. Not included are the hospitals at Fort Smith, N.W.T., and Lloydminster, Saskatchewan.

For convenient reference, the information in the above tables is herewith presented in summary form, together with corresponding data for 1951, for comparative purposes.

HOSPITAL BEDS

	1952		1951	
	Capacity	Complement	Capacity	Complement
Beds and Cribs	5,752	6,159	5,521	6,239
Bassinets	1,022	1,165	998	1,132
	6,774	7,324	6,519	7,371
Beds per thousand population (excluding Bassinets)	5.9	6.3	5.9	6.6
Beds per thousand population, (including bassinets)	6.9	7.5	6.9	7.8
Patients accommodated per bed per year (excluding newborn)		30.2		27.3

PATIENT DAYS

	1952	1951
Adults and children	1,614,151	1,558,524
Newborn	231,292	219,896
All patients	1,845,443	1,778,420
Patient Days (excluding newborn) per population	1.6	1.6

PATIENTS UNDER CARE DURING THE YEAR

	1952		1951	
Adults and children	186,025		170,517	
Average stay		9.0		9.0
Newborn	28,164		26,025	
Average stay		8.5		8.6
Total	214,189		196,542	
Average stay		8.9		8.9
Average in hospital daily	5,042		4,872	
% of population in hospital daily		0.51		0.52
% of population admitted per year		21.4		20.3

STAFF

	1952
Total Staff	6,443
Nurses:	
Graduate	1,298
Student	1,182
Nurses Aides:	
Certified	412
Trainee	65
Orderlies	116
Internes	99
Salaried Doctors	31
Technicians	177
Dietitians	40
All Others	3,023

BIRTHS

	1952	1951
Births (excluding Indian) in approved hospitals	27,400	25,291
Total stillbirths	367	363
Percentage of births in approved hospitals to total births in Province (excluding Indian)	94.6	95.3

NURSES IN TRAINING

	1952	1951
Number of schools	10	10
Number graduated	383	367

NURSING AIDE SCHOOL

	1952	1951
Number of Trainees	188	.....
Number of Certified Aides since 1946	960	.....
Number of Aides certified in 1952	215	.....

FINANCIAL

	1952	1951
Total operating revenue	\$17,340,006.97	\$14,676,755.56
Total operating expenditure	17,188,076.16	15,060,818.45
Revenue per patient per day	10.29	9.04
Expenditures per patient per day	10.20	9.27
Salaries and wages	52.6%	49.7%
Supplies	31.1%	34.5%
Purchased services	3.1%	3.0%
Insurance	0.9%	0.8%
Depreciation	4.4%	4.4%
Repairs and replacements	3.7%	3.5%
Interest and exchange	2.8%	2.5%
Miscellaneous	1.4%	1.6%

PROVINCIAL GRANTS AND PAYMENTS TO HOSPITALS AND LOCAL AUTHORITIES

	Days	Amount
Per Diem (70 cents) Hospitalization Grant	1,694,276	\$1,186,044.45
Maternity Hospitalization Payments	214,826	1,368,922.05
Pensioner Group Hospitalization Payments	179,016	1,164,339.60
Hospitalization Payments to Local Authorities	553,701	1,316,831.30
Orthopaedic Hospitalization Payments	19,357	46,456.80
Total		\$5,082,594.20
Poliomyelitis Hospitalization		284,924.35
Cancer Hospitalization		61,884.55
Welfare Department Payments		105,280.00
		<u>\$5,534,683.10</u>

SPECIAL SERVICES FOR PENSION GROUP

	Fiscal Year 1952/53
Payment to Optometrists	\$ 14,262.00
Number of refractions	3,300
Payments for Glasses	46,066.93
Number of claims	5,337
Payment for physiotherapy, chiropractic, etc.	1,122.50
Payments to Dental Association	99,058.56
Number of claims	4,908
Payments to College of Physician & Surgeons	471,707.50
Total Payments	<u>\$632,217.49</u>

TABLE No. 1

Hospitals	Bed Capacity		Bed Complement		Patients Under Care During Year						Admissions		Discharges		Deaths		Stillbirths			
	Number		Number		Adults and Children		Newborn		Total		Adults and Children	Newborn	Adults and Children	Newborn	Adults and Children	Newborn				
	Beds	Basinets	Total	Beds	Basinets	Total	M.	F.	M.	F.								M.	F.	
Athabasca, Municipal	42	13	55	39	13	52	679	906	107	100	786	1,006	1,792	1,573	201	1,558	202	16	2	5
Banff, Mineral Springs	42	4	46	60	6	66	362	378	33	32	395	410	805	722	65	713	64	12	1	1
Barrhead, St. Joseph's	24	7	31	33	10	43	610	907	118	106	728	1,013	1,741	1,491	219	1,475	219	13	1	3
Bassano, Municipal	26	6	32	24	6	30	332	420	41	45	373	465	838	742	84	723	84	12	1	2
Beaverlodge, Municipal	9	6	15	10	4	14	184	299	54	44	238	343	581	476	98	463	97	9	1	3
Bentley, Municipal	16	7	23	17	5	22	181	275	24	20	205	295	500	449	43	448	44	2	...	1
Berwyn, Municipal	21	5	26	22	5	27	245	323	28	47	273	370	643	551	73	542	72	9	...	4
Blairmore, Crow's Nest Pass, Mun.	72	6	78	72	6	78	757	922	126	134	883	1,056	1,939	1,654	257	1,611	257	46	2	4
Bonnyville, Kath. H. Prittie	8	5	13	22	5	27	226	249	19	24	245	273	518	471	43	548	40	4	1	2
Bonnyville, St. Louis	28	5	33	41	8	49	557	854	74	76	631	930	1,561	1,385	144	1,356	145	24	4	2
Brooks, Municipal	31	7	38	34	8	42	641	982	143	121	784	1,103	1,887	1,601	261	1,566	254	23	5	...
Calgary, Alberta Red Cross	156	...	156	156	...	156	189	134	...	189	134	323	279	196	...	380	2,413	37	37	37
Calgary, General	301	60	361	320	60	380	4,000	7,538	1,284	1,209	5,284	8,747	14,031	11,289	2,434	10,894	2,413	380	2	...
(a) Isolation	...	...	...	...	...	...	452	436	...	...	542	436	888	839	...	828	...	24	...	...
Calgary, Holy Cross	371	54	425	336	63	399	4,443	7,773	1,279	1,210	5,722	8,983	14,705	11,991	2,445	11,830	2,391	145	47	47
Calgary, Salvation Army Grace	25	28	53	17	16	33	...	222	119	94	119	316	435	216	206	221	211	...	1	2
Canmore, St. Mary's	98	22	120	98	18	116	1,315	2,081	234	210	1,549	2,291	3,840	3,350	439	3,285	432	64	7	1
Canmore, Canmore	12	4	16	12	4	16	158	151	35	23	193	174	367	305	58	306	57	2	1	...
Cardston, Municipal	24	6	30	28	9	37	406	796	117	122	523	918	1,441	1,181	235	1,168	233	17	3	3
Carmangay, Little Bow Municipal	14	...	14	17	4	21	150	181	11	10	161	191	352	323	21	320	20	3	...	...
Castor, Our Lady of the Rosary	25	8	33	28	8	36	509	778	53	59	562	837	1,399	1,270	108	1,264	109	7	...	1
Cereal, Municipal	9	3	12	11	5	16	108	118	19	21	127	139	266	220	40	219	40	4	...	...
Claresholm, Municipal	42	6	48	39	12	51	488	717	74	62	562	779	1,341	1,178	135	1,174	128	12	3	3
Cold Lake, John Nell	15	3	18	18	4	22	189	260	41	37	230	297	527	442	75	438	78	7	...	...
Consort, Municipal	22	8	30	22	7	29	186	275	35	35	221	310	531	445	67	447	70	...	1	1
Coronation, Municipal	18	3	21	20	6	26	232	305	39	27	271	332	603	521	63	529	64	1	1	1
Daysland, Providence	16	...	16	23	5	28	464	546	29	25	493	571	1,064	1,001	53	982	50	9	1	...
Desmarais, St. Martin's	14	2	16	18	3	21	89	180	16	11	105	191	296	265	27	262	27	3	...	...
Didsbury, Municipal	25	7	32	27	10	37	322	558	60	55	382	613	995	869	114	859	107	10	5	4
Drumheller, Municipal	65	7	72	79	13	92	930	1,334	169	179	1,099	1,513	2,612	2,200	340	2,160	334	47	7	5

Eckville, Municipal	29	5	34	27	8	35	429	560	47	54	476	614	1,090	974	100	973	98	1
Edmonton, Beulah Home	6	2	8	6	6	12	139	139	75	66	75	205	280	135	133	136	134	3
Edmonton, General	212	25	237	250	28	278	4,462	5,633	574	512	5,036	6,145	11,181	9,886	1,070	9,676	1,056	12
(a) T.B. Division	294	64	358	279	62	341	3,734	7,207	1,229	1,196	4,963	8,403	13,366	10,739	2,386	10,581	2,335	37
Edmonton, Misericordia																		55
Edmonton, Royal Alexandra	460	80	540	569	88	657	5,765	9,408	1,791	1,577	7,556	10,985	18,541	14,846	3,312	14,606	3,255	49
(a) Isolation							575	509			575	509	1,084	1,048		1,026	26	
(b) T.B. Division							23	22			23	22	45	10		43	2	
Edmonton, University of Alberta	897	40	937	814	40	854	6,003	6,873	714	711	6,717	7,584	14,301	12,600	1,403	12,256	1,361	18
(a) D.V.A.							N't available				N't available		1,924	1,819		1,782	50	
(b) Polio							129	138			129	138	267	256		200		
(c) T.B. Division							20	20			20	20	8			20		
Edson, St. John's	37	5	42	37	5	42	541	634	106	110	647	744	1,391	1,152	212	1,146	209	4
Elk Point, Municipal	26	6	32	38	10	48	750	1,137	65	74	815	1,211	2,026	1,854	137	1,822	134	3
Elnora, Municipal	16	6	22	16	6	22	93	153	20	14	113	167	280	238	34	230	34	1
Empress, Municipal	23	4	27	19	3	22	167	201	23	30	190	231	421	359	52	355	51	3
Fairview, Municipal	32	10	42	34	10	44	436	626	73	83	509	709	1,218	1,037	153	1,029	150	2
Fort Macleod, Municipal	14	6	20	24	6	30	256	375	47	39	303	414	717	620	85	600	77	6
Ft. McMurray, St. Gabriel's	28	6	34	28	7	35	162	208	29	21	191	229	420	362	50	361	49	1
Ft. Vermilion, St. Theresa	16	4	20	30	4	34	187	300	38	26	225	326	551	459	63	459	62	2
Galahad, St. Joseph's	15	5	20	25	6	31	410	522	25	32	435	554	989	918	55	909	55	
Glendon, Municipal	8	7	15	16	6	22	246	293	30	26	276	319	595	535	56	534	55	1
Grande Prairie, Municipal	79	20	99	90	18	108	915	1,288	188	169	1,103	1,457	2,560	2,159	352	2,129	342	4
(a) Hythe Sub-Hospital							135	137	23	16	158	153	311	267	38	265	39	1
Hanna, Municipal	35	9	44	39	9	48	418	560	88	61	506	621	1,127	961	147	936	141	7
Hardisty, St. Anne's	20	6	26	23	8	31	270	408	34	30	304	438	742	667	64	657	60	3
High Prairie, Providence	41	12	53	64	13	17	933	1,333	158	178	1,091	1,511	2,602	2,209	326	2,164	316	2
High River, Municipal	44	11	55	54	15	69	694	1,019	118	105	812	1,124	1,936	1,694	219	1,660	220	2
Innisfail, Municipal	28	8	36	39	8	47	414	596	86	80	500	676	1,176	993	162	965	156	6
Islay, Municipal	13	4	17	17	6	23	132	186	13	11	145	197	342	305	23	306	23	1
Jasper, Seton	26	8	34	15	5	20	447	285	38	36	485	321	806	724	74	713	72	2
Killam, General	27	6	33	28	6	34	428	648	50	74	478	722	1,200	1,062	123	1,049	122	2
Lac la Biche, St. Catherine's	23	8	31	32	8	40	564	874	121	106	685	980	1,665	1,423	225	1,408	224	3
Lacombe, Municipal	50	16	66	52	16	68	695	1,195	164	138	859	1,333	2,192	1,859	297	1,827	289	4
Lamont, Archer Memorial	95	12	107	95	12	107	1,209	1,660	98	87	1,307	1,747	3,054	2,829	180	2,794	178	1
Lethbridge, Galt	86	8	94	123	18	141	1,392	2,081	240	197	1,632	2,278	3,910	3,401	430	3,310	420	5
Lethbridge, Isolation							63	41			63	41	104	100		97	5	
Lethbridge, St. Michael's General	181	18	199	185	40	225	2,380	3,951	431	429	2,811	4,380	7,191	6,227	843	6,152	823	14
McLennan, Sacred Heart	29	4	33	37	10	47	636	888	100	104	736	992	1,728	1,493	199	1,485	192	3
Magrath, Municipal	22	8	30	27	7	34	196	284	28	33	224	317	541	469	59	463	59	1

TABLE No. 1—Continued

Hospitals	Bed Capacity		Bed Complement		Patients Under Care During Year						Admissions		Discharges		Deaths		Stillbirths		
	Number		Number		Adults and Children		Newborn		Total		Adults and Children	Newborn	Adults and Children	Newborn	Adults and Children	Newborn			
	Beds	Basinets	Total	Beds	Basinets	Total	M.	F.	M.	F.									
Manning, Battle River	12	4	16	12	5	17	220	353	46	60	266	413	679	564	103	561	104	7	1
Mannville, Municipal	15	4	19	25	2	30	203	286	39	47	242	333	575	485	85	473	84	8	1
Mayerthorpe, Municipal	20	8	28	25	8	33	562	602	86	65	648	667	1,315	1,149	151	1,141	145	3	1
Medicine Hat, General	118	10	128	142	35	177	1,623	2,467	381	353	2,004	2,821	4,824	4,012	717	3,893	718	111	5
Medicine Hat, Isolation	11		11	11		11	4	2			4	2	6	6					
Mundare, General	26	4	30	27	4	31	371	506	18	23	389	529	918	865	41	847	39	11	1
Myrnam, Municipal	13	3	16	17	5	22	227	362	20	31	247	393	640	580	51	572	48	9	1
Olds, Municipal	31	9	40	32	10	42	399	610	111	97	510	707	1,217	990	207	955	198	31	4
Oyen, Municipal	17	5	22	15	5	20	158	182	16	24	174	206	380	332	40	337	39	1	1
Peace River, Municipal	37	9	46	45	9	54	649	862	110	99	759	961	1,720	1,489	202	1,474	201	8	5
Pincher Creek, St. Vincent's	64	6	70	60	12	72	553	707	69	63	622	770	1,392	1,246	130	1,217	131	20	3
Ponoka, Municipal	26	10	36	24	11	35	457	670	105	99	562	769	1,331	1,108	203	1,099	198	17	3
Provost, Municipal	13	5	18	19	4	23	373	529	60	58	433	587	1,020	888	118	877	114	11	1
Radway, St. Joseph's	14	6	20	20	6	26	347	538	64	64	411	602	1,013	876	125	862	123	10	1
Raymond, Municipal	18	5	23	18	6	24	204	413	57	64	261	477	738	607	118	598	117	10	2
Red Deer, Municipal	104	30	134	105	20	125	1,140	1,811	222	240	1,362	2,051	3,413	2,892	454	2,825	441	56	8
Rimbey, Municipal	19	8	27	20	8	28	362	637	78	69	440	706	1,146	987	146	984	143		1
Rocky Mountain House, Municipal	22	6	28	22	6	28	379	388	54	56	433	444	877	751	109	737	105	12	3
Smoky Lake, Geo. McDougall	15	5	20	18	6	24	158	274	36	43	194	317	511	425	78	418	74	7	3
Spirit River, Holy Cross	27	4	31	39	11	50	541	692	72	51	613	743	1,356	1,221	119	1,207	119	9	3
St. Paul, St. Theresa	45	16	61	66	24	90	868	1,248	139	127	1,007	1,375	2,382	2,079	262	2,061	255	32	4
Stettler, Municipal	56	8	64	56	8	64	890	1,220	151	134	1,041	1,354	2,395	2,055	280	2,025	271	45	9
Taber, Municipal	37	8	45	39	9	48	638	1,009	159	155	797	1,164	1,961	1,608	309	1,590	299	21	6
Three Hills, Municipal	25	10	35	21	12	33	278	488	67	76	345	564	909	750	138	739	138	16	1
Tofield, Municipal	21	5	26	20	5	25	333	564	53	58	386	622	1,008	885	109	870	105	14	2
Trochu, St. Mary's	31	6	37	31	6	37	111	263	36	24	147	287	434	364	58	357	59	11	1
Turner Valley, Municipal	13	6	19	19	5	24	277	310	32	31	309	341	650	577	60	567	59	6	3
Two Hills, Municipal	25	10	35	28	10	38	417	588	48	41	465	629	1,094	981	86	982	85	4	1
Vegreville, St. Joseph's General	85	14	99	85	15	100	955	1,426	99	99	1,054	1,525	2,579	2,346	196	2,295	188	33	6
Vermilion, Municipal	37	4	41	40	10	50	420	676	101	77	521	753	1,274	1,083	173	1,056	170	24	3

Viking, Municipal	14	4	18	23	7	30	324	476	34	45	358	521	879	783	76	764	76	13	....	2
Vilna, Our Lady's	14	3	17	18	4	22	146	315	62	82	208	397	605	449	140	442	140	5	1	5
Vulcan, Municipal	37	7	44	34	6	40	470	672	69	72	539	744	1,283	1,122	137	1,107	137	11	2	2
Wainwright, Municipal	48	14	62	48	14	62	652	873	116	126	768	999	1,767	1,488	239	1,482	239	20	10	2
Westlock, Immaculata	75	18	93	75	15	90	1,212	1,672	171	148	1,383	1,820	3,203	2,833	314	2,777	310	49	3	7
Wetaskiwin, Community	46	12	58	47	15	62	958	1,382	203	178	1,161	1,560	2,721	2,303	377	2,252	366	55	8	5
Willingdon, General	13	3	16	25	4	29	335	512	33	35	368	547	915	829	64	826	66	10	2	....
Total for Hospitals Operating Full Year	5,727	1,014	6,741	6,146	1,162	7,308	74,000	109,944	14,462	13,677	88,462	123,621	214,007	182,028	27,625	178,854	27,128	2,991	477	367
Hospital in Operation only part of the year:																				
Cadomin, General	11	3	14	....	....	39	....	54	8	5	47	59	106	93	13	93	13	....	....	....
Nordegg, General	14	5	19	13	3	16	39	25	7	5	46	30	76	64	12	64	11	....	1	....
Grand Total	5,752	1,022	6,774	6,159	1,165	7,324	74,078	110,023	14,477	13,687	88,555	123,710	214,189	182,185	27,650	179,011	27,153	2,991	478	367
Less D.V.A., Orthopaedic, Polio, and T.B. Division Cases	381	....	381	381	....	381	434	383	....	....	434	383	2,741	2,396	....	2,400	....	57	....	....
NET TOTAL	5,371	1,022	6,393	5,778	1,165	6,943	73,644	109,640	14,477	13,687	88,121	123,327	211,448	179,789	27,650	176,611	27,153	2,934	478	367

*Does not include D.V.A. Division of University Hospital—not available.

TABLE No. 2—PATIENT DAYS AND OCCUPANCY

Hospitals	PATIENT DAYS								Occu- pancy	
	Patient Days During 1952			Patient Days of Patients Dis- charged or Deceased		Average Stay of Patients Dis- charged or Deceased				
	Adults and Children	Newborn	Total	Adults and Children	Newborn	Total	Adults and Children	Newborn		Total
Athabasca, Municipal	7,332	1,512	8,844	7,636	1,523	9,159	4.9	7.5	5.2	47.7
Banff, Mineral Springs	9,815	433	10,248	9,966	433	10,399	13.7	6.7	13.2	63.8
Barrhead, St. Joseph's	9,696	1,567	11,263	9,697	1,559	11,256	6.5	7.1	6.6	110.4
Bassano, Municipal	5,126	660	5,786	5,101	664	5,765	6.9	7.8	7.0	53.9
Beaverlodge, Municipal	2,846	535	3,381	2,843	535	3,378	6.0	5.4	5.9	86.4
Bentley, Municipal	2,795	407	3,202	2,596	409	3,005	5.8	9.3	6.1	47.7
Berwyn, Municipal	4,588	617	5,205	4,608	611	5,219	8.4	8.5	8.4	59.7
Blairmore, Crow's Nest Pass Municipal	12,227	1,710	13,937	12,334	1,720	14,054	7.4	6.6	7.3	46.4
Bonnyville, Kath. H. Prittie	3,716	364	4,080	3,273	322	3,595	7.1	7.9	7.1	126.9
Bonnyville, St. Louis	10,970	1,218	12,188	10,821	1,241	12,062	7.8	8.3	7.9	107.0
Brooks, Municipal	11,414	1,809	13,223	11,048	1,801	12,849	7.0	7.0	7.0	100.6
Calgary Alberta Red Cross	32,840		32,849	24,752		24,752	125.0		125.0	57.5
Calgary, General	104,798	19,802	124,600	103,372	19,969	123,341	9.2	8.2	9.0	108.8
(a) Isolation	15,017		15,017	15,190		15,190	17.8		17.8	
Calgary, Holy Cross	110,625	20,123	130,748	111,147	19,980	131,127	9.3	8.2	9.1	81.5
Calgary, Salvation Army Grace	2,157	2,099	4,256	2,219	2,127	4,346	10.0	10.0	10.0	23.6
Camrose, St. Mary's	22,520	3,843	26,363	23,192	3,864	27,056	6.9	8.8	7.1	62.8
Canmore, Canmore	1,990	406	2,396	1,994	399	2,393	6.5	6.9	6.5	45.3
Cardston, Municipal	7,585	1,784	9,369	7,555	1,794	9,349	6.4	7.6	6.6	86.4
Carmangay, Little Bow Municipal	2,566	155	2,721	2,570	148	2,718	8.0	7.4	7.9	50.1
Castor, Our Lady of the Rosary	7,103	894	7,997	7,136	907	8,043	5.6	8.3	5.8	77.6
Cereal, Municipal	1,576	309	1,885	1,616	311	1,927	7.2	7.8	7.3	47.8
Clareholm, Municipal	9,387	1,270	10,657	9,613	1,249	10,862	8.1	9.5	8.2	61.1
Cold Lake, John Neil	2,421	690	3,111	2,397	713	3,110	5.4	9.1	5.9	44.1
Consort, Municipal	4,539	617	5,156	4,408	665	5,073	9.9	9.5	9.8	56.4
Coronation, Municipal	4,840	658	5,498	5,182	650	5,832	9.8	10.0	9.8	73.5
Daysland, Providence	6,015	479	6,494	5,925	464	6,389	6.0	9.1	6.1	102.7
Desmarais, St. Martin's	2,667	200	2,867	2,378	205	2,583	9.0	7.6	8.8	52.0
Didsbury, Municipal	6,158	983	7,141	6,233	979	7,212	7.2	8.7	7.4	67.3
Drumheller, Municipal	21,746	2,442	24,188	21,191	2,502	23,693	9.6	10.4	9.7	91.4

Eckville, Municipal	5,862	711	6,573	5,591	703	6,294	5.7	7.1	5.9	71.2
Edmonton, Beulah Home	1,977	2,419	4,396	1,999	2,438	4,437	14.7	18.1	16.4	90.0
Edmonton, General	87,742	8,831	96,573	90,320	8,897	99,217	9.2	8.3	9.1	123.2
(a) T.B. Division	7,884	17,416	102,402	43,905	17,541	43,905	271.0	7.3	271.0	79.0
Edmonton, Misericordia	84,986			84,419		101,960	7.9		7.8	
Edmonton, Royal Alexandra	139,462	27,531	166,993	134,312	27,359	161,671	9.1	8.3	8.9	94.1
(a) Isolation	16,623		16,623	16,568		16,568	15.7		15.7	
(b) T.B. Division	2,318		2,318	13,875		13,875	308.3		308.3	
Edmonton, University of Alberta	154,719	13,391	168,110	157,390	13,341	170,731	12.6	9.6	12.3	65.3
(a) D.V.A. and D.N.D.	46,348		46,348	Not Available		170,731	Not Available		Not Available	
(b) Pollo	11,919		11,919	7,003		7,003	59.6		59.6	
(c) T.B. Division	1,344		1,344	Not Available			Not Available		Not Available	65.3
Edson, St. John's	7,650	2,050	9,700	7,767	2,074	9,841	6.7	9.7	7.2	56.5
Elk Point, Municipal	12,152	1,057	13,209	12,203	1,057	13,260	6.6	7.7	6.7	127.7
Elnora, Municipal	2,179	331	2,510	2,171	331	2,502	9.0	9.7	9.1	37.2
Empress, Municipal	3,857	535	4,392	3,885	536	4,221	10.3	10.5	10.3	45.8
Fairview, Municipal	7,239	1,141	8,380	7,204	1,170	8,374	6.9	7.6	7.0	61.8
Ft. Macleod, Municipal	5,442	647	6,089	5,413	643	6,056	8.8	7.7	8.7	106.2
Ft. McMurray, St. Gabriel's	2,913	386	3,299	3,357	386	3,743	9.2	7.7	9.0	28.4
Ft. Vermilion, St. Theresa	9,785	638	10,423	10,830	640	11,470	23.4	10.0	21.8	167.1
Galahad, St. Joseph's	4,780	535	5,315	4,740	541	5,281	5.2	9.8	5.4	87.1
Glendon, Municipal	2,938	480	3,418	2,989	467	3,456	5.6	8.5	5.9	100.3
Grande Prairie, Municipal	18,645	2,445	21,090	19,124	2,496	21,620	8.9	7.1	8.6	70.0
Hythe, Sub. of Grande Prairie	1,608	320	1,928	1,639	322	1,961	6.2	8.3	6.4	
Hanna, Municipal	9,027	1,460	10,487	8,132	1,466	9,598	8.5	9.9	8.7	70.5
Hardisty, St. Anne's	5,410	707	6,117	5,447	688	6,135	8.2	11.1	8.5	73.9
High Prairie, Providence	17,026	2,670	19,696	16,751	2,665	19,416	7.6	8.2	7.7	113.5
High River, Municipal	11,846	1,630	13,476	11,536	1,617	13,153	6.8	7.3	6.9	73.6
Innisfail, Municipal	8,216	1,243	9,459	8,291	1,232	9,523	8.3	7.6	8.2	80.2
Islay, Municipal	2,535	233	2,768	2,509	236	2,745	8.1	9.8	8.2	53.3
Jasper, Seton	4,791	785	5,576	4,709	785	5,494	6.5	10.6	6.9	50.3
Killam, General	6,501	1,186	7,687	6,603	1,186	7,789	6.2	9.7	6.6	65.8
Lac la Biche, St. Catherine's	8,201	1,617	9,818	8,196	1,623	9,819	5.8	7.2	6.0	97.4
Lacombe, Municipal	14,054	2,580	16,634	14,047	2,594	16,641	7.5	8.8	7.7	76.8
Lamont, Archer Memorial	18,236	1,532	19,768	22,905	1,540	24,445	8.1	8.6	8.1	52.4
Lethbridge, Galt	34,006	3,951	37,957	32,299	3,935	36,234	9.6	9.2	9.5	112.4
Lethbridge, Isolation	1,359		1,359	1,386		1,386	13.6		13.6	
Lethbridge, St. Michael's General	51,175	7,174	58,349	50,830	7,254	58,084	8.2	8.6	8.3	77.2
McLennan, Sacred Heart	10,881	1,511	12,392	10,926	1,494	12,420	7.3	7.7	7.3	102.5
Magrath, Municipal	3,824	463	4,287	4,587	475	5,062	9.7	7.9	9.5	47.5

Viking, Municipal	5,909	700	6,609	5,782	700	6,482	7.4	9.2	7.6	115.3
Vilna, Our Lady's	3,350	1,051	4,401	3,314	1,054	4,368	7.4	7.5	7.4	65.4
Vulcan, Municipal	8,011	1,326	9,337	7,901	1,332	9,233	7.1	9.6	7.3	59.2
Wainwright, Municipal	12,267	1,938	14,205	12,667	1,931	14,598	8.4	8.0	8.4	69.8
Westlock, Immaculata	18,005	2,941	20,946	18,070	2,944	21,014	6.4	9.4	6.7	65.6
Wetaskiwin, Community	13,489	2,856	16,345	14,710	2,874	17,584	6.4	7.7	6.6	80.1
Willington, General	5,319	593	5,912	5,414	604	6,018	6.5	8.9	6.7	111.8
Total for hospitals operating full year	1,613,421	231,070	1,844,491	*1,604,547	231,105	*1,835,652	*9.0	8.5	*8.9	80.3
Hospitals in Operation for only part of the year:										
Cadomin, General	544	143	687	544	143	687	5.8	11.0	6.5	.....
Nordegg, General	186	79	265	186	79	265	2.9	6.6	3.5	.....
Grand Total	1,614,151	231,292	1,845,443	*1,605,277	231,327	*1,836,604	*9.0	8.5	*8.9	.....
Less D.V.A., Orthopaedic, Polio and T.B. Division cases	102,662	.....	102,662	*89,535	.....	*89,535	*37.6	.....	*37.6	.....
NET TOTAL	1,511,489	231,292	1,742,781	1,515,742	231,327	1,747,069	8.6	8.5	8.6	77.1

*Does not include D.V.A. and T.B. Division of University Hospital (not available).

TABLE No. 3—STAFF

Hospital	Total	Nurses		Nurses Aides		Orderlies	Internes	Salaried Doctors	Technicians	Dietitians	All Others	Medical Staff	Training School	Graduated During the Year
		Graduate	Student	Certified	Trainee									
Athabasca, Municipal	17	5	.....	5	.....	.....	.....	.....	.....	.....	7	3	No	.....
Banff, Mineral Springs	30	8	.....	2	.....	.....	.....	.....	.....	.....	19	4	No	.....
Marrhead, St. Joseph's	30	3	.....	4	.....	.....	.....	.....	.....	.....	21	3	No	.....
Bassano, Municipal	16	8	.....	.....	.....	.....	.....	.....	.....	.....	8	2	No	.....
Beaverlodge, Municipal	13	3	.....	1	.....	.....	.....	.....	.....	.....	9	1	No	.....
Bentley, Municipal	9	4	.....	.....	.....	.....	.....	.....	.....	.....	5	1	No	.....
Berwyn, Municipal	11	.....	.....	5	.....	.....	.....	.....	.....	.....	6	1	No	.....
Blairmore, Crows Nest Pass Municipal	41	8	.....	6	4	1	.....	.....	.....	.....	21	6	No	.....
Bonnyville, K. H. P.	10	2	.....	2	.....	.....	.....	.....	.....	.....	6	1	No	.....
Bonnyville, St. Louis	23	3	.....	5	.....	.....	.....	.....	.....	.....	15	2	No	.....
Brooks, Municipal	32	13	.....	4	.....	.....	.....	.....	.....	.....	15	5	No	.....
Calgary, Alberta Red Cross	134	42	.....	30	.....	.....	.....	.....	.....	.....	59	20	No	.....
Calgary, General	578	131	163	10	.....	15	8	1	2	3	230	166	Yes	54
Calgary, Holy Cross	548	89	180	17	8	12	13	5	12	2	210	161	Yes	59
Calgary, Salvation Army Grace	10	4	.....	1	.....	.....	.....	.....	.....	.....	5	50	No	.....
Canrose, St. Mary's	83	21	.....	18	.....	2	.....	.....	.....	.....	38	7	No	.....
Canmore, Canmore	9	5	.....	.....	.....	.....	.....	.....	.....	.....	4	3	No	.....
Cardston, Municipal	20	6	.....	6	.....	.....	.....	.....	.....	.....	8	4	No	.....
Carmanagay, Little Bow Municipal	10	3	.....	2	.....	.....	.....	.....	.....	.....	5	1	No	.....
Castor, Our Lady of the Rosary	18	6	.....	.....	.....	.....	.....	.....	.....	.....	12	2	No	.....
Cereal, Municipal	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	7	1	No	.....
Claresholm, Municipal	25	9	.....	3	.....	.....	.....	.....	.....	.....	13	3	No	.....
Cold Lake, John Neil	13	2	.....	1	2	.....	.....	.....	.....	.....	8	1	No	.....
Consort, Municipal	12	2	.....	1	.....	.....	.....	.....	.....	.....	9	1	No	.....
Coronation, Municipal	15	3	.....	.....	.....	.....	.....	.....	.....	.....	12	2	No	.....
Daysland, Providence	20	3	.....	.....	.....	.....	.....	.....	.....	.....	15	2	No	.....
Desmarais, St. Martins	8	2	.....	.....	.....	.....	.....	.....	.....	.....	6	.....	No	.....
Didsbury, Municipal	21	6	.....	5	.....	.....	.....	.....	.....	.....	9	4	No	.....
Drumheller, Municipal	73	19	.....	17	.....	2	.....	.....	.....	.....	31	9	No	.....
Eckville, Municipal	21	5	.....	.....	.....	.....	.....	.....	.....	.....	16	2	No	.....

TABLE No. 3—Continued

Hospital	Total	Nurses		Nurses Aides		Orderlies	Internes	Salaried Doctors	Technicians	Dietitians	All Others	Medical Staff	Training School	Graduated the Year
		Graduate	Student	Certified	Trainee									
Oyen, Municipal	8	2		1								5	1	No
Peace River, Municipal	38	12		2								24	3	No
Pincher Creek, St. Vincent's	25	5										20	4	No
Ponoka, Municipal	22	8		5								9	5	No
Provost, Municipal	20	8		1								11	3	No
Radway, St. Joseph's	16	3							1	1		11	3	No
Raymond, Municipal	12	2		3								7	3	No
Red Deer, Municipal	89	34		4					2	1		48	16	No
Rimbey, Municipal	19	4		4								11	2	No
Rocky Mountain House, Municipal	18	3		4								11	4	No
Smoky Lake, George McDougall	16	2		2		1						11	1	No
Spirit River, Holy Cross	22	3		7			1					11	1	No
St. Paul, St. Theresa	47	4		2		1			1			39	2	No
Stettler, Municipal	61	18		5			1		2			35	7	No
Taber, Municipal	36	12		4					1			19	5	No
Three Hills, Municipal	20	5		5								10	2	No
Tofield, Municipal	15	4										11	2	No
Trochu, St. Mary's	14	3		3								8	3	No
Turner Valley, Municipal	14	5			3							6	2	No
Two Hills, Municipal	17	4		3								10	2	No
Vegreville, St. Joseph's General	86	5	40						4	1		36	7	Yes
Vermilion, Municipal	22	7		3					1			11	3	No
Viking, Municipal	18	4		5								9	2	No
Vilna, Our Lady's	12	3		1								8	1	No
Vulcan, Municipal	22	7										15	3	No
Wainwright, Municipal	33	11		6					1			15	4	No
Westlock, Immaculata	46	10		4	4				6			22	5	No
Wetaskiwin, Community	31	10		7								14	4	No
Willingdon, General	6	2		1								3	1	No
TOTAL	6,443	1,298	1,182	412	65	116	99	31	177	40	3,023			383

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	\$ 29,477.84	\$ 24,568.10	\$ 5,705.14	\$ 919.49	\$ 4,127.39	\$ 374.13	\$ 13,514.06	\$ 7,255.66	\$ 85,941.81
Banff, Mineral Springs	65,079.18	37,893.65	4,373.95	2,195.72	3,020.44	5,445.40	105.96	1,147.01	119,261.31
Barrhead, St. Joseph's	49,843.13	17,824.12	2,798.49	375.00	1,492.15	3,902.11	2,871.04	666.31	79,772.35
Bassano, Municipal	21,707.96	16,493.47	4,635.80	234.10	2,482.80	1,763.34	230.04	383.90	47,931.41
Beaverlodge, Municipal	13,515.95	10,628.18	1,342.30	205.85	1,218.00	1,543.32	224.68	1,169.28	29,847.56
Bentley, Municipal	13,797.73	11,968.31	1,468.96	335.00	2,500.00	1,287.36	2,586.16	25.00	33,968.52
Berwyn, Municipal	14,709.35	8,779.25	2,069.52	555.21	8,000.00	739.85	1,636.72	1,254.40	37,744.30
Blairmore, Crow's Nest Pass Municipal	75,995.58	46,089.81	3,551.09	571.46	20,068.75	2,458.25	9,675.93	401.50	158,812.37
Bonnyville, Katherine H. Prittie	10,982.45	10,200.24	1,625.92	.....	.....	3,139.00	6.70	376.14	26,330.45
Bonnyville, St. Louis	34,444.00	13,628.45	1,621.43	162.50	3,136.11	1,116.89	.....	581.16	54,690.54
Brooks, Municipal	52,414.20	44,948.54	5,394.16	341.78	3,750.00	2,561.97	2,526.86	1,056.67	112,994.18
Calgary, Alberta Red Cross	214,612.06	39,816.81	12,887.24	3,367.47	.....	2,336.50	.....	3,441.29	276,461.37
Calgary, General	851,556.54	445,616.19	20,983.31	8,605.88	.....	37,167.65	9,947.77	42,740.48	1,416,617.82
Calgary, Holy Cross	719,279.33	408,536.09	19,859.92	6,444.94	68,430.38	36,844.10	9,778.40	8,281.82	1,277,454.98
Calgary, Salvation Army Grace	15,776.75	9,460.46	754.19	148.44	686.92	994.00	.....	2,143.67	29,964.43
Camrose, St. Mary's	124,082.87	55,255.57	8,050.63	1,010.33	20,701.34	7,094.98	14,569.28	1,503.68	232,268.88
Canmore, Canmore	21,426.70	11,130.87	1,440.29	70.17	138.27	105.43	22.56	2,150.48	36,484.77
Cardston, Municipal	33,700.20	31,995.98	2,943.96	346.70	2,747.94	4,561.86	254.60	3,700.08	80,251.32
Carmanagay, Little Bow Municipal	24,395.67	9,098.18	1,734.88	65.00	2,021.10	.....	1.91	135.10	37,451.84
Castor, Our Lady of the Rosary	27,248.39	24,180.74	1,538.40	876.50	5,484.54	.....	.....	132.18	59,460.75
Cereal, Municipal	10,393.20	7,539.00	1,388.20	110.00	2,023.63	2,029.79	21.55	616.25	24,121.62
Claresholm, Municipal	43,869.99	24,455.33	3,882.67	579.80	5,337.55	2,834.28	1,782.43	99.65	83,041.70
Cold Lake, John Neil	13,155.70	7,232.11	1,099.32	50.00	581.12	724.91	1.91	127.00	22,972.07
Consort, Municipal	17,911.98	13,625.94	3,934.26	314.25	7,100.00	938.28	1,852.55	25.00	45,702.26
Coronation, Municipal	16,753.02	13,032.48	1,763.01	244.45	2,337.72	2,416.26	5.40	1,812.50	38,364.84
Daysland, Providence	29,345.63	17,114.00	1,961.66	270.55	5,259.00	2,659.35	.....	226.25	56,836.44
Desmarais, St. Martin's	4,740.00	7,181.35	675.00	46.15	400.00	.....	.....	126.00	13,168.50
Didsbury, Municipal	33,282.80	27,313.79	3,445.65	611.52	6,943.73	2,617.71	3,196.66	1,696.74	79,108.60
Drumheller, Municipal	110,096.37	81,074.67	8,803.14	1,394.34	9,424.76	10,497.45	108.11	8,972.71	230,371.55
Eckville, Municipal	23,036.57	18,034.74	3,695.43	757.72	8,401.61	2,361.02	2,789.02	638.43	59,714.54
Edmonton, General	602,864.08	327,721.24	16,984.02	13,000.06	84,736.68	53,058.56	64,921.41	17,946.61	1,181,232.66
Edmonton, Misericordia	454,341.15	276,771.86	24,706.71	6,041.01	62,804.31	40,574.88	16,400.17	1,519.03	883,159.12
Edmonton, Royal Alexandra	1,060,276.34	695,254.08	30,960.66	54,458.05	34,704.74	57,797.49	46,515.05	15,964.99	1,995,931.40
Edmonton, University of Alberta	1,482,766.69	752,675.30	56,915.08	9,881.08	.....	123,055.66	116,639.76	21,112.06	2,563,045.63
Edson, St. John's	45,723.92	12,689.26	2,714.78	536.43	5,050.50	4,878.20	1,145.09	326.86	73,065.04

TABLE No. 4—OPERATING EXPENDITURES—Continued

Hospitals	Salaries and Wages	Supplies	Purchased Services	Insurance	Depreciation	Repairs and Replacements	Interest and Exchange	Miscellaneous	Total Expenditure
Elk Point, Municipal	\$ 29,070.49	\$ 28,282.41	\$ 4,022.87	\$ 369.79	\$ 3,926.84	\$ 4,436.97	\$ 2,989.54	\$ 330.00	\$ 69,501.07
Elhara, Municipal	14,258.60	7,642.64	1,104.89	398.13		960.59	2,003.14	3,121.10	33,415.93
Empress, Municipal	15,954.54	18,620.84	1,457.30			1,445.72	134.56	762.35	38,375.31
Fairview, Municipal	23,733.92	21,309.55	5,439.68	467.00	6,700.00		2,577.81	1,389.95	63,188.07
Fort Macleod, Municipal	30,364.23	25,597.86	883.26	290.66	2,957.58	2,915.32	840.15	496.00	64,345.56
Ft. McMurray, St. Gabriel's	24,805.31	11,782.51	1,873.95	50.00	5,968.00	586.41	2,992.42	157.88	48,216.48
Fort Vermilion, St. Theresa	19,373.03	23,750.23	2,426.87	170.00	4,883.91	4,437.29		1,083.37	56,124.70
Galahad, St. Joseph's	24,060.75	10,651.61	1,083.84	190.00	1,639.83	2,255.45	303.25	106.00	40,290.73
Glendon, Municipal	14,102.10	10,888.01	2,498.27	313.55	544.49		3,569.61	421.80	32,337.83
Grande Prairie, Municipal	74,484.89	53,733.12	7,300.50	1,459.77	16,187.50	5,383.99	2,461.02	8,658.76	174,669.55
Hanna, Municipal	46,834.15	37,368.05	5,641.64	747.48	2,207.57	5,559.45	3,194.86	823.42	102,376.62
Hardisty, St. Anne's	28,613.54	11,407.98	1,474.74	579.90	2,540.18	819.41	806.80	643.77	46,886.32
High Prairie, Providence	53,609.68	40,213.93	3,767.89	729.70	5,073.24	2,135.23	1,250.00	1,807.58	108,587.25
High River, Municipal	55,807.86	35,346.92	4,557.22	653.90	9,333.65	3,929.87	3,146.67	660.34	113,436.43
Innisfail, Municipal	32,216.23	28,353.03	6,227.84	437.91	297.00	6,011.38	36.85	707.15	74,287.39
Islay, Municipal	12,873.89	6,923.79	1,856.71	208.08	1,109.24	1,037.21	12.80	3,747.87	27,769.59
Jasper, Seton	26,101.68	10,781.25	1,317.52		2,887.80	5,068.79	72.86	313.65	46,543.55
Killam, General	30,911.05	17,276.00	1,718.02	350.88	4,267.96	3,096.44	1,785.07	632.10	60,037.52
Lac la Biche, St. Catherine's	27,000.00	19,448.24	2,011.21	318.63	1,730.30	616.53		51,764.52	
Lacombe, Municipal	60,904.00	47,228.37	5,769.17	920.11	11,379.92	2,422.56	3,833.32	4,523.35	136,980.80
Lamont, Archer Memorial	85,477.88	57,889.11	6,943.20	60.00	20,812.78	3,122.96	2,053.53	3,170.89	179,530.35
Lethbridge, Galt	155,124.34	104,688.56	9,738.32	2,745.25	965.09	26,932.79	478.06	680.43	301,352.84
Lethbridge, St. Michael's General	269,871.12	158,753.36	11,281.54	1,567.20	19,114.41	6,299.80	20,617.76	3,466.08	490,971.27
McLennan, Sacred Heart	35,534.35	24,261.78	1,970.41	269.01	2,971.92	1,059.03	415.76	1,445.69	67,947.95
Magrath, Municipal	23,084.49	17,306.18	3,343.35	335.70	5,134.56	778.38	3,672.97	334.29	53,989.92
Manning, Battle River	12,131.75	12,503.42	1,290.23	128.55	1,630.69	2,830.81	13.00	416.22	30,944.67
Mannville, Municipal	27,244.65	13,638.57	3,081.27	201.64	1,817.67	719.30	4.10	2,333.50	39,080.70
Mayerthorpe, Municipal	17,247.45	35,346.06	4,864.93	914.50	7,202.41	5,795.11	4,181.81	2,441.72	87,993.99
Medicine Hat, General	210,944.87	90,518.64	32,523.21	1,895.22		3,891.05	1,904.97	3,505.75	345,183.71
Mundare, General	16,833.04	12,905.03	841.16	137.55	2,007.32	8,368.80	9.16	7,612.13	48,714.19
Myram, Municipal	24,367.10	12,305.04	2,649.72	244.95	2,871.35	1,503.51		734.10	44,675.77
Olds, Municipal	36,124.50	27,899.77	6,501.50	591.62	7,856.18	1,976.93	3,940.87	757.45	85,588.82
Oyen, Municipal	13,233.25	1,706.78	332.62	331.02	1,744.11	2,284.54	662.27	2,255.58	30,046.17
Peace River, Municipal	57,423.25	40,545.20	5,126.40	1,175.03	11,000.00	2,659.55	2,292.71	3,570.70	123,792.84
Pincher Creek, St. Vincent's	28,478.74	18,316.44	1,689.30	510.45	650.00	9,061.67	4,800.00	313.45	63,820.05

Ponoka, Municipal	40,304.55	20,311.05	6,348.21	1,824.12	9,177.81	1,300.38	5,614.78	449.50	85,330.40
Provost, Municipal	31,738.90	25,705.36	2,911.37	311.78	2,340.91	2,212.45	36.66	1,305.70	66,563.13
Radway, St. Joseph's	24,648.70	14,624.80	1,653.68	247.15	1,204.35	407.18	22.36	200.59	43,008.81
Raymond, Municipal	17,008.96	16,354.41	1,632.42	176.77	1,625.96	1,855.01	1,480.12	699.12	41,162.77
Red Deer, Municipal	121,644.84	77,033.79	23,215.65	1,809.78	17,998.77	6,001.64	16,713.27	3,342.19	267,759.93
Rimbey, Municipal	26,201.91	27,436.15	2,870.80	1,026.71	8,926.32	1,643.92	5,231.49	402.05	73,739.35
Rocky Mountain House, Municipal	24,534.42	18,569.23	4,326.97	663.53	1,744.50	2,865.95	878.39	136.75	53,719.74
Smoky Lake, George McDougall	15,690.84	6,115.56	1,979.15	92.00	1,811.02	878.96	109.79	510.96	27,188.28
Spirit River, Holy Cross	28,614.00	18,945.08	2,417.50	513.08	2,188.00	1,933.93	3,465.74	58,077.33	58,077.33
St. Paul, St. Theresa	58,520.96	29,322.10	2,846.35	357.50	5,306.47	18,109.91	1,456.68	1,578.34	117,498.31
Stettler, Municipal	83,485.91	52,679.98	5,856.69	1,084.43	13,531.85	2,014.25	5,820.84	1,062.25	165,536.20
Taber, Municipal	57,259.79	39,643.10	3,349.58	1,665.82	6,092.01	12,320.85	1,667.51	754.55	122,753.21
Three Hills, Municipal	30,675.00	18,773.69	4,654.70	502.10	9,975.54	1,596.25	3,508.02	717.60	70,402.90
Tofield, Municipal	20,420.10	22,433.78	2,087.55	194.13	7,639.50	2,482.91	4,068.37	170.60	59,476.94
Trochu, St. Mary's	17,367.40	10,704.00	904.45	336.74	11,183.99	3,617.95	2,521.50	535.58	47,171.61
Two Hills, Municipal	29,998.60	20,078.87	3,464.59	556.60	7,472.45	1,174.59	4,028.98	430.34	67,205.02
Vegreville, St. Joseph General	37,038.91	50,354.23	15,382.04	2,618.54	20,434.91	3,756.45	4,979.61	1,233.05	155,817.74
Vermilion, Municipal	29,785.60	18,339.80	3,664.05	706.75	4,920.49	1,793.15	203.79	2,462.60	61,876.23
Viking, Municipal	24,528.12	22,761.21	2,231.36	496.47	2,281.16	851.57	4,409.67	3,362.12	60,921.68
Vilna, Our Lady's	22,099.78	9,443.72	1,055.38	289.85	2,827.00	3,377.43	60.56	487.13	39,620.85
Vulcan, Municipal	35,517.04	24,453.59	3,544.92	866.01	9,578.96	5,102.09	2,478.83	30.00	81,571.44
Wainwright, Municipal	50,020.23	42,207.89	4,758.92	1,007.79	16,321.88	4,134.92	7,224.92	918.73	126,595.28
Westlock, Immaculata	82,143.35	40,066.43	6,204.75	479.50	18,166.36	3,231.91	11,133.44	1,891.29	163,317.03
Wetaskiwin, Community	54,172.93	32,903.07	5,033.02	924.56	7,020.91	1,209.83	24.12	630.15	101,918.59
Willingdon, General	17,634.60	11,971.53	512.26	234.12	1,977.67	5,472.84	24.35	3,635.10	41,462.47
Total for Hospitals operating full year	\$9,021,919.48	\$5,337,311.70	\$ 536,620.24	\$ 153,855.96	\$ 746,493.77	\$ 641,489.80	\$ 484,087.98	\$ 244,231.50	\$17,166,010.43
Turner Valley, Municipal(6 months)	10,332.42	7,914.85	1,451.12	43.22	318.40	1,199.23	248.69	557.80	22,065.73
GRAND TOTAL	\$9,032,251.90	\$5,345,226.55	\$ 538,071.36	\$ 153,899.18	\$ 746,812.17	\$ 642,689.03	\$ 484,336.67	\$ 244,789.30	\$17,188,076.16

Not Available: Edmonton, Buelah Home; Medicine Hat, Isolation; Nordegg, General.

Edmonton, Royal Alexandra	1,337,573.59	525,782.57	1,863,356.16	261,358.75	1,601,997.41	316,115.82	52,022.48	1,970,135.71	25,795.69	1,995,931.40
Edmonton, University	1,735,486.04	730,466.92	2,465,952.96	181,319.30	2,284,633.66	296,338.63	113,288.37	2,694,260.66	2,694,260.66	
Edson, St. John's	47,113.65	18,854.45	65,968.10	6,055.05	59,913.05	6,387.50	.....	66,300.55	92.29	66,392.84
Elk Point, Municipal	63,134.45	8,842.35	71,976.80	38,791.39	33,185.41	57,802.85	.....	90,988.26	50.00	91,038.26
Einora, Municipal	12,847.00	2,662.52	15,509.52	4,905.56	10,603.96	23,694.04	396.40	34,694.40	463.63	35,158.03
Empress, Municipal	17,874.15	5,946.47	23,820.62	7,733.20	16,087.42	22,535.40	.....	38,622.82	3,359.18	41,982.00
Fairview, Municipal	39,837.30	12,107.55	51,944.85	21,375.45	30,569.40	35,772.13	1,876.72	68,218.25	.....	68,218.25
Fort Macleod, Municipal	46,230.75	6,556.52	52,787.27	13,125.90	39,661.37	32,850.64	.....	72,512.01	52.29	72,564.30
Ft. McMurray, St. Gabriel's	14,714.10	1,713.86	16,427.96	1,563.83	14,864.13	2,242.85	.....	17,106.98	1,897.37	19,004.35
Fort Vermillion, St. Theresa	42,329.67	3,277.49	45,607.16	2,739.00	42,868.16	5,469.80	.....	48,337.96	7,770.51	56,108.47
Galahad, St. Joseph's	24,613.45	8,671.34	33,284.79	2,755.66	30,529.13	3,719.60	.....	34,248.73	152.71	34,401.44
Glendon, Municipal	16,454.10	3,130.72	19,584.82	7,950.85	11,633.97	22,918.95	523.85	35,076.77	200.00	35,276.77
Grande Prairie, Municipal	102,659.80	27,317.85	129,977.65	57,028.39	72,949.26	84,229.45	3,592.09	160,770.80	799.82	161,570.62
Hanna, Municipal	44,345.10	15,528.66	59,873.76	24,851.15	35,022.61	60,789.88	.....	95,812.49	2,500.73	98,313.22
Hardisty, St. Anne's	29,509.00	11,495.55	41,004.55	3,153.09	37,851.46	4,238.30	.....	42,089.76	1,466.19	43,555.95
High Prairie, Providence	98,442.30	30,742.81	129,185.11	50,328.78	78,856.33	11,258.10	5,118.35	95,232.78	1,839.22	97,072.00
High River Municipal	66,307.60	15,984.05	82,291.65	41,323.36	40,968.29	78,523.10	.....	119,491.39	290.16	119,781.55
Innisfail, Municipal	51,258.40	10,728.93	61,987.33	41,041.80	20,945.53	66,729.60	.....	87,675.13	.....	87,675.13
Islay, Municipal	13,998.45	2,822.93	16,821.38	11,166.03	5,655.35	21,035.65	358.00	27,049.00	279.76	27,328.76
Jasper, Seton	28,740.00	17,309.45	46,049.45	4,289.57	42,859.70	2,913.10	.....	45,808.80	62.85	45,871.65
Killam, General	39,730.80	18,819.66	58,550.46	8,235.62	50,314.84	5,530.70	.....	55,845.54	1,230.45	57,075.99
Lac la Biche, St. Catherine's	32,786.05	17,411.60	50,197.65	9,121.81	41,075.84	7,868.80	2,334.56	51,279.20	.....	51,279.20
Lacombe, Municipal	82,944.85	20,802.08	103,746.93	44,459.10	59,287.83	85,205.49	1,375.95	145,869.27	.....	145,869.27
Lamont, Archer Memorial	128,346.35	34,084.88	162,431.23	15,441.35	146,989.88	18,529.10	1,524.40	165,518.98	16,716.47	182,235.45
Lethbridge, Galt	226,326.20	74,100.45	300,426.65	88,621.28	211,805.37	51,720.31	.....	265,050.08	13,468.76	278,518.84
Lethbridge, St. Michael's	375,560.85	216,420.70	591,981.55	40,385.71	551,595.84	39,730.70	.....	591,326.54	.....	591,326.54
McLennan, Sacred Heart	55,947.18	17,682.81	73,629.99	26,559.75	47,070.24	8,801.80	1,445.88	57,317.92	159.88	57,317.92
Magrath, Municipal	22,487.65	6,843.44	29,331.09	11,009.25	18,321.84	40,676.20	.....	58,998.04	.....	59,157.92
Manning, Battle River	14,598.90	3,326.51	17,925.41	2,892.10	15,033.31	8,087.05	1,668.15	24,788.51	1,221.38	26,009.89
Mannville, Municipal	19,347.25	4,216.73	23,563.98	9,362.75	14,201.23	27,705.92	1,104.80	43,011.95	30.00	43,041.95
Mayerthorpe, Municipal	38,293.50	20,274.77	58,568.27	17,474.05	41,094.22	44,748.45	4,376.15	90,218.82	.....	90,218.82
Medicine Hat, General	270,221.40	63,351.80	333,573.20	61,288.22	272,284.98	68,442.40	.....	340,727.38	4,038.15	344,765.53
Mundare, General	27,140.62	7,044.03	34,184.65	5,271.51	28,913.14	3,280.10	1,420.01	33,613.25	16,016.94	49,630.19
Myrnam, Municipal	19,616.46	5,767.44	25,383.90	11,156.10	14,227.80	33,367.25	1,250.97	48,846.02	91.70	48,937.72
Olds, Municipal	56,059.00	14,303.91	70,362.91	29,334.22	41,028.69	65,730.20	952.05	107,710.94	599.75	108,310.69
Oyen, Municipal	10,478.55	1,987.62	12,466.17	5,463.10	7,003.07	20,274.83	.....	27,277.90	448.00	27,725.90
Peace River, Municipal	72,369.90	19,682.60	92,052.50	37,407.50	54,645.00	59,535.40	7,545.11	121,725.51	159.85	121,885.36
Pincher Creek, St. Vincent's	44,418.00	12,313.13	56,731.13	5,187.45	51,543.68	6,372.10	.....	57,915.78	.....	57,915.78
Ponoka, Municipal	41,407.10	17,873.47	59,280.57	27,588.23	31,692.34	46,509.75	2,658.25	80,860.34	821.00	81,681.34
Provost, Municipal	34,419.65	14,158.82	48,578.47	19,322.15	29,256.32	46,235.55	3,188.90	78,680.77	.....	78,680.77

TABLE No. 5—REVENUE FOR OPERATING PURPOSES—Continued

Hospitals	Day Rate Services	Special Services	Gross Earnings	Deductions	Net Earnings	Grants	Out-Patient Earnings	Total Operating Revenue	Other Revenue	Total Revenue
Radway, St. Joseph's	\$ 26,954.60	10,641.70	37,596.30	\$ 6,794.74	30,801.56	4,043.70	\$ 1,619.30	\$ 36,464.56	575.12	\$ 37,039.68
Raymond, Municipal	20,146.60	8,675.43	28,822.03	15,312.55	13,509.48	29,609.90	1,506.48	44,625.86		44,625.86
Red Deer, Municipal	143,300.80	46,775.93	190,076.73	56,566.08	133,510.65	124,396.15	1,725.75	259,632.55	1,509.83	261,142.38
Rimbey, Municipal	38,401.80	13,460.29	51,862.09	22,666.57	29,195.52	44,100.70	1,882.85	75,179.07		75,179.07
Rocky Mountain House, Municipal	34,655.30	6,568.62	41,223.92	14,130.90	27,093.02	34,618.45	305.45	62,016.92	125.00	62,141.92
Smoky Lake, George McDougall	13,358.20	2,543.95	15,902.15	1,490.95	14,411.20	5,670.90		20,082.10	2,468.58	22,550.68
Spirit River, Holy Cross	49,238.50	16,136.94	65,375.44	9,025.66	56,349.78	7,700.00		64,049.78	1,472.33	65,522.11
St. Paul, St. Theresa	88,004.90	31,258.31	119,263.21	21,297.04	97,966.17	10,092.20		108,058.37	1,040.41	109,098.78
Stettler, Municipal	100,521.64	38,156.10	138,677.74	61,866.12	76,811.62	111,931.35	1,978.17	190,721.14	270.00	190,991.14
Taber, Municipal	78,105.20	24,479.75	102,584.95	33,394.50	69,190.45	59,175.90		128,366.35	519.74	128,886.09
Three Hills, Municipal	23,372.65	9,042.91	32,415.56	11,960.14	20,455.42	47,657.25	1,976.15	70,088.82		70,088.82
Tofield, Municipal	29,201.45	12,429.20	41,630.65	11,599.09	30,031.56	32,725.62		62,757.18		62,757.18
Trochu, St. Mary's	24,047.90	4,545.47	28,593.37	2,398.94	26,194.43	3,683.65	1,456.52	31,334.60	3,600.38	34,934.98
Two Hills, Municipal	37,551.35	8,613.80	46,165.15	20,880.75	25,284.40	53,648.30	3,078.15	82,010.85	589.00	82,599.85
Vegreville, St. Joseph General	125,071.15	45,172.96	170,244.11	30,945.97	139,298.14	14,460.75	5,059.01	158,817.90		158,817.90
Vermilion, Municipal*	45,543.75	7,055.80	52,599.55	27,683.54	24,916.01	49,769.90	1,047.95	75,733.86	1,016.45	76,750.31
Viking, Municipal	30,867.20	9,711.08	40,578.28	24,667.94	15,910.34	60,152.54	1,176.85	77,239.73	549.51	77,789.24
Vilna, Our Lady's	16,477.91	6,249.57	22,727.48	1,927.50	20,799.98	2,627.90		23,427.88		23,427.88
Vulcan, Municipal	49,858.10	14,771.40	64,629.50	37,676.14	26,953.36	55,206.25	*1,323.65	80,835.96		80,835.96
Wainwright, Municipal	75,634.25	26,538.29	102,172.54	39,104.92	63,067.62	55,508.33	6,558.85	125,134.80	146.73	125,281.53
Westlock, Immaculata	109,634.75	43,376.22	153,010.97	15,933.80	137,077.17	9,973.85		147,051.02	847.15	147,898.17
Wetaskiwin, Community	83,121.40	33,627.62	116,749.02	19,911.54	96,837.48	10,959.80	203.98	108,001.26	265.23	108,266.49
Willingdon, General	27,140.40	9,386.43	36,526.83	6,343.32	30,183.51	3,388.00	2,165.05	35,736.56	5,829.82	41,566.38
Total of Hospitals Operating full year	\$10,948,475.02	\$ 4,331,319.49	\$15,279,794.51	\$ 3,042,813.49	\$12,236,981.02	\$ 4,178,293.62	\$ 374,388.37	\$16,789,663.01	\$ 244,091.58	\$17,310,215.96
Turner Valley, Municipal (6 months)	\$ 14,425.10	\$ 4,547.19	\$ 18,972.29	\$ 8,384.86	\$ 10,587.43	\$ 18,792.62	\$ 264.17	\$ 29,644.22	\$ 146.79	\$ 29,791.01
GRAND TOTAL	\$10,962,900.12	\$ 4,335,866.68	\$15,298,766.80	\$ 3,041,198.35	\$12,247,568.45	\$ 4,197,086.24	\$ 374,652.54	\$16,819,307.23	\$ 244,238.37	\$17,340,006.97

Not Available: Edmonton, Beulah Home; Medicine Hat, Isolation.

*Debit item.

TABLE No. 6—DISTRIBUTION OF HOSPITAL COSTS

Hospitals	Operating Cost Per Patient Per Day	Percentage of Cost							Revenue per Patient per day
		Salaries and Wages	Supplies	Purchased Services	Insurance	Depreciation	Repairs and Replacements	Interest and Exchange	
Athabasca, Municipal	\$ 10.97	34.3	28.6	6.6	1.1	4.8	0.4	15.7	\$10.77
Banff, Mineral Springs	11.98	54.6	31.8	3.7	1.8	2.5	4.5	0.1	12.18
Barrhead, St. Joseph's	7.81	62.5	22.3	3.5	0.5	1.9	4.9	3.6	7.83
Bassano, Municipal	8.97	45.3	34.4	9.6	0.5	5.2	3.7	0.5	9.39
Beaverlodge, Municipal	9.87	45.3	35.6	4.5	0.7	4.1	5.2	0.7	9.62
Bentley, Municipal	11.59	40.6	35.2	4.3	1.0	7.4	3.8	7.6	12.58
Berwyn, Municipal	7.87	39.0	23.2	5.5	1.5	21.2	2.0	4.3	8.53
Blairmore, Crow's Nest Pass, Mun.	12.41	47.9	29.0	2.2	0.4	12.6	1.5	6.1	13.11
Bonnyville, Katherine H. Prittle	6.86	41.7	38.8	6.2	...	...	11.9	0.0	8.58
Bonnyville, St. Louis	4.81	63.0	24.9	3.0	0.3	5.7	2.0	...	6.29
Brooks, Municipal	9.40	46.4	39.8	4.8	0.3	3.3	2.3	2.2	10.31
Calgary, Alberta Red Cross	8.42	77.6	14.4	4.7	1.2	...	0.8	1.3	8.42
Calgary, General	11.82	60.1	31.5	1.5	0.6	...	2.6	0.7	10.73
Calgary, Holy Cross	10.89	56.3	32.0	1.5	0.5	5.4	2.9	0.8	11.80
Calgary, Salvation Army Grace	10.49	52.7	31.6	2.5	0.5	2.3	3.3	...	10.60
Camrose, St. Mary's	9.76	53.4	23.8	3.5	0.4	8.9	3.1	6.3	9.58
Canmore, Canmore	17.17	58.7	30.5	3.9	0.2	0.4	0.3	0.1	25.05
Cardston, Municipal	9.81	42.0	39.9	3.7	0.4	3.4	5.7	0.3	10.60
Carmanagay, Little Bow Municipal	14.42	65.1	24.3	4.6	0.2	5.4	...	0.0	17.40
Castor, Our Lady of the Rosary	8.03	45.8	40.7	2.6	1.5	9.2	...	...	8.33
Cereal, Municipal	14.37	43.1	31.3	5.8	0.4	8.4	8.4	0.1	14.35
Claresholm, Municipal	8.47	52.8	29.5	4.7	0.7	6.7	3.4	2.1	9.43
Cold Lake, John Nell	8.67	57.3	31.5	4.8	0.2	2.5	3.2	...	4.94
Consort, Municipal	9.63	39.2	29.8	8.6	0.7	15.5	2.1	4.1	10.65
Coronation, Municipal	7.58	43.7	34.0	4.6	0.6	6.1	6.3	0.0	8.34
Daysland, Providence	9.20	51.6	30.1	3.5	0.5	9.2	4.7	...	8.71
Desmarais, St. Martin's	4.82	36.0	54.5	5.1	0.4	3.0	...	...	4.82
Didbury, Municipal	12.20	42.1	34.5	4.4	0.8	8.8	3.3	4.0	12.94
Drumheller, Municipal	10.21	47.8	35.2	3.8	0.6	4.1	4.6	0.0	10.61
Eckville, Municipal	9.80	38.6	30.2	6.2	1.3	14.1	4.0	4.7	10.37
Edmonton, General	11.98	51.0	27.8	1.4	1.1	7.2	4.5	5.5	10.00
Edmonton, Misericordia	9.73	51.4	31.3	2.8	0.7	7.1	4.6	1.9	9.65

TABLE No. 6—Continued

Hospitals	Operating Cost Per Patient Per Day	Percentage of Cost							Revenue per Patient per day	
		Salaries and Wages	Supplies	Purchased Services	Insurance	Depreciation	Repairs and Replacements	Interest and Exchange		Miscellaneous
Edmonton, Royal Alexandra	\$ 11.91	53.1	34.9	1.6	2.7	1.7	2.9	2.3	0.8	\$11.91
Edmonton, University of Alberta	11.71	57.8	29.4	2.2	0.4	.....	4.8	4.6	0.8	12.31
Edson, St. John's	8.77	62.6	17.4	3.7	0.7	6.9	6.7	1.6	0.4	7.97
Elk Point, Municipal	5.56	41.8	40.7	5.8	0.5	.....	6.4	4.3	0.5	7.28
Elnora, Municipal	14.60	42.7	22.9	3.3	1.2	11.7	2.9	6.0	9.3	15.36
Empress, Municipal	9.51	41.6	48.5	3.8	.....	.....	3.8	0.3	2.0	10.40
Fairview, Municipal	8.29	37.6	33.7	8.6	0.7	10.6	2.5	4.1	2.2	8.95
Fort Macleod, Municipal	11.37	47.2	39.8	1.4	0.4	4.6	4.5	1.3	0.8	12.83
Ft. McMurray, St. Gabriel's	15.85	51.5	24.4	3.9	0.1	12.4	1.2	6.2	0.3	6.25
Fort Vermilion, St. Theresa	5.61	34.6	42.3	4.3	0.3	8.7	7.9	.....	1.9	5.61
Galahad, St. Joseph's	8.13	59.7	26.4	2.7	0.5	4.1	5.6	0.8	0.2	6.94
Glendon, Municipal	10.44	43.6	33.7	7.7	1.0	1.7	.....	11.0	1.3	11.39
Grande Prairie, Municipal	8.25	42.6	33.6	4.2	0.8	9.3	3.1	1.4	5.0	7.63
Hanna, Municipal	10.76	45.8	36.5	5.5	0.7	2.2	5.4	3.1	0.8	10.33
Hardisty, St. Anne's	8.30	61.0	24.3	3.2	1.2	5.4	1.8	1.7	1.4	7.71
High Prairie, Providence	6.06	49.3	37.0	3.5	0.7	4.7	2.0	1.1	1.7	5.42
High River, Municipal	9.16	49.2	31.1	4.0	0.6	8.2	3.5	2.8	0.6	9.67
Innisfail, Municipal	8.61	43.4	38.2	8.4	0.6	0.4	8.1	0.0	0.9	10.16
Islay, Municipal	10.63	46.4	24.9	6.7	0.8	4.0	3.7	0.0	13.5	10.46
Jasper, Seton	9.21	56.1	23.2	2.8	.....	6.2	10.9	0.1	0.7	9.09
Killam, General	8.71	51.5	28.8	2.9	0.6	7.1	5.1	3.0	1.0	8.28
Lac la Biche, St. Catherine's	5.92	52.2	37.6	3.9	0.6	3.3	1.2	0.0	1.2	5.87
Lacombe, Municipal	9.18	44.4	34.5	4.2	0.7	8.3	1.8	2.8	3.3	9.78
Lamont, Archer Memorial	9.58	47.6	32.2	3.9	0.0	11.6	1.7	1.2	1.8	9.72
Lethbridge, Galt	8.22	51.5	34.8	3.2	0.9	0.3	8.9	0.2	0.2	7.59
Lethbridge, St. Michael's General	9.17	55.0	32.3	2.3	0.3	3.9	1.3	4.2	0.7	11.04
McLennan, Sacred Heart	5.97	52.3	35.7	2.9	0.4	4.4	1.6	0.6	2.1	5.03
Magrath, Municipal	13.57	42.8	32.1	6.2	0.6	9.5	1.4	6.8	0.6	14.87
Manning, Battle River	10.56	39.2	40.4	4.2	0.4	5.3	9.2	0.0	1.3	8.88
Mannville, Municipal	10.54	44.2	34.9	7.9	0.5	4.7	1.8	0.0	6.0	11.61
Mayerthorpe, Municipal	12.41	31.0	40.2	5.5	1.0	8.2	6.6	4.7	2.8	12.72
Medicine Hat, General	9.65	61.1	26.2	9.4	0.6	.....	1.1	0.6	1.0	9.64
Mundare, General	9.69	34.6	26.5	1.7	0.3	4.1	17.2	0.0	15.6	9.87

Myrnam, Municipal	12.13	54.5	27.6	5.9	0.6	6.4	3.4	4.6	1.6	13.29
Oids, Municipal	8.42	42.2	32.5	7.6	0.7	9.2	2.3	4.6	0.9	10.66
Oyen, Municipal	14.80	44.0	26.1	5.7	1.1	5.8	7.6	2.2	7.5	13.65
Peace River, Municipal	9.66	46.4	32.8	4.1	0.9	8.9	2.1	1.9	2.9	9.51
Pincher Creek, St. Vincent's	7.37	44.6	28.7	2.7	0.8	1.0	14.2	7.5	0.5	6.69
Ponoka, Municipal	11.19	47.2	23.8	7.5	2.1	10.8	1.5	6.6	0.5	10.72
Provost, Municipal	10.68	47.7	38.6	4.4	0.5	3.5	3.3	0.0	2.0	12.63
Radway, St. Joseph's	8.58	57.3	34.0	3.9	0.6	2.8	0.9	0.0	0.5	7.39
Raymond, Municipal	10.40	41.3	39.7	4.0	0.4	4.0	5.3	3.6	1.7	11.27
Red Deer, Municipal	11.52	45.4	28.8	8.7	0.7	6.7	2.2	6.3	1.2	11.23
Rimbey, Municipal	10.87	35.5	37.2	3.9	1.4	12.1	2.2	7.1	0.6	11.08
Rocky Mountain House, Municipal	8.11	45.7	34.6	8.1	1.2	3.2	5.3	1.6	0.3	9.38
Smoky Lake, George MacDougall	10.93	57.7	22.5	7.3	0.3	6.7	3.2	0.4	1.9	9.07
Spirit River, Holy Cross	5.55	49.3	32.6	4.1	0.9	3.8	3.3	.....	6.0	6.26
St. Paul, St. Theresa	7.85	49.8	25.0	2.4	0.3	4.5	15.4	1.2	1.4	7.28
Stettler, Municipal	8.76	50.4	31.8	3.5	0.7	8.2	1.2	3.5	0.7	10.11
Taber, Municipal	9.36	46.6	32.3	2.7	1.4	5.0	10.0	1.4	0.6	9.83
Three Hills, Municipal	15.89	43.6	26.7	6.6	0.7	14.2	2.2	5.0	1.0	15.82
Tofield, Municipal	10.91	34.3	37.7	3.5	0.3	12.9	4.2	6.8	0.3	11.52
Trochu, St. Mary's	10.72	36.8	22.7	1.9	0.7	23.7	7.7	5.4	1.1	7.94
Two Hills, Municipal	9.83	44.6	29.9	5.2	0.8	11.1	1.8	6.0	0.6	12.08
Vegreville, General	7.66	36.6	32.3	9.9	1.7	13.1	2.4	3.2	0.8	7.81
Vermilion, Municipal	7.07	48.2	29.6	5.9	1.1	8.0	2.9	0.3	4.0	8.77
Viking, Municipal	9.92	40.3	37.4	3.7	0.8	3.7	1.4	7.2	5.5	12.66
Vilna, Our Lady's	10.71	55.8	23.8	2.7	0.7	7.1	8.5	0.2	1.2	6.33
Vulcan, Municipal	9.65	43.6	30.0	4.3	1.1	11.7	6.3	3.0	0.0	9.56
Wainwright, Municipal	9.80	39.5	33.3	3.8	0.8	12.9	3.3	5.7	0.7	9.70
Westlock, Immaculata	8.60	50.3	24.5	3.8	0.3	11.1	2.0	6.8	1.2	7.79
Wetaskiwin, Community	7.06	53.2	32.3	4.9	0.9	6.9	1.2	0.0	0.6	7.50
Willingdon, General	7.52	42.5	28.9	1.2	0.6	4.8	13.2	0.0	8.8	7.53
Total	\$ 10.20	52.6	31.1	3.1	0.9	4.4	3.7	2.8	1.4	\$10.29
Turner Valley, Municipal (operating 6 months)	.....	46.8	35.9	6.6	0.2	1.5	5.4	1.1	2.5	.....

Not available: Edmonton, Beulah Home; Medicine Hat, Isolation; Nordegg, General.

TABLE No. 7—GRANTS PAID DIRECTLY TO HOSPITALS

Approved Hospitals	70c Per Diem			Maternity Grant		Pension Grant		Total Amount
	Grant Days	Non-Grant Days	Amount	Grant Days	Amount	Grant Days	Amount	
Athabasca, Municipal	8,464	380	\$ 5,924.80	1,566	\$ 9,002.15	633	\$ 3,729.60	\$ 18,656.55
Banff, Mineral Springs	7,645	2,603	5,351.50	338	1,994.20	386	2,296.70	9,642.40
Barrhead, St. Joseph's	10,957	306	7,665.30	1,536	8,524.80	2,521	14,090.00	30,280.10
Bassano, Municipal	5,752	34	4,026.40	657	3,646.35	349	1,954.40	9,627.15
Beaverlodge, Municipal	3,341	40	2,338.70	549	2,882.25	386	2,161.60	7,382.55
Bentley, Municipal	3,201	1	2,240.70	374	2,175.80	436	2,571.10	6,987.60
Berwyn, Municipal	4,984	221	3,488.80	649	3,541.95	499	2,794.40	9,825.15
Blairmore, Crow's Nest Pass Municipal	13,878	59	9,714.65	1,681	9,925.40	2,165	12,872.65	32,512.70
Bonnyville, Katherine H. Prittie	3,840	240	2,688.00	340	1,887.00	380	2,124.60	6,699.60
Bonnyville, St. Louis	10,597	1,591	7,417.90	1,203	6,676.85	2,489	13,938.40	28,032.95
Brooks, Municipal	13,117	106	9,182.00	1,759	10,375.10	1,024	6,092.80	25,649.90
Calgary, Alberta Red Cross	32,397	452	22,677.90	17,246	122,440.20	12,579	90,564.00	22,677.90
Calgary, General	118,312	6,288	82,820.60	17,064	121,172.00	8,239	59,005.60	295,824.80
Calgary (a) Isolation	14,488	529	10,141.60					10,141.60
Calgary, Holy Cross	122,646	8,102	85,868.70					266,046.30
Calgary, Salvation Army Grace	3,723	533	2,606.10	1,558	9,192.20			11,798.30
Canmore, St. Mary's	25,860	503	18,102.30	3,737	23,728.35	3,073	19,667.20	61,497.85
Canmore, Canmore	2,251	145	1,575.70	345	1,811.25	192	1,075.20	4,462.15
Cardston, Municipal	9,301	68	6,510.70	1,886	10,467.30	866	4,849.60	21,827.60
Carmanagay, Little Bow Municipal	2,712	9	1,894.00	149	782.25	580	3,221.60	5,897.85
Castor, Our Lady of the Rosary	7,939	58	5,557.30	885	5,221.50	908	5,084.80	15,863.60
Cereal, Municipal	1,814	71	1,269.80	281	1,475.25	514	2,724.20	5,469.25
Claresholm, Municipal	10,446	221	7,312.20	1,190	7,021.00	1,248	7,425.60	21,758.80
Cold Lake, John Neil	1,543	1,568	1,080.10	363	1,905.75	108	572.40	3,558.25
Consort, Municipal	4,619	537	3,233.30	628	3,485.40	417	2,335.20	9,053.90
Coronation, Municipal	5,429	69	3,800.30	640	3,372.00	637	3,376.10	10,548.40
Daysland, Providence	6,434	60	4,503.80	441	2,447.55	519	2,906.40	9,857.75
Desmarais, St. Martin's	956	1,911	669.20	134	703.50	33	184.80	1,557.50
Didsbury, Municipal	7,062	79	4,943.85	924	5,451.60	377	2,231.45	12,626.90
Drumheller, Municipal	23,747	441	16,622.90	2,489	15,805.15	2,501	16,006.40	48,434.40

Eckville, Municipal	6,490	83	4,540.80	793	4,678.70	684	3,817.20	13,036.70
Edmonton, Beulah Home	3,437	959	2,405.90	1,239	6,876.45	.....	.....	9,282.35
Edmonton, General	90,700	13,757	63,527.95	7,959	56,508.90	14,908	107,129.60	227,166.45
Edmonton, Misericordia	98,130	4,272	68,704.75	15,993	113,550.30	10,123	72,845.60	255,100.65
Edmonton, Royal Alexandra	169,775	16,159	118,832.05	25,231	179,122.50	16,035	115,477.60	413,432.15
Edmonton, University	164,116	63,605	114,881.20	11,462	81,380.20	17,902	128,894.40	325,155.80
Edson, St. John's	9,126	574	6,388.20	1,959	11,538.10	560	3,332.00	21,278.30
Elk Point, Municipal	12,537	672	8,775.90	1,060	5,565.00	2,164	12,118.40	26,459.30
Elmora, Municipal	2,502	8	1,751.40	349	1,936.95	251	1,405.60	5,093.95
Empress, Municipal	3,680	712	2,576.00	451	2,503.05	304	1,702.40	6,781.45
Fairview, Municipal	8,345	35	5,841.50	1,151	6,619.30	940	5,528.25	17,989.05
Fort Macleod, Municipal	5,868	221	4,107.40	611	3,389.55	1,002	5,602.80	13,099.75
Fort McMurray, St. Gabriel's	1,969	1,330	1,378.10	311	1,726.05	161	852.00	3,956.15
Fort Smith, General (N.W.T.)	416	N.A.	291.20	61	320.25	34	180.20	791.65
Fort Vermilion, St. Theresa	2,469	7,954	1,728.30	418	2,194.50	240	1,272.00	5,194.80
Galahad, St. Joseph's	5,313	2	3,719.10	569	3,157.95	373	2,088.80	8,965.85
Glendon, Municipal	3,410	8	2,387.00	486	2,697.30	537	3,007.20	8,091.50
Grande Prairie, Municipal	19,714	1,376	13,800.85	2,419	14,065.85	2,268	13,477.70	41,344.40
Hythe, (Sub Hospital of Grande Prairie)	1,612	316	1,128.40	255	1,338.75	179	948.70	3,415.85
Hanna, Municipal	10,420	67	7,294.00	1,319	7,782.10	1,030	6,128.50	21,204.60
Hardisty, St. Anne's	6,091	26	4,263.70	683	3,790.65	594	3,326.40	11,380.75
High Prairie, Providence	16,083	3,613	11,258.10	2,106	11,680.80	1,232	7,323.90	30,262.80
High River, Municipal	13,323	153	9,326.10	1,673	9,285.15	956	5,688.20	24,299.45
Innisfail, Municipal	9,369	90	6,538.30	1,190	7,021.00	967	5,753.65	19,332.95
Islay, Municipal	2,767	1	1,936.90	236	1,239.00	258	1,444.80	4,620.70
Jasper, Seton	4,104	1,472	2,872.80	648	3,596.40	28	156.80	6,626.00
Killam, General	7,492	195	5,244.40	1,248	6,926.40	690	4,105.30	16,276.30
Lac La Biche, St. Catherine's	9,633	185	6,743.10	1,624	9,013.20	832	4,659.20	20,415.50
Lacombe, Municipal	16,373	261	11,461.10	2,566	15,139.40	1,588	9,448.60	36,049.10
Lamont, Archer Memorial	17,729	2,039	12,410.30	1,503	9,544.05	2,370	15,168.00	37,122.35
Lethbridge, Galt	34,914	3,043	24,439.80	3,408	21,640.80	5,632	36,044.80	82,125.40
Lethbridge, Isolation	1,333	26	933.10	.....	.....	.....	.....	933.10
Lethbridge, St. Michael's General	56,756	1,593	39,730.70	6,951	44,138.85	4,758	30,444.45	114,314.00
Lloydminster, Lloydminster	15,633	.....	10,943.10	1,763	10,254.00	1,108	6,592.60	27,789.70
McLennan, Sacred Heart	12,369	23	8,658.30	1,486	8,247.30	765	4,284.00	21,189.60
Magrath, Municipal	4,241	46	2,968.70	471	2,584.65	509	2,815.30	8,368.65
Manning, Battle River	3,311	103	2,317.70	746	4,140.30	131	694.30	7,152.30
Mannville, Municipal	4,147	7	2,902.90	714	3,962.70	274	1,534.40	8,400.00
Mayerthorpe, Municipal	8,092	.....	5,664.40	1,430	7,936.50	583	3,468.85	17,069.75
Medicine Hat, General	36,437	3,652	25,506.20	5,545	35,209.15	4,891	31,288.00	92,003.35

Table No. 7—Continued

Approved Hospitals	70c Per Diem			Maternity Grant		Pension Grant		Total Amount
	Grant Days	Non-Grant Days	Amount	Grant Days	Amount	Grant Days	Amount	
Medicine Hat, Isolation	42	66	\$ 29.40		\$		\$	\$ 29.40
Mundare, General	5,195	3,965	3,635.70	366	2,031.30	1,488	8,326.80	13,993.80
Myrnam, Municipal	3,965	4	2,774.10	428	2,247.00	809	4,522.00	9,543.10
Olds, Municipal	11,037	322	7,725.90	1,703	10,047.70	1,291	7,639.85	25,413.45
Oyen, Municipal	2,268	10	1,587.60	346	1,920.30	192	1,142.40	4,650.30
Peace River, Municipal	13,601	732	9,521.45	1,890	11,149.50	669	3,962.35	24,633.30
Pincher Creek, St. Vincent's	9,101	359	6,370.70	1,110	6,458.70	624	3,657.85	16,487.25
Ponoka, Municipal	8,564	122	5,995.30	1,498	8,838.20	510	3,021.50	17,853.00
Provost, Municipal	6,398	319	4,478.60	740	4,107.00	741	4,149.60	12,735.20
Radway, St. Joseph's	5,621	180	3,934.70	1,121	5,885.25	616	3,449.60	13,269.55
Raymond, Municipal	4,246	314	2,972.20	836	4,650.90	298	1,668.80	9,291.90
Red Deer, Municipal	25,335	661	17,734.80	3,461	21,975.75	3,154	20,185.60	59,896.15
Rimbey, Municipal	7,469	73	5,228.30	1,156	6,820.40	788	4,688.60	16,737.30
Rock Mountain House, Municipal	6,804	489	4,762.80	858	4,761.90	849	4,754.40	14,279.10
Smoky Lake, George McDougall	2,886	5	2,020.20	559	3,102.45	607	3,399.20	8,521.85
Spirit River, Holy Cross	11,010	146	7,707.00	1,091	6,055.05	1,421	7,957.60	21,719.65
St. Paul, St. Theresa	14,458	2,338	10,120.65	2,340	13,804.50	2,116	12,590.20	36,515.35
Stettler, Municipal	19,877	364	13,913.90	2,118	12,496.20	2,306	13,720.70	40,130.80
Taber, Municipal	14,274	612	9,991.80	2,278	12,642.90	981	5,493.60	28,128.30
Three Hills, Municipal	5,118	56	3,582.60	1,011	5,964.90	268	1,594.60	11,142.10
Tofield, Municipal	5,929	42	4,150.45	814	4,802.60	922	5,482.00	14,435.05
Trochu, St. Mary's	4,697	78	3,287.90	590	3,274.50	697	3,903.20	10,465.60
Turner Valley, Municipal	5,447	54	3,812.90	499	2,769.45	516	2,734.80	9,317.15
Two Hills, Municipal	7,250	83	5,075.00	733	4,324.70	1,311	7,800.45	17,200.15
Vegreville, St. Joseph's General	20,695	779	14,486.50	1,624	10,171.10	4,292	26,987.30	51,644.90
Vermilion, Municipal	9,758	10	6,830.20	1,501	8,852.90	948	5,308.80	20,991.90
Viking, Municipal	6,518	91	4,562.60	748	3,927.00	941	5,269.60	13,759.20
Vilna, Our Lady's	3,607	794	2,524.90	969	5,377.95	424	2,247.20	10,150.05
Vulcan, Municipal	9,106	231	6,374.20	1,151	6,388.05	285	1,695.75	14,458.00
Wainwright, Municipal	13,640	565	9,548.00	2,038	12,024.20	1,872	11,138.40	32,710.60

Westlock, Immaculata	20,470	476	14,329.00	2,862	16,633.10	2,358	13,806.10	44,768.20
Wetaskiwin, Community	15,394	951	10,775.80	2,490	14,691.00	1,263	7,514.85	32,981.65
Willington, General	5,871	41	4,109.70	602	3,341.10	1,539	8,618.40	16,069.20
Total for Hospitals Operating full year	1,693,332	167,220	\$1,185,383.65	212,230	\$1,360,973.50	179,016	\$1,164,339.60	\$3,710,696.75
Hospitals in Operation only part of the year:								
Cadomin, General	679	8	\$ 475.30	146	\$ 810.30		\$	\$ 1,285.60
Nordegg, General	265		185.50	73	383.25			568.75
Total for Approved Hospitals	1,694,276	167,228	\$1,186,044.45	212,449	\$1,362,167.05	179,016	\$1,164,339.60	\$3,712,551.10
PRIVATE HOSPITALS:								
Coaldale, Coaldale				678	\$ 2,034.00		\$	\$ 2,034.00
Luscar				128	384.00			384.00
Mercoal				24	72.00			72.00
Sexsmith				1,171	3,513.00			3,513.00
Swalwell				376	752.00			752.00
Total for private hospitals				2,377	\$ 6,755.00			\$ 6,755.00
GRAND TOTAL	1,694,276	167,228	\$1,186,044.45	214,826	\$1,368,922.05	179,016	\$1,164,339.60	\$3,719,306.10

Note: The above does not include \$46,456.80 paid to the Alberta Red Cross Hospital in Calgary for 19,357 orthopaedic days.

TABLE No. 8—HOSPITALIZATION PAYMENTS TO LOCAL AUTHORITIES

Local Authority	No. of Participants	Age 16 Years and Over		Age Under 16 Years		Total	
		Age 16 Years and Over		Age Under 16 Years		Total	
		Days	Amount	Days	Amount	Days	Amount
Andrew, Village	12	278	\$ 681.50	126	\$ 239.75	404	\$ 921.60
Athabasca, Municipal Hospital District	12	3,857	8,665.40	1,131	2,053.80	4,988	10,719.20
Barrhead, Town	12	673	1,477.00	142	241.40	815	1,718.40
Bassano, Municipal Hospital District	12	3,070	6,719.80	512	869.95	3,582	7,589.75
Bawlf, Village	12	215	497.50	72	127.25	287	624.75
Beaver, Municipal District	12	556	1,417.80	87	178.35	643	1,596.15
Beaverlodge, Municipal Hospital District	12	1,086	2,359.50	147	249.00	1,233	2,608.50
Bentley, Municipal Hospital District	12	1,325	3,047.60	572	1,027.45	1,897	4,075.05
Berwyn, Municipal Hospital District	12	2,101	4,566.40	681	1,157.25	2,782	5,723.65
Bittern Lake, Village	12	45	114.75			45	114.75
Bonnyville, Municipal District	12	2,209	4,844.95	1,458	2,450.70	3,667	7,295.65
Bow Island, Municipal District	12	1,373	3,367.95	275	551.80	1,648	3,919.75
Bowness, Town	12	1,166	3,381.40	695	1,668.00	1,861	5,049.40
Boyle, Municipal Hospital District	12	1,411	3,115.75	630	1,075.65	2,041	4,191.40
Brooks, Municipal Hospital District	12	6,360	14,871.75	2,264	4,175.35	8,624	19,047.10
Burdett, Village	12	16	35.20	14	23.80	30	59.00
Bruderheim, Village	10	125	318.75	59	120.95	184	439.70
Calgary, City	12	55,926	160,761.35	15,836	37,632.20	71,762	198,393.55
Calgary, Rural Municipal Hospital District	12	10,829	30,268.55	4,324	10,180.20	14,953	40,448.75
Camrose, Municipal District	12	4,445	11,175.75	970	1,982.25	5,415	13,158.00
Camrose, Town	12	3,861	9,632.70	329	671.45	4,190	10,304.15
Cardston, Municipal Hospital District	12	4,289	9,339.95	1,068	1,812.00	5,357	11,151.95
Castor, Municipal Hospital District	12	3,012	6,602.90	712	1,210.40	3,724	7,813.30
Cereal, Municipal Hospital District	12	568	1,156.40	81	124.35	649	1,280.75
Chipman, Village	12	61	153.55	35	70.10	96	225.65
Claresholm, Municipal Hospital District	12	4,321	10,039.15	796	1,458.20	5,117	11,497.35
Consort, Municipal Hospital District	12	2,848	6,085.60	165	280.50	3,013	6,366.10
Coronation, Municipal Hospital District	12	2,765	5,509.45	444	686.60	3,206	6,196.05
Crow's Nest Pass Municipal Hospital District	12	5,189	12,096.50	673	1,245.05	5,862	13,341.55
Daysland, Municipal Hospital District	12	3,157	7,283.75	1,608	2,795.00	4,765	10,078.75
Delburne, Municipal Hospital District	12	1,793	4,222.60	237	462.75	2,030	4,685.35
Didsbury, Municipal Hospital District	12	3,376	7,846.75	736	1,361.60	4,112	9,208.35
Drumheller, Municipal Hospital District	12	12,324	31,003.25	2,805	5,683.15	15,129	36,686.40

Eckville, Municipal Hospital District	12	2,492	5,482.40	905	1,538.50	3,397	7,020.90
Edmonton, City	6	32,865	95,241.75	9,721	23,326.45	42,586	118,568.20
Elk Point, Municipal Hospital District	12	3,951	8,644.95	1,722	2,918.85	5,673	11,563.80
Einora, Municipal Hospital District	12	1,221	2,655.60	143	243.10	1,364	2,898.70
Empress, Municipal Hospital District	12	1,746	3,793.95	456	772.50	2,202	4,566.45
*Fairview, Municipal Hospital District	12	3,359	7,714.85	940	1,639.40	4,299	9,414.25
Ferintosh, Village	9	28	71.40	2	4.10	30	75.50
Foremost, Village	6	317	808.35	17	34.85	334	843.20
Flagstaff, Municipal District	12	6,490	14,481.25	2,406	4,206.45	8,896	18,687.70
Forestburg, Village	4	115	253.00	28	47.60	143	300.60
Galahad, Village	12	60	97.00	40	50.00	100	147.00
Girouxville, Village	6	33	72.60	23	39.10	56	111.70
Glendon, Municipal Hospital District	12	1,247	2,742.05	440	747.55	1,687	3,489.60
Grande Prairie, Municipal Hospital District	12	8,154	18,782.70	1,877	3,401.80	10,031	22,184.50
Granum, Town	12	253	590.05	28	51.80	281	641.85
Hanna, Municipal Hospital District	12	4,284	10,054.35	703	1,292.00	4,987	11,346.35
Hay Lakes, Village	12	204	520.20	28	57.40	232	577.60
High River, Municipal Hospital District	12	7,910	18,468.80	855	1,581.75	8,765	20,050.55
*Hughenden, Municipal Hospital District	12	1,654	3,365.65	447	753.00	2,101	4,118.65
Innisfail, Municipal Hospital District	12	4,358	10,202.45	1,095	2,004.60	5,453	12,207.05
Irma, Municipal Hospital District	12	1,024	2,008.40	161	235.00	1,185	2,243.40
Islay, Municipal Hospital District	12	1,938	4,236.60	499	837.05	2,437	5,073.65
*Killam, Village	12	267	570.55	85	140.25	352	710.80
Kitiscoty, Village	12	61	134.20	.....	.....	61	134.20
Lac La Biche, Town	12	392	834.95	180	292.95	572	1,127.90
Lacombe, Municipal Hospital District	12	6,624	15,432.75	1,301	2,391.55	7,925	17,824.30
Lamont, Municipal District	12	7,638	18,827.00	2,462	4,807.75	10,100	23,634.75
Lanmont, Village	12	856	2,182.80	57	116.85	913	2,299.65
Leduc, Town	12	469	1,352.40	133	319.20	602	1,671.60
Leduc, Municipal District	12	6,237	17,747.15	1,453	3,437.60	7,690	21,184.75
Little Bow, Municipal Hospital District	12	1,114	2,441.80	124	210.80	1,238	2,652.60
Lethbridge, City	12	14,759	37,573.85	3,325	6,789.25	18,084	44,363.10
Lloydminster, Municipal Hospital District	12	8,550	19,954.80	2,399	4,308.55	10,949	24,263.35
Lougheed, Village	7	35	77.90	69	127.65	104	205.55
Macleod, Municipal Hospital District	12	1,614	3,554.85	376	635.60	1,990	4,190.45
Manning, Village	12	169	346.45	42	65.10	211	411.55
Magrath, Municipal Hospital District	12	2,135	4,350.85	758	1,246.20	2,893	5,597.05
Mannville, Municipal Hospital District	12	1,269	2,708.55	328	554.00	1,597	3,262.55
Mayerthorpe, Municipal Hospital District	12	1,591	3,674.50	667	1,224.05	2,258	4,898.55
Medicine Hat, City	12	8,545	21,655.00	1,225	2,504.10	9,770	24,159.10
Milo, Village	12	25	58.75	6	11.10	31	69.85
Minburn, Municipal District	12	1,491	3,502.10	449	886.10	1,940	4,388.20

TABLE No. 8—Continued

Local Authority	No. of Participat- ing Months	Age 16 Years and Over		Age Under 16 Years		Total	
		Days	Amount	Days	Amount	Days	Amount
Morinville, Municipal District	12	4,683	\$ 12,673.60	1,700	\$ 3,707.85	6,383	\$ 16,381.45
Municipal Affairs	12	11,425	27,121.85	4,276	7,878.00	15,701	34,999.85
Mundare, Town	12	307	675.40	54	91.80	361	767.20
Myrnam, Municipal Hospital District	12	1,598	3,492.20	630	1,057.95	2,228	4,550.15
McLennan, Town	12	469	1,022.35	292	496.40	761	1,518.75
New Norway, Village	12	75	185.75	42	66.85	117	252.60
Okotoks, Town	12	491	1,315.00	88	162.80	579	1,477.80
Olds, Municipal Hospital District	12	4,654	10,797.85	858	1,578.75	5,512	12,376.60
Oyen, Municipal Hospital District	12	1,250	2,919.50	237	432.60	1,487	3,352.10
Peace River, Municipal Hospital District	12	4,982	11,617.70	1,659	3,040.35	6,641	14,658.05
Pembina, Municipal District	12	1,632	4,728.90	315	750.80	1,947	5,479.70
Penhold, Village	12	130	328.75	108	219.80	238	548.55
Ponoka, Municipal Hospital District	12	3,716	8,688.95	1,125	2,071.35	4,841	10,760.30
Provost, Municipal Hospital District	12	3,169	6,840.85	879	1,471.35	4,048	8,312.20
Provost, Municipal District	12	183	390.90	25	42.50	208	433.40
Public Welfare	12	223	463.60	211	339.50	434	803.10
Radway, Village	12	15	33.00	25	42.50	40	75.50
Raymond, Municipal Hospital District	12	1,373	2,991.35	366	617.25	1,739	3,608.60
Redcliff, Town	6	359	915.45	32	65.60	391	981.05
Red Deer, Municipal Hospital District	12	7,976	19,927.75	2,005	4,106.95	9,981	24,034.70
Rimbey, Municipal Hospital District	12	1,858	4,336.15	443	806.95	2,301	5,143.10
Rocky Mountain House, Municipal Hospital District	12	2,101	4,564.10	826	1,390.70	2,927	5,954.80
Sedgewick, Village	12	624	1,330.85	64	104.35	688	1,435.20
*St. Paul, Municipal Hospital District	12	5,089	11,390.80	3,045	5,428.05	8,134	16,818.85
Smoky Lake, Municipal District	12	4,038	8,544.20	784	1,304.00	4,822	9,848.20
Smoky River, Municipal District	12	1,839	4,073.15	1,194	2,035.30	3,033	6,108.45
Spirit River, Municipal Hospital District	12	4,047	7,472.35	2,222	2,997.40	6,269	10,469.75
*Stettler, Municipal Hospital District	12	7,463	17,421.05	2,169	3,940.20	9,632	21,361.25
Stony Plain, Municipal District	12	5,206	14,886.80	1,119	2,661.35	6,325	17,548.15
Strathcona, Municipal District	12	5,362	15,050.70	918	2,143.65	6,280	17,194.35
Stony Plain, Town	12	483	1,380.55	51	119.15	534	1,499.70
Strome, Village	12	193	418.60	71	119.15	264	537.75
Sturgeon, Municipal District	12	4,108	11,456.95	1,081	2,380.55	5,189	13,837.50

Sylvan Lake, Town	12	591	1,493.30	157	316.90	748	1,810.20
Taber, Municipal Hospital District	12	4,063	8,908.90	978	1,654.95	5,041	10,563.85
Thorsby, Village	12	107	310.30	30	72.00	137	382.30
Three Hills, Municipal Hospital District	12	1,887	4,362.45	532	966.20	2,419	5,328.65
Tofield, Municipal Hospital District	12	1,790	4,200.65	328	606.80	2,118	4,807.45
Trochu, Municipal Hospital District	12	2,337	5,034.30	367	621.65	2,704	5,655.95
Turner Valley, Municipal Hospital District	6	1,475	3,023.75	371	575.05	1,846	3,598.80
Two Hills, Municipal Hospital District	12	2,907	6,809.40	993	1,824.00	3,900	8,633.40
Vegreville, Municipal Hospital District	12	5,941	14,741.00	2,693	5,416.85	8,634	20,157.85
Vermilion, Municipal Hospital District	12	4,581	10,054.35	738	1,249.65	5,319	11,304.00
*Viking, Municipal Hospital District	12	2,902	6,368.20	1,085	1,840.45	3,987	8,208.65
Vulcan, Municipal Hospital District	12	4,964	11,575.85	885	1,624.65	5,849	13,200.50
Wainwright, Municipal Hospital District	12	4,568	10,586.30	1,136	2,053.00	5,704	12,639.30
Wetaskiwin, City	12	1,558	3,582.55	276	520.50	1,834	4,103.05
Wetaskiwin, Municipal District	12	3,241	7,541.15	1,081	1,978.25	4,322	9,519.40
Westlock, Municipal District	9	4,227	9,802.80	1,516	2,743.70	5,743	12,546.50
*Westlock, Town	12	621	1,366.20	136	218.60	757	1,584.80
Willington, Municipal Hospital District	12	2,163	4,780.35	808	1,392.65	2,971	6,173.00
Total		433,018	\$1,073,931.85	120,683	\$ 239,125.55	553,701	\$1,313,057.40
*Plus settlement on behalf of Contract Holders where contracts were sold for more than \$8.00 per year:							
Consort, Municipal Hospital District			\$				\$ 112.40
Fairview, Municipal Hospital District							820.75
Hughenden, Municipal Hospital District							340.80
Killam, Village							106.15
St. Paul, Municipal Hospital District							597.80
Stettler, Municipal Hospital District							966.00
Viking, Municipal Hospital District							649.40
Westlock, Town							180.60
GRAND TOTAL		433,018	\$1,073,931.85	120,683	\$ 239,125.55	553,701	\$1,316,831.30

TABLE 9
HOSPITALIZATION OF ALBERTA POPULATION BY AGE
(Newborn Excluded)

Age Group	1952			1951		
	1951 Population	Number Hospitalized*	% of Hospitalized in each Age Group	Number Hospitalized*	% of Hospitalized in each Age Group	
0-4	116,846	18,500	10	17,400	10	
5-9	93,063	12,800	7	12,100	7	
10-19	150,838	20,000	11	18,100	11	
20-29	152,242	41,700	23	39,000	23	
30-39	138,460	28,400	15	25,700	15	
40-44	56,971	9,300	5	8,500	5	
45-49	50,146	8,200	4	7,500	4	
50-54	42,334	7,700	4	7,000	4	
55-59	37,001	6,700	4	6,300	4	
60-64	34,657	7,100	4	6,700	4	
65-69	29,439	7,400	4	6,300	4	
70-74	19,553	7,000	4	6,200	4	
75 and over	17,951	8,600	5	7,600	5	
N.S.	.....	100	....	100	....
TOTALS	939,501	183,500	100	168,500	100	

*Excludes Polio, D.V.A. and T. B. Division cases.
Population according to 1951 census.

TABLE 10
LENGTH OF STAY IN HOSPITAL BY PATIENT TYPE, 1952

PATIENT TYPE	1952		1951	
	Number of Patients Discharged or Deceased (to nearest 100)	Average Length of Stay in Days	Number of Patients Discharged or Deceased (to nearest 100)	Average Length of Stay in Days
Recipients of:				
Municipal Hospitalization Benefits	65,900	7.6	46,800	7.6
Maternity Hospitalization Benefits	26,000	8.2	24,100	8.4
Old Age Benefits	10,900	15.9	8,800	16.2
Mother's Allowance	900	6.9	900	7.5
Blind Pension	300	13.5	300	14.8
Widow's Allowance .....	.....	10.5	N.A.	N.A.
Residents not eligible for any of above	66,800	7.8	76,800	8.0
*Others	9,000	10.7	7,300	12.1

*"Others" includes non-residents and patients whose hospitalization is provided for by the Department of National Defence, the Department of Indian Affairs or the T. B. Division, in an approved active-treatment hospital.

New born infants and polio and orthopaedic patients are not included in above.

Cerebral Palsy Clinics

DR. F. G. DAY, *Director*

Alberta's cerebral palsy cases have a new lease on life. Through the clinics which have been established by the Government of Alberta, these crippled children are learning to walk and talk and are learning such use of their hands as will remove many of them from the group which is a family handicap, into the class of self-supporting citizens.

A clinic was established in Edmonton in temporary quarters in 1950, moving in 1952 to the new Clinic Building provided by the Government at 115th Street and 74th Avenue. Here the necessary staff is maintained to train these children to use their muscles as they have never been able to use them before. A similar clinic is now operating in Calgary.

In these places the physiotherapist gives training and treatment to release the tension in spastic muscles and thus permit them a degree of normal function, while at the same time correcting any deformity which may have developed. The muscles which control speech are also operating below par, so the child has difficulty in making himself understood. The province provides a speech therapist who is highly trained in the problem of helping these children to talk. The occupational therapist also assists in muscle re-education and in keeping little minds alert by introducing the child to handicrafts which may incidentally, also be of value as a spare time occupation in later life. A teacher is also part of the team. An attempt is made to keep the child up to other children in ordinary school work. In doing this, she never forgets that the primary function of the clinic is to re-educate the disabled muscles.

The parents are also remembered and special classes are operated periodically so that they may learn to carry on with certain of the procedures when the child goes home. Ordinarily a child attends the clinic for three months and then is home for three months until the best results have been obtained.

Many of these children are so disabled that they require special splints in order to get around at all. These are made in a special brace shop which is maintained at the Cerebral Palsy Clinic and each splint is made specifically to fit a particular child and his needs.

A large amount of special equipment is used by the staff in the program of muscle re-education. This includes such items as walkers, relaxation chairs and special skis which are used in learning to walk.

Thus the training program is completely covered by the Provincial Government which leaves the problem of recreation, transportation and boarding accommodation to voluntary societies. Through these clubs, transportation has been provided so that children may be moved daily from their homes or boarding places in Calgary and Edmonton, to the clinics. In some cases, these

societies provide transportation from the country residence to the boarding place in the city.

Although the clinics have been operating only a short time, already dramatic results have been seen in many cases. The best results are obtained in children of from three to six years. It is regrettable that in some forty per cent of cerebral palsy cases, the condition which caused the muscle difficulty, also caused a mental defect, making this particular group untrainable.

The operation of the clinic by the Province of Alberta and the operation of the auxiliary services by voluntary societies is an example of co-operation to achieve a good result. A total of 361 patients have been examined since the service started, although not all of them were suitable for treatment.

EXAMINATION AND ASSESSMENTS—JANUARY TO DECEMBER, 1952

	Edmonton	Calgary
Number of patients examined	285	76
Number of new cases	62	...
Number of patients receiving treatment 4 times a week (3 months in and 3 months out):		
In clinic average	20	...
Out patient average	10	...
Number of individual treatments:		
Physiotherapy	1,421	...
Occupational Therapy	1,442	20
Speech Therapy	1,223	11
Educational Therapy	1,558	...
Braces for Cerebral Palsy Clinics:		
Leg Braces	31	2
Arm Braces	3	1
Night Splints	6	...

Canadian Red Cross Blood Transfusion Service

THE EDMONTON DEPOT AND CALGARY SUBDEPOT

D. I. BUCHANAN, M.B., Ch.B., D.P.H., *Director*

1. NEW BUILDINGS

We have pleasure in reporting that construction began on two new buildings directly related to the work of the Blood Transfusion Service in this province, during 1952.

In Calgary, a new depot, including all necessary nurses' work rooms, processing rooms, and laboratories, etc., was planned in 1951 and work commenced on the new structure in the second half of 1952. These premises are being provided by the Government of the Province of Alberta at a cost of approximately \$170,000, and underline the permanent nature of the Service, first established in Alberta five years ago.

We are greatly indebted to the members of the provincial government and particularly to the Minister of Health and the Minister of Public Works for this tangible proof of the important part the Canadian Red Cross National Blood Transfusion Service is taking in the battle against ill-health and injury.

The other new building, built by the Red Cross, and closely affecting our work is, of course, the new permanent blood donor clinic on 106 th St. and 100th Avenue in Edmonton. The operational expenses of the Service continues to be borne by the Society.

For years, the clinics have been conducted in a windowless basement and it has not been possible to provide adequate facilities and proper air-conditioning in this "temporary" location. On the grounds of better donor facilities, and for health reasons in regard to both clinic personnel and donors this is a necessity, and we look forward to a better donor response in 1953 in the Edmonton clinics, now that suitable premises and more car parking space is available.

For a long time we have been concerned that the total voluntary blood donations in Edmonton have not increased at all in proportion to the general city population and the marked increase in hospital admissions, and therefore of transfusion therapy. We hope that part of the answer will be found in the provision of a new building specifically designed for donor clinics.

2. USE OF WHOLE BLOOD AND PLASMA

The following table indicates, in some measure, the extent to which the Service is in demand:

TRANSFUSION OF WHOLE BLOOD AND PLASMA—1952	
A—Hospitals in Northern Alberta; adjoining areas of N.W., British Columbia, and Y.T.:	
MATCHED BLOOD TRANSFUSIONS:	
Total No. of Patients	7,572
Total No. of Bottles	14,279
BANK BLOOD OR "UNIVERSAL DONOR" TRANSFUSIONS:	
Total No. of Patients	898
Total No. of Bottles	1,220½
PLASMA TRANSFUSIONS:	
Total No. of Patients	676
Total No. of Bottles	1,282
B—Southern Alberta, and adjoining S.W., B.C.:	
MATCHED BLOOD TRANSFUSIONS:	
Total No. of Patients	7,260
Total No. of Bottles	10,713
BANK BLOOD OR "UNIVERSAL DONOR" TRANSFUSIONS:	
Total No. of Patients	1,139
Total No. of Bottles	1,555
PLASMA TRANSFUSIONS:	
Total No. of Patients	276
Total No. of Bottles	486
TOTAL—Total for all hospitals supplied in North and South (A and B above):	
MATCHED BLOOD TRANSFUSIONS:	
Total No. of Patients	14,832
Total No. of Bottles	24,992
BANK BLOOD OR "UNIVERSAL DONOR" TRANSFUSIONS:	
Total No. of Patients	2,037
Total No. of Bottles	2,775½
PLASMA TRANSFUSIONS:	
Total No. of Patients	952
Total No. of Bottles	1,768

The number of whole blood transfusions administered during the year as matched and 'bank' blood amounted to 27,767½ five hundred c.c. bottles, while the total number of patients receiving these transfusions amounted to 16,869. 952 patients received 1,768 bottles of plasma.

In 1951 as compared to 1952, the total number of patients who received whole blood transfusions was 15,630, so that there was an eight per cent increase in the number of hospital recipients.

In the summary for 1951, we reported that over 40,000 donors had attended clinics throughout the province and surrounding areas in the far north and west, and we advised that an increase could be anticipated. In 1952, 45,150 blood donations were received, an increase of 12½ per cent on the previous year.

In comparing the above total of 45,150 blood donations received with the total amount of whole blood collected in the first complete year of operation for both the Calgary and Edmonton centres (1948), we find that there has been an eighty-seven per cent increase, i.e., 24,118 bottles collected in 1948 as compared with 45,150 in 1952.

This marked difference is an indication of the constantly increasing demands on the Service by all hospitals, and in many cases the hospitals in the vast areas supplied have also expanded in bed capacities to meet the rapidly growing needs of the general population.

It is obvious that no one could predict the extent to which the Blood Transfusion Service will develop in future years.

Mobile clinics have increased out of all proportion to those held in the two large urban centres. In Edmonton, 8,195 bottles were collected in 1952, whereas 15,413 were collected on mobile clinics.

In Calgary 6,886 bottles were collected in 1952, against 14,655 on mobile clinics.

There are physical and financial limits to the successful operation of many mobile clinics, and we respectfully advise that further increases in hospital requirements must be met, primarily by holding larger clinics in the two main cities, and secondly by the judicious use of mobile clinics where the response is known to be excellent.

The truly magnificent achievements in many cities and towns are due to the hard work of the volunteer donor clinic chairman and committee members. We feel sure that all members at this annual meeting, and the directors of donor panels would wish to join us in expressing thanks for this most valuable service.

The Calgary sub-depot has not only issued a greater number bottles of whole blood to the hospitals supplied by the sub-depot, but has also contributed, for the first time, a greater number of plasma pools than the Edmonton depot. In 1952, from Edmonton and Calgary, 809 pools of liquid plasma (each pool being equivalent to approximately 20 blood donations) were shipped to the Connaught Laboratories for final drying and processing. The individual contributions of the two laboratories were as follows:

Calgary	455 pools shipped
Edmonton	348 pools shipped
	<hr/>
Total	803 pools shipped
	<hr/>

The continued production of dried, irradiated plasma is a vital necessity; in both our larger and smaller hospitals plasma is frequently administered in emergencies pending the matching and supply of whole blood. Its use under wartime conditions would be heavy, despite the temporary use of any plasma substitute such as dextran that might be available for initial treatment.

3. GROUPING AND RH TYPING, ETC, OF SPECIMENS FOR MATERNITY CASES, ETC.

During 1952, 16,031 blood specimens were examined from maternity cases, etc., in the Edmonton laboratories and 9,934 in the Calgary laboratories.

These tests are often of a detailed nature, requiring much work and time, and they involve the use, in many instances, of costly Rh typing serum. They are undertaken, free of charge, for medical practitioners engaged in obstetrics and represent a major contribution to antenatal and postnatal care.

During the year 74 bottles of anti-A and anti-B sera were collected from volunteer donors, for use as grouping sera. In addition, 30 bottles of Rh testing serum were obtained with the cooperation of obstetricians.

4. FINANCIAL SAVING TO PATIENTS

One cannot place a "price tag" on good health, nor on the best treatment that can be provided during ill-health or accidents. As a general estimate, however, one could gauge the financial savings to patients, through the Blood Transfusion Service in this area in the following way:

1. Cost of whole blood (27,767½ five hundred c.c. bottles) at a nominal rate of \$15. per transfusion	\$416,512.50
2. Cost of dried irradiated plasma (1,768 five hundred c.c. bottles) valued normally at \$40. each	70,720.00
3. Cost of Rh typing investigations (25,965 tests) at a nominal sum of \$3. each	77,895.00
TOTAL	\$565,127.50

On the above general estimate, one could reasonably state that the Society's contribution to hospital patients and to the public health in this province and adjoining territories during 1952 amounted to well over \$500,000 in services provided.

In conclusion, we would again express our deepest appreciation of the help received by volunteers as donors and as organizers at clinics.

Division of Tuberculosis Control

DR. G. D. DAVISON, *Director*

During 1952 a further reduction in the death rate among Alberta residents has occurred and when official data is available it is expected that the figure will be considerably below the 1951 rate of 15.5 per 100,000. Although the death rate is continuing to fall, more cases of disease were admitted to sanatorium than in 1951.

Public Health efforts in various forms cannot take all the credit for the falling death rate, but the programme of prevention and control has accomplished much. The health education programmes of the Departments of Health and Education and the Alberta Tuberculosis Association are playing an important part in bringing correct information on the subject to thousands of people.

The tuberculosis death rate among the Indians has been materially reduced also by the unremitting efforts of the Indian Health Services of the Federal Department of Health and Welfare. This infectious disease, so prevalent among the Indians, has been of serious concern to the province. Grateful acknowledgement is made of the work accomplished by this federal authority.

Diagnostic Services.

The continuation of diagnostic services such as regular clinics at the Sanatoria and other centres has been an important factor in prevention and control. Altogether 310 clinic sessions were held and 12,363 people examined. An important part of this work is the examination of contacts of known cases of tuberculosis.

The chest x-ray surveys, with photofluorographic equipment, carried on throughout the province for the past nine years, have taken about 1,000,000 chest films. During 1952, 130,515 people were examined. Films sent into the Sanatorium by physicians and hospitals for interpretation amounted to 9,747.

The Indian Health Services, through their travelling clinics, x-rayed 11,474. Many of these non-Indian who live in northern Alberta and inaccessible to the Provincial Tuberculosis Division equipment. Our thanks is extended to Indian Health Services for their co-operation and assistance.

The statistical report is appended.

The Division of Tuberculosis and practising physicians discovered 735 new cases of tuberculosis in 152. It is interesting to note that of these, 488 had residence in that area lying north of Township 52, that is, roughly a line drawn east and west through Edmonton. It is interesting to note also that on the basis of the 1951 census approximately 130,000 more people are resident south of the above line.

Grateful acknowledgement is made of the assistance rendered to us by the Health Units, Public Health Nurses, Alberta Tuberculosis Association and public spirited citizens in carrying on the clinic services.

New Construction.

The Aberhart Memorial Sanatorium was officially opened on February 20, 1952 and available for occupancy on March 1st, 1952. All tuberculosis patients from Edmonton Hospitals will be moved to the new Institution. This hospital is one of the finest of its type in North America, and the location is ideal. The Department of Public Works are to be highly commended on the results achieved. The opening of this hospital increased the number of sanatorium beds in the province by about 100, bringing the total in the province, including the Central Alberta Sanatorium, Calgary and the Charles Camsell Indian Hospital in Edmonton, to 1,050. A new sanatorium section at the Oliver Mental Hospital was also opened providing 200 beds for tuberculosis cases among the mentally ill.

In 1952 the addition to the Administration Building, Central Alberta Sanatorium, was completed. This extension houses improved and larger business offices and medical records on the ground floor. The main floor is given over to operating rooms, x-ray department and out-patient clinic. The top floor provides for more surgical beds. It is felt that this addition copes satisfactorily with the needs of the institution at the present time.

Toward the end of the year erection of a building to house male staff was commenced. It is hoped that these comfortable quarters will help to stabilize staff.

Treatment Services.

Sanatorium care was provided for 1,082 patients during the year. 629 cases were admitted, of whom 94 were suffering from non-pulmonary disease. The greater prevalence of tuberculosis in the north is reflected in the admission. There were 102 more cases admitted to the Aberhart Memorial Sanatorium than to the Central Alberta Sanatorium, Calgary. About 22% of the patients admitted were re-admissions. In many instances this reactivation occurs because the individual, on discharge from the sanatorium, must compete in the manual labour market before he has regained his health. Then, too, some of the readmissions are cases who have left hospital against medical advice. In the main, these people are infectious and, consequently, menaces to their families and associates. By law they can be committed to a sanatorium but there is no provision for holding them until their treatment is concluded. It is the consensus of tuberculosis workers that these recalcitrants be confined to a sanatorium section, if necessary behind locked doors, until such time as they are ready to comply with the usual sanatorium rules and regulations.

Statistical report is appended.

Auxiliary Services.

To assist the patient to aspire to employment in keeping with his health, a broad educational programme has been carried on for several years by school teachers of the Department of Health along with rehabilitation officers of the Alberta Tuberculosis Association. Employers in industry are to be highly commended for their co-operation.

The Occupational Therapy Departments are very active also. This service is in the main educational. Many patients discover aptitudes of which they were unaware. What the patient accomp-

lishes in his school work and/or occupational therapy determines in large measure what line of endeavor he should follow toward his rehabilitation so that the chances of future breakdown will be prevented.

Training of Nurses.

Short courses in tuberculosis nursing are given to student nurses from affiliated general hospitals. Each course at Central Alberta Sanatorium, Calgary lasts two months and at the Aberhart Memorial Sanatorium, Edmonton one month. It is felt that the two-months course is of much more value to the participants but only half the number who wish to take the course can be accommodated. Nursing aides from the provincial school also take part of their training in the Sanatoria. As a result of this introduction to the field of Tuberculosis Nursing, many of the students become interested in the work and join the staffs of the Sanatoria after graduation from their respective schools. Lectures to the nursing school students in the general hospitals of Edmonton and Calgary were given by the members of the Medical Staff of the Aberhart Memorial and Central Alberta Sanatoria.

Medical Students.

Throughout the university session the medical students of the fourth year attend weekly at the Aberhart Memorial Sanatorium for lectures and clinical instruction by the Sanatorium medical staff. During the summer vacation two members of the third year class were attached to the strength of the institution. It is the concensus that, although time is limited, some insight into the tuberculosis problem is gained by the students.

Administration.

These figures refer to the fiscal year ending March 31st, 1953 whereas those in the balance of this report are for the calendar year 1952.

Gross operating cost—Central Alberta Sanatorium	\$ 691,250.82
Revenue	198,082.86
Net operating cost—Central Alberta Sanatorium	493,167.96
Gross Cost per patient day	7.99
Net Cost per patient day	5.70
Gross operating cost—Aberhart Memorial Sanatorium	650,106.56
Revenue	113,916.05
Net operating cost—Aberhart Memorial Sanatorium	536,190.51
Gross Cost per patient day	6.25
Net Cost per patient day	5.16
Gross hospital cost—Edmonton and elsewhere	132,040.91
Revenue	2,580.16
Net hospital cost—Edmonton and elsewhere	129,460.75
Cost of clinic service:	
Treatment—Out-patient pneumothorax	\$ 5,293.00
Mobile X-ray Units	15,036.63
Other diagnostic services	11,043.50
Total cost under Tuberculosis Act	31,373.13
Cost of projects under the Federal Tuberculosis Control	\$1,190,192.25
Grant are not included in the above figures.	
Patient days:	
Central Alberta Sanatorium	86,613
Alberta Memorial Sanatorium	104,003
Edmonton hospitals	480
Outside hospitals	140
Reciprocal agreements	3,496
Total patient days	194,732

Based on a population of 1,000,000, the per capita cost for Tuberculosis Control was \$1.19.

The total number of meals served at Central Alberta Sanatorium was 429,139; while at Aberhart Memorial Sanatorium the number of meals served was 440,689. The cost of food per meal at Central Alberta Sanatorium was \$0.3218, a decrease of \$0.0214 over that of the previous year as compared to a food cost per meal at Aberhart Memorial Sanatorium of \$0.3032, no comparable figures for the previous year being available.

Acknowledgments.

Our thanks are extended to the Honourable Dr. W. W. Cross, Minister of Health for his assistance, also to Dr. A. Somerville, Deputy Minister of Health.

Grateful acknowledgment is made of the assistance given by many voluntary societies. A list of the organizations taking part is set forth following the statistical section.

It is desired to express sincerest appreciation to the medical superintendents of the Sanatoria and their respective staffs for their loyal co-operation in the service of the Tuberculosis Division.

DIAGNOSTIC CLINIC REPORT

Place	No. of Sessions	New Cases Tuberculosis		New Number Exams.	Number Review Exams.	Total
		Pul.	Non-Pul.			
STATIONARY CLINICS:						
Calgary	47	5	.....	113	227	340
Central Alberta Sanatorium	102	23	3	1256	2700	3956
Camrose	5	.....	.....	21	102	123
Drumheller	12	2	1	44	109	153
Edmonton	97	138	7	2841	2703	5544
Lethbridge	11	6	1	170	411	581
Medicine Hat	11	1	.....	135	164	299
Red Deer	6	1	.....	174	204	378
Vegreville	5	1	.....	20	96	116
Total	296	177	12	4774	6716	11490
OTHER CLINICS						
Eckville	3	.....	2	10	69	79
Stettler	11	1	.....	11	25	36
Miscellaneous (Films sent in from various points and paid for by Division.) .....	.....	34	1	360	398	758
.....	14	35	3	381	492	873
Total All Clinics	310	212	15	5155	7208	12363

In addition to the above 227 newly discovered cases of active tuberculosis there were also discovered 336 cases of inactive tuberculosis.

TUBERCULIN TESTING AND X-RAY SURVEYS

(Conducted by Public Health Nurses, Teachers, Business Firms, Hospitals, etc.)

	No. Tuberculin Tested	No. X-rayed
Nursing Aides	253	413
Red Cross Blood Transfusion Service	19	29
Victorian Order of Nurses, Calgary .....	....	6
Canadian Industries Limited .....	....	9
Faculty of Education, Calgary	155	2
Provincial Laboratory Staff, Edmonton .....	....	57
Health Units(Leduc-Strathcona, Sturgeon, Stony Plain-Lac Ste. Anne)	4,634	108
Public Health Nurses .....	....	29
Medical Students, Edmonton .....	....	303
University Freshman, Edmonton .....	....	581
Hospital Admission Films sent to Sanatoria .....	....	2,588
Metropolitan Life Insurance Co., Calgary .....	....	22
	<hr/> 5,161	<hr/> 4,117

Total number known to have been given service 8,796 i.e. number rayed plus number tuberculin tested but not rayed.

N.B.—Data re number of other persons tuberculin tested and x-rayed as hospital admissions not available when this report compiled. These additional films interpreted by local hospital radiologists.

MOBILE UNIT SURVEYS

	No. X-rayed		No. X-rayed
Athabasca	1,355	High Prairie	1,814
Berwyn	699	Hines Creek	885
Boyle	791	Kinuso	377
Canyon Creek	369	Lac La Biche	1,880
Colinton	607	Manning	1,183
Devon	1,572	McLennan	771
Dixonville	374	Newbrook	627
Edmonton	102,187	Paddle Prairie	313
Egremont	406	Peace River	914
Fairview	1,602	Plamondon	898
Falher	735	Red Deer	558
Faust	561	Shewin-Glendon Chemical Plant (Ft. Sask.)	156
Ft. Saskatchewan	1,798	Slave Lake	534
Ft. Saskatchewan Gaol	467	Smith	601
Ft. Vermilion	498	Thorild	1,212
Gibbons	844	Worsely	397
Girouxville	697		
Grassland	905		
Grimshaw	395		
Grosmount	186		
Grouard	317		
			<u>130,515</u>

SUMMARY MOBILE UNIT SURVEYS

Number x-rayed	130,515
Probable tuberculosis active	92 (25 previously discovered)
Probable tuberculosis inactive	849 (409 previously discovered)
Further examination requested	934
Non tuberculosis chest condition	1,104
Pleurisy active	0
Pleurisy inactive	469
No disease	126,559

SUMMARY—CLINICS AND SURVEYS

	No. Sessions	Total	No. Exams.
Stationary Clinics	296		11,490
Other Clinics	14		873
Surveys (all types)	30		8,796
Mobile Unit	37		130,515
Indians, Whites and Half-breeds (work done by Department National Health and Wel- fare)			11,474
Total	<u>377</u>		<u>163,148</u>

SOURCES OF DISCOVERY OF NEW CASES OF TUBERCULOSIS
(Indians excluded)

	1951	%	1952	%
Clinics	772	71.6	563	76.8
Referred for admission by family physicians	274	25.5	138	18.8
Surveys	2	.2	3	.4
Referred by D.V.A.	3	.3	8	1.0
Provincial Laboratory	5	.5	10	1.4
Hospital admission films	4	.4	7	.9
Other sources	17	1.5	6	.8
	<u>1,077</u>		<u>735</u>	

Of the 563 Clinic Cases 26 were immigrants referred from the Department of National Health and Welfare. 151 were Mobile Follow Ups. 122 were referred by the family doctor to the clinic.

CLASSIFICATION OF NEW CASES OF ACTIVE AND INACTIVE
PULMONARY TUBERCULOSIS (excluding Indians)

Minimal	355
Moderately advanced	160
Far advanced	58
Primary	81
Tuberculosis pleurisy with effusion and evidence of previous pleurisy	22
	<u>676</u>
Number newly discovered cases active tuberculosis	399
Number newly discovered cases inactive tuberculosis	336
Number cases reactivated	51
Number non residents diagnosed as having tuberculosis	8
Number of known contacts of newly discovered cases of tuberculosis	2,562
Number of known contacts examined	1,851—72.2%

TUBERCULIN 1952

Supplies of Old Tuberculin was sent upon request to Clinics, Health Units, Hospitals, Doctors and Public Health Nurses.

	Number of Bottles Sent
Dilution No. 1	1
Dilution No. 2	144
Dilution No. 3	399
Dilution No. 4	37

BGG VACCINATION (Number Given To) TUBERCULOSIS DIVISION

Nurses (a) Graduates	5
(b) Students	307
(c) Other nursing personnel	12
Other hospital personnel	35
Medical students	41
Contacts (a) Newborn	1
(b) Others	14
Indians and Eskimos	543
Others	93
TOTAL	1,051

INSTITUTIONAL REPORTS

	Central Alberta Sanatorium	(Prior to Feb. 20/52 referred to as Edmonton Sanatoria) Aberhart Memorial Sanatorium	Other
Patients under treatment January 1, 1952	238	205	10
Patients admitted during 1952	237	392	0
Patients transferred in	7	6	0
Total treated	482	603	10
Patients discharged and died	242	320	8
Patients transferred out	6	6	1
Total discharged	248	326	10
Patients under treatment December 31, 1951	234	277	1
Number patients under treatment January 1, 1952			453
Number of Admissions 1952			629
Total treated			1,082

DIAGNOSIS OF 629 PATIENT ADMISSIONS

	Central Alberta Sanatorium	Aberhart Memorial Sanatorium
Non-tuberculous	13	3
For diagnosis	12	35
Pleural Effusion	14	20
Tuberculosis, Inactive	8	6
Primary tuberculosis	9	37
Non-pulmonary tuberculosis:		
Bone	14	23
Meningitis	1	5
Enterocolitis	1	
Addison's disease	2	1
Rt. inguinal abscess	1	
Renal, genito urinary, genital urinary tract	11	12
Peritonitis	4	2
Bowel	1	
Adenitis	8	5
Endometritis		1
Pericarditis		1
Chest abscess		1
Pulmonary tuberculosis active:		
Minimal	26	44
Moderately advanced	49	106
Far advanced	63	83
Miliary		7
TOTAL	237	392

INSTITUTIONAL REPORTS

	Central Alberta Sanatorium	Aberhart Memorial Sanatorium	
Number with positive sputum on admission ..	87	142	
Number negative on admission	150	250	
Number negative on admission, positive later ..	1	0	
Number of readmissions during 1952	63	75	
Number both admitted and readmitted during 1952	3	18	
Number of patient days	86,662	96,678	
Number patient days in other provinces under reciprocal agreement			2,886
Number of patients at beginning of 1952			6
Number of admissions			10
Total number of patient days including those in other provinces under reciprocity ..			186,226
Number of institutional patient days provided for non resident under reciprocity ..			1,059
Number of patients at beginning of 1952			1
Number of admissions			8

OPERATING ROOM REPORTS

	Central Alberta Sanatorium	Aberhart Memorial Sanatorium	Total
THORACOPLASTY:			
Number stages	62	32	94
Number of 1st stages	22	17	39
Number of revisions	1	2	3
Number of cases	26	17	43
Plombage		6	6
Pneumonectomy		6	6
Segmental lobe resection		5	5
Lobectomy	6	3	9
Phrenic crush	7	2	9
Rib resection		5	5
Monaldi drainage	3	2	5
Pneumolysis		27	27
Cavernostomy	2		2
Reopening cavernostomy		1	1
Unroofing empyema		2	2
Revision of unroofing empyema		2	2
Thoracoscopy		9	9
Intercostal drainage		1	1
Bronchoscopy	15	40	55
Vital Capacity	24		24
Intracavity pressure	2		2
Removal thora plastic pack	1		1
Arthrodesis knee	3	1	4
Arthrodesis femur		2	2
Arthrodesis hip	2		2
Arthrodesis shoulder	1		1
Amputation phalanges metacarpal joint		1	1
Spinal fusion	4	5	9
Removal stump and secondary closure		1	1
Sequestrectomy of shoulder	1		1
Nephrectomy	8	1	9
Ureterostomy		1	1
Fulguration of bladder ulcer		1	1
Urethral dilation		1	1
Cystoscopy	16	7	23
Excision ischio-rectal abscess	1		1
Aspirations:			
Pleural	202	200	402
Other	54	60	114
Injection Methylene Blue into pleural space		1	1
Injection Lipiodol into shoulder sinus	3		3
Decortication		2	2
Hemorrhoidectomy		1	1
Myringotomy	1		1
Gastric lavage	34		34
Appendectomy	3	1	4
Tonsillectomy	1	1	2
Removal ingrown toenail	1	2	3
Removal cyst—cheek		1	1
Removal wart below nose		1	1
Incision reopened and packing inserted— blood clot removed from graft		1	1
Incision hordeolum		1	1
Incision thora haematoma	1		1
Excision axillary glands		1	1
Excision mole on arm	1		1
Incision and drainage took abscess		1	1
Inter-pleural pressure		10	10
Inter-abdominal pressure		1	1
Biopsy axillary lymph glands		1	1
Biopsy cervical node		1	1
Biopsy bronchus stem		2	2
Abdominal paracentesis		3	3
Para-vertebral block		5	5
Sympathetic ganglion block		4	4

OPERATING ROOM REPORTS—Continued

	Central Alberta Sanatorium	Aberhart Memorial Sanatorium	Total
Sympathetic block	1	1	1
Intercostal block	3	3	3
Infiltration xylocaine into scar	1	1	1
Infiltration xylocaine lumbar region	1	1	1
Auricular pressure	1	1	1
Ventricular taps	66	66	66
Spinal taps	40	660	700
Pelvic examinations	23	1	24
Sigmoidoscopy and Proctoscopic	3	1	4
Insertion Percorton pellet	6	1	7
Plaster shells and casts	31	45	76
Dressing to wrist	1	1	1
Removal Rodent ulcer—ear	1	1	1
Removal lesion below eye	1	1	1
TOTAL	500	1,217	1,717

SUMMARY PNEUMOTHORAX CASES:

Under treatment January 1, 1952	63	127	190
Number of new cases during 1952	12	42	54
No. cases under treatment on admission	10	31	41
	<u>85</u>	<u>200</u>	<u>285</u>
Number cases discontinued	34	51	85
Number transferred out of Alberta	3	3	6
Number transferred to other sections of Division	8	22	30
	<u>45</u>	<u>76</u>	<u>121</u>
Number under treatment December 31, 1952	40	124	164
Unsuccessfully attempted	5	7	12
Refills:			
Resident	577	1,697	2,274
Out-patient	1,341	2,366	3,707
	<u>1,918</u>	<u>4,063</u>	<u>5,981</u>

In addition to the above, 719 pneumothorax refills were given to 44 ex-sanatorium patients at the following points: Banff, Beaverlodge, Bonnyville, Drumheller, Elk Point, Fort Vermilion, Hanna, High Prairie, Lacombe, Lac La Biche, Lamont, Lethbridge, Nordegg, Ponoka Provost, Red Deer, Vermilion, St. Paul, Wainwright.

	Central Alberta Sanatorium	Aberhart Memorial Sanatorium	Total
SUMMARY PNEUMOPERITONEUM CASES:			
Under treatment January 1, 1952	41	49	90
New cases started during 1952	60	54	114
Number under treatment on admission	2	23	25
	<u>103</u>	<u>126</u>	<u>229</u>
Number discontinued	36	27	63
Number transferred out of the province	0	0	0
Transferred to other sections of the Division	6	8	14
	<u>42</u>	<u>35</u>	<u>77</u>
Under treatment December 31, 1952	61	91	152
Number of refills:			
Resident	2,318	2,294	4,612
Out-patients	313	671	984
	<u>2,631</u>	<u>2,965</u>	<u>5,596</u>

In addition to the above 27 pneumoperitoneum refills were given to 5 ex-sanatorium patients at the following points: Banff, Lethbridge, Elk Point, Westlock.

LABORATORY REPORTS

N.B.—The Laboratory Work for the Central Alberta Sanatorium is done by the Southern Branch of the Provincial Laboratory and no report is available.

	Central Alberta Sanatorium	Aberhart Memorial Sanatorium	Total
SPUTUM EXAMINATIONS:			
Positive	932	.....
Negative	1,727	.....
URINE EXAMINATIONS:			
.....	8,650	.....
BLOOD EXAMINATIONS:			
Blood Counts	2,714	.....
Sedimentation Rate	1,505	.....
Blood Sugar	670	.....
MISCELLANEOUS:			
Pleural fluid	47	.....
Spinal fluid	1,367	.....
Gastric analysis	8	.....
Culture	451	.....
Guinea pig inoculation	438	.....
Other	730	.....
TOTAL	3,041	.....
WASSERMAN REPORTS:			
Positive	1	9	10
Negative	228	309	537
TOTAL	229	318	547

DENTAL REPORT

Number of patients	421	191	612
Number of treatments	136	398	534
Number prophylactic treatments	118	14	132
Number of fillings	339	223	562
Number of extractions	223	142	365
Number new dentures and repairs	54	19	73

X-RAY DEPARTMENT REPORT

RADIOGRAPHS MADE:			
Thorax	6,899	8,327	15,226
Spine	132	141	273
Ribs	1	4	5
Sternum .....	.....	3	3
Extremities	86	101	187
Pelvis	39	47	86
Sinuses	2	5	7
Skull	4	5	9
K.U.B.	11	.....	11
F.P. Abdomen	6	15	21
G.I. Series	9	15	24
G.B. Series .....	.....	3	3
Barium Swallow .....	.....	2	2
Barium enema .....	.....	2	2
Intravenous pyelogram	20	17	37
Retrograde pyelogram	10	8	18
Sinogram .....	.....	16	16
Bronchogram	2	34	36
Ordograph .....	.....	53	53
Teeth	36	74	110
Shoulder	23	.....	23
Sacro-iliac	8	.....	8
Stomach	2	.....	2
Colon	2	.....	2
Pregnancy	4	.....	4
Hips	7	.....	7
Jaw	2	.....	2
Lumbar-sacrol	2	.....	2
Oesophagus	1	.....	1
Coccyx	6	.....	6
Mastoid	1	.....	1
Tomograph	3	.....	3
.....	7,318	8,872	16,190
FLUOROSCOPIC EXAMINATIONS:			
Thorax	5,308	7,735	13,043
Gastro Intestinal Tract	9	15	24
Colon	2	.....	2
.....	5,319	7,750	13,069
Films sent in for interpretation	5,651	4,227	9,878
Basal Metabolism Report	9	.....	9
Cardiograph	15	.....	15
Audiograph	5	.....	5

CLASSIFICATION OF 570 DISCHARGED PATIENTS:

	Residence			On Discharge					
	On Admission	31 days or less	Over 31 days	In.	A6.	A3.	A1.	Au.	D.
1. For Diagnosis	73	48	25	...	...	...	...	...	...
2. Primary Tuberculosis	32	4	28	3	1	11	16	1	...
3. Reinfection type pulmonary tuberculosis clinical:									
Minimal	47	4	43	8	3	17	16	3	...
Moderately advanced	49	7	42	8	3	25	10	1	2
Far advanced	17	4	13	3	3	5	...	2	4
4. Reinfection type pulmonary tuberculosis postive:									
Minimal	18	...	18	1	3	9	5	...	...
Moderately advanced	91	2	89	2	11	45	21	7	5
Far advanced	115	6	109	2	12	42	29	5	25
Miliary	9	2	7	...	...	4	...	...	5
5. Tuberculosis pleurisy	24	3	21	1	...	12	9	2	...
6. Non-pulmonary tuberculosis:									
Meningitis	8	4	4	...	...	1	1	...	6
Genito-urinary, renal, etc.	19	4	15	4	1	4	9	1	...
Addison's disease	1	...	1	1	...	...	...	...	...
Addenitis	16	...	16	4	...	2	10	...	...
Peritonitis	13	...	13	5	...	2	6	...	...
Endometritis	3	...	3	...	...	...	3	...	...
Synovitis	2	...	2	...	...	...	2	...	...
Pericarditis	2	...	2	...	...	...	1	...	1
Cold abscess	1	1	...	...	...	...	...	1	...
Bone	30	4	26	7	1	2	14	3	3
Total active tuberculosis	497	45	452	49	38	181	152	26	51
Total treated .....	...	...	477	42	36	178	144	16	36
Total untreated .....	...	93	...	7	2	3	8	10	15
Grand Total	570	93	477	49	38	181	152	26	51

Explanation of abbreviations and terms used: The standard classification is that of the National Tuberculosis Association. Minimal, Moderately Advanced, and Far Advanced refer to anatomical extent of disease; In.—inactive; A6.—arrested 6 months; A3.—arrested 3 months; A1.—active improved; AU. active unimproved; D.—died.

N.B.: Only those in residence over 31 days are classed as "treated".

CLASSIFICATION ON ADMISSION OF 570 DISCHARGED PATIENTS:

	Central Alberta Sanatorium	Aberhart Memorial Sanatorium	Other	Total
For diagnosis	33	40	...	73
Primary tuberculosis	9	23	...	32
Pulmonary tuberculosis	148	191	7	346
Tuberculosis pleurisy	8	16	...	24
Non-pulmonary tuberculosis	44	50	1	95
Total	242	320	8	570

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

On Admission:	Number	On Discharge		
		Improved	Unimproved	Died
Minimal	61	60	1	...
Moderately Advanced	131	120	5	6
Far Advanced	122	94	7	21
Primary	28	28	...	...
Miliary	7	4	...	3
Non-Pulmonary Tuberculosis	82	74	2	6
Tuberculosis Pleurisy	21	20	1	...
Total	452	400	16	36

RESIDENCE OF DISCHARGED PATIENTS:

	Central Alberta Sanatorium	Aberhart Memorial Sanatorium	Total
Cities	129	135	264
Towns	20	16	36
Villages	6	11	17
Municipal Districts	48	76	124
Local Improvement Districts	31	89	120
Special Areas Board	2	...	2
Non Resident	6	1	7
Total	242	328	570

SEX OF DISCHARGED PATIENTS:

	Central Alberta Sanatorium	Aberhart Memorial Sanatorium	Total
Male	120	169	289
Female	122	159	281
Total	242	328	570

AGE ON ADMISSION:

From 1- 9	17	32	49
From 10-14	4	25	29
From 15-19	14	40	54
From 20-29	65	87	152
From 30-39	56	53	109
From 40-49	43	40	83
From 50-59	19	22	41
From 60-69	20	17	37
70 and over	4	12	16
Total	242	328	570

SOCIAL STATUS OF DISCHARGED PATIENTS:

Single	80	166	246
Married	143	143	286
Divorced	4	1	5
Widowed	8	15	23
Separated	7	3	10
Total	242	328	570

RESIDENCE IN ALBERTA:

Born in Alberta	91	210	301
1 year or less	11	3	14
1- 5 years	38	28	66
6- 9 years	13	9	22
10-14 years	10	8	18
15-19 years	10	2	12
20-30 years	28	29	57
30 years or more	41	39	80
Total	242	328	570

RACIAL ORIGIN:

Austrian	1	7	8
Belgian	1	1	2
Chinese	4	3	7
Danish	5	1	6
Dutch	9	12	21
English	58	53	111
Estonian	1	1	2
Finnish	4	1	5
French	8	22	30
German	16	45	61
Greek	1	1	2
Hebrew	1	1	2
Hungarian	5	1	6
Icelandic	1	2	3
Irish	23	35	58
Italian	1	1	2
Japanese	5	1	6
Latvian	1	6	7
Metis	15	50	65
Norwegian	10	6	16
Negro	1	2	3
Polish	12	9	21
Roumanian	1	1	2
Russian	3	2	5
Scottish	39	2	41
Swedish	3	7	10
Slovak	3	43	46
Ukrainian	13	15	28
Welsh	1	1	2
Total	242	328	570

LENGTH OF STAY IN SANATORIUM OF 570 DISCHARGED PATIENTS

	Central Alberta Sanatorium	Aberhart Memorial Sanatorium	Total
DEATHS:			
Number in Sanatorium under 31 days	4	11	15
Number patient days	39	108	147
Average patient days	9.7	9.8	9.8
Number in Sanatorium 31 or more days	11	25	36
Number patient days	9,560	7,845	17,405
Average number patients days	869.1	313.8	483.5
DISCHARGES:			
Number in Sanatorium under 31 days	32	46	78
Number patient days	498	664	1,162
Average number patient days	15.6	14.4	14.9
Number in Sanatorium 31 or more days	195	246	441
Number of patient days	69,245	66,992	136,237
Average number of patient days	355.1	272.3	308.9
Total number deaths and discharges	242	328	570
Total number patient days	79,342	75,609	154,951
Average number patient days	327.9	261	271.8
No. non-pulmonary admissions(individual)	43	51	94
No. non-pulmonary patient days (calendar)	13,848	11,543	25,391
Average patient days, non-pulmonary	322	137.4	192.4

Division of Mental Health

RANDALL R. MACLEAN, M.D., *Director*

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

- Eugenics Board.
- Provincial Guidance Clinics.
- Provincial Mental Hospital, Ponoka.
- Provincial Mental Institute, Edmonton.
- Provincial Auxiliary Mental Hospital, Claresholm.
- Provincial Auxiliary Mental Hospital, Raymond.
- Provincial Training School, Red Deer.
- Rosehaven, Camrose.

The total patient population in the various Institutions of this Division, inclusive of Rosehaven, Camrose, on January the 1st, 1952, 3,645—(males 2,179, females 1,466). The total patient population in the Institutions, inclusive of Rosehaven, on December 31st, 1953, was 3,791—(males 2,226; females 1,565). This represents a total gain of patients of 146 (males 47; females 99). The Provincial Mental Hospital, Ponoka, admitted 694 patients—males 349; females 345). This was 40 more than the previous year. The Provincial Mental Institute, Edmonton, admitted 327 patients—(males 177; females 150). This was 45 more than the previous year. This was exclusive of patients remanded to the Institute from the Courts for observation. The Provincial Training School, Red Deer, admitted 65 children—(boys 23, girls 42). During the year there were 200 transfers among the various Institutions. A total of 92 patients—(males 65; females 27)—were transferred to Rosehaven. There were 193 Deaths—males 131; females 62) in all the Institutions combined. The commonest cause of death were those referable to the Circulatory and Respiratory Systems. There were three deaths from Pulmonary Tuberculosis. Pneumonia was the commonest Respiratory cause of death.

The Building Construction Programme for the Institutions continued during 1952. Two new Dormitories at the Training School at Red Deer neared completion at the end of the year. At the Provincial Mental Hospital, Ponoka, a Dormitory capable of housing 96 men patients was opened. The New Tuberculosis Unit at the Provincial Mental Institute, Edmonton, with a bed capacity of 196 was opened and all Tuberculous cases from all the other Institutions were transferred to this modern Unit. Work progressed on the new Administration Building and new Nurses' Residence at the Provincial Mental Institute, Edmonton, and an area was cleared for the new Reception Unit to be constructed during 1953. A small Unit for 34 men patients was opened at Rosehaven. Preparations were made for the construction of a new 100-bed Unit with a connecting tunnel to the Main Building at Rosehaven.

Extensive active treatment was given to all patients newly admitted to the Institutions, as will be apparent from the individual reports of these Institutions.

Staff Training Programmes were carried out as before in the Provincial Mental Hospital, Ponoka, the Provincial Mental Institute, Edmonton, and the Provincial Training School, Red Deer. Some 50 Staff members—(15 men; 35 women)—graduated in the various Courses.

The services of the Provincial Guidance Clinics were continued throughout the year. Clinics were held at some 50 to 60 key points in the Province. The Guidance Clinics Staffs participated in many Public Education activities such as Group Discussions, Institutes, Lectures, Talks and Radio Work.

Five meetings of the Eugenics Board were held during the year. All meetings were held at the Provincial Mental Hospital, Ponoka. A total of 58 cases was presented for the Board's consideration. Twenty-four operations—(male 6; female 18)—were performed during the year. The total number of cases operated upon to December 31st, 1952, was 1,323—(males 518; females 805). The operations were performed at the Provincial Mental Hospital, Ponoka, by the duly appointed Honorary Surgeons, assisted by the Medical Staff of the same Hospital.

TABULATED SUMMARY—INSTITUTIONS—MOVEMENT OF PATIENTS

Hospital	Patients in Hosp. Jan. 1, 1952			Admissions			Discharges			Deaths			Patients in Hosp. Dec. 31, 1952		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Ponoka	919	620	1539	349	345	694	228	230	458	56	19	75	910	633	1543
Oliver	937	333	1270	177	150	327	116	108	224	43	10	53	948	394	1342
Red Deer	212	183	395	23	42	65	10	17	27	5	4	9	220	205	425
Claresholm .....	....	100	100	....	4	4	....	1	1	0	3	3	....	99	99
Raymond .....	....	135	135	....	3	3	....	3	3	0	5	5	....	133	133
Totals	2068	1371	3438	549	544	1093	354	359	713	104	41	145	2078	1464	3542
Rosehaven ..	111	95	206	65	27	92	1	....	1	27	21	48	148	101	249
				(By Transfer)											
Total in- cluding Rose- haven	2179	1466	3645	614	571	1185	355	359	714	131	62	193	2226	1565	3791

70% of Discharges Improved or Recovered; 30% of Discharges Unchanged.

TRANSFERS "IN" AND "OUT" OF INSTITUTIONS

		M.	F.	T.		M.	F.	T.
Ponoka	Transfers in	7	21	28	*Transfers out	82	79	161
Oliver	Transfers in	35	31	66	**Transfers out	25	4	29
Red Deer	Transfers in	....	2	2	Transfers out .....	....	1	1
Claresholm	Transfers in	....	3	3	Transfers out .....	....	3	3
Raymond	Transfers in	....	9	9	Transfers out .....	....	6	6
Rosehaven	Transfers in	65	27	92	Transfers out .....	....	....	....
Total	Transfers in	107	93	200	Transfers out	107	93	200

*Includes Males 41, Females 23—Total 64—Transferred to Rosehaven.

**Includes Males 23, Females 4—Total 27—Transferred to Roseaven

TABULATED SUMMARY—INSTITUTIONS—DEATHS—1952

Disease	P.M.H., Ponoka			P.M.I., Oliver			P.T.S., Red Deer			Hosehaven			Claresholm			Raymond			Total		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Tuberculosis of Respiratory System	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3. Syphilis and Sequelae	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
18. Neoplasms Malignant	4	3	7	4	3	7	4	3	7	4	3	7	4	3	7	4	3	7	4	3	7
19. Neoplasms Benign	2	2	2	3	1	4	3	1	4	1	1	1	1	1	1	1	1	1	1	1	1
22. Vascular Diseases of Central Nervous System	7	2	9	30	4	34	1	1	2	2	3	5	1	1	1	1	1	1	1	1	1
23. Non Meningococcal Meningitis	19	4	23	30	4	34	1	1	2	8	4	12	1	1	1	2	2	2	58	16	74
26. Arteriosclerotic and Degenerative Heart Disease	12	5	17	4	4	8	14	12	26	1	1	1	2	2	2	2	2	2	30	23	53
30. Influenza	1	1	1	3	1	4	2	2	2	2	2	2	2	2	2	2	2	2	3	2	5
31. Pneumonia	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1	4
36. Gastritis, Duodenitis, Enteritis	2	2	2	1	1	2	1	1	2	1	1	1	1	1	1	1	1	1	2	2	2
38. Nephritis	7	3	10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2
41. Congenital Malformations	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2
45. Ill-Defined	7	3	10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	8	4	12
46. All Other Diseases																					
MENTAL: Psychoneuroses and Personality Disorders							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Diseases Nervous System, Sense Organs				1	2	3													1	2	3
TOTALS	56	19	75	43	10	53	27	21	48	3	3	5	131	62	193						

PROVINCIAL MENTAL HOSPITAL, PONOKA

T. C. MICHIE, M. D. *Medical Superintendent**Patient Population Changes.*

The resident population on January 1st, 1951 was one thousand, five hundred and thirty-nine (1,539). Of these, nine hundred and nineteen (191) were male, and six hundred and twenty (620) female. On December 31st, 1952, there were in residence, one thousand, five hundred and forty-three (1,543) patients, of whom nine hundred and ten (910) were male, and six hundred and thirty-three (633) female. There was an overall increase of four (4) in the patient population. The details are as set forth in Table 1.

Admission of Patients.

Exclusive of transfers from other Provincial Mental Institutions, six hundred and ninety-four (694) patients were admitted, this being an increase of eighty-seven (87) over the previous year. Admissions were almost equally divided between the sexes, three hundred and forty-nine (349) being male, and three hundred and forty-five (345) female. Those admitted by voluntary application numbered eighty-seven (87), by Medical Certificates, one hundred and forty-two (142), while four hundred and twelve (412) were by Warrant, and eleven (11) under "The Mental Defectives Act." Twenty-eight (28) patients were transferred to this Hospital from other Mental Institutions in the Provincial service. In the various diagnostic categories, the only significant relative increase were in the alcoholic and senile groups. There was a sharp increase in the number admitted by Warrant.

Separation of Patients.

The number discharged totalled five hundred and forty-two (542), of whom two hundred and sixty-nine (269) were men, and two hundred and seventy-three (273) women. This was an increase of one hundred and eight (108) as compared with 1951. Ninety-seven (97) patients were transferred to other Provincial Mental Institutions. Of the latter, sixty-four (64) were patients with pulmonary Tuberculosis, who were admitted to the new unit for tuberculous patients at the Provincial Mental Institute, Edmonton. Seventy-five (75) patients died, most of whom were in the advanced age group.

Accidents and Elopements.

Thirty-five (35) patients suffered from fractures, twelve (12) being men, and twenty-three (23) women.

There were no suicidal deaths.

A relatively small number left the Hospital without permission, and most of these were returned by the Royal Canadian Mounted Police, or the Staff of the Hospital, within a very short time.

General Health.

There were no epidemics, and the health of the patients in general was good. The problem of Tuberculosis control in the Hospital was considerably eased, with the transfer of all patients with Pulmonary Tuberculosis to the Provincial Mental Institute. The wards vacated

as a result of this transfer were renovated and occupied by old and debilitated patients.

Clinical Work.

Treatment procedures were in keeping with accepted standards, and made available to all patients. A Pathologist was added to the Staff, and this resulted in improved diagnostic services. Shock treatments were used extensively, with good results. A selected number of patients had lobotomy operations. Major surgical procedures were carried out by Visiting Surgeons. It was possible to devote more time to individual patients, due to the increase in Medical Staff.

Occupational Therapy

This form of treatment was utilized with practically all new patients, and with rotating groups comprising those in prolonged residence. For the most part, this was done in organized classes at which over one hundred (100) regularly attended. The Library and Canteen gave excellent service.

Recreational Therapy and Physical Training.

In some form or other, practically every patient derived some advantage from organized recreational activities. The program was extremely varied, and in keeping with the needs of the particular groups.

Religious Services.

Services were conducted regularly by Visiting Clergymen. Deep appreciation was shown by the patients. The very harmonious relationship between the Clergymen and the Staff was maintained.

Social Service.

The services of one Worker were utilized to the fullest extent. Her duties alternated between contacts with the patients and relatives at the Hospital, and visits to the homes. Many visits were made to discharged patients. On occasion, prospective patients were interviewed by her, and as a result, a decision reached that the persons could be adequately cared for at home. In other instances, such visits resulted in the prompt acceptance of the individuals at the Hospital. It is felt this service has firmly established its value.

Dental Services.

All new patients were examined, and treated when necessary. A regular program of examination and treatment was carried out with patients on continued care. The Dentist made the regular annual visit to Claresholm and Raymond. A method of positive identification for artificial dentures was developed, probably unique in dental practice.

X-Ray Services.

This Department operated smoothly and gave excellent service. The chests of all new patients were rayed, and following a set program, all other patients and staff were rayed at stated periods. The majority of chest plates were in miniature. The use of miniatures has greatly eased the problem of storage. All chest plates were referred to The Central Alberta Sanatorium, Calgary for reading, and

the utmost cooperation was accorded this Hospital by the Medical Staff of that Institution. The X-ray Department also assisted in routine diagnostic work.

Laboratory Services.

During the early part of the year, a Technician conducted the laboratory services, but in July, a well qualified Pathologist was appointed, and increased facilities were made available.

School of Nurses.

The teaching program was essentially unchanged. There were three qualified Instructors, and they received assistance from the Professional Personnel of the Hospital. Instruction was given to twenty-one (21) Students in the four year course in General and Psychiatric Nursing, and to thirty-two (32) Male Attendants in the three year Psychiatric Course. In addition, thirty-two (32) affiliating Student Nurses from The Archer Memorial, Galt, and Medicine Hat General Hospital received instruction. Twelve (12) Nurses completed the four year course in General and Psychiatric Nursing, and two (2) men graduated in Psychiatric Nursing. Twelve (12) Registered Nurses received their Diplomas in Psychiatric Nursing, and three (3) others were enrolled in the fall class. Ward Aides were given a short indoctrination course, suitable to the needs of the patients. Public Health Nursing Students from the University of Alberta also spent short periods at the Hospital receiving instruction.

Visitors.

The number of relatives and friends who visited patients showed a steady increase. Visiting hours were maintained morning and afternoon each day. There were many distinguished visitors. The Hon. Dr. W. W. Cross, Minister of Health, visited on a number of occasions. Prior to his retirement, Dr. M. R. Bow was a regular visitor. Dr. A. Somerville, who succeeded Dr. M. R. Bow as Deputy Minister of Health, made several official calls. Dr. Randall R. MacLean, Director of The Division of Mental Health inspected the Hospital on many occasions.

The Visiting Board carried out the annual inspection. This was done with thoroughness. Patients and Staff were questioned, and given every opportunity to express their views. On occasions, the Board may have been critical, but it was obvious the underlying spirit was to promote the welfare of the patients, and ensure the harmonious operation of the Hospital.

The Eugenics Board.

Five meetings were held by The Eugenics Board at this Hospital during the year. Fifty (50) patients were presented, of whom eighteen (18) were male, and thirty-two (32) female. In addition to the above, a number of cases from The Provincial Training School were presented to the Board at the Ponoka Meetings. Twenty-four (24) operations for sexual sterilization were performed, of whom six (6) were on male, and eighteen (18) on female patients.

Maintenance Department and Fire Protection.

All buildings were kept in a good state of repair. A great deal of interior painting was done. There were many favourable comments

from patients and visitors regarding the general appearance of the Hospital.

The Fire Brigade held regular practices and demonstrated a high degree of efficiency. No fires occurred, but the alertness of fire danger was due in no small manner to the excellent example shown by the Voluntary Members of the Brigade. A new Fire Hall was constructed and placed in service. Fire fighting equipment was well maintained.

New Buildings and Improvements.

A new Male Dormitory providing accommodation for ninety-six (96) patients, was opened on November 15th, 1952. The construction of a second and similar building was commenced.

A new elevator was installed and placed in operation in the women's continued treatment building.

Business Office.

This Department operated smoothly and with efficiency. The Business Superintendent assumed direct responsibility for the supervision of the Farm and ancillary services. The collection of maintenance accounts showed an increase of approximately ten per cent.

P. M. H. Farm and Gardens.

The grain, hay, vegetable and root crops gave excellent returns, but the potato yield was rather poor. The yield from poultry was excellent, but only fair from the dairy herd. Certain changes were effected in the Farm program which should give good results.

Ancillary Services.

The various services including the Cannery, Laundry, Linen Room, Print Shop, Sewing Room, Shoe Shop and Tailor Shop all continued to effectively serve the needs of the Hospital.

The Department of Public Works.

Under the direction of the Chief Engineer, the needs of the Hospital regarding heat, sewage, and water supply were adequately met. The electrical equipment was well maintained. The utmost cooperation was shown by the Staff of this Department. This was an important factor in the efficient operation of the Hospital.

Conclusion.

The operation of the Hospital during the year was satisfactory. There was a high admission rate, but the discharge rate was maintained at a very satisfactory level. It was therefore felt justifiable to consider the treatment program successful. There were no untoward incidences of significance. The Staff were conscientious in the care of patients, and loyal to the Hospital administration. Those responsible for administration were grateful for this, and also for the support and guidance given by the officers of The Department of Public Health.

PROVINCIAL AUXILIARY MENTAL HOSPITAL
CLARESHOLM

Movement of Patients.

There were 100 patients in residence on January 1st, 1952 and 99 patients in residence on December 31st, 1952.

There were four admissions during the year—one voluntary admission and three under The Mental Defectives' Act.

One patient was discharged as unimproved. There were three patients transferred to the Provincial Mental Hospital, Ponoka, for special medical and psychiatric attention.

There were three deaths during the year due to cardio-vascular diseases.

Accidents and Elopements.

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

General Health.

On the whole the general health of the patients was very good. When necessary, X-ray and laboratory tests are done at the Claresholm Municipal Hospital. Patients and staff received their annual Typhoid vaccine.

Occupational Department.

A successful sale of work was held in November. The work was displayed the day before the sale and many local residents visited the display and commented favorably on the work.

The patients continue to enjoy this form of endeavour.

During the winter months the Assistant Matron has conducted an extra occupational class in the day room for the more deteriorated patients and with the exception of one or two, all the patients are now attempting to knit or crochet.

A group of fifteen or twenty patients are taken out in the garden during the summer months under the supervision of a ward aide, and they enjoy getting out every day.

Recreational Activities.

The usual parties were held for the patients, sports day, bingo parties and dances were enjoyed. The Christmas party for the ladies was greatly enjoyed and an effort is always made to give the patients some special little gift that they have expressed a wish for.

The United Church Choir visited the hospital at Christmas and Easter and their music was greatly enjoyed.

Twice a month the patients go down to the local theatre to see current shows.

Over fifty patients go for walks and another twenty-five or thirty go out on parole around the grounds every day the weather permits during the winter months.

In the summer months all the patients are taken out on the lawn with the exception of one elderly lady.

Magazines are bought from the Federal Health Grant fund and books are added to the library from the patients recreational fund.

Beauty Parlor.

Shampoos and finger waves are done regularly each week in the Beauty Parlor.

Religious Services.

The local clergymen conduct services each Sunday afternoon, and one of the patients plays the piano for these services. Catholic services are held once a month.

Bibles were obtained from the Gideon Society for those patients who wished to have their own Bibles.

Dentistry.

All the patients with teeth were examined and given the necessary dental care by Dr. Palmer from the Provincial Mental Hospital, Ponoka in August. Any necessary dental work at other times is done by the local dentists.

Fire Protection.

The fire inspector has visited the hospital twice during the year. Fire practices are held and the equipment checked regularly.

Buildings.

The maintenance staff have kept the buildings in good repair and the necessary re-decorating has been done.

Gardens and Grounds.

Street lights were installed on the grounds and are appreciated by everyone.

The vegetable crop was excellent and there was a surplus of vegetables. Some of these were sold locally.

Visitors.

The hospital has been visited by Dr. R. R. MacLean, Director, Division of Mental Health, and his help and advice are greatly appreciated.

The Eugenics Board acting as a visiting board made rounds of the hospital and grounds.

Relatives and friends visited the patients during the year.

PROVINCIAL AUXILIARY MENTAL HOSPITAL, RAYMOND

Movement of Patients.

On January 1st, 1952 there were one hundred and thirty-five patients in residence. There were nine transfers received from other hospitals and three new admissions. Departures were five deaths, six transfers to other hospitals, and three discharges, leaving in residence December 31st, 1952, one hundred and thirty-three patients.

Accidents and Elopements.

There were no elopements. There were two accidents to patients, one sustaining a broken Humerus and the other sustaining a broken Humerus and Pelvis.

General Health.

Major surgery was necessary to remove an abdominal tumor in one patient. Minor surgery performed on two other patients, tonsillectomy in one and varicose veins stripped from both legs of the other. Influenza was rampant and caused three of the five deaths.

Occupational Therapy.

There is a separate Occupational Parlor for all needlecraft. Other forms of occupation are found on the wards and in the garden and grounds.

Library.

Books are added to the patient's library monthly and several monthly magazine subscribed to.

A staff library is maintained and monthly medical magazines subscribed to.

Religious Services.

Are held once monthly and Clergymen preside at patients' funerals.

Recreation and Entertainment.

Patients are entertained by a picture shown twice monthly. Special holidays are celebrated with a concert, a dance or party. Picnics are held on the lawns in the summer. Wards are equipped with a piano and radio.

Staff Changes.

Three Ward Aides were added to the staff due to the 44 hour week.

Visitors.

The hospital has been inspected by members of Public Health, Public Works, Fire Department, Electrical and Boiler Departments. The Eugenics Board made their annual visit. The livestock and gardens were also inspected by the Department of Agriculture.

Garden and Grounds.

Vegetable crop raised was ample for our winter needs. The grounds were badly torn up by the installation of a new water line and by the waterproofing of the foundation of the main building.

Conclusion.

The hospital capacity has been maintained throughout the year and the general health of patients has been satisfactory.

PROVINCIAL MENTAL INSTITUTE, EDMONTON

A. D. MACPHERSON, M. D., *Medical Superintendent**Patient Population Changes.*

On December 31st, 1952 there were in residence 948 men, and 394 women. On leave were 39 men and 17 women. The total patient population at the end of the year was 987 men and 411 women. This gives a grand total of 1,398. This is a gain of 87 over the previous year.

During the year there were 393 admissions. In addition, a total of 111 cases were remanded by the authorities for observation and examination. 2 juveniles were admitted through the Department of Child Welfare and the Juvenile Offenders Branch. This gives a total of 506 admissions for the year.

There were 252 discharges, and only one transfer. There were 53 deaths. (40 autopsies.)

General Health.

This has been good. There were no serious epidemics. Several cases of measles developed during the Fall. T.A.B. immunization was carried out on all new admissions, and new staff, and 'booster' doses were given when required.

Routine chest x-rays were done on all new admissions. An annual check was done on all patients in residence.

Accidents.

There were no accidental deaths, and no serious injuries.

Treatment of Patients.

Electro Shock Therapy was given to 295 patients, and insulin to 158 patients. Combined electro shock and insulin were given where required. Hydrotherapy was used extensively. A considerable number of periodic supportive treatments were given as well. Sessions in group therapy were instituted, and have been found to be of great value.

Occupational Therapy: This department has remained very active and its activities have been expanded, to include work on the wards of the T.B. Pavilion and on various female wards. The average daily attendance was around 100. Special attention was paid to new patients and those receiving insulin and shock treatments.

Social Work Services: During the past year we have been fortunate in having the services of a full-time social worker. This has been of great assistance not only in investigation, but in the placing of discharged patients, and also in the field of public relations.

Recreational Activities: This service has remained very active. A full-time daily schedule was kept up. Activities included not only athletic events, but social events and movies. The D.V.A. has continued to provide us with one dance per month, and a number of stage shows. Unfortunately, they were forced to eliminate the weekly moving picture shows. We have been able to send groups of patients into the hockey, football and baseball games and wrestling shows.

Library: More books were added during the year. The library is in full use at all times.

Beauty Parlor: This is operated on a full-time basis, and the services have been extended.

Religious Services: The United and Anglican churches have provided services on alternate Sundays. The Rev. Mr. Appelt of the Lutheran Church held services once a month. Roman Catholic services were held once a month. Jewish organizations visited the hospital monthly. Ukrainian and Lutheran women's organizations showed considerable interest in the work of the hospital.

X-ray Department: A total of 2,980 examinations were made during the year. This is an increase of 50% over the previous year. In addition, this department looked after the short-wave diathermy treatment.

Electroencephalograph: A total of 172 E.E.G.s were done, and 77 E.C.G.'s. Mr. Williamson, the technician, also worked a considerable part of the time at the Provincial Mental Hospital, Ponoka.

Laboratory: A total of 7,196 examinations were made during the last year. This is an increase of 40% over the previous year.

Surgical Service: With the opening of our own operating room, less work was referred to the University Hospital. Several of the more difficult cases were transferred to the University Hospital. There was a fair amount of minor surgical and fracture work done by our own staff. There was nothing of unusual interest in this surgical field during the year.

Dental Department: A total of 2,772 treatments were carried out during the year. All types of dental work were done. All patients in the hospital were examined during the year, and treatment, where necessary, was carried out. Clinics were held here for dental students, and Dr. Scott also carried out dental work at Rosehaven.

Training School.

A total of ten women and six men graduated in psychiatric nursing, completing the three-year course. There were also 137 students in the various years of the three-year course. Clinics and demonstrations were given to the graduating classes from all the City Hospitals during the year.

Department of Building Maintenance.

Maintenance work has been kept up very well during the year. The T. B. dormitory was completed and opened on the first of July. Transfer of patients from the Provincial Mental Hospital, at Ponoka, and the Provincial Training School at Red Deer was completed by the end of August.

Construction of a new administration building was commenced, and it is well on the way to being completed.

Fire Protection.

Fire practices were held at regular intervals. Inspections were carried out by the Fire Marshal's Branch.

Farm.

The rebuilding of the dairy herd has been practically completed, and at the present time the herd is supplying most of the milk requir-

ed. The crop was very good, and was completely harvested before winter.

Garden.

The vegetable crop was very good and kept well. Our own garden supplied most of the vegetables needed during the winter.

Laundry.

Extensive alterations were made to the building, and new equipment has been added. This department has been very busy.

Tailor Shop.

Extensive alterations were made to the building space, and new equipment has been added. The work of the department was very well done.

Shoe Shop.

This has remained very active and efficient.

Sewing Room.

This department has been very busy and efficient.

Dietary Department.

This department has continued to operate at its usual high efficiency. We were fortunate in that Miss McKenzie was able to be with us for the whole of the year. Considerably more equipment was added to the kitchen, and improvements in the internal arrangement of the kitchen were carried out.

Police Court.

We continued to act in a consulting capacity for both the City Police and the R.C.M.P., and liaison with both police forces has remained excellent. It has been a considerable help to us, and we think to them.

Business Office.

This office has continued to function in its usual efficient manner. The staff situation has been good.

Medical Records.

The work here increases each year. The quality of the work done is excellent.

Staff.

The staff situation on the male side has remained reasonably good. We were able to keep up to our establishment during most of the year. On the female side there was some difficulty in maintaining the establishment. All new staff are required to take the three-year course, unless previously qualified.

The medical staff have remained more stationary than usual. There were no changes during the year.

Visitors.

During the year we were visited at regular intervals by Dr. Cross and Dr. MacLean. These visits were always enjoyable, and their advice and opinions were much appreciated. The visiting board carried out its annual inspection in its usually thorough manner. Various problems were discussed with the visiting board at other times throughout the year, and they have always been very helpful to us.

PROVINCIAL TRAINING SCHOOL, RED DEER

L. J. LE VANN, M.D., *Medical Superintendent**In Residence, Admissions, Discharges, Deaths.*

The total population increased from 395 to 425 during the year. 67 certified defective children were admitted, which included 23 male and 44 female. 54 of these were first admissions, 12 were re-admissions, and two were transferred from the Provincial Mental Hospital, Ponoka. During the year there were 27 discharges, principally via job placements, and one was transferred to the Provincial Mental Hospital.

The death rate has fallen both actually and proportionately. There were 9 deaths, 5 male and 4 female.

Applications for Admission.

There were fewer applications this year than last year, a total of 74 applications were received. The majority of these have tended to be of the long term custodial type of patient. The waiting list of children requiring admission now numbers 407. This represents an actual decrease of 36 applications. With the near completion of two new dormitories it will be possible to further reduce this waiting list by 152 potential admissions.

Eugenics Board Visits, Sterilizations etc.

There were no cases presented to the Eugenics Board at this School during the year, but seven cases were presented at the Provincial Mental Hospital and were passed clear by the Board for Eugenics operation. During the year six sterilization operations were carried out, 4 on females and 2 on males.

Staff Changes and Activities.

Dr. L. J. le Vann returned to resume his previous office of Medical Superintendent at this School in October, and Mr. A. W. Fraser was appointed Deputy Superintendent.

On 1st, October 1952, Mr. A. P. Martin was appointed Social Worker to replace Mr. G. E. Trasov, who resigned to accept work at the Bowden Institute.

The staff situation has been very good, and there has been no difficulty in filling required personnel appointments.

Health of Trainees and Staff.

The overall health picture at the School has been fairly good. Towards the end of the year there was a sporadic outbreak of Scarlet Fever which was effectively checked by means of mass immunization of all trainees and staff with penicillin. However, there has been an outbreak of Infectious Hepatitis which it has not been possible to control as effectively, despite rigorous quarantine measures, and both patients and staff have been affected by this complaint. The situation is at present under study in an effort to determine the source, and the possible prophylactic measures which might be employed to localize this disease.

As a routine procedure all new staff members and all new patients have chest X-rays immediately upon employment and admission respectively, to minimize any spread of Pulmonary Tuberculosis at this School and to ensure its early detection.

Dental Care.

The dental care is at present under the direction of Dr. Gordon Travis, who continues to make regular dental inspections and carries out both prophylactic and therapeutic work when required.

Training Programme For Nurses and Attendants.

It has now been possible to include amongst the nursing and attendant staff only those who agree to take the three-year course for the Certificate in Mental Deficiency. However, in view of the turnover of staff, especially during the first year of study, the training programme has been reoriented to place greater emphasis on those courses which are of a practical nature, reserving the more advanced and theoretical courses to the 2nd and 3rd year of study. There has been a tendency for the 2nd and 3rd year students to increase in number and at present there are 13 enrolled in the 3rd year course, an increase of 6 over last year.

As a matter of policy it was decided that all courses should be given by personnel at the School rather than extramural lecturers, since in this way greater stress can be placed on the relationship of the various subjects to the actual trainee at the School.

Training Programme For Trainees.

There is little doubt that the training programme for Trainees is showing good results. The children are undoubtedly better behaved, and there is less need for disciplinary measures than has been noted in previous years. As a result of this training, and the acquired reputation of the trainees, there is a far greater demand for trainees, trained at this School, for outside help—to a point where the actual requests for trainee help in the community exceeds the available trainees.

Academic Training and Sense Training: There was little change from last year. The curricula followed have shown good results.

Recreation: In the main the Recreational programme has followed the course planned during the past two years. This programme now services the majority of the trainee population. The acquisition of a third Recreational Instructor in the near future, will ease the work of the two present Instructors and the programme will be still further amplified.

Occupational Therapy: This department has done very well in all its classes—widening their scope as much as possible, and holding a very successful sale of the work done by the trainees during the year.

Farm Instruction: The instruction and supervision of the farm boys has continued at a good level, and their general behaviour has been very good. The outside demand for the boys services during the summer months exceeded the supply.

Pre-Vocational Training: The various wards and work departments are continuing to provide trainees with work experience and develop in them proper work habits.

Guidance: Guidance interviews were carried out with those trainees who had personal worries, and with those who presented behavioural difficulties. It is felt that there has been a general improvement in the conduct of the trainees.

Social Work Services.

The appointment of a Social Worker continues to be of great benefit to this School. In addition to his regular duties of securing and supervising outside employment of trainees, he assists with trainee discipline and behavior problems. In addition he has numerous interviews with trainees, parents, and employers, and constant telephone contacts with them.

Extra School Activity.

The work at the Guidance Clinic in Red Deer and Rocky Mountain House had perforce to be severely curtailed due to the absence of a complete psychiatric team. However, in November Red Deer and Rocky Mountain House were again recommenced, and both these Clinics are showing considerable activity, the Clinic at Red Deer being booked up nearly two weeks in advance. One patient was referred for Electric Convulsant Therapy which was carried out with complete recovery.

The members of the Training School staff participate whenever requested, giving talks of Mental Health and Psychiatric nature, thereby further augmenting community acceptance of the School.

Several community clubs have shown great interest in the progress and welfare of the trainees at this School, and have started taking the children out weekly to their homes, to church and other outings, and in several instances have provided some children without fathers or mothers with many birthday gifts and Christmas gifts.

New Construction.

Two new wards should be ready for occupancy early in 1953 and a third ward is well advanced in construction and may possibly be ready by the end of 1953.

A house for the Medical Superintendent was also begun during this year and is in an advanced stage towards completion.

A new Greenhouse was completed this year and should be a great help towards landscaping and providing the wards with flowers.

Farm and Garden Produce.

This year produced bumper crops from the farm and there was a total of over 300 tons of vegetables produced which should furnish a considerable amplitude in the vegetable diet of trainees and staff. The Dairy situation continues to improve. The herd is being replaced with pure-bred Holstein cattle, and a pure-bred Holstein bull was also purchased. Milk production is at a high level, although the butter fat content is not as high as would be desired.

Laundry and Sewing Room.

Both these departments are working to their maximum capacity, and with the increase of patients anticipated it may well be that additional equipment will be required for them as well as extension of the Sewing Room for the coming year.

Kitchen and Dining Room.

These two departments continue to function well, and the staff and trainees are receiving good and nourishing meals.

ROSEHAVEN, CAMROSE

Movement of Residents.

On January 1st, 1952, the resident population numbered 206, of which 111 were men and 95 women. The total number in residence on December 31st, 1952 was 249; 148 men, 101 women.

Admissions during the year numbered 105, 92 from various Provincial Institutions and 13 returned from Leave of Absence.

Discharges numbered 62 during the year, 48 attributable to death and 14 to leave of absence.

One resident remained on leave at December 31st, 1952. Five residents on leave from previous years remained on leave.

Admissions were sent from mental hospitals when beds were available. The number was increased this year due to the opening of a 34-bed unit.

Deaths were due to degenerative causes.

Accidents and Elopements.

During the year a number of residents had accidents caused by falls or as a result of interference from other residents. There were twenty accidents requiring special attention, of these eleven were fractures, three lacerations and five severe contusions. There were numerous accidents causing small abrasions and contusions requiring only minor attention.

Nine residents left the grounds without permission but in only two cases was police assistance required to locate the resident, in other cases the resident was returned by staff members.

General Health.

The general health of the residents has been fairly good considering the age group. There is, however, a noticeable progressive mental and physical decline in the majority of residents.

An average of 28 residents required bed care in a month, each averaging $14\frac{1}{2}$ days in bed. Twenty-two required hospital care at a general hospital either for diagnostic purposes or for surgery. Outpatient work done for residents included 24 x-rays, 1 electrocardiograph, 1 cast application and 78 laboratory tests.

Medical attention was supplied by a local clinic.

Dental examination and necessary dental care was given twice in the year by the dentist from another mental hospital.

Occupational Therapy.

There have been no organized occupational classes held, but individual residents are encouraged to do handwork.

A group of 10-20 men assist with garden work and on the grounds.

Some twenty-five residents assist in various departments and with light housekeeping duties.

Religious Services.

Weekly services are arranged by the Ministerial Association.

Recreation.

Several parties have been arranged for all the residents. Smaller group parties were held to include special birthday groups.

Movies were shown on two occasions and a local choral group entertained once or twice.

Walking parties and lawn groups were taken out when weather permitted.

Staff.

There has been no serious shortage of staff during the year. There was an increase in the number of staff owing to the establishment of the 44-hour week and the addition of the new unit. Eight staff members resigned and suitable replacements were procured.

Health of the staff has been satisfactory.

Visitors.

The Minister of Public Health and Deputy Minister of Health visited during the year.

Visits were made periodically throughout the year by the Director, Mental Health Division.

The Eugenics Board as a visiting committee made their annual visit.

Provincial Guidance Clinics

The Provincial Guidance Clinics functioned in the regular manner throughout 1952. The Clinic Centres visited corresponded with those of the previous year. The over-all number of new cases for the year showed an increase. A Clinic team from the Provincial Mental Hospital, Ponoka, held Clinics not only in Ponoka, but in Rimbey, Stettler and Castor. Members of the Staff of the Provincial Training School at Red Deer operated the Guidance Clinic in that City.

A considerable number of talks, addresses and group discussion were participated in by members of all the various Clinic Staffs. A very large majority of the new cases examined in the Clinics as a whole were between the ages of zero to 19, indicating that cases are being referred at an early age. This would seem to be a hopeful sign since the aim of the Guidance Clinic work is chiefly preventive.

EDMONTON AND DISTRICT GUIDANCE CLINICS (Northern Zone)

A total of 744 new cases and 230 re-registered cases were seen for the zone. The work load was 5,711. The number of cases carried in treatment in the Clinic has been substantially increased. Most of these have come from the Greater Edmonton area and the results of treatment have been gratifying. Of the new cases, 81.5% were in the age group of 5 to 19 years; 40.8% of the new cases were referred from schools; 15.8% from private physicians; 28.6% from community agencies. The percentage of those seeking assistance of the Clinic voluntarily was 13.2 and the remainder was from other sources. There were 173 periods of educational activity in the community by members of the Clinic staff.

City of Edmonton.

New cases examined at the City of Edmonton amounted to 411, and 168 cases were re-registered. The work load was 4,311. The increase is accounted for by additional treatment done in the Clinic.

Barrhead-Westlock.

No Clinics were held at Westlock during this year. At Barrhead, 20 new cases were seen; re-registered, 4; and the work load was 77.

Camrose-Wetaskiwin.

No Clinics were held at Camrose. At Wetaskiwin, 29 new cases were seen; 3 re-registered; work load, 109.

Holden-Wainwright.

The total for the two Clinics: 20 new cases; 7 re-registered cases; total work load, 95.

Vegreville-Vermilion.

Total for the two clinics; 62 new cases; 11 re-registered cases; total work load, 252.

Peace River-Grande Prairie.

A total of 141 new cases were seen; 23 re-registered cases; total work load was 611. The Clinic made two trips of two weeks' duration, one in the spring and one in the fall.

Athabasca-Lac La Biche.

Total for both Clinics; new cases, 21; re-registered, 4; work load, 93.

Bonnyville-Smoky Lake-St. Paul.

Total for the tree points: new cases, 40; re-registered, 10; work load, 163.

PONOKA AND RED DEER DISTRICT GUIDANCE CLINICS
(Central Zone)

The Clinics in this district were serviced by members of the staff of the Provincial Mental Hospital, as in previous years. Clinics were generally held bi-monthly, as scheduled, at Ponoka, Rimbey, Stettler and Castor. A total of 45 new and 18 re-registered cases were seen, with a work load of 221. This is a slight increase from 1951. Of the new cases, 73% were referred by school authorities; 16% by private doctors; 4% attended voluntarily; 2% were referred by community agencies and the rest were from other sources. The referring agencies have generally been very cooperative with the Clinic staff and have greatly facilitated the work of the Clinic.

Red Deer.

Some 57 half-day Clinic sessions were held. The number of patient and collateral interviews amounted to 209.

Rocky Mountain House.

There were three Clinics held at this Centre. The number of patient and collateral interviews given was 28.

Ponoka-Rimbey.

Three Clinics were held at Rimbey and one in the Town of Ponoka. In addition, several clinic cases were seen at the Provincial Mental Hospital by various members of the Hospital staff. A total of 25 new and five re-registered cases were seen, with a work load of 118.

Castor.

Three Clinics were held at Castor. There were 11 new and one re-registered cases seen, with a total work load of 43.

Stettler.

Four Clinics were held at Stettler. There were 9 new and 12 re-registered cases seen, with a total work load of 60. This is a slight decrease from 1951, which has probably been caused by the lack of a doctor at the Stettler Health Unit.

CALGARY AND DISTRICT GUIDANCE CLINICS

(Southern Zone)

One additional Clinic point was opened during the year at Cardston. Two Clinics were held, one in May and one in October, both of which were well patronized. The total number of new cases examined during the year was 45, made up of 259 male and 191 female cases. In addition, 229 cases previously examined were seen again for further advice or treatment. The work load for the year was 3,322, including 547 psychological examinations. This is a considerable increase over the work done in 1951, there being 48 more new cases and 57 more re-registered cases. In 1952 some 17% of the cases were referred by private physicians, 52% by school authorities, 13% by other community agencies, 12% attended voluntarily and 6% were from other sources.

City of Calgary.

Calgary is the headquarters for the Southern Zone. During the year 242 new cases were seen at this Clinic centre. The total work load for the year was 2,222, including a considerable number of psychotherapy periods. The administrative work for the Zone is done at Calgary, which cuts down somewhat on the actual amount of time available for the handling of new work.

Lethbridge.

Nine trips to Lethbridge were made during 1952. On each of the trips to this centre the Clinic spend two days, one dealing with school cases and one with general cases. During the year 71 new cases and 19 re-registered cases were seen, with a total work load of 341.

Medicine Hat-Brooks.

Medicine Hat was visited nine times during 1952 for two days on all but one occasion. Brooks was visited three times. Of the cases seen there were 79 new ones and 39 re-registered cases. The work load for the two centres was 418.

Claresholm-High River.

Both Claresholm and High River were visited four times during the year. There were 27 new cases and 12 re-registered cases, with a total work load of 150.

Pincher Creek-Crow's Nest Pass.

No Clinics were held in the Crow's Nest Pass during 1952 as these were discontinued late in 1951. Pincher Creek was visited twice when four cases were seen.

Didsbury.

Due to the changes in the Health Unit set-up some Clinics scheduled for Didsbury have been held at other approved points within the Health Unit. Five Clinics were held with a total of 14 new cases and 13 re-registered cases being seen.

Drumheller.

Only two Clinics were held at Drumheller in 1952, as was the case in 1951.

Cardston.

The Clinic was instituted in this centre at the request of local authorities. Two Clinics were held, at which 11 new cases and four cases previously seen in other Clinics were seen. The total work load was 60. The first Clinic was held in the local doctor's quarters and the second Clinic in the Court House Building. A very definite interest in the Clinic was shown by the people in the district.

TABLE 1
SUMMARY OF NEW AND RE-REGISTERED CASES EXAMINED, TREATMENT PERIOD, INTERVIEWS, PSYCHOLOGICAL EXAMINATIONS, AND TOTAL WORK LOAD OF CLINICS

Clinic Districts	New Cases			Re-register ed Cases			Distribution of Work				Total Work Load
	M.	F.	T.	M.	F.	T.	Pat.	Col.	Gen.	P.E.	
Edmonton and District ..	450	294	744	130	100	230	1709	2116	1045	841	5711
Calgary and District	259	191	450	143	86	299	1018	1377	380	547	3322
Ponoka and Red Deer District	55	40	95	29	24	53	226	162	28	92	508
Totals	764	525	1289	302	210	512	2953	3655	1453	1480	9541

NOTES:

Total new cases examined since the Clinics opened in 1929 is now 13,110.

Edmonton and District includes all the area served from Wetaskiwin north. This is the Northern Zone. It includes Clinics held in the Peace River-Grande Prairie area, and such points as Athabasca, Barrhead, Bonnyville, Holden, Lac la Biche, Smoky Lake, St. Paul, Vegreville, Vermilion, Wainwright and Wetaskiwin.

Calgary and District includes the area served from Didsbury south. This is the Southern Zone. It includes Clinics held at such points as Brooks, Cardston, Claresholm, Didsbury, Drumheller, High River, Lethbridge, Medicine Hat, and Pincher Creek.

Ponoka and Red Deer District includes the area from Didsbury on the south to Wetaskiwin on the north. This is the Central Zone. It includes Clinics at such points as Castor, Ponoka, Stettler, Rimbey, Red Deer and Rocky Mountain House.

Re-registered cases are those that have been examined previously at a Clinic, and seen again for further consultation or treatment.

Pat.—Patient contacts including treatment periods.

Col.—Collateral, or contacts with a patient's parents, or relatives, or with others closely interested.

Gen.—General contacts regarding Clinic activities and work, including those with other Agencies and Community Services.

P.E.—Psychological examinations and tests.

Total Work Load—This includes patient interviews and treatment periods, interviews with parents and relatives, interviews with other Agencies concerning patients or Clinic work, and psychological examinations, by Clinic Staff members. It includes as well talks, addresses, and teaching periods by Staff members.

The Eugenics Board

J. M. MAC EACHRAN, M.A., Ph.D., *Chairman*

The Eugenics Board for the Province of Alberta held five meetings during the year of 1952. All of these meetings were held at the Provincial Mental Hospital, Ponoka. The dates of the meetings held during 1952 are as follows:

- 8 February, 1952—The Provincial Mental Hospital, Ponoka.
- 4 April, 1952—The Provincial Mental Hospital, Ponoka.
- 27 June, 1952—The Provincial Mental Hospital, Ponoka.
- 5 September, 1952—The Provincial Mental Hospital, Ponoka.
- 21 November, 1952—The Provincial Mental Hospital, Ponoka.

Cases Presented.

The Board considered 57 cases. There were 21 male and 36 female cases, the majority of which were passed subject to the consent of the patient or parent or guardian, or to both patient and parent or guardian.

Of the 57 cases passed by the Board during the year, 17 had been first examined at a Provincial Guidance Clinic, although some of these had been institutionalized before presentation. This group of 17 cases was made up of 5 males and 12 females.

Operations.

Operations were performed on 24 cases during the year, 6 being male and 18 female. All of these operations were performed at the Provincial Mental Hospital, Ponoka.

The surgical operations mentioned above were performed by the Surgical Consultants Dr. J. W. Richardson, of Calgary, or Dr. J. Ross Vant, of Edmonton.

As in previous years the Eugenics Board wishes to express its sincere appreciation and thanks to the Directors, Division of Mental Health, to the Medical Superintendents and their respective Staffs, and the Guidance Clinics, for their cooperation in connection with the work of the Eugenics Board.

Tables.

A tabular summary of the work of the Eugenics Board to December 31st, 1952, is appended.

CASES PRESENTED AND PASSED
(To 31 December, 1952)

	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
1949	52	57	109	1272	1306	2578
1950	37	60	97	1309	1366	2675
1951	34	48	82	1343	1414	2757
1952	21	36	57	1364	1450	2814

OPERATIONS ONLY

(To 31 December, 1952)

	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	122	151	273	368	549	917
1944	13	27	40	381	576	957
1945	18	29	47	399	605	1004
1946	24	31	55	423	636	1059
1947	16	15	31	439	651	1090
1948	16	22	38	455	673	1128
1949	20	27	47	475	700	1175
1950	21	46	67	496	746	1242
1951	16	41	57	512	787	1299
1952	6	18	24	518	805	1323

ANNUAL REPORT

OF THE

Vital Statistics Division

OF THE

DEPARTMENT OF PUBLIC HEALTH
PROVINCE OF ALBERTA

1952

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1928

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Vital Statistics Division

(ARTHUR PACKFORD, *Deputy Registrar General*)

This Report of the Vital Statistics Division of the Department of Public Health is for the year 1952 and is the 48th Annual Report published since the establishment of the Province. The contents of this report differ considerably from that of previous years, as it contains an entirely new set of tables. The same information has been published for many years and it was considered that some of the information printed was no longer required, and that greater uniformity in the Provincial Tables was desirable. Therefore, a meeting of the Vital Statistics Council for Canada was held at the Dominion Bureau of Statistics, Ottawa, in March, 1953, to review the tabulations and this revised uniform set of Tables was approved for use by all the Provinces.

POPULATION

The population of the Province for 1952 has been estimated by the Dominion Bureau of Statistics as 970,000. The census taken on June 1, 1951, showed the population to be 939,501 at that time.

BIRTHS

There were 29,105 children born to residents of the Province during the year, 2,102 more than the previous year, the rate being 30.0 per 1,000 population; the previous year's rate was 28.7. Births of Indian children numbered 1,323. Of the total births, 14,969 were males and 14,136 were females, the ratio being 1,058 males to each 1,000 females.

Multiple births comprised 300 twin births and three sets of triplets.

There were 1,310 illegitimate births, the rate being 4.5 of all live births.

The number of births to residents of the four large cities were as follows: Edmonton, 5,949; Calgary, 4,059; Lethbridge, 716; Medicine Hat, 421. The total number of births in these cities were: Edmonton, 8,365; Calgary, 5,090; Lethbridge, 1,272, and Medicine Hat, 720.

Legal adoptions numbered 788 and 47 Alberta-born children were adopted elsewhere. Nine hundred and sixty-nine delayed registrations of birth were completed; 401 legal changes of name were recorded and 377 changes in christian names were filed. The births of 97 children were legitimated by the subsequent marriage of the parents.

The following table shows the birth rates for Canada, the Provinces and certain other countries for 1952.

BIRTH RATES

Canada	27.9	Australia	23.3
Newfoundland	33.6	New Zealand	24.8
Prince Edward Island	26.2	United States	24.6
Nova Scotia	27.5	Denmark	17.8
New Brunswick	31.7	Finland	23.0
Quebec	30.3	France	19.2
Ontario	26.0	Italy	17.6
Manitoba	26.0	Netherlands	22.4
Saskatchewan	26.8	Austria	14.5
Alberta	30.0	Norway	18.7
British Columbia	24.9	Portugal	24.7
England and Wales	15.3	Spain	20.8
Scotland	17.7	Sweden	15.5
Northern Ireland	20.9	Switzerland	17.4
Eire	21.8		

DIVORCES

Final Decrees of Divorce granted during the year numbered 630, being 41 more than in the previous year, but 25 less than the average for the five preceding years. Six Decrees of Nullity were also granted.

MARRIAGES

Marriages registered during the year numbered 9,514; 209 more than the previous year, and 499 more than the average for the preceding five years, the rate being 9.8 per 1,000 population. Of the bridegrooms, 368 were under 20 years of age and 24 were 75 and over; 440 were widowers and 438 were divorced. Of the brides, 2,651 were under 20 years of age and six were 75 and over; 516 brides were widows and 487 were divorced.

The number of marriages in the four large cities were: Edmonton, 2,749; Calgary, 1,892; Lethbridge, 420; Medicine Hat, 334.

MARRIAGE RATES

Canada	8.9	England and Wales	7.9
Newfoundland	7.3	Scotland	8.0
Prince Edward Island	6.0	Northern Ireland	6.8
Nova Scotia	8.3	Eire	5.3
New Brunswick	8.1	Australia	8.6
Quebec	8.5	New Zealand	8.6
Ontario	9.5	United States	10.0
Manitoba	8.9	France	7.3
Saskatchewan	8.2	Italy	7.0
Alberta	9.8	Netherlands	8.4
British Columbia	9.2	Austria	8.3

DEATHS

The deaths of 7,345 residents of the Province were registered during the year; of these, 346 were Indians. Four thousand five hundred and sixty-one of these deaths were males and 2,784 were females. There were 178 more deaths than in the previous year, the death rate being 7.6 per 1,000 population, the same rate as the previous year. Six hundred and twenty-six males and 489 females were 80 years of age and over. The number of deaths of residents of the four large cities were as follows: Edmonton, 1,319; Calgary, 1,232; Lethbridge, 170, and Medicine Hat, 166.

Diseases of the heart was the cause of 2,247 deaths, slightly higher than the previous year's total of 2,113, the rate being 231.6 per 100,000 population.

Deaths from all forms of cancer numbered 1,072; the rate was 110.5.

The polio epidemic was the worst in the history of the Province, 79 deaths being caused by acute poliomyelitis and two by late effects of acute poliomyelitis. There were two poliomyelitis deaths the previous year.

Deaths from tuberculosis, all forms, numbered 125, this being 21 less than the previous year; of these, 52 were Indians. Pulmonary tuberculosis caused 91 deaths; of these, 37 were Indians. There was a decrease in the number of deaths from pneumonia and influenza, the number being 298 and 47 as compared to 302 and 114 for the previous year. Violent and accidental deaths totalled 690; motor vehicle accidents, 196; other transport accidents, 66; accidental poisoning, 20; accidental falls, 90; accidents caused by machinery, 39; accidents caused by fire, 30; accidents caused by firearms, 14; accidental drowning, 49; all other accidental causes, 85; suicides numbered 94 and homicides seven.

The death rates for Canada, the Provinces and certain other countries are as follows:

DEATH RATES

Canada	8.7	England and Wales	11.3
Newfoundland	7.4	Scotland	12.0
Prince Edward Island	8.9	Northern Ireland	10.8
Nova Scotia	8.8	Eire	11.9
New Brunswick	8.8	Australia	9.4
Quebec	8.4	New Zealand	9.3
Ontario	9.3	United States	9.6
Manitoba	8.2	France	12.3
Saskatchewan	7.9	Italy	10.0
Alberta	7.6	Netherlands	7.3
British Columbia	10.1	Austria	11.9

MATERNAL MORTALITY

The steady decrease in the number of deaths from puerperal causes continued for 1952, the number of maternal deaths being 15; the rate per 1,000 live births was 0.5.

MATERNAL DEATH RATES PER 1,000 LIVE BIRTHS

Canada	0.9	Ontario	0.8
Newfoundland	2.0	Manitoba	0.5
Prince Edward Island	1.5	Saskatchewan	0.6
Nova Scotia	0.8	Alberta	0.5
New Brunswick	1.1	British Columbia	0.6
Quebec	1.2		

INFANT DEATHS

There were 879 deaths of children under one year of age; 10 less than the previous year. Of this number, 515 were males and 364 were females. Two hundred and fifty-three of these children were under one day old, 452 were under one week, and 537 were under the age of one month. The infantile death rate was 30 per 1,000 live births; the rate the previous year was 33.

INFANTILE MORTALITY RATES PER 1,000 LIVE BIRTHS

Canada	38	Eire	41
Newfoundland	46	Australia	24
Prince Edward Island	31	New Zealand	22
Nova Scotia	34	United States	29
New Brunswick	44	Denmark	29
Quebec	50	Finland	31
Ontario	31	France	45
Manitoba	31	Italy	64
Saskatchewan	35	Netherlands	22
Alberta	30	Austria	52
British Columbia	29	Switzerland	29
England and Wales	28	Portugal	95
Scotland	35	Spain	61
Northern Ireland	39	Sweden	20

Stillbirths registered during the year numbered 399, being three less than the previous year, and the rate was 13.7 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 1951 and 1941 division population figures.

POPULATION OF CENSUS DIVISIONS OF ALBERTA CLASSIFIED BY MUNI-
CIPALITIES FOR CENSUS YEARS, 1941 AND 1951

Division and Subdivision	Total		Division and Subdivision	Total	
	1951	1941		1951	1941
ALBERTA	939,501	796,169	Division No. 2—Continued:		
Rural	451,313	489,583	Villages:		
Urban	488,188	306,586	Coaldale	806	290
Division No. 1	35,879	29,595	Cowley	119	125
Rural	14,033	16,408	Frank	239	204
1. I.D.	250	370	Stirling	520	437
2. Burlington	2,186	3,084	Division No. 3	17,132	15,518
4. Warner	3,445	3,617	Rural	12,001	12,151
11. I.D.	2,251	3,312	21. I.D.	1,605	2,412
13. Bow Island	1,740	2,435	22. I.D.	702	637
14. Eureka	3,909	3,323	23. I.D.	1,459	1,359
25. Barons (pt.)	252	267	28. Newell (pt.)	6,310	5,475
Urban	21,846	13,187	34. Acadia (pt.)	19	9
Cities:			Army Experimental		
Medicine Hat	16,364	10,571	Range	394	309
Towns:			Berry Creek-Sullivan		
Bow Island	653	291	Lake Area (pt.)	598	752
Irvine	224	240	Bow West Area (pt.)	700	867
Taber	3,042	1,331	Vulcan No. 2 (pt.)	214	331
Villages:			Urban	5,131	3,367
Burdett	118	123	Towns:		
Foremost	375		Bassano	624	582
Grassy Lake	167		Brooks	1,648	888
Milk River	481	335	Redcliff	1,538	1,111
Warner	422	296	Villages:		
Division No. 2	71,480	58,563	Duchess	258	149
Rural	31,618	29,725	Empress	411	341
5. Sugar City	5,038	4,749	Enchant		76
6. Cochrane	3,475	4,233	Jenner		27
8. I.D.	39	2	Tilley	259	193
9. Pincher Creek	3,149	3,363	Vauxhall	393	
10. I.D.	4,828	4,149	Division No. 4	28,984	29,383
16. Bright	2,231	2,427	Rural	19,124	22,315
25. Barons (pt.)	8,843	6,693	25. Barons (pt.)	3,866	3,920
26. Argyle (pt.)	1,139	1,516	26. Argyle (pt.)	1,602	1,803
27. I.D. (pt.)	83	162	27. I.D. (pt.)	83	107
Waterton Lakes Nat. Prk.	238	269	31. Highwood	4,916	4,921
Indian Reserves	2,555	2,162	32. Turner Valley (pt.)	4,088	6,175
Urban	39,862	28,838	33. I.D.	31	28
Cities:			Bow West Area (pt.)	524	766
Lethbridge	22,947	14,612	Vulcan No. 2 (pt.)	3,850	4,595
Towns:			Indian Reserves	164	
Blairmore	1,933	1,731	Urban	9,860	7,068
Cardston	2,487	1,864	Towns:		
Claresholm	1,608	1,265	High River	1,888	1,430
Coleman	1,961	1,870	Nanton	934	718
Granum	327	238	Okotoks	767	591
Macleod	1,860	1,912	Stavely	327	273
Magrath	1,320	1,207	Vulcan	1,040	732
Pincher Creek	1,456	994			
Raymond	2,279	2,089			

POPULATION OF CENSUS DIVISIONS OF ALBERTA CLASSIFIED BY MUNICIPALITIES FOR CENSUS YEARS, 1941 AND 1951—Continued

Division and Subdivision	Total		Division and Subdivision	Total	
	1951	1941		1951	1941
Division No. 4—Continued:			Division No. 6—Continued:		
Villages:			Villages—Continued:		
Arrowwood	222	251	Standard	237	212
Barons	369	233	Swalwell		114
Black Diamond	1,154	890	Trochu	630	480
Blackie	224	223			
Carmangay	285	229	Division No. 7	32,334	33,285
Cayley	139	133	Rural	22,612	26,116
Champion	378	320	52. Provost	3,610	4,716
Lomond	153	129	53. Paintearth	3,073	4,160
Milo	141	129	61. Wainwright (pt.)	3,583	4,755
Nobleford	255	111	62. Flagstaff	6,129	7,804
Picture Butte	865		73. Beaver (pt.)	1,235	1,518
Turner Valley	719	676	Berry Creek-Sullivan		
Division No. 5	16,129	18,926	Lake Area (pt.)	101	147
Rural	12,328	15,560	Sounding Creek-Neutral		
34. Acadia (pt.)	686	739	Hills Area (pt.)	2,173	3,012
42. I.D. (pt.)	2,642	2,353	Buffalo Nat. Park 6	2,708	4
47. Starland	2,472	3,289	Urban	9,722	7,169
Berry Creek-Sullivan			Towns:		
Lake Area (pt.)	3,252	4,658	Castor	798	625
Sounding Creek-Neutral			Coronation	738	581
Hills Area (pt.)	3,186	4,521	Hardisty	536	457
Urban	3,891	3,366	Wainwright	1,996	980
Towns:			Villages:		
Hanna	2,027	1,622	Alliance	281	233
Villages:			Cadogan		99
Cereal	135	142	Chauvin	340	343
Chinook	116	142	Consort	396	265
Craigmyle	136	186	Czar	123	139
Delia	278	315	Edgerton	309	258
Morrin	226	216	Forestburg	443	231
Munson	78	139	Galahad	198	145
Oyen	433	326	Hughenden	218	164
Rumsey	110	90	Irma	369	273
Youngstown	352	188	Killam	465	347
Division No. 6	195,352	146,990	Lougheed	186	195
Rural	50,436	46,679	Monitor		82
28. Newell (pt.)	671	668	Provost	676	518
32. Turner Valley (pt.)	67	84	Sedgewick	485	320
40. Bow Valley	2,941	3,462	Strome	276	233
41. I.D.	155	212	Veteran	206	190
42. I.D. (pt.)	4,292	4,011	Viking	683	491
43. Serviceberry	3,091	3,706	Division No. 8	73,997	67,630
44. Conrich	5,509	4,273	Rural	43,965	49,293
45. Springbank	5,014	3,241	54. Stettler	6,007	7,167
46. I.D.	6,364	3,598	55. Red Deer (pt.)	6,753	7,792
48. Kneehill	7,263	8,135	63. Camrose	10,895	12,236
49. Mountain View	8,933	9,800	64. Lacombe (pt.)	6,307	6,583
50. I.D.	1,067	1,085	66. Ponoka (pt.)	5,850	6,448
51. Banff Nat. Park	2,856	2,545	73. Beaver (pt.)	383	562
Indian Reserves	2,213	1,859	74. Wetaskiwin (pt.)	6,216	7,263
Urban	144,916	100,311	Indian Reserves	1,554	1,242
Cities:			Urban	30,032	18,337
Calgary	129,060	88,904	Cities:		
Drumheller	2,601	2,748	Red Deer	7,575	2,924
Towns:			Wetaskiwin	3,824	2,318
Didsbury	1,180	892	Towns:		
Gleichen	430	435	Camrose	4,131	2,598
Olds	1,617	1,337	Daysland	475	438
Strathmore	704	560	Innisfail	1,417	1,223
Three Hills	1,026	706	Lacombe	2,277	1,603
Villages:			Ponoka	2,574	1,306
Acme	275	285	Stettler	2,442	1,295
Airdrie	267	191	Villages:		
Beiseker	325	240	Alix	461	360
Bowness	2,922		Bashaw	603	494
Carbon	374	409	Bawlf	236	227
Carstairs	468	371	Big Valley	307	291
Cluny	202	138	Bittern Lake	25	50
Cochrane	530	298	Blackfalds	154	113
Crossfield	443	409	Botha	98	111
Forest Lawn	1,079	899	Clive	241	224
Hussar	120	116	Delburne	395	308
Irricana	180	172	Donalda	318	206
Langdon		95	Edberg	188	152
Rockyford	246	201	Elnora	211	195
Rosebud		99	Erskine		172
			Ferintosh	205	169

POPULATION OF CENSUS DIVISIONS OF ALBERTA CLASSIFIED BY MUNICIPALITIES FOR CENSUS YEARS, 1941 AND 1951—Continued

Division and Subdivision	Total		Division and Subdivision	Total	
	1951	1941		1951	1941
Division No. 8—Continued:			Division No. 11—Continued:		
Villages—Continued:			Rural—Continued:		
Gadsby	128	141	90. Sturgeon (pt.)	6,365	5,115
Gull Lake	32	21	91. Morinville (pt.)	3,307	3,542
Halkirk	148	118	93. Lac Ste. Anne (pt.)	4,999	5,654
Ma-Me?O Beach	98		Elk Island Nat. Park	55	50
Millet	402	325	Indian Reserves	1,014	997
Mirror	635	570	Urban	180,495	99,793
New Norway	258	169	Cities:		
Ohaton		53	Edmonton	159,631	93,817
Penhold	174	183	Towns:		
Division No. 9	31,627	32,232	Beverly	2,159	981
Rural	27,306	29,045	Devon	842	
55. Red Deer (pt.)	5,653	5,735	Fort Saskatchewan	1,076	903
56. Waterloo	1,237	1,402	Jasper Place	9,139	
57. Raven	2,366	2,254	Leduc	1,842	871
58. I.D.	66	94	Morinville	892	580
64. Lacombe (pt.)	2,482	2,670	St. Albert	1,129	697
65. I.D.	4,145	4,307	Stony Plain	878	566
66. Ponoka (pt.)	3,163	3,576	Tofield	692	551
68. I.D.	226	257	Villages:		
69. I.D.	1,223	1,234	Alberta Beach	79	59
76. I.D. (pt.)	3,398	3,877	Calmar	944	
79. I.D. (pt.)	1,166	2,017	Hay Lakes	231	154
80. Jasper Nat. Park	1,899	1,622	Lakeview	15	
Indian Reserves	282		Onoway	189	156
Urban	4,321	3,187	Sangudo	269	173
Towns:			Seba Beach	103	84
Rimbey	757	410	Thorsby	385	
Rocky Mtn. House	1,147	800	Wabamun		201
Sylvan Lake	985	805	Division No. 12	17,704	17,431
Villages:			Rural	14,907	15,497
Bentley	439	279	77. I.D.	1,325	1,821
Bowden	277	234	78. I.D.	1,511	1,875
Eckville	379	135	79. I.D. (pt.)	2,826	1,862
North Red Deer		524	93. Lac Ste. Anne (pt.)	2,208	2,484
Sundre	337		94. Pembina	2,688	3,462
Division No. 10	50,016	58,807	95. I.D.	2,561	2,560
Rural	37,780	49,982	96. I.D.	299	85
61. Wainwright (pt.)	269	425	108. I.D. (pt.)	114	106
71. Vermilion River (pt.)	9,817	11,869	109. I.D. (pt.)	1,343	1,209
72. Minburn	5,909	7,052	110. I.D. (pt.)	32	33
73. Beaver (pt.)	3,032	3,683	111. I.D. (pt.)		
81. Eagle	10,094	14,483	Urban	2,833	1,934
82. Lamont	8,569	12,740	Towns:		
Urban	12,236	8,825	Edson	1,956	1,499
Towns:			Villages:		
Lloydminster (pt.)	1,706	572	Entwistle		218
Mundare	596	756	Mayerthorpe	472	217
Vegreville	2,223	1,696	Wildwood	405	
Villages:			Division No. 13	30,152	33,172
Andrew	625	326	Rural	26,775	30,805
Bruderheim	387	237	71. Vermilion River (pt.)	434	587
Chipman	180	240	85. I.D.	289	512
Derwent	283	171	86. St. Paul	8,941	10,122
Hairy Hill	205		87. Bonnyville	1,474	1,867
Holden	504	361	88. Glendon	1,547	1,965
Innisfree	287	253	89. Smoky Lake (pt.)	3,282	4,837
Islay		132	101. I.D.	5,601	6,259
Kitscoty	235	234	102. I.D. (pt.)	2,791	2,745
Lamont	637	438	103. I.D. (pt.)	23	52
Lavoy	122	178	Indian Reserves	2,393	1,859
Mannville	528	396	Towns:		
Minburn	186	289	Bonnyville	1,139	603
Myrnam	388	216	St. Paul	1,407	1,018
Ranfurly		129	Villages:		
Ryley	406	323	Bellis		128
Two Hills	525	210	Elk Point	453	311
Willingdon	281	420	Vilna	378	311
Division No. 11	226,199	149,193	Division No. 14	46,791	47,899
Rural	45,704	49,400	Rural	39,254	44,526
73. Beaver (pt.)	2,439	2,997	89. Smoky Lake (pt.)	6,775	9,884
74. Wetaskiwin (pt.)	56	39	90. Sturgeon (pt.)	2,430	3,166
75. Leduc	11,108	12,741	91. Morinville (pt.)	2,504	2,838
76. I.D. (pt.)	1,458	1,479	92. Westlock	9,797	10,469
83. Strathcona	6,982	6,725	93. Lac Ste. Anne (pt.)	2,629	3,006
84. Stony Plain	7,921	10,061	102. I.D. (pt.)	2,619	2,639

POPULATION OF CENSUS DIVISIONS OF ALBERTA CLASSIFIED BY MUNICIPALITIES FOR CENSUS YEARS, 1941 AND 1951—Continued

Division and Subdivision	Total		Division and Subdivision	Total	
	1951	1941		1951	1941
Division No. 14—Continued:			Division No. 16	32,439	30,349
Rural—Continued:			Rural	25,631	26,349
103. Athabasca	7,799	7,922	133. Spirit River	1,406	1,828
107. I.D.	3,112	3,166	134. I.D.	2,568	2,372
108. I.D. (pt.)	1,072	1,088	135. Peace	1,741	2,003
122. I.D.	469	348	136. Fairview	2,031	2,326
Indian Reserves	48	.....	138. I.D. (pt.)	1,663	1,610
Urban	7,537	3,373	139. I.D.	3,007	2,740
Towns:			Grande Prairie No. 1	10,198	11,181
Athabasca	1,068	578	Indian Reserves	101	161
Barrhead	1,243	399	Urban	6,808	4,000
Lac La Biche	905	517	Towns:		
Redwater	1,306	.....	Fairview	929	432
Westlock	1,111	590	Grande Prairie	2,664	1,724
Villages:			Villages:		
Clyde	219	160	Beaverlodge	514	331
Legal	523	462	Berwyn	288	206
Radway	184	.....	Clairmont	.....	102
Smoky Lake	491	430	Grimshaw	564	169
Thorhild	248	.....	Hythe	342	247
Waskatenau	239	237	Rycroft	372	.....
Division No. 15	21,663	17,484	Sexsmith	331	325
Rural	16,963	16,020	Spirit River	553	276
108. I.D. (pt.)	771	917	Wembley	251	188
109. I.D. (pt.)	170	160	Division No. 17	11,587	9,712
110. I.D. (pt.)	41	75	Rural	10,966	9,712
111. I.D. (pt.)	313	267	102. I.D. (pt.)	.....	3
123. I.D.	.....	15	121. I.D. (pt.)	310	224
124. I.D.	2,934	2,545	128. I.D.	593	365
125. I.D.	3,150	3,044	129. I.D.	502	335
126. I.D.	2,138	1,687	131. I.D. (pt.)	179	51
130. I.D.	4,195	4,327	137. I.D.	124	45
131. I.D. (pt.)	2,185	1,829	138. I.D. (pt.)	2,547	1,970
Indian Reserves	1,066	1,154	143. I.D.	1,158	2,316
Urban	4,700	1,464	144. I.D.	115	37
Towns:			145. I.D.	158	90
High Prairie	1,141	.....	146. I.D.	754	279
McLennan	1,074	.....	147. I.D.	1,589	1,378
Peace River	1,672	873	148. I.D.	.....	12
Villages:			149. I.D.	39	67
Falher	575	244	Wood Buffalo Nat. Park	36	42
Grouard	.....	347	Indian Reserves	2,862	2,507
Kinuso	238	.....	Urban	621	.....
111. I.D. (pt.)	11	18	Towns:		
132. I.D.	2,905	2,110	McMurray	621	.....

TABLE 1—GENERAL SUMMARY OF VITAL STATISTICS FOR CENSUS DIVISIONS, ALBERTA, 1952

CENSUS DIVISIONS	LIVE BIRTHS			Live births in hospital	Illegitimate births	Stillbirths	Marriages	Total deaths	Hospital deaths	Infant deaths	Neonatal deaths	Maternal deaths
	Total	Male	Female									
ALBERTA	29,105	14,969	14,136	28,069	1,310	399	9,514	7,345	4,713	879	537	15
Division No. 1	1,057	555	502	1,010	29	12	422	268	152	13	10	.....
Division No. 2	2,226	1,130	1,096	2,070	79	31	776	516	349	67	40	.....
Division No. 3	510	279	231	499	8	2	100	100	64	11	8	.....
Division No. 4	848	422	426	830	19	12	159	214	137	19	13	1
Division No. 5	402	196	206	392	13	4	89	128	78	12	9	.....
Division No. 6	5,865	3,026	2,839	5,804	312	99	2,357	1,696	1,037	172	114	3
Division No. 7	901	431	470	871	21	14	206	250	148	28	17	2
Division No. 8	2,237	1,165	1,072	2,154	82	21	693	666	452	83	53	2
Division No. 9	731	371	360	675	27	8	127	236	145	28	14	2
Division No. 10	1,200	602	598	1,183	35	8	386	364	238	29	21	1
Division No. 11	7,953	4,147	3,806	7,894	344	127	3,123	1,762	1,224	218	146	2
Division No. 12	521	275	246	469	20	2	92	118	57	17	10	.....
Division No. 13	977	482	495	899	52	11	192	221	151	41	21	.....
Division No. 14	1,363	703	660	1,306	55	21	299	299	172	25	11	.....
Division No. 15	864	424	440	768	106	6	178	188	94	51	19	1
Division No. 16	1,079	563	516	1,032	42	17	257	222	128	34	23	.....
Division No. 17	371	198	173	213	66	4	58	97	37	31	8	1

TABLE 2—GENERAL SUMMARY OF VITAL STATISTICS FOR INCORPORATED URBAN PLACES OF 1,000 POPULATION AND OVER, ALBERTA, 1952

CITIES, TOWNS AND VILLAGES	LIVE BIRTHS		Live births in hospital	Illegitimate births	Stillbirths	Marriages	Excess births over deaths	Total deaths	Hospital deaths	Infant deaths	Neonatal deaths	Maternal deaths
	Total	Male	Female									
Athabasca	32	15	17	32	2	1	29	16	16	12	2	1
Barhead	62	35	27	62	4	1	14	50	12	11	1	...
Beverly	68	35	33	68	2	1	4	60	8	6	2	...
Black Diamond	31	18	13	31	2	2	10	20	11	6	1	...
Blainmore	61	36	25	61	2	1	15	42	19	14	...	...
Bonnyville	43	22	21	43	1	1	22	26	17	14	5	...
Bowness	109	61	48	109	4	2	20	94	15	11	3	...
Brooks	81	42	39	81	2	31	31	63	18	11	2	...
Calgary	4,059	2,103	1,956	4,054	221	63	1,892	2,827	1,232	790	107	2

Camrose.....	160	86	74	155	6	2	108	84	76	53	9	6	1
Cardston.....	106	50	56	97	1	2	108	83	23	9	3	3	3
Clareholm.....	73	42	31	73	.....	2	25	59	14	13	2	2	2
Coleman.....	97	49	48	86	.....	2	38	26	26	21	1	1	1
Didsbury.....	42	25	17	41	1	.....	28	24	18	14	6	5	5
Drumheller.....	118	60	58	118	7	.....	88	86	32	22	7	4	4
Edmonton.....	5,949	3,130	2,819	5,941	286	100	2,749	4,630	1,319	950	162	113	1
Edson.....	107	58	49	105	4	.....	43	91	16	8	3	2	.....
Forest Lawn.....	35	13	22	35	2	.....	3	32	3	2	.....	.....	.....
Fort Saskatchewan.....	33	15	18	33	4	1	11	23	10	7	.....	.....	.....
Fort Grande Prairie.....	144	78	66	142	3	.....	102	104	40	25	10	7	.....
Hanna.....	54	30	24	54	2	.....	43	28	19	5	5	4	.....
High Prairie.....	62	31	31	61	8	1	29	47	15	9	6	4	.....
High River.....	59	35	24	59	3	.....	51	36	23	15	2	1	.....
Innisfail.....	52	27	25	47	1	1	32	32	30	23	5	4	.....
Jasper Place.....	186	91	95	185	6	3	7	165	21	15	3	3	.....
Lacombe.....	89	46	43	88	3	.....	59	55	34	24	5	5	.....
Leduc.....	117	63	52	117	3	.....	57	96	21	12	4	3	.....
Lethbridge.....	716	366	350	713	26	11	420	546	170	120	16	11	.....
Lloydminster.....	99	45	54	99	4	.....	96	87	12	7	.....	.....	.....
Macleod.....	50	23	27	47	.....	2	27	26	24	19	3	2	.....
Magrath.....	36	15	21	27	3	2	11	20	16	11	3	2	.....
McLennan.....	37	22	15	37	.....	.....	13	31	6	4	1	4	.....
Medicine Hat.....	421	225	196	417	12	3	334	255	166	99	5	4	.....
Olds.....	74	43	31	74	5	.....	47	53	21	13	4	3	.....
Peace River.....	106	56	50	104	9	.....	54	84	22	14	7	2	.....
Pincher Creek.....	58	37	21	57	2	.....	24	39	19	11	4	3	.....
Ponoka.....	112	57	55	111	3	2	38	64	48	34	7	4	.....
Raymond.....	90	43	47	83	1	.....	25	77	13	9	3	1	.....
Redcliff.....	29	18	11	29	1	.....	10	22	7	7	1	1	.....
Red Deer.....	274	130	144	272	11	4	148	203	71	49	12	8	.....
Redwater.....	83	48	35	83	2	.....	5	75	8	4	1	1	.....
Rocky Mountain House.....	63	26	37	59	6	.....	23	43	20	8	5	3	.....
St. Albert.....	47	18	29	47	1	.....	6	25	22	6	1	1	.....
St. Paul.....	79	47	32	79	2	1	41	64	15	12	1	3	.....
Stettler.....	115	69	46	114	11	.....	57	68	47	37	4	4	.....
Taber.....	142	74	68	138	7	.....	53	111	31	10	5	3	.....
Three Hills.....	56	25	31	56	.....	2	14	40	16	13	4	4	.....
Vegreville.....	63	34	29	63	5	1	54	38	25	22	6	6	.....
Vermilion.....	60	35	25	60	2	.....	33	22	38	25	1	1	.....
Vulcan.....	49	25	24	49	2	1	12	40	9	6	2	1	.....
Wainwright.....	118	56	62	111	6	1	45	91	27	16	5	4	.....
Westlock.....	61	35	26	59	1	2	45	44	17	14	3	1	.....
Wetaskiwin.....	149	80	69	148	4	1	76	102	47	32	4	3	.....

TABLE 3—DEATHS BY PLACE OF OCCURRENCE AND PLACE OF RESIDENCE, 1952

PLACE OF OCCURRENCE	Total (occurrence)	PLACE OF RESIDENCE													
		Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon	N.W.T.	U.S.A.	Other
TOTAL (residence)	127,008	2,773	916	5,756	4,647	34,854	44,402	6,552	6,625	7,345	12,080	89	271	649	49
Newfoundland	2,774	2,754	910	3	1	1	2	1	1	1	1	1	4	9	4
Prince Edward Island	922	6	1	3	20	10	9	1	1	1	2	2	1	4	6
Nova Scotia	5,762	2	12	5,695	4,568	70	10	1	1	1	3	1	1	13	1
New Brunswick	4,747	5	2	11	24	34,390	130	1	4	4	4	2	11	59	16
Quebec	34,659	3	3	18	14	287	43,891	41	18	18	13	1	11	344	10
Ontario	44,660	1	1	1	1	1	66	6,409	66	2	2	9	1	24	1
Manitoba	6,580	1	1	1	1	2	15	38	6,442	42	23	1	1	24	1
Saskatchewan	6,579	1	1	3	1	1	18	10	39	7,180	52	4	11	14	4
Alberta	7,346	1	1	2	1	2	18	19	34	49	11,904	2	2	78	6
British Columbia	12,114	1	1	2	1	2	18	19	34	49	11,904	2	2	78	6
Yukon	90	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Northwest Territories	252	1	1	1	1	1	1	1	1	1	1	1	1	1	1
United States	523	2	1	12	19	88	242	33	18	6	65	82	244	2	6

TABLE 4—DEATHS AND HOSPITAL DEATHS BY OCCURRENCE AND RESIDENCE
FOR CENSUS DIVISIONS, ALBERTA, 1952

CENSUS DIVISIONS	TOTAL DEATHS				DEATHS IN HOSPITALS			
	Total by occurrence	Total by residence	By occurrence, residence elsewhere	By residence, occurrence elsewhere	Total by occurrence	Total by residence	By occurrence, residence elsewhere	By residence, occurrence elsewhere
ALBERTA	7,346	7,345	166	165	4,722	4,713	103	94
Division No. 1.....	240	268	30	58	127	152	20	45
Division No. 2.....	514	516	66	68	353	349	52	48
Division No. 3.....	82	100	15	33	42	64	7	29
Division No. 4.....	142	214	21	93	67	137	7	77
Division No. 5.....	92	128	8	44	38	78	1	41
Division No. 6.....	1,796	1,696	244	144	1,188	1,087	205	104
Division No. 7.....	206	250	16	60	106	148	8	50
Division No. 8.....	757	666	189	98	529	452	160	83
Division No. 9.....	184	236	37	89	88	145	24	81
Division No. 10.....	289	364	21	96	167	238	14	85
Division No. 11.....	2,093	1,762	467	136	1,581	1,224	429	72
Division No. 12.....	75	118	13	56	8	57	2	51
Division No. 13.....	196	221	16	41	130	151	13	34
Division No. 14.....	252	299	28	75	122	172	17	67
Division No. 15.....	163	188	14	39	70	94	8	32
Division No. 16.....	195	222	15	42	94	128	3	37
Division No. 17.....	70	97	4	31	12	37	1	26

TABLE 5—DEATHS AND HOSPITAL DEATHS BY OCCURRENCE AND RESIDENCE FOR URBAN PLACES OF 1,000 POPULATION AND OVER, ALBERTA, 1952

CITY, TOWN OR VILLAGE	TOTAL DEATHS				DEATHS IN HOSPITALS			
	Total by occurrence	Total by residence	By occurrence, residence elsewhere	By residence, occurrence elsewhere	Total by occurrence	Total by residence	By occurrence, residence elsewhere	By residence, occurrence elsewhere
Athabasca	22	16	10	4	17	12	9	4
Barrhead	23	12	16	5	22	11	16	5
Beverly	3	8	1	6	.....	6	.....	6
Black Diamond	3	11	.....	8	.....	6	.....	6
Blairmore	6	19	2	15	2	14	2	14
Bonnyville	34	17	18	1	31	14	17	.....
Bowness	4	15	2	13	.....	11	.....	11
Brooks	32	18	16	2	24	11	14	1
Calgary	1,402	1,232	291	121	969	790	252	73
Camrose	157	76	88	7	126	53	80	7
Cardston	23	23	4	4	7	9	1	3
Claresholm	21	14	11	4	19	13	10	4
Coleman	11	26	3	18	4	21	1	18
Didsbury	23	18	9	4	19	14	8	3
Drumheller	70	32	47	9	59	22	44	7
Edmonton	1,857	1,319	669	131	1,524	950	637	63
Edson	20	16	11	7	4	8	2	6
Forest Lawn	1	3	.....	2	.....	2	.....	2
Fort Saskatchewan	3	10	.....	7	.....	7	.....	7
Grande Prairie	58	40	25	7	38	25	19	6
Hanna	39	26	14	1	31	19	13	1
High Prairie	65	15	52	2	42	9	35	2
High River	43	23	27	7	32	15	22	5
Innisfail	41	30	19	8	37	23	19	5
Jasper Place	6	21	2	17	.....	15	.....	15
Lacombe	52	34	24	6	40	24	21	5
Leduc	8	21	2	15	2	12	2	12
Lethbridge	228	170	81	23	186	120	77	11
Lloydminster	6	12	1	7	.....	7	.....	7
Macleod	20	24	5	9	17	19	4	6
Magrath	15	16	.....	1	10	11	.....	1
McLennan	21	6	18	3	13	4	11	2
Medicine Hat	181	166	35	20	121	99	33	11
Olds	40	21	26	7	34	13	26	5
Peace River	21	22	6	7	14	14	5	5
Pincher Creek	29	19	16	6	22	11	14	3
Ponoka	112	48	80	16	100	34	79	13
Raymond	17	13	8	4	11	9	6	4
Redcliff	1	7	1	7	.....	7	.....	7
Red Deer	98	71	42	15	75	49	37	11
Redwater	5	8	.....	3	1	4	.....	3
Rocky Mountain House	24	20	12	8	13	8	9	4
St. Albert	16	22	1	7	.....	6	.....	6
St. Paul	45	15	30	.....	41	12	29	.....
Stettler	66	47	28	9	57	37	26	6
Taber	34	31	11	8	6	10	2	6
Three Hills	19	16	6	3	14	13	4	3
Vegreville	47	25	26	4	44	22	25	3
Vermillion	41	38	12	9	28	25	9	6
Vulcan	15	9	7	1	11	6	6	1
Wainwright	42	27	20	5	32	16	18	2
Westlock	54	17	40	3	50	14	39	3
Wetaskiwin	78	47	43	12	63	32	38	7

[illegible]

TABLE 6—CAUSE OF DEATH BY SEX FOR CENSUS DIVISIONS (INCLUDING CITIES, TOWNS AND VILLAGES) IN ALBERTA, 1952—Continued

CAUSE OF DEATH (Intermediate List)		Total	Div. 1	Div. 2	Div. 3	Div. 4	Div. 5	Div. 6	Div. 7	Div. 8	Div. 9	Div. 10	Div. 11	Div. 12	Div. 13	Div. 14	Div. 15	Div. 16	Div. 17
XVI. Symptoms, Senility, and Ill-Defined Conditions																			
A136	Senility without mention of psychosis	Male..... Female..... Total.....	9 15 24	5 1 6	6 1 7	1 3 4	1 2 3	1 3 4	2 9 11	1 1 2	1 10 11	1 2 3	1 3 4	5 19 24	1 1 2	1 1 2	1 3 4	1 1 2	1 1 2
A137	Ill-defined and unknown causes	Male..... Female..... Total.....	77 38 115	1 6 7	6 1 7	1 2 3	1 2 3	1 3 4	5 9 14	1 1 2	1 10 11	1 2 3	1 3 4	9 19 28	1 1 2	1 1 2	1 3 4	1 1 2	1 1 2
EXVII. Accidents, Poisonings and Violence (Classified According to External Cause)																			
AE138	Motor vehicle accidents	Male..... Female..... Total.....	159 37 196	7 3 10	10 2 12	1 2 3	6 1 7	1 11 12	31 11 42	2 4 6	12 3 15	3 2 5	9 1 10	46 9 55	6 2 8	5 2 7	9 3 12	4 1 5	7 1 8
AE139	Other transport accidents	Male..... Female..... Total.....	58 8 66	2 1 3	2 1 3	1 1 2	2 1 3	13 1 14	11 1 12	7 1 8	2 2 4	2 1 3	1 1 2	23 1 24	2 1 3	2 1 3	3 1 4	1 1 2	1 1 2
AE140	Accidental poisoning	Male..... Female..... Total.....	15 5 20	1 2 3	1 2 3	1 1 2	1 1 2	3 1 4	3 1 4	1 1 2	2 1 3	3 1 4	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2
AE141	Accidental falls	Male..... Female..... Total.....	55 35 90	5 2 7	2 2 4	1 2 3	1 1 2	21 11 32	21 11 32	7 4 11	1 1 2	4 3 7	7 9 16	7 9 16	5 1 6	1 1 2	1 1 2	1 1 2	1 1 2
AE142	Accident caused by machinery	Male..... Female..... Total.....	36 3 39	1 4 5	4 1 5	1 1 2	1 1 2	4 1 5	4 1 5	2 1 3	3 1 4	3 1 4	5 3 8	7 3 10	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2
AE143	Accident caused by fire and explosion of combustible material	Male..... Female..... Total.....	20 10 30	1 2 3	1 2 3	1 1 2	1 1 2	2 1 3	2 1 3	1 1 2	1 1 2	1 1 2	3 1 4	3 1 4	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2
AF144	Accident caused by hot substance, corrosive liquid, steam, and radiation	Male..... Female..... Total.....	2 1 3	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2
AE145	Accident caused by firearm	Male..... Female..... Total.....	12 1 13	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2
AE146	Accidental drowning and submersion	Male..... Female..... Total.....	45 4 49	1 5 6	1 5 6	3 1 4	2 2 4	9 1 10	9 1 10	4 1 5	4 1 5	1 1 2	1 1 2	6 1 7	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2
AE147	All other accidental causes	Male..... Female..... Total.....	59 23 82	2 1 3	5 4 9	2 1 3	2 1 3	9 3 12	9 3 12	2 1 3	4 1 5	2 1 3	2 1 3	12 6 18	3 1 4	3 1 4	2 1 3	1 1 2	1 1 2
AE148	Suicide and self-inflicted injury	Male..... Female..... Total.....	76 18 94	3 1 4	8 1 9	1 1 2	4 1 5	10 3 13	10 3 13	5 1 6	12 2 14	2 1 3	4 1 5	15 5 20	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2
AE149	Homicide and injury purposely inflicted by other persons (not in war)	Male..... Female..... Total.....	4 3 7	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	2 1 3	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2
AF150	Injury resulting from operations of war	Male..... Female..... Total.....	4 3 7	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	2 1 3	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2

TABLE 7—CAUSE OF DEATH BY SEX FOR URBAN PLACES OF 5,000 POPULATION AND OVER IN ALBERTA, 1952

CAUSE OF DEATH (Intermediate List)		Total	Calgary	Edmonton	Jasper Place	Lethbridge	Medicine Hat	Red Deer
ALL CAUSES	Total Male Female	2979 1837 1142	1232 749 483	1319 827 492	21 12 9	170 112 58	166 95 71	71 42 29
I. Infectious and Parasitic Diseases								
A 1 Tuberculosis of the respiratory system	Male Female	9 10	3 5	5 4	1 1	1 1		
A 2 Tuberculosis of meninges and central nervous system	Male Female	1 1		1			1	
A 3 Tuberculosis of intestines, peritoneum and mesenteric glands	Male Female							
A 4 Tuberculosis of bones and joints	Male Female							
A 5 Tuberculosis, all other forms	Male Female							
A 6 Congenital syphilis	Male Female	2		2				
A 7 Early syphilis	Male Female							
A 8 Tabes dorsalis	Male Female	1	1					
A 9 General paralysis of insane	Male Female	2	2					
A 10 All other syphilis	Male Female	6 4	2 3	4				1
A 11 Gonococcal infection	Male Female							
A 12 Typhoid fever	Male Female							
A 13 Paratyphoid fever and other Salmonella infections	Male Female							
A 14 Cholera	Male Female							
A 15 Brucellosis (undulant fever)	Male Female	1				1		
A 16 Dysentery, all forms	Male Female							
A 17 Scarlet fever	Male Female							
A 18 Streptococcal sore throat	Male Female							
A 19 Erysipelas	Male Female							
A 20 Septicaemia and pyaemia	Male Female	2 1	1 1	1				
A 21 Diphtheria	Male Female							
A 22 Whooping cough	Male Female	1 1		1				
A 23 Meningococcal infections	Male Female							
A 24 Plague	Male Female							
A 25 Leprosy	Male Female							
A 26 Tetanus	Male Female							
A 27 Anthrax	Male Female							
A 28 Acute poliomyelitis	Male Female	16 13	8 4	4 4	1	4	2	2
A 29 Acute infectious encephalitis	Male Female							
A 30 Late effects of acute poliomyelitis and acute infectious encephalitis	Male Female	2		2				
A 31 Smallpox	Male Female							
A 32 Measles	Male Female							
A 33 Yellow fever	Male Female							
A 34 Infectious hepatitis	Male Female	1 1		1				

TABLE 7—CAUSE OF DEATH BY SEX FOR URBAN PLACES OF 5,000 POPULATION AND OVER IN ALBERTA, 1952—Continued

CAUSE OF DEATH (Intermediate List)		Total	Calgary	Edmonton	Jasper Place	Lethbridge	Medicine Hat	Red Deer
A 35 Rabies	Male	1						
	Female							
A 36 Typhus and other rickettsial diseases	Male	1				1		
	Female							
A 37 Malaria	Male							
	Female							
A 38 Schistosomiasis	Male							
	Female							
A 39 Hydatid disease	Male							
	Female							
A 40 Filariasis	Male							
	Female							
A 41 Ankylostomiasis	Male							
	Female							
A 42 Other diseases due to helminths	Male							
	Female							
A 43 All other diseases classified as infective and parasitic	Male	1	1					
	Female							
II. Neoplasms								
A 44 Malignant neoplasm of buccal cavity and pharynx	Male	6	2	3			1	
	Female	3	2				1	
A 45 Malignant neoplasm of oesophagus	Male	11	4	6		1		
	Female	5	1	3		1		
A 46 Malignant neoplasm of stomach	Male	50	16	27		2	3	2
	Female	27	13	12		2		
A 47 Malignant neoplasm of intestine, except rectum	Male	26	11	9	1		4	1
	Female	20	14	4			2	
A 48 Malignant neoplasm of rectum	Male	19	11	6		2		
	Female	6	2	3				1
A 49 Malignant neoplasm of larynx	Male	1	1					
	Female							
A 50 Malignant neoplasm of trachea, and of bronchus and lung not specified as secondary	Male	27	5	17		3	2	
	Female	5		4			1	
A 51 Malignant neoplasm of breast	Male	2	1	1				
	Female	31	13	14		1	2	1
A 52 Malignant neoplasm of cervix uteri	Female	27	10	14			3	
A 53 Malignant neoplasm of other and unspecified parts of uterus	Female	7	2	4			1	
A 54 Malignant neoplasm of prostate	Male	26	12	13			1	
A 55 Malignant neoplasm of skin	Male	4	2	2				
	Female	2		2				
A 56 Malignant neoplasm of bone and connective tissue	Male	3	2	1				
	Female	5	4	1				
A 57 Malignant neoplasm of all other and unspecified sites	Male	60	22	28		6	4	
	Female	62	27	28		3	3	1
A 58 Leukaemia and aleukaemia	Male	13	4	9				
	Female	7	3	4				
A 59 Lymphosarcoma and other neoplasms of lymphatic and haematopoietic system	Male	10	5	3		2		
	Female	2		2				
A 60 Benign neoplasms and neoplasms of unspecified nature	Male	6	2	1		2	1	
	Female	4	1	2		1		
III, IV. Allergic Disorders and Endocrine Metabolic and Blood Diseases								
A 61 Nontoxic goitre	Male	1		1				
	Female							
A 62 Thyrotoxicosis with or without goitre	Male	3	1	1		1		
	Female	1	1					
A 63 Diabetes mellitus	Male	22	9	10		1	1	1
	Female	25	8	11		3	3	
A 64 Avitaminosis and other deficiency states	Male	1	1					
	Female							
A 65 Anaemias	Male	5	5					
	Female	4	1	3				
A 66 Allergic disorders; all other endocrine, metabolic and blood diseases	Male	32	14	12		1	5	
	Female	7	3	3		1		

TABLE 7—CAUSE OF DEATH BY SEX FOR URBAN PLACES OF 5,000 POPULATION AND OVER IN ALBERTA, 1952—Continued

CAUSE OF DEATH (Intermediate List)		Total	Calgary	Edmonton	Jasper Place	Lethbridge	Medicine Hat	Red Deer
V. Mental, Psychoneurotic, and Personality Disorders								
A 67 Psychoses	Male	3	2			1		
	Female	2		1	1			
A 68 Psychoneuroses and disorders of personality	Male	4	2	2				
	Female							
A 69 Mental deficiency	Male							
	Female	1		1				
VI. Diseases of the Nervous System and Sense Organs								
A 70 Vascular lesions affecting central nervous system	Male	152	63	60	1	10	13	5
	Female	149	57	65		5	13	9
A 71 Nonmeningococcal meningitis	Male	5	1	3			1	
	Female							
A 72 Multiple sclerosis	Male	2	1	1				
	Female	2	1	1				
A 73 Epilepsy	Male	4	2	2				
	Female	3	2	1				
A 74 Inflammatory diseases of eye	Male							
	Female							
A 75 Cataract	Male							
	Female							
A 76 Glaucoma	Male							
	Female							
A 77 Otitis media and mastoiditis	Male	2	2					
	Female	1		1				
A 78 All other diseases of the nervous system and sense organs	Male	14	7	6			1	
	Female	10	4	4	1		1	
VII. Diseases of the Circulatory System								
A 79 Rheumatic fever	Male	1		1				
	Female	2	1					1
A 80 Chronic rheumatic heart disease	Male	15	5	8			2	
	Female	35	15	14	1	2	2	1
A 81 Arteriosclerotic and degenerative heart disease	Male	542	254	218	2	31	26	11
	Female	246	105	100	1	15	21	4
A 82 Other diseases of heart	Male	30	8	17		4	1	
	Female	14	8	4			2	
A 83 Hypertension with heart disease	Male	43	19	18		2	4	
	Female	66	30	24		9	2	1
A 84 Hypertension without mention of heart	Male	15	6	6		2		1
	Female	11	4	6			1	
A 85 Diseases of arteries	Male	38	11	20	1	1	3	2
	Female	19	8	9		1	1	
A 86 Other diseases of circulatory system	Male	10	5	2	2			1
	Female	5		4		1		
VIII. Diseases of the Respiratory System								
A 87 Acute upper respiratory infections	Male	1	1					
	Female	2	2					
A 88 Influenza	Male	4	1	2				1
	Female	7	4	2		1		
A 89 Lobar pneumonia	Male	14	7	5		1	1	
	Female	10	8	1		1		
A 90 Bronchopneumonia	Male	35	17	18				
	Female	19	8	10			1	
A 91 Primary atypical, other and unspecified pneumonia	Male	6		3		1	1	1
	Female	11	3	8				
A 92 Acute bronchitis	Male	2	1	1				
	Female							
A 93 Bronchitis, chronic and unqualified	Male	6	2	4				
	Female	1		1				
A 94 Hypertrophy of tonsils and adenoids	Male							
	Female	1	1					
A 95 Empyema and abscess of lung	Male	1		1				
	Female							
A 96 Pleurisy	Male							
	Female							
A 97 All other respiratory diseases	Male	18	8	8			1	1
	Female	13	6	5			2	

TABLE 7—CAUSE OF DEATH BY SEX FOR URBAN PLACES OF 5,000 POPULATION AND OVER IN ALBERTA, 1952—Continued

CAUSE OF DEATH (Intermediate List)		Total	Calgary	Edmonton	Jasper Place	Lethbridge	Medicine Hat	Red Deer
IX. Diseases of the Digestive System								
A 98 Diseases of teeth and supporting structures	Male	...	...	...	...	...	...	...
	Female	...	...	...	...	...	...	...
A 99 Ulcer of stomach	Male	6	4	2	...	...	...	...
	Female	6	3	3	...	...	...	...
A100 Ulcer of duodenum	Male	9	5	4	...	...	...	...
	Female	3	2	...	...	1	...	...
A101 Gastritis and duodenitis	Male	1	...	...	...	...	...	1
	Female	...	...	...	...	...	...	...
A102 Appendicitis	Male	3	1	1	1	...	...	...
	Female	...	...	...	...	...	...	...
A103 Intestinal obstruction and hernia	Male	5	2	3	...	...	...	...
	Female	9	3	5	...	1	...	...
A104 Gastro-enteritis and colitis, except diarrhoea of the newborn	Male	10	7	3	...	...	...	...
	Female	11	9	2	...	...	...	...
A105 Cirrhosis of liver	Male	10	6	4	...	...	...	...
	Female	4	1	1	...	2	...	...
A106 Cholelithiasis and cholecystitis	Male	4	1	3	...	...	...	...
	Female	6	3	2	...	...	...	1
A107 Other diseases of digestive system	Male	5	2	3	...	...	...	...
	Female	6	2	4	...	...	...	...
X. Diseases of the Genito-Urinary System								
A108 Acute nephritis	Male	1	...	1	...	...	...	...
	Female	...	...	...	...	...	...	...
A109 Chronic, other and unspecified nephritis	Male	18	4	12	...	2	...	...
	Female	7	2	3	...	1	...	1
A110 Infections of kidney	Male	3	3	...	...	...	...	...
	Female	2	...	2	...	...	...	...
A111 Calculi of urinary system	Male	3	1	1	...	...	...	1
	Female	...	...	...	...	...	...	...
A112 Hyperplasia of prostate	Male	27	9	15	...	1	2	...
A113 Diseases of breast	Male	...	...	...	...	...	...	...
	Female	...	...	...	...	...	...	...
A114 Other diseases of genito-urinary system	Male	1	...	1	...	...	...	...
	Female	1	1	...	...	...	...	...
XI. Deliveries and Complications of Pregnancy, Childbirth and the Puerperium								
A115 Sepsis of pregnancy, childbirth and the puerperium	Female	...	...	...	...	...	...	...
A116 Toxæmias of pregnancy and the puerperium	Female	2	2	...	...	...	...	...
A117 Haemorrhage of pregnancy and childbirth	Female	...	...	...	...	...	...	...
A118 Abortion without mention of sepsis or toxæmia	Female	...	...	...	...	...	...	...
A119 Abortion with sepsis	Female	1	...	1	...	...	...	...
A120 Other complications of pregnancy, childbirth and the puerperium	Female	...	...	...	...	...	...	...
XII, XIII. Diseases of the Skin and Musculo-skeletal System								
A121 Infections of skin and subcutaneous tissue	Male	...	...	...	...	...	...	...
	Female	...	...	...	...	...	...	...
A122 Arthritis and spondylitis	Male	1	...	...	...	...	...	1
	Female	5	1	2	...	...	...	2
A123 Muscular rheumatism and rheumatism, unspecified	Male	...	...	...	...	...	...	...
	Female	...	...	...	...	...	...	...
A124 Osteomyelitis and periostitis	Male	...	...	...	...	...	...	...
	Female	...	...	...	...	...	...	...
A125 Ankylosis and acquired musculoskeletal deformities	Male	...	...	...	...	...	...	...
	Female	...	...	...	...	...	...	...
A126 All other diseases of skin and musculoskeletal system	Male	6	2	3	...	...	1	...
	Female	3	3	...	...	...	...	...

TABLE 7—CAUSE OF DEATH BY SEX FOR URBAN PLACES OF 5,000 POPULATION AND OVER IN ALBERTA, 1952—Continued

CAUSE OF DEATH (Intermediate List)		Total	Calgary	Edmonton	Jasper Place	Lethbridge	Medicine Hat	Red Deer
XIV. Congenital Malformations								
A127	Spina bifida and meningocele	Male 8	1	5	2	.....	.....	.....
		Female 6	2	4	.....	.....	.....	.....
A128	Congenital malformations of circulatory system	Male 12	4	3	1	4	.....	.....
		Female 16	4	10	.....	2	.....	.....
A129	All other congenital malformations	Male 17	7	10	.....	.....	.....	.....
		Female 17	4	12	1	.....	.....	.....
XV. Certain Diseases of Early Infancy								
A130	Birth injuries	Male 24	11	8	1	3	1	.....
		Female 8	4	4	.....	.....	.....	.....
A131	Postnatal asphyxia and atelectasis	Male 27	5	19	2	1	.....	.....
		Female 11	4	5	.....	2	.....	.....
A132	Infections of the newborn	Male 9	2	6	1	.....	.....	.....
		Female 2	1	1	.....	.....	.....	.....
A133	Haemolytic disease of new born	Male 8	2	4	2	.....	.....	.....
		Female 3	2	1	.....	.....	.....	.....
A134	All other defined diseases of early infancy	Male 3	2	1	.....	.....	.....	.....
		Female 3	1	2	.....	.....	.....	.....
A135	Ill-defined diseases peculiar to early infancy, and immaturity unqualified	Male 59	23	31	4	1	1	.....
		Female 29	14	11	2	1	.....	.....
XVI. Symptoms, Senility and Ill-Defined Conditions								
A136	Senility without mention of psychosis	Male 6	2	4	.....	.....	.....	.....
		Female 2	2	.....	.....	.....	.....	.....
A137	Ill-defined and unknown causes	Male 28	6	16	4	2	.....	.....
		Female 10	4	4	2	.....	.....	.....
EXVII. Accidents, Poisonings and Violence (Classification According to External Cause)								
AE138	Motor vehicle accidents	Male 62	22	33	1	3	2	1
		Female 18	8	7	1	.....	2	.....
AE139	Other transport accidents	Male 31	6	18	1	2	1	3
		Female 4	1	1	.....	2	.....	.....
AE140	Accidental poisoning	Male 1	1	.....	.....	.....	.....	.....
		Female 1	1	.....	.....	.....	.....	.....
AE141	Accidental falls	Male 26	15	6	1	3	1	.....
		Female 17	10	7	.....	.....	.....	.....
AE142	Accident caused by machinery	Male 7	3	4	.....	.....	.....	.....
		Female .....	.....	.....	.....	.....	.....	.....
AE143	Accident caused by fire and explosion of combustible material	Male 3	.....	3	.....	.....	.....	.....
		Female 2	1	1	.....	.....	.....	.....
AE144	Accident caused by hot substance, corrosive hot liquid, steam, and radiation	Male 1	1	.....	.....	.....	.....	.....
		Female .....	.....	.....	.....	.....	.....	.....
AE145	Accident caused by firearm	Male 2	1	1	.....	.....	.....	.....
		Female .....	.....	.....	.....	.....	.....	.....
AE146	Accidental drowning and submersion	Male 13	5	4	1	1	1	1
		Female .....	.....	.....	.....	.....	.....	.....
AE147	All other accidental causes	Male 17	5	8	.....	3	1	.....
		Female 5	1	4	.....	.....	.....	.....
AE148	Suicide and self-inflicted injury	Male 21	5	12	2	1	1	.....
		Female 8	2	4	1	1	.....	.....
AE149	Homicide and injury purposely inflicted by other persons (not in war)	Male .....	.....	.....	.....	.....	.....	.....
		Female 1	.....	1	.....	.....	.....	.....
AE150	Injury resulting from operations of war	Male .....	.....	.....	.....	.....	.....	.....
		Female .....	.....	.....	.....	.....	.....	.....
NXVII. Accidents, Poisonings and Violence (Classification according to Nature of Injury)								
AN138	Fracture of skull	Male 44	24	15	1	3	1	.....
		Female 10	6	3	.....	.....	1	.....
AN139	Fracture of spine and trunk	Male 4	1	3	.....	.....	.....	.....
		Female 1	1	.....	.....	.....	.....	.....
AN140	Fracture of limbs	Male 8	3	3	1	1	.....	.....
		Female 15	7	8	.....	.....	.....	.....
AN141	Dislocation without fracture	Male .....	.....	.....	.....	.....	.....	.....
		Female .....	.....	.....	.....	.....	.....	.....

TABLE 7—CAUSE OF DEATH BY SEX FOR URBAN PLACES OF 5,000 POPULATION AND OVER IN ALBERTA, 1952—Continued

CAUSE OF DEATH (Intermediate List)		Total	Calgary	Edmonton	Jasper Place	Lethbridge	Medicine Hat	Red Deer
AN142 Sprains and strains of joints and adjacent muscles	Male .....	.....	.....	.....	.....	.....	.....	.....
	Female .....	.....	.....	.....	.....	.....	.....	.....
AN143 Head injury (excluding fracture)	Male	21	9	8	.....	.....	4	.....
	Female	4	3	.....	.....	.....	1	.....
AN144 Internal injury of chest, abdomen, and pelvis	Male	47	13	26	1	4	2	1
	Female	8	1	5	1	.....	1	.....
AN145 Laceration and open wounds	Male	3	.....	2	.....	.....	1	.....
	Female	2	.....	.....	.....	1	1	.....
AN146 Superficial injury, contusion and crushing with intact skin surface	Male	1	1	.....	.....	.....	.....	.....
	Female .....	.....	.....	.....	.....	.....	.....	.....
AN147 Effects of foreign body entering through orifice	Male	5	2	2	.....	1	.....	.....
	Female	2	1	1	.....	.....	.....	.....
AN148 Burns	Male	6	1	5	.....	.....	.....	.....
	Female	1	1	.....	.....	.....	.....	.....
AN149 Effects of poisons	Male	3	1	1	.....	.....	.....	1
	Female	6	2	4	.....	.....	.....	.....
AN150 All other and unspecified effects of external causes	Male	42	9	24	1	3	1	4
	Female	7	2	4	1	.....	.....	.....

A 15	Brucellosis (undulant fever)	Male	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
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[illegible]

VIII. Diseases of the Respiratory System

A 87	Acute upper respiratory infections	Male	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
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IX. Diseases of the Digestive System

[illegible]

[illegible]

TABLE B—DEATHS BY CAUSE AND SEX, BY AGE, IN CALGARY, 1952—Continued

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TABLE 9—CAUSE OF DEATH BY SEX AND MONTH IN ALBERTA, 1952—Continued

CAUSE OF DEATH (Intermediate List)	Total	MONTHS											
		January	February	March	April	May	June	July	August	September	October	November	December
A 75 Cataract	Male .....	...	...	...	...	...	...	...	...	...	...	...	...
A 76 Glaucoma	Female .....	...	...	...	...	...	...	...	...	...	...	...	...
A 77 Otitis media and mastoiditis	Male .....	...	2	...	...	...	1	1	...	...	1	...	...
A 78 All other diseases of the nervous system and sense organs	Female .....	...	1	...	...	...	1	3	5	3	...	3	1
	Male	3	2	4	1	3	1	3	2	...	1	...	6
	Female	1	1	4	3	1	2	...	...	...	...	...	1
VII. Diseases of the Circulatory System													
A 79 Rheumatic fever	Male .....	...	1	3	...	...	1	1	1	...	1	1	...
A 80 Chronic rheumatic heart diseases	Female .....	...	1	1	2	...	...	3	...	...	...	1	...
A 81 Arteriosclerotic and degenerative heart disease	Male	6	6	3	2	4	4	3	6	4	3	6	6
A 82 Other diseases of heart	Female	59	2	8	5	7	5	1	7	4	7	7	4
A 83 Hypertension with heart disease	Male	1240	78	110	120	107	102	96	95	93	105	118	99
A 84 Hypertension without mention of heart	Female	530	46	38	54	38	53	43	40	41	41	44	45
A 85 Diseases of arteries	Male	102	10	8	6	9	5	9	9	8	17	7	6
A 86 Other diseases of circulatory system	Female	53	5	3	2	6	5	10	12	3	5	5	6
	Male	92	9	5	10	6	4	6	12	12	5	9	12
	Female	118	9	10	8	10	11	7	7	12	13	9	16
A 87 Acute upper respiratory infections	Male	40	3	3	6	3	4	1	3	3	2	3	4
A 88 Influenza	Female	27	1	4	2	2	2	2	4	3	1	2	1
A 89 Lobar pneumonia	Male	90	10	11	4	13	7	6	7	8	6	5	6
	Female	46	7	5	5	3	4	3	3	1	3	4	4
	Male	19	1	1	1	3	4	...	...	3	3	2	1
	Female	10	3	1	1	...	...	...	1	...	1	...	1
VIII. Diseases of the Respiratory System													
A 87 Acute upper respiratory infections	Male	3	1	1	1	...	...	...	...	...	...	...	...
A 88 Influenza	Female	3	1	...	...	...	...	...	...	...	...	1	...
A 89 Lobar pneumonia	Male	27	2	5	9	3	3	1	1	1	3
	Female	20	1	1	8	4	1	1	3	2
	Male	36	3	4	6	3	...	1	...	4	5	3	4
	Female	22	2	5	5	...	2	2	3	1	1

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A 54	Malignant neoplasm of prostate	Male	60	1	2	5	1	1	1	6	34	1	12	1	12
A 55	Malignant neoplasm of skin	Male	5	1	1	1	1	1	1	3	1	1	2	1	2
A 56	Malignant neoplasm of bone and connective tissue	Female	6	1	3	1	1	1	1	4	1	1	1	1	1
A 57	Malignant neoplasm of all other and unspecified sites	Female	7	1	1	1	1	1	1	2	1	1	1	1	1
A 58	Malignant neoplasm of all other and unspecified sites	Female	147	5	5	6	9	9	9	34	51	9	25	1	25
A 59	Leukaemia and aleukaemia	Female	129	4	2	3	2	2	2	34	40	9	28	1	28
A 60	Lymphosarcoma and other neoplasm of lymphatic and haematopoietic system	Male	33	11	3	3	1	1	1	9	3	3	1	1	1
A 61	Benign neoplasm and neoplasms of unspecified nature	Female	31	11	1	2	2	2	2	3	3	3	3	3	3
A 62	Nontoxic goitre	Male	21	1	1	2	1	1	1	3	9	1	1	1	1
A 63	Thyroiditis with or without goitre	Female	11	2	1	1	1	1	1	4	1	1	1	1	1
A 64	Diabetes mellitus	Male	15	1	1	1	1	1	1	4	1	1	1	1	1
A 65	Diabetes mellitus	Female	12	1	1	1	1	1	1	5	3	1	1	1	1
A 66	Avitaminosis and other deficiency states	Male	2	1	1	1	1	1	1	1	1	1	1	1	1
A 67	Anaemias	Female	8	1	1	1	1	1	1	1	4	1	1	1	1
A 68	Allergic disorders; all other endocrine, metabolic and blood diseases	Male	57	5	2	3	1	1	1	2	15	3	13	2	13
A 69	Psychoses	Female	25	5	1	1	1	1	1	6	3	3	1	1	1
A 70	Psychoneurotic, and Personality Disorders	Male	5	1	1	1	1	1	1	1	1	1	2	2	2
A 71	Psychoneuroses and disorders of personality	Female	9	1	2	1	1	1	1	2	1	1	1	1	1
A 72	Mental deficiency	Male	3	1	1	1	1	1	1	1	1	1	1	1	1
A 73	Diseases of the Nervous System and Sense Organs	Female	3	1	1	1	1	1	1	1	1	1	1	1	1
A 74	Vascular lesions affecting central nervous system	Male	371	2	1	18	35	1	1	8	150	2	76	5	76
A 75	Nonmeningococcal meningitis	Female	356	1	1	5	8	1	1	14	102	12	157	2	157
A 76	Multiple sclerosis	Male	12	9	1	1	1	1	1	1	2	1	1	1	1
A 77	Multiple sclerosis	Female	5	4	1	1	1	1	1	1	3	1	1	1	1

VIII.—Diseases of The Respiratory System

A 87	Acute upper respiratory infections	Male	3	3	1	1	2	2	8	1	7	1
A 88	Influenza	Female	3	3	1	1	2	2	5	1	7	1
A 89	Lobar pneumonia	Male	27	5	1	1	1	3	8	1	5	2
A 90	Bronchopneumonia	Female	36	11	1	1	1	1	1	1	8	1
A 91	Primary atypical, other and unspecific pneumonia	Male	104	37	1	1	1	3	30	1	19	2
A 92	Acute bronchitis	Female	65	34	1	1	1	2	10	1	16	1
A 93	Bronchitis, chronic and unqualified	Male	38	26	1	1	4	3	6	1	11	1
A 94	Hypertrophy of tonsils and adenoids	Female	33	14	1	1	1	1	1	1	1	1
A 95	Empyema and abscess of lung	Male	6	5	1	1	1	2	3	1	1	1
A 96	Pleurisy	Female	3	3	1	1	1	1	1	1	1	1
A 97	All other respiratory diseases	Male	14	3	1	1	1	1	1	1	1	1
		Female	5	1	1	1	1	1	1	1	1	1
		Male	1	1	1	1	1	1	1	1	1	1
		Female	2	1	1	1	1	1	1	1	1	1
		Male	1	1	1	1	1	1	1	1	1	1
		Female	1	1	1	1	1	1	1	1	1	1
		Male	43	1	1	1	1	6	22	1	4	2
		Female	16	1	1	1	1	3	1	1	9	1

IX.—Diseases of the Digestive System

A 98	Diseases of teeth and supporting structures	Male	1	1	1	1	1	1	1	1	1	1
A 99	Ulcer of stomach	Female	16	16	1	1	1	4	6	1	4	1
A100	Ulcer of duodenum	Male	8	1	1	1	1	4	1	1	3	1
A101	Gastritis and duodenitis	Female	16	5	1	1	1	4	5	1	3	1
A102	Appendicitis	Male	2	2	1	1	1	2	1	1	2	1
A103	Intestinal obstruction and hernia	Female	8	3	2	1	1	1	1	1	1	1
A104	Gastro-enteritis and colitis, except diarrhoea of the new-born	Male	7	1	1	1	1	3	10	1	4	1
		Female	31	5	1	1	1	7	5	1	11	1
A105	Cirrhosis of liver	Male	30	6	1	1	1	1	4	1	3	1
A106	Cholelithiasis and cholecystitis	Female	42	33	1	1	1	2	4	1	4	1
A107	Other diseases of digestive system	Male	35	22	1	1	1	3	7	1	1	1
		Female	16	1	1	1	1	5	2	1	2	1
		Male	11	1	1	1	1	3	7	1	1	1
		Female	16	1	1	1	1	3	7	1	1	1
		Male	14	3	1	1	1	3	4	1	2	1
		Female	16	3	1	1	1	3	6	1	4	1
		Male	14	3	1	1	1	3	6	1	4	1
		Female	14	3	1	1	1	3	6	1	4	1

XXVII.—Accidents, Poisonings and Violence (Classification According to Nature of Injury)

AN138	Fracture of skull	Male	114	15	18	14	6	2	2	33	16	3			1		2
		Female	24	5	5					5	5						3
AN139	Fracture of spine and trunk	Male	21	1	1	4	5	1	1	2	1	5					3
		Female	6		1					2		2					1
AN140	Fracture of limbs	Male	26		1		1	4			1	5					13
		Female	30	1				2			1	8					18
AN141	Dislocation without fracture	Male															
		Female															
AN142	Sprains and strains of joints and adjacent muscles	Male															
		Female															
AN143	Head injury (excluding fracture)	Male	68	6	8	5	5	4		8	15	5			2		4
		Female	7	2						2	3						
AN144	Internal injury of chest, abdomen, and pelvis	Male	107	8	18	11	5	3		19	26	6			4		2
		Female	19	4	1					2	5	1					5
AN145	Laceration and open wounds	Male	17		5	2	1			1	3	3			2		2
		Female	5	2	1												
AN146	Superficial injury, contusion and crushing with intact skin surface	Male	1									1					
		Female	1														
AN147	Effects of foreign body entering through orifice	Male	12	10			1			1							1
		Female	12	11													
AN148	Burns	Male	20	4	1	2	2	2		3	3				1		
		Female	9	5			1			1							
AN149	Effects of poisons	Male	34	1	3	4	4	4		9	4	1			1		1
		Female	14	2	3					4	3				2		2
AN150	All other and unspecified effects of external causes	Male	121	38	20	7	5	4		14	16	4			3		4
		Female	22	7	1	1	1			4	1				2		5

TABLE 11—INFANT DEATHS AND HOSPITAL INFANT DEATHS BY OCCURRENCE AND RESIDENCE FOR CENSUS DIVISIONS, ALBERTA, 1952

CENSUS DIVISIONS	Total Infant Deaths				Infant Deaths in Hospitals			
	Total by occurrence	Total by residence	By occurrence, residence elsewhere	By residence, occurrence elsewhere	Total by occurrence	Total by residence	By occurrence, residence elsewhere	By residence, occurrence elsewhere
ALBERTA.....	875	879	6	10	657	662	4	9
Division No. 1.....	16	13	3	....	10	8	2	....
Division No. 2.....	71	67	6	2	56	51	6	1
Division No. 3.....	7	11	....	4	6	10	....	4
Division No. 4.....	9	19	1	11	3	12	....	9
Division No. 5.....	10	12	....	2	9	11	....	2
Division No. 6.....	174	172	13	11	148	144	13	9
Division No. 7.....	23	28	1	6	17	22	....	5
Division No. 8.....	88	83	11	6	68	65	8	5
Division No. 9.....	29	28	7	6	16	18	4	6
Division No. 10.....	26	29	3	6	18	21	1	4
Division No. 11.....	240	218	33	11	210	188	32	10
Division No. 12.....	12	17	....	5	2	7	....	5
Division No. 13.....	36	41	2	7	26	29	2	5
Division No. 14.....	22	25	6	9	14	18	4	8
Division No. 15.....	51	51	3	3	26	25	2	1
Division No. 16.....	32	34	1	3	22	24	....	2
Division No. 17.....	29	31	2	4	6	9	....	3

TABLE 12—INFANT DEATHS AND HOSPITAL INFANT DEATHS BY OCCURRENCE
AND RESIDENCE FOR URBAN PLACES OF 1,000 POPULATION
AND OVER, 1952

CITY, TOWN OR VILLAGE	Total Infant Deaths				Infant Deaths in Hospitals			
	Total by occurrence	Total by residence	By occurrence, residence elsewhere	By residence, occurrence elsewhere	Total by occurrence	Total by residence	By occurrence, residence elsewhere	By residence, occurrence elsewhere
Athabasca	3	2	1		2	1	1	
Barrhead	1	1	1	1	1	1	1	1
Beverly	1	2		1		1		1
Black Diamond		1		1		1		1
Blairmore								
Bonnyville	9	5	4		9	5	4	
Bowness		3		3		3		3
Brooks	5	2	3		5	2	3	
Calgary	130	170	28	5	117	94	28	5
Camrose	14	9	5		7	3	4	
Cardston	4	3	1		2	2		
Claresholm	4	2	2		4	2	2	
Coleman		1		1		1		1
Didsbury	6	6	2	2	6	6	2	2
Drumheller	11	7	5	1	10	6	5	1
Edmonton	229	162	72	5	210	143	72	5
Edson	4	3	2	1	1	2		1
Forest Lawn								
Fort Saskatchewan								
Grande Prairie	14	10	4		10	7	3	
Hanna	9	5	4		8	4	4	
High Prairie	24	6	18		18	4	14	
High River	4	2	3	1	1		1	
Innisfail	9	5	5	1	9	5	5	1
Jasper Place		3		3		3		3
Lacombe	7	5	2		6	5	1	
Leduc	1	4		3		3		3
Lethbridge	31	16	15		28	13	15	
Lloydminster								
Macleod	3	3			3	3		
Magrath	2	3		1		1		1
McLennan	6	1	6	1	2	1	2	1
Medicine Hat	8	5	3		7	4	3	
Olds	8	4	4		5	1	4	
Peace River	9	7	3	1	6	3	3	
Pincher Creek	3		3		3		3	
Ponoka	7	7	2	2	7	6	2	1
Raymond	2	3		1		1		1
Redcliff		1		1		1		1
Red Deer	13	12	2	1	10	10	1	1
Redwater		1		1		1		1
Rocky Mountain House	8	5	3		3	1	2	
St. Albert								
St. Paul	7	1	6		7	1	6	
Stettler	9	4	5		9	4	5	
Taber	7	5	2		3	2	1	
Three Hills	1		1		1		1	
Vegreville	6	6			6	6		
Vermilion	4	1	3		3	1	2	
Vulcan	2	2			1	1		
Wainwright	11	5	7	1	9	4	6	1
Westlock	5	3	3	1	5	3	3	1
Wetaskiwin	10	4	6		9	3	6	

[illegible]

TABLE 15—DEATHS AT ALL AGES ACCORDING TO THE INTERNATIONAL ABBREVIATED LIST OF 50 CAUSES BY PROVINCES, 1952

Abbrev. List	Int. List No. Detailed List	CAUSES OF DEATH	Canada	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.
B 1	001-008	Tuberculosis of respiratory system	2,017	134	19	69	82	895	369	92	74	91	192
B 2	010-019	Tuberculosis, other forms	440	41	5	25	18	213	29	23	30	34	22
B 3	020-029	Syphilis and its sequelae	297	6	1	10	13	103	84	7	13	27	33
B 4	040	Typhoid fever	18	1	1	1	1	11	2	...	...	2	...
B 5	043	Cholera	...	...	...	...	...	...	...	...	...	...	...
B 6	045-048	Dysentery, all forms	50	1	...	...	2	18	18	3	1	5	2
B 7	050,051	Scarlet fever, and streptococcal sore throat	41	...	2	...	2	14	10	1	2	2	8
B 8	055	Diphtheria	26	...	1	1	1	19	4	...	...	1	1
B 9	056	Whooping cough	142	5	...	...	5	75	13	9	21	8	5
B 10	057	Meningococcal infections	87	2	2	5	11	32	18	1	7	2	7
B 11	058	Plague	...	...	...	...	...	...	...	...	...	...	...
B 12	080	Acute poliomyelitis	311	...	2	6	11	12	46	25	90	79	40
B 13	084	Smallpox	...	...	...	...	...	...	...	...	...	...	...
B 14	085	Measles	236	13	4	9	5	133	17	15	21	7	12
B 15	100-108	Typhus and other rickettsial diseases	2	...	...	...	...	...	1	...	...	1	...
B 16	110-117	Malaria	3	...	...	1	...	...	...	...	...	...	...
B 17	044,049,052-054, 059-074,081-083, 086-096,120-138	All other diseases classified as infective and parasitic	336	7	1	12	9	118	106	18	24	20	21
B 18	140-205	Malignant neoplasm, including neoplasms of lymphatic and haematopoietic tissues	18,589	346	142	847	643	5,048	6,630	1,005	961	1,072	1,895
	(140-200,202 203,205)	Cancer excluding Hodgkin's disease, leukaemia and aleukaemia	17,710	341	134	825	612	4,825	6,319	947	907	993	1,807
	(201)	Hodgkin's disease	215	1	1	6	3	64	81	...	12	15	23
	(204)	Leukaemia and aleukaemia	664	4	7	16	28	159	230	49	42	64	65
B 19	210-239	Benign and unspecified neoplasms	373	12	4	14	15	93	119	20	25	27	44
B 20	260	Diabetes mellitus	1,377	16	13	67	56	531	529	73	84	104	104
B 21	290-293	Anaemias	404	11	2	24	21	124	129	25	28	14	26
B 22	330-334	Vascular lesions affecting central nervous system	13,348	300	136	750	492	2,393	5,964	782	649	727	1,155
B 23	340	Nonmeningococcal meningitis	266	12	2	10	11	123	50	10	16	17	15
B 24	400-402	Rheumatic fever	288	3	2	5	6	159	65	7	7	17	17
B 25	410-416	Chronic rheumatic heart disease	1,603	39	5	83	38	367	591	75	117	112	176
B 26	420-422	Arteriosclerosis and degenerative heart disease	32,410	293	210	1,369	1,057	6,857	13,942	1,698	1,736	1,770	3,478
B 27	430-434	Other diseases of heart	1,873	90	16	123	94	554	431	144	106	155	160
B 28	440-443	Hypertension with heart disease	4,737	67	35	261	157	1,508	1,527	177	231	210	564
B 29	444-447	Hypertension without mention of heart	1,033	39	10	61	31	393	225	72	51	67	84
B 30	480-483	Influenza	864	39	5	40	27	372	164	40	52	47	46
B 31	490-493	Pneumonia	4,389	108	43	200	216	1,270	1,274	245	299	298	436
B 32	500-502	Bronchitis	506	21	2	27	15	145	163	35	24	28	46
B 33	540-541	Ulcer of stomach and duodenum	712	6	...	21	18	162	263	40	36	45	121
B 34	550-553	Appendicitis	248	6	1	12	6	80	86	11	13	15	18
B 35	560,561,570	Intestinal obstruction and hernia	789	13	4	28	27	232	253	41	47	61	83
B 36	543,571,572	Gastritis, duodenitis, enteritis and colitis, except diarrhoea of the newborn	1,337	57	3	26	56	600	330	49	64	79	73
B 37	581	Cirrhosis of liver	652	4	2	24	20	189	239	28	26	27	93
B 38	590-594	Nephritis and nephrosis	2,791	34	22	90	74	1,576	575	95	89	74	162

	610-652,660, 670-689	719-734	15-25	14-4	30-14	35-19	171-155	246-100	36-11	61-13	53-15	61-18
B39	Hyperplasia of prostate	719	15	14	30	35	171	246	36	61	53	61
B40	Complications of pregnancy, childbirth and the puerperium	374	25	4	14	19	155	100	11	13	15	18
B41	Congenital malformations	2,623	71	16	107	97	955	807	125	107	164	174
B42	Birth injuries, postnatal asphyxia and atelectasis	2,846	46	11	114	126	954	931	133	143	196	192
B43	Infections of the newborn	753	23	3	23	36	399	144	26	41	32	26
B44	Other diseases peculiar to early infancy, and immaturity unqualified	4,120	149	18	171	188	1,716	1,043	155	197	240	243
B45	Senility without mention of psychosis, ill-defined and unknown causes	2,127	348	21	127	221	584	363	134	71	139	119
B46	All other diseases	9,849	205	66	488	322	3,064	3,072	579	536	570	947
BE47	Motor vehicle accidents	2,947	25	26	118	139	939	1,041	116	127	196	220
BE48	All other accidents	5,594	131	40	292	201	1,329	1,887	281	300	393	740
BE49	Suicide and self-inflicted injury	1,050	8	5	42	17	139	440	62	61	94	182
BE50	Homicide and operations of war	153	1	.....	8	7	30	61	16	4	7	19
	All causes	125,950	2,773	916	5,756	4,647	34,854	44,402	6,552	6,625	7,345	12,080

TABLE 16—DEATH RATES PER 100,000 POPULATION AT ALL AGES ACCORDING TO THE INTERNATIONAL ABBREVIATED LIST OF 50 CAUSES BY PROVINCES, 1952

Abbrev. List	Int. List No.	Canada	CAUSES OF DEATH									
			Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.
B 1	001-008	14.0	35.8	18.4	10.6	15.6	21.4	7.7	11.5	8.8	9.4	16.0
B 2	010-019	3.1	11.0	4.9	3.8	3.4	5.1	0.6	2.9	3.6	3.5	1.8
B 3	020-029	2.1	1.6	1.0	1.5	2.5	2.5	1.8	0.9	1.5	2.8	2.8
B 4	040	0.1	0.3	.....	0.2	0.2	0.3	(2)	.....	.....	0.2	.....
B 5	043	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B 6	045-048	0.3	0.3	.....	.....	0.4	0.4	0.4	0.4	0.1	0.5	0.2
B 7	050,051	0.3	.....	1.9	.....	0.4	0.3	0.2	0.1	0.2	0.2	0.7
B 8	055	0.2	.....	.....	0.2	.....	0.5	0.1	.....	.....	0.1	0.1
B 9	056	1.0	1.3	.....	0.2	1.0	1.8	0.3	1.1	2.5	0.8	0.4
B 10	057	0.6	0.5	1.9	0.8	2.1	0.8	0.4	0.1	0.8	0.2	0.6
B 11	058	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B 12	080	2.2	.....	1.9	0.9	2.1	0.3	1.0	3.1	10.7	8.1	3.3
B 13	084	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B 14	085	1.6	.....	3.9	1.4	1.0	3.2	0.4	1.9	2.5	0.7	1.0
B 15	100-108	(2)	3.5	.....	.....	.....	.....	(2)	.....	.....	0.1	.....
B 16	110-117	(2)	.....	.....	0.2	.....	.....	(2)	.....	.....	0.1	.....
B 17	030,039,041,042, 044,049,052-054, 059-074,081-083, 086-096,120-138 140-205	2.3	1.9	1.0	1.8	1.7	2.8	2.2	2.3	2.8	2.1	1.8
B 18	Malignant neoplasm, including neoplasms of lymphatic and haematopoietic tissues	129.0	92.5	137.9	129.7	122.2	120.9	139.1	125.9	114.0	110.5	158.2

VITAL STATISTICS BRANCH

TABLE 16—DEATH RATE PER 100,000 POPULATION AT ALL AGES ACCORDING TO THE INTERNATIONAL ABBREVIATED LIST OF 50 CAUSES, BY PROVINCES, 1952—Continued

Abbrev. List	Int. List No. Detailed List	CAUSES OF DEATH	Canada	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.
B19	(140-200,202 203,205) (201)	Cancer excluding Hodgkin's disease, leukaemia and aleukaemia	122.9	91.2	130.1	126.3	116.3	115.6	132.6	118.7	107.6	102.4	150.8
B20	(204)	Hodgkin's disease	1.5	0.3	1.0	0.9	0.6	1.5	1.7	1.1	1.4	1.5	1.9
B21	210-239	Leukaemia and aleukaemia	4.6	1.1	6.8	2.5	5.3	3.8	4.8	6.1	5.0	6.6	5.4
B22	260	Benign and unspecified neoplasms	2.6	3.2	3.9	2.1	2.9	2.2	2.5	2.5	3.0	2.8	3.7
B23	290-293	Diabetes mellitus	10.9	4.3	12.6	10.3	10.6	12.7	11.1	9.1	10.0	10.7	8.7
B24	330-334	Anaemias	2.8	2.9	1.9	3.7	4.0	3.0	2.7	3.1	3.3	1.4	2.2
B25	340	Vascular lesions affecting central nervous system	92.7	80.2	132.0	114.9	93.5	57.3	125.1	98.0	77.0	74.9	96.4
B26	400-402	Nonmeningococcal meningitis	1.8	3.2	1.9	1.5	2.1	2.9	1.0	1.3	1.9	1.8	1.3
B27	410-416	Rheumatic fever	2.0	0.8	1.9	0.8	1.1	3.8	1.4	0.9	0.8	1.8	1.4
B28	420-422	Chronic rheumatic heart disease	11.1	10.4	4.9	12.7	7.2	8.8	12.4	9.4	13.9	11.5	14.7
B29	430-434	Arteriosclerotic and degenerative heart disease	225.0	78.3	203.9	209.6	201.0	164.3	292.5	212.8	205.9	182.5	290.3
B30	440-443	Other diseases of heart	13.0	24.1	15.5	18.8	17.9	13.3	9.0	18.0	12.6	16.0	13.4
B31	444-447	Hypertension with heart disease	32.9	17.9	34.0	40.0	29.8	36.1	32.0	22.2	27.4	21.6	47.1
B32	480-483	Hypertension without mention of heart	7.2	10.4	9.7	9.3	5.9	9.4	4.7	9.0	6.0	6.9	7.0
B33	490-493	Influenza	6.0	10.4	4.9	6.1	5.1	8.9	3.4	6.5	8.5	4.8	3.8
B34	500-502	Pneumonia	30.5	28.9	41.7	30.6	41.1	30.4	26.7	30.7	35.5	30.7	36.4
B35	540-541	Bronchitis	3.5	5.6	1.9	4.1	2.9	3.5	3.4	4.4	2.8	2.9	3.8
B36	550-553	Ulcer of stomach and duodenum	4.9	1.6	1.6	3.2	3.4	3.9	5.5	5.0	4.3	4.6	10.1
B37	560-561,570	Appendicitis	1.7	1.6	1.0	1.8	1.1	1.9	1.8	1.4	1.5	1.5	1.5
B38	543-571,572	Intestinal obstruction and hernia	5.5	3.5	3.9	4.3	5.1	5.6	5.3	5.1	5.6	6.3	6.9
B39	581	Gastritis, duodenitis, enteritis and colitis, except diarrhoea of the newborn	9.3	15.2	2.9	4.0	10.6	14.4	6.9	6.1	7.6	8.1	6.1
B40	590-594	Cirrhosis of liver	4.5	1.1	1.9	3.7	3.8	4.5	5.0	3.5	3.1	2.8	7.8
B41	610	Nephritis and nephrosis	19.4	9.1	21.4	13.8	14.1	37.8	12.1	11.9	10.6	7.6	13.5
B42	640-652, 660, 670-689	Hyperplasia of prostate	5.0	4.0	10.7	4.6	6.7	4.1	5.2	4.5	7.2	5.5	5.1
B43	750-759	Complications of pregnancy, childbirth and the puerperium	2.6	6.7	3.9	2.1	3.6	3.7	2.1	1.4	1.5	1.5	1.5
B44	760-762	Congenital malformations	18.2	19.0	15.5	16.4	18.4	22.9	16.9	15.7	12.7	16.9	14.5
B45	763-768	Birth injuries, postnatal asphyxia and atelectasis	19.8	12.3	10.7	17.5	24.0	22.9	19.5	16.7	17.0	20.2	16.0
B46	769-776	Infections of the newborn	5.2	6.1	2.9	3.5	6.8	9.6	3.0	3.3	4.9	3.3	2.2
B47	780-795	Other diseases peculiar to early infancy, and immaturity unqualified	28.6	39.8	17.5	26.2	35.7	41.1	21.9	19.4	23.4	24.7	20.3
B48	Residual	Senility without mention of psychosis, ill-defined and unknown causes	14.8	93.0	20.4	19.4	42.0	14.0	7.6	16.8	8.4	14.3	9.9
B49	E810-E835	All other diseases	68.4	54.8	64.1	74.7	61.2	73.4	64.5	72.6	63.6	58.8	79.0
B50	E800-E802, E840-E862	Motor vehicle accidents	20.5	6.7	25.2	18.1	26.4	22.5	21.8	14.5	15.1	20.2	18.4
B51	E863-E970-E979	All other accidents	38.8	35.0	38.8	44.7	38.2	31.8	39.6	35.2	35.6	40.5	61.8
B52	E984-E965, E980-E999	Suicide and self-inflicted injury	7.3	2.1	4.9	6.4	3.2	3.3	9.2	7.8	7.2	9.7	15.2
B53		Homicide and operations of war	1.1	0.3	....	1.2	1.3	0.7	1.3	2.0	0.5	0.7	1.6
		All causes	874.3	741.4	889.3	881.5	883.5	835.0	931.6	821.1	785.9	757.2	1,008.3

TABLE 16a—CERTAIN CAUSES OF DEATH BY NUMBERS AND RATES FOR EACH YEAR OF THE LAST DECENNIAL PERIOD

CAUSE OF DEATH	1952		1951		1950		1949		1948		1947		1946		1945		1944		1943	
	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	2247	231	2113	224	2046	228	2033	233	1896	224	1756	213	1721	214	1663	199	1534	186	1550	194
Cancer	1072	110	1065	113	997	110	957	109	975	115	878	107	860	107	830	100	781	84	748	94
Diseases of the Arteries	136	14	129	13	133	14	128	14	28	3	117	14	102	12	138	16	121	14	116	14
Violent Deaths (Suicides excepted)	589	60	568	60	573	64	596	68	593	70	484	59	456	56	472	57	484	59	588	73
Pneumonia (all forms)	298	30	341	36	275	30	376	43	362	42	374	43	362	45	369	44	379	46	497	51
Pulmonary tuberculosis	91	9	119	12	137	15	155	17	200	23	215	26	233	29	200	23	229	27	224	28
Influenza	47	4	114	12	26	2	41	4	36	4	72	8	89	11	58	7	128	15	153	19
Nephritis	74	7	88	9	90	10	217	24	219	25	197	24	215	26	255	31	257	31	284	36
Appendicitis	15	1	18	1	22	2	23	2	34	4	36	4	46	5	42	5	54	6	77	9
Suicides	94	9	86	9	82	9	80	9	84	9	67	8	100	12	76	9	57	7	79	10
Cerebral Haemorrhage	727	74	756	80	693	77	666	76	568	67	523	63	503	62	513	62	454	55	472	59
Diabetes Mellitus	104	10	89	9	91	10	156	17	134	15	119	14	119	14	143	17	120	14	116	14
Diarrhoea and Enteritis	77	7	60	7	69	7	63	7	93	10	106	13	128	15	87	10	120	14	116	14
Puerperal Causes	15	1	15	1	19	2	25	2	29	3	22	3	32	4	48	5	31	3	52	6
Whooping Cough	8	1	7	1	3	1	5	1	11	1	9	1	19	2	43	5	42	5	11	1
Scarlet Fever	2	1	6	1	11	1	12	1	10	1	7	1	7	1	1	1	9	1	7	1
Diphtheria	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5	1	12	1
Typhoid and Paratyphoid	2	1	1	1	1	1	19	2	7	3	3	3	8	1	2	1	8	1	1	1
Measles	7	1	12	1	8	1	9	1	28	3	21	3	8	1	6	1	10	1	19	2
Polioomyelitis	79	8	2	1	8	1	9	1	28	3	7	1	8	1	1	1	1	1	1	1

[illegible]

"N" Code	Alternative classification of accidents, poisonings and violence (nature of injury)	Total Male Female	32 20 12	6 2 4	2 1 1	1 1 1	1 1 1	1 1 2	1 1 1	1 2 1	1 1 1	1 1 1	1 1 1	1 1 1
BN-47	Fractures, head injuries and internal injuries	Male Female	8 4	1 4	1 1	1 1	1 1	1 2	1 1	1 1	1 1	1 1	1 1	1 1
BN-48	Burns	Male Female	5 3	1 1	1 1	1 1	1 1	2 2	1 1	1 1	1 1	1 1	1 1	1 1
BN-49	Effects of poisons	Male Female	7 5	1 3	1 1	1 1	1 1	3 3	1 1	1 1	1 1	1 1	1 1	1 1
BN-50	All other injuries	Male Female	32 20 12	6 2 4	2 1 1	1 1 1	1 1 1	1 1 2	1 1 1	1 2 1	1 1 1	1 1 1	1 1 1	1 1 1

763	.0	Pneumonia of newborn: —Without mention of immaturity	8442	8443	8444	8445	8446	8447	8448	8449	8450	8451	8452	8453	8454	8455	8456	8457	8458	8459	8460	8461	8462	8463	8464	8465	8466	8467	8468	8469	8470	8471	8472	8473	8474	8475	8476	8477	8478	8479	8480	8481	8482	8483	8484	8485	8486	8487	8488	8489	8490	8491	8492	8493	8494	8495	8496	8497	8498	8499	8500	8501	8502	8503	8504	8505	8506	8507	8508	8509	8510	8511	8512	8513	8514	8515	8516	8517	8518	8519	8520	8521	8522	8523	8524	8525	8526	8527	8528	8529	8530	8531	8532	8533	8534	8535	8536	8537	8538	8539	8540	8541	8542	8543	8544	8545	8546	8547	8548	8549	8550	8551	8552	8553	8554	8555	8556	8557	8558	8559	8560	8561	8562	8563	8564	8565	8566	8567	8568	8569	8570	8571	8572	8573	8574	8575	8576	8577	8578	8579	8580	8581	8582	8583	8584	8585	8586	8587	8588	8589	8590	8591	8592	8593	8594	8595	8596	8597	8598	8599	8600	8601	8602	8603	8604	8605	8606	8607	8608	8609	8610	8611	8612	8613	8614	8615	8616	8617	8618	8619	8620	8621	8622	8623	8624	8625	8626	8627	8628	8629	8630	8631	8632	8633	8634	8635	8636	8637	8638	8639	8640	8641	8642	8643	8644	8645	8646	8647	8648	8649	8650	8651	8652	8653	8654	8655	8656	8657	8658	8659	8660	8661	8662	8663	8664	8665	8666	8667	8668	8669	8670	8671	8672	8673	8674	8675	8676	8677	8678	8679	8680	8681	8682	8683	8684	8685	8686	8687	8688	8689	8690	8691	8692	8693	8694	8695	8696	8697	8698	8699	8700	8701	8702	8703	8704	8705	8706	8707	8708	8709	8710	8711	8712	8713	8714	8715	8716	8717	8718	8719	8720	8721	8722	8723	8724	8725	8726	8727	8728	8729	8730	8731	8732	8733	8734	8735	8736	8737	8738	8739	8740	8741	8742	8743	8744	8745	8746	8747	8748	8749	8750	8751	8752	8753	8754	8755	8756	8757	8758	8759	8760	8761	8762	8763	8764	8765	8766	8767	8768	8769	8770	8771	8772	8773	8774	8775	8776	8777	8778	8779	8780	8781	8782	8783	8784	8785	8786	8787	8788	8789	8790	8791	8792	8793	8794	8795	8796	8797	8798	8799	8800	8801	8802	8803	8804	8805	8806	8807	8808	8809	8810	8811	8812	8813	8814	8815	8816	8817	8818	8819	8820	8821	8822	8823	8824	8825	8826	8827	8828	8829	8830	8831	8832	8833	8834	8835	8836	8837	8838	8839	8840	8841	8842	8843	8844	8845	8846	8847	8848	8849	8850	8851	8852	8853	8854	8855	8856	8857	8858	8859	8860	8861	8862	8863	8864	8865	8866	8867	8868	8869	8870	8871	8872	8873	8874	8875	8876	8877	8878	8879	8880	8881	8882	8883	8884	8885	8886	8887	8888	8889	8890	8891	8892	8893	8894	8895	8896	8897	8898	8899	8900	8901	8902	8903	8904	8905	8906	8907	8908	8909	8910	8911	8912	8913	8914	8915	8916	8917	8918	8919	8920	8921	8922	8923	8924	8925	8926	8927	8928	8929	8930	8931	8932	8933	8934	8935	8936	8937	8938	8939	8940	8941	8942	8943	8944	8945	8946	8947	8948	8949	8950	8951	8952	8953	8954	8955	8956	8957	8958	8959	8960	8961	8962	8963	8964	8965	8966	8967	8968	8969	8970	8971	8972	8973	8974	8975	8976	8977	8978	8979	8980	8981	8982	8983	8984	8985	8986	8987	8988	8989	8990	8991	8992	8993	8994	8995	8996	8997	8998	8999	9000	9001	9002	9003	9004	9005	9006	9007	9008	9009	9010	9011	9012	9013	9014	9015	9016	9017	9018	9019	9020	9021	9022	9023	9024	9025	9026	9027	9028	9029	9030	9031	9032	9033	9034	9035	9036	9037	9038	9039	9040	9041	9042	9043	9044	9045	9046	9047	9048	9049	9050	9051	9052	9053	9054	9055	9056	9057	9058	9059	9060	9061	9062	9063	9064	9065	9066	9067	9068	9069	9070	9071	9072	9073	9074	9075	9076	9077	9078	9079	9080	9081	9082	9083	9084	9085	9086	9087	9088	9089	9090	9091	9092	9093	9094	9095	9096	9097	9098	9099	9100	9101	9102	9103	9104	9105	9106	9107	9108	9109	9110	9111	9112	9113	9114	9115	9116	9117	9118	9119	9120	9121	9122	9123	9124	9125	9126	9127	9128	9129	9130	9131	9132	9133	9134	9135	9136	9137	9138	9139	9140	9141	9142	9143	9144	9145	9146	9147	9148	9149	9150	9151	9152	9153	9154	9155	9156	9157	9158	9159	9160	9161	9162	9163	9164	9165	9166	9167	9168	9169	9170	9171	9172	9173	9174	9175	9176	9177	9178	9179	9180	9181	9182	9183	9184	9185	9186	9187	9188	9189	9190	9191	9192	9193	9194	9195	9196	9197	9198	9199	9200	9201	9202	9203	9204	9205	9206	9207	9208	9209	9210	9211	9212	9213	9214	9215	9216	9217	9218	9219	9220	9221	9222	9223	9224	9225	9226	9227	9228	9229	9230	9231	9232	9233	9234	9235	9236	9237	9238	9239	9240	9241	9242	9243	9244	9245	9246	9247	9248	9249	9250	9251	9252	9253	9254	9255	9256	9257	9258	9259	9260	9261	9262	9263	9264	9265	9266	9267	9268	9269	9270	9271	9272	9273	9274	9275	9276	9277	9278	9279	9280	9281	9282	9283	9284	9285	9286	9287	9288	9289	9290	9291	9292	9293	9294	9295	9296	9297	9298	9299	9300	9301	9302	9303	9304	9305	9306	9307	9308	9309	9310	9311	9312	9313	9314	9315	9316	9317	9318	9319	9320	9321	9322	9323	9324	9325	9326	9327	9328	9329	9330	9331	9332	9333	9334	9335	9336	9337	9338	9339	9340	9341	9342	9343	9344	9345	9346	9347	9348	9349	9350	9351	9352	9353	9354	9355	9356	9357	9358	9359	9360	9361	9362	9363	9364	9365	9366	9367	9368	9369	9370	9371	9372	9373	9374	9375	9376	9377	9378	9379	9380	9381	9382	9383	9384	9385	9386	9387	9388	9389	9390	9391	9392	9393	9394	9395	9396	9397	9398	9399	9400	9401	9402	9403	9404	9405	9406	9407	9408	9409	9410	9411	9412	9413	9414	9415	9416	9417	9418	9419	9420	9421	9422	9423	9424	9425	9426	9427	9428	9429	9430	9431	9432	9433	9434	9435	9436	9437	9438	9439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VITAL STATISTICS BRANCH

TABLE 19—LIVE BIRTHS OF INDIANS BY MONTH, ALBERTA, 1952

	Total	Months											
		January	February	March	April	May	June	July	August	September	October	November	December
Total for the Province	1323	116	116	126	124	120	107	104	94	108	89	105	114

TABLE 19a—LEGITIMATE AND ILLEGITIMATE BIRTHS OF INDIANS (EXCLUSIVE OF STIRRIBIRTHS) IN ALBERTA, 1952

	Total Births			Legitimate			Illegitimate		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total for the Province	1323	668	655	980	496	484	343	172	171

TABLE 20—BIRTHS BY PLACE OF OCCURRENCE AND PLACE OF RESIDENCE, 1952

PLACE OF OCCURRENCE	Total occurrence	PLACE OF RESIDENCE													
		Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon	N.W.T.	U.S.A.	Other
Total (residence)	404,057	12,561	2,703	17,951	16,691	126,416	123,891	20,777	22,605	29,105	29,827	389	543	569	29
Newfoundland	12,529	12,519	2,675	3	1	3	1	1	4	1	1	1	1	2	1
Prince Edward Island	2,691	2,691	10	6	40	11	14	1	1	3	2	1	1	8	1
Nova Scotia	17,964	19	17,855	35	16,444	323	23	1	1	1	1	1	1	139	6
New Brunswick	16,977	3	6	14	62	125,047	201	63	27	16	21	2	1	246	15
Quebec	125,368	2	5	31	24	971	123,429	20,553	179	14	18	2	4	80	1
Ontario	124,863	13	6	31	2	4	89	92	22,281	285	23	3	5	27	1
Manitoba	20,948	2	.....	.....	.....	.....	.....	16	86	28,722	85	6	14	10	1
Saskatchewan	22,726	.....	.....	.....	.....	.....	.....	7	18	37	29,616	3	1	29	5
Alberta	28,951	.....	.....	.....	.....	.....	.....	.....	.....	.....	12	377	516	1	.....
British Columbia	29,719	.....	.....	.....	.....	.....	.....	.....	.....	.....	47	.....	.....	.....	.....
Yukon	391	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Northwest Territories	523	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
United States	407	2	1	6	118	52	110	44	9	18	.....	.....	.....	.....	.....

TABLE 21—LIVE BIRTHS AND LIVE BIRTHS IN HOSPITAL BY OCCURRENCE AND RESIDENCE FOR CENSUS DIVISIONS, ALBERTA, 1952

CENSUS DIVISIONS	TOTAL BIRTHS				BIRTHS IN HOSPITAL			
	Total by occurrence	Total by residence	By occurrence, residence elsewhere	By residence, occurrence elsewhere	Total by occurrence	Total by residence	By occurrence, residence elsewhere	By residence, occurrence elsewhere
ALBERTA.....	28,951	29,105	229	383	27,919	28,069	227	377
Division No. 1.....	1,062	1,057	199	194	1,017	1,010	196	189
Division No. 2.....	2,585	2,226	416	57	2,424	2,070	409	55
Division No. 3.....	394	510	72	188	386	499	71	184
Division No. 4.....	451	848	10	407	433	830	10	407
Division No. 5.....	230	402	13	185	221	392	13	184
Division No. 6.....	6,248	5,865	561	178	6,189	5,804	559	174
Division No. 7.....	922	901	82	61	889	871	79	61
Division No. 8.....	2,382	2,237	325	180	2,296	2,154	319	177
Division No. 9.....	525	731	48	254	471	675	46	250
Division No. 10.....	919	1,200	84	365	899	1,183	81	365
Division No. 11.....	8,522	7,953	813	244	8,467	7,894	809	236
Division No. 12.....	412	521	41	150	362	469	40	147
Division No. 13.....	895	977	53	135	821	899	52	130
Division No. 14.....	1,206	1,363	161	318	1,150	1,306	157	313
Division No. 15.....	821	864	83	126	725	768	80	123
Division No. 16.....	1,084	1,079	126	121	1,036	1,032	124	120
Division No. 17.....	293	371	9	87	133	213	3	83

TABLE 22—LIVE BIRTHS AND HOSPITAL LIVE BIRTHS BY OCCURRENCE AND RESIDENCE FOR URBAN PLACES OF 1,000 POPULATION AND OVER, ALBERTA, 1952

CITY, TOWN OR VILLAGE	Code No.	TOTAL LIVE BIRTHS				LIVE BIRTHS IN HOSPITALS			
		Total by occurrence	Total by residence	By occurrence, residence elsewhere	By residence, occurrence elsewhere	Total by occurrence	Total by residence	By occurrence, residence elsewhere	By residence, occurrence elsewhere
Athabasca	044	201	32	170	1	200	32	169	1
Barrhead	045	209	62	161	14	209	62	161	14
Beverly	014	68	68	68	68	68	68	68	68
Black Diamond	405	31	31	31	31	31	31	31	31
Blairmore	204	41	61	39	59	41	61	39	59
Bonnyville	035	184	43	142	1	183	43	141	1
Bowness	605	109	109	109	109	109	109	109	109
Brooks	305	253	81	177	5	250	81	174	5
Calgary	602	5,090	4,059	1,125	94	5,086	4,054	1,124	92
Camrose	804	443	160	138	8	219	97	130	8
Cardston	205	236	106	138	8	219	97	130	8
Clareholm	206	135	73	70	8	135	73	70	8
Coleman	207	47	97	2	52	37	86	2	51
Didsbury	606	112	42	84	14	111	41	84	14
Drumheller	603	342	118	231	7	341	118	230	7
Edmonton	012	8,365	5,949	2,487	71	8,359	5,941	2,485	67
Edson	024	210	107	115	12	206	105	113	12
Forest Lawn	607	35	35	35	35	35	35	35	35
Fort Saskatchewan	016	33	33	33	33	33	33	33	33
Grande Prairie	064	353	144	215	6	351	142	215	6
Hanna	504	147	54	98	5	147	54	98	5
High Prairie	054	327	62	270	5	324	61	268	5
High River	404	220	59	166	5	219	59	165	5
Innisfail	805	154	52	108	6	146	47	105	6
Jasper Place	015	1	186	185	185	185	185	185	185
Lacombe	806	299	89	221	11	298	88	221	11
Leduc	017	117	117	117	117	117	117	117	117
Lethbridge	203	1,272	716	573	17	1,270	713	572	15
Lloydminster	006	99	99	99	99	99	99	99	99
Macleod	208	75	50	38	13	69	47	35	13
Magrath	209	61	36	32	7	49	27	29	7
McLennan	055	195	37	163	5	194	37	162	5
Medicine Hat	103	720	421	311	12	717	417	311	11
Olds	604	207	74	141	8	205	74	139	8
Peace River	056	201	106	107	12	198	104	106	12
Pincher Creek	295	132	58	78	4	130	57	77	4
Ponoka	807	207	112	108	13	204	111	106	13
Raymond	294	115	90	43	18	104	83	39	18
Redcliff	304	29	29	29	29	29	29	29	29
Red Deer	803	454	274	197	17	451	272	196	17
Redwater	046	83	83	83	83	83	83	83	83
Rocky Mtn. House	904	106	63	56	13	97	59	51	13
St. Albert	018	47	47	47	47	47	47	47	47
St. Paul	034	266	79	193	6	266	79	193	6
Stettler	808	279	115	173	9	278	114	173	9
Taber	104	311	142	177	8	300	138	170	8
Three Hills	608	134	56	84	6	134	56	84	6
Vegreville	004	198	63	141	6	198	63	141	6
Vermilion	005	174	60	118	4	174	60	118	4
Vulcan	407	138	49	96	7	138	49	96	7
Wainwright	704	238	118	126	6	229	111	124	6
Westlock	047	309	61	253	5	306	59	252	5
Wetaskiwin	893	376	149	241	14	374	148	240	14

TABLE 23—LIVE BIRTHS BY MONTH IN ALBERTA, 1952

January	2,242
February	2,166
March	2,446
April	2,474
May	2,525
June	2,521
July	2,651
August	2,535
September	2,481
October	2,388
November	2,230
December	2,446
TOTAL	29,105

TABLE 24—LIVE BIRTHS FOR CENSUS DIVISIONS BY TYPE OF ATTENDANCE,
ALBERTA, 1952

CENSUS DIVISIONS	Code	TOTAL	ATTENDED BY			
			Physician	Nurse	Midwife	Unattended and not stated
ALBERTA		29,105	28,404	177	122	402
Division No. 1.....	100	1,057	1,031	8	16	2
Division No. 2.....	200	2,226	2,134	26	50	16
Division No. 3.....	300	510	508	.....	.....	2
Division No. 4.....	400	848	836	1	2	9
Division No. 5.....	500	402	399	.....	.....	3
Division No. 6.....	600	5,865	5,822	12	11	20
Division No. 7.....	700	901	898	1	2	.....
Division No. 8.....	800	2,237	2,164	43	7	23
Division No. 9.....	900	731	717	3	2	9
Division No. 10.....	000	1,200	1,192	1	.....	7
Division No. 11.....	010	7,953	7,907	10	2	34
Division No. 12.....	020	521	504	.....	2	15
Division No. 13.....	030	977	916	2	7	52
Division No. 14.....	040	1,363	1,328	13	1	21
Division No. 15.....	050	864	781	11	5	67
Division No. 16.....	060	1,079	1,049	14	1	15
Division No. 17.....	070	371	218	32	14	107

TABLE 25—LIVE BIRTHS IN INCORPORATED URBAN PLACES OF 1,000 POPULATION AND OVER BY TYPE OF ATTENDANCE, ALBERTA, 1952

CITY, TOWN OR VILLAGE	TOTAL	ATTENDED BY			
		Physician	Nurse	Midwife	Unattended and not stated
Athabasca.....	32	32	.....	.....	.....
Barrhead.....	62	62	.....	.....	.....
Beverly.....	68	68	.....	.....	.....
Black Diamond.....	31	30	.....	.....	1
Blairmore.....	61	61	.....	.....	.....
Bonnyville.....	43	43	.....	.....	.....
Bowness.....	109	109	.....	.....	.....
Brooks.....	81	81	.....	.....	.....
Calgary.....	4,059	4,056	.....	1	2
Camrose.....	160	156	.....	3	1
Cardston.....	106	106	.....	.....	.....
Clareholm.....	73	73	.....	.....	.....
Coleman.....	97	97	.....	.....	.....
Didsbury.....	42	42	.....	.....	.....
Drumheller.....	118	118	.....	.....	.....
Edmonton.....	5,949	5,943	4	.....	2
Edson.....	107	105	.....	.....	2
Forest Lawn.....	35	35	.....	.....	.....
Fort Saskatchewan.....	33	33	.....	.....	.....
Grande Prairie.....	144	143	.....	.....	1
Hanna.....	54	54	.....	.....	.....
High Prairie.....	62	62	.....	.....	.....
High River.....	59	59	.....	.....	.....
Innisfail.....	52	52	.....	.....	.....
Jasper Place.....	186	186	.....	.....	.....
Lacombe.....	89	88	.....	.....	1
Leduc.....	117	117	.....	.....	.....
Lethbridge.....	716	716	.....	.....	.....
Lloydminster.....	99	99	.....	.....	.....
Macleod.....	50	50	.....	.....	.....
Magrath.....	36	35	.....	1	.....
McLennan.....	37	37	.....	.....	.....
Medicine Hat.....	421	419	1	.....	1
Olds.....	74	74	.....	.....	.....
Peace River.....	106	106	.....	.....	.....
Pincher Creek.....	58	57	.....	.....	1
Ponoka.....	112	112	.....	.....	.....
Raymond.....	90	89	.....	1	.....
Redcliff.....	29	29	.....	.....	.....
Red Deer.....	274	274	.....	.....	.....
Redwater.....	83	83	.....	.....	.....
Rocky Mtn. House.....	63	63	.....	.....	.....
St. Albert.....	47	47	.....	.....	.....
St. Paul.....	79	79	.....	.....	.....
Stettler.....	115	115	.....	.....	.....
Taber.....	142	142	.....	.....	.....
Three Hills.....	56	56	.....	.....	.....
Vegreville.....	63	63	.....	.....	.....
Vermillion.....	60	60	.....	.....	.....
Vulcan.....	49	49	.....	.....	.....
Wainwright.....	118	118	.....	.....	.....
Westlock.....	61	61	.....	.....	.....
Wetaskiwin.....	149	149	.....	.....	.....

TABLE 26—LIVE BIRTHS BY AGE OF PARENTS, ALBERTA, 1952

AGE OF MOTHER (Years)	AGE OF FATHER (Years)											Total born to married mothers	Born to unmarried mothers	Born to all mothers	
	Under 20	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65 and over				
12														1	1
13														9	9
14														11	15
15		1	2	1		1							4	37	86
16	10	32	5	1		1							49	93	322
17	22	148	48	9	1	1							229	115	603
18	39	279	138	25	5	2							488	145	1,148
19	30	575	309	71	12	3	2	1					1,003	137	1,421
20	11	655	453	123	29	9	3		1			2	1,284	113	1,724
21	6	721	616	207	48	7	3		1			1	1,611	107	1,887
22	4	666	788	245	56	16	3	1	1			1	1,780	89	1,947
23	6	458	932	338	90	20	9	2	1	1		2	1,858	57	1,862
24		335	897	433	108	18	11			1		1	1,805	49	1,834
25	1	176	896	489	165	42	14		1			1	1,785	45	1,823
26		96	872	568	169	48	19	3	2		1		1,778	47	1,753
27		40	693	641	234	74	16	6	1			1	1,706	35	1,651
28		34	499	683	273	88	23	13	1	1		1	1,616	33	1,567
29		22	360	709	297	98	32	9	4	1		2	1,534	24	1,429
30		15	188	693	333	129	30	11	6				1,405	24	1,249
31		2	150	533	343	128	46	17	3	1	1	1	1,225	27	1,239
32		6	84	455	403	183	54	18	4	2	3		1,212	24	953
33		1	46	315	350	149	48	13	4	3			929	18	851
34		1	25	211	352	151	66	23	2	2			833	16	727
35		1	9	124	302	182	64	18	7	2	2		711	15	637
36			12	75	249	181	79	17	4	3	2		622	13	622
37			7	50	236	184	96	26	8	1	1		609	5	475
38			2	25	135	184	85	30	8	1			470	3	361
39		2		15	95	144	70	20	5	6	1		358	5	317
40			3	11	44	141	69	33	2	4	5		312	6	209
41		1	1	2	21	80	54	29	11	2	1	1	203	5	155
42				1	10	51	48	27	9	3	1		150		107
43			1	1	8	33	42	16	4	1	1		107	1	53
44				2		8	22	15	4	1			52		25
45						4	13	5	2		1		25		18
46						3	9	5	1				18		10
47						1	3	4	2				10		6
48							1	2	3				6		4
49							1	2	1				4		
50 and over															
Not stated		1	2	1									4	1	5
Total fathers	129	4,268	8,038	7,057	4,368	2,363	1,035	366	102	36	20	13	27,795	1,310	29,105

TABLE 27—LIVE BIRTHS BY AGE OF MOTHER AND BIRTH ORDER, ALBERTA, 1952

AGE OF MOTHER	TOTAL	ORDER OF BIRTH OF CHILD																			
		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th	14th	15th	16th	17th	18th	19th	Not stated
12	1	1																			
13																					
14	9	9																			
15	15	15																			
16	86	85	1																		
17	322	287	32	3																	
18	603	488	107	5	3																
19	1,148	837	272	33	4		2														
20	1,421	911	403	96	10		1														
21	1,724	984	525	166	42	3	3		1												
22	1,887	888	658	248	82	10	1														
23	1,947	771	693	305	123	41	12	1			1										
24	1,862	632	655	379	118	66	8	1	2	1											
25	1,834	551	628	400	174	54	18	5		2	1										1
26	1,823	454	632	413	187	90	35	9	3												
27	1,753	352	533	464	217	111	50	19	5		1		1								
28	1,651	296	472	414	253	108	67	27	12	1		1									
29	1,567	232	433	417	247	117	77	25	14	4		1									
30	1,429	193	404	354	241	99	62	35	22	11	7	1									
31	1,249	127	299	340	230	108	70	32	23	12	5	3									
32	1,239	132	273	334	212	119	71	35	33	13	11	4	2								
33	953	84	193	237	172	101	72	41	24	20	6	3									
34	851	61	162	200	165	102	59	36	31	21	7	2	2	2	1						
35	727	63	114	162	135	92	56	31	24	24	17	4	2			2	1				
36	637	54	96	134	114	75	68	29	23	16	11	7	6	2	2						
37	622	45	93	132	110	87	45	35	23	12	7	18	9	5	1						
38	475	34	63	77	83	57	52	36	13	17	12	14	9	5	3						
39	361	24	45	57	51	50	34	27	22	12	12	10	7	1	4	1	1			3	
40	317	12	51	35	54	51	31	18	17	12	12	9	8	1	3	2				1	
41	209	9	17	24	29	23	18	20	6	10	12	14	10	7	4	3	2	1			
42	155	9	12	20	13	14	15	17	12	10	7	7	8	7	4						
43	107	4	8	7	17	6	15	8	11	7	5	3	5	3	2	3	2	1			
44	53	2	3	2	6	6	4	5	2	4	2	2	4	4	4	2			1		
45	25	1	1	2	2	3	1	2	4	2	2	1	1	3							
46	18				3	3	2		1	4	1		2	1			1				
47	10	1		2		2		1		1		2							1		
48	6						1	2	1				1	1							
49	4											1	1	1		1					
50 and over																					
Not stated	5	2	2	1																	
TOTAL	29,165	8,650	7,880	5,463	3,097	1,598	950	497	329	216	139	107	78	43	28	14	7	2	2	4	1

TABLE 28—MULTIPLE BIRTHS BY AGE OF MOTHER, ALBERTA, 1952

AGE OF MOTHER (Years)	Total Children Born	SINGLE		SETS OF TWINS			SETS OF TRIPLETS			
		Liveborn	Stillborn	Both Liveborn	Both Stillborn	1 Liveborn, 1 Stillborn	3 Liveborn	3 Stillborn	2 Liveborn, 1 Stillborn	1 Liveborn, 2 Stillborn
TOTAL	29,504	28,482	373	300	6	14	3			
12	1	1								
13										
14	10	9	1							
15	15	15								
16	87	86	1							
17	325	318	3	2						
18	612	597	9	3						
19	1,160	1,132	12	8						
20	1,435	1,410	11	5	1	1				
21	1,740	1,706	16	9						
22	1,909	1,854	21	16		1				
23	1,971	1,913	23	15		1	1			
24	1,891	1,817	28	22		1				
25	1,848	1,803	13	15		1				
26	1,843	1,797	20	13						
27	1,767	1,715	14	19						
28	1,674	1,606	22	22		1				
29	1,595	1,533	26	17	1					
30	1,451	1,394	20	16	1		1			
31	1,264	1,215	14	15		1	1			
32	1,256	1,192	14	23	1	1				
33	973	918	17	17	1	1				
34	862	824	10	13		1				
35	738	700	10	13		1				
36	652	615	15	11						
37	636	609	13	6		1				
38	483	468	5	3	1	1				
39	364	347	3	7						
40	324	307	7	5						
41	221	206	11	1		1				
42	161	155	6							
43	109	101	2	3						
44	54	51	1	1						
45	26	25	1							
46	19	18	1							
47	13	10	3							
48	6	6								
49	4	4								
50 and over										
Not stated	5	5								

TABLE 29—MARRIAGES BY MONTH OF MARRIAGE IN ALBERTA, 1952

January	402
February	535
March	393
April	675
May	693
June	1,244
July	996
August	1,090
September	731
October	975
November	1,072
December	708
TOTAL	9,514

TABLE 31—MARRIAGES, MARITAL STATUS OF BRIDEGROOM BY STATUS OF BRIDE IN ALBERTA, 1952

TOTAL MARRIAGES	MARRIAGES BETWEEN								
	Bachelors and			Widowers and			Divorced Men and		
	Spinsters	Widows	Divorced Women	Spinsters	Widows	Divorced Women	Spinsters	Widows	Divorced Women
9,514	8,111	213	312	144	248	48	256	55	127

TABLE 32—MARRIAGES, MARITAL STATUS BY AGE OF BRIDEGROOMS IN ALBERTA, 1952

AGES	TOTAL	Bachelors	Widowers	Divorced Men
TOTAL	9,514	8,636	440	438
Under 20 years	368	368	.....	.....
20-24 years	4,183	4,172	2	9
25-29 years	2,578	2,498	14	66
30-34 years	1,014	895	29	90
35-39 years	454	321	33	100
40-44 years	295	182	45	68
45-49 years	191	94	50	47
50-54 years	145	60	61	24
55-59 years	92	17	53	22
60-64 years	78	16	53	9
65-69 years	48	7	38	3
70-74 years	44	2	42	.....
75+ years	24	4	20	.....
Not stated .....	.....	.....	.....	.....

TABLE 32a—MARRIAGES, MARITAL STATUS BY AGE OF BRIDE IN ALBERTA, 1952

AGES	TOTAL	Spinsters	Widows	Divorced Women
TOTAL	9,514	8,511	516	487
Under 20 years	2,651	2,649	2	.....
20-24 years	4,061	3,997	12	52
25-29 years	1,388	1,231	39	118
30-34 years	540	364	52	124
35-39 years	325	147	74	104
40-44 years	193	67	77	49
45-49 years	121	34	69	18
50-54 years	73	12	47	14
55-59 years	66	5	57	4
60-64 years	39	.....	36	3
65-69 years	30	3	26	1
70-74 years	19	.....	19	.....
75+ years	6	.....	6	.....
Not stated	2	2	.....	.....

Moravian Church	13	12	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1</
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TABLE 35—STILLBIRTHS BY SEX AND PERIOD OF GESTATION IN ALBERTA, 1952

PERIOD OF GESTATION	Male	Female
24 weeks	1	...
26 weeks .....	...	...
28 weeks	13	7
29 weeks	6	5
30 weeks	14	25
31 weeks	4	...
32 weeks	21	14
33 weeks	2	5
34 weeks	12	4
35 weeks	9	14
36 weeks	25	24
37 weeks	7	9
38 weeks	13	18
39 weeks	8	9
40 weeks	50	53
41 weeks	3	4
42 weeks	3	8
43 weeks	1	1
44 weeks .....	...	1
46 weeks .....	...	...
48 weeks	1	...
49 weeks .....	...	...
50 weeks .....	...	...
Not stated	3	2
TOTAL	196	203

TABLE 36—DIVORCES AND NULLITIES BY JUDICIAL DISTRICTS
FOR THE YEAR 1952, ALBERTA

Judicial Districts	Divorces			Nullities		
	Number of Divorces	Granted to Husband	Granted to Wife	Number of Nullities	Granted to Husband	Granted to Wife
Edmonton	323	116	207	2	.....	2
Calgary	246	97	149	4	1	3
Lethbridge	20	6	14	.....	.....	.....
Medicine Hat	11	8	3	.....	.....	.....
Peace River	9	2	7	.....	.....	.....
Grande Prairie .....	.....	.....	.....	.....	.....	.....
Hanna .....	.....	.....	.....	.....	.....	.....
Red Deer	8	1	7	.....	.....	.....
Drumheller	5	3	2	.....	.....	.....
Fort Macleod	2	1	1	.....	.....	.....
Wetaskiwin	6	5	1	.....	.....	.....
Total	630	239	391	6	1	5

DIVORCES IN ALBERTA SINCE THE PASSING OF THE ACT

Year	Granted to Husband	Granted to Wife	Total
1919	3	3	6
1920	74	26	100
1921	53	37	90
1922	80	49	129
1923	57	32	89
1924	66	53	119
1925	59	42	101
1926	79	75	154
1927	83	66	149
1928	91	84	175
1929	77	71	148
1930	64	87	151
1931	69	87	156
1932	68	81	149
1933	56	79	135
1934	62	106	168
1935	74	135	209
1936	74	135	209
1937	102	139	241
1938	105	162	267
1939	104	163	267
1940	119	154	273
1941	135	176	311
1942	179	201	380
1943	190	223	413
1944	245	243	488
1945	302	273	575
1946	494	480	974
1947	404	478	882
1948	302	357	659
1949	262	332	594
1950	249	311	550
1951	255	334	589
1952	239	391	630

TABLE 37.—POPULATION, BIRTHS, MARRIAGES, DEATHS, AND RATES FOR THE YEARS 1905-1952

Year	Population	Number of Births	Rate Birth	No. of Births Received to Date	Number of Marriages	Marriage Rate	Number of Deaths	Death Rate	Infantile Death Rate per 1,000 Births	Puerperal Death Rate per 1,000 Births	Rate of Natural Increase
1905	185,000	421	20.41	4,032	187	6.77	114	7.36	90.00	.....	13.04
1906	190,000	3,003	20.41	4,702	927	8.08	1,091	6.68	100.27	6.33	13.36
1907	236,000	4,732	20.05	5,900	1,907	7.63	1,578	8.22	126.57	6.02	14.22
1908	266,000	5,973	22.45	7,495	2,032	7.92	2,188	8.81	.....	.....	14.07
1909	301,000	6,897	22.91	7,937	2,384	7.92	2,662	8.81	.....	.....	14.07
1910	336,000	8,321	24.49	9,443	3,086	9.18	3,526	10.49	129.49	8.63	14.00
1911	374,000	8,813	23.56	10,732	3,630	9.70	3,618	9.67	134.46	9.75	13.88
1912	400,000	10,284	25.71	12,565	4,429	11.07	4,232	10.58	124.75	8.26	15.13
1913	429,000	11,871	28.47	14,434	5,053	12.12	4,432	10.63	120.47	7.07	17.84
1914	459,000	13,685	30.75	16,155	4,623	10.39	4,417	9.32	100.54	6.13	21.43
1915	480,000	13,452	28.90	15,679	4,202	9.06	3,588	7.73	87.9	5.79	21.26
1916	496,000	13,331	27.87	15,557	4,230	8.53	4,058	8.18	90.5	7.20	18.69
1917	508,000	13,576	27.01	15,688	4,270	8.54	4,047	8.09	87.30	6.48	18.92
1918	522,000	14,890	28.72	16,769	4,048	6.98	7,924	13.86	107.10	5.51	11.86
1919	522,000	14,890	28.72	16,769	4,048	6.98	7,924	13.86	110.30	6.44	14.62
1920	565,000	16,565	26.72	18,451	5,110	8.24	5,675	9.15	93.70	8.38	17.57
1921	588,000	16,414	27.89	18,104	4,661	7.92	4,940	8.39	85.65	7.24	19.50
1922	592,000	16,163	26.44	17,325	4,272	6.99	5,281	8.62	91.93	6.68	17.83
1923	593,000	15,153	25.75	16,183	4,177	6.99	4,843	8.06	90.54	5.50	18.75
1924	597,000	14,598	24.74	15,569	4,160	7.50	4,907	8.30	82.40	6.18	16.42
1925	602,000	15,014	25.02	15,796	4,363	7.27	4,717	7.86	72.90	5.76	16.16
1926	608,000	14,455	23.79	15,408	4,498	7.40	5,156	8.49	81.63	5.82	15.31
1927	633,000	14,897	24.03	15,565	4,707	7.58	5,059	8.16	74.51	6.38	15.87
1928	658,000	15,692	24.79	17,446	5,776	9.12	5,699	9.00	76.50	6.75	15.79
1929	684,000	16,924	26.19	17,628	6,004	9.29	6,239	9.65	77.40	7.26	16.54
1930	708,000	17,649	26.74	18,423	5,334	8.08	5,396	8.33	63.57	6.46	18.41
1931	732,000	17,252	23.57	18,108	5,142	7.02	5,302	7.24	69.38	5.04	16.32
1932	740,000	16,990	22.96	17,788	5,054	6.83	5,521	7.46	58.68	3.76	15.50
1933	748,000	16,123	21.33	16,913	5,389	7.10	5,346	7.07	59.90	4.43	14.24
1934	756,000	16,236	21.10	17,002	6,053	7.87	5,337	6.93	54.89	4.99	14.01
1935	770,000	16,183	21.0	16,962	6,010	7.7	5,729	7.3	57.8	4.2	14.0
1936	772,782	15,786	20.4	16,423	6,020	7.8	6,147	8.0	60.0	5.8	12.5
1937	778,000	15,903	20.4	16,492	6,345	8.2	6,261	8.0	63.0	4.9	12.4
1938	783,000	15,891	20.3	16,582	6,973	8.9	5,871	7.5	51.0	4.3	12.8
1939	789,000	16,470	20.9	16,903	7,838	9.9	5,789	7.3	46.0	3.5	13.6
1940	790,000	17,359	21.8	17,725	8,782	11.8	6,203	7.8	48.0	3.9	14.1
1941	796,169	17,308	21.7	17,590	8,470	10.7	6,385	8.0	51.0	3.6	13.7
1942	805,000	18,317	22.7	16,559	9,034	11.2	6,091	7.5	38.0	2.3	15.2

1943	792,000	19,290	24.3	19,487	7,771	9.8	6,524	8.2	42.0	2.7	16.1
1944	818,000	19,373	23.7	19,486	7,299	8.9	6,320	7.7	46.0	1.6	16.0
1945	826,000	19,939	24.1	20,068	7,310	8.8	6,454	7.8	43.0	2.4	16.2
1946	803,330	22,184	27.6	23,283	9,478	11.8	6,601	8.2	42.5	1.4	19.3
1947	822,000	24,631	30.0	25,699	8,797	10.7	6,543	8.0	37.0	.9	22.0
1948	846,000	24,075	28.5	24,075	8,844	10.5	6,987	8.0	39.0	1.2	20.2
1949	871,000	24,935	28.7	24,951	9,037	10.4	7,083	8.2	33.0	1.0	20.5
1950	895,000	25,625	28.7	25,659	9,294	10.4	6,856	7.7	32.0	0.7	21.0
1951	939,501	27,003	28.7	27,027	9,305	9.9	7,167	7.6	33.0	0.6	21.1
1952	970,000	29,105	30.0	.....	9,514	9.8	7,345	7.6	30.0	0.5	22.4

TABLE 38—RATIO OF MALE TO FEMALE BIRTHS, AND OF BIRTHS TO DEATHS

Year	Births of Males to 1,000 Births of Females	Ratio of Births to Deaths	Year	Births of Males to 1,000 Births of Females	Ratio of Births to Deaths
1905	1,059	3.13	1928	1,064	2.75
1906	1,094	2.07	1929	1,042	2.71
1907	1,075	2.96	1930	1,027	3.21
1908	1,077	2.73	1931	1,075	3.25
1909	1,086	2.59	1932	1,052	3.08
1910	1,065	2.69	1933	1,053	3.01
1911	1,103	2.43	1934	1,032	3.04
1912	1,084	2.43	1935	1,055	2.81
1913	1,053	2.67	1936	1,049	2.57
1914	1,081	3.30	1937	1,019	2.38
1915	1,000	3.74	1938	1,046	2.70
1916	1,063	3.29	1939	1,046	2.85
1917	1,061	3.25	1940	1,033	2.79
1918	1,069	1.88	1941	1,054	2.71
1919	1,074	2.56	1942	1,058	3.02
1920	1,055	2.92	1943	1,041	2.96
1921	1,055	3.32	1944	1,060	3.06
1922	1,034	3.06	1945	1,061	3.08
1923	1,072	3.13	1946	1,036	3.36
1924	1,036	2.97	1947	1,061	3.76
1925	1,036	2.97	1948	1,049	3.44
1926	1,053	2.80	1949	1,051	3.52
1927	1,065	2.94	1950	1,052	3.74
1928	1,064	2.75	1951	1,039	3.76
			1952	1,058	3.95

