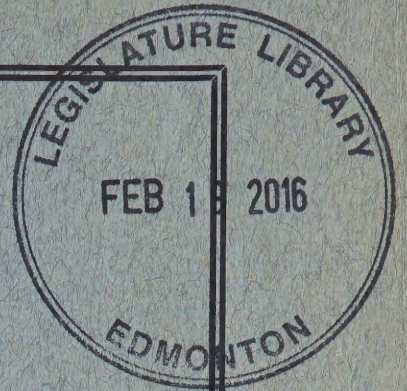


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ANNUAL REPORT  
OF THE  
**Department of Public Health**  
OF THE  
PROVINCE OF ALBERTA  
**1929**

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PUBLISHED BY ORDER OF THE LEGISLATIVE ASSEMBLY

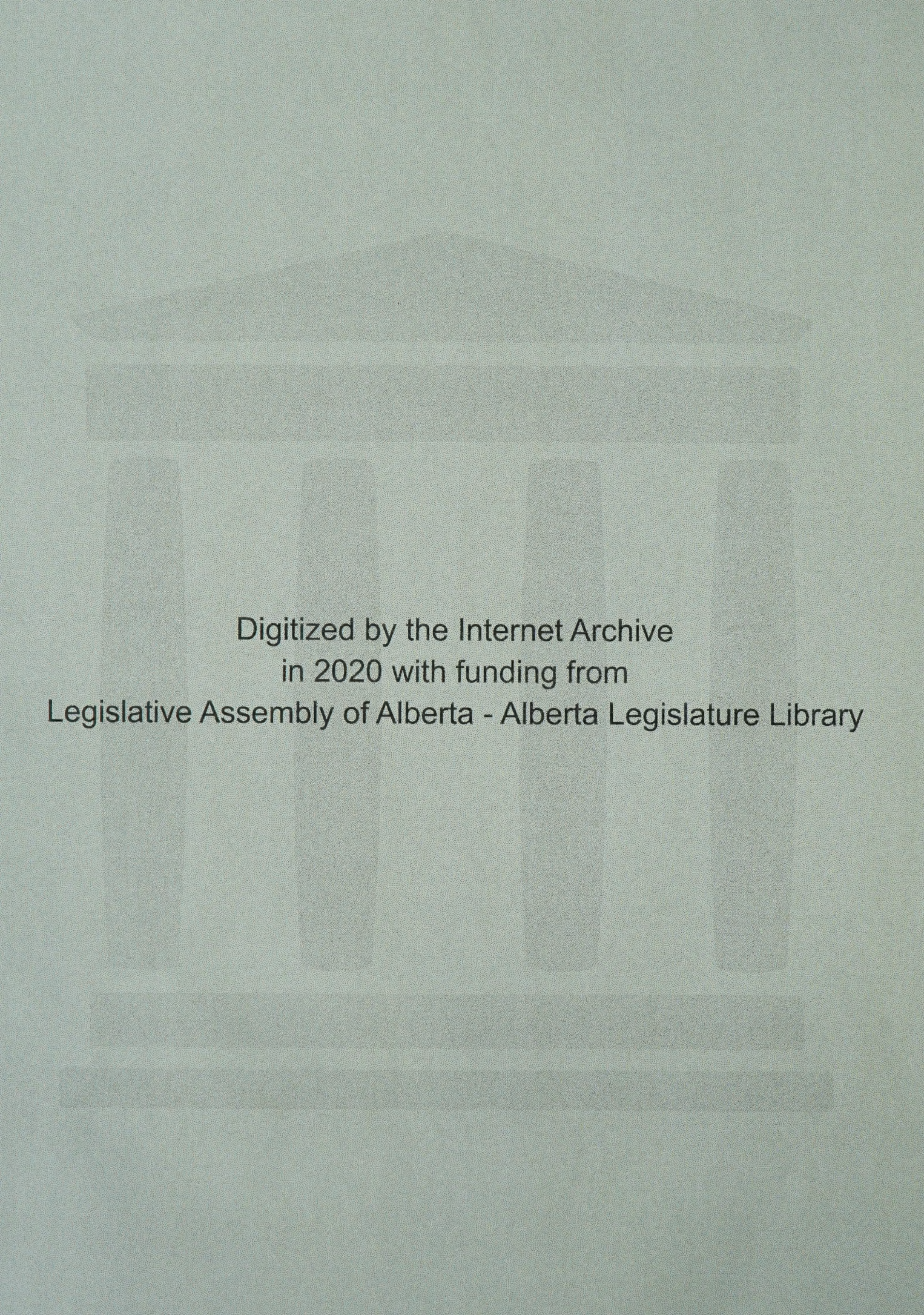
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EDMONTON:

Printed by W. D. McLean, King's Printer

1931





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Edmonton, December 8, 1930.

To His Honour

WILLIAM EGBERT,

*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 1929.

I have the honour to be, Sir,

Your obedient servant,

GEORGE HOADLEY,

*Minister of Health.*







Edmonton, December 8, 1930.

TO THE HONOURABLE GEORGE HOADLEY,  
*Minister of Health,*  
Parliament Buildings, Edmonton, Alberta.

SIR:—

I have the honour to submit the Eleventh Annual Report of the Department of Public Health.

The Department is divided into the following Branches:

1. Communicable Diseases.
  - (a) Public Health Educational Division.
2. Hospital Inspection and Coroner's Supervision of Operations.
3. Laboratory.
4. Nursing.
5. Hospitals, Charity and Relief.
6. Social Hygiene.
7. Sanitary Engineering and Sanitation.
8. Provincial Dentist.
9. Institutions: Central Alberta Sanatorium.  
Provincial Mental Hospital.  
Provincial Mental Institute.  
Provincial Training School.  
Provincial Special Hospital.

I have the honour to be, Sir,

Your obedient servant,

M. R. Bow,  
*Deputy Minister.*







# Communicable Diseases Branch

(A. C. McGUGAN, M.D., *Provincial Medical Officer.*)

The following is a table showing the number of cases of communicable diseases which have been reported in the Province in 1928 and 1929:

| Disease.                        | 1928. | 1929. |
|---------------------------------|-------|-------|
| Anterior Poliomyelitis .....    | 92    | 29    |
| Cerebro-spinal Meningitis ..... | 54    | 49    |
| Chickenpox .....                | 1522  | 2482  |
| Diphtheria .....                | 485   | 568   |
| Encephalitis Lethargica .....   | 6     | 2     |
| Erysipelas .....                | 85    | 126   |
| German Measles .....            | 21    | 121   |
| Measles .....                   | 892   | 3857  |
| Mumps .....                     | 1277  | 2785  |
| Scarlet Fever .....             | 1397  | 1731  |
| Smallpox .....                  | 254   | 94    |
| Tuberculosis (Pulmonary) .....  | 168   | 215   |
| Typhoid Fever .....             | 122   | 114   |
| Paratyphoid Fever .....         | ..... | 37    |
| Whooping Cough .....            | 492   | 1214  |

## TOTAL DEATHS DUE TO COMMUNICABLE DISEASES IN THE PROVINCE OF ALBERTA DURING THE YEAR 1929

|                                     |     |                                |    |
|-------------------------------------|-----|--------------------------------|----|
| Pneumonia (all forms) .....         | 561 | Meningococcal Meningitis ..... | 42 |
| Influenza (sole cause) .....        | 64  | Typhoid Fever .....            | 26 |
| *Pulmonary Tuberculosis .....       | 321 | Erysipelas .....               | 31 |
| Tuberculosis (all other forms)..... | 70  | Scarlet Fever .....            | 45 |
| Diphtheria .....                    | 64  | Encephalitis Lethargica .....  | 13 |
| Whooping Cough .....                | 70  | Measles .....                  | 82 |
| Poliomyelitis .....                 | 8   | Mumps .....                    | 3  |
| Smallpox .....                      | —   |                                |    |

\*Deaths from Tuberculosis among Indians reported. Cases not reported.

## DEATHS DUE TO COMMUNICABLE DISEASES IN THE CITIES OF EDMONTON AND CALGARY DURING 1929

### CALGARY

|                                      |    |                                |   |
|--------------------------------------|----|--------------------------------|---|
| Pneumonia (all forms) .....          | 74 | Meningococcal Meningitis ..... | 8 |
| Influenza (sole cause) .....         | 4  | Typhoid Fever .....            | 1 |
| Pulmonary Tuberculosis .....         | 19 | Erysipelas .....               | 7 |
| Tuberculosis (all other forms) ..... | 5  | Scarlet Fever .....            | 6 |
| Diphtheria .....                     | 13 | Encephalitis Lethargica .....  | 1 |
| Whooping Cough .....                 | 2  | Measles .....                  | 7 |
| Poliomyelitis .....                  | —  | Smallpox .....                 | — |

### EDMONTON

|                                      |    |                                |    |
|--------------------------------------|----|--------------------------------|----|
| Pneumonia (all forms) .....          | 77 | Meningococcal Meningitis ..... | 8  |
| Influenza (sole cause) .....         | 3  | Typhoid Fever .....            | 1  |
| Pulmonary Tuberculosis .....         | 49 | Erysipelas .....               | 8  |
| Tuberculosis (all other forms) ..... | 21 | Scarlet Fever .....            | 4  |
| Diphtheria .....                     | 4  | Encephalitis Lethargica .....  | 4  |
| Whooping Cough .....                 | 8  | Measles .....                  | 14 |
| Poliomyelitis .....                  | 2  | Smallpox .....                 | —  |

## DEATHS DUE TO COMMUNICABLE DISEASES IN THE SMALLER CITIES, TOWNS, VILLAGES AND RURAL DISTRICTS DURING THE YEAR 1929

|                                      |     |                                |    |
|--------------------------------------|-----|--------------------------------|----|
| Pneumonia (all forms) .....          | 410 | Meningococcal Meningitis ..... | 26 |
| Influenza .....                      | 57  | Typhoid Fever .....            | 24 |
| Pulmonary Tuberculosis .....         | 253 | Erysipelas .....               | 16 |
| Tuberculosis (all other forms) ..... | 44  | Scarlet Fever .....            | 35 |
| Diphtheria .....                     | 47  | Encephalitis Lethargica .....  | 8  |
| Whooping Cough .....                 | 60  | Measles .....                  | 61 |
| Poliomyelitis .....                  | 6   | Smallpox .....                 | —  |

### TYPHOID FEVER.

114 cases—26 deaths.

The average death rate in Typhoid Fever is about ten per cent. of the total cases. Either the above reported cases were unusually



severe or there has been laxity in the matter of reporting Typhoid Fever cases.

Several small outbreaks occurred in camps and institutions. The advisability of inoculating against Typhoid Fever, especially in camps and in any locality where the existence of a carrier is suspected, cannot be stressed too strongly.

Public attention is directed especially to Section 42 of the Public Health Regulations (1930).

#### SCARLET FEVER.

1731 cases—45 deaths.

The history of Scarlet Fever in the Province is much the same as in previous years. A proportion of the mild cases has escaped recognition and the infection has spread as a result.

#### SMALLPOX.

94 cases—0 deaths.

One outbreak was responsible for over fifty per cent. of the above cases. Failure to detect the nature of the disease in the first cases was responsible for the spread.

#### DIPHTHERIA.

578 cases—64 deaths.

Some municipalities have eliminated Diphtheria entirely by the use of Diphtheria Toxoid. The Department will not be satisfied until every susceptible individual in the Province has been immunized against the disease.

#### CEREBRO-SPINAL MENINGITIS.

49 cases—42 deaths.

While the cases here reported are the Meningococcic type, some of the deaths were probably due to Meningitis caused by organisms other than the Meningococcus.

#### PULMONARY TUBERCULOSIS.

215 cases—\*321 deaths.

The reporting of Tuberculosis and the necessary attention to known cases is still far from satisfactory. Better control of the disease cannot be expected until the known cases are fully reported and patients and contacts are promptly controlled and instructed.

\*Deaths from Tuberculosis among Indians reported. Cases not reported.

#### POLIOMYELITIS.

29 cases—8 deaths.

The incidence of both cases and deaths shows a decided improvement over the 1928 record of 98 cases and 35 deaths. During the severe outbreak in 1927 a large proportion of the population was



exposed to the disease and probably developed an immunity to the disease.

## MEASLES.

3857 cases—77 deaths.

## WHOOPIING COUGH

1214 cases—70 deaths.

The above so-called "minor" diseases of children have been responsible for more deaths than Scarlet Fever and Diphtheria combined. Unfortunately the attitude "children might as well have them and get through with them" still prevails in some circles when measles and whooping cough are discussed. Strict isolation technique should be observed.

Mr. Zalizniak, Health Inspector, visited 174 districts, vaccinated 2,129 individuals, immunized 1,024, made 49 special investigations and delivered a number of lectures on public health subjects.

VACCINES AND SERUMS DISTRIBUTED BY THE PROVINCIAL LABORATORY  
DURING THE YEAR 1929

|                                |                  |        |
|--------------------------------|------------------|--------|
| Smallpox Vaccine .....         |                  | 24,460 |
| Diphtheria Antitoxin .....     | 1,000 units      | 2,647  |
|                                | 2,000 "          | 616    |
|                                | 5,000 "          | 700    |
|                                | 10,000 "         | 1,378  |
| Diphtheria Toxoid .....        | 12 persons       | 889    |
|                                | 6 "              | 755    |
|                                | 1 "              | 1,215  |
| Schick Test .....              | 1-25 persons     | 78     |
| Scarlet Fever Antitoxin .....  | 15 c.c. syringe  | 287    |
|                                | 15 c.c. vial     | 401    |
|                                | 2 c.c. syringe   | 2,603  |
| Scarlet Fever Toxin .....      | 6 persons        | 445    |
|                                | 1 toxin          | 700    |
| Dick Test .....                | 1-10 persons     | 57     |
| Tetanus .....                  | 1,500 units      | 35     |
| Anti-Meningitis .....          | 20 c.c. vial     | 189    |
| Pertussis P.D. & Co. ....      | 5 c.c. Bio. 201  | 6      |
|                                | 20 c.c. Bio. 202 | 22     |
| Other Serums .....             | 25 c.c.          | 120    |
| Typhoid Vaccine .....          | 25 c.c.          | 168    |
|                                | 50 c.c.          | 53     |
| B.C.G. ....                    | 10 c.c.          | 103    |
| Polio Convalescent Serum ..... | 10 c.c.          | 28     |



WHOOPIING COUGH

|                          | Sex |     | MONTHS |      |      |      |     |      |      |      |       |      |      |      | AGES |     |      |       |       |       | TOTAL |       |            |
|--------------------------|-----|-----|--------|------|------|------|-----|------|------|------|-------|------|------|------|------|-----|------|-------|-------|-------|-------|-------|------------|
|                          | M.  | F.  | Jan.   | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | 0-1  | 1-4 | 5-14 | 15-24 | 25-44 | 45-59 |       | 60-69 | Not stated |
|                          |     |     |        |      |      |      |     |      |      |      |       |      |      |      |      |     |      |       |       |       |       |       |            |
| Cities:                  |     |     |        |      |      |      |     |      |      |      |       |      |      |      |      |     |      |       |       |       |       |       |            |
| Drumheller .....         | 1   |     |        |      |      |      |     |      |      | 1    |       |      |      |      |      |     |      |       |       |       |       |       |            |
| Medicine Hat .....       | 6   | 4   |        |      |      |      | 1   |      |      | 5    | 1     |      | 3    |      |      |     | 6    |       |       |       |       |       |            |
| Towns and Villages ..... | 39  | 32  |        |      | 4    |      | 6   | 1    | 16   | 2    | 16    | 19   | 4    | 8    | 15   | 22  | 34   |       |       |       |       |       |            |
| Rural Districts .....    | 125 | 118 | 1      | 17   | 4    | 12   | 17  | 18   | 10   | 13   | 46    | 50   | 53   | 2    | 26   | 47  | 147  | 10    |       |       |       | 10    |            |
| Totals .....             | 170 | 155 | 1      | 17   | 8    | 13   | 23  | 19   | 26   | 21   | 62    | 70   | 60   | 5    | 46   | 72  | 187  | 10    |       |       |       | 10    |            |

TUBERCULOSIS

|                          |     |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |    |    |    |    |   |    |
|--------------------------|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|--|----|----|----|----|---|----|
| Cities:                  |     |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |    |    |    |    |   |    |
| Calgary .....            | 25  | 18 | 4  | 3  | 8  | 8  |    |    | 2  | 4  | 5  | 3  | 3  | 4  |  |  | 14 | 13 | 7  |    |   | 5  |
| Edmonton .....           | 39  | 26 | 1  | 2  | 9  | 4  | 7  | 7  | 14 | 6  | 8  | 3  | 2  | 2  |  |  | 3  | 21 | 30 | 5  | 2 | 4  |
| Lethbridge .....         | 7   | 3  | 4  |    | 1  | 1  | 1  |    | 1  | 1  |    |    |    | 1  |  |  | 1  | 4  | 3  |    |   | 2  |
| Medicine Hat .....       | 1   | 3  |    | 1  |    |    |    |    |    |    |    |    |    |    |  |  |    | 1  | 1  |    |   | 1  |
| Wetaskiwin .....         |     | 1  |    |    |    |    |    |    |    |    |    |    |    |    |  |  |    |    |    |    |   |    |
| Towns and Villages ..... | 18  | 17 | 1  | 2  | 4  | 1  | 5  | 5  | 4  | 3  |    | 4  | 4  | 2  |  |  | 5  | 13 | 10 | 3  | 2 | 1  |
| Rural Districts .....    | 26  | 31 | 1  | 3  | 6  | 8  | 5  | 8  | 6  | 4  | 8  | 5  | 2  | 1  |  |  | 14 | 5  | 22 | 6  | 2 | 6  |
| Totals .....             | 116 | 99 | 11 | 11 | 23 | 22 | 19 | 23 | 30 | 20 | 19 | 15 | 12 | 10 |  |  | 37 | 57 | 74 | 15 | 5 | 20 |

DIPHTHERIA

|                          |     |     |    |    |    |    |    |    |    |    |    |    |    |    |   |  |    |     |     |    |    |   |
|--------------------------|-----|-----|----|----|----|----|----|----|----|----|----|----|----|----|---|--|----|-----|-----|----|----|---|
| Cities:                  |     |     |    |    |    |    |    |    |    |    |    |    |    |    |   |  |    |     |     |    |    |   |
| Calgary .....            | 113 | 135 | 22 | 18 | 28 | 17 | 31 | 22 | 25 | 15 | 24 | 19 | 17 | 10 | 4 |  | 42 | 131 | 35  | 29 | 6  | 1 |
| Edmonton .....           | 15  | 23  | 6  | 1  | 3  | 2  | 1  | 4  | 7  | 2  | 4  | 3  | 3  | 2  |   |  | 8  | 15  | 9   | 5  | 1  |   |
| Lethbridge .....         | 4   | 3   | 2  |    |    |    |    |    |    |    |    |    | 5  |    |   |  | 1  | 1   | 2   |    |    | 1 |
| Medicine Hat .....       | 6   | 21  | 3  | 3  | 1  | 3  | 1  | 1  | 3  |    | 1  | 9  | 1  | 1  |   |  | 3  | 9   | 9   | 4  | 2  |   |
| Red Deer .....           | 6   | 9   |    | 1  | 5  | 5  | 3  | 3  |    |    |    | 1  | 1  |    |   |  | 3  | 5   | 5   | 2  |    | 3 |
| Towns and Villages ..... | 26  | 43  | 7  | 8  | 1  | 3  | 10 | 9  | 2  | 6  | 11 | 2  | 9  | 1  |   |  | 11 | 32  | 16  | 6  |    | 4 |
| Rural Districts .....    | 96  | 22  | 2  | 1  | 2  |    |    | 12 | 11 | 4  | 2  | 3  |    | 6  |   |  | 3  | 27  | 7   | 6  | 3  | 2 |
| Totals .....             | 266 | 302 | 47 | 39 | 39 | 45 | 71 | 59 | 50 | 42 | 56 | 40 | 52 | 38 | 5 |  | 84 | 269 | 106 | 62 | 14 | 2 |

1929





TYPHOID FEVER

| 1929                     | Sex |    | MONTHS |      |      |      |     |      |      |      |       |      |      |      | AGES |     |      |       |       |       | TOTAL |       |            |     |
|--------------------------|-----|----|--------|------|------|------|-----|------|------|------|-------|------|------|------|------|-----|------|-------|-------|-------|-------|-------|------------|-----|
|                          | M.  | F. | Jan.   | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | 0-1  | 1-4 | 5-14 | 15-24 | 25-44 | 45-59 |       | 60-69 | Not stated |     |
|                          |     |    |        |      |      |      |     |      |      |      |       |      |      |      |      |     |      |       |       |       |       |       |            |     |
| Cities:                  |     |    |        |      |      |      |     |      |      |      |       |      |      |      |      |     |      |       |       |       |       |       |            |     |
| Calgary .....            | 9   | 3  |        |      |      |      |     | 1    | 3    |      |       | 5    | 2    |      |      |     | 6    | 2     | 1     | 1     |       |       |            | 1   |
| Drumheller .....         | 1   | 1  |        |      |      |      |     |      |      |      | 2     | 1    |      |      |      |     |      | 2     | 1     | 1     |       |       |            |     |
| Edmonton .....           | 6   | 9  | 1      | 1    |      | 1    | 3   |      |      | 1    | 3     | 2    | 2    | 2    |      |     | 3    | 7     | 4     | 1     |       |       |            |     |
| Lethbridge .....         | 1   | 1  |        |      |      |      |     |      |      |      |       |      |      |      |      |     | 1    | 1     | 1     |       |       |       |            |     |
| Medicine Hat .....       | 17  | 15 | 7      | 7    | 11   | 2    | 1   | 4    |      |      | 3     | 5    | 1    | 2    |      |     | 11   | 10    | 10    | 1     |       |       |            |     |
| Towns and Villages ..... | 36  | 13 | 1      | 9    |      | 4    | 4   | 4    | 10   |      | 3     | 9    | 3    | 6    |      |     | 10   | 13    | 22    | 2     |       |       |            |     |
| Rural Districts .....    |     |    |        |      |      |      |     |      |      |      |       |      |      |      |      |     |      |       |       |       |       |       |            |     |
| Totals .....             | 70  | 44 | 2      | 17   | 11   | 7    | 9   | 11   | 3    | 7    | 25    | 10   | 10   | 2    | 4    | 31  | 34   | 39    | 5     |       |       |       | 1          | 114 |

MEASLES

| 1929                     | Sex  |      | MONTHS |      |      |      |     |      |      |      |       |      |      |      | AGES |     |      |       |       |       | TOTAL |       |            |    |
|--------------------------|------|------|--------|------|------|------|-----|------|------|------|-------|------|------|------|------|-----|------|-------|-------|-------|-------|-------|------------|----|
|                          | M.   | F.   | Jan.   | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | 0-1  | 1-4 | 5-14 | 15-24 | 25-44 | 45-59 |       | 60-69 | Not stated |    |
|                          |      |      |        |      |      |      |     |      |      |      |       |      |      |      |      |     |      |       |       |       |       |       |            |    |
| Cities:                  |      |      |        |      |      |      |     |      |      |      |       |      |      |      |      |     |      |       |       |       |       |       |            |    |
| Drumheller .....         | 2    | 3    |        | 2    | 2    | 1    |     |      |      |      |       |      |      |      |      |     |      |       |       |       |       |       |            |    |
| Lethbridge .....         | 18   | 14   | 1      | 3    |      | 1    | 2   | 17   | 3    |      | 1     | 1    |      |      |      |     | 5    | 2     |       |       |       |       |            | 5  |
| Medicine Hat .....       | 1    | 3    | 1      |      |      | 2    | 1   |      |      |      |       |      |      |      |      |     | 1    | 2     | 1     |       |       |       |            | 32 |
| Red Deer .....           | 2    | 2    |        |      |      | 2    |     |      |      |      |       |      |      |      |      |     | 1    |       |       |       |       |       |            | 4  |
| Wetaskiwin .....         | 20   | 16   | 24     | 8    |      | 3    | 1   |      |      |      |       |      |      |      |      |     | 4    | 3     |       |       |       |       |            | 2  |
| Towns and Villages ..... | 344  | 381  | 208    | 172  | 72   | 108  | 113 | 30   | 8    | 5    | 3     | 1    | 1    | 4    | 11   | 147 | 473  | 69    | 23    | 2     |       |       | 36         |    |
| Rural Districts .....    | 714  | 680  | 271    | 122  | 176  | 263  | 232 | 199  | 70   | 23   | 11    | 1    | 12   | 14   | 28   | 222 | 835  | 196   | 42    | 4     | 2     | 65    | 725        |    |
| Totals .....             | 1099 | 1099 | 505    | 307  | 250  | 380  | 349 | 246  | 81   | 31   | 15    | 3    | 13   | 18   | 40   | 380 | 1368 | 270   | 67    | 6     | 2     | 65    | 2198       |    |



GERMAN MEASLES

|                          |    |    |   |    |    |   |    |    |   |   |   |   |    |    |   |    |
|--------------------------|----|----|---|----|----|---|----|----|---|---|---|---|----|----|---|----|
| Cities:                  | 10 | 18 | 3 | 2  | 4  | 4 | 7  | 5  | 4 | 1 | 1 | 1 | 20 | 5  | 2 | 28 |
| Lethbridge .....         | 7  | 17 | — | 1  | 8  | 2 | 5  | 2  | 2 | — | — | — | 2  | 6  | 1 | 24 |
| Towns and Villages ..... | 23 | 21 | 2 | 33 | 1  | 1 | 2  | 3  | 2 | — | — | — | 23 | 13 | 4 | 44 |
| Rural Districts .....    |    |    |   |    |    |   |    |    |   |   |   |   |    |    |   |    |
| Totals .....             | 40 | 56 | 5 | 36 | 13 | 5 | 14 | 10 | 8 | 1 | 1 | 3 | 56 | 24 | 7 | 96 |

SCARLET FEVER

|                          |     |     |     |     |     |     |     |     |    |    |    |     |     |     |    |     |     |     |     |    |      |
|--------------------------|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|-----|-----|-----|----|-----|-----|-----|-----|----|------|
| Cities:                  | 222 | 289 | 91  | 48  | 57  | 67  | 37  | 32  | 22 | 12 | 17 | 84  | 41  | 53  | 1  | 66  | 288 | 93  | 56  | 7  | 511  |
| Calgary .....            | 155 | 204 | 41  | 22  | 33  | 31  | 51  | 55  | 16 | 18 | 14 | 23  | 33  | 22  | 1  | 39  | 188 | 97  | 31  | 3  | 359  |
| Edmonton .....           | 11  | 5   | 6   | 3   | —   | 1   | 1   | 2   | 2  | —  | 1  | 1   | —   | —   | —  | 1   | 8   | 3   | 4   | —  | 16   |
| Drumheller .....         | 77  | 72  | 6   | 3   | 4   | 9   | 6   | 2   | 1  | 1  | 15 | 27  | 32  | 43  | 2  | 23  | 101 | 14  | 9   | —  | 149  |
| Lethbridge .....         | 6   | 17  | 2   | 9   | 3   | 1   | 2   | 4   | 1  | —  | —  | —   | 1   | —   | —  | 5   | 6   | 9   | 3   | —  | 23   |
| Medicine Hat .....       | 1   | 1   | —   | —   | —   | —   | 1   | —   | —  | —  | —  | —   | —   | —   | —  | —   | —   | —   | —   | —  | 2    |
| Wetaskiwin .....         | 114 | 111 | 31  | 42  | 25  | 21  | 27  | 18  | 6  | 7  | 10 | 12  | 12  | 14  | 3  | 31  | 117 | 45  | 16  | —  | 2    |
| Towns and Villages ..... | 213 | 233 | 47  | 43  | 51  | 38  | 51  | 31  | 23 | 22 | 13 | 54  | 52  | 21  | 4  | 72  | 242 | 63  | 35  | 2  | 225  |
| Rural Districts .....    |     |     |     |     |     |     |     |     |    |    |    |     |     |     |    |     |     |     |     |    | 446  |
| Totals .....             | 799 | 932 | 224 | 170 | 173 | 168 | 176 | 144 | 71 | 60 | 70 | 150 | 171 | 154 | 11 | 237 | 951 | 325 | 154 | 12 | 1731 |

CEREBRO-SPINAL MENINGITIS

|                          |    |    |   |   |   |    |   |   |   |   |   |   |   |   |   |   |    |    |   |   |   |    |
|--------------------------|----|----|---|---|---|----|---|---|---|---|---|---|---|---|---|---|----|----|---|---|---|----|
| Cities:                  | 2  | —  | — | — | — | —  | — | — | — | — | — | — | — | — | — | — | —  | —  | — | — | — | 2  |
| Calgary .....            | 5  | 4  | 1 | 4 | 1 | 1  | 1 | — | — | — | 1 | 1 | — | — | — | — | —  | —  | — | — | — | 9  |
| Edmonton .....           | 1  | 1  | — | — | — | —  | — | — | — | — | — | — | 1 | — | — | — | —  | —  | — | — | — | 2  |
| Lethbridge .....         | 1  | —  | — | — | — | —  | — | — | — | — | — | — | — | — | — | — | —  | —  | — | — | — | 1  |
| Medicine Hat .....       | 1  | —  | — | — | — | —  | — | — | — | — | — | — | — | — | — | — | —  | —  | — | — | — | 1  |
| Red Deer .....           | 1  | —  | — | — | — | —  | — | — | — | — | — | — | — | — | — | — | —  | —  | — | — | — | 1  |
| Towns and Villages ..... | 9  | 3  | 1 | — | 2 | 3  | 1 | 2 | — | — | — | — | 3 | — | 2 | 4 | 2  | 1  | — | — | — | 1  |
| Rural Districts .....    | 10 | 12 | 1 | — | 3 | 7  | 3 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 7 | 2  | —  | — | — | — | 2  |
| Totals .....             | 20 | 29 | 4 | 5 | 6 | 13 | 5 | 4 | 1 | 1 | 2 | 2 | 5 | 1 | 4 | 9 | 15 | 11 | 2 | 4 | 4 | 49 |

ERYSIPELAS

| 1929                     | Sex |    | MONTHS |      |      |      |     |      |      |      |       |      |      |      | AGES |     |      |       |       |       |       | TOTAL |            |  |
|--------------------------|-----|----|--------|------|------|------|-----|------|------|------|-------|------|------|------|------|-----|------|-------|-------|-------|-------|-------|------------|--|
|                          | M.  | F. | Jan.   | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | 0-1  | 1-4 | 5-14 | 15-24 | 25-44 | 45-59 | 60-69 |       | Not stated |  |
|                          |     |    |        |      |      |      |     |      |      |      |       |      |      |      |      |     |      |       |       |       |       |       |            |  |
| Cities:                  |     |    |        |      |      |      |     |      |      |      |       |      |      |      |      |     |      |       |       |       |       |       |            |  |
| Calgary .....            | 16  | 8  | 11     | 1    | 6    | 2    | —   | —    | 3    | —    | —     | —    | —    | —    | —    | —   | —    | 1     | 12    | 8     | 2     | 1     | 24         |  |
| Drumheller .....         | 1   | 1  | —      | —    | —    | —    | —   | 1    | —    | —    | —     | —    | —    | —    | —    | —   | —    | —     | 1     | —     | —     | —     | 1          |  |
| Edmonton .....           | 32  | 24 | 5      | 5    | 3    | 11   | 5   | 6    | 4    | 1    | 4     | 5    | 3    | 4    | —    | —   | 2    | 5     | 17    | 14    | 7     | 7     | 56         |  |
| Lethbridge .....         | 1   | —  | —      | —    | —    | —    | —   | —    | —    | —    | —     | —    | —    | —    | —    | —   | —    | —     | —     | —     | —     | —     | 1          |  |
| Towns and Villages ..... | 13  | 9  | 3      | —    | 1    | 3    | 3   | 3    | 4    | 1    | 1     | —    | 2    | 1    | —    | —   | —    | 2     | 10    | 5     | 3     | 1     | 22         |  |
| Rural Districts .....    | 12  | 10 | 3      | 4    | 1    | 2    | 2   | 1    | 1    | 1    | 3     | —    | 2    | 1    | —    | —   | —    | 2     | 10    | 3     | 1     | 4     | 22         |  |
| Totals.....              | 74  | 52 | 22     | 10   | 11   | 19   | 10  | 14   | 9    | 3    | 8     | 5    | 8    | 7    | —    | —   | 2    | 10    | 50    | 31    | 13    | 13    | 126        |  |

ENCEPHALITIS LETHARGICA

| 1929           | Sex |    | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | 0-1 | 1-4 | 5-14 | 15-24 | 25-44 | 45-59 | 60-69 | Not stated |   |  |
|----------------|-----|----|------|------|------|------|-----|------|------|------|-------|------|------|------|-----|-----|------|-------|-------|-------|-------|------------|---|--|
|                | M.  | F. |      |      |      |      |     |      |      |      |       |      |      |      |     |     |      |       |       |       |       |            |   |  |
|                |     |    |      |      |      |      |     |      |      |      |       |      |      |      |     |     |      |       |       |       |       |            |   |  |
| Cities:        |     |    |      |      |      |      |     |      |      |      |       |      |      |      |     |     |      |       |       |       |       |            |   |  |
| Calgary .....  | 1   | —  | 1    | —    | —    | —    | —   | —    | —    | —    | —     | —    | —    | —    | —   | —   | —    | —     | 1     | —     | —     | —          | 1 |  |
| Edmonton ..... | —   | 1  | —    | —    | 1    | —    | —   | —    | —    | —    | —     | —    | —    | —    | —   | —   | 1    | —     | —     | —     | —     | —          | 1 |  |
| Totals.....    | 1   | 1  | 1    | —    | 1    | —    | —   | —    | —    | —    | —     | —    | —    | —    | —   | —   | 1    | —     | —     | —     | —     | —          | 2 |  |

PARATYPHOID FEVER

| 1929                     | Sex |    | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | 0-1 | 1-4 | 5-14 | 15-24 | 25-44 | 45-59 | 60-69 | Not stated |   |  |
|--------------------------|-----|----|------|------|------|------|-----|------|------|------|-------|------|------|------|-----|-----|------|-------|-------|-------|-------|------------|---|--|
|                          | M.  | F. |      |      |      |      |     |      |      |      |       |      |      |      |     |     |      |       |       |       |       |            |   |  |
|                          |     |    |      |      |      |      |     |      |      |      |       |      |      |      |     |     |      |       |       |       |       |            |   |  |
| Cities:                  |     |    |      |      |      |      |     |      |      |      |       |      |      |      |     |     |      |       |       |       |       |            |   |  |
| Calgary .....            | 2   | 1  | —    | —    | —    | —    | —   | 1    | —    | —    | —     | 1    | —    | —    | —   | —   | —    | —     | —     | 1     | —     | —          | — |  |
| Edmonton .....           | 2   | 1  | —    | —    | —    | —    | —   | 1    | —    | —    | —     | 2    | —    | —    | —   | —   | 3    | 1     | —     | —     | —     | —          | — |  |
| Towns and Villages ..... | 4   | 25 | —    | —    | —    | 1    | 2   | —    | 26   | —    | —     | —    | —    | —    | —   | —   | 16   | 10    | 1     | —     | —     | 1          | — |  |
| Rural Districts .....    | 2   | —  | —    | —    | —    | —    | —   | 2    | —    | —    | —     | —    | —    | —    | —   | —   | —    | 1     | —     | —     | —     | —          | — |  |
| Totals.....              | 10  | 27 | —    | —    | —    | 1    | 2   | 4    | 26   | —    | 1     | 3    | —    | —    | —   | 1   | 5    | 17    | 11    | 2     | —     | 1          | — |  |



## Public Health Education Division

(F. T. COOK, *Lecturer*)

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The work begun in April of 1928 was continued during 1929 on a much larger scale. The demand for health education of a general nature steadily grew, and requests for literature, general and specific information, exhibits, pictures, articles and lectures greatly increased.

With the development of the Department as a whole, the need for a central information bureau has become more apparent. To meet this growing need, information files on a great many subjects have been created, which are available to the heads of the various branches, for both their own information and that of the general public. Material is assembled from every available source, including the medical literature, bulletins, magazines and the daily press.

A system of assembling statistics in chart form was also begun which gives accurate information, at a glance, on important subjects, such as birth and death rates from various causes, and the progress of certain types of work. As hitherto very little had been done in this respect, this simplified information has proven to be very valuable to the heads of the branches concerned.

The lecture service has steadily grown, and in a few instances has assumed regular form, such as in the normal and agricultural schools and a few junior colleges which are visited every year. At the schools of agriculture particularly, an effort is made to present the work of public health in a way that will enlist the students in the army of health workers. From these schools approximately 250 students are graduated each year, and for the most part return to the rural areas to assume positions of leadership in their communities. If they return with a thorough public health point of view they will, in time, become a formidable force for public health enterprises.

The general lecture work has also been carried on during the year; 162 lectures were given in 106 different places to 15,919 people. The subjects of the lectures included: The control of Communicable Diseases, Sanitation, Child Welfare, Social Hygiene, and special features of the work of the Department. Moving pictures were shown at practically all meetings, featuring the general work of public health. Itineraries included the following districts: Cardston, Claresholm, Calgary, Irricana, Taber, Didsbury, Olds, Donalda, Edmonton, Hardisty, Viking, Two Hills, Irma, Duchess, Lomond, Arrowwood, Lethbridge, Barons, Vulcan, Camrose, Lacombe, Onoway, Vermilion, Wabamun, Smoky Lake, Edgerton.

# Hospital Inspection Branch

## And

## Coroner's Supervision of Operations

(E. A. BRAITHWAITE, M.D. L.M.C.C., *Inspector of Hospitals*)

During the year I inspected all the approved hospitals in the Province.

The total number of operations, taken from the weekly hospital operation reports, was 23,050, and the number of deaths following operations, 732.

The following is a list of the operations performed and deaths which occurred in the approved, municipal and private hospitals during the year 1929:

|                                      | Approved H. | Deaths | Munic. H. | Deaths | Private H. | Deaths |
|--------------------------------------|-------------|--------|-----------|--------|------------|--------|
| Abscess .....                        | 800         | 9      | 107       | 4      | 11         | 0      |
| Abortion .....                       | 166         | 9      | 95        | 3      | 13         | 0      |
| Actionomycosis .....                 | 80          | 0      | 107       | 1      | 11         | 0      |
| Accidents, no operations shown ..... | 0           | 10     | 0         | 2      | 0          | 1      |
| Adenitis .....                       | 0           | 0      | 2         | 0      | 0          | 0      |
| Adenoidectomy .....                  | 178         | 0      | 12        | 0      | 5          | 0      |
| Adhesions .....                      | 153         | 0      | 11        | 0      | 0          | 0      |
| Amputation .....                     | 146         | 0      | 14        | 0      | 2          | 0      |
| Appendectomy .....                   | 3357        | 125    | 893       | 42     | 33         | 0      |
| Arthritis (Septic) .....             | 0           | 0      | 1         | 1      | 0          | 0      |
| Aspirate .....                       | 0           | 0      | 9         | 2      | 0          | 0      |
| Aspirate Pericarditis .....          | 1           | 1      | 0         | 0      | 0          | 0      |
| Bone Removed .....                   | 0           | 0      | 6         | 0      | 0          | 0      |
| Bowel Obstruction .....              | 0           | 0      | 40        | 29     | 0          | 0      |
| Breast Amputation .....              | 1           | 1      | 0         | 0      | 0          | 0      |
| Bullet Wound .....                   | 0           | 0      | 2         | 0      | 0          | 0      |
| Burns .....                          | 0           | 0      | 3         | 3      | 0          | 0      |
| Bursitis .....                       | 0           | 0      | 2         | 0      | 0          | 0      |
| Bunions .....                        | 0           | 0      | 1         | 0      | 0          | 0      |
| <b>Cancer</b> .....                  | 42          | 96     | 12        | 10     | 0          | 0      |
| Caesarian Section .....              | 38          | 8      | 1         | 1      | 0          | 0      |
| Carbuncle .....                      | 17          | 1      | 3         | 0      | 0          | 0      |
| Cataract .....                       | 52          | 0      | 0         | 0      | 0          | 0      |
| Cauterization .....                  | 51          | 0      | 3         | 0      | 0          | 0      |
| Cellulitis .....                     | 17          | 8      | 0         | 0      | 0          | 0      |
| Cervix Operations .....              | 64          | 0      | 11        | 0      | 0          | 0      |
| Cholelithiasis .....                 | 19          | 1      | 5         | 0      | 0          | 0      |
| Cholecystectomy .....                | 379         | 0      | 38        | 2      | 1          | 0      |
| Cirrhosis of Liver .....             | 0           | 0      | 1         | 1      | 0          | 0      |
| Circumcision .....                   | 340         | 0      | 68        | 0      | 5          | 0      |
| Cleft Palate .....                   | 20          | 1      | 2         | 0      | 0          | 0      |
| Colitis .....                        | 0           | 0      | 1         | 1      | 0          | 0      |
| Caepexy .....                        | 0           | 0      | 0         | 0      | 2          | 0      |
| Colostomy .....                      | 17          | 0      | 0         | 0      | 0          | 0      |
| Colporrhaphy .....                   | 17          | 0      | 1         | 0      | 0          | 0      |
| Corns .....                          | 1           | 0      | 1         | 0      | 0          | 0      |
| Curret Uterus .....                  | 71          | 0      | 95        | 0      | 0          | 0      |
| Curret and Dilate .....              | 239         | 0      | 12        | 0      | 5          | 0      |
| Cysts .....                          | 50          | 3      | 23        | 0      | 1          | 1      |
| Cystic Ovary .....                   | 10          | 0      | 27        | 0      | 0          | 0      |
| Cystoscopy .....                     | 222         | 0      | 2         | 0      | 2          | 0      |
| Cystitis .....                       | 0           | 0      | 1         | 0      | 0          | 0      |
| Cystocele .....                      | 1           | 0      | 1         | 0      | 0          | 0      |
| Cystotomy .....                      | 18          | 13     | 4         | 2      | 0          | 0      |
| Decompression of skull .....         | 0           | 1      | 0         | 0      | 0          | 0      |
| Diabetic Coma (Prolapse) .....       | 0           | 0      | 0         | 0      | 0          | 0      |
| Dislocations .....                   | 33          | 0      | 7         | 0      | 0          | 0      |
| Dilatation .....                     | 68          | 0      | 6         | 0      | 0          | 0      |
| Ectopic .....                        | 4           | 1      | 3         | 3      | 0          | 0      |



|                                                            | Approved H. | Deaths | Munic. H. | Deaths | Private H. | Deaths |
|------------------------------------------------------------|-------------|--------|-----------|--------|------------|--------|
| Empyema .....                                              | 35          | 29     | 12        | 10     | 0          | 0      |
| Enterostomy .....                                          | 0           | 0      | 2         | 0      | 0          | 0      |
| Endocarditis .....                                         | 0           | 0      | 1         | 1      | 0          | 0      |
| Enucleate Eye .....                                        | 58          | 0      | 0         | 0      | 0          | 0      |
| Endometritis .....                                         | 0           | 0      | 9         | 0      | 0          | 0      |
| Examination .....                                          | 51          | 0      | 9         | 0      | 1          | 0      |
| Excise .....                                               | 1           | 0      | 0         | 0      | 0          | 0      |
| Foreign Body .....                                         | 48          | 1      | 119       | 0      | 0          | 0      |
| Fibroid .....                                              | 18          | 0      | 0         | 0      | 0          | 0      |
| Fistula .....                                              | 17          | 2      | 10        | 0      | 0          | 0      |
| Fistula in Ano .....                                       | 1           | 0      | 0         | 0      | 0          | 0      |
| Fracture .....                                             | 470         | 23     | 0         | 0      | 0          | 0      |
| Furuncle .....                                             | 0           | 0      | 1         | 0      | 0          | 0      |
| Gastro-Enterostomy .....                                   | 88          | 6      | 10        | 0      | 0          | 0      |
| Gastrectomy .....                                          | 1           | 0      | 2         | 0      | 0          | 0      |
| Glands Removed .....                                       | 51          | 1      | 10        | 0      | 1          | 0      |
| Glaucoma .....                                             | 0           | 0      | 1         | 0      | 0          | 0      |
| Growth .....                                               | 0           | 0      | 75        | 0      | 0          | 0      |
| Gunshot Wounds .....                                       | 0           | 0      | 7         | 5      | 0          | 0      |
| Gangrene .....                                             | 0           | 0      | 5         | 0      | 0          | 0      |
| Haemorrhage .....                                          | 17          | 2      | 7         | 5      | 0          | 0      |
| <b>Haemorrhoids</b> .....                                  | 137         | 0      | 19        | 0      | 2          | 0      |
| Hare Lip .....                                             | 2           | 0      | 3         | 0      | 0          | 0      |
| Hernia .....                                               | 519         | 24     | 96        | 2      | 5          | 0      |
| Hymen Imperforate .....                                    | 1           | 0      | 0         | 0      | 0          | 0      |
| Hydrocele .....                                            | 36          | 0      | 8         | 0      | 1          | 0      |
| Hysterectomy .....                                         | 143         | 17     | 20        | 0      | 2          | 0      |
| Incision and Drainage .....                                | 170         | 0      | 31        | 0      | 1          | 0      |
| Infections .....                                           | 68          | 0      | 15        | 0      | 1          | 0      |
| Injection .....                                            | 17          | 1      | 1         | 0      | 0          | 0      |
| Imperforate Anus .....                                     | 1           | 1      | 0         | 0      | 0          | 0      |
| Intestinal Obstruction .....                               | 1           | 0      | 5         | 0      | 1          | 0      |
| Intussusception .....                                      | 0           | 0      | 3         | 3      | 1          | 0      |
| Iredundant .....                                           | 51          | 0      | 0         | 0      | 0          | 0      |
| Ischio-rectal Abscess .....                                | 0           | 0      | 5         | 0      | 0          | 0      |
| Jejunostomy .....                                          | 1           | 1      | 0         | 0      | 0          | 0      |
| Kidney Suspension .....                                    | 0           | 0      | 1         | 0      | 0          | 0      |
| Lacerations .....                                          | 90          | 1      | 34        | 0      | 0          | 0      |
| Laparotomy .....                                           | 69          | 7      | 32        | 2      | 2          | 0      |
| Ligation .....                                             | 2           | 0      | 0         | 0      | 0          | 0      |
| Lipoma .....                                               | 17          | 0      | 5         | 0      | 0          | 0      |
| Lithotomy .....                                            | 0           | 0      | 1         | 1      | 0          | 0      |
| Lumbar Puncture for Meningitis (no operations shown) ..... | 0           | 0      | 0         | 5      | 0          | 0      |
| Mastoid .....                                              | 308         | 15     | 17        | 0      | 12         | 0      |
| Manipulation .....                                         | 17          | 0      | 2         | 0      | 0          | 0      |
| Mastitis .....                                             | 0           | 0      | 1         | 1      | 0          | 0      |
| Mole .....                                                 | 1           | 0      | 0         | 0      | 0          | 0      |
| Meningitis .....                                           | 0           | 0      | 5         | 5      | 0          | 0      |
| Necrosis .....                                             | 0           | 0      | 2         | 0      | 0          | 0      |
| Nephrotomy .....                                           | 17          | 1      | 2         | 0      | 0          | 0      |
| Oesophagus Stricture .....                                 | 0           | 0      | 1         | 0      | 0          | 0      |
| Osteomyelitis .....                                        | 68          | 9      | 7         | 0      | 0          | 0      |
| Osteotomy .....                                            | 1           | 0      | 0         | 0      | 0          | 0      |
| Otitis Media .....                                         | 17          | 0      | 5         | 0      | 0          | 0      |
| Ovariectomy .....                                          | 10          | 0      | 13        | 0      | 0          | 0      |
| Ovarian Resection .....                                    | 1           | 0      | 0         | 0      | 0          | 0      |
| Ovary Removal .....                                        | 6           | 0      | 0         | 0      | 0          | 0      |
| Oophorectomy .....                                         | 260         | 0      | 0         | 0      | 0          | 0      |
| Paracentesis .....                                         | 34          | 0      | 10        | 0      | 0          | 0      |
| Perineorrhaphy .....                                       | 94          | 0      | 14        | 0      | 1          | 0      |
| Peritonitis .....                                          | 8           | 1      | 7         | 3      | 1          | 0      |
| Plastic .....                                              | 17          | 0      | 0         | 0      | 0          | 0      |
| Phlebotomy .....                                           | 3           | 1      | 0         | 0      | 0          | 0      |
| Plaster of Paris Cast .....                                | 188         | 0      | 15        | 0      | 0          | 0      |
| Polypus .....                                              | 70          | 10     | 2         | 0      | 1          | 0      |
| Pneumothorax .....                                         | 4           | 1      | 0         | 0      | 0          | 0      |
| Prostatectomy .....                                        | 51          | 21     | 13        | 0      | 0          | 0      |
| Prostascopy .....                                          | 1           | 0      | 4         | 0      | 0          | 0      |
| Pyorrhoea .....                                            | 527         | 2      | 159       | 0      | 13         | 0      |
| Pyelitis .....                                             | 0           | 0      | 1         | 0      | 0          | 0      |
| Pterygium .....                                            | 17          | 0      | 0         | 0      | 0          | 0      |
| Radium Treatment .....                                     | 68          | 0      | 0         | 0      | 0          | 0      |
| Rectocele .....                                            | 1           | 0      | 0         | 0      | 0          | 0      |
| Resect Rib .....                                           | 102         | 0      | 21        | 0      | 1          | 0      |
| Repair .....                                               | 33          | 0      | 0         | 0      | 0          | 0      |
| Resect Bowel .....                                         | 7           | 2      | 0         | 0      | 0          | 0      |
| Removal .....                                              | 20          | 0      | 11        | 0      | 0          | 0      |
| Retroversion .....                                         | 5           | 0      | 0         | 0      | 1          | 0      |
| Salpingectomy .....                                        | 220         | 4      | 10        | 0      | 0          | 0      |
| Scar Removed .....                                         | 17          | 0      | 2         | 0      | 0          | 0      |
| Sequestrotomy .....                                        | 17          | 0      | 4         | 0      | 1          | 0      |
| Septicaemia .....                                          | 43          | 10     | 8         | 0      | 0          | 0      |
| Shorten Round Ligament .....                               | 18          | 0      | 2         | 0      | 0          | 0      |
| Sigmoidoscope .....                                        | 1           | 0      | 1         | 0      | 0          | 0      |

|                            | Approved H. | Deaths | Munic. H. | Deaths | Private H. | Deaths |
|----------------------------|-------------|--------|-----------|--------|------------|--------|
| Sinus .....                | 51          | 1      | 1         | 0      | 1          | 0      |
| Skin-graft .....           | 34          | 0      | 3         | 0      | 0          | 0      |
| Sterility .....            | 0           | 0      | 3         | 0      | 0          | 0      |
| Submucous Resection .....  | 104         | 0      | 1         | 0      | 0          | 0      |
| Suture .....               | 270         | 0      | 61        | 0      | 0          | 0      |
| Suspension .....           | 0           | 0      | 9         | 0      | 0          | 0      |
| Transfusion .....          | 34          | 2      | 1         | 0      | 0          | 0      |
| Testicle .....             | 4           | 2      | 2         | 0      | 0          | 0      |
| Tetanus Nail in Hand ..... | 1           | 1      | 0         | 0      | 0          | 0      |
| Toe Nails .....            | 34          | 0      | 11        | 0      | 0          | 0      |
| Thyroidectomy .....        | 235         | 13     | 13        | 0      | 0          | 0      |
| Tonsillectomy .....        | 3454        | 4      | 697       | 0      | 93         | 0      |
| Tonsils and Adenoids ..... | 2695        | 2      | 959       | 0      | 106        | 0      |
| Trachelorrhaphy .....      | 52          | 1      | 2         | 0      | 0          | 0      |
| Tracheotomy .....          | 4           | 0      | 0         | 0      | 0          | 0      |
| Tuberculosis .....         | 0           | 0      | 0         | 0      | 1          | 1      |
| Tumour .....               | 77          | 3      | 26        | 0      | 1          | 0      |
| Turbinectomy .....         | 35          | 0      | 0         | 0      | 1          | 0      |
| Ulcer .....                | 34          | 26     | 12        | 7      | 0          | 0      |
| Urethral Stricture .....   | 0           | 0      | 1         | 0      | 0          | 0      |
| Urethrotomy .....          | 0           | 0      | 1         | 1      | 0          | 0      |
| Urethra (ruptured) .....   | 0           | 0      | 1         | 1      | 0          | 0      |
| Uterus (fibroid) .....     | 1           | 0      | 0         | 0      | 0          | 0      |
| Uterus Suspension .....    | 6           | 0      | 12        | 0      | 0          | 0      |
| Ventral Suspension .....   | 85          | 0      | 15        | 0      | 0          | 0      |
| Wounds .....               | 51          | 0      | 21        | 0      | 0          | 0      |
| Varicose Veins .....       | 17          | 0      | 7         | 0      | 1          | 0      |
| Venesection .....          | 0           | 0      | 6         | 0      | 0          | 0      |

NOTE.—Deaths from cancer are in excess of cases reported, because some cases were not diagnosed as cancer until after pathological examination. In other cases patients were operated on outside the Province and could not be shown as operative cases, but evidently went to hospitals in the Province for final attention.

In addition to the operations classified above the following operations were performed by the Travelling Clinic:

|                                             |       |
|---------------------------------------------|-------|
| T. & A. ....                                | 1,405 |
| Circumcision .....                          | 97    |
| Other minor operations .....                | 150   |
| No deaths.                                  |       |
| Total number of operations in hospital..... | 2,315 |
| Total number of deaths .....                | 689   |
| Percentage .....                            | 2.97  |



## Director of the Provincial Laboratory

(ALLAN C. RANKIN, C.M.G., M.D., D.P.H., *Provincial  
Bacteriologist.*)

The total number of examinations for the year was 40,673, an increase of 619 specimens. Co-operation with the University departments has continued and the work of the laboratory has thereby been much facilitated. The chemical examination of water and of milk has been carried out by the provincial analyst.

The details given below show the nature and number of the examinations performed during the year:

|                                                                                            | Total  |
|--------------------------------------------------------------------------------------------|--------|
| Communicable Diseases:                                                                     |        |
| Sputum .....                                                                               | 758    |
| Diphtheria .....                                                                           | 1,669  |
| Typhoid Fever .....                                                                        | 370    |
|                                                                                            | 2,797  |
| Waters .....                                                                               | 1,716  |
| Milks .....                                                                                | 1,076  |
| Mothers' Milk .....                                                                        | 28     |
| Miscellaneous Examinations .....                                                           | 2,191  |
| Urinalysis .....                                                                           | 532    |
| Medico-Legal Examinations .....                                                            | 13     |
| Bloods for the Wassermann Test .....                                                       | 12,506 |
| Smears for the Gonococcus .....                                                            | 2,905  |
| Icterus Index Determination .....                                                          | 652    |
| Van Den Bergh Determination .....                                                          | 2,886  |
| Post-Mortem Examinations .....                                                             | 121    |
| Pathological Histological Material .....                                                   | 5,591  |
| Chicken Blood Examinations, B.W.D. Agglutinating Tests .....                               | 7,066  |
| Cattle Blood Examinations .....                                                            | 714    |
| Typhoid Vaccine Distributed (25 c.c. quantities) .....                                     | 274    |
| Autogenous Vaccines Distributed (25 c.c. quantities) .....                                 | 120    |
| B.C.G. Vaccine Distributed (10 c.c. quantities) .....                                      | 103    |
| Poliomyelitis Serum Distributed (10 c.c. quantities) .....                                 | 28     |
|                                                                                            | 40,673 |
| Number of specimens examined (not including Post Mortems or<br>Vaccines distributed) ..... | 40,673 |
| Water and Milk containers prepared and distributed .....                                   | 1,405  |
| Special and Blood containers prepared and Distributed.....                                 | 20,986 |

There were 1,716 samples of water examined bacteriologically, bacteriologically and chemically, and chemically, an increase of 126 samples; 1,405 water and milk containers were prepared and distributed during the year, and 20,986 blood and special containers prepared and distributed.

*Milks.*—1,076 samples of milk were examined bacteriologically, bacteriologically and chemically, and chemically, an increase of 40 samples.

*Miscellaneous Examinations.*—There were 2,191 miscellaneous examinations made during the year, an increase of 391 specimens, and also 532 urinalyses performed.

*Medico-Legal Examinations.*—This work has included various examinations pertaining to criminal and other cases in the Province throughout the year.

*Bloods for the Wassermann Test.*—12,704 blood specimens for the Wassermann Test were received during the year; 198 of these

specimens were unsuitable for the test. Out of the 12,506 blood specimens examined 1,838 proved positive. Of the bloods examined 3,801 were received from Calgary and the south of the Province, and 8,705 bloods were received from north of Calgary and north of the Province.

*Smears for the Gonococcus.*—There were 2,905 examinations made during the period covered by this report, an increase of 250 specimens.

*Pathological Histological Material.*—During the year 5,591 specimens were examined. This work is under the direction of Dr. J. J. Ower.

*Chicken Blood Examinations.*—There were 7,066 chicken blood examinations made for the diagnosis of bacillary white diarrhoea.

*Cattle Blood Examinations.*—714 cattle bloods were examined for the diagnosis of contagious abortion.

*Vaccines, etc., Prepared and Distributed.*—9,510 cubic centimeters of vaccine were prepared. This includes typhoid vaccine, autogenous vaccines and B.C.G. vaccine; 280 cubic centimeters of poliomyelitis convalescent serum were also prepared and distributed.

*Research Work.*—The work in tuberculosis research has progressed.

*Convalescent Poliomyelitis Serum.*—In co-operation with the Department of Health and Doctors Mewburn, Huckell and McGugan it has been possible for the laboratory to prepare enough convalescent poliomyelitis serum to meet the demands in connection with the cases reported during the time under consideration.

ESTIMATED COMMERCIAL VALUE OF WORK IF MINIMUM CHARGE  
WERE MADE

|                                                            |         |        |              |
|------------------------------------------------------------|---------|--------|--------------|
| Sputum .....                                               | \$ 2.00 | 758    | \$ 1,516.00  |
| Diphtheria .....                                           | 2.00    | 1,669  | 3,338.00     |
| Typhoid Fever .....                                        | 2.00    | 370    | 740.00       |
| Waters .....                                               | 15.00   | 1,716  | 25,740.00    |
| Milks .....                                                | 5.00    | 1,076  | 5,380.00     |
| Mothers' Milk .....                                        | 2.00    | 28     | 56.00        |
| Miscellaneous Examinations .....                           | 2.00    | 2,191  | 4,382.00     |
| Urinalysis .....                                           | 2.00    | 532    | 1,064.00     |
| Medico-Legal Examinations .....                            | 5.00    | 13     | 65.00        |
| Bloods for the Wassermann Test .....                       | 5.00    | 12,506 | 62,530.00    |
| Smears for the Gonococcus .....                            | 2.00    | 2,905  | 5,810.00     |
| Icterus Index Determination .....                          | 1.00    | 652    | 652.00       |
| Van Den Bergh Determination .....                          | 1.00    | 2,886  | 2,886.00     |
| Pathological Histological Material .....                   | 5.00    | 5,591  | 27,955.00    |
| Chicken Blood Examinations, B.W.D. Agglutinating Tests.... | .10     | 7,066  | 706.60       |
| Typhoid Vaccine (25 c.c. quantities) .....                 | 1.00    | 274    | 274.00       |
| Autogenous Vaccines (25 c.c. quantities) .....             | 15.00   | 120    | 1,800.00     |
| B.C.G. Vaccine (10 c.c. quantities) .....                  | 3.00    | 103    | 309.00       |
| Poliomyelitis Serum (10 c.c. quantities) .....             | 5.00    | 28     | 140.00       |
| Cattle Blood Examinations .....                            | .20     | 714    | 142.80       |
| Total.....                                                 |         | 40,673 | \$145,486.40 |



## Provincial Sanitary Engineer

(R. B. OWENS, B.A., B.E., *Provincial Sanitary Engineer.*)

The following is a detailed list of works for which Provincial Board of Health Certificates have been issued, together with the estimated cost of each:

### WATERWORKS

|                                                                                          |              |
|------------------------------------------------------------------------------------------|--------------|
| Calgary—Certificate No. 265—29, Water connection. Estimated Cost.....\$                  | 15,000.00    |
| Edmonton—Certificate No. 266—29, Improvements to Water System. Estimated Cost .....      | 66,735.00    |
| Magrath—Certificate No. 268—29, System of Waterworks. Estimated Cost .....               | .....        |
| Drumheller—Certificate No. 264—29, Extensions to Waterworks System. Estimated Cost ..... | 24,930.00    |
| Edmonton—Certificate No. 273—29, Extensions to Waterworks. Estimated Cost .....          | 4,234.00     |
| Camrose—Certificate No. 277—29, Additions to Waterworks System. Estimated Cost .....     | .....        |
| Vegreville—Certificate No. 290—29, Extensions to Waterworks. Estimated Cost .....        | 4,800.00     |
| Coronation—Certificate No. 291—29, Extensions to Waterworks. Estimated Cost .....        | 37,305.00    |
| Edmonton—Certificate No. 292—29, Extensions to Waterworks. Estimated Cost .....          | 24,031.00    |
| Coleman—Certificate No. 293—29, Construction of Waterworks. Estimated Cost .....         | 620.00       |
| Lacombe—Certificate No. 295—29, Construction of Waterworks System. Estimated Cost .....  | 80,600.00    |
| Wainwright—Certificate No. 299—29, System of Waterworks. Estimated Cost .....            | 16,000.00    |
| Calgary—Certificate No. 300—29, System of Waterworks. Estimated Cost..                   | 3,770,000.00 |
| Calgary—Certificate No. 301—29, Water connections. Estimated Cost.....                   | 22,500.00    |
| Calgary—Certificate No. 303—29, System of Waterworks. Estimated Cost....                 | 175,000.00   |
| Coleman—Certificate No. 307—29, System of Waterworks. Estimated Cost                     | 10,015.00    |

### SEWERAGE

|                                                                                           |            |
|-------------------------------------------------------------------------------------------|------------|
| Calgary—Certificate No. 265—29, Sewer connections. Estimated Cost.....                    | 15,000.00  |
| Magrath—Certificate No. 268—29, Sewerage and Sewage Disposal. Estimated Cost .....        | .....      |
| Edmonton—Certificate No. 269—29, Sewer Construction. Estimated Cost.....                  | 75,740.00  |
| Stettler—Certificate No. 270—29, Sewerage and Sewage Disposal. Estimated Cost .....       | 73,140.00  |
| Edmonton—Certificate No. 271—29, Sewer Construction. Estimated Cost....                   | 191,000.00 |
| Edmonton—Certificate No. 272—29, Sewer Construction. Estimated Cost....                   | 13,850.00  |
| Calgary—Certificate No. 274—29, Relief and Storm Sewers. Estimated Cost .....             | 380,070.00 |
| High River—Certificate No. 275—29, Sewer Extensions. Estimated Cost....                   | 950.00     |
| Calgary—Certificate No. 276—29, Sewer Extensions. Estimated Cost.....                     | 45,096.85  |
| Gleichen—Certificate No. 278—29, Sewer Construction. Estimated Cost.....                  | 5,974.39   |
| Gleichen—Certificate No. 279—29, Sewage Disposal Plant. Estimated Cost..                  | 3,580.00   |
| Lacombe—Certificate No. 294—29, Sewerage and Sewage Disposal Plant. Estimated Cost .....  | 62,880.00  |
| Edmonton—Certificate No. 296—29, Storm Sewers. Estimated Cost.....                        | 110,000.00 |
| Edmonton—Certificate No. 297—29, Sewage Disposal Plant. Estimated Cost                    | 35,000.00  |
| Calgary—Certificate No. 298—29, Sewer and Septic Tank, construction. Estimated Cost ..... | 4,324.00   |
| Calgary—Certificate No. 302—29, Sewage Disposal System. Estimated Cost                    | 250,000.00 |
| Calgary—Certificate No. 301—29, Sewer connections. Estimated Cost.....                    | 22,500.00  |
| Calgary—Certificate No. 304—29, Site for Sewage Disposal Plant. Estimated Cost .....      | .....      |
| Edmonton—Certificate No. 306—29, Sewer Construction. Estimated Cost....                   | 87,600.00  |
| Calgary—Certificate No. 305—29, Sewer Extension. Estimated Cost.....                      | 44,870.22  |
| Lethbridge—Certificate No. 308—29, Sanitary Sewer. Estimated Cost.....                    | 7,500.00   |

Plans and specifications submitted to the Provincial Board of Health for waterworks, sewerage and sewage disposal plants as required under sections 10, 11, 12, 13, 14 and 15 of The Public Health Act, were duly examined, and where approval was given certificates were issued.

Plans and specifications other than those aforesaid, but required by the Provincial Board of Health, were also examined, and the necessary action taken thereon.

Plans, specifications and proposals in connection with the sanitary engineering works submitted to the Public Utilities Commission were also examined and advice given.

Plans and specifications in connection with sanitary engineering works connected with hospitals under The Hospitals Act and Private Hospitals Act were examined and advice given thereon.

Sanitary engineering works in connection with the institutions under the administration of the Public Works Department were visited and advice given where necessary.

During the year reports on the analyses of water and ice were examined and, where necessary, action in the matter of prohibiting the use of the supply was taken, or an investigation made for the purpose of advising as to a remedy.

Under the sanitation section of the sanitary engineering branch of the Department, the following work was carried out by our three inspectors:

One hundred and ninety-three health districts were visited and inspected. Of this number one hundred and twenty-four were visited and inspected a second time.

One hundred and fourteen lumber, tie, sawmill and mining camps were visited and inspected. Of this number seventy-six were inspected a second time.

One hundred and fifty-eight notices to abate nuisance were issued and served by the inspectors, and sixty were ordered issued by representatives of the local health authorities.

Thirteen prosecutions were carried out, and convictions were obtained in each case, fines varying from \$5 to \$20 being imposed in addition to costs.

Fifty-six samples of water were collected for examinations and analyses.

Twenty-five waterworks and sewage disposal systems were inspected.

Seven hundred and eighty-eight pounds of meat and eight pounds of sausage were seized and destroyed as unfit for food for human consumption.

Ninety-four complaints and requests for services of inspectors were received and satisfactory adjustments were made in each case. Requests for inspectors were to assist in locating suitable locations for nuisance grounds, hospital sites, stockyards, etc., and for further inspections of the district.

The services of the inspectors have been used in investigations of outbreaks of infectious and contagious disease.

In addition to the above, one inspector has been on part time dealing with office routine with respect to the new system of supervision of purchasing adopted by the Department at the end of the year 1927.

Plans dealing with sewage disposal, heating and ventilation have been prepared, printed and distributed. These are available to those who request information on these subjects.



Special visits have been made to the Ghost River hydro-electric construction camps, also to the Turner Valley oil field with respect to sanitary conditions of the camps and townsites.

The usual arrangements were made for the Provincial health exhibit of occupational therapy work carried on in Provincial institutions and for the emergency hospital which the Department operates for the Edmonton Exhibition Association. In connection with the foregoing, the services of one inspector are utilized to erect and supervise exhibits.

## Public Health Nursing Branch

(K. S. BRIGHTY, R.N., *Acting Superintendent*)

Three public health nurses have conducted a generalized programme of public health nursing in the following districts in the Province, viz.: Municipal District of Marquis, Municipal District of Norma and Town of Vegreville, and Municipal District of Richdale.

This service has been ably supported in the districts in which it functions. The following is a report of work done by the three nurses:

|                             |      |                                     |      |
|-----------------------------|------|-------------------------------------|------|
| First inspection .....      | 1793 | Number with defects .....           | 1885 |
| Second inspection .....     | 1276 | Number without defects .....        | 1184 |
| Classroom inspections ..... | 85   | Number of vaccinations .....        | 113  |
| Number not vaccinated ..... | 1270 | Number diphtheria toxoid treatments | 429  |

### SUSPECT DEFECTIVE CONDITIONS

|                |      |               |      |
|----------------|------|---------------|------|
| Vision .....   | 361  | Tonsils ..... | 846  |
| Hearing .....  | 45   | Teeth .....   | 1223 |
| Adenoids ..... | 4345 | Posture ..... | 24   |

### SYMPTOMS NOTED

|                             |     |                                    |    |
|-----------------------------|-----|------------------------------------|----|
| Enlarged glands .....       | 282 | Other eye diseases .....           | 17 |
| Skin diseases .....         | 47  | Mental defective .....             | 3  |
| Other skin conditions ..... | 19  | Nervous symptoms .....             | 14 |
| Malnutrition .....          | 235 | Pediculosis .....                  | 33 |
| Orthopaedic .....           | 4   | Communicable or infectious disease | 78 |

### RESULTS OBTAINED

|                         |     |                              |     |
|-------------------------|-----|------------------------------|-----|
| Glasses fitted .....    | 78  | Home visits .....            | 220 |
| Glasses refitted .....  | 48  | Interviews .....             | 50  |
| Tonsils removed .....   | 58  | Child Welfare Clinics .....  | 3   |
| Adenoids removed .....  | 54  | Attendance .....             | 83  |
| Dental treatment .....  | 173 | Public lectures .....        | 6   |
| Medical treatment ..... | 58  | Little Mothers' League ..... | 7   |
| Schoolroom talks .....  | 65  | Attendance .....             | 168 |

### VISITING NURSE—ONE MUNICIPALITY

|                               |     |                                   |    |
|-------------------------------|-----|-----------------------------------|----|
| Number of calls made .....    | 270 | Number of medical cases .....     | 95 |
| Number of consultations ..... | 95  | Number of surgical cases .....    | 36 |
| Number of treatments .....    | 168 | Number of obstetrical cases ..... | 6  |

Local Clinic—20 cases of tonsils and adenoids removed.

Dental work on same day, 2 cases.

Little Mothers' League Classes, 12.

Boys' First Aid Classes, 6.

### DISTRICT NURSING

During the year a new district was opened at Valley View, eighty miles east of Grande Prairie. This district is rapidly being settled by Scandinavians, and the service is greatly needed. The nurse is temporarily living in a small one-roomed shack.

Owing to the extensive territory of over ninety miles, and poor facilities for travel, a division of the Slave Lake District was made, thus creating an additional district at Kinuso.

Six districts are served by nurses.

### DISTRICT PHYSICIANS

The appointment of three British women physicians was made in June. The new district created at Kinuso, and two centres

hitherto served by district nurses, namely, Notikewin and Lac La Biche, are now served by the three women physicians.

### STATISTICAL REPORT

#### DISTRICT PHYSICIANS (6 months)

|                               |     |                                   |     |
|-------------------------------|-----|-----------------------------------|-----|
| Number of calls made .....    | 740 | Number of medical cases .....     | 290 |
| Number of consultations ..... | 495 | Number of surgical cases .....    | 179 |
| Number of deaths .....        | 5   | Number of obstetrical cases ..... | 27  |
| Number of treatments .....    | 215 |                                   |     |

#### DISTRICT NURSES

|                               |      |                                   |      |
|-------------------------------|------|-----------------------------------|------|
| Number of calls made .....    | 2325 | Number of medical cases.....      | 1530 |
| Number of consultations ..... | 1282 | Number of surgical cases.....     | 368  |
| Number of deaths .....        | 21   | Number of obstetrical cases ..... | 80   |
| Number of treatments .....    | 1161 |                                   |      |

### CHILD WELFARE CLINICS

The child welfare clinics in Edmonton, Calgary and Medicine Hat have been directed as usual by a Provincial public health nurse. It is very encouraging to note that many young mothers of foreign birth, especially Ukrainian, are attending these clinics.

### STATISTICAL REPORT

#### EDMONTON CHILD WELFARE CLINIC

|                                                         |      |
|---------------------------------------------------------|------|
| Total number in attendance at the Clinic .....          | 4620 |
| Total number of babies in attendance .....              | 3941 |
| Total number of pre-school children in attendance ..... | 679  |
| Total number of clinics held .....                      | 99   |
| Average attendance .....                                | 48   |
| Number of babies on the roll .....                      | 1515 |
| Number of new babies admitted .....                     | 711  |
| Number of babies re-admitted .....                      | 8    |
| Number of pre-school children on roll .....             | 574  |
| Number of pre-school children admitted .....            | 174  |
| Number of pre-school children re-admitted .....         | 25   |
| Number of babies transferred to pre-school clinic ..... | 133  |
| Number of babies discharged .....                       | 694  |
| Number of pre-school children discharged .....          | 502  |
| Number of nurses' visits .....                          | 4623 |
| Number of out-of-town cases in attendance .....         | 87   |
| Number of babies referred to family doctor .....        | 61   |
| Number of pre-school children referred to doctor .....  | 28   |
| Number of deaths of babies under one year of age .....  | 16   |
| Number of deaths of babies in second year .....         | 2    |
| Number of deaths of pre-school children .....           | 3    |

#### DEFECTS FOUND IN BABIES

|                              |    |                                |    |
|------------------------------|----|--------------------------------|----|
| Malnutrition .....           | 8  | Cleft Palate .....             | 1  |
| Rickets .....                | 27 | Congenital idiocy .....        | 1  |
| Intestinal indigestion ..... | 70 | Cretin .....                   | 2  |
| Thrush .....                 | 14 | Mongolian idiot .....          | 6  |
| Intertrigo .....             | 38 | Congenital malformation .....  | 2  |
| Stomatitis .....             | 3  | Hematoma .....                 | 2  |
| Eczema .....                 | 81 | Club foot .....                | 1  |
| Impetigo .....               | 16 | Epigastric hernia .....        | 1  |
| Scabies .....                | 6  | Anerexia .....                 | 3  |
| Furunculosis .....           | 2  | Pylorospasm .....              | 2  |
| Miliaria .....               | 45 | Morycism .....                 | 1  |
| Seborrhoea .....             | 3  | Celiac disease .....           | 1  |
| Birthmarks .....             | 6  | Jaundice .....                 | 2  |
| Acrodynia .....              | 2  | Bronchitis .....               | 10 |
| Scurvy .....                 | 1  | Acute broncho-pneumonia .....  | 1  |
| Umbilical hernia .....       | 65 | Congenital heart disease ..... | 5  |
| Inguinal hernia .....        | 15 | Frost bites .....              | 2  |
| Infected umbilicus .....     | 7  | Granduloma .....               | 1  |
| Phimosi s .....              | 85 | Insect bites .....             | 1  |
| Hydrocele .....              | 3  | Felon .....                    | 1  |
| Urethral ulcer .....         | 1  | Prolapse of rectum .....       | 1  |
| Conjunctivitis .....         | 18 | Fracture of clavicle .....     | 1  |
| Granulated eyelids .....     | 2  | Wry neck .....                 | 1  |
| Styes .....                  | 1  | Secondary anaemia .....        | 7  |
| Corneal abscess .....        | 1  | Asthma .....                   | 1  |
| Otitis media .....           | 23 | Abscess .....                  | 1  |
| Enlarged tonsils .....       | 3  | Burns .....                    | 8  |
| Enlarged adenoids .....      | 1  | Mustard burns .....            | 1  |
| Enlarged glands .....        | 1  | General sacromatatis .....     | 1  |
| Strabismus .....             | 8  | Infected finger .....          | 2  |
| Mastitis .....               | 3  | Worms .....                    | 3  |
| Geographical tongue .....    | 3  | Vaginal discharge .....        | 1  |
| Hypertonic .....             | 1  | Sprained shoulder .....        | 1  |
| Tongue-tied .....            | 8  |                                |    |



## DEFECTS FOUND IN PRE-SCHOOL CHILDREN

|                              |    |                           |    |
|------------------------------|----|---------------------------|----|
| Malnutrition .....           | 2  | Phimosis .....            | 12 |
| Rickets .....                | 7  | Anorexia .....            | 8  |
| Intestinal indigestion ..... | 3  | Abdominal abscess .....   | 1  |
| Intertrigo .....             | 1  | Conjunctivitis .....      | 1  |
| Stomatitis .....             | 7  | Granular eyelids .....    | 1  |
| Congenital heart .....       | 1  | Styes .....               | 2  |
| Impetigo .....               | 14 | Strabismus .....          | 5  |
| Eczema .....                 | 6  | Otitis media .....        | 14 |
| Scabies .....                | 9  | Enlarged tonsils .....    | 81 |
| Psoriasis .....              | 1  | Enlarged adenoids .....   | 76 |
| Adenitis .....               | 1  | Enlarged glands .....     | 39 |
| Geographical tongue .....    | 3  | Acute tonsillitis .....   | 3  |
| Septic throat .....          | 1  | Curvature of spine .....  | 1  |
| T.B. glands .....            | 1  | Dislocated hip .....      | 1  |
| Carious teeth .....          | 14 | Pyelitis .....            | 1  |
| Umbilical hernia .....       | 1  | Multiple contusions ..... | 1  |
| Inguinal hernia .....        | 2  | Worms .....               | 3  |
| Enuresis .....               | 5  | Burns .....               | 1  |
| Mongolian idiot .....        | 2  | Mental deficiency .....   | 3  |
| Hemiplegia .....             | 1  | Secondary dementia .....  | 1  |
| Bronchitis .....             | 7  |                           |    |

Forty-nine pre-natal cases were enrolled and eight layettes supplied to needy mothers.

Our thanks are due the Victorian Order of Nurses, the Keomi Club and the Civic Relief Department for their splendid co-operation. Also the clinic doctors—Dr. Folinsbee, Dr. Leitch and Dr. Mildred Newell—for the excellent services they have so cheerfully rendered during the year.

Medical students have been in attendance at all the Friday clinics held during the academic year. Nurses from both the Royal Alexandra and the University Hospitals have been in attendance at both clinics each week.

Thirty-four letters regarding infant feedings have been sent out from the office to rural districts in reply to enquiries from anxious mothers.

## CALGARY CHILD WELFARE CLINIC

Clinics were held in three rooms in the health department, open three afternoons a week with nurses only in attendance and two afternoons with doctor and nurses. Staff: One doctor, two nurses, and one nurse-in-training from the General Hospital two afternoons a week.

|                                                        |        |
|--------------------------------------------------------|--------|
| Total number of clinics held .....                     | 102    |
| Highest attendance .....                               | 93     |
| Lowest attendance .....                                | 9      |
| Average attendance .....                               | 54     |
| Total attendance since clinic started—Nov., 1922 ..... | 33,513 |
| Total attendance for 1929 .....                        | 5520   |
| Number on roll, Jan. 1, 1930 .....                     | 1760   |
| Total number of visits during year .....               | 2153   |
| Number of cases examined by doctor (infants) .....     | 2030   |
| Number of cases examined by doctor (pre-school) .....  | 321    |
| New cases admitted during year (infants) .....         | 562    |
| New cases admitted during year (pre-school) .....      | 139    |
| Re-admitted after being discharged .....               | 38     |
| Number transferred from infant to pre-school .....     | 411    |
| Number of cases discharged (infants) .....             | 137    |
| Number of cases discharged (pre-school) .....          | 402    |
| Died .....                                             | 6      |
| School .....                                           | 198    |
| Left city .....                                        | 111    |
| Lost .....                                             | 89     |
| Non-attendance .....                                   | 173    |

## INFECTIOUS DISEASES

|                        |   |                   |   |
|------------------------|---|-------------------|---|
| Found at Clinic:       |   | Found in Homes:   |   |
| Chickenpox .....       | 2 | Chickenpox .....  | 2 |
| Mumps .....            | 1 | Measles .....     | 3 |
| Nasal diphtheria ..... | 1 | Pediculosis ..... | 1 |
| Pediculosis .....      | 1 |                   |   |

Mental defective suspects .....

2

## Feeding Cases:

|              |      |              |      |
|--------------|------|--------------|------|
| Breast ..... | 1309 | Mixed .....  | 467  |
| Bottle ..... | 1560 | Others ..... | 1151 |

## DEFECTS FOUND

|                               | Infant. | Pre-school. |                                             | Infant. | Pre-school. |
|-------------------------------|---------|-------------|---------------------------------------------|---------|-------------|
| Malnutrition .....            | 49      | 19          | Impetigo .....                              | 10      | 7           |
| Congenital malformation ..... | 8       | 2           | Intertrigo .....                            | 3       | ..          |
| Eyes .....                    | 21      | 23          | Furunculosis .....                          | 2       | ..          |
| Ears .....                    | 27      | 21          | Ringworm .....                              | ..      | 1           |
| Tonsils .....                 | 9       | 111         | Herpes .....                                | ..      | 1           |
| Adenoids .....                | 8       | 51          | Scabies .....                               | ..      | 7           |
| Glands .....                  | 6       | 8           | Hernia .....                                | 12      | 1           |
| Nose .....                    | 5       | 4           | Congenital syphilis .....                   | 1       | ..          |
| Throat .....                  | ..      | 2           | Diarrhoea .....                             | 52      | ..          |
| Teeth .....                   | 2       | 235         | Phimosis .....                              | 1       | 1           |
| Thrush .....                  | 3       | ..          | Other conditions .....                      | 33      | 26          |
| Rickets .....                 | 1       | 1           | Cases referred to<br>family physician ..... | 28      | 15          |
| Eczema .....                  | 28      | 7           |                                             |         |             |

## REPORTS FROM TREATMENT CLINICS

|                                       |     |
|---------------------------------------|-----|
| Dental Clinic:                        |     |
| Number of cases treated .....         | 236 |
| Appointments not kept .....           | 60  |
| Eye, Ear, Nose and Throat Clinic:     |     |
| Operations—Tonsils and adenoids ..... | 55  |
| Stick removed from nose .....         | 1   |
| Treatments—Eye .....                  | 255 |
| Ear .....                             | 165 |
| Nose and Throat .....                 | 90  |

(Of these 122 were new cases)

Refractions for Glasses, 3; home visits by doctor, 3.

Fees collected for operations—\$190.00 (refunded \$5.00).

Pre-natal letters sent, 18.

Out-of-town cases—Infants 59, pre-school 6; total, 65. (These cases are examined by the Provincial Nurse, as they are not allowed the privilege of interviewing the city doctors.)

Number of letters to outside points, 46.

## MEDICINE HAT WELFARE CLINIC

|                                                       |      |
|-------------------------------------------------------|------|
| Total number in attendance .....                      | 1176 |
| Total number of babies in attendance .....            | 910  |
| Total number of pre-school children .....             | 266  |
| Total number of new cases admitted, infants .....     | 143  |
| Total number of new cases, admitted, pre-school ..... | 32   |
| Total number re-admitted, pre-school .....            | 6    |
| Number transferred to pre-school clinic .....         | 44   |
| Number referred to family doctor, infants .....       | 21   |
| Number referred to family doctor, pre-school .....    | 6    |
| Number of babies discharged .....                     | 12   |
| Number of pre-school children discharged .....        | 45   |
| Number of babies on roll .....                        | 261  |
| Number of pre-school children on roll .....           | 271  |
| Number of deaths, infant .....                        | 1    |
| Number of breast-fed babies .....                     | 287  |
| Number of bottle-fed babies .....                     | 282  |
| Number of mixed feedings .....                        | 137  |
| Number of other feedings .....                        | 204  |
| Number of nurses' visits .....                        | 1075 |
| Number of clinics held .....                          | 100  |
| Average attendance .....                              | 12   |
| Out-of-town cases .....                               | 15   |

## DEFECTS FOUND

|                               | Infants. | Pre-school. |                     | Infants. | Pre-school. |
|-------------------------------|----------|-------------|---------------------|----------|-------------|
| Hernia .....                  | 17       | ..          | Mouth .....         | 1        | ..          |
| Phimosis .....                | 23       | ..          | Carious teeth ..... | ..       | 21          |
| Congenital malformation ..... | 2        | ..          | Diarrhoea .....     | 8        | ..          |
| Other conditions .....        | 22       | 8           | Eczema .....        | 23       | ..          |
| Eyes .....                    | 8        | 2           | Impetigo .....      | 2        | ..          |
| Ears .....                    | 6        | 1           | Furunculosis .....  | 1        | 1           |
| Glands .....                  | 4        | 2           | Malnutrition .....  | 9        | ..          |
| Tonsils .....                 | 4        | 21          | Rickets .....       | 2        | 1           |
| Adenoids .....                | ..       | 6           |                     |          |             |

## TRAVELLING CHILD WELFARE CLINIC

It was necessary to send out three public health nurses in order to cover the increased demand for this service. A total of 123 clinics was held at rural points, at which 1,123 babies and 1,495 pre-school children were examined, or a total of 2,618 children. Of this number, 1,830 were found to have defects and 788 were without defects.

It is most encouraging to those engaged in this work to find the increased interest manifested in this branch of service, and the improvement noted in the children from year to year.

## EDMONTON EXHIBITION

Child welfare conferences were conducted each afternoon in the women's building, four children's specialists from the city giving their services in turn, assisted by two public health nurses. In all, 34 babies and children of pre-school age were examined.

The first-aid tent was also in charge of two public health nurses. A number of people were treated for minor accidents, etc., and the service was especially appreciated by those taking part in the pageant.

## TRAVELLING OPERATIVE CLINIC

There were sufficient organized districts in the Province already established in 1928 to provide an itinerary for the travelling clinic. Forty centres comprising 383 school districts were served. One complete surgical unit went into the field; the staff consisted of a surgeon, an anaesthetist, two dentists, four nurses and a truck driver. Dr. Margaret Owens, whose appointment was made early in the year, was attached to the staff of the clinic as anaesthetist and examining physician.

From the month of April until September three nurses were employed in making school surveys preparatory to the visits of the travelling clinic. Two of these nurses were appointed temporarily and one was a permanent member of the staff.

## STATISTICAL REPORT

## SCHOOL SURVEY

|                        |      |                         |      |
|------------------------|------|-------------------------|------|
| First inspection ..... | 7300 | With malnutrition ..... | 1034 |
| Not vaccinated .....   | 5004 | With poor posture ..... | 645  |
| With defects .....     | 5409 | Orthopaedic cases ..... | 8    |
| Without defects .....  | 1891 |                         |      |

## SUSPECTED DEFECTIVE CONDITIONS

|                |      |               |      |
|----------------|------|---------------|------|
| Vision .....   | 801  | Tonsils ..... | 3848 |
| Hearing .....  | 83   | Teeth .....   | 3234 |
| Adenoids ..... | 1917 |               |      |

## SYMPTOMS OF

|                             |     |                           |    |
|-----------------------------|-----|---------------------------|----|
| Enlarged glands .....       | 628 | Cleft palate .....        | 1  |
| Tuberculosis .....          | 3   | Eczema .....              | 1  |
| Nervous symptoms .....      | 76  | Acne .....                | 8  |
| Pediculosis .....           | 53  | Heart condition .....     | 3  |
| Scabies .....               | 60  | Spinal curvature .....    | 1  |
| Impetigo .....              | 9   | Abdominal condition ..... | 1  |
| Ringworm .....              | 8   | Goitre .....              | 4  |
| Other skin conditions ..... | 138 | Pyorrhoea .....           | 35 |
| Astigmatism .....           | 2   | Mental .....              | 1  |
| Other eye conditions .....  | 32  | Deaf and dumb .....       | 1  |

|                                          |    |
|------------------------------------------|----|
| Home visits .....                        | 20 |
| Schoolroom talks .....                   | 7  |
| Communicable or infectious diseases..... | 9  |



## TRAVELLING CLINIC

|                              |      |                        |     |
|------------------------------|------|------------------------|-----|
| Examined .....               | 4427 | Circumcisions .....    | 97  |
| Recommended for T. & A. .... | 1916 | Minor operations ..... | 150 |
| Referred to physicians ..... | 46   | Prescribed for .....   | 322 |
| Referred to hospitals .....  | 5    | Treated .....          | 318 |
| T. & A. operations .....     | 1405 | Eye cases .....        | 60  |

## DENTAL CLINIC

|                         |      |                                  |      |
|-------------------------|------|----------------------------------|------|
| Children examined ..... | 4385 | Extractions .....                | 3021 |
| Fillings .....          | 891  | Extractions under general anaes- |      |
| Prophylaxis .....       | 23   | thetic .....                     | 541  |

## POINTS VISITED

Onoway, Cherhill, Sangudo, Wabamun, Mayerthorpe, Mosside, Darwell, Clyde, Jarvie, Eastburg, Dunstable, Paradise Valley, Bulwark, Naco, Markerville, Oyen, Collholm, Youngstown, Cessford, Coutts, Mountain View, Fishburn, Diamond City, Hillspring, Strathmore, Didsbury, Sundre, New Brigden, Pendryl, Breton, Millet, Clive, Mirror, Plamondon, Lac La Biche, Colinton, Slave Lake, Kinuso, Wanham, Grouard.

## LECTURES AND DEMONSTRATIONS.

During the year one nurse has been employed exclusively in lecturing and demonstrating to the women's organizations of the Province on home nursing and first aid and other health subjects of interest in the average home. This is a most popular and much appreciated service, and has had a steady growth from year to year. Sixty-six lectures and courses were held this year, with a total attendance of 4,344.

## PRE-NATAL SERVICE

One hundred and nine expectant mothers received the complete series of pre-natal letters during the year. These letters have been much appreciated.

## Hospitals Branch

(W. B. MILNE, C.A., *Supervisor*)

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On December 31st, 1929, there were eighty-seven approved hospitals in the Province.

The following approved hospitals were opened: High Prairie, Community; Hardisty, St. Anne's; Lethbridge, St. Michael's; Mundare, General; Nanton, Dr. Keen's; Oyen, General; Stettler, Municipal; Vulcan, Municipal.

The following were closed: Forestburg, Cottage; Lethbridge, Van Haarlem; Nanton, Mrs. Millward's; Stettler, The Mills', the result being a net gain of four hospitals over 1928.

The totals grants paid for the year 1929 to hospitals and homes was \$437,710.

These hospitals had a total bed capacity of 3,534, divided as follows: General, 2,520; maternity, 526; isolation, 244; tuberculosis, 244.

On an estimated population of 646,000 in 1929 we had one hospital bed for every 182.8 of the population, or 5.5 beds per thousand population; 66,741 patients were treated during the year, receiving 875,495 days' treatment. This means that hospital treatment was provided in 1929 to 10.3 per cent. of the population, or one in every 9.7 persons.

The average daily number of patients admitted was 182.9. The average number of days spent in hospital by each patient was 13.1, and if the sanatorium Junior Red Cross and S.C.R. patients were eliminated, this would be reduced to an average of 11.6. The average number of patients in hospital daily was 2,398.6, or one in every 269.3 of our population. Each bed provided accommodation for an average of 18.9 patients during the year.

The nursing staff of these approved hospitals consisted of 428 graduates, 743 pupil nurses, and 234 other attendants.

There were twelve nurses' training schools in the Province, the number of graduates for the year being 208. Twenty-one dietitians were employed.

During the year 7,896 maternity cases were cared for in these approved hospitals, maternity cases comprising 11.7 per cent. of the cases admitted. Living births were: Male 3,943, female 3,667, a total of 7,610. Multiple births totalled fifty-five, and there were 250 stillborn. The maternal deaths were fifty-two, this being a maternal death rate of .66 per cent. of total maternity cases admitted, and 6.8 per thousand living births.

The living births in Alberta in 1929 were 16,924. Therefore, 44.9 per cent. of the total living births took place in the Government approved hospitals.

In the hospitals reporting, 21,651 general anaesthetics were administered, and six deaths occurred from these.

One hundred and seventy-seven autopsies were performed, and the infections developed in hospitals totalled 319, divided in: Medical 111, surgical 155, obstetrical 53.

Communicable diseases treated in hospital, excluding typhoid fever and T.B., were 1,863, typhoid cases amounting to 177; tuberculosis cases totalled 634, pulmonary 481, and other forms 153.

Among other cases treated in hospital there were 777 cardiac, 1,061 rheumatic, 414 goitre, 264 venereal, and 565 malignant.

There were 342 deaths within ten days of surgical operations and 522 deaths within forty-eight hours after admission. Communicable diseases accounted for 164 deaths.

The approved hospitals reported 105,485 laboratory examinations and 28,211 X-ray examinations.

The total operating expenditure of approved hospitals for 1929 was \$2,722,212.98—this included administration of \$228,738.71, operating \$2,163,494.94, and maintenance \$329,979.33. The expenditure classed as capital, which is mostly repayments of principal on capital borrowing, and interest, amounted to \$263,667.70, making a total cost of \$2,985,880.68.

Earnings of these hospitals amounted to \$3,323,168.17. On referring to the details of the earnings, it will be noted that the Alberta Government grant does not agree with the total paid by the Province. This is accounted for by the fact that homes have not been included, and some of the smaller hospitals did not submit statements with sufficient information to warrant their inclusion in the report.

Of the earnings shown \$420,312.50 was Alberta Government grant; municipal and other grants, which includes amounts paid by municipalities to take care of deficits, amounted to \$296,083.29. Patients' fees earned amounted to \$2,115,461.90; donations amounted to \$108,485.03; taxes for municipal hospital purposes amounted to \$269,877.88, this including tax requisitions, special agreements and minimum taxes; \$72,947.57 was classed as sundry earnings.

The average cost per patient day was \$3.38. The average cost per bed per day, not including capital repayments, was \$2.30. The average earnings per bed per day was \$2.81. The average total cost was divided as follows: Administration, 7.7%; operating, 72.5%; maintenance, 11%; capital repayments, 8.8%.

The statistical information that is given above has been obtained from financial and statistical statements which were requested from all hospitals for the year 1929. This being the first year that this information has been required, a good deal of difficulty has been experienced by some hospitals in completing the statistical forms. The Hospitals Branch, therefore, can only present these reports as being in accordance with information furnished by the hospitals.

The Department has had a good deal of correspondence with reference to corrections of the forms, and appreciates the co-operation of the hospitals supplying the information.

The following statements giving the details in connection with Alberta hospitals are submitted:

No. 1—Bed capacity, number of patients, number of days, nursing staff, etc.



No. 2—Nursing statistics, cases treated, anaesthetics, autopsies, etc.

No. 3—Expenses of administration, operating, maintenance and capital repayments.

No. 4—Hospital earnings.

No. 5—Costs per patient per day and per bed per day, earnings per bed per day.

#### MUNICIPAL HOSPITALS

Twenty municipal hospitals were in operation on December 31st, 1929.

This does not include sub-hospitals at Blackie and Craigmyle, as they are considered part of the hospital facilities at High River and Hanna.

New municipal hospitals were completed during the years at Grande Prairie and Stettler.

Additions were completed to Hanna and Drumheller hospitals, Hanna being provided for by a vote of the ratepayers on additional debentures, and Drumheller being provided from savings of the hospital district.

A further debenture issue to provide a hospital was also ratified by the ratepayers of the Innisfail Municipal Hospital District.

A new district was organized and ratified by the voters comprising the Peace River Municipal Hospital District. This district was fortunate in having turned over to it all the assets of the Irene Cottage Hospital, which has operated in the town of Peace River.

Statistics of the municipal hospitals will be found with the other approved hospitals of the Province.



STATISTICS OF ALBERTA HOSPITALS, 1929—Continued

| Hospital                   | Bed Capacity |           |           |                   | Number of patients admitted | Number of hospital days | Aver. days stay in hospital | Aver. No. of patients in hospital daily | Nursing Staff |           |              | Nurses training schools | No. graduated during the year | Dietitians    |
|----------------------------|--------------|-----------|-----------|-------------------|-----------------------------|-------------------------|-----------------------------|-----------------------------------------|---------------|-----------|--------------|-------------------------|-------------------------------|---------------|
|                            | General      | Maternity | Isolation | Tuber-<br>culosis |                             |                         |                             |                                         | Total         | Graduates | Pupil nurses |                         |                               |               |
| Elk Point Municipal        | 7            | 6         | 1         | 2                 | 16                          | 6,793                   | 10.5                        | 18.6                                    | 4             | ...       | 2            | ...                     | ...                           |               |
| Empress Cottage            | 17           | ...       | ...       | ...               | 17                          | 435                     | 8.8                         | 8.8                                     | 3             | ...       | ...          | ...                     | ...                           |               |
| Fairview W.I.              | 4            | 3         | ...       | ...               | 7                           | 207                     | 7.5                         | 4.3                                     | 1             | ...       | 1            | ...                     | ...                           |               |
| Ft. Vermilion, St. Theresa | 15           | 1         | ...       | ...               | 16                          | 119                     | 22.1                        | 7.2                                     | 2             | 1         | ...          | ...                     | ...                           |               |
| Galahad, St. Joseph's      | 12           | 4         | 1         | ...               | 17                          | 294                     | 2.451                       | 9.3                                     | 6.7           | 2         | ...          | ...                     | 1                             |               |
| Gleichen General           | 6            | 3         | 1         | 1                 | 10                          | 33                      | 453                         | 13.7                                    | 4             | ...       | 1            | ...                     | ...                           |               |
| Grande Prairie Municipal   | 35           | 5         | ...       | ...               | 40                          | 996                     | 9.188                       | 9.2                                     | 9             | ...       | ...          | ...                     | ...                           |               |
| Grouard, St. Joseph's      | 20           | ...       | 2         | 2                 | 24                          | 161                     | 3,406                       | 21.2                                    | 3.3           | 2         | ...          | ...                     | ...                           |               |
| Hanna Municipal            | 41           | 10        | 2         | 1                 | 54                          | 1,285                   | 14,149                      | 11.0                                    | 38.8          | 10        | 4            | 3                       | ...                           | ...           |
| Hanna Craigmyle Sub.       | 6            | 3         | ...       | ...               | 9                           | 114                     | 1,211                       | 10.6                                    | 3.3           | 2         | ...          | ...                     | ...                           |               |
| Hardisty, St. Anne's       | 19           | 1         | ...       | ...               | 20                          | 428                     | 3,768                       | 8.8                                     | 10.3          | 3         | ...          | ...                     | 1                             | Open 184 days |
| High Prairie Community     | 5            | ...       | ...       | ...               | 5                           | 33                      | 322                         | 9.8                                     | 1.7           | 1         | ...          | ...                     | ...                           | ...           |
| High River Municipal       | 39           | 10        | ...       | ...               | 49                          | 867                     | 8,876                       | 10.2                                    | 24.3          | 6         | 6            | 1                       | ...                           | ...           |
| Blackie Sub.               | 5            | ...       | ...       | ...               | 5                           | 89                      | 694                         | 7.8                                     | 1.9           | ...       | ...          | ...                     | ...                           | ...           |
| Innisfail Municipal        | 15           | 5         | ...       | ...               | 20                          | 749                     | 7,770                       | 10.4                                    | 21.3          | 5         | 2            | 2                       | ...                           | ...           |
| Islay Municipal            | 8            | 8         | ...       | ...               | 16                          | 289                     | 4,510                       | 15.6                                    | 12.4          | 3         | 1            | 1                       | ...                           | ...           |
| Lacombe General            | 10           | 3         | ...       | ...               | 13                          | 525                     | 4,135                       | 7.9                                     | 11.3          | 4         | 1            | 3                       | ...                           | ...           |
| Lamont Public              | 54           | 10        | 1         | 5                 | 70                          | 1,708                   | 20,355                      | 11.9                                    | 55.8          | 3         | 30           | ...                     | 7                             | Yes           |
| Lethbridge, Galt           | 59           | 3         | 3         | 8                 | 68                          | 2,109                   | 22,454                      | 10.6                                    | 61.5          | 7         | 24           | 4                       | 7                             | Yes           |
| Lethbridge Isolation       | ...          | ...       | 14        | ...               | 14                          | 122                     | 2,056                       | 16.9                                    | 5.6           | 1         | ...          | 1                       | ...                           | ...           |
| Lethbridge, St. Michael's  | 20           | 7         | ...       | ...               | 27                          | 735                     | 8,347                       | 11.4                                    | 22.9          | 11        | ...          | 1                       | ...                           | ...           |
| Lloydminster Municipal     | 24           | 12        | 2         | 2                 | 40                          | 613                     | 7,945                       | 12.9                                    | 21.8          | 12        | 3            | 10                      | ...                           | ...           |
| Macleod General            | 54           | 9         | 1         | ...               | 64                          | 292                     | 3,011                       | 10.3                                    | 8.3           | 4         | ...          | 6                       | ...                           | ...           |
| Mannville Municipal        | 11           | 3         | ...       | ...               | 14                          | 322                     | 2,891                       | 9.0                                     | 7.9           | 3         | ...          | ...                     | ...                           | ...           |
| Medicine Hat General       | 106          | 21        | ...       | ...               | 127                         | 3,306                   | 31,716                      | 9.6                                     | 86.9          | 8         | 38           | ...                     | 9                             | Yes           |
| Nordegg General            | 20           | ...       | ...       | ...               | 20                          | 118                     | 1,528                       | 12.9                                    | 4.2           | ...       | ...          | ...                     | ...                           | ...           |
| Olds General               | 7            | 4         | ...       | ...               | 11                          | 233                     | 1,969                       | 8.5                                     | 5.4           | 3         | ...          | ...                     | ...                           | ...           |
| Oyen General               | 3            | 2         | ...       | ...               | 5                           | 73                      | 552                         | 7.6                                     | 3.0           | 1         | ...          | 2                       | ...                           | Open 184 days |
| Onaway Municipal           | 10           | ...       | ...       | ...               | 10                          | 219                     | 1,802                       | 8.2                                     | 4.9           | 3         | ...          | ...                     | ...                           | ...           |
| Peace River Irene Cottage  | 10           | ...       | ...       | ...               | 10                          | 273                     | 3,074                       | 11.3                                    | 8.4           | 2         | ...          | ...                     | ...                           | ...           |
| Pincher Creek, St. Vincent | 6            | 7         | ...       | ...               | 13                          | 256                     | 2,393                       | 9.1                                     | 6.6           | 2         | ...          | 4                       | ...                           | ...           |
| Provost Municipal          | 14           | 6         | ...       | ...               | 20                          | 515                     | 5,999                       | 11.6                                    | 16.4          | 4         | 2            | ...                     | ...                           | ...           |
| Radway, St. Joseph's       | 5            | ...       | ...       | 1                 | 6                           | 285                     | 2,609                       | 9.2                                     | 7.1           | 3         | 1            | ...                     | ...                           | ...           |

Including Van  
Haarlem Hospital  
Alberta patients  
only

Open 184 days



















EARNINGS OF ALBERTA HOSPITALS, 1929

|                             | GRANTS             |                      | Patients' Fees | Donations | Tax requisitions | Sundry earnings | Total earnings |
|-----------------------------|--------------------|----------------------|----------------|-----------|------------------|-----------------|----------------|
|                             | Alberta Government | Municipal and others |                |           |                  |                 |                |
| Athabasca, Municipal        | 2,363.50           |                      | 6,099.44       |           | 9,508.90         | 419.69          | 18,391.53      |
| Banff, Brett                | 2,211.50           |                      | 16,441.00      |           |                  | 25,776.48       | 44,428.98      |
| Barrhead, St. Elizabeth     | 1,103.50           |                      | 6,627.00       | \$ 205.00 |                  |                 | 7,935.50       |
| Bassano, Municipal          | 3,215.50           |                      | 11,972.00      |           | 13,047.15        | 1,935.77        | 30,170.42      |
| Bentley, Community          | 717.50             |                      | 3,813.50       | 69.05     |                  |                 | 4,600.05       |
| Berwyn, W.I.                | 602.00             |                      | 1,795.97       | 374.52    |                  |                 | 2,772.49       |
| Bonnyville, St. Louis       | 1,429.50           |                      | 4,740.00       | 3,800.00  |                  | 1,233.00        | 11,202.50      |
| Bonnyville, K. H. Prettie   | 709.00             |                      | 1,579.36       | 6,384.34  |                  | 492.89          | 9,165.59       |
| Calgary, General            | 33,529.50          | \$ 71,686.13         | 170,040.38     |           |                  | 2,219.05        | 277,475.26     |
| Calgary, Isolation          | 6,502.00           | 22,188.41            | 10,537.81      |           |                  |                 | 39,228.22      |
| Calgary, Grace              | 4,613.00           | 500.00               | 9,690.62       | 2,413.40  |                  | 78.11           | 17,295.13      |
| Calgary, Holy Cross         | 27,634.50          |                      | 213,446.29     | 26,091.35 |                  |                 | 267,172.14     |
| Camrose, St. Mary's         | 5,540.50           |                      | 38,864.00      | 375.00    |                  | 853.45          | 45,632.95      |
| Cardston, Municipal         | 3,342.50           |                      | 8,309.20       |           | 16,883.06        |                 | 28,534.76      |
| Castor, Rosary              | 2,889.00           |                      | 19,261.58      | 361.00    |                  | 220.50          | 22,732.08      |
| Cereal, General             | 816.50             |                      | 4,046.61       | 13.00     |                  |                 | 4,876.11       |
| Claresholm, General         | 1,943.00           | 5,842.87             | 13,557.72      |           |                  | 200.00          | 21,543.59      |
| Cold Lake, John Neil        | 1,615.00           | 3,877.00             | 598.16         |           |                  |                 | 10,332.91      |
| Coleman, Miners'            | 1,709.00           |                      | 11,332.63      | 4,242.75  |                  |                 | 13,041.63      |
| Consort, General            | 2,106.00           |                      | 10,289.45      |           |                  | 88.00           | 12,513.15      |
| Coronation, General         | 2,145.00           |                      | 11,447.55      | 29.70     |                  |                 | 13,676.64      |
| Didsbury, General           | 1,368.00           |                      | 8,243.30       | 50.77     |                  | 33.32           | 12,140.04      |
| Drumheller, Municipal       | 9,922.50           | 2,400.00             | 43,047.89      | 128.74    |                  |                 | 54,446.14      |
| Edmonton, Beulah Home       | 2,431.50           | 1,000.00             | 7,195.48       |           | 27,641.55        | 1,739.90        | 32,351.84      |
| Edmonton, General           | 27,424.00          | 10,500.00            | 169,796.26     | 6,847.45  |                  | 388.48          | 17,862.91      |
| Edmonton, Grace             | 2,245.50           |                      | 7,586.37       | 3,187.95  |                  |                 | 210,908.21     |
| Edmonton, Misericordia      | 21,929.00          | 8,000.00             | 129,299.27     | 3,144.32  |                  |                 | 12,976.19      |
| Edmonton, Isolation         | 9,082.00           | 54,564.90            | 34,311.49      |           |                  |                 | 193,415.77     |
| Edmonton, Royal Alexandra   | 47,111.00          | 84,195.42            | 287,239.68     | 34,187.50 |                  |                 | 97,958.39      |
| Edson, St. John's           | 56,367.00          | 8,736.00             | 235,633.96     |           |                  |                 | 418,546.10     |
| Elk Point, John's           | 1,941.00           | 2,500.00             | 10,003.50      | 190.00    |                  |                 | 14,627.35      |
| Elk Point, Municipal        | 3,396.50           | 160.00               | 8,895.56       | 60.00     |                  | 122.85          | 12,475.91      |
| Empress, Cottage            | 1,909.50           |                      | 15,017.17      | 20.00     |                  |                 | 24,075.91      |
| Fairview, W.I.              | 778.50             |                      | 4,957.00       |           |                  |                 | 16,926.67      |
| Fort Vermilion, St. Theresa | 1,312.50           |                      | 2,093.25       |           |                  | 65.00           | 5,800.50       |
| Galahad, St. Joseph's       | 1,306.50           |                      | 6,671.42       | 2,200.00  |                  |                 | 5,605.75       |
| Gleichen, General           | 226.50             |                      | 1,311.55       | 2,895.00  |                  | 671.75          | 11,543.67      |
| Grande Prairie, Municipal   | 4,594.00           |                      | 16,308.75      |           |                  |                 | 1,538.05       |
| Grouard, St. Joseph's       | 1,703.00           |                      | 3,406.00       | 1,921.45  |                  | 2,974.30        | 44,941.39      |
| Hanna, Municipal            | 7,680.00           | 3,516.50             | 27,917.00      |           | 19,142.89        |                 | 8,625.50       |
| Hardisty, St. Anne's        | 1,884.00           |                      | 16,094.50      |           | 27,139.46        | 856.51          | 63,592.97      |
|                             |                    |                      |                | 1,580.00  |                  | 64.75           | 19,623.25      |

## EARNINGS OF ALBERTA HOSPITALS, 1929—Continued

|                                    | GRANTS             |                      | Patients' Fees  | Donations     | Tax requisitions | Sundry earnings | Total earnings  |
|------------------------------------|--------------------|----------------------|-----------------|---------------|------------------|-----------------|-----------------|
|                                    | Alberta Government | Municipal and others |                 |               |                  |                 |                 |
| High Prairie, Community .....      |                    |                      | \$ 602.84       | \$ 530.19     |                  |                 | \$ 1,294.03     |
| High River, Municipal .....        | 161.00             |                      | 13,306.65       |               | \$ 23,091.55     | 3,370.70        | 44,553.90       |
| Inniskill, Municipal .....         | 4,785.00           |                      | 10,683.02       |               | 13,388.51        | 1,307.71        | 29,264.24       |
| Islay, Municipal .....             | 2,255.00           |                      | 4,101.00        |               | 12,000.00        |                 | 18,356.00       |
| Lacombe, General .....             | 2,067.50           |                      | 13,706.21       | 80.40         |                  | 266.80          | 16,120.91       |
| Lamont, Public .....               | 10,177.50          | \$ 2,750.00          | 43,424.82       |               |                  | 15,875.56       | 72,227.88       |
| Lethbridge, Galt .....             | 11,227.00          |                      | 62,852.15       | 25.00         |                  | 2,847.44        | 76,951.59       |
| Lethbridge, Isolation .....        | 1,028.00           | 272.61               | 3,664.00        |               |                  | 1,366.70        | 6,331.31        |
| Lethbridge, St. Michael's .....    | 2,497.50           |                      | 22,441.75       | 183.00        |                  | 55.00           | 25,177.25       |
| Lloydminster, Municipal .....      | 3,972.50           | 3,726.00             | 34,456.75       | 406.00        |                  | 25.20           | 42,586.45       |
| Macleod, General .....             | 1,932.00           |                      | 22,789.34       |               |                  |                 | 24,721.34       |
| Mannville, Municipal .....         | 1,445.50           |                      | 3,848.70        |               | 9,390.00         |                 | 14,684.20       |
| Medicine Hat, General .....        | 15,521.00          |                      | 91,861.55       | 416.00        |                  | 920.00          | 108,718.55      |
| Nordegg, General .....             | 764.00             |                      | 4,748.56        |               |                  |                 | 5,512.56        |
| Olds, General .....                | 984.50             |                      | 7,800.00        |               |                  |                 | 8,784.50        |
| Oyen, General .....                | 276.00             |                      | 2,772.50        |               |                  | 483.50          | 3,532.00        |
| Onoway, Municipal .....            | 901.00             |                      | 2,139.30        |               | 8,003.69         |                 | 11,093.99       |
| Peace River, Irene Cottage .....   | 1,537.00           |                      | 9,192.50        | 256.25        |                  | 1,291.85        | 12,277.60       |
| Pincher Creek, St. Vincent's ..... | 1,196.50           | 400.00               | 6,223.75        | 1,753.50      |                  | 500.00          | 10,078.75       |
| Provost, Municipal .....           | 2,999.50           |                      | 7,891.10        |               |                  |                 | 27,673.51       |
| Radway, St. Joseph's .....         | 1,304.50           |                      | 5,213.45        |               | 15,078.52        | 1,704.39        | 6,896.70        |
| Red Deer, Municipal .....          | 4,367.00           |                      | 25,647.90       | 378.75        |                  |                 | 31,358.02       |
| St. Paul, St. Theresa .....        | 2,890.50           |                      | 16,747.70       | 442.25        |                  |                 | 20,080.45       |
| Smoky Lake, Geo. McDougall .....   | 1,546.50           | 5,000.00             | 4,893.41        |               |                  |                 | 11,439.91       |
| Stettler, Municipal .....          | 485.50             |                      | 1,399.00        |               |                  |                 | 18,838.47       |
| Trochu, St. Mary's .....           | 1,913.50           |                      | 6,910.00        | 1,760.00      | 15,674.12        | 1,279.85        | 10,583.50       |
| Vegreville, General .....          | 5,722.50           |                      | 24,046.00       | 17.50         |                  |                 | 29,786.00       |
| Vegreville, R. M. Boswell .....    | 2,050.50           |                      | 8,044.00        | 10.00         |                  | 75.00           | 10,179.50       |
| Vermilion, Municipal .....         | 4,249.00           |                      | 9,470.50        |               | 14,142.00        | 725.80          | 28,587.30       |
| Viking, Municipal .....            | 2,279.50           |                      | 5,371.70        |               | 12,900.00        | 365.35          | 20,916.55       |
| Vilna, Our Lady's .....            | 1,023.00           |                      | 5,646.00        |               |                  |                 | 6,669.00        |
| Vulcan, Municipal .....            | 2,584.50           |                      | 10,694.50       |               | 11,008.04        |                 | 24,287.04       |
| Wainwright, Municipal .....        | 2,806.00           |                      | 7,843.30        | 10.00         | 8,891.47         |                 | 19,550.77       |
| Wayne, General .....               | 1,178.00           |                      | 8,797.78        |               |                  |                 | 9,973.78        |
| Westlock, Immaculata .....         | 2,330.50           |                      | 19,028.91       | 1,443.90      |                  |                 | 22,803.31       |
| Wetaskiwin, General .....          | 2,619.50           | 4,267.45             | 17,566.39       |               |                  | 52.92           | 24,506.26       |
|                                    | \$ 420,312.50      | \$ 286,083.29        | \$ 2,155,461.90 | \$ 108,485.03 | \$ 269,877.88    | \$ 72,947.57    | \$ 3,323,168.17 |

COSTS OF ALBERTA HOSPITALS, 1929

|                           | Costs including administration, operating and maintenance |                  |                 | Cost including capital repayments |                  | Earnings including grants and contributions from municipalities |          |         | Percentages of Total Cost |           |             |                    |
|---------------------------|-----------------------------------------------------------|------------------|-----------------|-----------------------------------|------------------|-----------------------------------------------------------------|----------|---------|---------------------------|-----------|-------------|--------------------|
|                           | Per patient per day                                       | Per bed per year | Per bed per day | Per bed per year                  | Per bed per year | Per bed per day                                                 | Per year | Per day | Administration            | Operating | Maintenance | Capital repayments |
|                           |                                                           |                  |                 |                                   |                  |                                                                 |          |         |                           |           |             |                    |
| Athabasca, Municipal      | 3.45                                                      | \$1019.12        | 2.79            | \$1019.12                         | \$1149.47        | 3.15                                                            |          | 9.0     | 79.7                      | 11.3      | .....       |                    |
| Banff, Brett              | 9.18                                                      | 932.22           | 2.55            | 932.22                            | 1025.85          | 2.81                                                            |          | 5.3     | 88.6                      | 6.1       | .....       |                    |
| Barrhead, St. Elizabeth   | 1.12                                                      | 468.06           | 1.28            | 468.06                            | 793.55           | 2.17                                                            |          | 2.6     | 85.5                      | 11.9      | .....       |                    |
| Bassano, Municipal        | 3.56                                                      | 916.94           | 2.51            | 1026.74                           | 1206.82          | 3.30                                                            |          | 7.5     | 71.4                      | 10.4      | 10.7        |                    |
| Bentley, Community        | 3.24                                                      | 517.11           | 1.42            | 517.11                            | 511.12           | 1.40                                                            |          | 2.0     | 85.4                      | 12.6      | .....       |                    |
| Berwyn, W.I.              | 2.14                                                      | 321.79           | .88             | 321.79                            | 346.56           | .95                                                             |          | 3.5     | 94.6                      | 1.9       | .....       |                    |
| Bonnyville, St. Louis     | 3.14                                                      | 1121.58          | 3.07            | 1121.58                           | 1400.31          | 3.84                                                            |          | 4.7     | 87.6                      | 7.7       | .....       |                    |
| Bonnyville, K.H.P.        | 5.54                                                      | 462.50           | 1.27            | 462.50                            | 539.15           | 1.48                                                            |          | 5.1     | 83.5                      | 11.4      | .....       |                    |
| Calgary, General          | 3.95                                                      | 1395.88          | 3.85            | 1460.40                           | 1460.40          | 4.00                                                            |          | 9.0     | 68.8                      | 17.8      | 4.4         |                    |
| Calgary, Isolation        | 2.68                                                      | 436.34           | 1.19            | 490.35                            | 490.35           | 1.34                                                            |          | 11.9    | 61.1                      | 15.9      | 11.0        |                    |
| Calgary, Grace            | 1.78                                                      | 432.03           | 1.18            | 432.03                            | 455.14           | 1.25                                                            |          | 7.9     | 68.6                      | 23.5      | .....       |                    |
| Calgary, Holy Cross       | 4.16                                                      | 766.66           | 2.10            | 841.52                            | 890.57           | 2.44                                                            |          | 7.7     | 64.7                      | 18.7      | 8.9         |                    |
| Camrose, St. Mary's       | 2.46                                                      | 545.21           | 1.49            | 745.13                            | 912.65           | 2.50                                                            |          | 8.7     | 57.7                      | 6.8       | 26.8        |                    |
| Cardston, Municipal       | 3.55                                                      | 1079.71          | 2.96            | 1079.71                           | 1297.03          | 3.28                                                            |          | 8.1     | 90.0                      | 1.9       | .....       |                    |
| Castor, Rosary            | 2.50                                                      | 481.38           | 1.31            | 481.38                            | 757.74           | 2.08                                                            |          | 11.3    | 74.1                      | 14.6      | .....       |                    |
| Cereal, General           | 2.70                                                      | 440.23           | 1.21            | 440.23                            | 487.61           | 1.34                                                            |          | .7      | 94.6                      | 4.7       | .....       |                    |
| Clareholm, General        | 4.30                                                      | 880.50           | 2.41            | 938.40                            | 1133.87          | 3.11                                                            |          | 1.8     | 84.2                      | 7.8       | 6.2         |                    |
| Cold Lake, John Neil      | 3.19                                                      | 859.65           | 2.36            | 859.65                            | 861.08           | 2.36                                                            |          | 3.8     | 83.1                      | 13.1      | .....       |                    |
| Coleman, Miners           | 3.66                                                      | 962.71           | 2.64            | 962.71                            | 1003.20          | 2.75                                                            |          | 6.1     | 85.4                      | 8.5       | .....       |                    |
| Consort, General          | 2.43                                                      | 640.89           | 1.76            | 640.89                            | 782.07           | 2.14                                                            |          | 1.1     | 90.9                      | 8.0       | .....       |                    |
| Coronation, General       | 2.88                                                      | 589.03           | 1.61            | 589.03                            | 651.27           | 1.78                                                            |          | 4.3     | 89.8                      | 5.9       | .....       |                    |
| Didsbury, General         | 4.17                                                      | 1038.18          | 2.84            | 1038.18                           | 1103.64          | 3.23                                                            |          | 4.8     | 92.7                      | 2.5       | .....       |                    |
| Drumheller, Municipal     | 3.18                                                      | 624.71           | 1.71            | 715.39                            | 815.36           | 2.32                                                            |          | 8.0     | 73.0                      | 6.3       | 12.7        |                    |
| Edmonton, Beulah Home     | 3.59                                                      | 346.87           | .95             | 375.76                            | 446.57           | 1.22                                                            |          | 6.9     | 76.9                      | 8.5       | 7.7         |                    |
| Edmonton, General         | 3.31                                                      | 903.73           | 2.47            | 961.75                            | 1054.54          | 2.89                                                            |          | 4.7     | 73.9                      | 15.4      | 6.0         |                    |
| Edmonton, Grace           | 2.72                                                      | 394.15           | 1.08            | 394.15                            | 418.59           | 1.15                                                            |          | 12.7    | 76.4                      | 10.9      | .....       |                    |
| Edmonton, Misericordia    | 3.34                                                      | 836.80           | 2.29            | 1030.66                           | 1105.23          | 3.03                                                            |          | 5.2     | 65.9                      | 10.0      | 18.9        |                    |
| Edmonton, Royal Alexandra | 3.45                                                      | 1298.85          | 3.56            | 1539.34                           | 1674.18          | 4.59                                                            |          | 7.9     | 61.5                      | 15.0      | 15.8        |                    |
| Edmonton, Isolation       | 4.01                                                      | 728.06           | 1.99            | 864.44                            | 979.58           | 2.68                                                            |          | 12.9    | 61.5                      | 9.8       | .....       |                    |
| Edmonton, University      | 3.79                                                      | 1149.73          | 3.15            | 1149.73                           | 1368.10          | 3.75                                                            |          | 7.8     | 89.2                      | 3.0       | .....       |                    |
| Edson, St. John's         | 3.86                                                      | 787.79           | 2.16            | 787.79                            | 769.86           | 2.11                                                            |          | 3.5     | 80.9                      | 15.6      | .....       |                    |
| Elk Point, Municipal      | 2.72                                                      | 1156.44          | 3.17            | 1322.41                           | 1504.74          | 4.12                                                            |          | 8.0     | 75.0                      | 4.5       | 12.5        |                    |
| Empress, Cottage          | 3.39                                                      | 762.33           | 2.09            | 762.33                            | 995.69           | 2.73                                                            |          | 7.9     | 92.1                      | .....     | .....       |                    |



## COSTS OF ALBERTA HOSPITALS, 1929—Continued

|                                   | Costs including administration, operating and maintenance |                  |                 | Cost including capital repayments |                  | Earnings including grants and contributions from municipalities |                  | Percentages of Total Cost |           |             |                    |
|-----------------------------------|-----------------------------------------------------------|------------------|-----------------|-----------------------------------|------------------|-----------------------------------------------------------------|------------------|---------------------------|-----------|-------------|--------------------|
|                                   | Per patient per day                                       | Per bed per year | Per bed per day | Per bed per year                  | Per bed per year | Per bed per day                                                 | Per bed per year | Administration            | Operating | Maintenance | Capital repayments |
|                                   |                                                           |                  |                 |                                   |                  |                                                                 |                  |                           |           |             |                    |
| Fairview, W.I. ....               | 3.70                                                      | 822.95           | 2.25            | 822.95                            | 828.64           | 2.27                                                            | 828.64           | .3                        | 86.0      | 13.7        | .....              |
| Fort Vermilion, St. Theresa ..... | 1.72                                                      | 281.77           | .77             | 281.77                            | 350.36           | .96                                                             | 350.36           | 1.7                       | 98.3      | .....       | .....              |
| Galahad, St. Joseph's .....       | 3.32                                                      | 478.18           | 1.31            | 536.42                            | 679.04           | 1.86                                                            | 679.04           | 4.2                       | 76.7      | 8.2         | 10.9               |
| Gleichen, General .....           | 4.53                                                      | 205.39           | .56             | 205.39                            | 153.81           | .42                                                             | 153.81           | 5.8                       | 94.2      | .....       | .....              |
| Grande Prairie, Municipal .....   | 3.47                                                      | 796.81           | 2.18            | 987.15                            | 1123.53          | 3.08                                                            | 1123.53          | 10.7                      | 66.3      | 3.7         | 19.3               |
| Grouard, St. Joseph's .....       | 2.36                                                      | 334.34           | .92             | 334.34                            | 359.40           | .98                                                             | 359.40           | 5.6                       | 66.9      | 2.7         | .....              |
| Hanna, Municipal .....            | 3.58                                                      | 873.00           | 2.39            | 1003.90                           | 1009.41          | 2.77                                                            | 1009.41          | 8.2                       | 70.1      | 8.7         | 13.0               |
| Hardisty, St. Anne's .....        | 1.77                                                      | 332.97           | .91             | 521.86                            | 981.16           | 2.69                                                            | 981.16           | 1.2                       | 54.5      | 8.1         | 36.2               |
| High Prairie, Community .....     | 3.20                                                      | 412.28           | 1.13            | 412.28                            | 517.61           | 1.42                                                            | 517.61           | 1.42                      | 5.9       | 74.8        | .....              |
| High River, Municipal .....       | 4.00                                                      | 708.89           | 1.94            | 805.02                            | 825.07           | 2.26                                                            | 825.07           | 6.3                       | 77.7      | 4.1         | 11.9               |
| Innisfail, Municipal .....        | 3.06                                                      | 1191.15          | 3.26            | 1373.15                           | 1463.21          | 4.01                                                            | 1463.21          | 13.4                      | 70.2      | 3.2         | 13.2               |
| Islay, Municipal .....            | 3.32                                                      | 936.73           | 2.57            | 1110.83                           | 1147.25          | 3.14                                                            | 1147.25          | 7.7                       | 63.5      | 13.1        | 15.7               |
| Lacombe, General .....            | 3.48                                                      | 1106.33          | 3.03            | 1106.33                           | 1240.07          | 3.40                                                            | 1240.07          | 4.1                       | 88.4      | 7.5         | .....              |
| Lamont, Public .....              | 2.87                                                      | 834.21           | 2.29            | 834.21                            | 1031.83          | 2.83                                                            | 1031.83          | 11.4                      | 83.1      | 5.5         | .....              |
| Lethbridge, Galt .....            | 2.91                                                      | 959.27           | 2.63            | 1010.30                           | 1131.64          | 3.10                                                            | 1131.64          | 10.3                      | 79.7      | 4.9         | 5.1                |
| Lethbridge, Isolation .....       | 2.51                                                      | 368.38           | 1.01            | 432.84                            | 452.24           | 1.24                                                            | 452.24           | 1.7                       | 61.3      | 22.1        | 14.9               |
| Lethbridge, St. Michael's .....   | 4.66                                                      | 1502.24          | 4.12            | 1674.30                           | 1864.98          | 5.11                                                            | 1864.98          | 9.3                       | 75.1      | 5.3         | 10.3               |
| Lloydminster, Municipal .....     | 2.67                                                      | 1058.68          | 2.90            | 1058.68                           | 1064.66          | 2.92                                                            | 1064.66          | 9.4                       | 87.4      | 3.2         | .....              |
| Mannville, Municipal .....        | 4.31                                                      | 890.68           | 2.44            | 1018.20                           | 1048.87          | 2.87                                                            | 1048.87          | 6.6                       | 78.4      | 2.5         | 12.5               |
| Medicine Hat, General .....       | 2.35                                                      | 587.22           | 1.61            | 587.22                            | 856.05           | 2.35                                                            | 856.05           | 9.7                       | 77.9      | 12.4        | .....              |
| Nordegg, General .....            | 2.41                                                      | 184.11           | .51             | 230.85                            | 275.63           | .76                                                             | 275.63           | 3.4                       | 75.9      | .5          | 20.2               |
| Oyen, General .....               | 4.68                                                      | 836.95           | 2.29            | 836.95                            | 798.59           | 2.19                                                            | 798.59           | 7.4                       | 80.7      | 11.9        | .....              |
| Oyen, General .....               | 6.91                                                      | 1526.58          | 4.18            | 1526.58                           | 1412.80          | 3.87                                                            | 1412.80          | 2.5                       | 96.6      | 9.4         | 3.5                |
| Onoway, Municipal .....           | 5.33                                                      | 960.76           | 2.63            | 995.46                            | 1109.40          | 3.04                                                            | 1109.40          | 7.9                       | 79.2      | 19.7        | .....              |
| Peace River, Irene Cottage .....  | 3.43                                                      | 1052.86          | 2.88            | 1052.86                           | 1227.76          | 3.36                                                            | 1227.76          | 5.9                       | 74.4      | 19.7        | .....              |
| Pincher Creek, St. Vincent .....  | 3.27                                                      | 602.39           | 1.65            | 602.39                            | 775.29           | 2.12                                                            | 775.29           | 5.6                       | 72.0      | 22.4        | .....              |
| Provost, Municipal .....          | 3.53                                                      | 1059.37          | 2.90            | 1237.61                           | 1383.68          | 3.79                                                            | 1383.68          | 6.9                       | 72.1      | 6.6         | 14.4               |
| Radway, St. Joseph's .....        | 2.41                                                      | 1049.51          | 2.88            | 1347.32                           | 1149.45          | 3.15                                                            | 1149.45          | 5.6                       | 49.5      | 22.8        | 22.1               |
| Red Deer, Municipal .....         | 2.83                                                      | 705.69           | 1.93            | 797.06                            | 895.94           | 2.45                                                            | 895.94           | 6.6                       | 73.9      | 8.0         | 11.5               |
| St. Paul, St. Theresa .....       | 2.86                                                      | 661.95           | 1.81            | 679.45                            | 803.22           | 2.20                                                            | 803.22           | 5.1                       | 75.8      | 16.5        | 2.6                |
| Smoky Lake, Geo. MacDougall ..... | 4.08                                                      | 900.85           | 2.47            | 917.92                            | 817.14           | 2.24                                                            | 817.14           | 1.8                       | 94.1      | 2.2         | 1.9                |
| Trochu, St. Mary's .....          | 2.95                                                      | 564.93           | 1.55            | 564.93                            | 529.28           | 1.45                                                            | 529.28           | 5.2                       | 77.9      | 16.9        | .....              |
| Vegreville, General .....         | 2.27                                                      | 649.54           | 1.78            | 649.54                            | 744.65           | 2.04                                                            | 744.65           | 3.4                       | 86.6      | 10.0        | .....              |

|                                 |         |          |         |          |           |         |      |      |       |       |
|---------------------------------|---------|----------|---------|----------|-----------|---------|------|------|-------|-------|
| Vegreville, R. M. Boswell ..... | 3.18    | 685.80   | 1.88    | 685.80   | 535.76    | 1.47    | 8.8  | 82.0 | 14.2  | ..... |
| Vermilion, Municipal .....      | 2.21    | 934.66   | 2.56    | 1152.35  | 1429.37   | 3.92    | 8.1  | 70.5 | 2.8   | 18.6  |
| Viking, Municipal .....         | 3.28    | 1069.64  | 2.93    | 1295.35  | 1494.04   | 4.09    | 7.8  | 60.3 | 14.5  | 17.4  |
| Vilna, Our Lady's .....         | 2.97    | 222.86   | .61     | 286.97   | 351.00    | .96     | 10.2 | 67.5 | ..... | 22.3  |
| Vulcan, Municipal .....         | 4.10    | 814.85   | 2.23    | 947.96   | 939.12    | 2.57    | 13.9 | 69.3 | 2.8   | 14.0  |
| Wainwright, Municipal .....     | 2.64    | 740.52   | 2.03    | 919.46   | 977.54    | 2.68    | 6.8  | 71.7 | 2.0   | 19.5  |
| Wayne, General .....            | 3.54    | 595.28   | 1.63    | 667.83   | 712.41    | 1.95    | 6.0  | 76.6 | 6.5   | 10.9  |
| Westlock, Immaculata .....      | 2.58    | 400.10   | 1.10    | 520.60   | 760.11    | 2.08    | 3.7  | 62.6 | 10.6  | 23.1  |
| Wetaskiwin, General .....       | 3.24    | 860.59   | 2.36    | 860.59   | 1289.80   | 3.53    | 3.2  | 84.0 | 12.8  | ..... |
|                                 | \$ 3.38 | \$838.65 | \$ 2.30 | \$921.05 | \$1024.56 | \$ 2.81 | 7.7  | 72.5 | 11.0  | 8.8   |

Eliminated: Sanatorium; Junior Red Cross, Calgary; Macleod, and Stettler.

## Charity and Relief

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During the year 1929 this Department took action in giving the required relief to 948 cases, or a total of 1,807 individuals, including the members of families.

Relief was accounted for in the following manner:

|                              |     |                                                    |     |
|------------------------------|-----|----------------------------------------------------|-----|
| Temporary relief .....       | 347 | Temporary maintenance, Salvation Army Hostel ..... | 207 |
| Permanent relief .....       | 155 | Macleod Hospital .....                             | 19  |
| Transportation .....         | 97  | Calgary Salvation Army .....                       | 8   |
| Deportation .....            | 11  | Gleichen Eventide Home .....                       | 70  |
| Medical accounts paid .....  | 86  | Bonnie Doon, Edmonton .....                        | 37  |
| Hospital accounts paid ..... | 119 | House of Providence, Edmonton.....                 | 8   |
| Clothing .....               | 63  | Lacombe Home, Midnapore .....                      | 11  |
|                              |     | Providence Hospital, Daysland .....                | 16  |

Relief was stopped in 222 cases.

The Alberta Provincial Police reported on 967 investigations made for and on behalf of the Department.

The Department received applications and was notified of over 250 cases of destitution requiring assistance, which were referred to the municipal authorities responsible for their maintenance.

Approximately 936 personal applicants were interviewed during the year at the relief office.



## Division of Social Hygiene

(HAROLD ORR, O.B.E., M.B., D.P.H., *Director*)

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Owing to the fact that agriculture is the chief occupation of the people of Alberta, the centres of population are not large, Edmonton and Calgary each containing approximately 70,000 persons. The total population of the Province is 633,000, and of this number some 13,000 are native Indians who are isolated on Indian reserves. The Province is 750 miles in length, and its width varies from 180 miles at the southern boundary to a maximum of 400 miles at the northern boundary, and contains 255,285 square miles of territory. It is, therefore, evident that the Province is comparatively sparsely settled. As a result of this we have a smaller proportion of venereal cases than in more densely settled countries such as those of Europe, but the difficulties in the problem of control are correspondingly increased.

It is usually stated by those best able to judge that about 10% of the urban population of Great Britain is syphilitic. These figures correspond to those arrived at by the Royal Commission on Venereal Disease in 1914. In the insane population the proportion of syphilitics is 20%. There is, therefore, twice as much syphilis in the insane population as in the normal population. We have found in Alberta that only 7% of our insane population is syphilitic, and we, therefore, assumed that only about 3½% of our population is syphilitic, or about one-third the proportion that exists in European countries.

### EDUCATION AND PUBLICITY

Much of the publicity work undertaken with a view to moulding public opinion is done by the Canadian Social Hygiene Council, of which there are local branches in the Province, and two paid secretaries. This organization receives a small grant from the Provincial Government, and its activities vary from time to time, but on the whole it has done, and is doing, very useful work.

We possess a library of self-explanatory films on social hygiene which do not require the services of a special lecturer. These have been shown by the Department of Extension of the University of Alberta in all parts of the Province. In addition to this, we have maintained during the past four years a full-time lecturer, who has thoroughly covered the whole Province in his lecture tours. In this way our population has become more or less familiar with this question in its various phases.

### TREATMENT

We have established well-equipped clinics in Edmonton, Calgary, Medicine Hat and Lethbridge. These clinics are free and open to all, regardless of their ability to pay. Most of our country cases are

able to attend one or another of these clinics, but we have to deal with the problem of the treatment of poor people living in remote parts of the country. These patients, so long as they are infectious, are treated by their local doctor, at the Government's expense, until such time as they become non-infectious, after which we supply all the medicines free of charge, but the doctor's fee for administering them must be paid by the municipality in which the patient resides.

Our treatment varies, of course, with the type of case. For recently acquired syphilis with a negative Wassermann, Neoarsphenamine is given intravenously on three successive days and then at weekly intervals until the first course of seven has been completed. At the same time, bismuth metal is given intramuscularly every five to seven days, and this is continued until from fifteen to twenty doses have been given. This is followed by a short course of mercury in the form of Hutchinson's pills, and then after a brief rest the combined course of neoarsphenamine and bismuth is repeated, and usually a third course is given. If the blood Wassermann test, which is taken at every second intravenous treatment, has been consistently negative throughout, and if after the third course of treatment the spinal fluid is normal, the patient is regarded as cured.

The use of mercury in the form of Hutchinson's pills suits our purpose admirably, as a patient is thus enabled to return to his home for intervals between the courses of neoarsphenamine and bismuth.

In early Wassermann positive syphilis, treatment is given along the same lines, but it is not so intensive, and of course the patient is kept under observation indefinitely.

Patients with cardiovascular syphilis are given a course of bismuth and potassium iodide before any neoarsphenamine is given.

For cerebro-spinal syphilis we use Tryparsamide instead of neoarsphenamine.

For paresis we have for the past six years been using the malaria induced pyrexia treatment. This work, which was inaugurated by this Branch in one of the Edmonton hospitals in 1924, was immediately transferred to the Provincial Mental Hospital, Ponoka, where, under the able direction of Dr. Cook, more than one hundred patients have been treated with about 35% of clinical cures. The treatment of these patients after discharge is continued for long periods of time with tryparsamide and bismuth.

In well established syphilis we have always hesitated to discharge any patient as cured, even though the blood Wassermann may have become negative, and the spinal fluid normal, and we have these patients continue to report back at least once a year for re-examination.

Our neoarsphenamine medication is controlled by liver function tests. During the last three years we have been doing the Van den Bergh test as a routine at every second treatment. We are thus able to detect liver damage before it becomes evident clinically, and to check it by the use of sodium thiosulphate intravenously. Since this control test has been used as a routine we have had no cases of acute yellow atrophy of the liver, or exfoliative dermatitis.

Gonorrhoea is treated according to the requirements of the case. We follow the usual practice of treatment with through and through irrigations of potassium permanganate solution, plus any special procedures which may be indicated in any particular case.

We have special machinery for dealing with special classes of the community. For example, all persons who are arrested on certain specified charges (which include all charges in any way associated with prostitution) must be examined for venereal disease. Any person found to be infected with venereal disease must be detained until he or she becomes non-infectious, and this detention and treatment becomes effective whether or no the person is found to be guilty of the charge on which he or she was arrested.

Then, of course, all inmates of our various governmental institutions, such as gaols and mental hospitals, are examined on admission and any infected individuals treated.

An important part of the venereal disease control is the follow-up work. In our clinics a careful social history is taken of each case, and an effort made to deal with the source of infection.

Although we have the power to make an examination of a suspected individual, it is very rarely necessary to use it. Our policy is to have the suspected individual interviewed by the social worker, and with very few exceptions the patient voluntarily comes to the clinic for examination and treatment.

Every clinic, of course, has to deal with the problem of persons discontinuing treatment before being cured. Our troubles with regard to this, however, have been surprisingly few, and I think that our extensive educational work has been an important factor in this respect.

The following figures briefly indicate the treatment work done during the year::

#### EDMONTON CLINIC, 9912 103rd Avenue.

|                               |     |
|-------------------------------|-----|
| Number of Patients .....      | 449 |
| Sexes of Patients: Male ..... | 357 |
| Female .....                  | 92  |

#### CLASSIFICATION OF THEIR DISEASES

|                   | Syphilis. | Gonorrhoea. | Chancroid. | Totals. |
|-------------------|-----------|-------------|------------|---------|
| Adult: Male ..... | 100       | 257         | .....      | 357     |
| Female .....      | 41        | 51          | .....      | 92      |
| Totals .....      | 141       | 308         | .....      | 449     |

Number and results of Wasserman tests: 1763 tests, of which 423 were positive.

#### CALGARY CLINIC, City Hall Annex, New Police Building.

|                               |     |
|-------------------------------|-----|
| Number of Patients .....      | 626 |
| Sexes of Patients: Male ..... | 540 |
| Female .....                  | 86  |

#### CLASSIFICATION OF THEIR DISEASES

|                   | Syphilis. | Gonorrhoea. | Chancroid. | Totals. |
|-------------------|-----------|-------------|------------|---------|
| Adult: Male ..... | 105       | 408         | 27         | 540     |
| Female .....      | 28        | 58          | .....      | 86      |
| Totals .....      | 133       | 466         | 27         | 626     |

Number and results of Wasserman Tests: 1135 tests, of which 202 were positive.

#### MEDICINE HAT CLINIC, General Hospital.

|                               |    |
|-------------------------------|----|
| Number of Patients .....      | 29 |
| Sexes of Patients: Male ..... | 21 |
| Female .....                  | 8  |



## DEPARTMENT OF PUBLIC HEALTH

## CLASSIFICATION OF THEIR DISEASES

|                   | Syphilis. | Gonorrhoea. | Chancroid. | Totals. |
|-------------------|-----------|-------------|------------|---------|
| Adult: Male ..... | 6         | 14          | 1          | 21      |
| Female .....      | 4         | 4           | .....      | 8       |
| Totals .....      | 10        | 18          | 1          | 29      |

Number and results of Wasserman Tests: 88 tests, of which 43 were positive.

## LETHBRIDGE CLINIC, Galt Hospital.

|                               |    |
|-------------------------------|----|
| Number of Patients .....      | 50 |
| Sexes of Patients: Male ..... | 48 |
| Female .....                  | 2  |

## CLASSIFICATION OF THEIR DISEASES

|                   | Syphilis. | Gonorrhoea. | Chancroid. | Totals. |
|-------------------|-----------|-------------|------------|---------|
| Adult: Male ..... | 13        | 35          | .....      | 48      |
| Female .....      | 1         | 1           | .....      | 2       |
| Totals .....      | 14        | 36          | .....      | 50      |

Number and results of Wasserman Tests: 56 tests, of which 7 were positive.

## LETHBRIDGE GAOL, Lethbridge.

|                               |    |
|-------------------------------|----|
| Number of Patients .....      | 53 |
| Sexes of Patients: Male ..... | 53 |

## CLASSIFICATION OF THEIR DISEASES

|                   | Syphilis. | Gonorrhoea. | Chancroid. | Totals. |
|-------------------|-----------|-------------|------------|---------|
| Adult: Male ..... | 35        | 16          | 2          | 53      |

Number and results of Wasserman Tests: 666 tests, of which 39 were positive.

## FORT SASKATCHEWAN GAOL, Fort Saskatchewan

|                               |     |
|-------------------------------|-----|
| Number of Patients .....      | 150 |
| Sexes of Patients: Male ..... | 76  |
| Female .....                  | 74  |

## CLASSIFICATION OF THEIR DISEASES

|                   | Syphilis. | Gonorrhoea. | Chancroid. | Totals. |
|-------------------|-----------|-------------|------------|---------|
| Adult: Male ..... | 49        | 27          | .....      | 76      |
| Female .....      | 38        | 36          | .....      | 74      |
| Totals .....      | 87        | 63          | .....      | 150     |

Number and results of Wasserman Tests: 1127 tests, of which 153 were positive.

## CASES REPORTED BY DOCTORS IN THE PROVINCE.

|              | Syphilis. | Gonorrhoea. | Chancroid. | Totals. |
|--------------|-----------|-------------|------------|---------|
| Male .....   | 35        | 80          | 1          | 116     |
| Female ..... | 20        | 15          | .....      | 35      |
| Totals ..... | 55        | 95          | 1          | 151     |

## RECAPITULATION.

|              | Syphilis. | Gonorrhoea. | Chancroid. | Totals. |
|--------------|-----------|-------------|------------|---------|
| Male .....   | 343       | 837         | 31         | 1211    |
| Female ..... | 132       | 165         | .....      | 297     |
| Totals ..... | 475       | 1002        | 31         | 1508    |

## Dental Report

(A. E. HEACOCK, L.D.S., D.D.S., *Dentist*)

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In the institutions under the Department the need for dental treatment has been steadily increasing. To meet this need, Dr. Sneddon was appointed full time dental officer at the Provincial Mental Hospital, Ponoka.

The work in the other institutions, viz., the Provincial Mental Institute, Oliver, the Provincial Training School, Red Deer, and the Central Alberta Sanatorium, Calgary, has been carried on as formerly. Dr. Kemp gave part time service during the summer at the Central Alberta Sanatorium.

The patients in the special hospital were inspected twice during the year and the necessary treatment carried out.

The travelling clinic operated from May 26th until November 10th. Dr. Gilchrist was appointed to the dental staff for the summer until it became necessary to resume his duties at the University on October 1st. Dr. Kemp carried on for the remainder of the itinerary.

During November Dr. Harry Thompson, field secretary of the Canadian Dental Hygiene Council, was in the province organizing a mouth health campaign to be put on early in the new year. The most enthusiastic support and assistance was given by the Department, the Medical Association, the Alberta Dental Association, the members of the dental profession, and various organizations in the Province. The campaign proved an unqualified success from every point of view.

A summary of the work carried out by this Branch appears in the report of each institution and in the report of the Nursing Branch.

## Central Alberta Sanatorium, Calgary

(A. H. BAKER, M.D., *Medical Superintendent*)

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On June 21st the sanatorium accommodation was increased by twenty-two beds. The total institutional capacity stands at 210 beds, which appears to be the maximum without further building.

The total patient days exceeded those of 1928 by 2087, and the average patient day strength was 185.2. Four hundred and eleven patients received institutional treatment. The per diem cost was \$2.92, which included not only the institutional cost, but also that of the follow-up department.

The follow-up work was continued along lines similar to those of the preceding year. Bi-monthly clinics were held in Edmonton and weekly clinics both in Calgary and at the Sanatorium. Five days were spent in Lethbridge, ten days in Medicine Hat, four days in Drumheller, and a number of trips were made to other towns of the Province. Total examinations made were 1323. This effort affords an opportunity of supervising to some extent the ex-patient, and at the same time helps in the discovery of new cases.

The annual Christmas seal sale, which is sponsored by the Canadian Tuberculosis Association, has been again carried on by various voluntary organizations in several of the larger centres. The funds so accumulated have been spent in promoting anti-tuberculosis and general health projects in these various communities, such as clinics, full time tuberculosis nurses, school surveys, and assisting individual cases. The Department of Health, through the sanatorium, has been pleased to furnish examining physicians and to assist in the work. Great credit is due to these organizations for carrying on this very effective and definite anti-tuberculosis campaign.

A winter course of lectures on tuberculosis was given to the nursing staff by the matron and medical superintendent. Seven different organizations were addressed in the interests of tuberculosis work in the Province.

The need for more sanatorium beds is still a pressing one and becomes more and more urgent. Comparison of the death rates of the provinces of Canada, during the past nine years, as compiled by the Dominion Bureau of Statistics, suggests that the death rate in Saskatchewan and Quebec has remained about constant. In Manitoba, Ontario, New Brunswick, Nova Scotia and Prince Edward Island there has been some decrease, while in Alberta and British Columbia the rate has apparently increased. While this period of observation is short, the information offered is at least suggestive. If these nine years can be accepted as expressing the present tendency in tuberculosis mortality in Alberta, it is apparent that we have an increasing problem.

The following table emphasizes very strikingly the unfortunate position of this Province as regards available sanatorium beds:

SANATORIUM BEDS IN CANADA

|                            | Occupied<br>Beds | Beds under<br>construction | Beds<br>financed | Population<br>to each<br>occupied<br>bed |
|----------------------------|------------------|----------------------------|------------------|------------------------------------------|
| Prince Edward Island ..... | .....            | 50                         | .....            | .....                                    |
| Nova Scotia .....          | 321              | .....                      | 100              | 1715                                     |
| New Brunswick .....        | 312              | .....                      | 100              | 1344                                     |
| Quebec .....               | 1585             | .....                      | 455              | 1697                                     |
| Ontario .....              | 2323             | .....                      | .....            | 1408                                     |
| Manitoba .....             | 385              | 200                        | 100              | 1723                                     |
| Saskatchewan .....         | 680              | .....                      | .....            | 1275                                     |
| Alberta .....              | 210              | .....                      | .....            | 3076                                     |
| British Columbia .....     | 470              | .....                      | .....            | 1257                                     |

The above statistics are taken from a report submitted by Dr. R. E. Wodehouse, executive secretary, Canadian Tuberculosis Association, at the British Medical Association, Winnipeg, August 29th, 1930.

In order that we might have Manitoba's present accommodation, which is next lowest to our own, Alberta should have an additional 164 beds. We would then have the lowest rate of all the provinces with the exception of Prince Edward Island, for Manitoba has under construction at present an additional 200 beds.

May I again point out that tuberculosis is an infectious disease, and as such it requires in a Province like ours institutional treatment in a great many cases if the spread is to be controlled. At present many houses, entirely unsuited for the safe treatment of this disease, are compelled to house infectious cases during weeks and months because of insufficient sanatorium beds. Quite apart from the argument from the public health standpoint, is the humanitarian one, that in frequent instances unnecessary suffering is caused the sick through lack of care. Cases that might respond to treatment may be unable to get this until such time as the treatment is ineffectual or much prolonged.

The satisfactory care of the tuberculous at home presupposes ample, efficient and regular supervision by visiting nurses and physicians, if preventive measures are to be maintained. This oversight is obviously impossible at present owing to the scattered population and the lack of visiting nurses and doctors. The result undoubtedly is the unnecessary passing on of this disease to other individuals. It would appear, therefore, that unless greater effort is put forth to cope with this disease, which appears to be on the increase, that we may expect to have in a decade or two a still larger problem on our hands in the number of those sick and unable to maintain themselves.

I submit that our immediate objective should be at least one tuberculosis bed for every annual death from this disease, which, on the basis of the 1929 returns, would mean 391 beds, an increase of 180 over our present state.

In this connection the care of tuberculous children should not be overlooked. It may be mentioned that there are no sanatorium beds available for the satisfactory care of tuberculous children. An attempt to remedy this situation might quite naturally be included in any building program.



Parallelling the need of beds for patients is the very real necessity at the Central Alberta Sanatorium of a nurses' and maids' home. At present overcrowding exists which is not conducive to health or happiness. It must be borne in mind that those who spend their days taking care of patients in all stages of tuberculosis require reasonably hygienic living conditions, if they are to avoid disease and to enjoy, at the same time, that degree of contentment so essential in the proper care of the sick. It is quite impossible to supply quarters to more nurses without additional room.

The value of the service performed by the tuberculosis nurses in some of the larger centres cannot be stressed too forcibly. Without them, the home care of the tuberculous patient is entirely unsatisfactory, while with such nursing supervision more cases can be effectively taken care of at home. It is hoped that before long it will be possible to have in operation a somewhat similar service in other parts of the Province.

Grateful acknowledgment is made of the many gifts and services of various sorts which have been generously given by friends interested in the sanatorium.

The sanatorium experienced a real loss in the death of the late Rev. Dr. Shearer, who for some time conducted divine services which were much appreciated by all. His work has been taken over by Rev. Capt. Mancaster. We are also indebted to the Rev. Father McDonald and the Rev. Dr. McQueen for comfort given the patients through regular visits and divine services.

The dental work has again been ably carried on by the monthly visits of Dr. Heacock.

Dr. E. M. Busby, who had been a faithful and efficient member of the staff for a number of years, resigned on May 1st to enter private practice. He was succeeded by Dr. L. M. Mullen.

CLASSIFICATION OF DISCHARGED PATIENTS, 1929

| On Admission.                   | Total. |      | Residence. |                   | On Discharge. |     |      |     |     |     |     |
|---------------------------------|--------|------|------------|-------------------|---------------|-----|------|-----|-----|-----|-----|
|                                 | No.    | %    | T.B. %     | Not over 31 days. | Over 31 days. | A.  | A.A. | Q.  | I.  | U.  | D.  |
| I. No disease .....             | 8      | ...  | ...        | 2                 | 6             | ... | ...  | ... | ... | ... | ... |
| II. Undiagnosed .....           | 2      | ...  | ...        | 1                 | 1             | ... | ...  | ... | ... | ... | ... |
| III. Non-T.B. ....              | 39     | ...  | ...        | 15                | 24            | ... | ...  | ... | ... | ... | 3   |
| IV. T.B. inactive .....         | 8      | ...  | ...        | 3                 | 5             | ... | ...  | ... | ... | ... | ... |
| Total.....                      | 57     | 26.5 | ...        | 21                | 36            | ... | ...  | ... | ... | ... | 3   |
| V. T.B. Pulmonary—              |        |      |            |                   |               |     |      |     |     |     |     |
| 1. Clinical (No bacilli found): |        |      |            |                   |               |     |      |     |     |     |     |
| Minimal                         |        |      |            |                   |               |     |      |     |     |     |     |
| A.....                          | 12     | ...  | ...        | ...               | 12            | ... | 3    | 4   | 3   | 2   | ... |
| B.....                          | ...    | ...  | ...        | ...               | ...           | ... | ...  | ... | ... | ... | ... |
| C.....                          | ...    | ...  | ...        | ...               | ...           | ... | ...  | ... | ... | ... | ... |
| Mod. Advanced                   |        |      |            |                   |               |     |      |     |     |     |     |
| A.....                          | 16     | ...  | ...        | ...               | 16            | ... | 2    | 9   | 2   | 3   | ... |
| B.....                          | 3      | ...  | ...        | ...               | 3             | ... | ...  | ... | ... | 2   | 1   |
| C.....                          | ...    | ...  | ...        | ...               | ...           | ... | ...  | ... | ... | ... | ... |
| Far Advanced                    |        |      |            |                   |               |     |      |     |     |     |     |
| A.....                          | 1      | ...  | ...        | ...               | 1             | ... | ...  | ... | 1   | ... | ... |
| B.....                          | 1      | ...  | ...        | ...               | 1             | ... | ...  | ... | 1   | ... | ... |
| C.....                          | 1      | ...  | ...        | ...               | 1             | ... | ...  | ... | ... | ... | 1   |
| Total.....                      | 34     | 15.8 | 21.6       | ...               | 34            | ... | 5    | 13  | 7   | 7   | 2   |
| 2. Positive (bacilli found):    |        |      |            |                   |               |     |      |     |     |     |     |
| Minimal                         |        |      |            |                   |               |     |      |     |     |     |     |
| A.....                          | ...    | ...  | ...        | ...               | ...           | ... | ...  | ... | ... | ... | ... |
| B.....                          | ...    | ...  | ...        | ...               | ...           | ... | ...  | ... | ... | ... | ... |
| C.....                          | ...    | ...  | ...        | ...               | ...           | ... | ...  | ... | ... | ... | ... |
| Mod. Advanced                   |        |      |            |                   |               |     |      |     |     |     |     |
| A.....                          | 13     | ...  | ...        | ...               | 13            | ... | 2    | 4   | 4   | 2   | 1   |
| B.....                          | 6      | ...  | ...        | ...               | 6             | ... | ...  | 1   | ... | 3   | 2   |
| C.....                          | 2      | ...  | ...        | ...               | 2             | ... | ...  | ... | 2   | ... | ... |
| Far Advanced                    |        |      |            |                   |               |     |      |     |     |     |     |
| A.....                          | 19     | ...  | ...        | 2                 | 17            | ... | 6    | 8   | 3   | 2   | ... |
| B.....                          | 33     | ...  | ...        | ...               | 33            | ... | 1    | 11  | 9   | 12  | ... |
| C.....                          | 29     | ...  | ...        | 2                 | 27            | ... | ...  | ... | 1   | 10  | 18  |
| App. Hopeless                   |        |      |            |                   |               |     |      |     |     |     |     |
| .....                           | 14     | ...  | ...        | 8                 | 6             | ... | ...  | ... | ... | 1   | 13  |
| Total.....                      | 116    | 54   | 73.4       | 12                | 104           | ... | 2    | 12  | 26  | 28  | 48  |

|                          | On Admission. |         | Residence. |                   |               |     | On Discharge. |     |     |     |     |
|--------------------------|---------------|---------|------------|-------------------|---------------|-----|---------------|-----|-----|-----|-----|
|                          | No.           | Total % | T.B. %     | Not over 31 days. | Over 31 days. | A.  | A.A.          | Q.  | I.  | U.  | D.  |
| Total Pul. T.B. (Active) | 150           | ...     | ...        | ...               | ...           | ... | ...           | ... | ... | ... | ... |
| VI. T.B. Non-Pulmonary.. | 8             | 3.7     | 5          | ...               | 8             | ... | 2             | ... | 1   | 3   | 2   |
| Grand Total.....         | 215           | 100     | 100        | 33                | 182           | ... | 9             | 25  | 34  | 38  | 55  |

**Explanation of Abbreviations and terms used.**—The standard of classification is that of the National Tuberculosis Association. Minimal, Moderately Advanced and Far Advanced refer to anatomical extent of disease, while "A", "B", and "C" signify symptoms in order of increasing severity.

"A" Arrested; "A.A." Apparently Arrested; "Q" Quiescent; "I" Improved; "U" Un-improved; "D" Died.

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

| TOTAL NUMBER OF PATIENT DAYS |        | INFIRMARY DAYS     |        |
|------------------------------|--------|--------------------|--------|
| D.P. and N.H. ....           | 3,395  | D.P. and N.H. .... | 2,255  |
| Civilian .....               | 64,206 | Civilian .....     | 47,121 |
| Total.....                   | 67,601 | Total.....         | 49,376 |

|                                              | Military. | Civilian. | Total. |
|----------------------------------------------|-----------|-----------|--------|
| Patients in Sanatorium January 1, 1929.....  | 12        | 168       | 180    |
| Patients treated during 1929 .....           | 28        | 383       | 411    |
| Remaining in Sanatorium January 1, 1930..... | 5         | 191       | 196    |

CLASSIFICATION ON ADMISSION OF 215 DISCHARGED PATIENTS

|                       |    |                                      |     |
|-----------------------|----|--------------------------------------|-----|
| No disease .....      | 8  | Tuberculosis, inactive .....         | 8   |
| Undiagnosed .....     | 2  | Tuberculosis, pulmonary (active).... | 150 |
| Non-tuberculous ..... | 39 | Tuberculosis, non-pulmonary .....    | 8   |

CLASSIFICATION OF 150 "TREATED" CASES OF PULMONARY TUBERCULOSIS

| On Admission.             |    | On Discharge. |                 |       |
|---------------------------|----|---------------|-----------------|-------|
|                           |    | Benefitted    | Non-benefitted. | Died. |
| Minimal .....             | 12 | 10            | 2               | 0     |
| Moderately Advanced ..... | 40 | 26            | 10              | 4     |
| Far Advanced .....        | 84 | 29            | 22              | 33    |
| Apparently Hopeless ..... | 14 | 0             | 1               | 13    |

DIAGNOSIS OF NON-TUBERCULOUS CASES

|                                    |   |                                   |   |
|------------------------------------|---|-----------------------------------|---|
| Acute respiratory infection .....  | 1 | Osteomyelitis rt. femur .....     | 1 |
| Bronchial asthma .....             | 1 | Pleurisy .....                    | 2 |
| Bronchiectasis .....               | 3 | Pulmonary abscess .....           | 1 |
| Chronic bronchitis and emphysema.. | 3 | Pulmonary fibrosis .....          | 4 |
| Chronic otitis media .....         | 1 | Rheumatic carditis .....          | 1 |
| Colitis .....                      | 1 | Sarcoma right lung .....          | 1 |
| Carcinoma of lung .....            | 3 | Sinusitis .....                   | 3 |
| Debility .....                     | 4 | Teno-synovitis of hand .....      | 1 |
| Empyema .....                      | 4 | Unresolved pneumonia .....        | 1 |
| Hodgkin's disease .....            | 1 | Upper respiratory infection ..... | 4 |

CLINICAL LABORATORY EXAMINATIONS

|                    |      |                              |      |
|--------------------|------|------------------------------|------|
| Sputum:            |      | Urine .....                  | 1477 |
| In-Patients .....  | 2304 | Blood .....                  | 225  |
| Out-Patients ..... | 193  | Spinal fluid .....           | 4    |
| Staff .....        | 20   | Feces .....                  | 4    |
| Total.....         | 2517 | Guinea pig inoculation ..... | 28   |
|                    |      | Guinea pig autopsies .....   | 24   |
|                    |      | Other examinations .....     | 141  |
|                    |      | Total.....                   | 1903 |

CLASSIFICATION OF OUT-PATIENTS

|                           | Ex-Patients. | Contacts. | Others. | Total. |
|---------------------------|--------------|-----------|---------|--------|
| At Sanatorium .....       | 34           | 29        | 134     | 197    |
| At Edmonton .....         | 76           | 49        | 164     | 289    |
| At Calgary .....          | 20           | 126       | 130     | 276    |
| Throughout Province ..... | 61           | 162       | 338     | 561    |
| Total.....                | 191          | 366       | 766     | 1323   |

X-RAY REPORT

| RADIOGRAPHIC:         |     |                       |     |
|-----------------------|-----|-----------------------|-----|
| Chest .....           | 749 | Hand .....            | 4   |
| Abdomen .....         | 12  | Foot .....            | 7   |
| Spine .....           | 18  | Hips and pelvis ..... | 10  |
| Knees .....           | 9   | Legs .....            | 3   |
| Dental .....          | 23  | Total.....            | 846 |
| Sinus and antra ..... | 9   |                       |     |
| Ankle .....           | 2   |                       |     |

## FLUEROSCOPIC:

|                         |      |
|-------------------------|------|
| Chest: Gas cases .....  | 1072 |
| Others .....            | 399  |
| Gastro-intestinal ..... | 99   |
| Total.....              | 1570 |

Seventeen patients were given the Gastro-intestinal series during the year.  
Three patients were given Barium enema.

## HELIO THERAPY REPORT

|                                      | Treatments. | No. Patients. |
|--------------------------------------|-------------|---------------|
| Sun baths .....                      | 1197        | 45            |
| Air baths .....                      | 5312        | 67            |
| Laryngeal treatments .....           | 571         | 21            |
| Pharyngeal treatments .....          | 126         | 10            |
| Mercury quartz lamp treatments ..... | 7917        | 66            |

## SUMMARY OF DENTAL WORK DONE

|                         |     |                   |     |
|-------------------------|-----|-------------------|-----|
| Patients examined ..... | 371 | Fillings .....    | 102 |
| Patients treated .....  | 241 | Extractions ..... | 117 |
| Prophylaxis .....       | 111 | Plates .....      | 2   |

## OPERATING ROOM REPORTS

|                                                       |      |                                                   |    |
|-------------------------------------------------------|------|---------------------------------------------------|----|
| Pneumothorax:                                         |      |                                                   |    |
| Under treatment Jan. 1, 1929.....                     | 24   | Injection Intravenous Ca. Cl. 2.....              | 85 |
| New cases begun, 1929 .....                           | 32   | Injection intravenous Saline and<br>Glucose ..... | 11 |
| Old cases recommenced, 1929....                       | 3    | Injection intratracheally Lipiodol ..             | 9  |
| Terminated during year .....                          | 19   | Injection into sinus Lipiodol .....               | 1  |
| Under treatment Dec. 31, 1929....                     | 40   | Paracentesis of abdomen .....                     | 6  |
| Pneumothorax refills .....                            | 1278 | Phrenic avulsion .....                            | 2  |
| Unsuccessfully attempted .....                        | 15   | Lumbar punctures .....                            | 10 |
| Total during year .....                               | 59   | Antrum punctures .....                            | 1  |
| Aspiration of pleural cavity .....                    | 42   | Venesection .....                                 | 1  |
| Aspiration of pleural cavity with<br>irrigation ..... | 187  | Plaster casts, body .....                         | 2  |
| Rib resection .....                                   | 1    | Plaster casts, leg .....                          | 2  |
| Aspiration of knee .....                              | 12   | Irrigation bladder .....                          | 2  |
| Incision into and drainage abscess<br>breast .....    | 1    | Examinations proctoscopic .....                   | 1  |
| Aspiration of other abscesses .....                   | 11   | Examinations cystoscopic .....                    | 1  |
|                                                       |      | Dressings and miscellaneous .....                 | 95 |

## CLASSIFICATION OF PATIENTS DISCHARGED IN 1929 (215)

|              |     |                |     |
|--------------|-----|----------------|-----|
| I.—SEX:      |     | II.—SOCIAL:    |     |
| Male .....   | 105 | Married .....  | 87  |
| Female ..... | 110 | Single .....   | 122 |
| Total.....   | 215 | Widows .....   | 3   |
|              |     | Widowers ..... | 3   |
|              |     | Total.....     | 215 |

## III.—AGES:

|                      |    |                      |     |
|----------------------|----|----------------------|-----|
| Under 5 years .....  | 0  | 40 to 49 years ..... | 21  |
| 5 to 9 years .....   | 5  | 50 to 59 years ..... | 12  |
| 10 to 14 years ..... | 11 | 60 to 69 years ..... | 1   |
| 15 to 19 years.....  | 28 | Total.....           | 215 |
| 20 to 29 years ..... | 76 |                      |     |
| 30 to 39 years ..... | 61 |                      |     |

## IV.—RELIGIONS:

|                         |    |                      |     |
|-------------------------|----|----------------------|-----|
| Adventist .....         | 1  | Mennonite .....      | 1   |
| Baptist .....           | 9  | Presbyterian .....   | 32  |
| Christian Reform .....  | 1  | Roman Catholic ..... | 45  |
| Church of England ..... | 47 | Salvation Army ..... | 2   |
| Greek Catholic .....    | 14 | United .....         | 30  |
| Greek Orthodox .....    | 3  | Not known .....      | 6   |
| Hebrew .....            | 1  | Total.....           | 215 |
| Latter Day Saints ..... | 1  |                      |     |
| Lutheran .....          | 22 |                      |     |

## V.—OCCUPATIONS (Women):

|                         |    |                          |     |
|-------------------------|----|--------------------------|-----|
| Housewife .....         | 54 | Stenographer .....       | 4   |
| Student .....           | 18 | Milliner .....           | 1   |
| Nurse, graduate .....   | 7  | Telephone Operator ..... | 1   |
| Nurse in training ..... | 5  | Cook .....               | 1   |
| Waitress .....          | 2  | Laundry Worker .....     | 1   |
| Teacher .....           | 3  | Total.....               | 110 |
| Maid .....              | 8  |                          |     |
| None .....              | 5  |                          |     |

## VI.—OCCUPATIONS (Men):

|                      |   |                      |   |
|----------------------|---|----------------------|---|
| Airman .....         | 1 | Manager .....        | 3 |
| Butcher .....        | 1 | Merchant .....       | 1 |
| Bank Clerk .....     | 3 | Market Master .....  | 1 |
| Blacksmith .....     | 1 | Mill Worker .....    | 2 |
| Brewery Worker ..... | 1 | None .....           | 1 |
| Baker .....          | 2 | Orderly .....        | 1 |
| Clerk .....          | 6 | Physician .....      | 1 |
| Civil Servant .....  | 2 | Railroad Clerk ..... | 1 |

|                         |    |                    |     |
|-------------------------|----|--------------------|-----|
| Carpenter .....         | 2  | Salesman .....     | 1   |
| Confectioner .....      | 1  | Student .....      | 8   |
| Electrician .....       | 1  | Teamster .....     | 1   |
| Engineer .....          | 2  | Teacher .....      | 1   |
| Farmer .....            | 32 | Telegrapher .....  | 1   |
| Forester .....          | 1  | Warehouseman ..... | 2   |
| Lawyer .....            | 1  | Watchman .....     | 1   |
| Laborer .....           | 9  | Waiter .....       | 1   |
| Miner .....             | 8  |                    |     |
| Machine inspector ..... | 2  | Total.....         | 105 |
| Mechanic .....          | 2  |                    |     |

## VII.—NATIVITY:

|                   |    |                     |     |
|-------------------|----|---------------------|-----|
| Alberta .....     | 47 | Lithuania .....     | 1   |
| Austria .....     | 5  | Newfoundland .....  | 1   |
| Canada .....      | 50 | Norway .....        | 7   |
| Denmark .....     | 2  | Russia .....        | 4   |
| England .....     | 24 | Roumania .....      | 3   |
| Esthonia .....    | 1  | Scotland .....      | 11  |
| Galicia .....     | 1  | Serbia .....        | 1   |
| Holland .....     | 4  | Sweden .....        | 3   |
| Hungary .....     | 1  | United States ..... | 27  |
| India .....       | 1  | Ukrainia .....      | 6   |
| Ireland .....     | 12 | Wales .....         | 1   |
| Italy .....       | 1  |                     |     |
| Jugo-Slavia ..... | 1  | Total.....          | 215 |

## VIII.—LENGTH OF RESIDENCE IN ALBERTA AT TIME OF ADMISSION:

|                                 |    |                                        |     |
|---------------------------------|----|----------------------------------------|-----|
| Under one year .....            | 15 | Twenty to twenty-four years .....      | 19  |
| One year .....                  | 6  | Twenty-five to twenty-nine years ..... | 9   |
| Two years .....                 | 7  | Thirty to forty-five years .....       | 2   |
| Three years .....               | 9  | No record .....                        | 3   |
| Four years .....                | 1  | Born in Alberta .....                  | 47  |
| Five to nine years .....        | 19 |                                        |     |
| Ten to fourteen years .....     | 31 | Total.....                             | 215 |
| Fifteen to nineteen years ..... | 47 |                                        |     |

## IX.—RACIAL ORIGIN:

|                        |    |                  |     |
|------------------------|----|------------------|-----|
| Austrian .....         | 6  | Italian .....    | 1   |
| Breed .....            | 5  | Indian .....     | 3   |
| Bohemian .....         | 1  | Greek .....      | 1   |
| Czecho-Slovakian ..... | 1  | Lettish .....    | 1   |
| Dane .....             | 4  | Lithuanian ..... | 1   |
| Dutch .....            | 6  | Norwegian .....  | 15  |
| English .....          | 46 | Russian .....    | 2   |
| Esthonian .....        | 1  | Roumanian .....  | 4   |
| Finn .....             | 1  | Scotch .....     | 39  |
| French .....           | 11 | Swedish .....    | 3   |
| German .....           | 9  | Turkish .....    | 1   |
| Galician .....         | 1  | Ukrainian .....  | 13  |
| Hebrew .....           | 1  | Unknown .....    | 7   |
| Hungarian .....        | 1  |                  |     |
| Irish .....            | 30 | Total.....       | 215 |

## RESIDENCE OF PATIENTS

|                           |    |                       |   |
|---------------------------|----|-----------------------|---|
| CITIES:                   |    |                       |   |
| Calgary .....             | 42 | Medicine Hat .....    | 4 |
| Edmonton .....            | 45 | Wetaskiwin .....      | 2 |
| Lethbridge .....          | 2  |                       |   |
| TOWNS:                    |    |                       |   |
| Big Valley .....          | 1  | Innisfail .....       | 1 |
| Camrose .....             | 1  | Leduc .....           | 1 |
| Cardston .....            | 1  | Macleod .....         | 1 |
| Didsbury .....            | 1  | Peace River .....     | 2 |
| Drumheller .....          | 1  | Red Deer .....        | 1 |
| Edson .....               | 1  | Strathmore .....      | 1 |
| Gleichen .....            | 1  | Taber .....           | 1 |
| Grande Prairie .....      | 1  | Vegreville .....      | 2 |
| High River .....          | 2  | Vulcan .....          | 1 |
| VILLAGES:                 |    |                       |   |
| Alliance .....            | 1  | Lamont .....          | 1 |
| Irma .....                | 1  | Lac La Biche .....    | 1 |
| Heisler .....             | 1  | Smoky Lake .....      | 1 |
| Coalhurst .....           | 2  |                       |   |
| MUNICIPAL DISTRICTS:      |    |                       |   |
| No. 40 Castle River ..... | 1  | 425 Sterling .....    | 1 |
| 94 Bow Island .....       | 1  | 427 Evergreen .....   | 1 |
| 128 Harmony .....         | 1  | 460 Columbia .....    | 1 |
| 129 Clear Lake .....      | 1  | 483 Melberta .....    | 1 |
| 189 Dinton .....          | 1  | 484 Birch Lake .....  | 1 |
| 219 Bow Valley .....      | 2  | 486 Beaver Lake ..... | 1 |
| 220 Shepard .....         | 2  | 517 Clover Bar .....  | 2 |
| 221 Springbank .....      | 1  | 489 Liberty .....     | 1 |
| 244 Rose Lynn .....       | 1  | 512 Ethelwyn .....    | 2 |
| 250 Beddington .....      | 1  | 513 Ukrainia .....    | 3 |



## DEPARTMENT OF PUBLIC HEALTH

|                              |   |                                |            |
|------------------------------|---|--------------------------------|------------|
| 277 Michichi .....           | 2 | 515 Norma .....                | 3          |
| 278 Carbon .....             | 6 | 516 The Pines .....            | 1          |
| 279 Norquay .....            | 1 | 519 Spruce Grove .....         | 1          |
| 306 Lambton .....            | 1 | 543 Laurier .....              | 1          |
| 312 Waterloo .....           | 1 | 544 Champlain .....            | 1          |
| 339 Pine Lake .....          | 1 | 545 Eagle .....                | 3          |
| 341 Poplar Grove .....       | 1 | 549 Ray .....                  | 1          |
| 371 Golden West .....        | 2 | 550 Woodford .....             | 1          |
| 397 Lakeside .....           | 1 | 552 Pembina .....              | 1          |
| 398 Lamerton .....           | 1 | 739 Grande Prairie .....       | 1          |
| 400 Lorne .....              | 2 | 740 Bear Lake .....            | 1          |
| LOCAL IMPROVEMENT DISTRICTS: |   |                                |            |
| No. 2 .....                  | 1 | 497 .....                      | 1          |
| 67 .....                     | 1 | 528 .....                      | 1          |
| 71 .....                     | 2 | 640 .....                      | 1          |
| 151 .....                    | 1 | 771 .....                      | 1          |
| 152 .....                    | 2 | 796 .....                      | 1          |
| 212 .....                    | 2 | No residence .....             | 8          |
| 247 .....                    | 2 | Non-residents of Alberta ..... | 5          |
| 400 .....                    | 1 |                                |            |
| 491 .....                    | 1 | Total .....                    | <u>215</u> |

## Provincial Mental Hospital, Ponoka

(E. H. COOKE, M.D., *Medical Superintendent*)

On the first day of January, 1929, there were in residence 1,055 patients, 602 males and 453 females. At the close of the year there were 1,086 patients, 608 males and 478 females, an apparent increase of only 31, but allowance must be made for the 65 male patients who were transferred to Oliver and the 3 male patients received from that institution. (See table summarizing movements of patients.)

The total admissions, including 6 observation cases, were 362, viz., 244 males and 118 females, as compared with 366 in 1928.

It is gratifying to note that there is a steady increase in the number of voluntary admissions, 18 or 5%, and those by two medical certificates, 43 or 11.8%, as compared with 3% and 6.55% respectively in 1928.

In March, Section 22 of The Mental Diseases Act was amended permitting the medical superintendent to grant leave of absence for a period not exceeding 3 days to patients who were not otherwise ready for discharge. This provision was made use of and greatly appreciated by patients and their friends.

The total discharges were 212, viz., 132 males and 80 females, as follows:

|                    | Male. | Female. | Total. |
|--------------------|-------|---------|--------|
| Recovered .....    | 57    | 34      | 91     |
| Improved .....     | 54    | 31      | 85     |
| Not improved ..... | 13    | 3       | 16     |
| Not insane .....   | 8     | 12      | 20     |
| Total.....         | 132   | 80      | 212    |

These discharges include 178 probations (102 males and 76 females), of whom 30 were returned, 6 cases for observation, and 28 deportations to the following countries:

|                       | Male. | Female. | Total. |
|-----------------------|-------|---------|--------|
| Denmark .....         | 5     | ....    | 5      |
| England .....         | 1     | 1       | 2      |
| Hungary .....         | 1     | ....    | 1      |
| Jugo-Slavia .....     | 1     | ....    | 1      |
| Norway .....          | 4     | ....    | 4      |
| Poland .....          | 6     | 1       | 7      |
| Roumania .....        | 2     | ....    | 2      |
| Scotland .....        | 1     | 1       | 2      |
| Sweden .....          | 1     | ....    | 1      |
| U.S.A. ....           | 1     | ....    | 1      |
| Lithuania .....       | ....  | 1       | 1      |
| Czecho-Slovakia ..... | 1     | ....    | 1      |
| Totals .....          | 24    | 4       | 28     |

The total discharge rate was 58.5% of the admissions, as against 59.2% for 1928.

The recovery rate, based on the admissions for the year (less those not insane), is for both sexes 27.4% (males 25.3%, female 31.7%).

The deaths were 74, viz., 46 males and 28 females.

The death rate, based on the total number under treatment and observation (1,417), is for the males 5.4% and for the females 4.9%, or for both sexes 5.2%.

There were 2 deaths from cerebral tumour (both females), 2 from cancer (1 male and 1 female), 8 from pulmonary tuberculosis, and 12 from general paralysis. Four of these last followed on malarial inoculation, the remainder succumbed from causes incidental to the advanced stages of general paralysis.

Malarial inoculation followed by an intensive course of ordinary anti-syphilitic treatment is still the most satisfactory means of combating this otherwise intractable disease. By the end of the year a total of 128 cases had been so treated. Forty-five (or 35%) improved to such an extent that they were discharged to their homes, and it is known that several of these have been an economic success. Only one case has been returned of those discharged since this method of treatment was commenced in September, 1924.

It will be noted from Table 12 that over 50% of the cases admitted during the year fell within the manic-depressive-schizophrenic-paranoid groups, approximately the same percentage as in preceding years.

Among the admissions there were 36 general paralytics (32 males and 4 females), 12 drug addicts (7 males and 5 females), 6 alcoholics with psychoses (5 males and 1 female), and 1 male chronic alcoholic without psychosis, 6 suffering from the sequelae of encephalitis lethargica, and 22 mental defectives (16 with psychoses and 6 without).

A history of insane or defective heredity was obtained in 130 of the 362 admissions, i.e., in 35.8%.

Table 8 indicates that the heaviest incidence of the psychoses was between the ages of 30 and 40.

The table of nativities shows that 31.7% were born in Canada, 20.3% in the British Isles, 15% in the U.S.A., 14.9% in the Central European countries, and 5.8% were of Scandinavian origin.

The sexual sterilization of three cases (1 male and 2 females) was authorized by the Eugenics Board, and the first operation under the Act was performed at the University Hospital, Edmonton, on or about May 3rd, a second towards the end of the year at the same hospital, but the third was postponed until early in the present year. Two meetings of the board were held during the year.

With the exception of 10 cases of diphtheria amongst the nursing staff and patients on the female side, the health of the hospital as a whole was good.

The following changes took place in the medical staff: On January 1st Dr. John J. Bowlen was appointed as temporary medical officer, but resigned on May 31st to continue his surgical work in the United States. Dr. Bowlen was particularly interested in operative surgery, and did a considerable amount of useful work along that line whilst he was on our staff. Dr. D. L. McCullough returned from England on January 19th after a year's leave of absence, having obtained the diploma in Psychological Medicine of the Royal College of Surgeons and Physicians of England. Dr. Chas. P. Fitzpatrick was appointed medical superintendent of the

Provincial Mental Institute, Oliver, and began his duties there on June 1st. Mr. Ivar Lefsrud and Mr. Ernest Hay Watts, fifth year medical students in the University of Alberta, were appointed medical internes during the summer months, May to September. On July 15th Dr. Sylvester M. Sneddon began his duties as resident dentist, his work being entirely confined to the patients of this hospital. On September 30th Dr. Frank Ford Tallman, assistant medical officer, who was in charge of the female side, resigned, and is now employed at King's Park State Hospital, Long Island, New York. On December 11th Dr. David Christie was appointed medical officer to fill the vacancy caused by Dr. Tallman's resignation.

The following are the more important constructions and alterations during the year: The new farm dormitory building was completed and occupied on May 6th. There is accommodation for 40 patients and 16 employees. An up-to-date kitchen is one of the features of the building, and the patients appear to be well pleased with the living conditions there.

In the space between this building and the farm manager's cottage there were three new constructions: A creamery provided with a pasteurizer and cooling apparatus for the milk, a cottage for the herdsman and one for the engineer in charge of the furnace at the farm dormitory.

Construction was begun on the new reception building for male patients, a building for the chronically disturbed male patients, including a wing for the male tuberculous; and a new wing for the nurses' home which, when completed, will about double the accommodation for nurses.

Besides the routine repairs to furniture, beds, etc., the occupational carpenter and his group of patients, averaging about 16, made alterations to the poultry farm, erected a steel wire fence around the women's airing court, and improved the root-house between the barns.

TABLE SHOWING MOVEMENT OF PATIENTS DURING 1929

|                                          | Male. | Female. | Total. |
|------------------------------------------|-------|---------|--------|
| In residence January 1st, 1929.....      | 603   | 453     | 1055   |
| INCOMING                                 |       |         |        |
| Admissions:                              |       |         |        |
| Voluntary .....                          | 15    | 3       |        |
| By 2 medical certificates .....          | 23    | 20      |        |
| By warrant .....                         | 195   | 93      |        |
| Admitted for observation .....           | 6     | ....    |        |
| By order of Minister of Health .....     | 5     | 2       |        |
| Returned from probation .....            | 13    | 17      | 362    |
| Eloped and returned .....                | 24    | ....    |        |
| Returned from leave of absence.....      | 3     | 1       |        |
| Returned from Oliver .....               | 3     | ....    |        |
| Returned from University Hospital .....  | 1     | ....    |        |
| Returned from Eventide Home .....        | 1     | ....    |        |
|                                          |       |         | 63     |
|                                          |       |         | 1480   |
| OUTGOING                                 |       |         |        |
| Probations .....                         | 102   | 76      |        |
| Deportations .....                       | 24    | 4       |        |
| Granted leave of absence .....           | 3     | 2       |        |
| Transferred to Oliver .....              | 65    | ....    |        |
| Transferred to University Hospital ..... | 2     | 1       |        |
| Transferred to Eventide Home .....       | 1     | ....    |        |
| Observation cases disposed of .....      | 6     | ....    |        |
| Eloped .....                             | 34    | ....    |        |
| Deaths .....                             | 46    | 28      |        |
|                                          |       |         | 394    |



## DEPARTMENT OF PUBLIC HEALTH

|                                       |     |     |      |
|---------------------------------------|-----|-----|------|
| Total in residence Dec. 31, 1929..... | 608 | 478 | 1086 |
| Total in residence Dec. 31, 1928..... | 602 | 453 | 1055 |
| Increase in residents .....           | 6   | 25  | 31   |

TABLE No. 1  
SHOWING THE NUMBER OF ADMISSIONS, DISCHARGES AND DEATHS  
DURING 1929

| Month.          | Admissions |         |        | Discharges |         |        | Deaths |         |        |
|-----------------|------------|---------|--------|------------|---------|--------|--------|---------|--------|
|                 | Male.      | Female. | Total. | Male.      | Female. | Total. | Male.  | Female. | Total. |
| January .....   | 13         | 10      | 23     | 10         | 4       | 14     | 4      | 3       | 7      |
| February .....  | 16         | 7       | 23     | 10         | 4       | 14     | 4      | 2       | 6      |
| March .....     | 26         | 5       | 31     | 11         | 7       | 18     | 3      | 3       | 6      |
| April .....     | 15         | 16      | 31     | 15         | 5       | 20     | 3      | 3       | 6      |
| May .....       | 19         | 6       | 25     | 13         | 6       | 19     | 9      | 5       | 14     |
| June .....      | 23         | 12      | 35     | 8          | 13      | 21     | 4      | 1       | 5      |
| July .....      | 31         | 3       | 34     | 12         | 10      | 22     | 4      | 2       | 6      |
| August .....    | 24         | 11      | 35     | 9          | 10      | 19     | 4      | 2       | 6      |
| September ..... | 14         | 8       | 22     | 7          | 11      | 18     | 3      | 1       | 4      |
| October .....   | 19         | 17      | 36     | 10         | 4       | 14     | 2      | 2       | 4      |
| November .....  | 22         | 12      | 34     | 12         | 3       | 15     | 4      | 3       | 7      |
| December .....  | 22         | 11      | 33     | 15         | 3       | 18     | 2      | 1       | 3      |
| Total .....     | 244        | 118     | 362    | 132        | 80      | 212    | 46     | 28      | 74     |

TABLE No. 2  
SHOWING THE CIVIL STATE OF PATIENTS ADMITTED DURING 1929

| Civil State.   | Male. | Female. | Total. |
|----------------|-------|---------|--------|
| Single .....   | 130   | 20      | 150    |
| Married .....  | 92    | 83      | 175    |
| Widowed .....  | 18    | 13      | 31     |
| Divorced ..... | 4     | 2       | 6      |
| Total.....     | 244   | 118     | 362    |

TABLE No. 3  
SHOWING THE RELIGIOUS DENOMINATION OF THOSE ADMITTED DURING 1929.

| Religious Denomination.     | Male. | Female | Total. |
|-----------------------------|-------|--------|--------|
| Anglican .....              | 37    | 19     | 56     |
| Baptist .....               | 13    | 6      | 19     |
| Christian Church .....      | 2     | ...    | 2      |
| Church of Ireland .....     | 3     | ...    | 3      |
| Confucian .....             | 1     | ...    | 1      |
| Dutch Reformed Church ..... | ...   | 1      | 1      |
| Evangelical .....           | 1     | ...    | 1      |
| Greek Catholic .....        | 16    | 5      | 21     |
| Jewish .....                | 4     | ...    | 4      |
| Latter Day Saints .....     | 3     | 2      | 5      |
| Lutheran .....              | 33    | 14     | 47     |
| Mormon .....                | 1     | 1      | 2      |
| Other Protestants .....     | 7     | 5      | 12     |
| Pentecostal .....           | 1     | ...    | 1      |
| Plymouth Brethren .....     | 1     | 1      | 2      |
| Presbyterians .....         | 26    | 9      | 35     |
| Roman Catholic .....        | 57    | 35     | 92     |
| Salvation Army .....        | 2     | ...    | 2      |
| Seventh Day Adventist ..... | 1     | 1      | 2      |
| Unitarian .....             | ...   | 1      | 1      |
| United Church .....         | 35    | 18     | 53     |
| Total.....                  | 244   | 118    | 362    |

TABLE No. 4  
SHOWING THE DEGREE OF EDUCATION OF THOSE ADMITTED DURING 1929

| Degree of Education. | Male. | Female | Total. |
|----------------------|-------|--------|--------|
| Superior .....       | 10    | 1      | 11     |
| Common School .....  | 226   | 111    | 337    |
| None .....           | 8     | 6      | 14     |
| Total.....           | 244   | 118    | 362    |

TABLE No. 5  
SHOWING THE NATIONALITY OF THOSE ADMITTED DURING 1929

| Nationality.          | Male. | Female. | Total. | Nationality.       | Male. | Female. | Total. |
|-----------------------|-------|---------|--------|--------------------|-------|---------|--------|
| Austria .....         | 7     | 2       | 9      | Newfoundland ..... | 2     | ....    | 2      |
| Belgium .....         | 2     | 1       | 3      | Norway .....       | 4     | 2       | 6      |
| Canada .....          | 83    | 32      | 115    | Old Mexico .....   | 1     | ....    | 1      |
| China .....           | 1     | ....    | 1      | Poland .....       | 14    | 4       | 18     |
| Czecho-Slovakia ..... | 3     | 1       | 4      | Russia .....       | 6     | 6       | 12     |
| Denmark .....         | 6     | ....    | 6      | Roumania .....     | 5     | ....    | 5      |
| England .....         | 34    | 22      | 56     | Scotland .....     | 10    | 6       | 16     |
| Finland .....         | 1     | ....    | 1      | Spain .....        | ....  | 1       | 1      |
| France .....          | 2     | ....    | 2      | Sweden .....       | 6     | 2       | 8      |
| Germany .....         | 8     | 2       | 10     | Switzerland .....  | ....  | 2       | 2      |
| Holland .....         | 1     | 1       | 2      | Ukraine .....      | 2     | ....    | 2      |
| Hungary .....         | 2     | ....    | 2      | U.S.A. ....        | 27    | 29      | 56     |
| Ireland .....         | 11    | ....    | 11     | Wales .....        | 2     | ....    | 2      |
| Italy .....           | 2     | 3       | 5      | West Indies .....  | ....  | 1       | 1      |
| Jugo-Slavia .....     | 1     | ....    | 1      |                    |       |         |        |
| Lithuania .....       | 1     | ....    | 1      | Total.....         | 244   | 118     | 362    |
| Luxemburg .....       | ....  | 1       | 1      |                    |       |         |        |

TABLE No. 6  
PLACE OF RESIDENCE AT TIME OF COMMITMENT, 1929

| Place.                  | Male. | Female. | Total. | Place.                 | Male. | Female. | Total. |
|-------------------------|-------|---------|--------|------------------------|-------|---------|--------|
| Acadia Valley .....     | ....  | 1       | 1      | Galahad .....          | ....  | 1       | 1      |
| Acme .....              | 1     | ....    | 1      | Gleichen .....         | 4     | ....    | 4      |
| Aklavik, N.W.T. ....    | 1     | ....    | 1      | Glen Leslie .....      | ....  | 1       | 1      |
| Alix .....              | ....  | 1       | 1      | Goldspring .....       | ....  | 1       | 1      |
| Ankerton .....          | 1     | ....    | 1      | Grande Prairie .....   | ....  | 2       | 2      |
| Arland, Sask. ....      | 1     | ....    | 1      | Granum .....           | 1     | ....    | 1      |
| Athabasca .....         | 1     | ....    | 1      | Halcourt .....         | 1     | ....    | 1      |
| Bashaw .....            | 1     | ....    | 1      | Halkirk .....          | ....  | 1       | 1      |
| Bawlf .....             | 1     | ....    | 1      | Hay Lake .....         | 3     | 2       | 5      |
| Beddington .....        | 1     | ....    | 1      | Heldar .....           | 1     | ....    | 1      |
| Beiseker .....          | ....  | 1       | 1      | Hilda .....            | 1     | ....    | 1      |
| Bellshill .....         | ....  | 1       | 1      | Hillcrest .....        | ....  | 1       | 1      |
| Bellevue .....          | 1     | ....    | 1      | Hines Creek .....      | 1     | ....    | 1      |
| Big Valley .....        | 2     | ....    | 2      | Hobbema .....          | ....  | 1       | 1      |
| Bilby .....             | 1     | ....    | 1      | Homeglen .....         | ....  | 1       | 1      |
| Blairmore .....         | 1     | 1       | 2      | Hoselaw .....          | 1     | ....    | 1      |
| Pon Accord .....        | ....  | 1       | 1      | Hythe .....            | 1     | ....    | 1      |
| Bowden .....            | 1     | ....    | 1      | Iron Springs .....     | 1     | ....    | 1      |
| Bow Island .....        | ....  | 1       | 1      | Irvine .....           | 1     | ....    | 1      |
| Breton .....            | ....  | 1       | 1      | Jasper .....           | 1     | ....    | 1      |
| Brooks .....            | 1     | ....    | 1      | Keg River, N.W.T. .... | ....  | 1       | 1      |
| Bulwark .....           | 1     | ....    | 1      | Killam .....           | 2     | ....    | 2      |
| Byemoor .....           | ....  | 1       | 1      | Kingman .....          | 1     | ....    | 1      |
| Calgary .....           | 34    | 23      | 57     | Kimmundy .....         | 1     | ....    | 1      |
| Camrose .....           | 1     | ....    | 1      | Kinsella .....         | ....  | 1       | 1      |
| Carbon .....            | ....  | 1       | 1      | Kracow .....           | 1     | ....    | 1      |
| Carvel .....            | ....  | 1       | 1      | Lake Isle .....        | ....  | 1       | 1      |
| Carstairs .....         | 2     | 1       | 3      | Lamont .....           | 1     | ....    | 1      |
| Chauvin .....           | 1     | ....    | 1      | Leedale .....          | 1     | ....    | 1      |
| Cheadle .....           | 1     | ....    | 1      | Lavoy .....            | 1     | ....    | 1      |
| Chipman .....           | ....  | 1       | 1      | Lessard .....          | 1     | ....    | 1      |
| Clandonald .....        | 1     | ....    | 1      | Lethbridge .....       | 5     | 1       | 6      |
| Clive .....             | 1     | ....    | 1      | Luscar .....           | 1     | ....    | 1      |
| Cold Lake .....         | 2     | ....    | 2      | Macleod .....          | 1     | ....    | 1      |
| Coleman .....           | 2     | ....    | 2      | Mannville .....        | ....  | 1       | 1      |
| Cooking Lake .....      | ....  | 1       | 1      | Mayerthorpe .....      | ....  | 1       | 1      |
| Coronation .....        | 1     | ....    | 1      | Markerville .....      | ....  | 1       | 1      |
| Coalhurst .....         | 1     | 1       | 2      | McLaughlin .....       | 1     | 1       | 2      |
| Craigmyle .....         | 1     | ....    | 1      | Medicine Hat .....     | 2     | 2       | 4      |
| Crossfield .....        | 1     | 1       | 2      | Millet .....           | 2     | ....    | 2      |
| Darling .....           | ....  | 1       | 1      | Millicent .....        | 1     | ....    | 1      |
| Daysland .....          | ....  | 1       | 1      | Minburn .....          | 1     | ....    | 1      |
| Deaver .....            | ....  | 1       | 1      | Mirror .....           | ....  | 1       | 1      |
| Dewberry .....          | 1     | ....    | 1      | Monarch .....          | 1     | 1       | 2      |
| De Winton .....         | 1     | ....    | 1      | Monitor .....          | 1     | ....    | 1      |
| Didsbury .....          | 1     | ....    | 1      | Moon Lake .....        | ....  | 1       | 1      |
| Dinant .....            | 1     | ....    | 1      | Morecambe .....        | 1     | ....    | 1      |
| Drumheller .....        | 4     | ....    | 4      | Mundare .....          | 1     | 1       | 2      |
| Duchess .....           | ....  | 1       | 1      | Nanton .....           | ....  | 1       | 1      |
| Duffield .....          | 3     | ....    | 3      | Neerlandia .....       | 1     | ....    | 1      |
| Dunmore .....           | 2     | ....    | 2      | New Dayton .....       | ....  | 1       | 1      |
| Edmonton .....          | 56    | 21      | 77     | New Norway .....       | ....  | 1       | 1      |
| Edgerton .....          | ....  | 1       | 1      | Nordegg .....          | 2     | ....    | 2      |
| Ellerslie .....         | ....  | 1       | 1      | Olds .....             | 2     | ....    | 2      |
| Edson .....             | 2     | ....    | 2      | Orion .....            | 1     | 1       | 2      |
| Evansburg .....         | 1     | ....    | 1      | Pashley .....          | 1     | ....    | 1      |
| Fallis .....            | 1     | 1       | 2      | Peace River .....      | 1     | ....    | 1      |
| Faust .....             | 1     | ....    | 1      | Peavine .....          | 1     | ....    | 1      |
| Fort McMurray .....     | ....  | 1       | 1      | Peers .....            | ....  | 1       | 1      |
| Foisy .....             | ....  | 1       | 1      | Penhold .....          | 1     | 1       | 2      |
| Fort Saskatchewan ..... | 2     | ....    | 2      | Pincher Creek .....    | 2     | ....    | 2      |
| Fort Simpson .....      | 1     | ....    | 1      | Plain Lake .....       | 1     | ....    | 1      |
| Gadsby .....            | 1     | ....    | 1      | Ponoka .....           | 1     | 1       | 2      |

| Place.                | Male. | Female. | Total. | Place.                | Male. | Female. | Total. |
|-----------------------|-------|---------|--------|-----------------------|-------|---------|--------|
| Radnor .....          | 1     | ...     | 1      | Taber .....           | 1     | ...     | 1      |
| Ranfurlly .....       | 1     | ...     | 1      | Thelma .....          | ...   | 1       | 1      |
| Red Deer .....        | 3     | 1       | 4      | Tofield .....         | 2     | ...     | 2      |
| Retlaw .....          | ...   | 1       | 1      | Three Hills .....     | ...   | 1       | 1      |
| Rimbey .....          | ...   | 2       | 2      | Two Hills .....       | 1     | ...     | 1      |
| Rochfort Bridge ..... | 1     | ...     | 1      | Valhalla Centre ..... | 1     | ...     | 1      |
| Rockyford .....       | 1     | ...     | 1      | Vancouver, B.C. ....  | 1     | ...     | 1      |
| Rocky Mtn. House..    | ...   | 1       | 1      | Vegreville .....      | 1     | ...     | 1      |
| Rocky Rapids .....    | 1     | ...     | 1      | Vermilion .....       | ...   | 1       | 1      |
| Rossington .....      | 1     | ...     | 1      | Veteran .....         | 1     | ...     | 1      |
| Ryley .....           | 1     | ...     | 1      | Vilna .....           | 1     | ...     | 1      |
| St. Albert .....      | 2     | ...     | 2      | Vulcan .....          | 1     | ...     | 1      |
| St. Paul .....        | 1     | ...     | 1      | Wabamun .....         | 1     | ...     | 1      |
| Salem, Oregon .....   | 1     | ...     | 1      | Waskatenau .....      | 1     | ...     | 1      |
| Star .....            | 1     | ...     | 1      | Wayne .....           | 1     | 1       | 2      |
| Stavely .....         | 3     | ...     | 3      | Westlock .....        | 3     | ...     | 3      |
| Seven Persons .....   | ...   | 1       | 1      | West Wingham .....    | ...   | 1       | 1      |
| Sexsmith .....        | 1     | ...     | 1      | Wetaskiwin .....      | 1     | 3       | 4      |
| Smoky Lake .....      | 1     | 1       | 2      | Whitecourt .....      | 1     | ...     | 1      |
| Spring Lake .....     | 1     | ...     | 1      | Whitelaw .....        | ...   | 1       | 1      |
| Standard .....        | 1     | ...     | 1      | Youngstown .....      | 1     | ...     | 1      |
| Stettler .....        | ...   | 1       | 1      |                       |       |         |        |
| Stewartfield .....    | 1     | ...     | 1      |                       |       |         |        |
| Streamstown .....     | 1     | ...     | 1      |                       |       |         |        |
|                       |       |         |        | Total.....            | 244   | 118     | 362    |

TABLE No. 7

## SHOWING THE OCCUPATION OF THOSE ADMITTED DURING 1929

| Occupation.          | Male. | Female. | Total. | Occupation.           | Male. | Female. | Total. |
|----------------------|-------|---------|--------|-----------------------|-------|---------|--------|
| Accountant .....     | 2     | ...     | 2      | Miner .....           | 10    | ...     | 10     |
| Baker .....          | 1     | ...     | 1      | Mill-hand .....       | 1     | ...     | 1      |
| Barrister .....      | 1     | ...     | 1      | Motor mechanic .....  | 1     | ...     | 1      |
| Blacksmith .....     | 1     | ...     | 1      | Night watchman .....  | 1     | ...     | 1      |
| Brewery Worker ..... | 1     | ...     | 1      | None .....            | 1     | ...     | 1      |
| Bricklayer .....     | 1     | ...     | 1      | Oil Speculator .....  | 1     | ...     | 1      |
| Bridge Builder ..... | 1     | ...     | 1      | Painter .....         | 1     | ...     | 1      |
| Carpenter .....      | 1     | ...     | 1      | Piano tuner .....     | 1     | ...     | 1      |
| Clerk .....          | 4     | ...     | 4      | Postal clerk .....    | 1     | ...     | 1      |
| Coal Trimmer .....   | 1     | ...     | 1      | Real estate agent ..  | 1     | ...     | 1      |
| Cook .....           | 5     | ...     | 5      | Picture framer .....  | 1     | ...     | 1      |
| Constr. foreman..... | 1     | ...     | 1      | Salesman .....        | 6     | ...     | 6      |
| Domestic .....       | ...   | 6       | 6      | Seamstress .....      | ...   | 1       | 1      |
| Dressmaker .....     | ...   | 2       | 2      | Section foreman ..... | 1     | ...     | 1      |
| Engineer—            |       |         |        | Section man .....     | 2     | ...     | 2      |
| Electric .....       | 1     | ...     | 1      | Schoolgirl .....      | ...   | 1       | 1      |
| Locomotive .....     | ...   | ...     | ...    | Soldier .....         | 1     | ...     | 1      |
| Steam .....          | 2     | ...     | 2      | School Teacher .....  | 1     | ...     | 1      |
| Farmer .....         | 86    | ...     | 86     | Stenographer .....    | ...   | 1       | 1      |
| Fireman .....        | 1     | ...     | 1      | Storekeeper .....     | 1     | ...     | 1      |
| Forest Ranger .....  | 1     | ...     | 1      | Taxi-driver .....     | 1     | ...     | 1      |
| Glazier .....        | 1     | ...     | 1      | Tinsmith .....        | 1     | ...     | 1      |
| Home .....           | 6     | 9       | 15     | Treaty Indian .....   | 1     | ...     | 1      |
| Housekeeper .....    | ...   | 8       | 8      | Trapper .....         | 2     | ...     | 2      |
| Housewife .....      | ...   | 87      | 87     | Theological student   | 1     | ...     | 1      |
| Interior decorator.. | 1     | ...     | 1      | Waitress .....        | ...   | 3       | 3      |
| Labourer .....       | 86    | ...     | 86     |                       |       |         |        |
| Machine shop hlpr.   | 1     | ...     | 1      |                       |       |         |        |
|                      |       |         |        | Total.....            | 244   | 118     | 362    |

TABLE No. 8

## SHOWING THE AGES OF THOSE ADMITTED DURING 1929

| Ages.          | Male. | Female. | Total. | Ages.          | Male. | Female. | Total. |
|----------------|-------|---------|--------|----------------|-------|---------|--------|
| 10 to 15 ..... | ...   | 1       | 1      | 55 to 60 ..... | 13    | 3       | 16     |
| 15 to 20 ..... | 11    | 7       | 18     | 60 to 65 ..... | 9     | 2       | 11     |
| 20 to 25 ..... | 20    | 12      | 32     | 65 to 70 ..... | 4     | 5       | 9      |
| 25 to 30 ..... | 25    | 17      | 42     | 70 to 75 ..... | 8     | 1       | 9      |
| 30 to 35 ..... | 31    | 22      | 53     | 75 to 80 ..... | 4     | 1       | 5      |
| 35 to 40 ..... | 36    | 16      | 52     | 80 to 85 ..... | 2     | ...     | 2      |
| 40 to 45 ..... | 29    | 10      | 39     |                |       |         |        |
| 45 to 50 ..... | 30    | 14      | 44     |                |       |         |        |
| 50 to 55 ..... | 22    | 7       | 29     |                |       |         |        |
|                |       |         |        | Total.....     | 244   | 118     | 362    |

TABLE No. 9

## SHOWING STATISTICS OF HEREDITY IN THOSE ADMITTED DURING 1929

| Heredity.                     | Male. | Female. | Total. |
|-------------------------------|-------|---------|--------|
| Paternal Branch .....         | 34    | 14      | 48     |
| Maternal Branch .....         | 19    | 17      | 36     |
| Paternal or Maternal .....    | 17    | 19      | 36     |
| Paternal and Maternal .....   | 8     | 2       | 10     |
| Said not to be Heredity ..... | 131   | 58      | 189    |
| History insufficient .....    | 35    | 8       | 43     |
| Total.....                    | 244   | 118     | 362    |

TABLE No. 10  
SHOWING THE ALLEGED CAUSES OF THE ATTACK OF INSANITY, 1929

| Alleged Causes.                               | Male. | Female. | Total. |
|-----------------------------------------------|-------|---------|--------|
| Alcohol .....                                 | 25    | 2       | 27     |
| Anaemia .....                                 | 1     | ....    | 1      |
| Brain tumour .....                            | ....  | 1       | 1      |
| Cardio-vascular degeneration .....            | 17    | 5       | 22     |
| Child-bearing .....                           | ....  | 1       | 1      |
| Child-birth .....                             | ....  | 8       | 8      |
| Constitutional psychopathic inferiority ..... | 2     | 1       | 3      |
| Deaf-mutism .....                             | 1     | ....    | 1      |
| Drug addiction .....                          | 8     | 3       | 11     |
| Encephalitis lethargica .....                 | 4     | 3       | 7      |
| Epilepsy .....                                | 7     | 5       | 12     |
| Goitre .....                                  | 1     | 1       | 2      |
| Heredity .....                                | 50    | 33      | 83     |
| Heredity, alcoholic .....                     | 21    | 12      | 33     |
| Heredity, epileptic .....                     | 9     | 2       | 11     |
| Heredity, suspected .....                     | 9     | 8       | 17     |
| Ill-health .....                              | 12    | 11      | 23     |
| Injury to head .....                          | 2     | 1       | 3      |
| Injury to other parts .....                   | 5     | ....    | 5      |
| Influenza .....                               | ....  | 4       | 4      |
| Isolation .....                               | 4     | 2       | 6      |
| Menopause .....                               | ....  | 9       | 9      |
| Mental deficiency .....                       | 14    | 13      | 27     |
| Mental stress, acute .....                    | 3     | 5       | 8      |
| Mental stress, prolonged .....                | 22    | 23      | 45     |
| Not known .....                               | 37    | 10      | 47     |
| Overwork .....                                | 7     | 7       | 14     |
| Pregnancy .....                               | ....  | 6       | 6      |
| Prolonged lactation .....                     | ....  | 2       | 2      |
| Pyorrhoea .....                               | 6     | 1       | 7      |
| Senility .....                                | 5     | 2       | 7      |
| Syphilis .....                                | 35    | 6       | 41     |
| Temperament, cycloid .....                    | 7     | 14      | 21     |
| Temperament, schizoid .....                   | 16    | 13      | 29     |
| Temperament, paranoid .....                   | 14    | 1       | 15     |
| Pulmonary tuberculosis .....                  | ....  | 2       | 2      |
| Total.....                                    | 244   | 118     | 362    |

TABLE No. 11

SHOWING THE STATE OF BODILY HEALTH ON ADMISSION DURING 1929

| Bodily Condition.               | Male. | Female. | Total. |
|---------------------------------|-------|---------|--------|
| In average bodily health .....  | 190   | 81      | 271    |
| In reduced health .....         | 47    | 30      | 77     |
| In greatly reduced health ..... | 7     | 7       | 14     |
| Total.....                      | 244   | 118     | 362    |

TABLE No. 12

SHOWING THE FORM OF MENTAL DISORDER IN THOSE ADMITTED DURING 1929

| Form of Disorder.                                      | Male. | Female. | Total. |
|--------------------------------------------------------|-------|---------|--------|
| <b>SENILE PSYCHOSES:</b>                               |       |         |        |
| Simple deterioration .....                             | 3     | 2       | 5      |
| Presbyphrenic type .....                               | 1     | ....    | 1      |
| Delirious and confused states .....                    | ....  | 1       | 1      |
| <b>PSYCHOSES WITH CEREBRAL ARTERIOSCLEROSIS .....</b>  | 16    | 4       | 20     |
| <b>GENERAL PARALYSIS:</b>                              |       |         |        |
| Tabetic type .....                                     | 10    | 2       | 12     |
| Cerebral type .....                                    | 22    | 2       | 24     |
| <b>PSYCHOSES WITH HUNTINGTON'S CHOREA .....</b>        | 1     | 1       | 2      |
| <b>PSYCHOSES WITH BRAIN TUMOUR .....</b>               | ....  | 1       | 1      |
| <b>PSYCHOSES WITH OTHER BRAIN OR NERVOUS DISEASES:</b> |       |         |        |
| Paralysis agitans .....                                | 1     | ....    | 1      |
| Encephalitis lethargica .....                          | 4     | 1       | 5      |
| <b>ALCOHOLIC PSYCHOSES:</b>                            |       |         |        |
| Acute hallucinosis .....                               | 5     | 1       | 6      |
| <b>PSYCHOSES WITH OTHER SOMATIC DISEASES:</b>          |       |         |        |
| Delirium with infectious disease.....                  | ....  | 1       | 1      |
| Post-infectious psychosis .....                        | ....  | 2       | 2      |
| Exhaustion delirium .....                              | 2     | 4       | 6      |
| Delirium of unknown origin .....                       | 1     | ....    | 1      |
| Chronic myocarditis .....                              | 1     | ....    | 1      |
| Rheumatoid arthritis .....                             | ....  | 1       | 1      |
| Pyelitis and double pyelitis .....                     | 2     | ....    | 2      |
| Pneumonia .....                                        | 1     | ....    | 1      |
| Pyorrhoea and oral sepsis .....                        | 3     | 1       | 4      |
| Oral sepsis and otitis media .....                     | 1     | ....    | 1      |
| Lung abscess .....                                     | 1     | ....    | 1      |
| Pernicious anaemia .....                               | 1     | ....    | 1      |
| Toxaemia of pregnancy .....                            | ....  | 1       | 1      |
| Puerperal sepsis .....                                 | ....  | 1       | 1      |
| Chronic splenic abscess .....                          | 1     | ....    | 1      |



| Form of Disorder.                                                   | Male.      | Female.    | Total.     |
|---------------------------------------------------------------------|------------|------------|------------|
| <b>MANIC-DEPRESSIVE PSYCHOSES:</b>                                  |            |            |            |
| Manic type .....                                                    | 17         | 15         | 32         |
| Depressive type .....                                               | 7          | 6          | 13         |
| Mixed type .....                                                    | ...        | 1          | 1          |
| Circular type .....                                                 | 1          | ...        | 1          |
| <b>INVOLUTIONAL MELANCHOLIA</b> .....                               | 2          | 9          | 11         |
| <b>SCHIZOPHRENAL:</b>                                               |            |            |            |
| Paranoid type .....                                                 | 9          | 1          | 10         |
| Catatonic type .....                                                | 37         | 23         | 60         |
| Hebephrenic type .....                                              | 15         | 7          | 22         |
| Simple type .....                                                   | 2          | ...        | 2          |
| Atypical .....                                                      | 2          | 2          | 4          |
| <b>PARANOIA AND PARANOIC CONDITIONS</b> .....                       | 33         | 6          | 39         |
| <b>EPILEPTIC PSYCHOSES:</b>                                         |            |            |            |
| Deterioration .....                                                 | 3          | 3          | 6          |
| Clouded states .....                                                | 4          | 2          | 6          |
| <b>PSYCHONEUROSES AND NEUROSES:</b>                                 |            |            |            |
| Hysterical type .....                                               | 1          | ...        | 1          |
| Psychasthenic type .....                                            | ...        | 1          | 1          |
| Neurasthenic type .....                                             | 1          | ...        | 1          |
| Anxiety neurosis .....                                              | 1          | ...        | 1          |
| <b>PSYCHOSES WITH CONSTITUTIONAL PSYCHOPATHIC INFERIORITY</b> ..... |            |            |            |
| .....                                                               | 2          | ...        | 2          |
| <b>PSYCHOSES WITH MENTAL DEFICIENCY</b> .....                       |            |            |            |
| .....                                                               | 9          | 6          | 15         |
| <b>UNDIAGNOSED PSYCHOSES</b> .....                                  |            |            |            |
| .....                                                               | 1          | ...        | 1          |
| <b>NOT INSANE:</b>                                                  |            |            |            |
| Epilepsy with psychosis .....                                       | ...        | ...        | ...        |
| Chronic alcoholism without psychosis .....                          | 1          | ...        | 1          |
| Drug addition without psychosis .....                               | 8          | 5          | 13         |
| Constitutional psychopathic inferiority without psychosis .....     | 1          | 2          | 3          |
| Mental deficiency without psychosis .....                           | 4          | 2          | 6          |
| Fetichism .....                                                     | 1          | ...        | 1          |
| Indecent assault .....                                              | 1          | ...        | 1          |
| Simulated psychosis .....                                           | 1          | ...        | 1          |
| Incest .....                                                        | 1          | ...        | 1          |
| False pretences .....                                               | 1          | ...        | 1          |
| (?) Brain Tumour .....                                              | 1          | ...        | 1          |
| Encephalitis lethargica .....                                       | ...        | 1          | 1          |
| <b>Total</b> .....                                                  | <b>244</b> | <b>118</b> | <b>362</b> |

TABLE No. 13

SHOWING NUMBER ALLOWED OUT ON PROBATION AND RESULTS IN 1929

| Results.                         | Male. | Female. | Total. |
|----------------------------------|-------|---------|--------|
| Discharged, recovered .....      | 53    | 32      | 85     |
| Discharged, improved .....       | 41    | 30      | 71     |
| Discharged, not improved .....   | 6     | 2       | 8      |
| Returned to hospital .....       | 15    | 15      | 30     |
| Still out at close of year ..... | 45    | 35      | 80     |
| Not insane .....                 | 2     | 12      | 14     |

TABLE No. 14

RECORDS OF DEATHS DURING 1929

| Register No. | Sex. | Age. | Years. | Months. | Days. | Cause of Death.                                                                     |
|--------------|------|------|--------|---------|-------|-------------------------------------------------------------------------------------|
| 4278         | M    | 70   | ....   | 2       | 26    | Senile Dementia, Chronic Brain Atrophy.                                             |
| 3492         | F    | 77   | ....   | 3       | 12    | Senile Dementia, Chronic Brain Atrophy.                                             |
| 4344         | M    | 79   | ....   | ....    | 27    | Senile Dementia, Chronic Brain Atrophy, Influenza.                                  |
| 4374         | M    | 73   | ....   | ....    | 7     | Senile Dementia, Chronic Brain Atrophy.                                             |
| 4309         | F    | 66   | ....   | 2       | 22    | Chronic Pulmonary Tuberculosis.                                                     |
| 2720         | F    | 28   | 5      | 7       | 19    | Pulmonary Tuberculosis, Chronic Bronchiec-tasis, Lung Abscess.                      |
| 4287         | M    | 77   | ....   | 3       | 12    | Senile Dementia, Chronic Brain Atrophy.                                             |
| 4099         | F    | 14   | ....   | 9       | 17    | Cerebral Tumour, Internal Hydrocephalus, Coma.                                      |
| 4363         | F    | 58   | ....   | ....    | 25    | Lobar Pneumonia, Cellulitis of arm and Septicaemia.                                 |
| 4380         | M    | 52   | ....   | ....    | 10    | Cardiac Failure, Syncope; Lobar Pneumonia.                                          |
| 4385         | M    | 25   | ....   | ....    | 3     | Acute Mania, Exhaustion.                                                            |
| 2769         | M    | 62   | 5      | 5       | 27    | Acute Septic Meningitis; Probable extension of infection from a broken arm.         |
| 581          | M    | 49   | 14     | 8       | 17    | Auricular Fibrillation, Cardiac Failure; Fatty degeneration of the heart.           |
| 4407         | M    | 60   | ....   | ....    | 1     | Terminal Broncho-Pneumonia; Cerebral Arteriosclerosis.                              |
| 4288         | M    | 45   | ....   | 4       | 17    | General Paralysis of the Insane, Exhaustion.                                        |
| 4399         | F    | 58   | ....   | 1       | 7     | Hypostatic Pneumonia, Brain Tumour.                                                 |
| 4408         | M    | 77   | ....   | ....    | 13    | Lobar Pneumonia, Arteriosclerotic Dementia.                                         |
| 3546         | F    | 44   | 2      | 5       | 27    | Pulmonary Tuberculosis.                                                             |
| 4369         | F    | 33   | ....   | 2       | 18    | Acute Suppurative Appendicitis, Septic Thrombosis, Gangrene of gut and Peritonitis. |
| 1874         | M    | 58   | 8      | 1       | 22    | Cancer of Stomach, Exhaustion.                                                      |

| Register |      | Age. | Years. Months. Days. |      |      | Cause of Death.                                                                            |
|----------|------|------|----------------------|------|------|--------------------------------------------------------------------------------------------|
| No.      | Sex. |      |                      |      |      |                                                                                            |
| 2006     | F    | 71   | 8                    | 7    | .... | Ruptured Duodenal Ulcer with haemorrhage, Huntington's Chorea, Chronic Brain Atrophy.      |
| 2613     | F    | 29   | 6                    | 2    | 21   | Pulmonary Tuberculosis, Exhaustion.                                                        |
| 4442     | M    | 21   | ....                 | .... | 7    | Dementia Praecox (Catatonic), Exhaustion.                                                  |
| 4449     | F    | 18   | ....                 | .... | 12   | Status Epilepticus, Exhaustion.                                                            |
| 4343     | M    | 70   | ....                 | 4    | 17   | Hemiplegia; Cerebral Thrombosis.                                                           |
| 4115     | F    | 71   | 1                    | .... | .... | Cerebral Thrombosis, Arteriosclerosis.                                                     |
| 3870     | F    | 29   | 1                    | 8    | 18   | Broncho-Pneumonia; Dementia Praecox (Catatonic).                                           |
| 3590     | M    | 49   | 2                    | 6    | 26   | Apparently Arteriosclerosis.                                                               |
| 4453     | M    | 58   | ....                 | .... | 23   | Arteriosclerosis, Chronic Brain Atrophy.                                                   |
| 4462     | M    | 22   | ....                 | .... | 11   | Septicaemia, Cellulitis of arm.                                                            |
| 4469     | F    | 24   | ....                 | .... | 4    | Post-infectious Psychosis, Exhaustion, Measles.                                            |
| 4381     | M    | 32   | ....                 | 3    | 10   | Malarial Inoculation; General Paralysis.                                                   |
| 4314     | F    | 43   | ....                 | 6    | 2    | General Paralysis; Malarial Inoculation.                                                   |
| 4427     | M    | 47   | ....                 | 1    | 21   | General Paralysis of the Insane.                                                           |
| 4293     | M    | 61   | ....                 | 6    | 29   | Chronic Myocarditis; Fatty Degeneration.                                                   |
| 4375     | M    | 51   | ....                 | 4    | 28   | Broncho-Pneumonia; Dementia Praecox.                                                       |
| 3576     | M    | 72   | 2                    | 8    | 7    | Myocardial Degeneration, Syncope; Senile Dementia; Erysipelas.                             |
| 4025     | M    | 57   | 1                    | 4    | 3    | Auricular Fibrillation; Arteriosclerosis.                                                  |
| 4013     | F    | 67   | 1                    | 4    | 13   | Secondary Carcinoma of femora and lung, Exhaustion; Carcinoma of breast.                   |
| 1134     | M    | 49   | 12                   | 2    | .... | Tubercular Ischio-rectal abscess, Sinuses; Chronic Suppuration, Exhaustion.                |
| 4383     | F    | 31   | ....                 | 4    | 17   | Shock; Multiple Fractures. Fell from third storey window.                                  |
| 4490     | M    | 65   | ....                 | .... | 21   | Broncho-Pneumonia; Cerebral Arteriosclerosis, Paralysis.                                   |
| 3935     | M    | 34   | 1                    | 7    | 23   | Broncho-Pneumonia, Heart Failure; Dementia Praecox; Atrophy of Brain.                      |
| 4492     | M    | 56   | ....                 | .... | 28   | Myocardial Degeneration, Hypostatic Pneumonia; General Paralysis.                          |
| 4493     | M    | 44   | ....                 | 1    | 11   | Multiple self-inflicted cutaneous abrasions, Streptococcal Septicaemia; General Paralysis. |
| 4530     | F    | 33   | ....                 | .... | 11   | Toxaemia; Exhaustion; Psychosis complicating pregnancy and child-birth; Septic throat.     |
| 4209     | M    | 42   | ....                 | 11   | 15   | Heart Failure, Myocardial Degeneration; General Paralysis of the Insane.                   |
| 4534     | M    | 26   | ....                 | .... | 14   | Toxaemia resulting from large lung abscess complicating pneumonia.                         |
| 4541     | F    | 69   | ....                 | .... | 20   | Broncho-Pneumonia; Cerebral Thrombosis.                                                    |
| 1880     | M    | 57   | 9                    | 3    | 12   | Broncho-Pneumonia; General Paralysis.                                                      |
| 4540     | F    | 41   | ....                 | .... | 26   | Multiple abscesses of right lung; toxaemia; Exhaustion; General Paralysis.                 |
| 4496     | F    | 31   | ....                 | 2    | 2    | Acute Bronchitis and Pneumonia; General Paralysis of the Insane.                           |
| 4501     | M    | 52   | ....                 | 2    | 7    | Heart Failure, Erysipelas; General Paralysis.                                              |
| 4473     | M    | 46   | ....                 | 3    | 13   | Chronic Myocardial Degeneration and Aortitis, Syncope; General Paralysis of the Insane.    |
| 4052     | M    | 59   | 1                    | 6    | 14   | Chronic Pulmonary Tuberculosis; Exhaustion.                                                |
| 4589     | M    | 58   | ....                 | .... | 5    | Broncho-Pneumonia, Toxaemia.                                                               |
| 4592     | F    | 16   | ....                 | .... | 6    | Cardiac Failure, Exhaustion; Dementia Praecox (Catatonic).                                 |
| 591      | M    | 35   | 15                   | 2    | 20   | Broncho-Pneumonia, Toxaemia; Epilepsy.                                                     |
| 4200     | M    | 70   | 1                    | 1    | 20   | Myocardial Failure, Arteriosclerosis.                                                      |
| 1269     | M    | 37   | 11                   | 10   | 15   | Accidental scald of perineum and buttocks; Epilepsy with deterioration.                    |
| 2295     | M    | 26   | 8                    | 2    | .... | Status Epilepticus, Exhaustion.                                                            |
| 1604     | M    | 48   | 10                   | 6    | .... | Status Epilepticus, Exhaustion.                                                            |
| 4645     | F    | 26   | ....                 | .... | 5    | Acute Exhaustion, Hyper-Pyraemia; Exhaustion.                                              |
| 4647     | F    | 31   | ....                 | .... | 7    | Acute Exhaustion Psychosis; Childbirth, Retained Placenta; Parametritis.                   |
| 4329     | F    | 41   | ....                 | .... | 15   | Dementia Praecox (Catatonic type); Malnutrition, Exhaustion, Diarrhoea.                    |
| 3568     | M    | 67   | 3                    | 1    | 23   | Broncho-Pneumonia, Cardiac Failure.                                                        |
| 3017     | M    | 25   | 5                    | 1    | 27   | Tuberculosis Broncho-Pneumonia, Exhaustion.                                                |
| 4523     | F    | 66   | ....                 | 4    | 19   | Broncho-Pneumonia, Arteriosclerosis.                                                       |
| 2768     | F    | 51   | 6                    | 3    | 6    | Syncopal Attacks, Cardiac failure; low grade congenital imbecile, obesity.                 |
| 4575     | M    | 64   | ....                 | .... | 6    | Broncho-Pneumonia, Cardiac failure; Generalized Arteriosclerosis.                          |
| 4663     | M    | 47   | ....                 | .... | 23   | Tabo-Paresis, Malarial Inoculation, Syncope.                                               |
| 4136     | M    | 24   | 1                    | 6    | 13   | Pulmonary Tuberculosis, Exhaustion.                                                        |
| 1775     | F    | 55   | 10                   | .... | 27   | Pulmonary Tuberculosis, Exhaustion.                                                        |

## DEPARTMENT OF PUBLIC HEALTH

DENTAL DEPARTMENT AT THE PROVINCIAL MENTAL HOSPITAL, PONOKA  
SUMMARY OF WORK DONE DURING 1929

|                                                       |                 |
|-------------------------------------------------------|-----------------|
| Number of patients examined .....                     | No record kept. |
| Number of patients given treatment.....               | 735             |
| Number of prophylactic treatments .....               | 124             |
| Number of fillings .....                              | 109             |
| Number of extractions .....                           | 812             |
| Number of extractions under general anaesthetic ..... | 22              |
| Number of new dentures constructed.....               | 58              |
| Number of dentures repaired .....                     | 14              |

## Provincial Mental Institute, Oliver

(CHAS. P. FITZPATRICK, M.D., *Medical Superintendent*)

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On the first day of January, 1929, there were in residence 204 male patients. During the year there were two re-admissions, 65 transfers from the Provincial Mental Hospital, Ponoka, 4 probated, 7 deaths and 3 transfers from this institution to the Provincial Mental Hospital, Ponoka, leaving in residence on the last day of December a total of 257 patients. The average number of patients in residence during the year was 250 and the average staff 39. The total number of hospital days was 91,049. The daily cost per patient for the year was 82.4 cents.

On August 1st the working hours of the attendant staff were changed from 72 hours per week to 55 hours per week. This reduction in working hours was accomplished by increasing the attendant staff by 4. It has proven a very satisfactory arrangement, and is preferable from both the administrative and staff points of view to an 8-hour day.

The health of the institutional employees and patients has been good. There have been no serious epidemics or outbreaks of disease. Of the 4 patients probated, three have carried on quite successfully in the community and one was unable to obtain work owing to the unemployment situation existing last fall. This patient returned to the hospital, and was cared for during the winter.

The medical superintendent, Dr. D. L. Dick, resigned in May to take up post-graduate work in neurology with a view to entering general practice. He had been associated with the hospital for a number of years, and his resignation was regretted. The present incumbent was appointed to succeed him on June 1st.

Realizing that the useful occupation of the patients is a sovereign remedy for most types of mental disorder and results in a decrease in destructive and refractory tendencies with a consequent improvement in behaviour, an endeavour was made to increase the number of patients occupied in the various services of the hospital. About 50% more patients were found outside work last year, and during the bad weather a system of physical culture was organized on the various wards. The physical exercises worked out very satisfactorily, and effected an improvement in the behaviour and conduct of practically all patients, and especially of the refractory types. Clothing repairs, mattress covers and repairs to bedding, etc., are all done in our sewing department, which is staffed by patients. Recreation was also provided during the fine weather by outdoor games on the recreation field. Checkers, cards, etc., are played on the wards during inclement weather. Papers, magazines and books are also available. During the fall and winter months a number of concerts were given for the patients by various Edmonton organizations. The Salvation Army Citadel Band also favored us with a concert during the summer.



The appearance of the ward interiors was improved during the year by replacing the existing floors with battleship linoleum. Pictures were purchased and hung in the various wards, thus adding to their home-like appearance. In one patients' dining-room the long tables were replaced by circular tables seating 6 patients each. These tables were equipped with knives, forks and paper serviettes for each patient and a small centre-piece, on which was placed either a potted plant or a vase of flowers. The improvement in appearance and the greater variety of diet permitted by the use of knives and forks has been remarked on and appreciated by the patients.

There was a good deal of building during the year with many alterations and renovations in the power house, all tending towards improvement and more efficient operation. A new ward to accommodate 112 patients is in the course of erection, and with its connecting corridor should be completed and ready for occupation by June 1st of next year. A residence was built for the chief engineer and two cottages moved from the site of the new administration building, Edmonton, for the use of the Public Works staff here. The gardener's cottage was remodelled. New equipment in the power house included coal bunkers and elevators, also a Bellis and Morcom generator set with the capacity of 250 K.V.A. An oxy-acetylene welding outfit was purchased and two new hot water heaters, one for the domestic supply and the other for heating the buildings. In the laundry a new extractor was installed and two new sections added to the mangle. This latter has proven a big labor-saving, as it obviates the necessity of putting articles through the mangle twice. In the kitchen a steam kettle and potato peeler were added to the existing equipment, and a new bread rack was purchased for the bake-house. A new and improved cinema projection booth was erected in No. 3 building, thus reducing the fire risk and adding to the safety of the operator. While this was being built, the weekly picture shows were discontinued, but save for this period pictures were shown every week. A Ford truck with van body was placed in service, and a team of horses and a new democrat were purchased to cope with the increased garden land which was placed under cultivation.

The garden and grounds maintained their reputation established in former years, and were extended and improved by increasing the lawn areas and the building of new rockeries. A distinct improvement was effected along the front of the property by ploughing and cultivating the shoulders of the road and ditches with the idea next year of sowing this with grass. A good deal of excavation, including that necessary for 1,150 feet of water line, supplying fire hydrants, was performed by the patients under the direction of the garden staff.

A garage for the staff was erected during the year. It has accommodation for sixteen cars, is heated and lighted. A nominal rent is charged for accommodation. It has proved of great service and convenience, particularly during the cold months.

As a community and extra-institutional activity, two mental health clinics were established during the year, the medical and social services being supplied by the institution. The Edmonton clinic is located in the outdoor department of the University Hos-

pital and the Calgary clinic is located in the police building, in the same quarters as the Provincial baby clinic. In Edmonton we have had the co-operation of the University of Alberta, and the clinic has proved of great value in training social workers. These clinics fulfil three functions: First, to disseminate information in the community regarding the early diagnosis and treatment of mental defectives, mental disorders and neuroses; second, advice as to the treatment and management of the above disorders at home; third, the training of social workers, school teachers, etc., who are taking courses at the University of Alberta in psychiatry, mental deficiency and problem cases. The Edmonton clinic was begun in August, and dealt with 60 cases during the balance of the year. The Calgary clinic was not established until well on in October, and 25 cases were seen in that city. It is felt that a constructive advance has been made in initiating this work and that it amply repays the time and energy expended. These are the first mental health clinics established in Canada under Provincial Government auspices, and many favorable comments have been heard on the Department's progressiveness in this field.

For the year 1930 I would recommend that a kitchen and dining-room with passage connecting the existing building be erected. If this were done we could accommodate an additional 80 beds. Cottages for the bursar, laundryman and one of the chefs should be built. Steam presses are also required in the laundry if the staff is to be kept at its present level. More emphasis will be placed on occupational therapy during this coming year, and an attendant has been at Battleford during the closing months of the year 1929 taking a course in weaving, basket work, etc.

## MOVEMENT OF PATIENTS, 1929

| Month.          | In         |              | Transfer. | Transfer. | Probated. | Deaths. |
|-----------------|------------|--------------|-----------|-----------|-----------|---------|
|                 | Residence. | Re-admitted. | In        | Out       |           |         |
| January .....   | 204        | .....        | .....     | .....     | .....     | 1       |
| February .....  | .....      | .....        | .....     | .....     | .....     | 2       |
| March .....     | .....      | 1            | 62        | .....     | .....     | 1       |
| April .....     | .....      | .....        | .....     | .....     | .....     | 1       |
| May .....       | .....      | .....        | .....     | .....     | .....     | .....   |
| June .....      | .....      | .....        | 3         | 3         | 1         | .....   |
| July .....      | .....      | .....        | .....     | .....     | .....     | .....   |
| August .....    | .....      | 1            | .....     | .....     | 2         | .....   |
| September ..... | .....      | .....        | .....     | .....     | .....     | 1       |
| October .....   | .....      | .....        | .....     | .....     | .....     | 1       |
| November .....  | .....      | .....        | .....     | .....     | .....     | .....   |
| December .....  | 257        | .....        | .....     | .....     | 1         | .....   |
|                 | .....      | 2            | 65        | 3         | 4         | 7       |

## RECORD OF DEATHS, 1929

|                                                |   |
|------------------------------------------------|---|
| Bronchial pneumonia .....                      | 2 |
| Strangulation by hanging (self-inflicted)..... | 1 |
| Pneumonia .....                                | 1 |
| Carcinoma of stomach .....                     | 1 |
| Perforated duodenal ulcer .....                | 1 |
| Arteriosclerosis .....                         | 1 |
| Total.....                                     | 7 |
| Autopsies .....                                | 2 |

## DENTAL REPORT, 1929

|                                      |     |                                    |     |
|--------------------------------------|-----|------------------------------------|-----|
| Number of patients examined .....    | 214 | Number of extractions .....        | 296 |
| Number of patients given treatment.. | 189 | Number of general anaesthetics for |     |
| Number of fillings .....             | 27  | extractions .....                  | 24  |
| Number of prophylactic treatments..  | 139 | Number of artificial dentures..... | 6   |

## IMPROVEMENTS TO GROUNDS YEAR ENDING 1929.

A 750-foot spruce hedge planted in and around nursery, 290 trees, 300 shrubs, and 700 perennials planted, with additional beds and borders. Roadside between grounds and Fort Trail seeded to grass. Over half a mile of both sides of trail brushed, ploughed and cultivated. Three tennis courts excavated and first coat of cinders applied. Excavation of basement for chief engineer's house. Four hundred and eighty feet extension of road to cottages. Temporary roothouse constructed with poles, 100ft. by 8ft. Building up low ground in and around garage, 135ft. by 100ft. by 2ft. deep. Rockery work from No. 3 building to power house. Bluffs around institute underbrushed and portion of willows grubbed out for ploughing. Water line for fire hydrants, 7½ft. deep by 1,140ft. long, excavated. Temporary extension added to horse stable. Basement soil from new building graded and surfaced with black soil. Barb-wire fence on west side of Fort Trail moved over 6 feet and re-erected to allow cultivation of roadside; 160 feet of ditch from power house to garage for heating system. Excavation for engine base in power house, 16ft. by 9ft. by 7ft. Excavation for coal elevator to power house, 8ft. by 5ft. by 6½ft. Work on road and grounds around service building. New concrete floor in potting shed. Summer fallowing and breaking small patches on recently purchased land south of the institute. Approximately 20 acres of roots picked and piled on farm. Unloading and hauling 6 cars of gravel and sand and 1 car cement. Stooking grain on Oliver Farm. Planting flowers on farm grounds. Cartage of milk and eggs from farm. One hundred and twenty tons of ice stored. Year's coal for power house unloaded from cars to elevator. Hauling power house cinders for road building. Transferring trees and shrubs from site of new building and fencing to protect grounds east of same. Cartage of commodities from spur track to store room.

# Provincial Training School, Red Deer

(W. J. McALISTER, M.D., *Medical Superintendent*)

## MOVEMENT OF PATIENTS IN 1929

|                                                               | Male. | Female. | Total. |
|---------------------------------------------------------------|-------|---------|--------|
| Number actually present December 31, 1928.....                | 84    | 75      | 159    |
| Admissions during the year:                                   |       |         |        |
| Voluntary admissions .....                                    | 11    | 9       | 20     |
| Court commitments .....                                       | 1     | ....    | 1      |
| Re-admissions .....                                           | ....  | ....    | ....   |
|                                                               | 96    | 84      | 180    |
| Discharges, etc., during year:                                |       |         |        |
| Discharged .....                                              | ....  | ....    | ....   |
| Died .....                                                    | 8     | 6       | 14     |
| Paroled .....                                                 | 1     | 2       | 3      |
| Number actually present December 31, 1929.....                | 87    | 76      | 163    |
| Wards of the Province .....                                   |       |         | 22     |
| Wards of municipalities .....                                 |       |         | 121    |
| Wards of Department of Dependent and Neglected Children ..... |       |         | 2      |
| Wards of Department of Municipal Affairs.....                 |       |         | 13     |
| Private cases .....                                           |       |         | 5      |

## CASES OF MENTAL DEFECT REPORTED AND ON FILE AS AT DECEMBER 31, 1929

|                                                          | Male. | Female. | Total. |
|----------------------------------------------------------|-------|---------|--------|
| Awaiting Admission:                                      |       |         |        |
| Application and Approval received (complete files) ..... | 34    | 32      | 66     |
| Applications only (incomplete files).....                | 48    | 42      | 90     |
| Court commitment cases .....                             | 4     | 1       | 5      |
|                                                          | 86    | 75      | 161    |
| Mental Defective Suspects reported:                      |       |         |        |
| Reported prior to 1923 .....                             | 107   | 77      | 185    |
|                                                          |       |         |        |
| Reported during 1923.....                                | 27    | 32      | 59     |
| Reported during 1924 .....                               | 20    | 13      | 33     |
| Reported during 1925 .....                               | 14    | 10      | 24     |
| Reported during 1926 .....                               | 29    | 29      | 58     |
| Reported during 1927 .....                               | 17    | 15      | 32     |
| Reported during 1928 .....                               | 22    | 31      | 53     |
| Reported during 1929 .....                               | 29    | 35      | 64     |
|                                                          | 158   | 165     | 323    |

Suspects and applicants reported prior to 1923 are not shown in totals owing to the uncertainty as to their present whereabouts.

## SUMMARY

|                                                                 | Male. | Female. | Total. |
|-----------------------------------------------------------------|-------|---------|--------|
| Mental defective residents at Red Deer .....                    | 87    | 76      | 163    |
| Applicants awaiting admission .....                             | 86    | 75      | 161    |
| Mental defective suspects reported to December 31st, 1929 ..... | 158   | 165     | 323    |
| Mental defective residents at Ponoka Institution .....          | ....  | ....    | 72     |
| Cases reported, sex unascertained .....                         | ....  | ....    | 8      |
| Total number of known defectives.....                           | 331   | 316     | 727    |

## GENERAL REMARKS.

There was little movement of population during the year 1929. This was due, as intimated in my report for the year 1928, to the fact that we had reached our maximum capacity under the then existing conditions. We had quite an appreciable number of admissions, but the vacancies, as will be seen, were mostly caused through the death of fourteen of our patients, all but three of whom were



of the idiot class; ten being from the infirmary ward. Practically all these children had some congenital physical defect which, coupled with their low mentality, rendered them an easy prey to such conditions as pneumonia, to which, as will be noted, a majority succumbed.

The number of cases of defectives and defective suspects has continued to increase, so much so, that at the end of 1929 we had a grand total of seven hundred and twenty-seven recorded. No special effort was made during the year to ascertain the number of defectives in any given area in the Province. Such a procedure, while it would give us some valuable information, and enable us to check more accurately the locale of existing mental deficiency, would but increase our difficulties in view of our limited accommodation at Red Deer.

The percentage of deaths is higher than for any previous year. This can be partly explained by overcrowding, a lack of the necessary facilities for handling the helpless type of defective, and by the high percentage of low-grade defectives which we have in the institution.

We have continued to have excellent co-operation from the various branches in reporting cases of deficiency as they arise. In this connection, I might mention the Department of Education, the Public Health Nursing Branch, and such other agencies as the Department of Dependent and Neglected Children, the Juvenile Courts, etc.

The increase to the infirmary, which construction was initiated in the fall of 1928, was concluded during the winter of 1929, giving us much needed space on our infirmary floor. It relieved the congestion somewhat, but unfortunately did not provide that additional accommodation of which we have stood in great need ever since our establishment at Red Deer. The delay in providing more accommodation has made efficient administration difficult, but I realize that such delay was due more to a lack of policy as to the future location of the institution rather than to any failure on the part of the Government to appreciate the urgency of our needs. With the arrival of spring, however, it was seen that some steps must be taken to meet, to some extent, the demand for more accommodation, and although the future policy had not been fully defined, an addition to the east wing of three floors and the building of a boys' cottage were authorized.

The additional floors of the new wing were occupied in November, 1929, but we were unable to make use of the cottage until February, 1930. The cottage was planned to accommodate some twenty-five farm boys, the second floor to be used for male staff quarters and school rooms. Heretofore much valuable space had been taken up by the male staff and space for school work within the main building, hence the building of the cottage released this space for the use of the patient population, either for day room or dormitory purposes.

Owing to our overcrowded condition, however, the new construction relieved the congestion only. It did not enable us to increase our school population to the extent it would otherwise have done, provided there had been no overcrowding.

We still continue to house our female staff on the top floor of the main building. Considering the arduous nature of the work in which our nurses are engaged, it is felt by your superintendent, that some consideration should soon be given to the building of a suitable nurses' home. Such a building would give us an entire floor which could be used for the institutionalizing of more of the high-grade social delinquent type.

A violet ray lamp was installed this year by the Department of Public Works. We hope that this will be of real value to us in connection with some of our cases of malnutrition. Owing to the changes necessary at the time of installation, we were unable to carry on much active work along this line during 1929. We hope, however, to make full use of this valuable method of physiotherapy during the winter of 1930.

A Victor radio was also purchased and placed in the main building. This, together with a series of loud speakers to the various floors, has done much to provide entertainment and bring good cheer, especially to those children who are capable of appreciating music, but who, because of their infirmities, cannot be taken to the gymnasium or other places where such entertainment is provided.

The visiting committee visited the institution during the year, and made the usual thorough inspection. The chairman expressed his satisfaction at the general state of the school and of its management.

There were no cases presented for eugenic sterilization, due to the decision of the Eugenics Board to proceed cautiously and make careful preparations prior to initiating any active work along this line.

#### INSTITUTIONAL PROGRESS.

The general work of the institution has proceeded quite smoothly. Although there have been many changes in the staff, these changes were due more to the arduous and discouraging nature of the work than to any general grievance. In connection with the all too frequent resignations, it is possible the situation could be partially met if we could provide adequate facilities for rest and recreation for all resident members of the staff. At the present time the accommodation can not be considered entirely satisfactory, as the staff quarters are, and have always been, on the top floor of the main building of the institution.

The work dealing directly with the care and treatment of the children has been carried out satisfactorily. The opening of the new school rooms gave added impetus to the sense training work for the lower grade cases and vocational work for the higher grade girls. We are badly in need of some such facilities to carry on vocational work among the boys. We feel this need especially in the winter months, when activities out-of-doors are more or less at a minimum.

Although we have had a rather high death rate, the general health of the children, especially of those with fewer physical defects, has been good. We had an outbreak of diphtheria in the early spring, which gave us considerable alarm. Both the staff and patients were attacked, but prompt prophylactic measures and

treatment checked its spread. Fortunately there were no deaths. The cause of the outbreak was unknown, but immediate steps were taken to re-immunize a large number of the children against possible future invasion. There were no other outbreaks of disease of a contagious nature during the year.

The future outlook for the work appears quite bright. The public feel that an honest attempt is being made to train all the children admitted to the school. Certainly all those who have had children admitted are quite satisfied with what is being done for them. We will, however, have to consider a continued programme of building expansion, as there are many urgent cases demanding institutional care. In addition, we should seriously consider increased accommodation for the high-grade delinquent and potentially delinquent girls. As soon as the Eugenics Board begins to function, I look forward to a more rapid movement of this type of our population. It will also be necessary to provide extra institutional supervision, or some follow-up system, so that these girls, when sterilized and discharged, would be given an honest opportunity to maintain themselves outside the institution.

#### GENERAL REQUIREMENTS.

Our requirements will depend entirely upon the decision of the Department, whether or not we will remain in our present established location at Red Deer. Should we remain here, I would urge that we proceed at the earliest possible moment with the building of an infirmary capable of accommodating from seventy-five to eighty of our infirmary type of patient. This would minimize the danger, as it as present exists, of housing the more or less helpless type of patient in a semi-fireproof building. It would also take care of our epileptic feeble-minded patients, of whom we have quite a high percentage.

We are also badly in need of an increase in acreage to give us scope for additional vocational work for a certain class of our feeble-minded boys.

The summary of revenue and expenditure, which is herewith enclosed, should be of value, as it will enable you to see at a glance the financial turnover for the year.

#### AGES OF NEW ADMISSIONS

|                            | Male. | Female. | Total. |
|----------------------------|-------|---------|--------|
| Under 5 years .....        | 1     | 1       | 2      |
| 5-10 years .....           | 7     | 3       | 10     |
| 10-15 years .....          | 1     | 3       | 4      |
| 15-20 years .....          | 3     | ....    | 3      |
| 20-25 years .....          | ....  | ....    | ....   |
| 25-30 years .....          | ....  | ....    | ....   |
| 30-35 years .....          | ....  | 2       | 2      |
| 35 years and upwards ..... | ....  | ....    | ....   |
| Totals.....                | 12    | 9       | 21     |

#### AGES OF TOTAL POPULATION

|                            | Male. | Female. | Total. |
|----------------------------|-------|---------|--------|
| Under 5 years .....        | 1     | 2       | 3      |
| 5-10 years .....           | 10    | 13      | 23     |
| 10-15 years .....          | 26    | 14      | 40     |
| 15-20 years .....          | 24    | 13      | 37     |
| 20-25 years .....          | 14    | 18      | 32     |
| 25-30 years .....          | 6     | 7       | 13     |
| 30-35 years .....          | 3     | 6       | 9      |
| 35 years and upwards ..... | 3     | 3       | 6      |
| Totals.....                | 87    | 76      | 163    |

INFIRMARY TYPE OF PATIENT

|                                                                  | Idiot |    |    | Imbecile |    |    | Grand Total. |
|------------------------------------------------------------------|-------|----|----|----------|----|----|--------------|
|                                                                  | M.    | F. | T. | M.       | F. | T. |              |
| More or less helpless, requiring much individual attention ..... | 18    | 14 | 32 | 3        | 6  | 9  | 41           |

MORTALITY TABLE, 1929

| Cause of Death.                     | Male.    | Female.  | Total.    |
|-------------------------------------|----------|----------|-----------|
| Bronchial pneumonia .....           | 3        | 1        | 4         |
| Toxic jaundice .....                | .....    | 1        | 1         |
| Inanition .....                     | 2        | 1        | 3         |
| Influenza and cardiac failure ..... | .....    | 1        | 1         |
| Pulmonary T.B.C. ....               | .....    | 1        | 1         |
| Chronic hydrocephalus .....         | .....    | 1        | 1         |
| Empyema .....                       | 1        | .....    | 1         |
| General debility .....              | 1        | .....    | 1         |
| Pulmonary oedema .....              | 1        | .....    | 1         |
| <b>Total.....</b>                   | <b>8</b> | <b>6</b> | <b>14</b> |

SUMMARY OF INFORMATION

| Mental Status (Patients)    |    | Disease Incidence in Family History |    |
|-----------------------------|----|-------------------------------------|----|
| Idiot .....                 | 81 | Epileptic .....                     | 9  |
| Imbecile .....              | 62 | Insanity .....                      | 21 |
| Moron .....                 | 25 | Mental Defect .....                 | 73 |
| M.D. and Psychotic .....    | 3  | Neuropathic .....                   | 18 |
| M.D. and Psychopathic ..... | 1  | Alcoholism .....                    | 17 |
| M.D. and Epileptic .....    | 36 | Psychopathic .....                  | 3  |
| Mongolian .....             | 10 | Syphilis .....                      | 6  |
|                             |    | T.B.C. ....                         | 12 |
|                             |    | Deafness .....                      | 3  |
|                             |    | Mutism .....                        | 1  |

SUMMARY OF INFORMATION—PATIENTS

| Total Population | Birthplace |         |        |         |         |         |         | Residence |       | Religion    |              |            |        |         |
|------------------|------------|---------|--------|---------|---------|---------|---------|-----------|-------|-------------|--------------|------------|--------|---------|
|                  | Males      | Females | Canada | Alberta | Britain | Foreign | Unknown | Urban     | Rural | R. Catholic | Gr. Catholic | Protestant | Hebrew | Unknown |
| 163              | 87         | 76      | 26     | 108     | 6       | 18      | 5       | 65        | 98    | 30          | 9            | 104        | 1      | 19      |

ECONOMIC STATUS—HOMES (PARENTS')

|                   |    |
|-------------------|----|
| Comfortable ..... | 48 |
| Marginal .....    | 65 |
| Dependent .....   | 47 |
| Unknown .....     | 3  |



## Provincial Special Hospital, Edmonton

(F. H. H. MEWBURN, M.D., *Medical Superintendent*)

The year 1929 opened with the hospital well filled, and this condition was maintained till the building alterations of the summer, when the number was reduced to about two-thirds of its capacity. A few of the patients had reached the stage where surgery was indicated, and they were operated upon with considerable improvement in their disabilities. These operations were performed in the operating room of the University Hospital. Owing to fine weather appearing early in the year, it was possible to get the patients out on the verandahs in February. During the year a number of patients gave blood for the preparation of poliomyelitis serum, which was manufactured in the Provincial Laboratory.

The usual Christmas celebrations were held as in the previous year, and afforded a great delight to the patients and great interest to a large number of friends of the institution who were present.

During the summer the heating and ventilating of the building was changed. The two large wards were also cut up into several smaller wards. This was done on account of the great discrepancy in the age of the patients, which varied from forty years to three years, and also to minimize the dangers of infectious disease. On account of building the addition to the University Hospital, the building was moved some forty feet south and placed on a concrete foundation and over a basement. During this moving the care of forty in-patients was carried on successfully with no interruption of water, light, sewage or gas services. The building was also connected with the University Hospital by means of a covered corridor.

|                                      |     |
|--------------------------------------|-----|
| Admissions during the year 1929..... | 55  |
| Discharged during the year 1929..... | 72  |
| Deaths during the year 1929.....     | 1   |
| Out-patients treated .....           | 81  |
| Consultations to out-patients .....  | 264 |
| Operations performed .....           | 5   |

During the year the hospital received many donations from societies and individuals.











