

Annual report of the Department of Public Health of the Province of Saskatchewan.

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Province of Saskatchewan

ANNUAL REPORT

Of The

DEPARTMENT OF PUBLIC HEALTH

For the Calendar Year

1947



REGINA:
PRINTED BY THOS. H. MCCONICA, KING'S PRINTER
1949



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DEPARTMENT OF PUBLIC HEALTH

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Summary of Legislation—Department of Public Health
1947 Session

DEPARTMENT OF PUBLIC HEALTH,

REGINA, *March 20th, 1949.*

TO HIS HONOUR,

J. M. UHRICH,

Lieutenant Governor of Saskatchewan.

MAY IT PLEASE YOUR HONOUR,—

I beg to present herewith for your consideration the annual report of the Department of Public Health for the calendar year 1947.

Respectfully submitted,

T. C. DOUGLAS,

Minister of Public Health.

DEPARTMENT OF PUBLIC HEALTH,

REGINA, *March 20th, 1949.*

HONOURABLE T. C. DOUGLAS,

Minister of Public Health.

Sir:—

I have the honour to forward herewith the annual report of the Department of Public Health for the calendar year 1947.

Respectfully submitted,

C. F. W. HAMES, M.D., D.P.H.,

Deputy Minister.



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Summary of Legislation—Department of Public Health 1947 Session

The following is a brief summary of the legislation passed at the recent session of the Legislature:

1. *An Act to Amend The Public Health Act*

This is a very short amendment which makes provision for dealing with certain individuals who, on account of their open tuberculosis condition, are a menace to others because they will not be admitted to, or returned to, a sanatorium voluntarily and continue to act in such a way that they are a constant menace to those around them. The amendment provides that such persons may be removed forcibly to a sanatorium if such procedure becomes necessary.

2. *An Act to Amend The Mental Hygiene Act*

The recent amendments to this Act provide for—

1. Changing the official names of the institutions concerned in an effort to remove any stigma associated with admission to them;
2. Consolidation of the administration of the institutions concerned under one department to promote efficiency and better service;
3. Minimizing delay in admission of patients to these institutions, at the same time protecting them from unwarranted admission and detention;
4. Dealing with patients admitted to psychiatric wards of any general hospital, as far as possible, in the same manner as the physically ill;
5. Appointment of an impartial visiting committee with power to visit each institution and report to the Minister on efficiency of the administration and the care and treatment of the patients.

3. *An Act to provide for a Change of Name*

This Act has been entirely re-written and provides for the following changes:

1. Administration of the Act is under the Vital Statistics Division of the Department and not the Provincial Secretary as formerly. The Vital Statistics office is the logical office to administer the Act, as most records to be changed involve that office, i.e., births, marriages;
2. Allows a divorced woman to change the names of her children without consent of the other party, provided that she has legal custody of such children;
3. Eliminates the necessity of advertising after a change of name—there is still provision for publicity before the change has been made and it is felt that there is no need for further publicity once the change has been effected;
4. Allows the parents of a child fourteen years of age or over to change the given name of such child only with the child's consent;
5. Allows a married man between the ages of eighteen and twenty-one years to change his name without the consent of his parents—up to the present there has been no provision whatever for this group.

4. *An Act to Amend The Vital Statistics Act*

These amendments are for the purposes of simplifying and speeding up administration in the Vital Statistics office of the Department, and of providing for changes in procedures and in prescribed forms where such changes are indicated with the minimal amount of red tape and delay. The Lieutenant Governor in Council may now prescribe fees for services rendered in line with the actual amount of work involved.

A new section has been included with the object of preventing remarriage by a party or parties to divorce proceedings before the time for appealing from a decree absolute has elapsed, since a recent English case has held that a marriage solemnized before that time would be bigamous. The Marriage Act has been amended accordingly so that the Director of Vital Statistics will have no information about such divorce proceedings until after the time mentioned has elapsed and will, therefore, not be in a position to issue any certificate until after that time.

5. *An Act to Amend The Marriage Act*

This amendment is for the purpose of preventing remarriage by a party or parties to divorce proceedings before the time for appealing from a decree absolute has elapsed.

6. *An Act respecting The University Hospital*

This Act provides for the appointment of the members of The University Hospital Board and defines the duties and powers of the said Board in connection with the establishment of the University Hospital in close contiguity to the Medical College of the University of Saskatchewan.

DIVISION OF PUBLIC HEALTH NURSING

February 14, 1948.

DR. C. F. W. HAMES,
Deputy Minister of Public Health.

SIR:

I beg to submit herewith the report of the Division of Public Health Nursing for the year ended December 31, 1947.

The much discussed problem of the shortage of nurses has been felt more keenly in the Division this year than in any previous year. With the formation of two new Regions and the expanding programs in those Regions already established, it is obvious that a larger staff is necessary.

In 1946, thirty-three new nurses were appointed and there were seven resignations. During the year just ended there were 16 resignations and 15 new appointments. One nurse transferred from another Division to this staff and a member of this staff transferred to the Division of Communicable Disease. Because of this situation and in order to maintain even a minimum staff for each Region it was necessary to curtail services in some of the districts.

Districts which have been without nursing service for at least part of the year are Canora, Wynyard and Wolseley. The Kindersley district has enlarged to include that part of the Kerrobert district which was not included in the North Battleford Region.

Four nurses who were granted leave of absence for University study returned to the province in July. These nurses have all been assigned to Region staff. One nurse is remaining a second year to complete the Degree course.

Seven nurses have been granted leave of absence for study during this University year. One of this number is taking the advanced course in administration at Toronto University. Four of the nurses are attending University under conditions outlined in Directive Circular No. 18.

Two nurses completed the six months training in Midwifery at Maternity Center, New York, during the past year. One of these nurses is introducing and developing preventive and bedside nursing services at Buffalo Narrows. The other nurse is at Cumberland House. The nurse who was replaced at Cumberland House has received training in the provincial laboratory and expects to go into Stony Rapids early in the New Year.

The staff of Supervisors was increased to three this year with the appointment in July of two new supervisors. However, because of the difficulty of securing qualified personnel two of the supervisors have been loaned for long periods to Regions. The third supervisor spent two months supervising treatment and giving muscle re-education in the Regina Polio Clinic.

Three staff nurses assisted in the Regina Clinic during the peak of the polio epidemic. One of this number worked in the clinic for two months, the other two spent one month each in the clinic.

Staff nurses assisted with health inspection and gave classes in health and home nursing at the Youth Training Schools held during the year at North Battleford, Prince Albert, Watrous and Kenosee. One nurse was invited to assist at the Provincial Conference for Camp Leaders held in Regina during May.

A supervisor and senior members of the staff have given a series of lectures in public health nursing in the Schools of Nursing of the province. This is a brief course included in the curriculum of the School. The objective of this series of ten lectures is to give the student nurse a better understanding of the meaning of public health and to give her a picture of the developing field of preventive services. The lectures are given to the senior group. The students are very interested and several new appointments have been made because of this contact.

During the year the Director gave a series of lectures to three groups at the University of Saskatchewan. Two of these groups were students of the College of Education. The third was a large group of Summer School students.

An important project of this office during the past year was the compilation of a Manual for Public Health Nurses. The Manual has been printed and nurses are finding it helpful.

A conference was held at the beginning of the year. It was a three day conference attended by all members of the staff. Public health nurses of the City of Regina as well as the Director of the Junior Red Cross attended many of the sessions. Special guests at the conference were Miss Isabel Black of the School of Nursing, Manitoba University, who spoke at two sessions and Miss Ruby Tinkess, of the National Department of Health and Welfare who also addressed the nurses.

During the year, five district nurses and three supervisors had the opportunity of a month's instruction in community Mental Health at the Weyburn or North Battleford Hospital. This instruction was helpful and interesting and should show returns in the expanding Mental Health program. It is hoped that all district nurses will receive this additional training during the three winter months of the New Year.

A conference of Senior Nurses of Regions is planned for the first week of the New Year. It is hoped that such meetings will be held regularly in the future.

CUMBERLAND HOUSE

The amount of nursing care given at the Nursing Home at Cumberland House has increased considerably during the past year.

During 1947, 21 maternity cases received attention given by a qualified nurse-midwife. One premature baby was successfully cared for and one pair of twins delivered without mishap. There were no maternal deaths and no deaths of newborn.

Thirty-five medical cases and three accident cases were admitted and treated in the nursing home during the year. There were two deaths among the medical cases.

A two day tonsil clinic was held during June when tonsillectomies were performed for twenty-six children.

In addition to the care given in the nursing home, the nurse does the public health work in the settlement. Immunization is kept up to date, health supervision is given the school, well baby conferences are held and home visits are made in connection with all services, including bedside nursing.

A summary of the work of the Division for the period January 1—December 31, 1947, is attached hereto.

All of which is respectfully submitted.

E. SMITH,
Director of Nursing Services.

SUMMARY

January 1, 1947—December 31, 1947

STAFF			
Number of New Appointments.....	15	Health Region No. 3—	
Number of Resignations.....	16	Senior Nurse (Supervisor).....	1
Total staff as at December 31,		Staff Nurses	5
1947 including those on		Health Region No. 6—	
leave of absence.....	57	Senior Nurse	1
Supervisors	3	Staff Nurses	6
2 on loan to Regions.		Health Region No. 13—	
Staff nurses in districts.....	12	Senior Nurse (Supervisor).....	1
Nurse-midwives	3	Staff Nurses	6
1 on loan to Red Cross.		Number of Nurses on sick leave....	1
Health Region No. 1—		Number of Nurses on leave for	
Senior Nurse	1	University Study	8
Staff Nurses	7	Number of Staff Nurses who hold	
Health Region No. 2—		diploma in public health nursing	17
Senior Nurse	1		
Staff Nurses	3		

SUMMARY OF WORK

Health Inspections—		Home Visits—	
Basic No. of schools	540	Prenatal	366
No. of pupils	14,892	Infant welfare	1,181
Routine	1,784	Preschool	3,215
Special	2,719	School	6,060
Health Centres—		Adult welfare	3,704
Infant Welfare	168	Mental defectives	81
No. attended	3,429	Orthopedic	89
Consultation Clinics	7	Others	1,135
No. attended	412		

Communicable Diseases—	
Tuberculosis	205
Venereal disease	1,332
Other communicable diseases..	210
Number of homes visited.....	10,892
Official Calls—	
Medical Health Officer or Physician	1,114
School Officials	953
Municipal Officials	1,224
Women's Organizations	814
Dentist	49
Others	40
Educational—	
Senior Home Nursing Classes—	
Number of groups	33
Number of classes	87
Attendance	684
Junior Home Nursing Classes—	
Number of groups	8
Number of classes	20
Attendance	111
Number of meetings addressed.....	359
The above meetings include the following groups:	
Women's Organizations	
Meetings of School Trustees	
Teachers' Institutes	
Home and School Associations	
Child Study Groups	
Teen Age Groups	
Groups of nurses and student nurses.	
Dental Clinics	1
Treated	19
Examined	25

Assistance with Immunization:

No. of schools	448
No. of centres	239
Smallpox—Initial	5,028
—Revaccination	851
Scarlet Fever—	
A	6,349
B	4,715
C	4,945
D	4,052
E	3,896
Reinforcing	2,301
Diphtheria—	
1st dose	1,711
2nd dose	1,720
3rd dose	1,154
Reinforcing	2,055
Schick	25
Whooping Cough—	
1st dose	359
2nd dose	230
3rd dose	201
Reinforcing	119
Diphtheria and Whooping Cough—	
1st dose	4,974
2nd dose	3,801
3rd dose	3,808
Reinforcing	2,367
Clinic attendance	11,153
<i>Maternity Grant:</i>	
No. of mothers	243
Amount paid to mothers.....	\$1,215.00
No. of doctors	159
Amount paid to doctors	\$1,852.00
Total.....	<u>\$3,067.00</u>

CUMBERLAND HOUSE

January 1, 1947—December 31, 1947

Generalized Public Health:

School Health Inspections—	
Basic	81
Special (throats)	60
Home Visits—	
School	33
Prenatal	268
Bedside care	532
Office calls	1,653
Well Baby Conferences—	
Number	10
Attendance	88
Tonsil Clinic	1
Number treated	26

Immunization:

Smallpox vaccination	34
Diphtheria	110
Diphtheria (Reinforcing)	104
Whooping cough	62
Whooping cough (Reinforcing) ing)	116
Scarlet Fever	60
Scarlet Fever (Reinforcing)...	115

*Nursing Care Given in Nursing
Home:*

Number of patients admitted..	59
Maternity	21
Medical	35
Accident	3
Newborn	22
Number of deaths	2
Total number of days nursing care	746

CUMBERLAND HOUSE
January 1, 1948—December 31, 1948
GENERALIZED PUBLIC HEALTH

<i>Home Visits:</i>		Others	1
Number	682	Office calls	1,357
Services Represented—		<i>Well Baby Conferences:</i>	
Prenatal	98	Number	10
Infant	13	Attendance	114
Preschool	195	<i>School Work:</i>	
Adult	147	Number of school visits	18
Bedside care	101	Basic inspection	140
Others	40	Routine inspection	30
Communicable Diseases—		<i>Educational:</i>	
Tuberculosis	41	Number of meetings	1
Venereal disease	15	Attendance	14

Tuberculosis Survey:

A Tuberculosis Survey by the Clearwater Lake Indian Hospital Clinic was held in June. 71 Treaty and 287 Non-Treaty were x-rayed. The report from Dr. Ridge was—Tuberculosis—healed 15, healing 3, recommended for admission to sanatorium 3, investigations recommended 12.

Nursing Care Given in Nursing Home:

Number of patients admitted—Male—7. Female—32. Children—25.
Nature of case—Medical—37. Maternity—19. Accident—2.
Number of newborn—17.
Total number days nursing care—405.
Number of patients sent out for medical examination or treatment or hospitalization—16.

Immunization:

Smallpox—		3rd dose	18
Initial	12	Reinforcing	3
Revaccination	2	<i>Whooping Cough—</i>	
Scarlet Fever—		1st dose	44
A	24	2nd dose	23
B	24	3rd dose	11
C	21	Reinforcing	2
D	17	<i>Diphtheria and Whooping</i>	
E	6	<i>Cough Combined—</i>	
Diphtheria—		1st dose	7
1st dose	42	2nd dose	14
2nd dose	28	Reinforcing	1
		Clinic Attendance	43

BUFFALO NARROWS

January 1, 1948—December 31, 1948

GENERALIZED PUBLIC HEALTH

<i>Home Visits:</i>		<i>Educational:</i>	
Number	136	Number of meetings	15
Services Represented:		Attendance	33
Prenatal	9	<i>Dental Clinic:</i>	
Infant welfare	10	Number	1
Preschool	24	Attendance	124
Adult welfare	95	<i>Tonsil Clinic:</i>	
Others	9	Number	1
Communicable Diseases:		Attendance	14
Tuberculosis	4	<i>Nursing Care Given in</i>	
Others	122	<i>Nursing Home:</i>	
Office calls	766	Number of patients admitted—	
<i>Well Baby Conference:</i>		Male	12
Number	7	Female	35
Attendance	108	Children	46
<i>School Work:</i>		Nature of case—	
Number of school visits	7	Medical	60
Basic inspection	54	Maternity	23
Routine inspection	2	Accident	2
Health talks	6	Surgery	4
		Number of Newborn	21

Total number of days nursing care	613	Scarlet Fever—	
Number of deaths	2	A	14
Number of patients sent out for medical examination or treatment or hospitalization	12	B	13
<i>Immunization:</i>		C	12
Smallpox—		D	12
Initial	11	E	10
Revaccination	3	Whooping Cough—	
		1st dose	2
		Diphtheria and Whooping Cough Combined—	
		1st dose	12
		2nd dose	6
		3rd dose	13

STONY RAPIDS

January 1, 1948—December 31, 1948

GENERALIZED PUBLIC HEALTH

<i>Home Visits:</i>		<i>Educational:</i>	
Number	169	Number of meetings	17
Services represented:		Attendance	148
Prenatal	26	<i>Nursing Care Given in</i>	
Infant welfare	33	<i>Nursing Home:</i>	
Preschool	46	Number of patients admitted—	
Adult welfare	84	Male	7
Bedside care	66	Female	22
Others	48	Children	13
Communicable Diseases:		Nature of Case—	
Tuberculosis	9	Medical	14
Venereal disease	2	Maternity	13
Others	2	Accident	5
Office calls	1,071	Surgery	1
<i>Well Baby Conference:</i>		Number of newborn	13
Number	2	Total number of days nursing care	352
Attendance	16	Number of patients sent out for medical examination or treatment or hospitalization....	10
<i>School Work:</i>		<i>Immunization:</i>	
Number of school visits.....	17	Smallpox—	
Basic inspection	31	Initial	111
Routine inspection	31	Revaccination	31
Health talks	1	Diphtheria and Whooping Cough combined—	
<i>Tonsil Clinic:</i>		1st dose	171
Number	1	2nd dose	69
Treated	29	3rd dose	34
<i>Tuberculosis Survey:</i>			
Number x-rayed	242		
Number patients seen by doctor	45		

SNAKE LAKE

October 1, 1948—December 31, 1948

GENERALIZED PUBLIC HEALTH

<i>Home Visits:</i>		<i>Educational:</i>	
Number	28	Number of meetings.....	1
Services represented—		Attendance	6
Prenatal	1	Number of patients sent out for medical examination or treatment or hospitalization....	3
Infant welfare	13	<i>Immunization:</i>	
Preschool	16	Smallpox—	
Adult welfare	8	Initial	36
Others	2	Diphtheria and Whooping Cough Combined—	
Office calls	4	1st dose	36
<i>Well Baby Conferences:</i>		2nd dose	36
Number	1		
Attendance	2		
<i>School Work:</i>			
Number of school visits	4		
Basic inspection	36		

DIVISION OF SANITATION

REGINA, SASKATCHEWAN,

February 28, 1948.

DR. C. F. W. HAMES,

Deputy Minister of Public Health.

SIR:

The following report covers the work of the Division of Sanitation for the calendar year 1947.

WATERWORKS AND SEWERAGE

Applications were received from 54 municipalities requesting approval in connection with waterworks and sewerage installations, alterations or extensions. Forty-four were approved and the remainder were deferred for further review. The total value of the approved projects was approximately \$1,580,000.00. Of this sum approximately \$925,000.00 was ear-marked for sewerage and sewage disposal, and the balance for waterworks systems. Projects deferred totalled in value \$790,000.00.

Municipalities experienced some difficulty in disposing of debentures. This has resulted in deferment of certain work which otherwise would have been commenced or completed in 1947. High construction costs have discouraged some municipalities, but major improvements can be expected when these costs become more stabilized.

The Division has continued the policy of assisting municipalities by providing engineering services in connection with preliminary investigations, plans, reports, and estimates, and it provides supervisory and consultative services for all municipalities operating waterworks or sewerage systems. Special investigations were made in connection with proposed waterworks, sewerage and drainage for the Municipalities of Grenfell, Langenburg, Herbert and Shellbrook. The estimated cost of these projects was \$226,000.00.

Special supervisory assistance was provided for 11 municipalities operating waterworks and sewerage systems and for various government institutions. A limited survey was also conducted in connection with stream pollution at Moose Jaw and special problems due to industrial waste disposal.

MILK SUPPLIES

The Division continued the practice of supervising, inspecting and grading milk pasteurization plants in the province, and 110 special inspections were made. Five new plants were put into operation bringing the total to 40. Local bylaws providing for the compulsory pasteurization of milk are now in effect in 18 urban centres. This is an increase of 4 over the previous year. In two municipalities where compulsory milk pasteurization bylaws had been previously adopted, but rescinded because of pressure, a vote of the ratepayers was again taken in 1947. In both cases the bylaw was re-endorsed by a substantial majority.

At the beginning of 1947 a system of grading of milk pasteurization plants was adopted. The grading is based on the bacteriological quality of weekly milk samples submitted to laboratories located at Regina, Weyburn, North Battleford, Saskatoon, and Yorkton. Consideration is given to plate count, coliform organisms, and phosphatase reaction. From these records a grading of each individual plant is compiled, and for the first year of operation the average standard was a B category; an A classification being considered excellent. A total of 2,216 milk samples were submitted during the year and formed the basis of the above calculations.

There are now 321 municipalities providing for local control of milk producers and raw milk dairies.

Early in 1947 material was compiled in connection with the advantages and disadvantages of a new approach to the housing of dairy cattle known as the "open pen type" barn. This is an entirely new departure from the previously accepted dairy barn design and, as a result of our observations and recommendations, a barn of this type was constructed for the Saskatchewan Hospital at Weyburn. The Division prepared preliminary plans and acted as consultants throughout the organization and construction stage.

URBAN AND RURAL SANITATION

During the course of the year two additional full-time health regions were established. The area of the province now within full-time health regions is about two-fifths of the total of the inhabited portion. At the end of the year there were in the employ of this Division and the health regions a total of 26 sanitary officers and 4 trainees. Of the former, 17 were employed in full-time regions. At the end of 1946 there was a total of 23 qualified sanitary officers and 5 trainees on the combined Division and regional staffs.

There were 18,185 inspections made during the year exclusive of health regions. These included inspections of water, milk and food supplies; hotels, restaurants and lodging houses; garbage collection and sewage disposal; communicable disease; plumbing; camps; and investigations of various complaints.

Food Supplies:

2,737 butcher shops, slaughter houses and bakery inspections were made during the year.

Urban and Rural Water Supplies:

Opinions were given on 3,252 water supplies submitted to the Department for analysis.

Hotels, Boarding Houses and Restaurants:

In connection with restaurant sanitation, a number of food handlers schools were conducted during the year and a bacteriological survey of eating utensils was introduced. These surveys have been conducted in most of the larger urban centres, and the field staff is being trained in the technique of swabbing utensils and plating. Instead of using petri dishes, media is prepared in special 2 ounce bottles, which after swabbing, are set aside in display racks for incubation under conditions of normal restaurant operation, and this enables the employees as well as the public to observe the growth of colonies. This type of approach is very effective, and where conducted has resulted in a notable improvement in dishwashing methods.

During the year 5,130 inspections were made in connection with boarding houses, restaurants and hotels.

Summer Resorts and Tourist Camps:

Sixty-one inspections of summer resorts and 30 of tourist camps were made during the year.

Lumber, Mine and Construction Camps:

There were 37 inspections under this heading; the majority being in connection with lumbering camps.

GENERAL

Plumbing:

A total of 204 plumbing permits were issued during the year. This includes permits for plumbing installations in full-time health regions. The total value of permit fees was \$1,178.00, and 109 plumbing inspections were made by members of the Division staff.

Communicable Diseases:

The number of inspections made in connection with communicable diseases was 28.

Vital Statistics:

Inspections and investigations in connection with vital statistics records totalled 5.

Ice Permits:

Fifty-one permits regarding the sanitary quality of ice harvested by individuals and companies were issued during the year.

Cemetery Sites:

There were 8 new cemeteries established during the year and 1 addition to an existing cemetery following the submission of satisfactory information regarding the topography and the environment of the areas.

Slaughter Houses:

During the year 220 butcher and 69 beef ring slaughter house licences were issued, making a total of 289. This is an increase of 8 over the previous year. The total amount of fees collected was \$1,238.00.

Hydrocyanic Acid Fumigation:

Permits were issued to 5 fumigators authorizing them to use hydrocyanic acid gas.

Council and Public Meetings:

The district sanitary officers addressed a total of 85 meetings of municipal councils and other public bodies.

Summary of Inspections:

Water, milk and food supplies.....	7,426
Hotels, boarding houses and restaurants.....	5,130
Waste Disposal	1,055
Public places, schools, institutions, etc.	72
Communicable Disease and Vital Statistics.....	33
Plumbing	238
Camps	37
Barber Shops	539
Sundry and miscellaneous	3,655
Total.....	18,185

HOSPITAL CONSTRUCTION

Our engineering staff spent considerable time on the preparation, investigation and approval of hospital plans, as well as on the inspection of sites, in connection with hospital sewerage and drainage.

Six special inspections were made in connection with hospital sites and plans were prepared for 11 new hospitals or additions to existing hospitals.

CORRESPONDENCE

During the year 6,471 letters were received and 9,337 were dispatched including circular letters and correspondence to and from the district sanitary officers.

Comparative figures last year were 6,765 letters received and 10,437 dispatched.

APPENDICES

Attached are four tables in connection with this report: Number 1 is in connection with waterworks; Number 2 sewerage and sewage disposal; Number 3 sanitary environment scores awarded urban municipalities, and Number 4 inspections made by the district sanitary officers.

Respectfully submitted,

J. G. SCHAEFFER, Director,

Division of Sanitation.

TABLE NO. 1—WATERWORKS

Date 1947	Municipality	Work Authorized	Amount
Jan. 29	Melfort.....	Extension of waterworks system.....	\$18,000.00
Mar. 15	Estevan.....	Extension of waterworks system.....	57,500.00
Mar. 19	Outlook.....	Extension of waterworks system.....	10,000.00
April 14	North Battleford..	Extension of waterworks system.....	3,700.00
April 16	North Battleford..	Extension of waterworks system.....	7,000.00
April 25	Regina.....	Extension of waterworks system.....	39,600.00
May 23	Weyburn.....	Extension of waterworks system.....	8,005.00
May 23	North Battleford..	Extension of waterworks system.....	31,980.00
May 30	Saskatoon.....	Extension of waterworks system.....	63,903.09
June 18	Regina.....	Extension of waterworks system.....	810.00
July 2	Assiniboia.....	Extension of waterworks system.....	13,996.00
July 10	Moose Jaw.....	Extension of waterworks system.....	14,500.00
Aug. 5	Sutherland.....	Extension of waterworks system.....	5,900.00
Aug. 22	Regina.....	Extension of waterworks system.....	325,000.00
Sept. 3	Saskatoon.....	Extension of waterworks system.....	33,584.98
Sept. 10	Moose Jaw.....	Extension of waterworks system.....	1,158.40
Oct. 1	Prince Albert.....	Extension of waterworks system.....	6,539.18
Oct. 2	Kamsack.....	Extension of waterworks system.....	3,563.89
Dec. 13	Moose Jaw.....	Extension of waterworks system.....	2,141.72
		Total.....	\$646,882.26

TABLE NO. 2—SEWERAGE

Date 1947	Municipality	Work Authorized	Amount
Jan. 29	Melfort.....	Extension of sewerage system.....	\$ 12,000.00
Mar. 17	Estevan.....	Extension of sewerage system.....	8,600.00
April 3	Regina.....	Improvements and extension to sewage treatment plant.....	250,000.00
April 14	North Battleford..	Extension of sewerage system.....	3,700.00
May 13	Regina.....	Extension of sanitary sewer.....	18,905.74
May 13	Regina.....	Extension to storm sewer.....	9,611.87
May 20	Regina.....	Extension to sanitary sewer.....	836.00
May 23	Weyburn.....	Extension of sewerage system.....	5,881.00
May 23	North Battleford..	Extension of sewerage system.....	34,460.00
May 30	Saskatoon.....	Extension of sewerage system.....	62,696.00
July 10	Moose Jaw.....	Extension of sanitary sewer.....	6,350.00
July 17	Regina.....	Extension of storm sewer.....	2,953.80
July 17	Regina.....	Extension of sanitary sewer.....	3,735.80
Aug. 12	Langenburg.....	Construction of drainage ditch.....	8,000.00
Aug. 14	Sutherland.....	Extension of sanitary sewer.....	1,600.00
Aug. 21	Regina.....	Extension of storm sewer.....	11,000.00
Aug. 21	Regina.....	Extension of sanitary sewer.....	700.00
Sept. 3	Saskatoon.....	Extension of sewerage.....	26,705.02
Sept. 10	Moose Jaw.....	Extension of sewerage system.....	912.00
Sept. 10	Regina.....	Extension of storm sewer.....	446,675.00
Sept. 13	Regina.....	Extension of sanitary sewer.....	1,300.00
Sept. 13	Regina.....	Extension of storm sewer.....	800.00
Oct. 1	Kamsack.....	Extension of sewerage system.....	2,142.00
Oct. 1	Prince Albert.....	Extension of sewerage system.....	3,244.80
Dec. 13	Moose Jaw.....	Extension of sewerage system.....	1,358.04
		Total.....	\$924,167.07

TABLE No. 3

SCORES AWARDED URBAN MUNICIPALITIES

<i>Towns</i>	<i>Villages</i>	<i>Villages</i>	<i>Villages</i>
DISTRICT No. 3	DISTRICT No. 3A	DISTRICT No. 4	DISTRICT No. 5
Score	(CONT'D)	(CONT'D)	(CONT'D)
Lumsden..... 81	Score	Score	Score
Indian Head 79	Kipling..... 71	Bangor..... 66	Glenside..... 65
Strasbourg..... 76	Rocanville 71	Invermay..... 66	Hague..... 65
Francis..... 73	Windthorst..... 69	Springside..... 66	Leroy..... 64
Craik..... 70	Summerberry.... 66	Abernethy..... 65	Guernsey..... 63
Milestone..... 70	Fairlight..... 65	Dafoe..... 65	Jansen..... 63
Balgonie 67	Welwyn..... 61	Grayson..... 65	Loreburn..... 62
Yellow Grass.... 66	Wawota..... 57	Neudorf..... 65	Young..... 62
Qu'Appelle..... 62	District No. 4	Norquay..... 65	Dundurn..... 61
Sintaluta..... 62	Score	Quill Lake..... 65	Plunkett..... 61
<i>Villages</i>	<i>Towns</i>	West Bend..... 64	Zelma..... 61
Vibank..... 84	Kamsack 96	Calder..... 63	Vanscoy..... 60
Regina Beach .. 83	Saltcoats..... 95	Willowbrook.... 61	Prud'homme.... 59
B-Say-Tah..... 77	Foam Lake..... 91	Arran..... 60	Viscount..... 58
Bulyea..... 76	Wadena..... 85	Ituna..... 60	Lockwood..... 58
Montmartre..... 75	Wynyard..... 82	Margo..... 60	Aberdeen..... 57
Aylesbury..... 74	Canora..... 81	Rama..... 60	Waldheim..... 57
Odessa..... 74	Kelvington..... 79	Sheho..... 60	Laura..... 57
Sask. Beach..... 74	Watson..... 78	Waldron..... 60	Beechy..... 56
Earl Grey..... 73	Melville..... 77	Leslie..... 58	Dalmeny..... 56
Fort Qu'Appelle 73	Lemberg..... 75	Theodore..... 58	Laird..... 55
Lumsden Beach 73	Preeceville..... 70	Buchanan..... 57	Strongfield..... 55
Craven..... 72	Hudson Bay..... 64	Jasmin..... 57	Dunblane..... 54
Disley..... 72	Bredenbury..... 63	Veregin..... 56	Meacham..... 54
Kendal..... 71	<i>Villages</i>	Lestock..... 53	Tate..... 53
Lang..... 71	Punnichy..... 90	Weekes..... 49	Swanson..... 52
Sedley..... 71	Rhein..... 81	Insinger..... 48	Arelee..... 52
Chamberlain..... 70	Stockholm..... 78	MacNutt..... 46	Bounty..... 51
Findlater..... 70	Langenburg..... 77	Wroxton..... 42	Bradwell..... 51
Markinch..... 70	Tantallon..... 76	District No. 5	Drake..... 51
Edenwold..... 69	Otthon..... 75	<i>Towns</i>	Gervin..... 51
Lipton..... 69	Killaly..... 73	Watrous 79	Hepburn..... 51
Holdfast..... 68	Lebret..... 73	Delisle..... 77	Macrorie..... 51
Silton..... 68	Spy Hill..... 73	Govan..... 76	Hawarden..... 49
Dysart..... 67	Sturgis..... 72	Hanley..... 74	Kenaston..... 49
North Regina .. 67	Wishart..... 72	Davidson..... 71	Ardath..... 48
Penzance..... 67	Pelly..... 72	Nokomis..... 71	Duval..... 48
Southey..... 66	Atwater..... 71	Radison..... 68	Elbow..... 44
Pense..... 65	Churchbridge... 71	Outlook..... 66	District No. 6
Wilcox..... 65	Dubuc..... 71	Langham..... 64	<i>Towns</i>
Cupar..... 64	Duff..... 71	Vonda..... 63	Eston..... 92
Dilke..... 63	Hubbard..... 71	Asquith..... 63	Kindersley..... 89
Bethune..... 62	Hyas..... 71	Rosthern..... 56	Rosetown..... 87
Belle Plain..... 58	Kandahar..... 71	Lanigan..... 54	Scott..... 87
District No. 3A	Kelliher..... 71	<i>Villages</i>	Biggar..... 86
<i>Towns</i>	Raymore..... 71	Imperial..... 75	Kerrobot..... 85
Moosomin..... 77	Esterhazy..... 70	Allan..... 74	Zealandia..... 82
Wolseley..... 71	Elfros..... 69	Manitou Beach 74	Alsask..... 64
Wapella..... 67	Stornoway..... 69	Borden..... 73	<i>Villages</i>
Broadview..... 64	Leross..... 68	Semans..... 72	Eatonia..... 89
Grenfell..... 64	Porcupine	Colonsay..... 70	Luseland..... 85
Fleming..... 63	Plain..... 68	Bladworth..... 68	Milden..... 84
Whitewood..... 63	Quinton..... 68	Conquest..... 68	Elrose..... 84
<i>Villages</i>	Fenwood..... 67	Simpson..... 68	Hughton..... 82
Maryfield..... 77	Goodeve..... 67	Elstow..... 67	Richlea..... 82
Glenavon..... 76	Lintlaw..... 67	Liberty..... 66	Wiseton..... 82
Kennedy..... 75	Rose Valley..... 67	Lucky Lake..... 66	Dinsmore..... 80
	Stenan..... 67	Birsay..... 65	Brock..... 79
	Togo..... 67	Broderick..... 65	Doddsland..... 78
	Balcarres..... 66		

SCORES AWARDED URBAN MUNICIPALITIES—(Continued)

<i>Villages</i>	<i>Villages</i>	<i>Villages</i>	<i>Villages</i>
DISTRICT No. 6 (CONT'D)	DISTRICT No. 6 (CONT'D)	DISTRICT No. 8 (CONT'D)	DISTRICT No. 8 (CONT'D)
Score	Score	Score	Score
Harris..... 78	Druid..... 61	Valparaiso..... 87	Canwood..... 73
Kinley..... 78	Kelfield..... 60	Codette..... 85	Spalding..... 73
Perdue..... 77	Marengo..... 60	Arborfield..... 84	Shell Lake..... 72
Landis..... 75	Leney..... 59	Ridgedale..... 84	Carrot River... 72
Plato..... 75	Herschel..... 58	Shellbrook..... 84	Choiceland..... 70
Handel..... 74	Springwater..... 57	Bruno..... 83	Marcelin..... 70
Madison..... 74	Stranraer..... 52	Whitefox..... 83	Debden..... 69
Mantario..... 73		Birch Hills..... 82	Domremy..... 69
Sovereign..... 73	District No. 8	Naicam..... 82	Cudworth..... 67
Tessier..... 73	<i>Towns</i>	Weldon..... 82	Love..... 67
Tramping Lake 73		Blaine Lake..... 79	Muenster..... 67
Plenty..... 72	Tisdale..... 89	Leask..... 78	Big River..... 66
Kyle..... 70	Melfort..... 88	Alvena..... 76	Englefeld..... 66
Major..... 70	Nipawin..... 86	Lake Lenore..... 76	Smeaton..... 66
Smiley..... 69	Humboldt..... 85	Meath Park..... 76	Parkside..... 65
Ruthilda..... 68	Star City..... 66	St. Brieux..... 76	Yellow Creek... 64
Loverna..... 67	Duck Lake..... 65	St. Gregor..... 76	Zenon Park..... 63
Glidden..... 67		Spiritwood..... 75	Archerwill 62
Flaxcombe..... 65	<i>Villages</i>	Wakaw..... 73	Leoville..... 60
Netherhill..... 64	Kinistino..... 89	Beatty..... 73	

TABLE No. 4—INSPECTIONS BY DISTRICT SANITARY OFFICERS FOR CALENDAR YEAR 1947

Districts	Water Supplies	Milk Supplies	Food Supplies	Schools & Institutions	Tourist Camps	Summer Resorts	Hotels	Boarding Houses	Restaurants	Licensed Premises	Hospitals	Plumbing Inspections	Camps—Lumber, Mining, etc.	Waste Disposal Grounds	Communicable Disease	Vital Statistics	Barber Shops	Public & Council Meetings	Miscellaneous	Total Inspection Hours	Municipal Officials Interviewed	Municipal Inspections	Total Inspections
2.....	28	30	93	.....	.....	.....	37	1	125	31	.....	2	1	19	.....	.....	12	4	72	238	107	.....	455
3.....	241	117	517	13	14	2	185	9	484	184	.....	28	1	212	1	.....	148	4	159	961	449	43	2,319
3A.....	44	128	260	.....	.....	5	174	2	382	162	2	10	1	22	.....	.....	12	4	43	690	259	23	1,251
4.....	246	422	388	1	.....	6	182	18	539	155	5	35	2	140	18	.....	115	7	241	1,065	368	126	2,524
5.....	668	236	287	17	2	4	196	1	488	159	12	32	.....	167	.....	1	98	21	893	1,146	584	28	3,282
6.....	322	417	545	4	.....	.....	217	27	530	175	1	53	4	168	.....	.....	32	11	114	1,871	788	76	2,621
7.....	500	121	166	4	3	12	125	1	278	108	.....	12	.....	120	1	1	48	3	45	405	225	39	1,548
8A.....	302	196	237	2	3	2	220	7	423	162	1	44	10	88	4	.....	63	18	265	727	343	63	2,047
8B.....	568	103	244	7	6	30	142	2	335	124	3	22	18	119	3	1	11	13	387	696	249	28	2,138
	2,919	1,770	2,737	48	30	61	1,478	68	3,584	1,260	24	238	37	1,055	28	5	539	85	2,219	7,799	3,372	426	18,185

DIVISION OF COMMUNICABLE DISEASE

REGINA, SASKATCHEWAN,

January 27, 1949.

DR. C. F. W. HAMES,
Deputy Minister of Public Health.

SIR:

I hereby submit report of the Division of Communicable Disease for the calendar year 1947, including the following tables numbered I to XII:

- I—Morbidity and mortality during 1946-1947.
- II—Monthly distribution of communicable disease morbidity.
- III—Diphtheria morbidity and mortality by age and sex groups.
- IV—Measles morbidity and mortality by age and sex groups.
- V—Whooping Cough morbidity and mortality by age and sex groups.
- VI—Poliomyelitis morbidity and mortality by age and sex groups.
- VII—Encephalitis morbidity and mortality by age and sex groups.
- VIII—Summary of communicable disease morbidity by age and sex groups.
- IX—Detailed distribution of communicable disease morbidity—by cities, towns, villages, rural municipalities and armed forces.
- X—Summary of distribution of communicable disease morbidity—by cities, towns, villages, rural municipalities and armed forces.
- XI—Morbidity and mortality certain communicable diseases—1905-1947.
 - (A) Diphtheria and scarlet fever;
 - (B) Smallpox and whooping cough;
 - (C) Measles and mumps;
 - (D) Tuberculosis and typhoid-paratyphoid fevers;
 - (E) Influenza and chickenpox;
 - (F) Poliomyelitis and encephalitis.
- XII—Vaccines and sera issued—1917-1947.

ROUTINE

	1946	1947
Letters received	5,817	5,040
Physicians' reports received.....	855	1,074
Armed Forces' reports.....	29	3
Memoranda received	432	443
Telegrams received	51	32
Letters dispatched	1,945	1,817
Memoranda dispatched	230	123
Circulars dispatched	1,220	1,201
Telegrams dispatched	66	76
Parcels of vaccines and sera, drugs, etc., dispatched.....	3,120	3,063
Parcels of forms, bulletins, regulations, etc., dispatched.....	270	210
Statistical reports—internal—dispatched	156	176
Statistical reports—external—dispatched.....	884	1,456
Undertakers' licences issued	37	34
Disinterment permits issued	76	76

COMMUNICABLE DISEASE GENERAL

During 1947, 9,857 cases of Communicable Disease were reported to the Division, compared to 9,872 cases in 1946. Total deaths from Communicable Disease during 1947 were 797, compared to 769 deaths in 1946.

Smallpox:

No cases were reported during 1947.

Diphtheria:

Forty-six cases were reported during 1947 compared to 46 cases in 1946.

Whooping Cough:

Two hundred and thirty-nine cases were reported during 1947 compared with 104 cases in 1946.

Scarlet Fever:

Ninety-eight cases were reported during 1947 compared to 142 in 1946.

Typhoid and Paratyphoid Fever:

Twenty cases were reported compared to 30 in 1946.

Tuberculosis:

Five hundred and thirty-two cases were reported in 1947 compared to 657 in 1946. While the number of reported cases showed a decrease the number of deaths in 1947 was 231 compared to 223 during 1946. Decreased morbidity is probably due in part to fewer war casualties being transferred by the D.V.A. to the Anti-Tuberculosis League for treatment.

Measles:

Measles was epidemic in the province during the early part of 1947, a carry-over from the epidemic of 1946. During 1947, 2,637 cases were reported compared to 4,235 during 1946.

Poliomyelitis:

Saskatchewan experienced a sharp out-break of poliomyelitis during 1947, 275 cases being reported with twelve deaths. This was the highest incidence of poliomyelitis in any one year since the great outbreak of 1937.

The Poliomyelitis Program:

The increased incidence of poliomyelitis in Saskatchewan brought a realization that the facilities of one hospital in Saskatoon would not be sufficient to handle the out-break. Additional facilities to the extent of about fifty beds were made available at the Regina General Hospital through the co-operation of local health authorities in Regina, the staff of the hospital and local physicians.

The Department of Public Health provided special equipment and extra nursing staff by utilizing Public Health Nurses in order to overcome the shortage. The City Health Department also provided extra nurses. A Public Health Nurse specially trained in hot-pack therapy and muscle re-education was also provided by the Provincial Department.

Arrangements were made with Orthopedic Surgeons in the City of Regina to provide free treatment for Clinic patients, as well as out-patient service in the nature of an out-patient Clinic providing free physiotherapy.

A third and smaller centre was set up in Moose Jaw. The Medical Health Officer of the Moose Jaw Health Region on advice from the Department arranged with local physicians and the Board of the City Hospital to provide facilities for treatment.

The epidemic began in July, when there were 41 cases, reached its peak in August with 120 cases and fell through September with 67 cases. There were 22 cases in October and 12 cases in November. At no time were all beds in all three centres filled at the same time and, therefore, very good service was supplied.

Eighty-five cases were admitted to the Saskatoon Clinic and 118 cases went through the Centre in Regina, 52 patients receiving free in-patient care under the direction of a Consultant retained by this Division, 41 additional patients attending regular Clinic for out-patient physiotherapy care. The case fatality rate for those patients coming under the Departmental program was 4.4 per cent.

Surveys:

The rodent plague survey was continued again this summer but was operated for a shorter time. Specimens were collected from the western part of the province surrounding the Alsask region where two positive specimens were obtained last year. Again positive specimens were obtained, one near Alsask and the other between Compeer and Cosine, Saskatchewan. This is the only area in Saskatchewan where positive specimens for plague have been obtained and would not indicate that plague represents a serious threat to humans in this province.

Immunization:

The Division continued its program of advocating immunization against smallpox, diphtheria, whooping cough and scarlet fever. The establishment of Health Regions has greatly increased the demands of sera and vaccine. The cost of materials distributed by the Division was \$46,606.52 in 1947 compared to \$44,041.20 in 1946.

Respectfully submitted,

H. S. DOYLE, M.D., D.P.H.,
Director.

TABLE I—MORBIDITY AND MORTALITY. POPULATION RATES 1946-1947

DISEASES REPORTED	CASES		DEATHS		DEATHS PER 100 CASES REPORTED		RATE PER 100,000			POPULATION		Increase or Decrease
					Increase or Decrease		MORBIDITY		MORTALITY		Increase or Decrease	
	1946	1947	1946	1947	1946	1947	1946	1947	1946	1947		
Chickenpox.....	1,445	1,764	1	1	.09	.06	173.4	209.9	.1	.1	.....
Diphtheria.....	54	46	6	10	11.1	21.7	6.5	5.5	.7	1.2	Increase	
Encephalitis (Infectious).....	5	68	5	9	100.0	13.2	6.6	8.1	.6	1.1	Increase	
Measles.....	4,235	2,637	56	15	1.3	.6	508.6	312.7	6.7	1.8	Increase	
Mumps.....	2,386	3,616	.....	2	.....	.06	286.4	429.5	.....	.2	Increase
Polomyelitis.....	38	275	3	12	8.0	4.4	4.6	33.2	.4	1.4	Increase	
Scarlet Fever.....	142	98	2	.....	2.1	.....	17.0	11.6	.2	.....	Increase
Smallpox.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	Increase
Tuberculosis.....	657	532	223	231	33.9	43.4	78.9	63.2	26.8	27.4	Increase	
Typhoid and Paratyphoid Fevers.....	30	20	6	1	20.0	5.0	3.6	2.4	.7	.1	Increase	
Whooping Cough.....	104	239	2	3	1.8	1.2	12.5	28.4	.2	.4	Increase	
Conjunctivitis.....	38	17	.....	.....	.....	.....	.....	.....	.....	.....	Increase
Diphtheria and Enteritis (under 1 year).....	.....	35	.....	101	.....	.....	.....	.....	.....	12.0	Increase
Diphtheria Carrier.....	9	1	.....	.....	.....	.....	.....	.....	.....	.....	Increase
Erysipelas.....	15	17	3	.....	.....	.....	.....	.....	.....	.....	Increase
Impetigo Contagiosa.....	111	91	.....	.....	.....	.....	.....	.....	.....	.....	Increase
Influenza.....	19	17	86	77	20.0	5.0	12.5	28.4	10.3	9.1	Increase	
Jaundice (Epidemic).....	3	3	1	.....	.....	.....	.....	.....	.1	.....	Increase
Malaria.....	3	1	.....	.....	.....	.....	.....	.....	.....	.....	Increase
Meningitis (Meningococcal).....	16	15	7	2	.....	.....	.....	.....	.....	.....	Increase
Pneumonia (Br. & Lobar).....	22	.....	362	330	.....	.....	.....	.....	.8	.2	Increase
Ringworm.....	18	8	.....	.....	.....	.....	.....	.....	43.5	39.1	Increase
Scabies.....	55	207	.....	.....	.....	.....	.....	.....	.....	.....	Increase
Rubella.....	337	112	.....	.....	.....	.....	.....	.....	.....	.....	Increase
Septic Sore Throat.....	3	7	6	3	.....	.....	.....	.....	.....	.....	Increase
Tetanus.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	Increase
Trachoma.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	Increase
Typhoid Carrier.....	2	2	.....	.....	.....	.....	.....	.....	.....	.....	Increase
Undulant Fever.....	1	5	.....	.....	.....	.....	.....	.....	.....	.....	Increase
Vincent's Angina.....	120	23	.....	.....	.....	.....	.....	.....	.....	.....	Increase
Totals.....	9,872	9,857	769	797	.....	.....	.....	.....	.....	.....	.....

Decrease in Morbidity 15 or 15%
Increase in Mortality 28 or 3.6%

POPULATION 832,700
Year 1946.....
Year 1947..... 842,000

TABLE II—MONTHLY DISTRIBUTION OF COMMUNICABLE DISEASE MORBIDITY, 1947

Cases Reported	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Chickenpox.....	125	131	88	87	142	168	126	64	52	173	291	317	1,764
Conjunctivitis.....	.....	2	.....	1	2	4	2	3	2	1	.....	.....	17
Diarrhoea & Enteritis (Under 1 Year).....	.....	.....	.....	2	16	13	4	.....	.....	.....	.....	.....	35
Diphtheria.....	1	4	1	2	6	1	3	4	4	8	5	7	46
Diphtheria Carrier.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	1
Encephalitis (Epidemic).....	.....	.....	.....	.....	1	.....	.....	.....	41	8	1	2	68
Erysipelas.....	1	1	1	3	1	1	3	1	1	1	1	2	17
Impetigo Contagiosa.....	6	6	11	9	5	3	1	1	7	14	6	22	91
Influenza.....	3	.....	.....	.....	1	13	.....	.....	.....	.....	2	.....	17
Jaundice.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	3
Malaria.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	1
Measles.....	716	425	421	276	191	241	64	43	27	58	98	77	2,637
Meningitis (Meningococcal).....	4	.....	1	.....	.....	3	1	2	4	.....	.....	.....	15
Mumps.....	622	775	790	499	235	124	45	31	30	50	81	334	3,616
Poliomyelitis.....	.....	.....	1	1	.....	2	16	121	63	24	12	35	275
Ringworm.....	3	1	2	2	.....	.....	.....	.....	.....	.....	.....	.....	8
Rubella.....	6	6	27	23	53	55	14	3	2	6	6	6	207
Scabies.....	13	3	10	3	9	10	2	3	7	18	14	20	112
Scarlet Fever.....	7	5	9	12	6	10	11	2	4	5	12	15	98
Septic Sore Throat.....	.....	.....	.....	3	.....	1	1	.....	.....	.....	1	1	7
Trachoma.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	1
Tuberculosis.....	22	45	43	44	53	36	42	49	40	50	49	59	532
Typhoid & Paratyphoid.....	1	1	1	.....	.....	1	1	2	3	3	4	3	20
Typhoid Carrier.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	2
Undulant Fever.....	.....	.....	1	.....	1	1	2	.....	.....	.....	.....	.....	5
Vincent's Angina.....	.....	.....	9	.....	1	1	.....	.....	.....	6	4	2	23
Whooping Cough.....	15	30	3	9	3	8	7	19	32	23	65	25	239
Totals.....	1,545	1,435	1,421	976	727	696	345	364	319	450	652	927	9,857

TABLE III—DIPHTHERIA—MORBIDITY AND MORTALITY BY AGE AND SEX GROUPS, 1947

Age Groups	Cases			Deaths			Age Group Fatality Percentages	Percentage of Total		Rate per 100,000 Population	
	Male	Female	Total	Male	Female	Total		Cases	Deaths	Cases	Deaths
Under 1 year.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1- 4 Years.....	10	7	17	4	1	5	29.4	37.0	50.0	2.0	.6
5-14 Years.....	7	10	17	3	2	5	29.4	37.0	50.0	2.0	.6
15-19 Years.....	.....	2	2	.....	.....	.....	.....	4.3	.....	.2	.....
20 years and over.....	1	7	8	.....	.....	.....	.....	17.4	.....	1.0	.....
Age not stated.....	.....	2	2	.....	.....	.....	.....	4.3	.....	.2	.....
Age-Sex not stated.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals by sex.....	18	28	.....	7	3	.....	.....	.....	.....	.....	.....
Totals.....	46			10							

TABLE IV—MEASLES—MORBIDITY AND MORTALITY BY AGE AND SEX GROUPS, 1947

Age Groups	Cases			Deaths			Age Group Fatality Percentages	Percentage of Total		Rate per 100,000 Population		
	Male	Female	N.S.	Total	Male	Female		Total	Cases	Deaths	Cases	Deaths
Under 1 Year.....	39	53	....	92	2	1	3	3.3	3.5	20.0	10.9	.4
1-4 years.....	386	364	....	750	7	2	9	1.2	28.4	60.0	89.1	1.1
5-14 years.....	744	704	....	1,448	1	2	3	.2	54.9	20.0	172.0	.4
15-19 years.....	46	74	....	120	....	....	....	.....	4.5	....	14.2	....
20 years and over.....	45	73	....	118	....	....	....	.....	4.4	....	14.0	....
Age not stated.....	20	25	....	45	....	....	....	.....	1.7	....	5.3	....
Age-Sex not stated.....	....	....	64	64	....	....	....	.....	2.4	....	7.6	....
Totals by sex.....	1,280	1,293	64	....	10	5	....	.....	....	....	....	....
Totals.....	2,637				15							

TABLE V—WHOPPING COUGH—MORBIDITY AND MORTALITY BY AGE AND SEX GROUPS, 1947

Age Groups	Cases			Deaths			Age Group Fatality Percentages	Percentage of Total		Rate per 100,000 Population	
	Male	Female	N.S.	Total	Male	Female		Total	Cases	Deaths	Cases	Deaths
Under 1 year.....	13	16	....	29	....	3	3	12.2	100.0	3.4	.4
1-4 years.....	35	45	....	80	....	....	....	33.5	....	9.5	....
5-14 years.....	55	64	....	119	....	....	....	49.8	....	14.1	....
15-19 years.....	....	4	....	4	....	....	....	1.2	....	.5	....
20 years and over.....	....	....	....	....	....	....	....	....	....	....	....
Age not stated.....	....	1	....	1	....	....	....	.4	....	.1	....
Age-Sex not stated.....	....	....	6	6	....	....	....	2.5	....	.7	....
Totals by sex.....	103	130	6	....	....	3	....	....	....	....	....
Totals.....	239					3					

TABLE VI—POLIOMYELITIS—MORBIDITY AND MORTALITY BY AGE AND SEX GROUPS, 1947

Age Groups	Cases			Deaths			Age Group Fatality Percentages	Percentage of Total		Rate per 100,000 Population	
	Male	Female	Total	Male	Female	Total		Cases	Deaths	Cases	Deaths
Under 1 year.....	2	1	3	2	.....	2	66.6	1.09	16.6	.4	.2
1-4 years.....	19	21	40	.....	.....	.....	.....	14.5	.....	4.8	.....
5-14 years.....	54	44	98	1	.....	1	1.02	35.6	8.3	11.6	.1
15-19 years.....	25	11	36	1	2	3	8.3	13.1	25.0	4.3	.4
20 years and over.....	58	36	94	5	1	6	6.4	34.2	50.0	11.1	.7
Age not stated.....	1	3	4	.....	.....	.....	.....	1.5	.....	.5	.....
Age-Sex not stated.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals by sex.....	159	116	.....	9	3	.....	.....	.....	.....	.....	.....
Totals.....	275			12			.....	.....	.....	.....	.....

TABLE VII—ENCEPHALITIS—MORBIDITY AND MORTALITY BY AGE AND SEX GROUPS, 1947

Age Groups	Cases			Deaths			Age Group Fatality Percentages	Percentage of Total		Rate per 100,000 Population		
	Male	Female	Total	Male	Female	Total		Cases	Deaths	Cases	Deaths	
Under 1 year.....	3	9	12	.....	.....	.....	.....	17.6	.....	1.4	.....
1-4 years.....	4	2	6	1	.....	1	16.6	8.8	11.1	.7	.1
5-14 years.....	2	5	7	.....	1	1	14.3	10.3	11.1	.8	.1
15-19 years.....	1	1	2	.....	.....	.....	.....	3.0	.....	.2	.....
20 years and over.....	23	9	32	6	1	7	21.8	47.0	77.7	3.8	.8	
Age not stated.....	7	2	9	.....	.....	.....	.....	13.2	.....	1.1	.....
Age-Sex not stated.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals by sex.....	40	28	.....	7	2	.....	.....	.....	.....	.....	.....
Totals.....	68			9								

TABLE VIII—SUMMARY OF COMMUNICABLE DISEASE, MORBIDITY BY AGE AND SEX GROUPS, 1947

Disease	Under 1 year			1-4 Years		5-14 Years		15-19 Years		20 years and over		Age not stated		Age & Sex not stated	Sex Distribution Totals			Morbidity Percentage of Total Cases
	M	F	N.S.	M	F	M	F	M	F	M	F	M	F		Not stated	M	F	
														Totals				
Chickenpox.....	27	34	4	183	221	551	532	24	36	38	32	25	38	19	848	893	1,764	17.8
Conjunctivitis.....	.....	.....	.....	1	.....	10	6	.....	.....	.....	.....	.....	.....	.....	11	6	17	.....
Diarrhoea & Enteritis (Under 1 year).....	20	14	1	10	7	7	10	.....	2	.....	7	.....	2	.....	20	14	35	.....
Diphtheria.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	18	28	46	.....
Diphtheria Carrier.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1	.....
Encephalitis (Epidemic).....	3	9	.....	4	2	2	5	1	1	7	9	7	2	.....	40	28	68	.6
Erysipelas.....	.....	.....	.....	1	.....	.....	.....	1	.....	7	7	.....	.....	.....	9	8	17	.....
Impetigo Contagiosa.....	.....	.....	.....	2	2	18	15	.....	5	1	.....	1	1	47	21	23	91	.9
Influenza.....	5	2	.....	.....	2	.....	.....	1	.....	5	.....	5	2	.....	11	6	17	.....
Jaundice.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1	.....	1	.....	.....	2	1	3	.....
Malaria.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1	.....	1	.....
Measles.....	39	53	.....	386	364	744	704	46	74	20	73	20	25	64	1,280	1,293	2,637	26.7
Meningitis (Meningococcal).....	3	3	.....	1	.....	1	2	1	.....	2	2	.....	.....	.....	8	7	15	.....
Mumps.....	8	6	.....	185	128	950	905	187	236	111	280	149	149	253	1,659	1,704	3,616	36.7
Polomyelitis.....	2	1	.....	19	21	54	44	25	11	58	36	1	3	.....	159	116	275	2.7
Ringworm.....	9	7	.....	16	25	56	83	3	5	.....	3	.....	.....	.....	84	123	207	2.1
Rubella.....	.....	.....	.....	1	1	20	24	.....	1	1	1	4	.....	.....	26	27	112	1.1
Scabies.....	.....	.....	.....	9	8	22	35	7	5	.....	3	2	2	3	42	53	98	.9
Scarlet Fever.....	.....	.....	.....	.....	.....	2	.....	.....	1	.....	4	.....	.....	.....	2	5	7	.....
Septic Sore Throat.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1	.....
Trachoma.....	2	2	.....	14	10	42	41	23	46	8	162	8	8	1	262	269	532	5.4
Tuberculosis.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Typhoid & Paratyphoid Fevers.....	.....	.....	.....	.....	.....	4	1	.....	3	8	4	.....	.....	.....	12	8	20	.2
Typhoid Carrier.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1	.....	.....	1	.....	1	1	2	.....
Undulant Fever.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	1	.....	.....	.....	4	1	5	.....
Vincent's Angina.....	.....	.....	.....	1	2	2	5	.....	3	5	4	.....	1	.....	8	15	23	.....
Whooping Cough.....	13	16	.....	35	45	55	64	.....	4	.....	.....	.....	1	6	103	130	239	2.4
Age Group by Sex.....	131	147	5	868	838	2,543	2,478	319	433	184	628	419	235	460	4,633	4,759	9,857	.....
Age Group Totals.....	283		.....	1,706		5,021		752		1,216		419		460		9,857		.....
Age Group Percentage.....	2.9		.....	17.3		50.9		7.6		12.3		4.3		4.7		.....		.....

TABLE IX—DETAILED DISTRIBUTION OF MORBIDITY, 1947.

CHICKENPOX—Total Cases 1,764.

Cities—1,459. Moose Jaw, 201; North Battleford, 52; Prince Albert, 100; Regina, 707; Saskatoon, 316; Swift Current, 35; Weyburn, 23; Yorkton, 25.

Towns—152. Battleford, 11; Cabri, 1; Davidson, 26; Delisle, 1; Estevan, 5; Foam Lake, 6; Hanley, 1; Hudson Bay, 2; Indian Head, 24; Langham, 7; Lloydminster, 1; Meadow Lake, 44; Melfort, 3; Nokomis, 4; Oxbow, 13; Radville, 1; Unity, 2.

Villages—82. Abernethy, 1; Bienfait, 1; Birsay, 3; Briercrest, 2; Chaplin, 1; Coronach, 3; Golden Prairie, 2; Griffin, 1; Kelvington, 2; Kincaid, 4; Kinistino, 4; Kinley, 3; Lashburn, 1; Leask, 4; Lemsford, 1; Leney, 2; McLean, 1; Mankota, 8; Meacham, 5; Neville, 15; Orkney, 1; Perdue, 1; Smeaton, 3; Struan, 1; Theodore, 3; Tugaske, 1; Vanguard, 1; Viceroy, 6; Webb, 1.

Rural Municipalities—63. No. 5, 1; 6, 3; 7, 1; 20, 1; 32, 2; 37, 1; 51, 1; 67, 8; 71, 2; 96, 2; 121, 2; 137, 1; 187, 1; 253, 4; 289, 1; 306, 4; 313, 1; 339, 1; 344, 4; 346, 1; 374, 6; 376, 1; 403, 1; 404, 1; 423, 3; 430, 2; 437, 3; 502, 1; 519, 1; 588, 1; 618, 1.

Indian Reserves—8.

CONJUNCTIVITIS—Total Cases 17.

Cities—9. Moose Jaw, 5; Prince Albert, 2; Weyburn, 2.

Towns—1. Estevan, 1.

Villages—3. Mendham, 3.

Rural Municipalities—4. No. 32, 2; 228, 2.

DIARRHOEA & ENTERITIS (Under 1 Year) —Total Cases 35.

Cities—23. Regina, 16; Saskatoon, 7.

Towns—1. Lumsden, 1.

Villages—10. Congress, 1; Edam, 5; Leask, 1; Orkney, 1; Vanscoy, 1; Vibank, 1.

Rural Municipalities—1. No. 469, 1.

DIPHTHERIA—Total Cases 46.

Cities—24. Moose Jaw, 1; North Battleford, 6; Prince Albert, 4; Regina, 1; Saskatoon, 12.

Towns—7. Battleford, 1; Biggar, 3; Lloydminster, 1; Meadow Lake, 1; Nipawin, 1.

Villages—5. Balcarres, 1; Big River, 1; Ceylon, 1; Holdfast, 1; Wakaw, 1.

Rural Municipalities—10. No. 331, 1; 352, 1; 371, 1; 394, 1; 472, 2; 491, 1; 494, 1; 526, 1; 559, 1.

DIPHTHERIA CARRIER—1 Case

City of Prince Albert, 1.

ENCEPHALITIS—Total Cases 68.

Cities—22. Moose Jaw, 7; Regina, 8; Saskatoon, 1; Weyburn, 1; Yorkton, 5.

Towns—9. Estevan, 1; Kamsack, 1; Melville, 2; Milestone, 1; Saltcoats, 2; Wapella, 1; Whitewood, 1.

Villages—19. Amulet, 1; Carievale, 1; Chaplin, 1; Coderre, 1; Dubuc, 1; Ernfold, 1; Gainsborough, 1; Glen Ewen, 1; Imperial, 1; Kipling, 1; Lampman, 2; McNutt, 1; Neudorf, 1; North Portal, 1; Parkbeg, 1; Rhein, 1; Torquay, 1; Vibank, 1.

Rural Municipalities—18. No. 3, 2; 34, 1; 70, 1; 71, 1; 102, 1; 121, 1; 128, 2; 159, 1; 161, 1; 224, 1; 244, 2; 246, 1; 276, 1; 370, 1; 400, 1.

ERYSIPELAS—Total Cases 17.

Cities—8. Prince Albert, 1; Regina, 3; Saskatoon, 4.

Towns—3. Asquith, 1; Davidson, 1; Langham, 1.

Villages—4. Hague, 1; Leross, 1; Luseland, 1; Redvers, 1.

Rural Municipalities—2. No. 67, 1; 403, 1.

IMPETIGO CONTAGIOSA—Total Cases 91.

Cities—41. Moose Jaw, 1; North Battleford, 4; Prince Albert, 28; Saskatoon, 3; Swift Current, 2; Weyburn, 3.

Towns—10. Arcola, 2; Melfort, 5; Wilkie, 3.

Villages—15. Bienfait, 1; Lucky Lake, 3; Pennant, 1; Perdue, 2; Piapot, 1; Rhein, 1; Theodore, 6.

Rural Municipalities—25. No. 33, 1; 34, 1; 67, 1; 69, 1; 168, 2; 275, 5; 289, 2; 374, 3; 375, 3; 401, 6.

INFLUENZA—Total Cases 17.

Cities—1. Swift Current, 1.

Villages—3. Rhein, 1; Success, 1; Tantallon, 1.

Rural Municipalities—6. No. 136, 1; 156, 1; 214, 1; 456, 1.

Unorganized territory: Buffalo Narrows, 1; Buffalo River, 1.

Indian Reserves—4.

Armed Forces—3.

JAUNDICE—Total Cases 3.

Cities—1. Saskatoon, 1.

Rural Municipalities—2. No. 50, 1; 51, 1.

MALARIA—1 Case.

Cities—1. Regina, 1.

MEASLES—Total Cases 2,637.

Cities—1,559. Moose Jaw, 94; North Battleford, 5; Prince Albert, 66; Regina, 385; Saskatoon, 851; Swift Current, 5; Weyburn, 136; Yorkton, 17.

Towns—242. Asquith, 1; Cabri, 3; Davidson, 7; Duck Lake, 8; Estevan, 38; Fleming, 2; Grenfell, 2; Hanley, 2; Hudson Bay, 1; Indian Head, 6; Langham, 1; Leader, 3; Maple Creek, 1; Meadow Lake, 2; Melfort, 43; Moosomin, 54; Nokomis, 2; Oxbow, 7; Radville, 21; Rosthern, 14; Shaunavon, 2; Strasbourg, 4; Sutherland, 4; Tisdale, 2; Vonda, 1; Watrous, 11.

Villages—338. Abbey, 1; Amulet, 6; Antler, 4; Balcarres, 21; Bienfait, 1; Big River, 1; Brock, 25; Churchbridge, 1; Coronach, 6; Cupar, 10; Dalmeny, 2; Dundurn, 2; Dysart, 1; Elrose, 25; Elstow, 7; Fillmore, 1; Forget, 24; Hague, 18; Hawarden, 1; Hepburn, 1; Hoey, 7; Holdfast, 1; Kelvington, 1; Kinley, 1; Kipling, 1; LaFleche, 11; Laird, 3; Leroy, 5; Lockwood, 1; Lucky Lake, 1; Macoun, 1; Maidstone, 5; Mankota, 31; Maryfield, 23; Meacham, 5; Meota, 2; Parkside, 1; Paynton, 1; Perdue, 1; Prelate, 7; Redvers, 1; Rose Valley, 1; Ruthilda, 1; Shellbrook, 1; St. Brieux, 34; Strongfield, 1; Theodore, 1; Turtleford, 27; Vanscoy, 2; Wakaw, 1; Weldon, 1.

Rural Municipalities—498. No. 4, 10; 6, 5; 8, 1; 12, 1; 15, 1; 20, 3; 32, 39; 33, 9; 34, 15; 36, 1; 45, 19; 49, 1; 61, 4; 65, 2; 66, 8; 67, 32; 68, 1; 69, 1; 71, 1; 91, 12; 96, 2; 97, 1; 101, 7; 121, 9; 122, 24; 131, 4; 151, 2; 159, 2; 161, 3; 185, 1; 186, 12; 220, 40; 245, 1; 252, 6; 253, 4; 255, 1; 256, 2; 279, 1; 281, 1; 282, 1; 288, 1; 289, 23; 314, 4; 340, 19; 342, 12; 343, 4; 344, 2; 346, 17; 369, 2; 370, 6; 372, 1; 374, 18; 376, 2; 395, 1; 399, 5; 400, 3; 403, 14; 404, 2; 405, 8; 428, 4; 429, 1; 430, 3; 431, 18; 435, 5; 437, 2; 442, 4; 459, 11; 467, 7; 471, 1; 493, 5; 518, 1; 520, 1; 521, 1.

MENINGITIS (MENINGOCOCCAL)—Total Cases 15.

Cities—8. Moose Jaw, 1; North Battleford, 1; Regina, 4; Saskatoon, 2.

Towns—2. Davidson, 1; Unity, 1.

Villages—2. Shellbrook, 1; Waldheim, 1.

Rural Municipalities—3. No. 368, 1; 437, 1; 469, 1.

MUMPS—Total Cases 3,616.

Cities—2,776. Moose Jaw, 139; North Battleford, 80; Prince Albert, 150; Regina, 1,911; Saskatoon, 212; Swift Current, 36; Weyburn, 94; Yorkton, 154.

Towns—382. Battleford, 1; Cabri, 2; Davidson, 20; Duck Lake, 2; Estevan, 84; Foam Lake, 8; Grenfell, 1; Gull Lake, 3; Hudson Bay, 19; Indian Head, 11; Kamsack, 17; Lumsden, 22; Maple Creek, 1; Meadow Lake, 3; Qu'Appelle, 1; Radville, 3; Rosthern, 1; Shaunavon, 1; Sutherland, 1; Tisdale, 180; Watson, 1.

Villages—179. Abbey, 1; Arelee, 1; Belle Plaine, 1; Bladworth, 1; Cadillac, 1; Carievale, 1; Craven, 12; Cudworth, 1; Cupar, 3; Disley, 11; Dundurn, 3; Elstow, 8; Eatonia, 1; Fillmore, 17; Forget, 2; Hague, 1; Hazlet, 2; Hoey, 1; Ituna, 1;

Kendal, 1; Kyle, 1; Leroy, 4; Lucky Lake, 35; Mankota, 1; Maryfield, 16; Neville, 1; Perdue, 2; Raymore, 1; Regina Beach, 14; Scotsguard, 1; Sifton, 11; Spalding, 7; Stoughton, 12; Vanguard, 2; Weldon, 1.

Rural Municipalities—279. No. 6, 7; 7, 1; 8, 1; 9, 1; 31, 9; 32, 2; 34, 4; 36, 19; 37, 4; 61, 1; 63, 1; 65, 13; 67, 69; 69, 2; 75, 1; 91, 1; 96, 12; 98, 1; 125, 1; 126, 1; 131, 1; 136, 1; 161, 3; 183, 1; 189, 6; 220, 3; 225, 10; 252, 11; 253, 11; 280, 1; 313, 1; 369, 1; 370, 15; 371, 1; 374, 17; 376, 10; 400, 1; 403, 1; 404, 2; 437, 10; 440, 1; 442, 1; 459, 8; 463, 1; 464, 1; 490, 1; 491, 3; 521, 1; 622, 4.

POLIOMYELITIS—Total Cases 275.

Cities—95. Moose Jaw, 17; Prince Albert, 5; Regina, 51; Saskatoon, 22.

Towns—39. Alameda, 1; Arcola, 1; Asquith, 1; Balgonie, 1; Battleford, 2; Davidson, 1; Foam Lake, 2; Hanley, 1; Hudson Bay, 1; Humboldt, 1; Kindersley, 1; Langham, 1; Leader, 1; Melfort, 1; Milestone, 3; Morse, 1; Qu'Appelle, 1; Rose-town, 2; Rosthern, 2; Rouleau, 5; Shaunavon, 1; Sinaluta, 2; Tisdale, 1; Vonda, 1; Wolseley, 1; Yellow Grass, 3.

Villages—75. Allen, 1; Borden, 1; Brownlee, 1; Carrot River, 1; Central Butte, 4; Craven, 1; Creelman, 1; Drake, 1; Drinkwater, 2; Dundurn, 1; Earl Grey, 2; Elrose, 1; Elstow, 1; Fillmore, 2; Frobisher, 1; Glaslyn, 1; Hardy, 1; Heward, 1; Holdfast, 1; Ituna, 1; Kandahar, 6; Kelliher, 1; Kipling, 2; Kisbey, 4; Lang, 2; Lanigan, 2; Lestock, 2; Liberty, 1; Markinch, 2; Marquis, 1; Montmartre, 3; Mossbank, 1; North Regina, 3; Pangman, 2; Pelly, 1; Pense, 2; Portreeve, 2; Regina Beach, 1; Rhein, 1; Ridgedale, 2; Riverhurst, 2; Rose Valley, 1; Ruddell, 1; Stoughton, 1; Vantage, 1; Wilcox, 1; Wroxton, 1.

Rural Municipalities—66. No. 4, 1; 7, 1; 9, 2; 34, 1; 37, 1; 38, 1; 39, 1; 61, 1; 66, 1; 67, 2; 69, 1; 98, 1; 99, 1; 102, 4; 128, 7; 129, 2; 133, 1; 136, 1; 157, 1; 159, 4; 161, 3; 168, 1; 189, 2; 194, 1; 224, 1; 243, 1; 244, 2; 250, 1; 252, 1; 257, 1; 287, 2; 382, 1; 395, 1; 396, 1; 403, 1; 405, 1; 428, 1; 431, 1; 456, 1; 457, 1; 458, 3; 461, 1; 496, 1; 523, 1.

RINGWORM—Total Cases 8.

Rural Municipalities—8. No. 225, 1; 289, 1; 374, 1; 397, 2; 403, 2; 442, 1.

RUBELLA—Total Cases 207.

Cities—183. Moose Jaw, 2; Regina, 158; Saskatoon, 23.

Towns—3. Kamsack, 1; Melville, 1; Unity, 1.

Villages—17. Prelate, 10; Sceptre, 6; Simpson, 1.

Rural Municipalities—4. No. 68, 1; 281, 1; 346, 1; 405, 1.

SCABIES—Total Cases 112.

Cities—25. Moose Jaw, 2; North Battleford, 2; Prince Albert, 20; Saskatoon, 1.

Towns—8. Melfort, 3; Radville, 5.

Villages—18. Kincaid, 4; Lampman, 6; Perdue, 2; Theodore, 6.

Rural Municipalities—59. No. 4, 6; 6, 10; 35, 2; 67, 1; 121, 5; 275, 6; 289, 5; 397, 8; 401, 5; 403, 3; 404, 1; 442, 1; 502, 6.

Armed Forces—2.

SCARLET FEVER—Total Cases 98.

Cities—69. North Battleford, 4; Prince Albert, 3; Regina, 13; Saskatoon, 47; Weyburn, 1; Yorkton, 1.

Towns—4. Craik, 1; Davidson, 1; Meadow Lake, 1; Wilkie, 1.

Villages—7. Hoey, 1; Luseland, 2; Penzance, 3; Waldheim, 1.

Rural Municipalities—18. No. 20, 1; 221, 2; 222, 1; 231, 1; 252, 2; 344, 2; 374, 1; 400, 1; 403, 2; 404, 1; 472, 4.

SEPTIC SORE THROAT—Total Cases 7.

Cities—6. Regina, 2; Saskatoon, 4.

Villages—1. Kincaid, 1.

TRACHOMA—Total Cases 1.

Rural Municipalities—1. No. 403, 1.

TUBERCULOSIS—Total Cases 532.

Cities—114. Moose Jaw, 9; North Battleford, 7; Prince Albert, 5; Regina, 40; Saskatoon, 44; Swift Current, 4; Weyburn, 1; Yorkton, 4.

Towns—51. Arcola, 1; Assiniboia, 1; Biggar, 1; Bredenbury, 1; Broadview, 2; Cabri, 1; Canora, 2; Craik, 1; Estevan, 1; Foam Lake, 2; Gravelbourg, 3; Humboldt, 7; Lemberg, 1; Lloydminster, 3; Lumsden, 1; Maple Creek, 1; Melfort, 1; Melville, 3; Moosomin, 1; Rosetown, 2; Rosthern, 2; Star City, 1; Sutherland, 1; Unity, 1; Vonda, 1; Watrous, 5; Wilkie, 1; Wolseley, 1; Wynyard, 1; Yellow Grass, 1.

Villages—59. Abbey, 1; Abernethy, 1; Adanac, 1; Aneroid, 1; Ardath, 1; Bienfait, 1; Big River, 3; Birch Hills, 1; Bracken, 1; Brock, 1; Carrot River, 1; Debden, 1; Dunblane, 1; Esterhazy, 1; Fort Qu'Appelle, 3; Fox Valley, 2; Glenavon, 1; Glidden, 2; Goodeve, 1; Hazenmore, 1; Hepburn, 1; Hubbard, 1; Kinistino, 1; LaFleche, 1; Langenburg, 2; Lebret, 1; Leoville, 1; Lipton, 1; Lockwood, 1; Lucky Lake, 1; Marquis, 1; Meyronne, 1; Montmartre, 1; Muenster, 1; Pennant, 1; Ponteix, 2; Prud'Homme, 1; Rocanville, 2; Rockglen, 2; Sheho, 1; Springside, 1; St. Walburg, 1; Theodore, 1; Tompkins, 1; Vanguard, 1; Vantage, 1; West Bend, 1; Willow Bunch, 2.

Rural Municipalities—259. No. 3, 1; 6, 1; 11, 2; 13, 1; 17, 2; 31, 3; 36, 2; 37, 1; 38, 1; 45, 2; 49, 1; 50, 1; 64, 1; 66, 1; 67, 18; 68, 1; 71, 1; 72, 1; 73, 1; 74, 2; 91, 1; 101, 1; 104, 2; 105, 1; 106, 2; 107, 3; 108, 1; 126, 1; 136, 1; 137, 1; 138, 1; 151, 1; 153, 2; 154, 1; 156, 1; 159, 1; 160, 1; 165, 1; 166, 1; 167, 1; 168, 1; 172, 1; 181, 2; 183, 1; 184, 1; 185, 4; 186, 1; 187, 2; 189, 1; 211, 2; 215, 1; 226, 1; 227, 1; 229, 2; 230, 7; 243, 2; 245, 1; 246, 1; 247, 2; 250, 1; 253, 1; 255, 3; 256, 2; 257, 1; 259, 1; 271, 1; 273, 2; 274, 1; 275, 1; 280, 1; 281, 2; 287, 1; 303, 1; 304, 2; 306, 1; 307, 1; 308, 2; 309, 2; 312, 1; 314, 1; 316, 2; 331, 5; 333, 3; 336, 1; 337, 2; 339, 1; 340, 1; 343, 2; 345, 1; 346, 1; 367, 1; 368, 1; 369, 6; 374, 1; 376, 1; 377, 1; 381, 1; 395, 2; 398, 1; 399, 1; 400, 2; 403, 1; 404, 3; 427, 1; 429, 1; 431, 2; 435, 2; 436, 2; 460, 2; 461, 1; 463, 1; 468, 1; 487, 1; 490, 1; 491, 2; 498, 2; 499, 1; 518, 2; 519, 1; 520, 1; 525, 1; 531, 1; 559, 1; 561, 1; 588, 2; 618, 1; 619, 1; 622, 2.

Unorganized: Beauval, 4; Buffalo River, 1; Camsell Portage, 4; Churchil, Lake, 1; Cumberland House, 6; Ile a la Crosse, 16; Island Falls, 13; Lac La Rongel 1; La Loche, 4; Montreal Lake, 1; Pelican Narrows, 1.

Indian Reserves—49.

TYPHOID AND PARATYPHOID FEVERS—Total Cases 20.

Cities—2. Regina, 1; Saskatoon, 1.

Villages—4. Cadillac, 1; Calder, 2; Lebret, 1.

Rural Municipalities—14. No. 67, 1; 161, 1; 370, 1; 376, 1; 397, 1; 406, 1; 437, 6; 468, 1; Lac La Ronge (unorganized) 1.

TYPHOID CARRIERS—Total Cases 2.

Village of Calder—1.

Rural Municipality No. 428, 1.

UNDULANT FEVER—Total Cases 5.

Cities—2. Swift Current, 1; Weyburn, 1.

Towns—1. Macklin, 1.

Villages—2. Balcarres, 1; Colfax, 1.

VINCENT'S ANGINA—Total Cases 23.

Cities—5. Saskatoon, 4; Weyburn, 1.

Villages—1. Storthoaks, 1.

Rural Municipalities—17. No. 5, 1; 31, 1; 50, 3; 51, 3; 63, 8; 244, 1.

WHOOPING COUGH—Total Cases 239.

Cities—220. Moose Jaw, 52; North Battleford, 19; Prince Albert, 7; Regina, 129; Saskatoon, 4; Swift Current, 2; Yorkton, 7.

Towns—5. Delisle, 2; Estevan, 1; Indian Head, 2.

Villages—4. Hague, 1; Sedley, 1; Shackleton, 1; Truax, 1.

Rural Municipalities—10. No. 67, 5; 71, 2; 159, 1; 161, 1; 186, 1.

TABLE X—SUMMARY OF DISTRIBUTION OF COMMUNICABLE DISEASE, 1947

Disease	Moose Jaw	North Battleford	Prince Albert	Regina	Saskatoon	Swift Current	Weyburn	Yorkton	(Cities' Totals)	Towns	Villages	Rural Municipalities	Indian Reserves	Armed Forces	Total	Percentage of Total Cases
Chickenpox.....	201	52	100	707	316	35	23	25	1,459	152	82	63	8	.....	1,764	17.8
Conjunctivitis.....	5	.....	2	.....	.....	.....	2	.....	9	1	3	4	.....	.....	17	.....
Diarrhoea & Enteritis.....	.....	.....	.....	16	7	.....	.....	.....	23	1	10	1	.....	.....	35	.....
Diphtheria.....	1	6	4	1	12	.....	.....	.....	24	7	5	10	.....	.....	46	.....
Diphtheria Carrier.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1	.....
Encephalitis (Epidemic).....	7	.....	.....	8	1	.....	1	5	22	9	18	19	.....	.....	68	.6
Erysipelas.....	.....	.....	.....	3	4	.....	.....	.....	8	3	4	2	.....	.....	17	.....
Impetigo Contagiosa.....	1	4	28	3	3	2	3	.....	41	10	15	25	.....	.....	91	.9
Influenza.....	.....	.....	.....	.....	.....	1	.....	.....	1	.....	3	6	4	3	17	.....
Jaundice.....	.....	.....	.....	.....	1	.....	.....	.....	1	.....	.....	2	.....	.....	3	.....
Malaria.....	.....	.....	.....	1	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1	.....
Measles.....	94	5	66	385	851	5	136	17	1,559	242	338	498	.....	.....	2,637	26.7
Meningitis (Meningococcal).....	1	1	.....	4	2	.....	.....	.....	8	2	2	3	.....	.....	15	.....
Mumps.....	139	80	150	1,911	212	36	94	154	2,776	382	179	279	.....	.....	3,616	36.7
Polomyelitis.....	17	.....	5	51	22	.....	.....	.....	95	39	75	66	.....	.....	275	2.7
Ringworm.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8	.....
Rubella.....	2	.....	.....	158	23	.....	.....	.....	183	3	17	4	.....	.....	207	2.1
Scabies.....	2	2	20	.....	1	.....	.....	.....	25	8	18	59	.....	2	112	1.1
Scarlet Fever.....	.....	4	3	13	47	.....	1	1	69	4	7	18	.....	.....	98	.9
Septic Sore Throat.....	.....	.....	.....	2	4	.....	.....	.....	6	.....	.....	.....	.....	.....	7	.....
Trachoma.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
Tuberculosis.....	9	7	5	40	44	4	1	4	114	51	59	259	49	.....	532	5.4
Typhoid & Paratyphoid.....	.....	.....	.....	1	1	.....	.....	.....	2	4	4	14	.....	.....	20	.2
Typhoid Carrier.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
Undulant Fever.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1	1	1	.....	.....	5	.....
Vincent's Angina.....	.....	.....	.....	.....	4	.....	1	.....	5	.....	.....	17	.....	.....	23	.....
Whooping Cough.....	52	19	7	129	4	2	.....	7	220	5	4	10	.....	.....	239	2.4
TOTALS.....	531	180	392	3,430	1,559	87	263	213	(6,655)	920	848	1,368	61	5	9,857	
Percentage of total cases by location.....	5.4	1.9	4.0	34.8	15.7	.9	2.6	2.2	(67.5)	9.3	8.6	13.9	.6	.05		

TABLE XI (A)—MORBIDITY AND MORTALITY CERTAIN COMMUNICABLE DISEASES,
1905-1947.

Period	Popula- tion	Diphtheria					Scarlet Fever				
		Cases	Deaths	Deaths per 100 Cases Re- ported	Rate Per 100,000 Population		Cases	Deaths	Deaths per 100 Cases Re- ported	Rate Per 100,000 Population	
					Cases	Deaths				Cases	Deaths
1905.....	250,000	....	23	....	....	9.2	....	14	....	....	5.6
1906.....	257,763	202	52	25.7	78.0	20.0	98	21	21.4	38.0	8.1
1907.....	304,230	....	55	....	....	18.0	....	12	....	....	3.9
1908.....	350,607	210	54	25.7	59.9	15.4	91	5	5.5	25.9	1.3
1909.....	397,000	201	31	15.4	50.6	7.8	14	22	....	....	7.8
5-Years Totals		613	215				203	74			
1910.....	443,397	143	28	19.6	32.3	6.3	323	15	4.6	72.9	3.4
1911.....	492,432	289	58	20.1	58.5	11.8	474	57	12.0	96.3	11.8
1912.....	523,512	402	49	12.2	76.8	9.3	561	58	10.3	107.2	11.0
1913.....	554,592	312	52	16.6	56.3	9.4	1,300	82	6.3	234.5	14.8
1914.....	585,672	602	42	7.0	102.8	5.6	1,031	25	2.4	176.0	3.3
5-Year Totals		1,748	229				3,689	237			
1915.....	616,252	449	29	6.5	72.8	3.8	149	2	1.3	24.2	0.2
1916.....	647,835	276	44	15.9	42.6	6.1	296	9	3.0	45.7	1.2
1917.....	669,770	1,005	101	10.0	150.0	14.1	317	25	7.9	47.3	3.7
1918.....	691,705	776	74	9.5	112.2	10.4	219	11	5.0	31.7	1.5
1919.....	713,640	278	79	28.4	38.9	9.5	172	19	11.0	24.1	2.3
5-Year Totals		2,784	327				1,153	66			
1920.....	735,570	486	91	18.7	66.1	11.0	940	53	5.6	127.8	6.4
1921.....	757,510	960	159	16.7	126.7	22.8	1,743	87	5.0	230.1	11.4
1922.....	785,508	1,058	202	19.1	134.7	25.7	1,245	71	5.7	158.5	9.0
1923.....	814,000	1,133	204	18.0	139.8	25.1	979	41	4.2	120.8	5.5
1924.....	815,000	1,015	210	20.7	124.5	25.8	920	37	4.0	112.8	4.5
5-Year Totals		4,652	866				5,827	289			
1925.....	833,000	581	127	21.8	69.7	15.2	713	23	3.2	85.6	2.8
1926.....	821,042	470	116	24.8	57.0	14.4	822	23	2.8	100.0	2.8
1927.....	836,000	369	63	17.1	44.1	7.5	1,013	28	2.7	121.2	3.3
1928.....	851,000	464	82	17.6	53.9	9.6	1,057	22	2.1	122.7	2.5
1929.....	866,700	465	92	19.8	53.6	10.6	1,077	43	4.0	124.2	5.0
5-Year Totals		2,349	480				4,682	139			
1930.....	882,000	300	69	23.0	30.0	7.9	683	10	1.5	77.4	1.1
1931.....	921,281	306	39	12.7	33.2	4.2	543	15	2.8	58.9	1.6
1932.....	933,000	194	40	20.6	20.8	4.3	352	6	1.7	37.7	0.6
1933.....	951,000	132	18	13.6	13.7	1.9	491	12	2.4	51.6	1.3
1934.....	966,000	211	22	10.4	22.9	2.3	525	5	.9	54.3	0.5
5-Year Totals		1,143	183				2,594	48			
1935.....	978,000	131	16	12.1	13.4	1.6	558	10	.2	57.1	1.0
1936.....	931,000	117	11	9.4	12.7	1.2	980	16	1.6	105.3	1.7
1937.....	939,000	72	10	13.9	7.7	1.1	1,648	16	.9	175.6	1.7
1938.....	941,000	256	28	10.9	27.2	3.0	1,479	12	.8	157.2	1.3
1939.....	949,000	261	36	13.8	27.5	3.8	716	12	1.7	75.5	1.3
5-Year Totals		837	101				5,381	66			
1940.....	930,000	131	24	18.3	14.1	2.6	470	9	1.9	50.5	1.0
1941.....	896,000	137	12	8.8	15.3	1.3	522	7	1.3	58.3	0.8
1942.....	906,000	96	7	7.3	10.6	0.8	1,369	13	.9	151.1	1.4
1943.....	842,000	41	7	17.1	4.9	0.8	1,323	8	.6	157.1	1.0
1944.....	846,000	92	15	16.3	10.9	1.7	684	2	.3	80.9	0.2
5-Year Totals		497	65				4,368	39			
40-Year Totals		14,623	2,471				27,897	958			
1945.....	845,000	74	11	14.8	8.7	1.3	331	1	.3	39.4	.1
1946.....	832,700	54	6	11.1	6.5	.7	142	2	2.1	17.0	.2
1947.....	842,000	46	10	21.7	5.5	1.2	98	....	....	11.6	....
TOTALS		14,797	2,498				28,468	961			

TABLE XI (B)—MORBIDITY AND MORTALITY CERTAIN COMMUNICABLE DISEASES,
1905-1947.

Period	Popula- tion	Smallpox					Whooping Cough				
		Cases	Deaths	Deaths per 100 Cases Re- ported	Rate Per 100,000 Population		Cases	Deaths	Deaths per 100 Cases Re- ported	Rate Per 100,000 Population	
					Cases	Deaths				Cases	Deaths
1905.....	250,000	.....	.....	.....	.....	.....	.....	4	.....	.....	1.6
1906.....	257,763	28	.....	.....	10.8	.....	.....	20	.....	.....	7.7
1907.....	304,230	.....	.....	.....	.....	.....	.....	18	.....	.....	5.8
1908.....	350,607	103	1	.9	29.4	0.3	.....	25	.....	.....	7.1
1909.....	397,000	.....	.....	.....	.....	.....	.....	27	.....	.....	6.8
5-Year Totals		131	1					94			
1910.....	443,397	17	.....	.....	3.8	.....	1	24	.....	.....	5.4
1911.....	492,432	125	.....	.....	25.4	.....	33	31	.....	6.5	6.3
1912.....	523,512	327	1	.3	62.5	0.2	153	64	41.8	29.2	12.2
1913.....	554,592	598	4	.7	107.8	0.7	304	46	15.1	54.8	8.3
1914.....	585,672	392	2	.5	66.9	0.2	241	27	11.2	41.1	3.6
5-Year Totals		1,459	7				732	192			
1915.....	616,252	49	2	4.1	7.9	0.2	339	41	12.1	54.8	5.4
1916.....	647,835	6	.....	.....	.9	.....	1,092	93	8.5	168.6	13.0
1917.....	669,770	120	.....	.....	17.9	.....	334	60	25.6	34.9	8.5
1918.....	691,705	97	1	.1	14.0	0.1	556	78	14.0	80.4	10.9
1919.....	713,640	141	1	.7	19.8	0.1	166	58	34.9	23.3	7.0
5-Year Totals		413	4				2,487	330			
1920.....	735,570	390	.....	.....	39.4	.....	705	128	18.1	94.5	15.5
1921.....	757,510	961	8	.8	126.9	1.0	574	58	10.1	75.8	7.6
1922.....	785,508	266	.....	.....	33.1	.....	471	28	6.0	59.9	3.5
1923.....	814,000	154	2	.....	19.0	0.2	509	75	14.7	62.8	9.2
1924.....	815,000	234	4	1.7	28.7	0.5	667	81	12.1	81.8	10.0
5-Year Totals		2,005	14				2,926	370			
1925.....	833,000	62	.....	.....	7.6	.....	860	66	7.6	103.1	7.9
1926.....	821,042	337	1	.3	41.0	.1	538	108	20.1	65.5	13.1
1927.....	836,000	340	1	1.3	40.6	.1	349	46	13.0	41.7	5.5
1928.....	851,000	503	1	0.2	58.4	0.1	362	47	13.0	42.0	5.5
1929.....	866,700	382	3	.8	44.0	0.3	1,070	58	5.4	123.4	6.7
5-Year Totals		1,624	6				2,179	325			
1930.....	882,000	375	.....	.....	42.5	.....	689	54	7.8	78.1	6.1
1931.....	921,281	568	.....	.....	61.6	.....	502	54	10.8	54.5	5.9
1932.....	933,000	163	1	.61	17.2	.1	701	40	5.7	75.1	4.3
1933.....	951,000	74	1	1.32	7.7	.1	849	34	4.0	89.2	3.6
1934.....	966,000	4	.....	.....	.4	.....	1,289	68	5.3	133.4	7.0
5-Year Totals		1,184	2				4,030	250			
1935.....	978,000	12	2	16.7	1.2	.2	2,204	90	4.1	225.3	9.2
1936.....	931,000	3	.....	.....	.3	.....	985	50	5.1	105.8	5.4
1937.....	939,000	3	.....	.....	.3	.....	904	47	5.2	96.3	5.0
1938.....	941,000	47	2	4.2	5.0	.2	178	18	10.1	18.9	1.9
1939.....	949,000	31	.....	.....	3.3	.....	1,257	48	3.8	132.5	5.1
5-Year Totals		96	4				5,528	253			
1940.....	930,000	11	.....	.....	1.9	.....	1,449	65	4.5	155.8	7.0
1941.....	896,000	25	.....	.....	2.8	.....	399	20	5.0	44.5	2.2
1942.....	906,000	5	.....	.....	.6	.....	225	29	12.8	24.8	3.2
1943.....	842,000	4	.....	.....	.5	.....	959	21	2.2	113.9	2.5
1944.....	846,000	.....	.....	.....	.....	.....	468	29	6.2	55.2	3.4
5-Year Totals		45					3,500	164			
40-Year Totals		6,957	38				22,382	1,978			
1945.....	845,000	5	.....	.....	.6	.....	164	9	5.5	19.6	1.1
1946.....	832,700	2	.....	.....	.2	.....	104	2	1.8	12.5	.2
1947.....	842,000	.....	.....	.....	.....	.....	239	3	1.2	28.4	.4
TOTALS		6,964	38				22,889	1,992			

TABLE XI (C)—MORBIDITY AND MORTALITY CERTAIN COMMUNICABLE DISEASES,
1905-1947.

Period	Population	Measles					Mumps			
		Cases	Deaths	Deaths per 100 Cases Reported	Rate Per 100,000 Population		Cases	Deaths	Rate Per 100,000 Population	
					Cases	Deaths			Cases	Deaths
1905.....	250,000	....	6	....	....	2.4	....	....	....	....
1906.....	257,763	274	12	4.4	106.0	4.6	....	....	....	....
1907.....	304,230	....	6	....	....	1.9	....	....	....	....
1908.....	350,607	254	11	4.3	72.4	3.1	....	....	....	....
1909.....	397,000	226	11	4.9	56.9	2.8	....	....	....	....
5-Year Totals		754	46							
1910.....	443,397	424	19	4.5	95.6	4.3	....	....	....	....
1911.....	492,432	421	16	4.0	85.5	3.3	66	....	8.4	....
1912.....	523,512	1,188	50	.4	226.7	9.5	257	....	52.1	....
1913.....	554,592	1,613	27	1.7	290.8	4.9	132	....	23.8	....
1914.....	585,672	837	7	.8	142.9	0.9	172	....	29.4	....
5-Year Totals		4,483	119				627			
1915.....	616,252	1,293	5	.4	209.8	0.6	125	....	20.3	....
1916.....	647,835	4,419	105	2.4	680.6	14.6	96	....	14.8	....
1917.....	669,770	2,457	36	1.5	366.8	5.0	834	....	124.5	....
1918.....	691,705	2,091	38	1.8	302.3	5.3	265	....	38.3	....
1919.....	713,640	565	14	2.5	79.2	1.6	256	....	35.9	....
5-Year Totals		15,825	198				1,576			
1920.....	735,570	2,567	32	1.2	348.1	3.9	822	....	111.8	....
1921.....	757,510	1,850	61	3.3	244.2	8.0	1,455	....	192.1	....
1922.....	785,508	1,897	18	.9	241.5	2.2	1,346	....	177.7	....
1923.....	814,000	4,216	66	1.5	520.2	8.1	351	....	43.3	....
1924.....	815,000	1,507	49	3.2	183.6	6.1	34	1	4.1	.1
5-Year Totals		12,037	226				4,008	1		
1925.....	833,000	1,919	15	.8	223.0	1.8	588	....	71.8	....
1926.....	821,042	6,139	118	1.9	746.9	14.4	1,399	2	171.0	.2
1927.....	836,000	714	12	1.7	85.4	1.4	2,124	3	254.0	.4
1928.....	851,000	1,995	21	1.05	231.7	2.5	1,553	....	180.4	....
1929.....	866,700	2,395	28	1.17	276.2	3.2	673	....	77.6	....
5-Year Totals		13,162	194				6,337	5		
1930.....	882,000	1,249	8	1.4	141.6	0.9	427	2	48.4	.2
1931.....	921,281	3,294	17	.5	357.5	1.8	895	....	97.1	....
1932.....	933,000	935	17	1.8	100.2	1.8	404	....	43.3	....
1933.....	951,000	554	5	.9	58.2	.5	375	....	39.4	....
1934.....	966,000	3,872	16	.4	400.8	1.7	241	....	24.9	....
5-Year Totals		9,904	63				2,342	2		
1935.....	978,000	6,124	34	.6	626.2	3.5	6,695	....	719.1	....
1936.....	931,000	5,309	39	.7	569.2	4.2	2,966	....	317.9	....
1937.....	939,000	7,078	252	3.6	753.8	26.8	406	....	43.2	....
1938.....	941,000	412	19	4.6	43.8	2.0	132	....	14.0	....
1939.....	949,000	261	6	2.3	27.50	.6	144	....	15.17	....
5-Year Totals		15,184	350				10,343			
1940.....	930,000	6,180	14	.2	664.5	1.5	904	....	97.2	....
1941.....	896,000	5,003	31	.6	558.4	3.5	1,460	....	162.9	....
1942.....	906,000	1,590	15	.9	175.5	1.7	5,714	3	630.7	.3
1943.....	842,000	4,345	26	.6	516.0	3.1	2,151	3	255.5	.4
1944.....	846,000	2,384	23	.9	281.8	2.7	469	....	55.4	....
5-Year Totals		19,502	109				10,698	6		
40-Year Total		89,851	1,305				35,931	14		
1945.....	845,000	1,226	6	.49	145.1	.7	951	1	112.5	.1
1946.....	832,700	4,235	56	1.3	508.6	6.7	2,386	....	286.4	....
1947.....	842,000	2,637	15	.6	312.7	1.8	3,616	2	429.5	.2
TOTALS		97,949	1,382				42,284	17		

TABLE XI (D)—MORBIDITY AND MORTALITY CERTAIN COMMUNICABLE DISEASES,
1905-1947.

Period	Popula- tion	Tuberculosis					Typhoid and Paratyphoid Fevers				
		Cases	Deaths	Deaths per 100 Cases Re- ported	Rate Per 100,000 Population		Cases	Deaths	Deaths per 100 Cases Re- ported	Rate Per 100,000 Population	
					Cases	Deaths				Cases	Deaths
1905.....	250,000	....	67	....	....	26.8	....	30	....	....	12.0
1906.....	257,763	15	73	....	....	28.3	....	383	120	31.0	148.2
1907.....	304,230	87	97	....	....	31.9	....	....	54	....	17.7
1908.....	350,607	64	129	....	....	36.8	....	297	77	25.9	84.4
1909.....	397,000	....	159	....	....	40.0	....	831	95	11.4	209.3
5-Year Totals		166	525					1,511	376		
1910.....	443,397	35	125	....	....	28.0	....	587	151	25.7	132.4
1911.....	492,432	68	184	....	....	37.4	....	453	162	35.8	92.0
1912.....	523,512	54	202	....	....	38.6	....	548	153	27.9	104.7
1913.....	554,592	63	269	....	....	48.6	....	1,101	117	10.6	198.5
1914.....	585,672	370	265	....	....	38.1	....	875	92	10.5	149.4
5-Year Totals		590	1,945					3,564	675		
1915.....	616,252	131	298	....	....	39.6	....	566	67	11.8	91.8
1916.....	647,835	103	325	....	....	45.7	....	222	61	27.5	34.3
1917.....	669,770	106	295	....	....	49.2	....	237	54	22.8	35.4
1918.....	691,705	91	394	....	....	55.0	....	209	48	23.0	30.2
1919.....	713,640	55	276	....	....	38.9	....	321	72	22.4	45.1
5-Year Totals		486	1,588					1,555	302		
1920.....	735,570	64	348	....	....	42.0	....	387	80	20.7	52.6
1921.....	757,510	61	311	....	....	40.6	....	183	62	33.9	24.2
1922.....	785,508	52	330	....	....	41.6	....	249	71	28.5	31.6
1923.....	814,000	72	332	....	....	40.9	....	151	63	41.7	31.6
1924.....	815,000	102	363	....	....	44.5	....	83	37	44.5	10.2
5-Year Totals		351	1,684					1,053	313		
1925.....	833,000	52	343	....	....	41.3	....	223	39	17.5	28.1
1926.....	821,042	57	382	....	....	46.5	....	115	30	26.5	13.7
1927.....	836,000	51	391	....	....	46.8	....	91	21	20.0	10.9
1928.....	851,000	42	374	....	....	43.4	....	81	21	26.0	9.4
1929.....	866,700	123	374	....	....	42.3	....	60	23	38.3	6.9
5-Year Totals		325	1,864					570	134		
1930.....	882,000	179	407	....	....	46.1	....	98	29	29.6	11.1
1931.....	921,281	261	326	....	....	35.4	....	88	25	28.4	9.5
1932.....	933,000	678	281	41.1	72.6	30.1	....	98	24	22.4	10.5
1933.....	951,000	649	297	45.8	68.2	31.2	....	63	19	30.2	6.6
1934.....	966,000	589	293	49.6	60.9	30.3	....	91	24	26.4	9.4
5-Year Totals		2,356	1,604					438	121		
1935.....	978,000	527	272	51.6	53.9	29.2	....	69	14	29.3	6.9
1936.....	931,000	537	279	51.9	57.7	30.0	....	136	23	16.9	14.6
1937.....	939,000	502	303	60.3	53.5	32.3	....	204	36	17.7	21.7
1938.....	941,000	525	271	44.4	55.8	28.8	....	74	8	10.8	7.9
1939.....	949,000	494	233	47.4	52.0	24.6	....	75	10	13.3	7.9
5-Year Totals		2,585	1,358					558	91		
1940.....	930,000	427	241	56.4	45.9	25.9	....	76	17	22.4	8.2
1941.....	896,000	485	284	58.6	54.1	31.7	....	173	12	6.9	19.3
1942.....	906,000	525	251	46.1	57.9	27.7	....	38	2	5.3	4.2
1943.....	842,000	503	250	49.7	59.4	29.7	....	14	1	7.1	1.7
1944.....	846,000	508	223	43.9	59.9	26.4	....	18	7	38.8	2.1
5-Year Totals		2,448	1,249					319	39		
40-Year Totals		9,307	10,917					9,568	2,051		
1945.....	845,000	614	222	36.1	72.7	26.3	....	21	5	23.8	2.5
1946.....	832,700	657	223	33.9	78.9	26.8	....	30	6	20.0	3.6
1947.....	842,000	532	231	43.4	63.2	27.4	....	20	1	5.0	2.4
TOTALS		11,110	11,593					9,639	2,063		

TABLE XI (E)—MORBIDITY AND MORTALITY CERTAIN COMMUNICABLE DISEASES,
1905-1947.

Period	Popu- lation	Influenza			Chickenpox			
		Cases	Deaths	Rate Per 100,000 Population Deaths Only	Cases	Deaths	Rate Per 100,000 Population	
							Cases	Deaths
1905.....	250,000	....	9	3.6	....	....	....	....
1906.....	257,763	....	2	.8	....	....	....	....
1907.....	304,230	....	11	3.6	....	....	....	....
1908.....	350,607	....	5	1.4	....	....	....	....
1909.....	397,000	....	7	1.8	....	....	....	....
5-Year Totals			34					
1910.....	443,397	....	2	.5	....	....	....	....
1911.....	492,432	....	....	....	....	....	....	....
1912.....	523,512	....	....	....	....	....	....	....
1913.....	554,592	....	....	....	179	....	32.3	....
1914.....	585,672	....	14	1.8	685	....	116.9	....
5-Year Totals			16		864			
1915.....	616,252	....	27	3.6	970	....	157.4	....
1916.....	647,835	....	95	13.2	581	....	89.7	....
1917.....	669,770	....	42	6.0	801	....	119.6	....
1918.....	691,705	....	4,916	546.1	701	....	101.3	....
1919.....	713,640	....	1,010	....	632	....	88.6	....
5-Year Totals			6,090		3,685			
1920.....	735,570	....	479	57.9	1,064	....	144.6	....
1921.....	757,510	....	58	7.6	1,181	....	142.7	....
1922.....	785,508	115	259	32.8	782	....	99.5	....
1923.....	814,000	247	298	36.7	935	....	115.3	....
1924.....	815,000	97	330	40.5	1,110	1	136.2	.1
5-Year Totals		459	1,424		5,072	1		
1925.....	833,000	15	....	....	946	....	113.5	....
1926.....	821,042	17	....	....	1,457	1	176.3	.1
1927.....	836,000	45	340	40.7	1,249	....	149.4	....
1928.....	851,000	373	353	41.0	1,054	....	....	....
1929.....	866,700	281	439	50.6	1,751	....	....	....
5-Year Totals		731	1,132		6,457	1		
1930.....	882,000	13	158	27.9	1,575	....	178.6	....
1931.....	921,281	299	251	27.2	1,265	1	137.3	.1
1932.....	933,000	168	261	28.0	1,169	4	125.3	.4
1933.....	951,000	506	318	33.4	1,386	1	145.7	.1
1934.....	966,000	35	145	15.0	2,307	1	238.8	.1
5-Year Totals		1,021	1,133		7,702	7		
1935.....	978,000	10	168	18.1	1,737	....	177.7	....
1936.....	931,000	815	282	30.3	2,134	....	229.2	....
1937.....	939,000	2,184	404	43.0	1,968	3	209.6	.3
1938.....	941,000	14	154	16.4	1,667	5	177.2	.5
1939.....	949,000	242	199	21.0	1,517	....	159.8	....
5-Year Totals		3,265	1,207		9,023	8		
1940.....	930,000	204	247	26.6	1,783	1	191.7	.1
1941.....	906,000	179	219	24.5	1,816	....	202.7	....
1942.....	906,000	132	84	9.3	1,890	2	208.6	.2
1943.....	842,000	269	171	20.3	2,113	....	251.0	....
1944.....	846,000	248	161	19.0	1,590	....	187.9	....
5-Year Totals		1,032	882		9,192	3		
40-Year Totals		6,508	11,918		41,995	20		
1945.....	845,000	36	68	.8	1,677	....	198.5	....
1946.....	832,700	19	86	10.3	1,445	1	173.4	.1
1947.....	842,000	17	77	9.1	1,764	1	209.9	.1
TOTALS		6,580	12,149		46,881	22		

TABLE XI (F)—MORBIDITY AND MORTALITY CERTAIN COMMUNICABLE DISEASES,
1905-1947.

Period	Population	Poliomyelitis					Encephalitis		
		Cases	Deaths	Deaths Per 100 Cases Re- ported	Rate Per 100,000 Population		Cases	Deaths	Rate Per 100,000 Population Deaths Only
					Cases	Deaths			
1905.....	250,000	....	....	....	....	....	....	....
1906.....	257,763	....	....	....	....	....	....	....
1907.....	304,230	....	....	....	....	....	....	....
1908.....	350,607	....	....	....	....	....	....	....
1909.....	397,000	....	....	....	....	....	....	....
5-Year Totals									
1910.....	443,397	3	....	....	.7	....	....	....
1911.....	492,432	3	....	....	.7	....	....	....
1912.....	523,512	18	....	....	3.4	....	....	....
1913.....	554,592	5	....	....	.9	....	....	....
1914.....	585,672	11	....	....	1.9	....	....	....
5-Year Totals		40							
1915.....	616,252	1	....	....	....	....	....	....
1916.....	647,835	80	15	18.7	12.3	2.0	....	....
1917.....	669,770	10	6	60.0	1.5	.9	....	....
1918.....	691,705	17	....	....	2.4	....	....	....
1919.....	713,640	6	3	50.0	.8	.3	....	....
5-Year Totals		114	24						
1920.....	735,570	11	4	36.4	1.5	.4	....	....
1921.....	757,510	9	4	44.4	1.1	.5	....	....
1922.....	785,508	4	2	50.0	.5	.2	....	....
1923.....	814,000	4	5	....	.4	.6	....	....
1924.....	815,000	28	13	46.4	3.4	1.6	....	....
5-Year Totals		56	28						
1925.....	833,000	38	....	....	4.6	....	....	....
1926.....	821,042	3	6	....	....	.7	....	....
1927.....	836,000	8	8	....	....	.9	....	....
1928.....	851,000	26	12	46.0	3.3	1.4	....	....
1929.....	866,700	59	4	3.4	6.6	.4	....	....
5-Year Totals		134	30						
1930.....	882,000	70	21	30.0	7.9	2.4	....	....
1931.....	921,281	6	11	....	.7	1.2	....	....
1932.....	933,000	6	6	....	.7	.6	....	....
1933.....	951,000	29	8	27.6	3.0	.8	4	....
1934.....	966,000	14	10	71.4	1.5	1.0	....	4
5-Year Totals		125	56				4	4	
1935.....	978,000	22	5	22.7	2.3	.5	....	....
1936.....	931,000	89	9	10.1	9.6	1.0	1	....
1937.....	939,000	512	22	4.3	54.5	2.3	....	....
1938.....	941,000	30	7	23.3	3.2	.7	3	....
1939.....	949,000	16	1	6.2	1.7	.1	4	....
5-Year Totals		669	44				8		
1940.....	930,000	9	2	22.2	1.0	.2	....	....
1941.....	896,000	56	3	5.3	6.2	.3	543	44	
1942.....	906,000	15	3	20.0	1.6	.3	19	8	
1943.....	842,000	37	3	8.1	4.4	.4	7	6	
1944.....	846,000	17	1	5.9	2.1	.1	2	7	
5-Year Totals		134	12				571	65	
40-Year Totals		1,272	194				583	69	
1945.....	845,000	19	3	15.8	2.2	.4	2	3	
1946.....	832,700	38	3	8.0	4.6	.4	5	5	
1947.....	842,000	275	12	4.4	33.2	1.4	68	....
TOTALS		1,604	212				658	9	

Exclusive of Encephalitis lethargica.

TABLE XII—VACCINES AND

PRODUCT		1917 - 1942		1943		1944	
		Quantity	Cost	Quantity	Cost	Quantity	Cost
Diphtheria Antitoxin ..	Units	1,080,735,000	\$144,192.06	13,093,000	\$ 1,758.22	19,100,000	\$ 2,409.20
Diphtheria Schick Test	Persons	197,370	2,006.40	15,225	152.25	26,975	269.75
Diphtheria Toxoid.....	Persons	567,562	80,584.65	33,803	5,838.67	30,871	5,447.51
Diphtheria Toxoid & Pertussis Vaccine (Combined)	Persons	.....	.....	6,069	3,883.00	27,184	14,281.15
Diph. Txd., Pert. Vacc. & Tetanus Txd. (Combined)	Persons	.....	.....	.....	.....	.....	.....
Pertussis Vaccine.....	Persons	39,833	14,767.11	12,209	6,104.50	11,717	4,407.55
Tetanus Toxoid.....	Persons	.....	.....	.....	.....	.....	.....
Smallpox Vaccine.....	Persons	892,406	40,053.93	46,685	2,084.63	53,590	2,411.55
Typhoid Vaccine.....	Persons	104,762	8,637.42	1,965	309.65	2,633	395.05
Typhoid-Paratyphoid Vaccine.....	Persons	16,463	1,718.12	1,822	216.30	3,314	385.35
Anti-Meningococcus Serum.....	c.c.	68,780	4,383.25	3,020	188.75	1,060	66.25
Tetanus Antitoxin.....	Units	24,911,000	7,118.67	2,661,500	497.14	2,860,000	531.85
Scarlet Fever Antitoxin	c.c.	175,245)	.....	.....	.....	.....	.....
Scarlet Fever Antitoxin	Units	73,055,000)	54,085.40	9,696,000	2,797.00	8,658,000	2,495.50
Scarlet Fever Toxin	Persons	233,956	49,602.45	42,361	8,881.12	49,323	10,454.28
Scarlet Fever Toxin-Reinforcing doses.....	Persons	.....	.....	.....	.....	.....	.....
Scarlet Fever Dick test	Persons	135,445	4,094.90	9,040	452.00	9,335	466.75
Anti-Dysenteric Serum	c.c.	2,100	280.35	.....	.....	.....	.....
Anti-Anthrax Serum.....	c.c.	4,100	152.50	.....	.....	100	5.00
Poliomyelitis.....	Doses	1,293	2,934.00	12	27.00	.....	.....
Encephalomyelitis Antiserum.....	Doses	627	43.60	6	.....	16	.....
Rabies Vaccine.....	Doses	2	12.00	.....	.....	.....	.....
T.A.B.T. Vaccine.....	Persons	.....	.....	.....	.....	.....	.....
Anti-Measles Serum.....	Persons	.....	.....	.....	.....	.....	.....
Cholera Vaccine.....	Persons	.....	.....	.....	.....	.....	.....
Typhus Vaccine.....	Persons	.....	.....	.....	.....	.....	.....
Yellow Fever Vaccine ..	Persons (20)	.....	.....	.....	.....	.....	.....
COSTS			\$414,666.81		\$ 33,190.23		\$ 44,026.74

SERA ISSUED, 1917-1947

1945		1946		1947		Total	
Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost
21,224,000	\$ 2,568.96	22,733,000	\$ 2,746.22	19,169,000	\$ 2,314.46	1,176,054,000	\$155,989.12
20,850	208.50	30,150	301.50	44,600	446.00	305,020	3,384.40
17,081	3,208.51	17,919	3,453.39	16,695	3,333.47	683,931	101,866.20
24,087	12,476.85	32,580	17,231.85	38,299	18,684.10	128,219	66,556.95
7,813	2,649.19	7,788	2,623.39	494	223.60	494	223.60
42,420	1,908.90	282	54.90	7,222	2,495.52	86,582	33,047.26
1,856	275.20	68,020	3,060.90	379	101.85	661	156.75
1,800	271.20	1,883	321.05	69,550	3,129.75	1,172,671	52,649.66
3,851,500	718.59	2,216	356.30	2,400	347.30	115,499	10,285.67
8,031,000	2,328.75	5,273,500	982.51	2,453	384.15	28,068	3,331.42
32,139	6,861.44	7,368,000	2,131.00	5,864,500	1,177.67	72,860	4,638.25
2,097	84.24	36,450	7,959.16	4,845,000	1,388.75	45,422,000	11,026.43
10,720	362.00	15,440	386.00	46,124	9,782.32	175,245	65,226.40
106	29.90	1	6.00	200	24.24	111,653,000	93,540.77
127	127.00	334	74.55	700	198.60	440,353	196.40
5	1.50	2,310	2,310.00	1,906	1,906.00	4,817	6,306.65
10	3.30	35	10.50	77	23.10	203,430	280.35
6	.....	14	4.62	48	15.84	2,100	280.35
						4,400	181.74
						1,305	2,961.00
						649	43.60
						3	18.00
						1,140	303.05
						4,343	4,343.00
						117	35.10
						72	23.76
						6	.....
	\$ 34,084.03		\$ 44,041.20		\$ 46,606.52		\$616,615.53

DIVISION OF VENEREAL DISEASE CONTROL

REGINA, SASKATCHEWAN

DR. C. F. W. HAMES,
Deputy Minister of Public Health,
Regina, Saskatchewan.

SIR:

The Division of Venereal Disease Control, continued its fight against the spread of Venereal Disease in this province during 1947, and is able to report a marked decrease in the number of reported cases.

Venereal Disease incidence in the Dominion, during the first nine months of 1946, was reported as 32,064 cases, while for the same period in 1947, 25,437 cases were reported according to Dominion statistics.

Indications are therefore, that a decrease in cases reported, will be shown for the whole of 1947, in the Dominion.

The number of reported cases per annum in Saskatchewan for 1943-47 is shown in attached table No. 4.

EPIDEMIOLOGY

As stated heretofore, the number of reported cases of Venereal Disease in Saskatchewan decreased in 1947, there being 1,784 cases, whereas in 1946, there were 2,769 cases.

It is felt that the decrease is due in some measure, to the co-operation of physicians and other agencies in the reporting of sources and contacts, the information supplied enabling these sources and contacts to be located and placed under medical care where indicated, thus preventing further spread of their venereal infection.

The decrease is considered to be also due to the more efficient and rapid methods of treatment that have evolved.

Total number of physicians reporting Venereal Disease cases in this province during 1946 was 267, and in 1947, 246 doctors reported. Therefore, during 1946 case to doctor ratio was 10.4, while in 1947 the ratio was 7.2, thus showing more doctors are taking an active interest in the V.D. Control program.

On contact information supplied by physicians, 445 contacts were located and of these 64 were found to have syphilis and 189, gonorrhoea. This would again point to good co-operation on the part of the private practitioner.

On information supplied by clinics and other agencies, 696 contacts were located, and of these 78 were diagnosed as having syphilis, and 304, gonorrhoea. This emphasizes the fact that our V.D. Clinic staffs, etc., are doing a worthwhile job in seeking out contacts to the cases which are under their supervision.

This is a total case finding by the Division of 142 syphilis and 493 gonorrhoea cases, the remainder of the located contacts being found to have either a non-specific infection, or had negative findings.

This information will be found in attached table No. 5.

In connection with Epidemiological investigations, 5,488 letters and forms were dispatched by this Division in 1947.

As a further effort to minimize the spread of Venereal Disease, a number of transients considered to be in an infectious state, have been provided with emergency hospitalization.

DRUGS

The policy of issuing free drugs to physicians, etc., for reported cases of Venereal Disease, was continued in 1947, with a more extensive use of Penicillin in Oil and Wax being noted. There was also a larger amount of arsenical and bismuth preparations, issued.

Ten thousand, three hundred and eight (10,308) doses of arsenicals were sent to physicians, clinics and institutions, and 13,740 doses of bismuth were distributed in the same manner during 1947, while during 1946, 8,330 arsenicals and 10,728 bismuth doses were issued.

Although less ordinary penicillin was issued in 1947, a much larger quantity of Penicillin in Oil and Wax was dispatched, this latter product being sought by the private physician for those gonorrhoea patients unable to make the repeated visits necessary in the administration of the ordinary penicillin.

Comparative Drug issuance is shown on attached table No. 7.

EDUCATION

During 1947, consultative service was supplied to physicians requesting same, the demand for this service being sustained steadily.

In this connection, 333 letters were dispatched to private physicians, dealing with diagnostic and treatment problems, in response to inquiries received.

Many telephone inquiries were also received and answered in connection with the above-mentioned subjects.

Numerous requests for information concerning premarital examination and the serological findings of the persons concerned, have been received and replied to.

The Health Certificate was waived in connection with the marriage of seven couples with the permission of the Minister of Public Health.

An evaluation of serological tests performed in an eight month period and a breakdown of the total number of premarital tests performed will be found in the attached table No. 10.

The regular issuance of bulletins has again been a feature of our program, these bulletins dealing with technical aspects of Venereal Disease, diagnosis and treatment, and judging by the comments received from private physicians, are looked upon with favour.

During 1947, courses of instruction were again given by the Director, to the student nurses at both Regina Hospitals, with examination being held at the completion of the course, this being part of their academic training.

These courses consisted of lectures, implemented by charts and films.

Many requests for information and literature concerning Venereal Disease have been received during 1947 from the laity, and with the co-operation of the Division of Health Education, have been filled.

These continued requests for information would indicate interest on the part of the general public, in the vital subject of Venereal Disease.

EDUCATION — SCHOOLS

An additional supply of the "V.D. Manual for Teachers" was purchased in 1947, through our Education Grant, and are being distributed by the Division of Health Education.

There have also been requests for V.D. information and literature from members of the teaching profession, which have been filled.

ORGANIZATION

During 1947, arrangements were made to provide facilities for free diagnosis and treatment of Venereal Disease in Health Region No. 14 at Meadow Lake, with the co-operation of the Regional Health Services Division.

Tentative arrangements are under way to provide this service in other Health Regions.

Liaison has been established with all the Regions and routine procedure set up regarding case reporting, contact follow up, and the issuance of drugs for reported cases of Venereal Disease, to physicians in Health Regions.

During 1947, V.D. Clinics in the province were visited periodically and all four clinics have now the same standard of records and office procedure.

REHABILITATION

An important additional service was inaugurated during 1947, in connection with the rehabilitation of habitually promiscuous persons suffering from Venereal Disease.

It has been apparent for some time, that such cases are in need of psychiatric care. Supervision and guidance under Social Welfare Agencies is needed to assist them to obtain a more normal and rational way of life.

Such a rehabilitation program is now in effect, and has been made possible by the co-operation of the Commissioner of Mental Services, through the medium of the Mental Health Clinics recently established, and also with the co-operation of the Department of Social Welfare.

Cases discovered by Clinics or private practitioners which are deemed in need of such care are given the benefits of this service.

STATISTICS

The following tables are submitted to support the Annual Report, and are self-explanatory.

- Table 1. Venereal Disease Cases Reported, 1947, by Reporting Agency, Sex, Disease and Stage.
- Table 2. Venereal Disease Cases Reported by Disease, Stage and Age Groups.
- Table 3. Analysis of Venereal Disease Cases, Diagnosed in Clinics.
- Table 4. The Incidence of Venereal Disease in Saskatchewan, Annual Number of Infections Reported, 1943-1947.
- Table 5. Analysis of Contacts Located Through Information Supplied.
- Table 6. Contacts Located and Case Finding, By Agencies.
- Table 7. Comparative Table of Drug Distribution and Cost.
- Table 8. Summary of Facilitation—Major Cities.
- Table 9. Comparative Report of V.D. Clinic Activity.
- Table 10. Evaluation of Serological Tests Performed in Saskatchewan as part of the Premarital Examination, 8 month period, May-December, 1947.

MAIL DISPATCHED

LETTERS AND FORMS

Epidemiology	Diagnosis and Treatment	Drug	Other
5,448	333	696	319
Memos and Cards	Parcels (Literature and Drugs)		
862	803		

H. S. DOYLE, M.D., D.P.H.,

Director,

Division of V.D. Control.

TABLE 4.—THE INCIDENCE OF VENEREAL DISEASE IN SASKATCHEWAN, ANNUAL NUMBER OF INFECTIONS REPORTED, 1943 TO 1947.

Year	Syphilis (All Stages)	Gonorrhoea	Total
1943.....	277	978	1,225
1944.....	362	1,109	1,471
1945.....	409	1,680	2,089
1946.....	646	2,123	2,769
1947.....	472	1,307	1,779

TABLE 5.—EPIDEMIOLOGY—SASKATCHEWAN 1947 ANALYSIS OF CONTACTS LOCATED THROUGH INFORMATION SUPPLIED.

	1946	1947
Information supplied by Physicians		
Located.....	392	445
Syphilis.....	50	64
Gonorrhoea.....	217	189
Non-Specific.....	103	21
Negative.....	22	171
Information supplied by Clinics etc.		
Located.....	1,187	696
Syphilis.....	105	78
Gonorrhoea.....	513	304
Non-Specific.....	100	112
Negative.....	469	201
Chancroid.....	.....	1
Information supplied from Combined Sources		
Located.....	1,579	1,141
Syphilis.....	155	142
Gonorrhoea.....	730	493
Non-Specific.....	203	133
Negative.....	491	372
Chancroid.....	.....	1
New Doctors reporting cases.....	126	67
Total number of Doctors reporting V.D. Cases.....	267	246

TABLE 6.—CONTACTS LOCATED AND CASE FINDING BY AGENCIES SASKATCHEWAN, 1947.

Disease	Public Health Nurse	Doctor	Health Regions	City Medical Health Officers	V.D. Clinics	Army	RCMP	Other Agencies	Total Located
Syphilis.....	7	42	9	13	61	..	1	..	133
Gonorrhoea.....	34	119	32	68	204	3	2	..	462
Negative.....	85	50	48	83	84	1	4	..	355
Non-Specific.....									
Urethritis.....	11	7	11	25	66	..	..	..	120
Other Agencies.....								71	71
Total Located.....	137	218	100	189	415	4	7	71	1,141

TABLE 7
COMPARATIVE TABLE
OF
DRUG DISTRIBUTION AND COST
Saskatchewan, 1946 and 1947

	1946	1947
Arsenicals (Doses)		
Physicians.....	4,664	4,096
Clinics.....	3,648	5,246
Institutions.....	18	966
Totals.....	8,330	10,308
Bismuth (c.c.)		
Physicians.....	6,050	5,250
Clinics.....	4,648	7,740
Institutions.....	30	750
Totals.....	10,728	13,740
Penicillin (Int. Units).....	1,172,800,000	893,800,000
Penicillin in Wax.....	22,800,000	327,800,000
Distilled Water (Amps).....	7,859	8,931
Sulphathiazole (Tabs).....	27,798	15,654

VALUE OF DRUG DISTRIBUTION

Drug	1946 Cost		1947 Cost	
	\$	c	\$	c
Penicillin.....	7,299	82	4,128	72
Penicillin in Wax.....	285	00	1,869	54
Arsenicals.....	1,701	05	2,369	23
Bismuth Salicylate.....	238	40	473	20
Distilled Water.....	550	13	759	13
Sulphathiazole (tabs.).....	279	35	92	00
Total Cost.....	10,353	75	9,691	82

TABLE 8.—SUMMARY OF FACILITATION, MAJOR CITIES—SASKATCHEWAN, 1947.

Type of Place	Meeting Place Only		Meeting and Exposure (Including Marital)		Place of Exposure Only	
	Total	Percentage	Total	Percentage	Total	Percentage
Hotels.....	7	1.52	39	9.07	138	29.87
Cafes.....	68	14.72	.....	.....	2	.43
Dance Halls.....	87	18.83	.....	.....	.....	.....
Rooming Houses & Apartment Blocks.....	5	1.08	49	11.39	76	16.45
Pickups—Streets, etc.....	135	29.22	.....	.....	1	.22
Marital.....	.....	.....	47	10.93	.....	.....
Other (Including Private Dwellings).....	160	34.63	295	68.60	245	53.03
Totals.....	462		430		462	

Inventory of the Library

1890

No.	Title	Author	Year
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TABLE 9.—COMPARATIVE REPORT OF V.D.

Clinic	Admitted to Clinic										Case Visits									
	V.D.S.		V.D.G.		Chanc-roid		Other		Total		V.D.S.		V.D.G.		Chanc-roid		Other		Total	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Regina	29	21	159	88	1	....	236	219	425	328	538	429	468	423	....	....	323	391	1332	124
Total Combined.....	50		247		1		455		753		967		891		.....		714		2575	
Saskatoon.....	29	15	98	35	....	....	540	445	667	495	446	144	946	1185	....	....	778	530	2190	185
Total Combined.....	44		133		....		985		1162		610		2121		....		1308		4049	
Moose Jaw.....	45	28	99	37	2	1	158	83	304	148	1001	704	716	441	6	2	633	361	2356	150
Total Combined.....	73		136		3		241		452		1705		1157		8		994		3864	
Prince Albert	14	7	59	26	....	....	131	146	204	179	950	1137	683	240	....	....	279	338	1912	171
Total Combined.....	21		85		....		277		383		2087		923		....		617		3627	
Clinic Total By Sex.....	117	71	415	186	3	1	1065	893	1600	1150	2935	2414	2813	2289	6	2	2013	1620	7790	632
Clinic Total Sex Combined	188		601		4		1958		2750		5369		5092		8		3,633		14115	

CLINIC ACTIVITY—SASKATCHEWAN, 1947.

Clinic Tests					Discharged from Clinic										
	S.T.S.	Smear	D/W.	C.S.F.		Apparent-ly Cured		Transferred		Delinquent		Deceased		Total	
						M	F	M	F	M	F	M	F	M	F
Pos.	175	337	5	2	Syphilis.....	13	6	15	16	..	1	..	..	28	23
					Gonorrhea.....	177	123	2	2	..	..	..	..	179	125
Neg.	814	816	15	10	Total by sex.....	190	129	17	18	..	1	..	..	207	148
					Total Combined	319		35		1		..		355	
Pos.	69	209	23	10	Syphilis.....	39	29	3	2	3	1	2	..	47	32
					Gonorrhea.....	56	66	..	..	..	..	..	..	56	66
Neg.	779	1157	22	38	Total by Sex	95	95	3	2	3	1	2	..	103	98
					Total Combined	190		5		4		2		201	
Pos.	85	145	10	1	Syphilis.....	9	3	10	8	2	1	..	..	21	12
					Gonorrhea.....	67	32	7	6	..	..	..	..	74	38
Neg.	551	495	23	3	Total by Sex	76	35	17	14	2	1	..	..	95	50
					Total Combined	111		31		3		....		145	
Pos.	66	115			Syphilis.....	..	3	3	..	1	2	..	..	4	5
					Gonorrhea.....	48	31	..	..	..	..	..	..	48	31
Neg.	268	249	..	..	Total by Sex	48	34	3	..	1	2	..	..	52	36
					Total Combined	82		3		3		....		88	
Pos.	395	806	38	13	Clinic Total By Sex.....	409	293	40	34	6	5	2	..	457	332
Neg.	2412	2717	16	52	Clinic Total Sex Combined.....	702		74		11		2		789	

TABLE 10.—AN EVALUATION OF SEROLOGICAL TESTS PERFORMED IN SASKATCHEWAN AS PART OF THE PREMARITAL EXAMINATION

8 month period—May-December, 1947

During the eight month period referred to above, 11,481 premarital serological specimens were examined in the Provincial Laboratory, and of this number 24 or .21% showed a positive reaction.

Of the 24 persons with positive findings, 5 or 20.83% had been previously treated for syphilis, 15 or 62.5% were newly discovered syphilis cases with no known previous history or treatment.

No further information was available in connection with 3 persons or 12.5%, and diagnosis remained undetermined concerning one person or 4.16%.

BREAKDOWN OF THE TOTAL NUMBER OF PREMARITAL SEROLOGICAL TESTS PERFORMED

May-December, 1947

		Percentage
Total Tests Performed	11,481	
Positive Findings—New Cases Discovered.....	15	.13
Previously Treated	5	.04
No Further Information.....	3	.03
Diagnosis Undetermined	1	.01
	24	.21
Negative Findings	11,457	99.79
TOTAL.....	11,481	100.00

Of the 15 new cases discovered, 3 were diagnosed as Primary, 5 were reported as Secondary, 6 were given as Latent, and 1 was reported Tertiary. It is therefore, apparent that through the medium of the premarital serological test, 15 persons received information vital to their well-being and their future happiness, during the 8 month period referred to above.

DIVISION OF LABORATORIES

Regina, Saskatchewan,
May 10, 1948.

DR. C. F. W. HAMES,
Deputy Minister of Public Health.

SIR:

I have the honour to present the following report on the work of the Division of Laboratories for the year 1947.

The close of 1947 brought to an end another period in the history of the Division of Laboratories. For the past three or four years it was necessary to mark time in the matter of undertaking new and pressing projects due to the critical lack of space. Marked increase in the routine use of the clinical diagnostic facilities of the Division, by the rural hospitals and physicians, had taxed the available working space to the limit and investigations of problems rising out of our own work or that of other Divisions had to be refused. The new laboratories in the new Cancer Clinic wing of the Grey Nuns' Hospital were completed and the transfer of the laboratories to these quarters was planned for early in 1948. This will provide the space and equipment necessary for the Division to fulfill its proper function in the Department as judged by modern developments, in Public Health.

The period just passed included the years of depression and drought when logically no expansion could be expected and the laboratories struggled to maintain staff and services. However, in spite of curtailed staff, the use of the laboratory and the numbers of specimens submitted to it increased throughout this period. The numbers of examinations each year from 1919 until the present are shown in figure I.

At the present time, attempts are being made to encourage the hospitals throughout the province to establish laboratories of a size and range of examinations suitable to the number of beds and the services they may offer to the community. This has been aided by the department sponsoring training courses whereby students are trained to provide minimal services in laboratory and X-ray procedures. It may be necessary to increase the training facilities available for fully qualified personnel in these two fields in order to supply the number of properly trained technicians required in the province.

During the year a number of conferences have been held with Regional Health Services, in regard to regional laboratory services, and estimates of equipment, space and personnel requirements have been made for this purpose. Similar work was done in co-operation with Hospital Administration and inspection service was maintained for the small hospital laboratories. During these inspections, a great deal of assistance was given to the technicians in technical matters.

Rising out of the inspection work there was a considerable amount of time required in laying out laboratory space for new hospitals or for hospitals that were remodelling their laboratory space. Layout and design of laboratory furniture lists and approximate costs of equipment were provided and the estimates of personnel requirements were made. These improvements in the diagnostic service available to the physicians will decrease the level of routine work coming to the Division, and by so doing will provide more time for investigations and for reference work in special cases for hospitals and physicians. This will be the next phase of development of these laboratories.

During the past four years the Department of Public Health has taken a greater interest in the sanitary quality of milk sold to the public. This has resulted in a marked increase in the number of specimens of dairy produce brought to the laboratories for examination and, also, has brought about an overlapping of work with the Dairy Laboratory of the Department of Agriculture. In order to eliminate this duplication of effort and to strengthen both laboratories, the Dairy Branch Laboratory became a part of the Division of Laboratories on April 1, 1947. The full development of this association awaits the fusion of the two units in the new space.

While the actual detailed planning for the new laboratory quarters did not begin until January 1945, attention was called to the lack of adequate space in 1937, by Dr. F. G. McGill the Director at that time. With the increase of work as a result

of the war, this situation became critical in 1942 and the original quarters were completely remodelled to provide temporary relief by increasing the available bench space and securing some measure of segregation of various types of work. A decision was reached to build the new Cancer Clinic wing at the Grey Nuns' Hospital in 1944, and, in 1945 the hospital authorities were persuaded to add an additional floor to house the Division of Laboratories. From that date until the end of 1947, most of the Director's time was taken up with the general and detailed planning required in laying out the space, designing the benches and planning the equipment for the new unit.

In preparation for the developments expected during 1948, two members of the staff were sent to other laboratories for special training. The Provincial Analyst, H. E. Robertson, was sent to the University of Saskatchewan, to work with Dr. J. W. Spinks, of the Chemistry Department to acquire basic techniques for "Radioactive Tracer" analysis of problems. It is expected that such technique will be of great value in investigating such conditions as sewage contamination of drinking water supplies, determination of relative values of commercial detergents, development of better media for culturing of many types of bacteria, as well as providing the background for any laboratory investigations of the radiochemotherapy of cancer. The necessary equipment has been accumulated and a room reserved for this type of work in our new laboratories.

The senior technician was sent to the Virus Division, Department of Public Health, Toronto during the year, to work with Dr. N. Labzoffsky in the methods of bacterial cultivation on chick embryos. It has been impossible to set up this section, owing to the lack of space in our present quarters, but a special laboratory, with special equipment, for this work will be a part of our new quarters. Working in co-operation with the Sanatoria of the province, it is hoped to set up a satisfactory method of cultivating tubercle bacilli on chick embryos, which will reduce the period required for making a diagnosis from weeks to days. At the present time, growth upon specialized culture media and animal inoculations take seven or eight weeks. This technician also did work in fungus diseases and parasitology at the Connaught Laboratories during the time she was in the east. I would like here, to express my appreciation for the co-operation which we invariably receive from our co-workers in Eastern Canada where staff training is concerned.

During the latter part of the year, a considerable amount of time has been spent with one of the Senior Public Health nurses, in what I consider a very worthwhile undertaking. This nurse is being stationed at one of the newly opened northern hospitals, and she has been trained to make complete blood counts, to perform urinalysis and to do some elementary bacteriology. In view of the fact that this nurse will be completely out of contact with the nearest doctor, except by radio, I feel that the service to the people of her district will be invaluable.

During the war it became essential that, for the control of venereal diseases, there should be uniformity of methods, procedures and reporting in the various Public Health Laboratories across Canada. At a meeting of the laboratory Directors during 1942, agreement was reached, in principal, as to the methods that would be used in the sero-diagnosis of Syphilis. These conferences were continued until the end of the war and in 1947 the conference was reconstituted as an advisory committee on Public Health laboratory methods to the Dominion Minister of Health and Welfare. There is a serious effort to standardize laboratory procedures in all Public Health work across the dominion and also a system of reference laboratories is being worked out. Wherever one laboratory has a special field in which it is interested or has special knowledge or facilities, that organization is used as the reference in the field. This permits the smaller units to refer specimens requiring special examinations to some other point for an authoritative opinion or examination. Efforts are being made to provide standardized antigens and antisera for the diagnosis of enteric infections to all hospitals requiring these reagents. This may be done by securing the materials from the Laboratory of Hygiene, or, the provincial laboratory may prepare antigens and antisera and standardize them against those supplied by the above source. The latter course is being used in this province. Antigens for the various sero-diagnostic tests for Syphilis and dried complement are provided to all but the largest Public Health laboratories in Canada from the Laboratory of Hygiene.

These conferences in addition to the discussion of standardizing methods, also considers other problems related to the proper administration of laboratories in their broadest application to the good of the community and also integration into the general defence plans of the country.

SUMMARY OF WORK DONE IN 1947.

This year may be termed the first normal year since the war period. The years 1945 and 1946 were possibly abnormal in the numbers of specimens for sero-diagnosis because of the discharge program for the armed services. Each member of the forces received a blood test before separation, which, at times reached over a thousand a day. The decrease in this section has brought the level of work down to that expected for the population of this province.

There has been a marked increase in the number of chemical examinations, in sanitary examinations and in blood agglutinations. The total number of bacteriological examinations has decreased due to two main factors: no major epidemics struck the province during the year, and present methods of treatment using penicillin and other antibiotics. This latter development clears up cases more rapidly and there are very few repeat smears from VDG cases. Also, in most cases, treatment is established without any effort being made to identify the organism causing the infection which introduces a difficulty in the instances where there is no, or poor response. The specimens submitted after this difficulty develops are very difficult to culture, due to the inhibitory effect of antibiotics on the organisms. The low incidence of diphtheria and enteric diseases is a tribute to the improved sanitation and immunization programs established in this province.

The detailed summary of the examinations made will be found in an appendix E this report.

Venereal Diseases:

The routine sero-diagnostic test for Syphilis required for pre-marital health certificates has resulted in 11,997 specimens during the period from April 1, 1947, when definite information from the physicians was requested until the end of the year. During this same period there were 6,148 marriages, involving 12,296 persons. Thus it appears that there is very good reporting from the examining physicians. From these specimens, 32 positive reactors were obtained, of which 18 were new cases of Syphilis, 3 were proved to be false positives, 2 are still under investigation and 2 have moved from the province. Of the 18 new cases discovered, 1 was primary, 8 secondary, 8 latent and 1 tertiary. Estimating the laboratory cost of 18c per test, only about twenty-one hundred dollars was spent in this phase of the program, which is an extremely modest sum in comparison to the cost to the state in money, lost efficiency and productiveness, as well as actual suffering and distress of the individual.

In order to maintain a standard of efficiency in the methods used in Syphilis serology, the Department of Pensions and National Health in Ottawa, periodically conducts surveys in co-operation with the Public Health Laboratories of the provinces. As in previous surveys, these laboratories have taken part in the survey conducted during the current year, and a satisfactory grading has been maintained.

With reference to Gonorrhoea, with the present system of treatment and follow up work in our clinics, it may be expected that the total number of examinations for Gonorrhoea will decrease from year to year. There is the need for culture procedures in certain cases and since existing methods do not permit the transportation of specimens directly or on culture to the laboratory, if more than three or four hours elapse, attempts are being made to develop suitable methods. This has been a problem that has been undertaken by many workers but no complete answer has been secured. A study of the metabolism of the gonococcus is being undertaken as the basis for attempts to develop the desired medium.

Bacteriology:

The number of specimens being received in this section is decreasing, thus giving evidence of effective Public Health work and improved treatment procedures. There has been a noticeable increase in examinations for fungus infections. While this is not an area where extensive infections from this type of organism would be expected, yet there is probably quite a number of such cases undiagnosed because of unfamiliarity with the symptoms. This service will be extended and made more readily available to the physicians and hospitals when space is secured in the new laboratories.

Enteric: These laboratories continue to supply standardized antigens and antisera for the diagnosis of enteric infections, to the various hospitals in the province, requesting such service and set up to do these tests in an approved manner. These consisted of *E. typhosa*, *S. para B*, *S. para A*, *Brucella Abortus*, necessary for the regular routines. The production of these materials is increasing due to our

own requirements as well as supplying outside laboratories. The materials produced are standardized against those produced by the Laboratory of Hygiene, who in turn, standardize against the Oxford standards. We, thus, are able to check our products before being put into use.

Table I gives a list of the organisms isolated in this section during the year 1947. Two organisms were referred as cultures from other laboratories for identification.

TABLE I
ORGANISMS ISOLATED FROM CASES OF GASTRO-ENTERIC INFECTIONS

Name	Blood	Feces	Urine
Salmonella typhi	6	4	..
S. typhi Vi	1	1	1 (same case)
S. typhimurium .....	..	1 (referred)	1
S. paratyphi B.	5	8	5
S. enteritidis .....	..	1	..
S. bareilly .....	..	1	..
Shigella sonnei .....	..	1	..
Sh. ambigua (Schmitz) .....	..	1 (referred)	..
Paracolon .....	..	2	..

Sanitary Examinations:

Milk: The program of regular examinations of samples of urban milk supplies was continued for the Division of Sanitation. In addition to the increased numbers of samples examined at this laboratory, laboratories at the University, the two mental hospitals and the Yorkton General Hospital continued to examine samples of milk from their respective areas.

Water: A program of complete analysis of water supplies in organized towns and cities was carried on. Water supplies of all cities and most of the larger towns was completed. Samples from the smaller centres are scheduled for complete analysis in the New Year when we shall have taken up our new quarters.

Red Cross Breast Milk Bank: Space in the new laboratories has been provided for the Breast Milk Bank and in the meantime, the service has been put into operation. The chemical and bacteriological examinations of the milk provided by the donors are being made in our laboratories although the space available hampers our work considerably. The Division will continue to make all laboratory examinations in connection with this service when the depot is established in our new quarters.

Chemistry:

There has been a material increase both in the number of specimens submitted for biochemical determinations and in the number of determinations requested per specimen. This is a desirable trend in that it shows rural physicians are making more use of these laboratory facilities in their diagnosis. A very considerable increase has also been noted in the number of "special" determinations requested, not hitherto attempted here. Development or adaptation of such procedures to our laboratory needs is very time consuming but the value of such determinations has already been demonstrated in several spectacular cases. If the present trend in this type of work continues, it will be necessary to secure additional specialized equipment.

Dairy Section:

The Dairy Laboratory, formerly operated by the Dairy Branch of the Department of Agriculture, was by joint agreement, brought under the supervision of this division at the beginning of the present fiscal year. It was originally established in 1928 to serve the dairy industry. So well has it functioned, that to-day, Saskatchewan's butter compares favourably with that produced in any part of the world. This service was continued during the past year. Accommodation for this section has been provided for in our new laboratory so that when occupied, the objective of service to the dairy industry can be combined with the examination of dairy products for the Division of Sanitation. Since this is the first year that this arrangement has been in effect, a detailed report is appended from the Director of this section, incorporating historical and other data that is of importance.

Tissue Pathology:

The number of tissues examined at the City Hospital, Saskatoon and the Grey Nuns' Hospital, Regina, has been increased greatly during the year, and I wish

to take this opportunity of expressing my thanks to the Pathologists in charge for the excellent service they are providing.

Laboratories of the Saskatchewan Hospitals:

These laboratories continue to function as in previous years. The hospital in North Battleford, being understaffed until September, when the only remaining technician left to be married. At that time, a technician was loaned from the Division of Laboratories, to carry on the services while a student technician of the combined lab. and X-ray course, was given additional training to carry on the basic services required.

Both laboratories continued to carry out the sanitary examination of milk for the surrounding community as well as the control work on the hospital supplies. A report of the work done is appended.

I would like to take this opportunity to thank all members of the staffs of this Division, the Dairy Laboratory and the Saskatchewan Hospitals, as well as the many other officials of other Divisions and Departments, for their constant co-operation and assistance in the regular work of the Division and the planning and establishing the new laboratories.

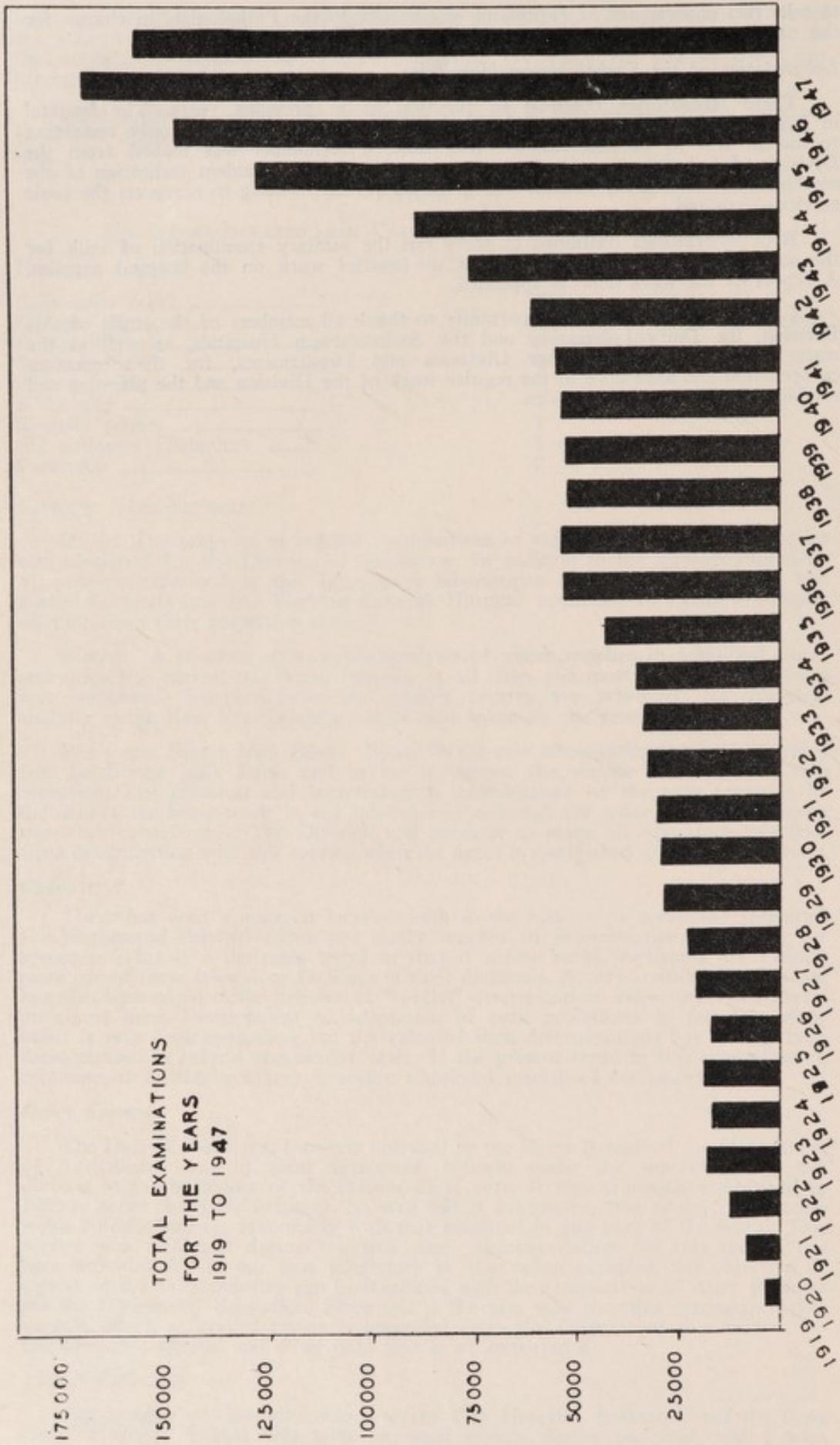
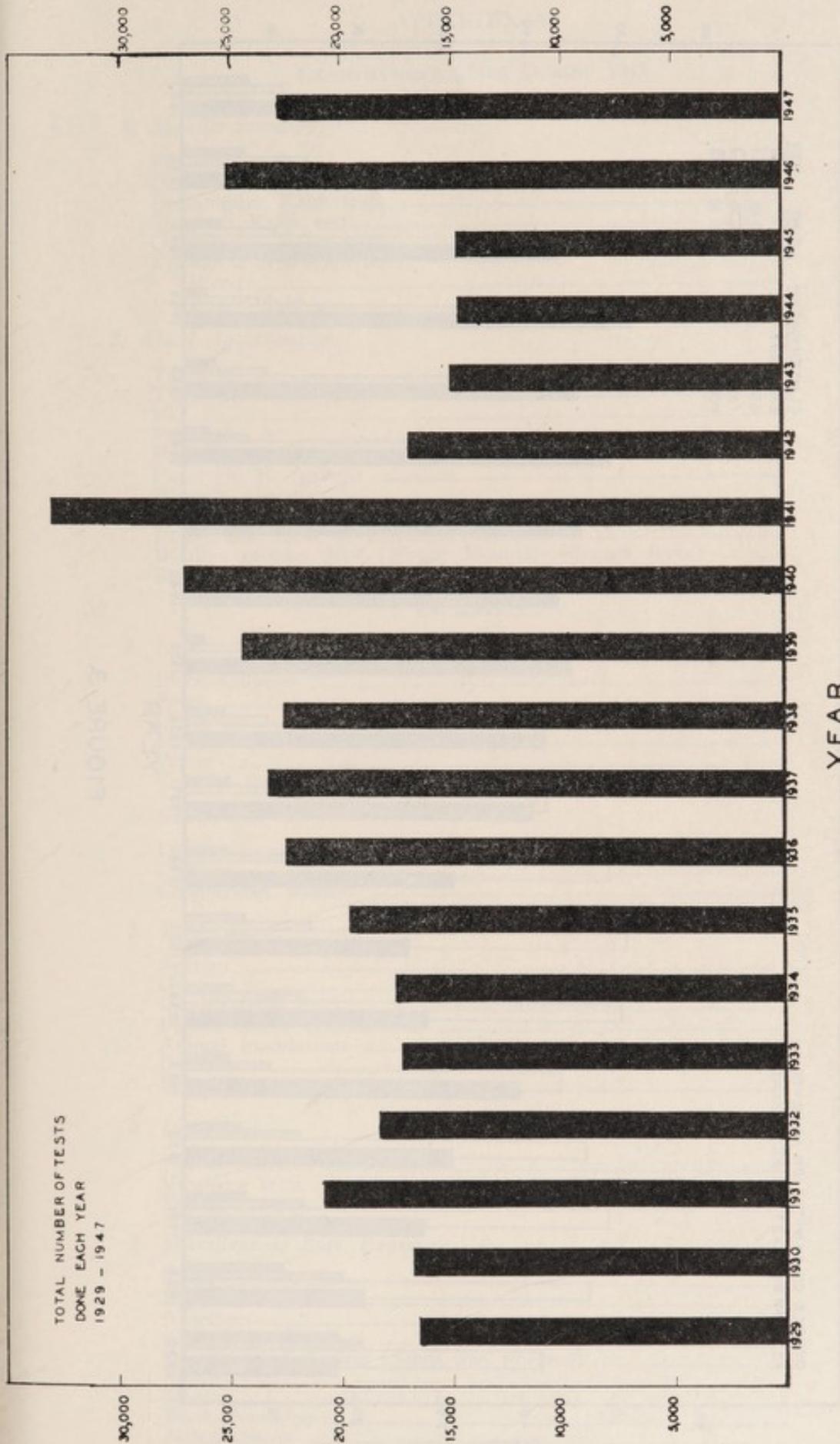


FIGURE I.



YEAR
FIGURE 2

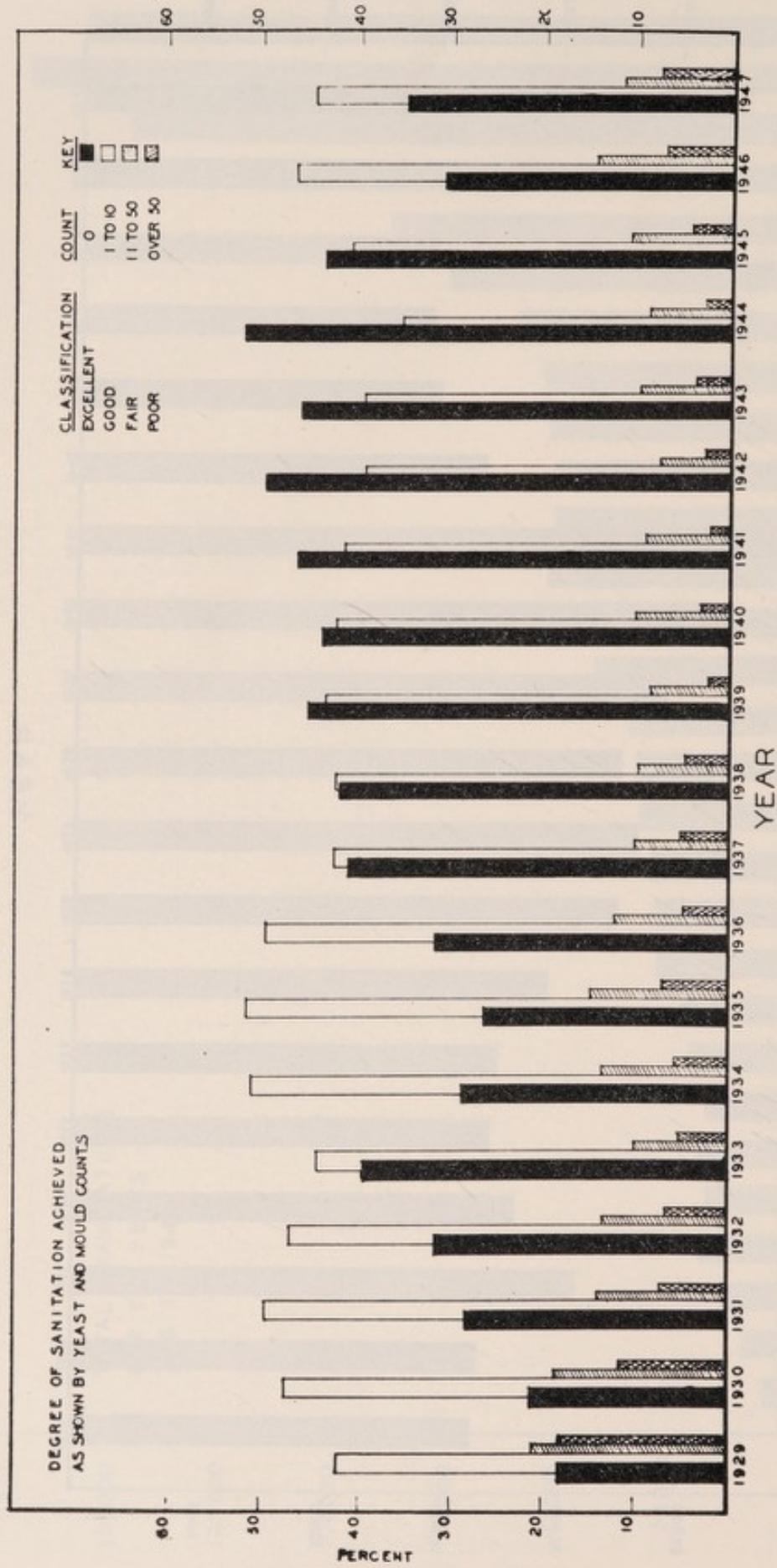


FIGURE 3.

APPENDIX A.

EXAMINATIONS MADE DURING 1947.

1. *Syphilis Serology:*

Fontana's stain	35
Dark field	59
Presumptive Kahn tests	75,801
Standard Kahn tests.....	5,327
Quantitative Kahn tests	1,693
<i>Kolmer Wassermann tests:</i>	
Blood	5,246
Spinal fluid	1,725

2. *Blood Agglutinations:*

Typhi H.	651
Typhi O.	651
Vi	651
Paratyphi A.	651
Paratyphi B. (type)	651
Paratyphi B. (group)	651
Brucella abortus	916
Brucella melitensis	2
Pasteurella tularensis	24
Bacillus proteus X19 (Rocky Mountain spotted fever)	4
Shiga and Shigella	178

BACTERIOLOGY

1. *Enteric Diseases:*

Blood Cultures	522
Feces	462
Urine	122
Milk	10
Water	33
Cultures for identification	5

2. *Gonorrhoea:*

Direct smears	10,558
Cultures	15
Complement fixation	23

3. *Tuberculosis:*

Sputum	177
Urine	21
Cerebrospinal fluid	50
Pleural fluids	22
Animal inoculations	17
Cultures	24
Miscellaneous	50

4. *Diphtheria:*

Throat Cultures	328
Virulence tests	10
Typing	4

5. *Miscellaneous Bact. Exams.:*

Blood Cultures	145
Pleural fluids	36
Abscesses	28
Autogenous Vaccines	54
Grouping and Typing (Strep. and Pneumo).....	5
Mastitis	87
Meat	15
Food Poisoning	22
Miscellaneous	320

6. <i>Spinal Fluids:</i>	
Cell count	216
Protein	194
Glucose	223
Colloidal gold	582
Cultures and smears	149
7. <i>Hospital Supplies for Sterility:</i>	
Baby Bottles and Nipples	141
Dressings	10
8. <i>Fungus Infections:</i>	
Sputum	2
Skin and Hair	25
Complement fixation	2
Agglutinations	2
Actinomycosis	7
Cultures	16
Miscellaneous	3
9. <i>Parasitic Infections:</i>	
Feces	82
Blood Smears for Malaria	8

HAEMATOLOGY

Complete blood counts	48
Smears for differential counts	405
Blood grouping	248
Blood grouping Rh	18
Blood grouping MN	19
Paul-Bunnell tests (Hetrophile antibodies)	92
Smears for Malaria	3
Sedimentation rate	2
Opsono Cytophazic Index	1

SANITATION

1. <i>Water:</i>	
Standard plate counts	1,019
B. coli presumptive	3,041
B. coli confirmed	2,475
Routine chemical	3,044
2. <i>Milk:</i>	
Standard plate counts	1,413
B. coli count	1,322
Phosphatase test	1,176
Routine chemical	1,175
Breast Milk	64

DAIRY BRANCH LABORATORY

Butter (yeast and mould counts)	19,575
Butter (salt content)	5,169
Butter—special (Kohman yeast and mould)	22
Butter—special (water and brine)	10
Butter—Bacteriology, yeast, mould, salt content, available chlorine)	318
Milk—butterfat	370
pH of butter serum	27

CHEMISTRY

1. <i>Urinalysis:</i>	
Routine	1,465
Glucose (Quantitative)	3
Lactose (Quantitative)	1
Porphyrin	4
Urea	1

Lead	3
Proteins	6
Chloride	4
Diastase	1
 2. <i>Biochemistry:</i>	
<i>Blood Chemistry:</i>	
Glucose	448
Glucose Tolerance	13
Phosphorus	28
Acid Phosphatase	261
Alkaline Phosphatase	260
Total Protein	156
Non-protein Nitrogen	190
Albumen	78
Calcium	80
Cholesterol	107
Cephalin Cholesterol flocculation	22
Urea	240
Serum Bilirubin	14
Van den Bergh	18
Icterus Index	40
Chloride	33
Uric Acid	22
Serum Amylase	25
Creatinine	47
Bromides	8
Thiocyanates	23
Sodium	16
Potassium	17
Carbon Monoxide	14
CO ₂ Combining Power	1
Fibrinogen	1
Paraldehyde	1
Met and Sulphaemoglobin	5
 <i>Cerebrospinal fluid:</i>	
Chlorides	144
Protein	308
 <i>Miscellaneous:</i>	
Gastric Analysis	164
Feces—fat	42
Abdominal fluids	4
 3. <i>Chemistry:</i>	
Liquor—Police	133
Toxicology—Human	92
Animal	24
Specifications	18
Food and Poisons	25
Alcohol	2
Gasoline	55
Water	49
Miscellaneous	10
Grand Total Examinations	155,525
Media Prepared	124,301
Outfits Supplied	117,458
Mail: Incoming— Letters	3,070
Parcels	37,928
Outgoing— Letters	54,072
Parcels	2,987

SUMMARY OF WORK, MENTAL HOSPITAL, WEYBURN

APPENDIX B

1. *Haematology:*

Complete Blood Counts	591
W.B.C. and Smear	161
Groupings	90
Platelet Counts	3
B.S.R.	268
Coagulation Time	18
Bleeding Time	3
W.B.C.	546
Haemoglobin	446
R.B.C. and Hb.	227
R.B.C.	13
Reticulocyte Count	14
Differential Count	12
Malaria Slides	45
Cross Matching	55
Miscellaneous (Fragility, pro-thrombin etc.)	18
Wassermann (collected)	595

2. *Bacteriology:*

Smears from mouth and gums.....	51
Throat Cultures	45
Sputum	86
Smears for G.C.	16
Miscellaneous	60
Blood Cultures	23
Gastric Lavage (For T.B.)	74
Urine Cultures	23
Urine for T.B.....	18
Feces for T.B.	5
Swabs for T.B.	6
C.S.F. Cultures	2
Vaccines	3

3. *Feces:*

Blood	30
Parasites	6
Cultures	42
Bile and Bilirubin	1
Urobilin	1
Fat Estimation	3

4. *Emesis:*

Blood	3
-------------	---

5. *Chemistry:**Blood:*

Cholesterol	43
Creatinine	2
Chlorides	12
Calcium	8
Alkali Reserve	42
Icterus Index	29
Gastric Analysis	5
Sugar	243
Sugar Tolerance	2
Sulphadiazine	25
Serum Total Protein	16
Urea	46
Van den Bergh	4
P.S.P.	2
N.P.N.	57
Phosphate	3
Phosphatase	3

Serum Albumen	4
Serum Bromides	3
Cevitamic Acid	52
Urea Nitrogen	65
Brom Liver Function	5
<i>C.S.F.:</i>	
Colloidal Gold Curve	92
Cell Count	93
Glucose (qual.)	63
(quant.)	8
Chlorides	74
Globulin	83
Total Proteins	83
<i>6. Urinalysis:</i>	
Chemical and Microscopic	1,500
Chemical	1,144
Urobilinogen	6
Bile	3
Microscopic	4
Fishberg Test	7
<i>7. Milk Examinations:</i>	
Bacterial count	155
B. coli	155
Butterfats	82
Total solids	82
Phosphatase tests	145
Gradings	247
<i>8. Culture Media:</i>	2,246
<i>9. Basal Metabolism Rates:</i>	20
<i>10. Alergy Tests (Series):</i>	2
Total Examinations	10,566

Due to changes of staff of the Mental Hospital at North Battleford during the year, this information is not available.

ANNUAL REPORT OF THE DAIRY LABORATORY FOR 1947

(E. A. Howrie, Director, Dairy Laboratory)

HISTORY AND PURPOSE:

As this is the first report to be submitted, covering the work of the Laboratory under the Department of Public Health, a brief history and explanation of the work is in order. The Laboratory was established in 1928 under the Dairy Branch, Department of Agriculture, at the instigation of Mr. P. E. Reed, then Dairy Commissioner. The necessity for such a move came about because during the 20's, surplus creamery butter became a serious problem. Markets outside the province had to be found for this butter and it was found that ours had to compete with freshly made butter in the East. As the larger portion of Saskatchewan butter is made during the summer months, much had to be stored for long periods before being sold. The only way a definite market could be obtained and held was to make sure that this butter stood up during storage. To ensure this, it was necessary to have it manufactured under as ideal sanitary conditions as possible, which made it necessary to establish a control laboratory.

METHOD:

The method followed was to offer a check-up service to the creamery operators of the province whereby a sample of each churning was examined for yeast and mould content. If these could be kept at a minimum or eliminated altogether it was reasoned that other harmful organisms would be destroyed or held in check. The wisdom of this course is borne out by the fact that today Saskatchewan butter is readily saleable at any time on both the Eastern and Western markets and it can

be safely said that it compares in quality and keeping properties with any butter in the world. A great deal of credit for this situation is due to the work done at the laboratory. Reports covering the laboratory findings are forwarded daily to the creameries concerned along with copies to the creamery inspectors. In this way any untoward development or laxity in sanitary control is quickly recognized and checked before it can become a major problem.

The laboratory records show steady progress from a poor beginning until today counts of less than 10 organisms per gram are the rule and sterile or zero counts prevail in approximately half the samples examined. Saskatchewan is the only province where this type of work is so extensively carried out. Other provinces, notably Alberta, are following suit but strive to get along on a much smaller basis. Some idea of the extent of this work can be obtained from the fact that to date approximately 400,000 yeast and mould counts have been run at the laboratory since its inception.

This brief review only concerns the major part of the work carried on at the Laboratory, viz.—yeast and mould analysis. However, many other phases of dairy technology are also covered as will be evidenced from the more detailed report of the 1947 activities which follows.

During 1947, 30,528 tests were carried out covering many phases of dairying and indicate the value of laboratory work in connection with this industry.

The following table lists the number and nature of tests completed at the laboratory during 1947:

	Number of Tests
Butter samples examined for yeast and mould.....	22,983
Butter samples analysed for salt content.....	6,152
Water and Brine samples examined for yeasts, moulds, bacteria, available chlorine, salt content, etc.	253
Milk, Cream, Skimmilk and Buttermilk samples analysed for specific gravity, butterfat and total solids.....	492
Butter, Cream and Buttermilk samples examined for pH, bacteria, yeast and mould.....	190
Ice Cream samples analysed for butterfat, total solids, bacteria, etc.....	160
Calcium, Chloride Brine samples analysed for pH, specific gravity, freezing point, etc.	36
Microscopic examination of Dairy Products.....	72
Milk bottles and cans tested for bacteria, etc.	40
Miscellaneous analysis of Dairy Products.....	150
Total number of tests.....	30,528

It will be noted that apart from the analysis on butter samples, 1,393 tests covering other phases of dairying were carried out. This is a creditable showing and indicates that the creamery operators of the province are cognizant of the value of laboratory control in their operations.

The total examinations made throughout the year are shown in Fig. 2.

The backward trend in sanitary control that is evidenced by the table for the previous 3 years seems to have been halted during 1947 (Fig 3). Improvement is shown in the Excellent and Fair counts but there was a slight increase in the Poor counts. It is to be hoped that during 1948 this improvement trend will continue as it will be beneficial to the quality of Saskatchewan butter.

SALT TESTS

The following table lists and classifies the salt tests completed at the laboratory for the last 10 years:

Year	Total No. of Churnings Analysed	Average Salt content	Percentage of churnings in each group					
			Un-salted	1% & less	1.1 1.5	1.6 2.0	2.1 2.5	Over 2.5
1938.....	22,543	1.52	3.0	3.9	45.7	45.0	1.6	.8
1939.....	24,641	1.55	.8	3.5	45.8	47.6	1.6	.7
1940.....	27,246	1.62	.8	1.6	35.9	58.9	1.4	1.4
1941.....	33,148	1.62	1.2	1.5	36.9	58.2	1.2	1.0
1942.....	17,078	1.64	1.1	1.3	31.3	64.0	1.1	1.2
1943.....	15,033	1.64	.3	2.0	29.8	66.4	.9	.6
1944.....	14,655	1.73	.6	1.3	21.8	72.9	2.0	1.4
1945.....	12,931	1.76	.5	.8	12.4	81.8	2.6	1.9
1946.....	13,434	1.74	.7	.4	14.0	79.6	3.2	2.1
1947.....	6,152	1.77	2.1	.2	11.2	80.5	3.8	2.2

When the laboratory was first established, an agreement was made with the Federal authorities to do salt tests on all butter samples submitted for yeast and mould analysis. These tests were reported daily to the butter graders of this province and they reported them as such on their reports. During the war years this policy was changed inasmuch as part of the graders duty was to run salt tests on all butter graded. It was felt that this was needless duplication of work so the laboratory began reducing the number of tests using the time saved to carry out other more valuable investigational work. The tests that are now run are reported to the graders only, as they like to have some tests duplicated for matters of comparison. In this way the three grading centers in Saskatchewan at Regina, Saskatoon and Yorkton are able to keep their testing methods uniform.

It will be noted from the table that the average salt content of Saskatchewan butter is 1.77 indicating that quite efficient work is being done by the buttermakers along this line. The legal limit for salt in First Grade butter is 2 per cent., unless manufactured for a special market under a permit from the Federal authorities, and any increase in the salt content within this limit means increased revenue for the manufacturer as well as increased production of butter for the province. For example: During 1947, 36,330,105 pounds of butter was made in Saskatchewan. Therefore, each .01 increase in the average salt content meant that some 3,600 pounds of butter was produced due to this factor alone.

Most of the butter that had over 2 per cent. salt was made for the special trade already mentioned or was undergrade butter which was purposely high salted. There is little excuse for the .2 per cent. of churnings that had less than 1 per cent. salt and it is gratifying to note that this figure gets progressively smaller as the years go by.

Work Outside the Laboratory:

During 1947 the Director of the Laboratory performed the following duties outside the laboratory:

Attended and addressed the regional buttermakers' conferences at Moose Jaw, Yorkton and Saskatoon.

Attended and addressed the conferences of the Dairy Recorders and Creamery Inspectors at Saskatoon.

Conducted Cream Grading Competitions held in conjunction with the Moose Jaw and Regina Dairy Calf Picnics.

Judged Dairy products at the Moose Jaw Exhibition.

Judged creameries for Housekeeping Competition at Swift Current, Moose Jaw, Weyburn, Yorkton, Saskatoon, North Battleford, Prince Albert and Regina.

Made inspection trips to Moose Jaw, Saskatoon, Swift Current, Yorkton, North Battleford, Prince Albert, Maple Creek and Shaunavon.

Staff:

The regular staff of the laboratory consists of three persons, namely, Miss Isabel Morrow, Miss Gertrude Curry, and Mr. John Canavan. During the rush period of the summer Mrs. Jane Wheeler was engaged as additional help. The Director is indebted to these people for their loyalty and co-operation in carrying out the work of the laboratory. It is due to their efficiency and willingness to help that such a large volume of tests were completed during the year.

Regina, Saskatchewan,

December 15, 1947.

DR. C. F. W. HAMES,
Deputy Minister of Public Health.

SIR:

I hereby submit a summary of the activities accomplished during 1947 under the 'Far North Division', and the Prevention of Blindness Regulations. In view of the fact that this office undertook the administration of these votes sometime in April 1947, the report which follows will be that of the work completed between April and the present date.

Far North:

The hospitalization, medical, dental and transportation accounts incurred by the destitute people of the 'Far North' were originally under the administration of the Medical Services Division, but, with the inauguration of The Saskatchewan Hospitalization Act, and because of the impossibility of this Plan to apply a complete coverage of the northern area due to the widely scattered population, the lack of communication and transportation, and the presence of little hospital accommodation in the north, these services were made the direct responsibility of the Department of Public Health under the Relief to Destitutes Vote. Hence, this office has undertaken to supply hospital and medical services to the indigent whites and Metis of the Far North. By this means we intend to establish and maintain an average standard of health among the northern residents, as well as provide aid to those who are ill.

We hope to further establish and maintain this standard of health by the erection of Outpost Hospitals, carefully planned and conveniently located, by establishing a satisfactory level of efficiency of those Outposts in operation, by the use of preventive measures such as vaccinations and inoculations among children, and by acquainting the illiterate people of the North with a knowledge of health and well-being through the availability of health services.

We have recently received notice that the approximate population of the Far North is as follows:

Treaty Indians	4,445 & 750	—5,195—51.51%	} 48.49%
Metis		—3,680—36.49%	
Whites		—1,210—12.00%	

This office has provided hospitalization to four hundred and forty-six persons. This does not include the persons hospitalized at the Nursing Outpost at Cumberland House.

Medical, optical and dental services were supplied to four hundred and forty-seven persons who were flown to Prince Albert, Saskatoon, and The Pas, Man. The medical services to the patients at St. Joseph's Hospital, Ile a la Crosse, were supplied by Dr. Lavoie, Departmental employee. The Outpost at Cumberland House is staffed by a Public Health Nurse of the Nursing Services Division, who attends to the medical requirements of the patients.

We have accepted accounts for the burial of seven indigents.

Transportation was supplied to one hundred and twenty-nine indigents. In most cases this transportation was by means of the Department of Natural Resources planes, and at the present time by the Saskatchewan Government Airways. In other cases the transportation was by passenger train.

Hospital and surgical supplies, drugs and medicines were supplied to St. Joseph's Hospital, Ile a la Crosse, to Beauval, Lac la Ronge, and also some to the Nursing Outpost at Cumberland House.

The correspondence entailed with regard to the Far North cases:

Letters received	76
Memoranda received	71
Reports received	380
Letters and form letters written.....	596
Memoranda written	53

Prevention of Blindness:

Since commencing administration of the Prevention of Blindness Regulations in April 1947, the following work has been accomplished:

The number of requests for assistance in obtaining optical attention were one hundred and eleven to date. Seventy-three of these were requests for assistance to children.

Sixty-six of these requests were granted financial assistance and authorized following our investigation. Twenty-nine requests are being held in abeyance pending further investigation, receipt of reports, or replies to inquiries. Twelve requests have been referred from this office to their proper Division, Department, or, the applicant has been proven eligible for a Blind Pension, or, not in need of spectacles. The remaining four requests were refused, the applicant being financially able to obtain optical services out of his own resources.

Of the requests received thirty-six were made direct to this office, thirty-one were reported by Public Health Nurses of the Nursing Services Division, twenty-five were referred by the applicant's physician, oculist, the Canadian National Institute of the Blind, or, the Canadian Red Cross Society. The remainder of the requests were forwarded from the various Divisions of the Department of Public Health, and from other Departments.

Upon compiling the statistics under the Prevention of Blindness Regulations it is noted that in cases where the request for assistance was made direct to this office we have, in almost every case, contacted the Nursing Services Division requesting their investigation of the circumstances of the cases. In reply to our request we have in every instance received a detailed and informative report. The co-operation on the part of the Nursing Services Division is greatly appreciated. We have noted a reluctance on the part of most parents to follow-up their initial request for assistance with the details this office requires. At this point the Nurses' report is especially welcome.

The following figures are that of the correspondence entailed under the Prevention of Blindness Fund:

Letters received	149
Memoranda received	42
Reports received	95
Letters written	178
Memoranda written	58

This office has granted assistance in obtaining optical services, glasses and eye operations, we have also provided three of the recipients with dental attention, four others with hospitalization, transportation to one person.

DIVISION OF HEALTH EDUCATION

REGINA, SASKATCHEWAN,

December 12, 1947.

DR. C. F. W. HAMES,
Deputy Minister of Public Health.

SIR:

The division looks back on another very active year, with some notable accomplishments and a few disappointments. Activities are described below:

Saskatchewan Health Newsletter: This publication, the first, and so far the only provincial publication of its kind in Canada, has been published in printed form since February 15. The circulation is 3,650, including all members of the Legislature, physicians, public-health personnel in the provincial service, clergy, leading educators, including school superintendents, officers of women's organizations, Normal School students, study groups, and a number of individuals. It has interpreted the department's program as well as serving as a valuable, and apparently appreciated educational medium. The director considers it the most valuable of the many publications distributed by the division.

Industrial Hygiene: The division has co-operated as fully as possible with the Division of Industrial Hygiene, particularly in the farm-safety program. It may be recalled that the Division of Health Education took initial steps for such an activity but was obliged to shelve it pending expansion of staff. The Division of Industrial Hygiene became interested in the problem and in collaboration the two divisions have done some work in this area. Several small posters were produced and widely distributed. Efforts to obtain a satisfactory estimation of the number of farm accidents occurring in Saskatchewan, as well as of types of accidents had to be abandoned until more effective methods could be devised. The Division of Health Education interested the Department of Education in the problem, and farm-safety education has been incorporated in the Grade 10 course. Recently the division produced a Study Unit in Farm-Safety Education for Grade 10, which the Department of Education distributed in November. Production of similar study units in other health subjects is contemplated. The farm-safety unit was written by Mr. J. D. Ward of this division on the basis of research and material previously compiled. The division was able to be of very limited assistance in the production of a booklet on garage ventilation; this was due to pressure of other activities.

Mental Health: The division has gradually been able to take greater interest in mental hygiene. In collaboration with the Division of Mental Services it was able to recruit more than 200 young persons of desirable educational qualifications to staff the mental institutions. In the neighborhood of 180 of these are presently employed and receiving training. The recruiting program had to be based on mental-health education, launched last April. It is conceived that there will be no difficulty in recruiting even better staff in the future if the mental-health education program can be strengthened. This division has assisted the Division of Mental Services by the acquisition of suitable sound films for training. This assistance should be continued. In the opinion of the director the mental-health problem is of such proportions and the potentialities of education for its alleviation are so tremendous that the division should be enabled to give this subject much more attention than it has.

Food Handlers Schools: The schools, still the first and only provincial project of its kind in Canada, were resumed last March. Itineraries have been confined to three southern health regions and reports indicate that the effort is more effective when organization and supervision is under a regional medical-health officer, and particularly when there is available a regional health educator who can give full time to organization and operation of the school. The best results, judging from reports, were achieved in Health Region No. 1, where in a short period schools were conducted in 26 centres with a total attendance of 2,500 persons, including many members of the public. Such public interest was not achieved anywhere else. We conducted a duplicate school, without sanitization demonstration, at Watrous and Manitou Beach, immediately before the vacation season. The director considers that the schools can be made more effective by various improvements.

Communicable Diseases: Educational work in this area continued throughout the year, with special emphasis during National Immunization Week. Here again, the most effective educational work was done in the organized health regions, and particularly in the two where there were regional health educators. Immunization is now widely accepted and its importance is appreciated in many areas where popular

conception of preventive measures is generally elementary. The results of this persistent education, with yearly special emphasis will be reflected in falling morbidity and reduced mortality.

Veneral Disease: While education regarding the character of venereal diseases, how they are contracted and how they are spread, is being continued quietly, emphasis has shifted to mental and emotional health in the family, parent education, child training, and education in marriage and family relationships. In consultation with the department, the Department of Education has placed venereal-disease education among the other communicable diseases in the health course for the Grade 10 curriculum. Human biology has been added to the physiology course. Education for family life is being added to the health courses in Grades 10, 11 and 12, and will be optional and elementary for the time being. Social Hygiene Day, last February, was marked with a special radio program over available Saskatchewan stations.

Pasteurization: An unremitting educational campaign has been conducted for more than two years and every possible resource has been employed. Spot campaigns of education were conducted in a number of centres, being directed directly to the adult population, and indirectly through the schools. Films, literature, posters, blotters, and lectures have been employed.

During the year the division broadened its program gradually to include education regarding safe and clean production of milk, and safe handling, as well as processing. It assisted the Division of Sanitation in an educational tour of all pasteurization plants, having previously acquired films for the purpose. To educate persons living where commercialized pasteurization is not feasible it has distributed a folder on home pasteurization. Sentiment in favor of pasteurization has multiplied rapidly in the past year. The division's director was a member of the department's committee on legislation for pasteurization. During the year he was able to gain the active interest of the Provincial Council of Women, and its many affiliates (with an aggregate of some 125,000 members) are now studying material supplied to them through their provincial health convener.

Cancer: Apart from co-operation with the Canadian Cancer Society, the division has not found time to engage actively in an educational program in this area. We are working on a new folder describing Saskatchewan cancer services.

School Health Education: The division has provided a consultation service to teachers in connection with the health courses, films, literature, references, and particularly with regard to the public-health services at municipal, provincial, and national levels. There is a steadily growing appreciation among teachers of the existence of our division and its usefulness. In any program of community education, such as in connection with pasteurization, we always include the schools, one reason being that many parents receive information from their children.

Saskatchewan Hospital Services Plan: Mr. J. Lichstein, while director of education and publicity for the Plan, consulted with us on important matters and kept us informed from day to day on developments. We for our part have supported the Hospital Services Plan with distribution of its literature on request and in the Health Newsletter.

Regional Health Services: Our work with regional staff is through the director of regional health services. This relationship has worked efficiently and amicably.

We have supplied many thousands of publications and posters, films, and other materials to the regional health officers and their staffs. As we are familiar with all the films, there is frequent consultation. One poster-card announcing child-health conferences was produced on suggestion of the health officers of Region No. 1. We supplied staff and equipment for the food handlers schools in two regions and equipment only for the schools in the third.

In October, November, and part of December, the division conducted an intensive educational campaign leading to the plebiscite on the establishment of the Saskatoon Health Region. Seventy-seven urban and rural meetings were addressed and films were shown at most of them.

Films: The Department of Public Health bought more than 40 films during the year and a few are still on order. Most of these were purchased by this division and were added to our growing library, which is integrated with that of the Saskatchewan Film Board. To obtain better use of films and co-ordinate their use with programs we have supplied the Film Board with notice cards which are sent us when health films are borrowed. With each film going out, too, the Film Board encloses a literature-request card which borrowers can use to obtain related materials from us. Our film library is now a fairly well balanced collection of films on a variety

of subjects. There are still lags, but these can be filled as opportunities offer. Due to our promotion of the films their use has increased materially and some replacements will be necessary as they wear out. In the health field, films also become obsolete, necessitating replacement with more up-to-date material. The director considers it desirable to produce at least one good film portraying all the varied services of the department, and several inexpensive film strips on some individual services and on some aspects of the program.

Literature: Distribution in the first 11 months of 1947 totalled 328,843 pieces, including the Health Newsletter. No new publications of note were produced but "Going Somewhere," a booklet on career opportunities in mental institutions is in the hands of printers.

Displays and Exhibits: We have made limited use of a window in the Government Insurance Building Annex, lacking time and assistance to utilize this space more effectively. The director looks to the time when window space in various parts of the province will be used continuously. Displays and materials have been supplied to regional health officers for window use. At the Class A and B fairs this summer the department had exhibits on nutrition, air-ambulance service, cancer, and pasteurization of milk. It is felt that exhibits and displays during the year would pay higher dividends in health education. However the division is not equipped to undertake this activity.

Radio: Use has been made of radio facilities in immunization and social-hygiene programs, and more extensively in mental hygiene and mental-hospital recruiting activities. Radio was also employed in education connected with the proposed Saskatoon Health Region. The radio stations have always co-operated splendidly and the Canadian Broadcasting Corporation granted the department 15 minutes during National Immunization Week for a program carried by the provincial network.

Newspapers: Compared to radio, the press is now a less effective medium. A recent survey showed that only 20 per cent. of the rural residents read daily newspapers but that 80 per cent. have radio receivers. While the department had considerable publicity during the year, little was of an educational character. The press gave fair co-operation in connection with the mental-hospital recruiting and staff-training developments. Newspaper participation could be built up again, but not under present arrangements, with the Division of Health Education short-staffed and the Bureau of Publications handling and distributing all releases.

Miscellaneous: There has been a steady demand for guidance and information related to sex education in the home. This has presented some difficulties as we have no literature on the subject for distribution. Correspondence regarding Saskatchewan health services has been heavy and much of it requires at least some individual reply, although as much as possible prepared materials are used to satisfy inquirers. Correspondence has become heavier through the year and it is now sorted in our office and distributed for attention on basis of content.

General Remarks: The Division of Health Education has demonstrated its usefulness in various ways, although its potentialities seem to be almost unlimited and cannot be developed under existing circumstances. The demands on the division are numerous and variable. The division endeavors to meet them and to do the best job possible. The director and his staff hope for the day when each problem can be attacked more skilfully and efficiently. The staff has given loyal co-operation. Health education is a missionary work which demands enthusiasm and unremitting effort. During the year the division lost the services of Mr. J. W. B. Bremner, who has been succeeded by Mr. J. D. Ward. In two of the regions health educators have been placed experimentally. It is considered that these have already demonstrated their value as well as their enthusiasm. In the opinion of the director the salaries for the regional health educators (Health Education Representative I), and of Mr. Ward (Health Education Representative II) are too low considering the demands made upon them, the versatility, resourcefulness, and good judgment required in addition to other qualities. The regional personnel should be on par with senior sanitary officers in matters of remuneration. The health educator at headquarters should be on par with adult-education and agricultural representatives.

CHRISTIAN SMITH,

Director of Health Education.

DIVISION OF NUTRITION

REGINA, SASKATCHEWAN,

February 2, 1949.

DR. C. F. W. HAMES,

Deputy Minister of Public Health.

SIR:

The following report covers the work of the Division of Nutrition for the calendar year 1948.

This Division has been steadily expanding and enlarging its services to other Divisions within the Department, and also to other Departments.

Department of Education: Continued educational work was carried out with the Normal Schools, the practice teaching schools and the Division of Physical Fitness. Two weeks were spent in the Provincial Normal School at Moose Jaw, giving instruction in methods of organizing various types of school lunch programs, stressing ways in which the teacher may obtain co-operation from the community. The majority of the practice teaching schools in the Moose Jaw area were visited. In doing this it was our purpose to encourage the supervising teachers to carry on demonstration school lunch programs, by which the Normal students assigned to these schools might see practical methods for setting up similar projects.

A series of 14 lectures were given to the high school students at the Central Collegiate Institute in Regina.

Assistance was given the Director of Curricula in revising the food section of the Grade XI course in Home Economics. Help was also given in drawing up the examination papers for Home Economics students.

The Division of Physical Fitness and Recreation requested a lecturer from this Division to take part in the Physical Education classes at summer school. An attempt was made to suggest ways and means of disseminating nutrition information to students of public school age.

This year saw a very successful demonstration school lunch program carried out in the Moore School at Richardson. This was a rural school which had the full support of the community, an enthusiastic teacher and co-operative students. The Nutrition Division worked very closely with the teacher supplying him with teaching aids and lesson plans, food education being integrated with other classroom work. Special activities were carried out by the pupils, such as making place mats, writing food jingles, original stories and plays. It is the desire of this Division to help teachers to improve the health of their pupils through classroom activities in nutrition. This was only a small beginning, but the results were gratifying.

Consultant Service Extended:

(1) Mental Services—Two weeks were spent in the Saskatchewan Training School at Weyburn, where food service was observed. Certain recommendations regarding improvements in quality of food served and economy, were suggested.

Assistance was given the dietitians from the Provincial Hospitals, in drawing up a scale of issue to be used by these hospitals.

(2) Department of Social Welfare—Visits were made to the Provincial Gaols, to Children's Hostels, the Babies' Home, and Old Folks' Home, during the past year. Advice was given in problems related to food service. Weekly menus and monthly food orders are submitted to this office. These are checked for adequacy and reports submitted.

Regional Nutrition Program: The service of a Regional Nutritionist was brought to a close at the end of March. Seven months in all were spent in Health Region No. 6, Moose Jaw. Special nutrition activities were carried on, such as organizing nutrition study groups, conducting classes and demonstrations, institutes for public health nurses, attending child welfare clinics, and giving radio programs.

Haemoglobin Study in Rosetown Area: It was recommended following the nutrition survey of 1946 that a haemoglobin study be carried on in the Rosetown area. There was evidence of an anaemia problem in this district. This study was carried

out in co-operation with the Department of National Health and Welfare, Ottawa. As a result of these findings, it was decided that an educational program should be conducted in Rosetown. A nutritionist remained in this town for 5 weeks, giving lectures and demonstrations to the townsfolk in the evenings, and spending the days in the schools, lecturing and showing films to the children.

Experimental Cookery: The Fisheries Branch, of the Department of Natural Resources requested some experimental cookery to be carried out on Buffalo Fish. A report was submitted, suggesting the best methods of cooking, and recommendations were made regarding possible marketing in Saskatchewan.

Visits to Health Regions: Periodic visits were made to all of the Health Regions. It is our aim to offer and give assistance to the public health nurses whenever possible. We realize that the public health nurse is the key person through whom much of our nutrition teaching is done.

Research: Strawberries from various areas in Saskatchewan were submitted to the Provincial Laboratories for Vitamin C assay. It was found that the Vitamin C content of our berries was consistent with that in other provinces.

Dominion-Provincial Health Grant: Plans have been made and approved for the addition to our staff, of two Regional Nutritionists and one Travelling Dietitian, under the Dominion-Provincial Health Grant.

New Materials and Teaching Aids:

- (1) Two picture Breakfast Patterns were designed and printed.
- (2) A Breakfast Check Chart—designed and printed. This has proved very popular, and as a result we have had numerous requests for a similar check chart for the other meals.
- (3) In co-operation with the Division of Physical Fitness, a manual on Camp Cook Craft was prepared. This was distributed throughout the province to camp enthusiasts and camp leaders.
- (4) A School Lunch poster was designed and has been distributed to the majority of the schools in the province.
- (5) A pamphlet Whole Grain Cereal Recipes was prepared for distribution. This will answer numerous requests for whole wheat bread recipes.

Requests for Material: An increased number of requests for nutrition literature, was received this year.

Publications: A four-page bulletin entitled "Nutrition News and Views" is now prepared monthly for distribution to the public health nurses. This publication conveys pertinent and up-to-date information on nutrition, and has received commendation from many of the nurses.

Articles Written: Regular articles have been submitted to the Saskatchewan Recreation magazine, to the Northern Areas Settlement papers, to the Saskatchewan Teachers' Federation Bulletin, and to the Home and School publication. An article, "Learning Through Lunches" was prepared for the Canadian Dietetic Association Journal.

Radio Talks and Releases: Weekly discussions on foods were given over radio station C.H.A.B., in co-operation with Mr. B. Harding, reporter for the Agricultural Representative's program.

Numerous news spots were submitted to radio stations, pertaining to the restrictions on the import of fresh fruits and vegetables.

A broadcast was made over the C.B.C. network, on Lunch Programs in Saskatchewan Schools.

Special Projects: Information on possibilities of further training for nutritionists was obtained from universities in the United States, and presented to the sub-committee of the Dominion-Provincial Nutrition Committee.

Plans were made with Dr. W. A. Riddell, Director of Provincial Laboratories and Mr. H. S. Hanna of the Dairy Branch, Department of Agriculture, to embark upon a study of the nutritive content of the milk supply in Saskatchewan, in relation to soil zones.

Addresses Given: Several addresses were given in various high schools throughout the province on "Opportunities in the Field of Home Economics". Other

addresses were given on quick-freezing of foods, to residents in areas where there were locker plants. Periodical talks were given to the Nurses Aides and Home-making classes of the Canadian Vocational Training School in Saskatoon.

Conventions Attended:

(1) Dominion-Provincial Nutrition Committee Meeting in Ottawa—this entailed discussion of material to be used in nutrition work. Ideas were exchanged concerning methods for the successful teaching of nutrition.

(2) Annual Locker Plant Convention—a contribution was made to the program by this Division.

(3) Annual School Trustees Convention, Saskatoon—an exhibit was displayed giving ideas and suggestions of various types of lunch programs which may be carried out in the schools.

(4) Canadian Home Economics Association Biennial Convention, Calgary.

(5) Canadian Restaurant Association, Saskatoon—This was a short course given to restaurant employers and employees, by Mr. George Wenzel. Valuable information was given on money management and marketing.

Valuable assistance has been received by this Division from Nutrition Division, Department of National Health and Welfare in Ottawa, in that they have provided consultant service, printed material and audio-visual aids.

Arrangements were made to grant Miss Jean Oddie, Provincial Nutritionist, leave of absence for one year, to do post graduate work in Public Health Nutrition, at the University of Michigan in Ann Arbor. Miss Eileen Price, assistant nutritionist left the employ of the Division in July, and Miss Eleanor Monan has been her successor.

Respectfully submitted,

GRACE M. RICHMOND,
A/Provincial Nutritionist.

DIVISION OF MENTAL SERVICES

REGINA, SASKATCHEWAN.

DR. C. F. W. HAMES,
Deputy Minister of Public Health.

SIR:

During 1947 the office of the Commissioner of Mental Services was established in the Legislative Building, Regina, in the Department of Public Health section. The function of this office was established as:

1. Co-ordination of the mental health services provided by the two Saskatchewan Hospitals, the Saskatchewan Training School and the Psychopathic Unit.
2. Assistance in the improvement and the development of programs in therapy and care in the four facilities mentioned above.
3. The development of a community program of mental health directed at the prevention and alleviation of mental disorder.

*Community Program:**Mental Health Clinic, Regina:*

A mental health clinic was opened on November 1st in the Regina General Hospital. The staff includes a full-time Psychologist, Social Worker, and the part-time services of two Psychiatrists. The Commissioner of Mental Services functions as Director.

Mental Health Clinic, Weyburn:

A mental health clinic was opened at the Regional Health Unit office in May, 1947. The personnel of this clinic include the part-time service of a Psychiatrist from the Saskatchewan Hospital, Weyburn; the services on a part-time basis of the Director of the Health Region and the Regional Public Health Nurse, and the services of a Teacher Psychologist who is employed as a result of a joint arrangement between the School Board of the City of Weyburn, No. 11 Larger School Unit, the Department of Public Health and the Department of Education.

Mental Health Clinic, Moose Jaw:

In December, 1947, psychiatric consultation services of a Psychiatrist from the Divisional Office at Regina, were made available at the Health Region office. The service shall continue on a twice-monthly basis.

Mental Health Clinic, North Battleford:

In December, 1947, psychiatric consultation service was initiated at the Health Region Offices on the basis of a half-day a week, the Psychiatrist to come from the Saskatchewan Hospital.

Training Program in Mental Hygiene for Community Personnel:

At the Saskatchewan Hospitals at North Battleford and Weyburn, training facilities have been established to give one-month courses in Mental Hygiene to interested professional community personnel. Between 15 and 20 Public Health Nurses, Social Workers and School Teachers have already taken this course. Arrangements have been made for an additional 50 to take the course during the first three months of 1948.

*Institutional Program:**Staff Training Program:*

During 1947 a much higher standard was achieved in regard to calibre and training of staff. A recruiting program carried out by the Division of Health Education resulted in the procurement of almost 200 new psychiatric aides with an educational standard of at least Grade XI. These students were then enrolled in a 500-hour 3 year training course. Training courses are being held simultaneously in the three institutions and each is under the direction of a qualified educator with psychological experience. The training course is progressing very favourably as at the end of 1947. We feel that it is the basis for a new approach in the care, treatment and rehabilitation of the mentally ill and the mentally defective.

PSYCHOPATHIC WARD—REGINA GENERAL HOSPITAL

REGINA, SASKATCHEWAN,
March 10, 1948.

COMMISSIONER OF MENTAL SERVICES :

SIR :

Herewith I submit the report of the work carried on in this Department during the calendar year 1947.

During this period three hundred and ninety-six patients were hospitalized, observed and treated in this small department.

In addition to the patients actually in hospital, one hundred and sixty-three people were dealt with in two hundred and sixty-three consultations as out-patients. A fairly large proportion of the out-patients were individuals under supervision of the Department of Social Welfare, while the remainder were referred to me by their family physician, or came of their own accord seeking psychiatric advice and help. I have also been a fairly regular attendant at the Regina Public Schools Mental Hygiene Clinic during the year.

In the course of the year various repairs and minor alterations to the Ward were carried out. Repairs were made to the hydrotherapy drainage system and a low retaining ridge was built about the shower area. The upper end of the stairway to the second floor was enclosed to prevent patients falling or throwing themselves downstairs, either accidentally or with intent to harm themselves. On the second floor an alteration was carried out, whereby a single room now opens directly into the main corridor rather than into a small awkward and concealed hallway. On the main floor it became necessary to use room No. 102 as an office and the former office as a waiting room. This entailed the construction of a partition, the removal of one doorway, and a change in the entrance to the basement stairway. These alterations were all carried out by the Regina General Hospital maintenance staff and by others whom the Regina General Hospital engages for such work. I have also recommended that the whole Ward be repainted and that repairs to certain areas of wall plaster be made. It was not possible to have this done before the end of the calendar year, but it will be completed before the end of the fiscal year, and it is in progress at the present date.

The furniture in both male and female wards was in very poor condition and it has been largely replaced with new furniture during the year. The new furniture, more modern in appearance and brighter in color, gives a more pleasing atmosphere to the hospital wards, which will be much improved when the redecorating is completed.

A few items of equipment for therapeutic and diagnostic procedures were obtained as follows: A new Rahm Electroshock machine to replace the Offner machine previously in use, (the Offner was sent to the factory for an overhaul and was then sent to the Saskatchewan Hospital, Weyburn), a sphygmomanometer, a combination ophthalmoscope and otoscope set, and a new spinal manometer to replace one accidentally broken. An electrical instrument sterilizer and wheel stretcher were purchased for use on the female ward.

In the latter part of the year the basement area of this unit was renovated for use as an out-patient Mental Health Clinic. Partitions were erected by Mr. Rickard, Regina General Hospital carpenter, and the whole area was painted, producing a light and comfortable suite of offices for a psychiatrist, psychologist, social worker and stenographer, plus a waiting room. The Mental Health Clinic began to function in the latter part of November, 1947, and has taken over most of the out-patient work which I had been conducting unaided, and is in a position to do a much more thorough case investigation.

During my first full year in this Department I have formed some opinions concerning the operation of the unit, which I shall place before you now.

The number of patients appearing here for treatment is greater than one physician can handle in a satisfactory manner by himself. The interne service provided to this unit has been so sketchy that it is almost non-existent, and I recommend that a full-time interne be employed for this unit alone, either through the Regina General Hospital or directly by the Department of Public Health. An alternative would be to employ a full-time assistant physician, or a psychiatrist-in-training.

Again because of the patient volume, I wish to suggest that the full-time services of a social worker be obtained for the patients in hospital, distinct from an out-patient department social worker. This would relieve the physician of a good deal of detail work.

Occupational and recreational therapy is one aspect of the treatment of patients on the Ward that is badly in need of improvement. Up to the present time activities along these lines have been at a minimum, supervised by the nursing and orderly staff. I wish to recommend that a trained occupational therapist be employed for this unit, to supervise these activities in a satisfactory manner.

The amount of clerical work in connection with the administration has increased considerably and for a portion of the year a second stenographer was employed by the Department for this unit. Since the inception of the Mental Health Clinic the services of this stenographer have been taken up by that unit. There is now a very distinct need for a second stenographer again for the Psychopathic Ward itself. The acquisition of a Dictaphone and Transcriber have been of considerable value in answering mail and for recording case histories.

In concluding this report I wish to mention that there is a great deal of psychiatric counselling required and sought by physicians and welfare societies, to the extent that one psychiatrist could devote his full time to that phase of the work alone, without any, or with a minimum of responsibility for the Psychopathic Ward and the treatment of patients in hospital.

Respectfully submitted,

Your obedient servant,

J. A. McLURG, M.D.,
Director,
Psychopathic Department.

SCHEDULE NO. 1

Disposition of Patients:

Patients in Hospital, January 1, 1947	19
Patients admitted during year.....	377
	<hr/>
Total cases dealt with during the year	396

Discharges:

Improved.....	269
Unimproved.....	14
In for safe-keeping only.....	3
In for observation and diagnosis only.....	17
Escaped.....	.....
Transferred to General Hospitals.....	12
Transferred to Mental Hospitals.....	56
Died in Psychopathic Ward.....	5
Patients in Hospital, December 31, 1947.....	20
	<hr/>
	396

SCHEDULE NO. 2

No.	Age	Sex	Cause of Death	Predisposition
3,444	68	M	Pontine Haemorrhage	Without Psychosis Pontine Haemorrhage.
*3,454	58	M	Brain Tumor	Psychosis with Brain Tumor
*3,614	61	M	Bronchopneumonia	Psychosis with Somatic Disease
3,741	40	M	Diabetes	Psychosis with Somatic Disease
3,642	48	F	Suicide by hanging	Involution Melancholia

(*indicates that autopsies were done)

SCHEDULE NO. 3—AGES OF PATIENTS

1-14 years:	15-34 years:	35-54 years:	From 55 years on
1.....14 yrs	3.....15 yrs	15.....35 yrs.	3.....55 yrs.
	3.....16 yrs.	9.....36 yrs.	6.....56 yrs.
	6.....17 yrs.	11.....37 yrs.	6.....57 yrs.
	0.....18 yrs.	7.....38 yrs.	6.....58 yrs.
	8.....19 yrs.	3.....39 yrs.	2.....59 yrs.
	9.....20 yrs.	3.....40 yrs.	1.....60 yrs.
	8.....21 yrs.	5.....41 yrs.	6.....61 yrs.
	4.....22 yrs.	6.....42 yrs.	8.....62 yrs.
	4.....23 yrs.	12.....43 yrs.	4.....63 yrs.
	6.....24 yrs.	7.....44 yrs.	2.....64 yrs.
	12.....25 yrs.	7.....45 yrs.	3.....65 yrs.
	5.....26 yrs.	2.....46 yrs.	3.....66 yrs.
	11.....27 yrs.	12.....47 yrs.	3.....67 yrs.
	8.....28 yrs.	4.....48 yrs.	7.....68 yrs.
	14.....29 yrs.	9.....49 yrs.	3.....69 yrs.
	11.....30 yrs.	7.....50 yrs.	0.....70 yrs.
	7.....31 yrs.	7.....51 yrs.	1.....71 yrs.
	17.....32 yrs.	2.....52 yrs.	3.....72 yrs.
	11.....33 yrs.	2.....53 yrs.	3.....73 yrs.
	5.....34 yrs.	10.....54 yrs.	2.....74 yrs.
			1.....75 yrs.
			2.....76 yrs.
			0.....77 yrs.
			0.....78 yrs.
			0.....79 yrs.
			0.....80 yrs.
			5.....81 yrs.
			1.....82 yrs.
			0.....83 yrs.
			0.....84 yrs.
			0.....85 yrs.
			0.....86 yrs.
			0.....87 yrs.
			0.....88 yrs.
			2.....89 yrs.
			1.....97 yrs.
1	152	140	84

THE MENTAL HOSPITAL, NORTH BATTLEFORD

NORTH BATTLEFORD, SASKATCHEWAN,

July 8, 1948.

COMMISSIONER OF MENTAL SERVICES,

SIR:

I beg to submit herewith the thirty-fourth Annual Report of the Saskatchewan Hospital, North Battleford, Saskatchewan.

Our Register showed on January 1st, 1947, a patient population of 1,732 of whom 1,111 were males and 621 were females. The year ended with a population of 1,784—1,125 males and 642 females.

This showed a net increase of 52 patients.

Our admissions, including re-admissions, were 272 males and 230 females, making a total of 502 admissions.

During the year, 270 were released on Probation, and 40 were returned from Probation. Besides those released on Probation, 49 were discharged directly from the Hospital.

We were able to maintain our staff at, or near, our establishment with the exception of medical staff which, throughout the year, remained much below our complement, and, consequently, placed a heavy load on the Doctors.

In September, Dr. H. R. Baines was added to our staff by transfer from the Saskatchewan Hospital, Weyburn, which ameliorated to some extent the burden.

To all the Hospital staff I express thanks for unflinching co-operation, and to you, Sir, for your steady support.

Yours truly,

G. F. NELSON, M.D.,
Medical Superintendent.

Medical Staff:

During the first eight months of the year, this consisted of five psychiatrists and physicians. In September, Dr. H. R. Baines was added to the number. The work, however, was carried on in a commendable manner.

Dental Department:

All admissions are examined and a regular survey of all patients made. A dental laboratory has been in operation throughout the year. Much of the work in this laboratory has been done by a male patient under the supervision of our Dentist, Dr. J. T. Cairns. As a result, it has been unnecessary to send much work to an outside laboratory.

Nursing Staff:

There has been no change in the Administration division of the Nursing staff during the year, except in the junior assistant Head nurses. There has been a number of changes in the Ward Nursing staff through resignations. These were replaced in so far as possible by qualified personnel obtained by recruitment during last summer.

Office Staff:

There have been no changes in the senior office staff. There have been some changes in the junior office staff, and until this has become stabilized filing and record keeping will not be as satisfactory as it should be.

Power Plant, Maintenance, Farming and Gardening Staff:

This personnel has remained practically unchanged.

Training Program:

A re-vamped training course was begun last October. This was under the immediate supervision of Mr. F. A. MacKinnon, who was taken on the staff as Supervisor of Staff Training.

The hours devoted to lectures and nursing procedures have been increased, and it is hoped that nursing personnel will fit themselves earlier for their duties. A mental hygiene course, as part of the training course, has been given to the more senior students as well as to graduates.

Mental Hygiene Course:

Dr. M. Demay of the Psychiatric staff, assisted by others, has given a course in Mental Hygiene to Public Health Nurses, Social Service Workers and others. It is expected that these individuals will be used in Mental Hygiene work in their various communities.

Mental Hygiene Clinic:

A Mental Hygiene Clinic was started in the City of North Battleford at the beginning of the year (1948). This is conducted by the Hospital in conjunction with the personnel of the Health Unit and local teachers. It is intended that similar clinics will be eventually opened when practicable in other centres in the Northern half of the province.

Treatment of Patients:

Electro-convulsive therapy is being extensively used in this Hospital, and is recognized as being of considerable value. It has largely taken the place of Insulin therapy which latter had to be largely curtailed during the year owing to the shortage of Medical personnel. It is not looked upon as a cure-all, but must be supplemented by individual psycho-therapy, Group psycho-therapy, Occupational and Recreational therapy all of which, we use extensively. Recreation has been extended during the year to the benefit of all concerned, and as an aid in the cure of many. While Occupational therapy has been utilized for years, it is being organized on a more systematic basis and it is hoped that a trained Occupational Therapist will increase the efficiency of this form of treatment.

The New Outlook:

Our hospital Magazine "The New Outlook", is now in its second year of publication. It comes out regularly, monthly, and to a large extent, is got out by the patients. The patients, ex-patients and staff alike, look forward to each issue.

Power Plant Report:

No trouble has been experienced with our generating equipment during the year. However, approximately 40 per cent. of our power requirements is at present supplied from the Saskatchewan Power Commission, and it is recommended that as soon as possible, generators be installed to meet all our power needs so that we shall be in a position to avoid any interruptions of service.

Many changes have been made in the Power Plant and buildings during 1947. The wooden structure which formerly housed the office of the Chief Engineer and the Machine shop has been replaced by a brick addition to the power house. In this addition, are the offices of the Chief Engineer, the Superintendent of Maintenance and the Head Electrician. The Electrical shop and the Machine shop are also in this building. The basement is used, in part, to house all repairs and spare parts and another section of it will be used as the location for our new boiler feed pumps and our water heaters.

The present steam generating equipment consists of four 200 H.P. Babcock and Wilcox water tube boilers. Nos 1 and 2 Boilers are now fired with oil. The fuel storage tanks, three in number, with a total capacity of 36,600 gallons, are housed in a vault where all parts and lines are readily accessible for maintenance and repair.

All the changes made were carried through with no interruption in essential service. The Chief Engineer and other staff concerned are to be commended that this has been so.

Irrigation Power Plant:

Both Diesel engines at the Irrigation Power Plant were overhauled during the year, and are giving satisfactory service.

Water Supply:

In the report covering the year 1946-47, the engineering Department commented on the unsatisfactory condition of our water supply. During the fall of 1946, the river water level fell to a point where, during the following winter, the filtration crib was barely able to supply sufficient water to maintain essential services. While during the fall of 1947, the river level was high, we should not lose sight of the fact that the conditions prevailing in the winter of 1946-47 might recur and therefore, it is strongly recommended that the necessary measures be taken at once to guard against such a possibility.

As the wells at the Irrigation Building appear to be receiving a diminishing supply of water, we believe that immediate steps should be taken to establish a new source of supply.

*Farm Report:**Home Farm:*

Severe drought during the summer of 1947 resulted in almost a complete failure of all grain crops.

No serious outbreak of disease was experienced in the livestock.

Our dairy herd produced well during the year, and obtained 6th position in the Greater Average Productive Competition, with an average production of 11,032 lbs. of milk and 364.5 lbs. of butter fat.

We again shipped a carload of heifers to the Saskatchewan Hospital, Weyburn.

Irrigation Farm:

Although the season was exceptionally dry, another very successful crop of garden produce was obtained, thus demonstrating the value of Irrigation.

We were unable to irrigate a large acreage of grain crops owing to having to summerfallow 200 acres which were badly infested with sow thistle and dandelion. However, 125 tons of alfalfa hay was produced and 70 tons of green oat sheaves for fodder.

125 bred sows were sold to farmers for breeding stock.

The poultry flock was tested for tuberculosis and a negative test obtained.

The following produce was supplied to the Hospital:

Home Gardens:

Green onions	4,310 lbs.	Marrow	4,260 lbs.
Asparagus	355 "	Corn	3,789 "
Radish	3,723 "	Celery	1,005 "
Rhubarb	2,150 "	Onions	745 "
Spinach	2,000 "	Squash	1,800 "
Lettuce	7,849 "	Pumpkin	3,000 "
Peas	3,461 "	Beets	3,005 "
Chard	6,485 "	Peppers	50 "
Turnips	10,765 "	Potatoes	47,100 "
Carrots	2,480 "	Strawberries	729½ "
Beans	2,875 "	Currants	939 "
Cucumber	5,712 "	Gooseberries	141 "
Cabbages	12,829 "	Plums	539 "
Cauliflower	4,830 "	Crab Apples	46 "

Irrigation Gardens:

Beans green	8,528 lbs.	Peas green	14,785 lbs.
Beans dry	Frozen	Peas dry	18,720 "
Beets	31,655 "	Pumpkin	2,505 "
Carrots	222,367 "	Radish	1,421 "
Cauliflower	5,090 "	Rhubarb	1,351 "
Cabbage	138,661 "	Chard	3,507 "
Celery	1,747 "	Squash	5,010 "
Cucumber	Frozen	Spinach	225 "
Corn	6,394 "	Tomatoes	3,213 "
Lettuce	307 "	Turnips	667,457 "
Leeks	915 "	Marrow	10,280 "
Onions	25,686 "		

Irrigation Orchard:

The late spring frost did a lot of damage both to the vegetable crop and the fruit trees:

Strawberries	2,239 lbs.	Raspberries	284 lbs.
Currants	384 "	Cherries and Plums	2,710 "
Gooseberries	92½ "	Crab Apples	50 "

Construction and Maintenance:

The maintenance work on our buildings has increased with the years.

To appreciate the work entailed, one must take into account the buildings used for housing patients, together with the Nurses' Home, Apartment Block, the numerous cottages for housing staff and the buildings for housing stock on our extensive farm.

Changes were made on several wards to provide more space for patient accommodation or other purposes. The addition to the Power house entailed a great deal of work for the maintenance staff.

Our Tradesmen attended to over 7,000 requisitions for minor repairs to furniture, plumbing and electrical fixtures.

The entire roof of the main building was repainted.

TABLE II. (b).

	Male	Female	Total
January.....	8	6	14
February.....	2	5	7
March.....	2	10	12
April.....	17	10	27
May.....	21	15	36
June.....	15	20	35
July.....	14	18	32
August.....	15	6	21
September.....	13	13	26
October.....	13	14	27
November.....	7	12	19
December.....	10	13	23
Still on Probation.....	137	142	279
	72	76	148
Total Discharges.....	65	66	131

TABLE III.—COMPARATIVE MOVEMENT OF POPULATION BY YEARS.

	1944-45	1945-46	1946-47	(Jan. 1- Dec. 31) 1947
Admissions (including Trans. In.).....	350	397	403	504
Paroles.....	217	263	257	319
Deaths.....	101	96	93	126
Deportations.....	.....	.....	.....	1
Eloperments.....	3	9	1	1
Transfers-Out.....	14	1	9	5
Remaining on Register.....	1,687	1,715	1,769	1,784

TABLE IV.—MILITARY PATIENTS ADMITTED.

No.	Nativity	Age	Social Status	Sex	Diagnosis
1.	Sask.	24	S	M	Schizophrenia-Hebephrenic Type
2.	Germany	52	S	M	Without Psychosis, Borderline Intelligence with Amoral Trends
3.	Sask.	29	M	M	Manic Depressive Recurrent Type
4.	Sask.	25	M	M	Psychopathic Personality-Asocial & Amoral Trends
5.	Ontario	70	S	M	Psychosis Associated with Cerebral Arteriosclerosis.
6.	Sask.	27	S	M	Schizophrenia-Hebephrenic
7.	Sask.	24	S	M	Schizophrenia-Catatonic Type
8.	Sask.	23	S	M	Psychoneurosis-Reactive Depression
9.	Sask.	22	M	M	Psychopathic Personality-Inadequate Type with Asocial Trends
10.	Sask.	40	Sep.	M	Acute Alcoholic Psychosis
11.	Manitoba	21	S	M	Without Psychosis-Psychoneurosis
12.	Sweden	53	M	M	Psychoneurosis-Neurasthenic
13.	Sask.	36	M	M	Schizophrenia-Simple Type
14.	Manitoba	26	M	M	Undiagnosed
15.	Sask.	21	S	M	Schizophrenia-Simple Type
16.	Sask.	23	S	M	Epilepsy Without Psychosis

TABLE IV.—MILITARY PATIENTS ADMITTED (*Continued*).

No.	Nativity	Age	Social Status	Sex	Diagnosis
17.	Sask.	36	M	M	Without Psychosis-Psychoneuroses Hysterical
18.	Sask.	26	S	M	Schizophrenia-Catatonic Type
19.	England	41	M	M	Schizophrenia-Simple Type
20.	Sask.	26	S	M	Manic Depressive, Depressed Type
21.	Sask.	21	S	M	Schizophrenia-Hebephrenic Type
22.	Finland	37	S	M	Post-traumatic Cerebral Syndrome
23.	England	74	W	M	Psychosis Associated with Cerebral Arteriosclerosis.
24.	Sask.	31	S	F	Manic Depressive-Alternating Type
25.	Sask.	25	S	M	Schizophrenia-Catatonic Type
26.	Ontario	32	S	M	Disseminated Sclerosis Without Psychosis
27.	Poland	24	S	M	Psychoneurosis, Anxiety State
28.	Sask.	20	S	M	Schizophrenia-Catatonic
29.	Sask.	30	S	M	Schizophrenia-Catatonic
30.	Sask.	23	S	F	Schizophrenia-Catatonic
31.	England	60	S	M	Psychosis Associated with Cerebral Arteriosclerosis.
32.	Ontario	61	M	M	Manic Depressive, Recurrent Manic Type
33.	Sask.	21	S	M	Primary Behaviour Disorder, Simple Adult Mal.
34.	Sask.	23	M	F	Schizophrenia-Catatonic Type
35.	Ontario	62	W	M	Psychosis Associated with Cerebrospinal Lues Manic Reaction.
36.	England	56	M	M	Manic Depressive Alternating
37.	Sask.	40	D	M	Acute Alcoholic Psychosis
38.	Sask.	24	M	F	Psychosis with Organic Disease
39.	Ontario	70	M	M	Psychosis with Cerebral Arteriosclerosis
40.	Sask.	26	S	F	Primary Behaviour Disorder
41.	Ontario	67	M	M	Psychosis Associated with Cerebral Arteriosclerosis.
42.	Sask.	21	S	M	Psychoneurosis-Mixed Type
43.	Sask.	55	M	M	Chronic Alcoholism with Deterioration
44.	Sask.	23	S	M	Schizophrenia-Simple Type
45.	New Zealand	60	M	M	Psychosis with Cerebral Arteriosclerosis
46.	Sask.	37	S	M	Schizophrenia-Catatonic Type
47.	Sask.	37	M	M	Undiagnosed
48.	Sask.	27	S	M	Schizophrenia-Catatonic Type
49.	Alberta	23	M	M	Without Psychosis-Acute Commotional Shock Associated with Cerebral Trauma
50.	Sask.	38	M	M	Schizophrenia-Paranoid Type
51.	Sask.	27	S	M	Schizophrenia-Catatonic Type
52.	Sask.	29	M	M	Without Psychosis Primary Behaviour Disorder Simple Adult Maladjustment
53.	Ontario	57	M	M	Psychosis Associated with Cerebrospinal Lues General Paresis

	M	F
In Hospital Dec. 31/46	138	3
Admitted during year.....	51	5
Total.....	189	8
Discharged during year.....	53	4
Total.....	136	4
Died during year.....	5	1
Remaining in Hospital.....	131	3

TABLE V(a)—TOTAL ADMISSIONS ON BOOKS AT DEC. 31/47 BY DIAGNOSIS.

Diagnosis (Psychotics)	M	F	Total
Schizophrenia—Simple.....	8	9	17
Catatonic.....	30	28	58
Hebephrenic.....	21	24	45
Paranoid.....	15	7	22
Unspecified.....	1	..	1
Manic Depressive—Manic type.....	10	10	20
Depressive type.....	12	27	39
Mixed type.....	1	3	4
Perplexed type.....	..	1	1
Other types.....	5	9	14
Paranoia and Paranoid Conditions.....	..	1	1
Involuntional Psychosis.....	..	14	14
Psychosis with Convulsive Disorder.....	4	7	11
Psychosis with Mental Deficiency.....	7	9	16
Psychosis with Cerebral Arteriosclerosis.....	76	25	101
Senile Psychosis.....	8	16	24
Presenile Psychosis.....	1	..	1
General Paresis.....	3	2	5
Psychosis with Other Forms of Syphilis of Central Nervous System.....	2	..	2
Psychosis with Epidemic Encephalitis.....	1	1	2
Traumatic Psychosis.....	2	..	2
Psychosis with Somatic Disease.....	..	2	2
Primary Behaviour Disorders.....	3	2	5
Psychosis with Other Disturbances of Circulation.....	1	2	3
Psychosis Assoc. with Organic Changes of Nervous System.....	..	1	1
Psychoneurosis—Hysteria.....	..	1	1
Psychasthenia.....	3	2	5
Neurasthenia.....	3	2	5
Reactive Depression.....	3	9	12
Hypochondriacal type.....	1	2	3
Anxiety.....	5	2	7
Mixed.....	1	1	2
Psychosis with Psychopathic Personality.....	2	..	2
Alcoholic Psychosis.....	4	..	4
Undiagnosed Psychosis.....	3	2	5
	236	221	457

TABLE V(b).—TOTAL ADMISSIONS ON BOOKS AT DEC. 31/47 BY DIAGNOSIS.

Diagnosis (Without Psychosis)	M	F	Total
Mental Deficiency.....	4	..	4
Moron.....	..	2	2
Imbecile.....	..	2	2
Idiot.....	3	2	5
Epilepsy.....	2	1	3
Epilepsy.....	11	2	13
Psychopathic Personality.....	4	1	5
Without Psychosis, Other types.....	3	1	4
Alcoholism.....	6	..	6
Psychoneurosis.....	3	..	3
	36	11	47

SCHEDULE III—MOVEMENT OF PATIENT POPULATION YEAR ENDED DECEMBER 31, 1947.

	Total			Psychotic			Mental Defectives (without psychosis)			Epileptics (without psychosis)			Other Type (without psychosis)		
				M	F	T	M	F	T	M	F	T	M	F	T
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
On books at beginning of year—															
In hospital.....	1,111	621	1,732	1,024	578	1,602	72	31	103	13	9	22	2	3	5
In boarding homes.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
On parole or otherwise absent.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total.....	1,111	621	1,732	1,024	578	1,602	72	31	103	13	9	22	2	3	5
Admissions during year—															
(do not include paroles or escapes)															
First admissions.....	203	160	363	176	151	327	9	5	14	5	2	7	13	2	15
Readmissions.....	69	70	139	60	70	130	.....	.....	.....	6	.....	6	3	.....	3
Transfers received.....	.....	2	2	.....	.....	.....	.....	2	2	.....	.....	.....	.....	.....	.....
Total admissions.....	272	232	504	236	221	457	9	7	16	11	2	13	16	2	18
Separations during year—															
(do not include paroles or escapes)															
Discharges as recovered.....	9	19	28	8	19	27	.....	.....	.....	.....	.....	.....	1	.....	1
Discharged as improved.....	125	108	233	109	106	215	1	.....	1	4	2	6	11	.....	11
Discharged as unimproved.....	29	31	60	19	25	44	3	4	7	4	.....	4	3	2	5
Discharged as without psychosis.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Discharged unclassified.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total discharges.....	163	158	321	136	150	286	4	4	8	8	2	10	15	2	17
Transfers to other mental hospitals.....	5	.....	5	3	.....	3	1	.....	1	1	.....	1	.....	.....	.....
Deaths in hospital.....	79	47	126	74	45	119	2	2	4	.....	.....	.....	3	.....	3
Total separations.....	247	205	452	213	195	408	7	6	13	9	2	11	18	2	20
On books at end of year—															
In hospital.....	1,136	648	1,784	1,047	604	1,651	74	32	106	15	9	24	0	3	3
In boarding homes.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
On parole or otherwise absent.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total.....	1,136	648	1,784	1,047	604	1,651	74	32	106	15	9	24	0	3	3

Average daily patient population in institution during year Male: 1,128.25; Female: 637.17; Total: 1,765.42.

DENTAL DEPARTMENT

Number of Patients treated	1,912
Number of Examinations	610
Prophylaxis	274
Fillings	576
Extractions	1,101
Dentures	110
Repairs	90
Miscellaneous	501
Grand Total of Operations	5,174

In addition a number of consultations were given to members of the staff and a number of the staff were treated for the relief of pain.

GREENHOUSES, GARDENS AND GROUNDS—1947

The vegetable crop raised in the Home Gardens was very good, as evidenced by the following totals:

Green Onions	4,310 lbs.	Cabbages	12,829 lbs.
Asparagus	355 "	Cauliflower	4,830 "
Radish	3,723 "	Marrow	4,260 "
Rhubarb	2,150 "	Corn	3,789 "
Spinach	2,000 "	Celery	1,005 "
Lettuce	7,849 "	Onions	745 "
Peas	3,461 "	Squash	1,800 "
Chard	6,485 "	Pumpkin	3,000 "
Turnips	10,765 "	Beets	3,005 "
Carrots	2,480 "	Peppers	50 "
Beans	2,875 "	Potatoes	47,100 "
Cucumber	5,712 "		

The greenhouses and concrete hotbeds continue to give satisfactory service.

In addition to 39,318 plants which were raised for planting our flower and vegetable gardens, a total of 8,490 potted plants have been delivered to the different wards and offices, besides cut flowers for the wards, offices and dining rooms.

The flower gardens in front of the main building were again a great success and have also supplied an abundance of cut flowers for the wards.

Approximately 28,000 bedding plants and 3,000 bulbs have been used to plant the flower gardens and the different flower beds scattered about the lawns.

The lawns around the main building, the cottages, the nurses' home and the apartment block have been watered and cut regularly and kept in good condition all through the summer.

The golf course and tennis courts have also been kept in good condition. The greens and fairways have been cut regularly and the bluffs kept free of weeds all during the season.

The severe late spring frost did an enormous amount of damage in our orchard—some of the apple trees were killed, and all trees suffered severely, yet, notwithstanding, we had a fair crop of small fruits:

Strawberries	729½ lbs.
Currants	939 "
Gooseberries	141 "
Plums	539 "
Crab apples	46 "

Our roads have been kept in good shape this year. The roadsides have all been dug and kept weeded. 1,058 trees have been planted in the grounds.

A good start has been made in beautifying the grounds around the irrigation buildings. Black soil has been brought in during the summer, and we hope to be able to sow part of it to grass next season—foundation planting of shrubs has already been accomplished.

IRRIGATION PROJECT—GARDENS

The following crops were harvested at the irrigation farm from 64½ acres of vegetable gardens:

Beans green	8,528 lbs.	Peas green	14,785 lbs.
Beans dry	Frozen	Peas dry	18,720 "
Beets	31,655 "	Pumpkin	2,505 "
Carrots	222,367 "	Radish	1,421 "
Cauliflower	5,090 "	Rhubarb	1,351 "
Cabbage	138,661 "	Chard	3,507 "
Celery	1,747 "	Squash	5,010 "
Cucumber	Frozen	Spinach	225 "
Corn	6,394 "	Tomatoes	3,213 "
Lettuce	307 "	Turnips	667,457 "
Leeks	915 "	Marrow	10,280 "
Onions	25,686 "		

Seventy-two (72) acres of potatoes yielded 17,109 bushels.

Early fall frost killed our cucumbers and dry beans and also touched some of our potatoes—cutting our crop down by approximately a thousand bushels.

IRRIGATION ORCHARD

Strawberries	2,239 lbs.	Raspberries	284 lbs.
Currants	384 "	Cherries and Plums	2,710 "
Gooseberries	92½ "	Crab Apples	50 "

The late spring frost also did a lot of damage to the fruit trees—some of the apple trees were completely killed, and all were severely damaged.

All the damaged trees are recovering and the killed trees have been replaced.

INDUSTRIAL WORK

1. Office built in 10a ward.
2. Office built on 2a ward.
3. Doorway built across corridor in 2a ward.
4. Clothes room on 10a changed to make more room.
5. 50 crates made for carrying vegetables.
6. Service kitchen in 4b enlarged.
7. Tray rack built for 4b service kitchen.
8. Ward 2a changed to make separate parole ward.
9. Two dining room tables built for irr. dining room.
10. Vault built for transformers in basement.
11. Tool shed built for gardener 4' x 20'.
12. New roof built on old septic tank which has been converted into a garage for staff cars and hospital trucks.
13. One suite in apartment block completely decorated.
14. 2,000 concrete coping built for gardens at irr.
15. Concrete hog feeding troughs repaired on farm.
16. New support placed in cow barn.
17. Abutments built for culvert on irr. farm.
18. Shower bath installed in annex T.B. ward.
19. Lavatory removed and reinstalled in annex T.B. ward.
20. Ventilator shafts blocked in 3b and 5b wards.
21. Lecture room was fitted up in basement which included installation of sink, removal of ceiling type radiators and installation of wall type—building cup-

- boards, tables, painting same, also painting entire lecture room—building blackboards, installation of lights over blackboards.
22. Four single garages were built for staff cars and lights installed.
 23. Lighting at skating rink was renewed and converted to A.C.
 24. Several staff cottages were converted from D.C. to A.C.
 25. Annex dining room painted.
 26. Annex 1—ward painted.
 27. One staff cottage painted and papered.
 28. Entire roof of main building painted.
 29. Store room in basement converted into office.
 30. In addition to the above work a great deal of work has been done in connection with the addition to our power house such as electrical wiring, painting and building cupboards and shelving.
 31. A lot of electrical work has been done in connection with our program of changing our system from D.C. to A.C.
 32. Our tradesmen have attended to over 7,000 requisitions for minor repairs to furniture, plumbing and electrical fixtures—also general maintenance work, both at the main building and the irrigation project.

FARM REPORT—1947-48

Home Farm:

Severe drought conditions during the summer of 1947 resulted in almost a complete failure of all grain crops.

No grain was harvested, but a considerable amount of feed was obtained by pasturing the crops when it became apparent that none of the fields would be worth harvesting.

Considerable difficulty was experienced in obtaining sufficient hay and straw in the district to meet our requirements due to the drought, and this necessitated hauling a long distance.

Livestock:

No serious outbreak of disease was experienced in the livestock.

We again shipped another carload of surplus heifers to the Weyburn Institution.

Our dairy herd produced exceptionally well during the past year, and obtained 6th position in the Greater Average Production Competition with an average production of 11,032 pounds milk and 364.5 pounds butter fat.

A very keen demand from the farmers was experienced for the sale of swine for breeding stock. 125 bred sows were disposed of to meet this demand.

The poultry flock was again tested for tuberculosis during the summer, by the Provincial Veterinary Department, and a negative test was obtained.

Irrigation Farm:

The value of irrigation was well demonstrated during the past season. Although the season was exceptionally dry, another very successful crop of garden produce was obtained.

Unfortunately, we were unable to irrigate a very large acreage of grain crops. This was due to having to summerfallow some 200 acres, which were badly infested with sow thistle and dandelion.

Our irrigation pumping units continue to operate quite satisfactorily.

The Soils Department of the University of Saskatchewan kindly re-tested the soil at a number of points on the irrigation farm as we were interested to know what effect 10 years of continuous cropping and heavy irrigation had on the soil.

We were very pleased to learn that no serious depletion had taken place.

125 tons of alfalfa hay was produced and 70 tons of green oat sheaves obtained for fodder.

Produce supplied to the institution was as follows:

Milk	429,812 qts.	Chicken	17,017 lbs.
Beef	12,100 lbs.	Eggs	29,900 doz.
Lamb	3,436 "	Fowl	7,394 lbs.
Mutton	1,105 "	Turkey	7,234 "
Pork	103,848 "	Liver	1,895 "

MAIN BUILDING AND IRRIGATION POWER PLANTS

Fiscal Year 1947-48

Water Supply:

In our report covering the year 1946-47, we commented on the unsatisfactory condition of the source of our water supply.

During the fall of that year, the river level fell to a point lower than we had ever experienced before with the result that throughout the winter, our filtration crib was barely able to supply sufficient water to maintain essential services. A comprehensive report on this condition was prepared and presented to the Department of Public Works in November of 1946.

We are glad to be able to report that because of a much higher river level in the fall of 1947, the water supply caused us no concern at any time during the past winter. Adequate supplies were available at all times.

We should not, however, lose sight of the fact that we might easily experience a recurrence of the troubles that beset us in 1946-47, and the requisite measures should be taken now to guard against such a possibility.

New suction lines and connections are being installed presently which will give us better service and greater efficiency. The larger of our two river pumps, which was located in a small house adjacent to the filtration crib, has been moved to a new location in the original pump station, where the smaller pump is also located. When these new lines and connections have been completed, we shall have an extremely flexible supply system. A new chlorinator will be installed at the pump station which will provide positive and adequate chlorination of our water supply at all times, regardless of the volume of water or the particular supply lines being used.

Refrigerating Plant:

The refrigerating plant was made fully automatic during the year and now operates satisfactorily with the minimum of attention. The old brine tank, which leaked badly resulting in a constant loss of brine as well as progressive deterioration of adjacent floors and building foundations, has been removed and a heavy steel tank installed. The probable useful life of the new tank is thirty years.

Generating Equipment:

No trouble has been experienced with our generating equipment during the year. The mechanical and electrical staff have kept these machines in excellent condition at all times and their operation has been highly satisfactory. It should be noted that our present equipment, which consists of three 100 R.W. generators, is quite inadequate to meet our power needs, and a large part of our requirements is being purchased from the Saskatchewan Power Commission. We have recommended the purchase and installation of two 500 K.W. alternators to replace our present equipment and, in our opinion, these should be placed on order without delay as delivery cannot be guaranteed in less than 24 months. It is certain that power demands will increase considerably in that time.

We have noted that a large part of our power requirements, (approximately two-fifths), is presently supplied from outside sources. In view of possible interruptions of service from such sources, it is essential that we should be in a position to provide all the power required at this institution. It is for this reason that we urge the early installation of generators capable of meeting this need.

Addition to Power House:

Many changes have been made in the plant and buildings during the year under review. The brick addition to the power house, which we recommended, has now been completed. This addition has provided us with space which was urgently required, and relieved a congestion that was becoming acute.

The addition consists of three floors—part of the basement has been utilized as a store room in which all repairs and spare parts can be separated and classified. Another section will be used as a location for our new boiler feed pumps. We had

hoped, too, that space would be available here for our water heaters but the transfer of these to the power house basement must be postponed pending the removal of the No. 3 generator base.

The ground floor is occupied partly by the machine shop and partly by a two-stall garage. The new machine shop replaces the old wooden structure which was ill-designed for such a purpose—which leaked all over the roof after every shower, and which was a constant fire hazard. The new shop provides ample space for all machinery, accommodation for all tools and repairs, and is well supplied with light.

The garage houses the truck used by the Superintendent of Maintenance and the Chief Engineer in the course of their duties.

The upper floor is occupied by the Chief Engineer, the Superintendent of Maintenance and the Electrician. The electrical staff are now housed in a commodious shop which provides them with accommodation sadly lacking in the premises they occupied in the basement of the main building. As in the case of the machine shop, the new electrical shop has ample bench space, shelves and pigeon holes for the separation and classification of all items in stock. It is also well lighted.

The new offices of the Chief Engineer and Superintendent of Maintenance occupy the remainder of this floor. These quarters are certainly a vast improvement on the old ramshackle, wooden building formerly occupied by these officials. The old office was comfortless, cramped and inconvenient, and like the old machine shop and the No. 3 engine room, detracted considerably from the outside appearance of the power house. The new offices provide everything that was lacking in the old.

Feed Water Treatment:

Our feed water treatment continues to give satisfaction. No adherent scale has been observed in any of the boilers examined during the year, and the period of time taken to clean boilers has been reduced considerably. The need for using our turbine tube cleaner has not arisen since we installed the treatment.

Boiler Breeching:

In preparation for the installation of our new boilers, new breeching was installed last summer. It was the opinion of the contractors that this work could not be done without a shut-down of, at least, eight hours. We are glad to be able to report that this difficult undertaking was accomplished with no interruption of services.

Installation of Oil Burners:

Our present steam generating equipment consists of four 200 H.P. Babcock and Wilcox water tube boilers. Until recently, all four boilers were fired by under-feed stokers using sub-bituminous slack coal. Some time ago, the decision was made to fire our No. 1 and 2 boilers with oil, and these boilers would carry our summer load while our Nos. 3 and 4 boilers were being dismantled, and the first of the new Foster-Wheeler Boilers installed. Much planning was necessary in preparing for the change-over from coal to oil, but this work, too, was completed without upsetting the plant routine to any extent, and without any interruption of service. The burners, fuel, pumps and transfer pump all are operating in a satisfactory manner.

Our fuel storage tanks, three in number, with a total capacity of 36,600 gallons, are housed in a vault where all parts and lines are readily accessible for maintenance and repair. This, we believe to be a better method of housing tanks than that of burying them. Based on our experience during the short period of operation, it is our belief that the fuel pumps would provide a more positive service with a submerged suction, rather than the overhead suction for which the tanks are designed. We propose installing a low suction line to supplement the existing suction as soon as possible.

New Boilers:

To prepare the foundation for the first of our new boilers, it will be necessary to cut into the air duct through which air is supplied to the furnaces under forced draft. To maintain a supply of air to our oil burners, pending the time when the first of the new boilers and the necessary auxiliaries are installed, we have been obliged to move our turbine driven fan to a new location on the firing floor. From the moment when we begin to dismantle our Nos. 3 and 4 boilers to make way for the new boiler, our furnace air supply will depend entirely on this fan, which must run continuously until the new installation is completed. The turbine and fan have been

completely overhauled and every effort made to ensure continuous and satisfactory operation during the next six months but, with no stand-by equipment available, these are bound to be anxious months.

New Header:

Our present steam header is of the ring type. This type of header has proven eminently satisfactory for our present set-up, but, for many reasons, it will be quite unsuitable for the new boilers. It would have to be raised considerably to suit the new boiler setting and the construction of our boiler house makes this impracticable. It is made of 8-inch pipes which is not quite large enough for our anticipated needs—also, it occupies too much space.

The ring header will be replaced by a new 12-inch straight header which will provide a much more compact assembly. To dismantle our Nos. 3 and 4 boilers, it will be necessary of course, to disconnect these boilers from the header, but also it will be necessary to completely remove one half of the header to permit the installation of the new boiler to be made. Because of this, a considerable re-arrangement of steam piping has been necessary. All service take-offs on that side of the header which is being removed have had to be transferred to that part of the header which will remain, temporarily, in service. In addition to the changes in piping it has been necessary, of course, to tie the two sides of that part of header which will still be in use. We sought the best available advice before tying these two sides together and we anticipate no trouble when the ring is cut. Most of the valves and much of the pipes from the old ring header will be salvaged and used on the connections from the new boilers to the new header—and on the engine and service lines taken off the header.

It is a source of great satisfaction to us and to the power plant staff to know that all the changes outlined above have been carried through with no interruption in essential services. Outside sources of supply have failed on occasion, but in spite of many difficulties, we have maintained our own services.

We look forward with confidence to many advantages that will be gained from our new installation. Not the least of these will be reduced operating costs. Even with our old boilers, antiquated stokers and out-dated equipment, we contrived to keep maintenance costs within reasonable limits during the past year. These costs will show a sharp decline with the installation of new boilers and up to date auxiliaries. Fuel costs, too, will show a marked decrease with more efficient boilers.

Safe operation is of prime importance in any power plant, and safety will be the key note of our new installation. No effort has been spared to ensure us against almost all avoidable accidents. The system will be almost fully automatic with every foreseeable contingency provided for—these things will not, of course, eliminate entirely the human factor in our operations but, backed by a conscientious staff, we can reasonably expect to have many years of practically trouble-free operation with lower operating costs.

Irrigation Power Plant:

Both diesel engines at our irrigation power plant have been overhauled during the year, and are giving satisfactory service.

The water supply has caused us some concern during recent months. The supply all but failed us at one time and we were obliged to truck thousands of gallons of water several miles to augment the small amount we were able to get from the wells.

Pumps were checked and lines examined as far as was practicable during the winter season, but no defect could be found with these.

An investigation of the wells revealed that the casings were corroded and silted and were not delivering to the wells the amount of water actually available. This condition is now being corrected. It is evident however, that the water supply is diminishing and we feel that immediate steps should be taken to establish a new source of supply. We believe that the present wells cannot much longer furnish sufficient water to meet the needs of the irrigation buildings.

We have noted that the draw-down in the wells is less than it should be which would seem to indicate either a loss of pump efficiency or a line leak. The pumps, as previously mentioned, have been checked and found in good order. The lines will be tested under air pressure but, of course, we will be unable to carry out any repairs if such should be necessary until the frost comes out of the ground.

MONTHLY STATEMENT OF K.W.H.S, COAL, WATER, ETC., FOR 1947-48. IRRIGATION POWER PLANT.

Month	K.W.H.S - Generated	Gals. Water pumped	Tons Bunker coal	Tons Dom. coal	Gals. Fuel oil	Lbs. Chl. of lime	Gals. Engine & lub. oils	Coal oil and gas
April.....	30,200	544,500	62,890	11,678	3,472	28	121.00	10
May.....	28,500	584,700	49,870	5,558	3,500	37	102.00	12
June.....	27,600	691,500	36,175	4,575	2,929	31	99.00	12
July.....	25,200	1,140,000	31,750	4,730	2,207	44	113.00	15
August.....	27,600	876,000	35,550	4,670	4,000	50	96.00	12
September.....	25,200	684,000	45,775	49,745	3,361	74	88.25	11
October.....	28,800	641,000	55,150	11,770	3,238	81	121.25	16
November.....	32,100	624,000	92,525	23,125	3,321	64	107.50	10
December.....	36,700	720,500	109,290	31,135	4,275	68	113.00	5
January.....	37,500	634,000	104,850	29,615	3,552	40	95.00	4
February.....	35,700	728,000	83,600	32,925	3,530	37	112.25	2
March.....	35,700	930,000	93,100	28,930	4,472	48	86.00	25
	370,800	8,798,200	800,525	238,456	41,857	602	1,254.25	134

MONTHLY STATEMENT OF OPERATING COSTS, 1947-48. IRRIGATION POWER PLANT.

Month	Bunker Coal	Dom. Coal	Salaries	Repairs	Engine Oils	Gasoline and Coal oil	Fuel oil	Sundries	Total
April.....	\$ 251.56	\$ 87.59	\$ 1,272.50	\$ 282.31	\$ 121.00	\$ 2.60	\$ 503.44	\$ 14.08	\$ 2,535.08
May.....	199.48	41.69	2,139.81	40.45	102.00	3.00	507.50	3.67	3,037.69
June.....	144.70	34.31	1,248.50	81.99	99.00	3.00	454.00	.....	2,065.50
July.....	127.00	35.48	1,246.53	170.84	113.00	3.75	342.09	.....	2,038.69
August.....	142.20	35.03	1,285.35	38.80	96.00	3.00	620.00	25.48	2,245.86
September.....	183.10	414.61	1,201.31	68.62	88.25	2.86	520.96	2.15	2,481.86
October.....	220.60	88.28	1,154.00	152.12	121.25	4.16	615.22	.....	2,355.63
November.....	370.10	173.44	1,332.06	65.71	107.50	2.60	630.99	.....	2,682.40
December.....	437.16	280.22	1,407.66	82.54	113.00	1.30	812.25	285.12	3,419.25
January.....	486.90	266.54	1,343.79	7.92	95.00	1.04	678.43	.....	2,879.62
February.....	439.40	296.33	1,345.74	45.53	112.25	.58	677.76	10.00	2,927.59
March.....	391.02	260.37	1,327.04	279.76	86.00	7.50	858.62	704.25	3,914.56
	\$ 3,393.22	\$ 2,013.89	\$ 16,304.29	\$ 1,316.59	\$ 1,254.25	\$ 35.39	\$ 7,221.26	\$ 1,044.75	\$ 32,583.64

MONTHLY STATEMENT OF K.W.H.s, COAL, WATER, ETC., FOR 1947-48. MAIN BUILDING PLANT.

Month	K.W.H.s generated	Gals. of water pumped	Tons bunker coal	Tons Dom. coal	Gals. fuel oil	Gals. Engine & lub. oils	K.W.H.s purchased	Domestic chlorine	Cords bakery wood	Gals. coal oil
April.....	84,499.15	9,277,700	1,181,335	6,595	.....	33.00	51,276.00	29.50	.....	45
May.....	78,769.75	10,474,200	954,880	5,558	.....	44.00	46,695.00	36.75	.....	.....
June.....	73,615.85	12,013,200	802,020	2,000	.....	65.00	46,564.00	47.50	.....	45
July.....	69,548.00	15,956,200	725,450	4,555	.....	53.50	46,234.00	54.25	.....	45
August.....	79,952.50	10,779,440	793,745	945	.....	53.50	68,800.00	51.00	19	45
September.....	82,516.75	8,080,940	962,815	1,270	.....	62.00	49,114.00	50.50	.....	45
October.....	85,805.95	7,784,600	1,019,525	1,645	.....	67.00	47,114.00	52.75	.....	45
November.....	84,480.25	7,709,220	1,186,725	9,420	.....	44.00	46,742.00	39.00	.....	45
December.....	91,598.85	7,880,320	1,334,880	17,275	.....	42.00	54,432.00	50.50	22	45
January.....	88,294.05	7,643,100	1,266,570	19,060	2,950	38.00	62,275.00	75.00	49	.....
February.....	81,255.80	7,368,200	779,070	24,980	37,150	84.00	69,378.00	59.75	21½	45
March.....	79,970.70	9,129,750	360,875	8,525	66,470	74.00	40,877.00	58.25	.....	45
Totals.....	980,307.60	114,096,870	11,367,890	101,828	106,570	660.00	629,501.00	604.75	111½	405

MONTHLY STATEMENT OF OPERATING COSTS FOR YEAR APRIL, 1947-MARCH 1948, MAIN BUILDING PLANT.

Month	Bunker coal	Dom. coal	Salaries	Pur. power	Repairs	Engine oils	Coal oil	Fuel oil	Cord wood	Sundries	Other expense	Totals
April.....	\$ 5,467.34	\$ 49.46	\$ 2,767.18	\$ 1,141.52	\$ 79.73	\$ 35.50	\$ 10.12	\$	\$	\$ 334.58	\$	\$ 9,885.43
May.....	3,888.27	29.81	4,783.40	1,071.44	196.99	46.20	.....	.....	.....	245.64	.....	10,261.75
June.....	3,208.08	15.00	2,994.60	1,069.42	192.98	67.20	.....	.....	.....	422.08	.....	7,969.36
July.....	2,901.80	34.16	2,960.61	1,064.38	203.16	55.60	11.25	.....	.....	407.95	.....	7,638.91
August.....	3,354.98	7.09	2,857.43	1,257.86	45.44	55.60	11.25	.....	.....	154.86	.....	7,875.80
September.....	4,242.26	9.53	3,045.83	1,108.44	33.60	65.10	11.70	.....	131.29	218.22	872.89	9,607.57
October.....	4,228.10	12.34	2,843.50	1,077.84	155.81	69.80	11.66	.....	.....	68.13	.....	8,467.18
November.....	4,746.90	70.65	2,722.38	1,072.15	128.93	46.40	11.67	.....	.....	45.40	.....	8,844.48
December.....	5,339.52	155.48	2,906.71	1,211.23	99.89	44.30	12.08	.....	176.00	251.43	.....	10,196.64
January.....	5,663.28	171.54	2,861.10	1,352.65	372.47	39.70	.....	199.13	410.00	456.84	.....	11,526.71
February.....	3,843.78	224.82	2,866.48	1,439.90	540.90	86.60	12.95	2,507.63	172.00	230.90	.....	11,925.96
March.....	1,515.68	76.73	2,894.63	1,003.84	102.36	77.70	12.95	3,722.32	.....	326.12	.....	9,732.33
Totals.....	\$ 48,399.99	\$ 856.61	\$ 36,503.85	\$ 13,870.67	\$ 2,152.26	\$ 689.70	\$ 105.63	\$ 6,429.08	\$ 889.29	\$ 3,162.15	\$ 872.89	\$113,932.12

OPERATING COSTS, MAIN BUILDING AND IRRIGATION POWER PLANTS.

1946-47—11 months		1947-48—12 months		Total		
Item of Expense	Irr. Power Plant	Main Building	Item of Expense	Irr. Power Plant	Main Building	Total
Bunker coal.....	\$ 2,679.88	\$ 50,232.52	Bunker coal.....	\$ 3,393.22	\$ 48,399.99	\$ 51,793.21
Supplies (Dom. coal, etc.).....	1,421.78	6,854.58	Supplies (Dom. coal, wood, etc.).....	2,013.89	1,745.90	3,759.79
Salaries.....	9,599.76	32,529.89	Salaries.....	16,304.29	36,503.85	52,808.14
Fuel oil.....	4,051.88	1,395.86	Fuel oil.....	7,221.26	6,429.08	13,650.34
Purchased power.....		13,832.17	Purchased power.....		13,870.67	13,870.67
Repairs.....	568.34	4,255.32	Repairs.....	1,316.59	2,152.26	3,468.85
Engine oils.....	656.85	780.83	Engine oils.....	1,254.25	689.70	1,943.95
Coal oil & gasoline.....	29.80	52.15	Coal oil & gasoline.....	35.39	105.63	141.02
Sundries.....	25.70	3,184.55	Sundries.....	*1,044.75	4,035.04	5,079.79
Totals.....	\$ 19,033.99	\$ 113,117.87	Totals.....	\$ 32,583.64	\$ 113,932.12	\$ 146,515.76

*—Including repairs to Hospital spur—\$872.89

FUEL CONSUMPTION, IRRIGATION POWER PLANT.

1946-47		1947-48	
Month	Gal.	Month	Gal.
May.....	3,494	April.....	3,472
June.....	3,214	May.....	3,500
July.....	3,122	June.....	2,929
August.....	3,596	July.....	2,207
September.....	2,905	August.....	4,000
October.....	3,313	September.....	3,361
November.....	3,352	October.....	3,238
December.....	4,350	November.....	3,321
January.....	3,740	December.....	4,275
February.....	2,326	January.....	3,552
March.....	4,563	February.....	3,530
April.....	.....	March.....	4,472
Totals.....	37,975	Totals.....	41,857

CHLORINE, MAIN BUILDING AND CHLORIDE OF LIME, IRRIGATION POWER PLANT.

1946-47		1947-48			
Month	Lbs. Irr. Power Plant	Lbs. Main Building	Month	Lbs. Irr. Power Plant	Lbs. Main Building
May.....	23.0	46.5	April.....	28	29.50
June.....	25.0	42.0	May.....	37	36.75
July.....	30.0	70.5	June.....	31	47.50
August.....	47.0	65.5	July.....	44	54.25
September.....	23.0	46.0	August.....	50	51.00
October.....	16.0	44.5	September.....	74	50.50
November.....	24.0	30.0	October.....	81	52.75
December.....	30.0	30.5	November.....	64	39.00
January.....	57.0	34.5	December.....	68	50.50
February.....	29.0	25.0	January.....	40	75.00
March.....	32.0	31.0	February.....	37	59.75
April.....	.....	.....	March.....	48	58.25
Totals.....	336.0	466.0	Totals.....	602	604.75

WATER PUMPED TO W. W. DISTRIBUTION SYSTEMS, MAIN BUILDING AND IRRIGATION POWER PLANTS.

1946-47 Month	Gallons, U.S. Irr. Power Plant	Gallons U.S. Main Building	Gallons U.S. Total	1947-48 Month	Gallons U.S. Irr. Power Plant	Gallons U.S. Main Building	Gallons U.S. Total
May.....	.....	14,016,320	14,016,320	April.....	544,500	9,277,700	9,822,200
June.....	.....	14,015,680	14,015,680	May.....	584,700	10,474,200	11,058,900
July.....	.....	15,391,100	15,391,100	June.....	691,500	12,013,200	12,704,700
August.....	1,131,000	13,730,400	14,861,400	July.....	1,140,000	15,956,200	17,096,200
September.....	925,000	11,876,360	12,801,360	August.....	876,000	10,779,440	11,655,440
October.....	542,000	10,683,870	11,225,870	September.....	684,000	8,080,940	8,764,940
November.....	522,000	9,942,900	10,464,900	October.....	641,000	7,784,600	8,425,600
December.....	534,000	10,051,800	10,585,800	November.....	624,000	7,709,220	8,333,220
January.....	676,000	10,432,500	11,108,500	December.....	720,500	7,880,320	8,600,820
February.....	873,000	8,998,500	9,871,500	January.....	634,000	7,643,100	8,277,100
March.....	440,500	9,390,500	9,831,000	February.....	728,000	7,368,200	8,096,200
April.....	.....	.....	.....	March.....	930,000	9,129,750	10,059,750
Totals.....	5,643,500	128,439,930	134,083,430	Totals.....	8,798,200	114,096,870	122,895,070

ENGINE OIL CONSUMPTION, MAIN BUILDING AND IRRIGATION POWER PLANT.

1946-47 Month	Gallons Irr. Power Plant	Gallons Main Building	Gallons Total	1947-48 Month	Gallons Irr. Power Plant	Gallons Main Building	Gallons Total
May.....	.....	114.0	114.0	April.....	121.00	33.00	154.00
June.....	.....	120.25	120.25	May.....	102.00	44.00	146.00
July.....	.....	122.25	122.25	June.....	99.00	65.00	164.00
August.....	69.75	60.50	130.25	July.....	113.00	53.50	166.50
September.....	74.50	43.00	117.50	August.....	96.00	53.50	149.50
October.....	70.25	63.50	133.75	September.....	88.25	62.00	150.25
November.....	84.00	46.50	130.50	October.....	121.25	67.00	188.25
December.....	87.75	50.50	138.25	November.....	107.50	44.00	151.50
January.....	88.25	49.00	137.25	December.....	113.00	42.00	155.00
February.....	96.00	45.50	141.50	January.....	95.00	38.00	133.00
March.....	86.25	37.50	123.75	February.....	112.25	84.00	196.25
April.....	.....	.....	.....	March.....	86.00	74.00	160.00
Totals.....	656.75	752.50	1,409.25	Totals.....	1,254.25	660.00	1,914.25

BUNKER COAL, CONSUMPTION MAIN BUILDING AND IRRIGATION POWER PLANT.

1946-47 Month	Tons Irrigation Power Plant	Tons Main Building	Tons Total	1947-48 Month	Tons Irrigation Power Plant	Tons Main Building	Tons Total
May.....	.....	884.225	884.225	April.....	62.890	1,181.335	1,244.225
June.....	.....	807.190	807.190	May.....	49.870	954.880	1,004.750
July.....	.....	755.665	755.665	June.....	36.175	802.020	838.195
August.....	19.000	764.185	783.185	July.....	31.750	725.450	757.200
September.....	35.355	795.450	830.805	August.....	35.550	793.745	829.295
October.....	69.755	1,045.555	1,115.310	September.....	45.775	962.815	1,008.590
November.....	87.145	1,174.840	1,261.985	October.....	55.150	1,019.525	1,074.675
December.....	113.680	1,515.955	1,629.635	November.....	92.525	1,186.725	1,279.250
January.....	120.260	1,509.305	1,629.565	December.....	109.290	1,334.880	1,444.170
February.....	119.550	1,355.695	1,475.245	January.....	104.850	1,266.570	1,371.420
March.....	96.975	1,407.015	1,503.990	February.....	83.600	779.070	862.670
April.....	.....	.....	.....	March.....	93.100	360.875	453.975
Totals.....	661,720	12,015.080	12,676.800	Totals.....	800,525	11,367,890	12,168,415

K.W.H. OUTPUT MAIN BUILDING AND IRRIGATION POWER PLANT.

1946-47 Month	K.W.H.s Irr. Power Plant	K.W.H.s Main Building	K.W.H.s Total	1947-48 Month	K.W.H.s Irr. Power Plant	K.W.H.s Main Building	K.W.H.s Total
May.....	.....	106,277.10	106,277.10	April.....	30,200	84,499.15	114,699.15
June.....	.....	92,829.60	92,829.60	May.....	28,500	78,769.75	107,269.75
July.....	.....	100,778.85	100,778.85	June.....	27,600	73,615.85	101,215.85
August.....	27,100	73,244.75	100,344.75	July.....	25,200	69,548.00	94,748.00
September.....	26,600	73,675.10	100,275.10	August.....	27,600	79,952.50	107,552.50
October.....	29,100	76,279.10	105,379.10	September.....	25,200	82,516.75	107,716.75
November.....	31,100	82,473.20	113,573.20	October.....	28,800	85,805.95	114,605.95
December.....	36,600	97,871.45	134,471.45	November.....	32,100	84,480.25	116,580.25
January.....	36,300	101,326.30	137,626.30	December.....	36,700	91,598.85	128,298.85
February.....	33,300	90,855.55	124,155.55	January.....	37,500	88,294.05	125,794.05
March.....	35,000	94,949.75	130,949.75	February.....	35,700	81,255.80	116,955.80
April.....	.....	.....	.....	March.....	35,700	79,970.70	115,670.70
Totals.....	255,100	991,560.75	1,246,660.75	Totals.....	370,800	980,307.60	1,351,107.60

IRRIGATION POWER PLANT CREDITS, 1947-48.

Month	Water	Heat	Power	Light	Supplies
April.....	\$ 253.50	\$ 1,267.54	\$ 507.02	\$ 507.02	\$
May.....	303.76	1,518.80	607.52	607.52	.....
June.....	206.55	1,032.75	413.10	413.10	.....
July.....	203.87	1,019.34	407.74	407.74	.....
August.....	224.57	1,122.93	449.18	449.18	.....
September.....	212.89	1,064.42	425.77	425.77	353.01
October.....	235.56	1,177.81	471.13	471.13	.....
November.....	268.24	1,341.20	536.48	536.48	.....
December.....	341.92	1,709.63	683.85	683.85	.....
January.....	287.96	1,439.82	575.92	575.92	.....
February.....	292.76	1,463.79	585.52	585.52	.....
March.....	391.46	1,957.28	782.91	782.91	.....
Totals	\$ 3,223.04	\$16,115.31	\$ 6,446.14	\$ 6,446.14	\$ 353.01

Grand Total \$32,583.64

POWER PLANT CREDITS, 1947-48.

Month	Water	Heat	Power	Light	Supplies
April.....	\$ 1,278.61	\$ 4,032.54	\$ 1,967.09	\$ 2,557.23	\$ 49.96
May.....	1,330.15	4,195.10	2,046.39	2,660.30	29.81
June.....	1,352.24	2,704.48	2,227.22	1,670.42	15.00
July.....	1,292.81	2,585.61	2,129.33	1,597.00	34.16
August.....	1,315.36	2,630.72	2,166.48	1,624.86	138.38
September.....	1,483.28	2,966.56	2,443.03	1,832.28	882.42
October.....	1,098.72	3,465.21	1,690.34	2,197.45	15.46
November.....	1,140.33	3,596.42	1,754.35	2,280.65	72.73
December.....	1,282.16	4,043.75	1,972.56	2,564.33	333.84
January.....	1,422.60	4,486.67	2,188.62	2,845.20	583.62
February.....	1,498.49	4,725.99	2,305.36	2,996.98	399.14
March.....	1,254.92	3,957.81	1,930.64	2,509.83	79.13
Totals.....	\$ 15,749.67	\$43,390.86	\$24,821.41	\$27,336.53	\$ 2,633.65

Grand Total— \$113,932.12

PURCHASED POWER, MAIN BUILDING.

1946-47 Month	K.W.H.s	Cost	1947-48 Month	K.W.H.s	Cost
May.....	51,711.00	\$1,582.35	April.....	51,276.00	\$1,141.52
June.....	52,136.00	1,595.36	May.....	46,695.00	1,071.44
July.....	47,962.50	1,467.85	June.....	46,564.00	1,069.42
August.....	51,806.00	1,149.63	July.....	46,234.00	1,064.38
September.....	50,322.00	1,126.93	August.....	68,800.00	1,257.86
October.....	47,939.00	1,090.46	September...	49,114.00	1,108.44
November.....	47,228.00	1,079.59	October.....	47,114.00	1,077.84
December.....	54,336.00	1,188.34	November...	46,742.00	1,072.15
January.....	56,204.00	1,216.92	December....	54,432.00	1,211.23
February.....	56,174.00	1,216.46	January.....	62,275.00	1,352.65
March.....	49,757.00	1,118.28	February.....	69,378.00	1,439.90
April.....	.....	.....	March.....	40,877.00	1,003.84
Totals.....	565,575.50	\$13,832.17	Totals.....	629,501.00	\$13,870.67

RECORDED MONTHLY PEAK LOAD, MAIN BUILDING.

1946-47 Month	K.W.H.s	1947-48 Month	K.W.H.s
May.....	192.0	April.....	195.5
June.....	186.3	May.....	193.2
July.....	190.9	June.....	182.8
August.....	182.8	July.....	165.6
September.....	197.8	August.....	211.6
October.....	192.0	September.....	216.2
November.....	223.1	October.....	197.8
December.....	226.5	November.....	219.6
January.....	218.5	December.....	220.8
February.....	219.6	January.....	219.6
March.....	200.1	February.....	213.9
April.....	.....	March.....	195.5

BUNKER OIL, MAIN BUILDING.

1947-48 Month	Gallons	Cost
January.....	2,950	\$ 199.13
February.....	37,150	2,507.63
March.....	66,470	3,722.32
Totals.....	106,570	\$ 6,429.08

THE SASKATCHEWAN HOSPITAL, WEYBURN

WEYBURN, SASKATCHEWAN,

January 6, 1948.

COMMISSIONER OF MENTAL SERVICES,

SIR:

I beg to submit for your consideration, the twenty-seventh annual report of the Saskatchewan Hospital, Weyburn.

You will note that the last annual report was based on the period ending March 31, 1947. The present report is based on the calendar year 1947.

We began the year with 1,223 male and 918 female patients, making a total of 2,141 and there remained on the register December 31, 1947, 2,151 male and 877 female patients, in all a total of 2,128 patients, showing a net loss of 13 patients for the year.

There have been considerable changes in the staff during the year but this situation is rectifying itself to some extent. We are handicapped somewhat in obtaining new medical staff by the lack of accommodation in the hospital and the over-crowding in the City of Weyburn. There has been some delay in the transfer of mental defective patients to the Saskatchewan Training School but this situation should be remedied to some extent in the near future.

I wish to thank you, as Commissioner, for your assistance during the year.

Yours very truly,

F. S. LAWSON, M.D.
Superintendent.

Staff:

Medical Staff—Dr. A. D. Campbell left the hospital March 31, 1947 and was replaced by Dr. F. S. Lawson. Dr. H. R. Baines was transferred to the Saskatchewan Hospital, North Battleford; Dr. M. H. McDonald was transferred to the Saskatchewan Training School, Weyburn and Dr. E. D. Winchell returned from the Training School to this hospital. The services of Drs. Morgan Martin and Frederick W. Hanley have been added to the medical staff. We have now eight physicians and psychiatrists on the staff. During the early part of the year, dental work was done on a part-time basis by Dr. D. B. Mintz, however, the services of Dr. Margaret Morrow were obtained September 26, 1947 and the dental work is proceeding in a much more satisfactory manner on a full time basis.

Nursing Staff—Miss Louise Harris, Superintendent of Nursing, left to devote her time to Public Health nursing and she has not yet been replaced, however, this will be remedied in the course of a few weeks. There has been difficulty in obtaining a suitable Head Nurse and Instructress of Nursing. It is felt, however, that it would be preferable to retain this vacancy for an eminently suitable individual rather than someone lacking full qualifications for these positions. Following an intensive campaign for the recruitment of nursing staff during the summer, both male and female services have been nearly brought up to strength, although it has been necessary to engage a few provisional personnel on the male side.

Office Staff—Mr. John D. Clarke, the Accountant, left early in the year and was replaced by Mr. W. Cowell, September 4, 1947. There has been a considerable turnover in the stenographic staff but we are, at present, at full strength.

The maintenance and other staff have remained stable.

Training Program:

This fall a more intensive training course for nursing staff has been inaugurated. The services of Mr. W. Bates have been secured and his duties up to the present have consisted largely of the organization of this course. The course is taking a somewhat different approach to this training program in that an effort is being made to fit these individuals to undertake the complete care of patients. While there has been considerable emphasis on psychiatry, the general nursing care, medicine and surgery are being given a fair proportion of the curriculum. The total hours in the three years will approximate 475 and while this does not appear to compare favourably with the general nursing course hours, it is felt that omitting some of the cultural subjects and preliminary sciences as well as intensive training in operating room techniques, will make the course as satisfactory as the general nursing course, from a standpoint of patient care.

The establishment of a minimum educational standard of grade eleven is under trial and would appear to be relatively satisfactory. Mr. J. Wilke, S.R.M., has visited for short periods and is giving instruction in recreational therapy to the trainees. The acquisition of a full time recreational therapist has been estimated for.

Mental Hygiene Course:

Dr. Selinger has been conducting a seminar type of course in Mental Hygiene for public health nurses, social workers and school teachers as well as for some of our senior students in the hospital. There has been an increasing response from the various social agencies throughout the province. This course is being used in the curriculum of the intermediate training course year.

Mental Hygiene Clinic:

During the past nine months, a Mental Hygiene Clinic has been established in Weyburn in connection with the Health Region. This is a composite effort of Public Health personnel, teachers and the hospital. The final organization has not yet been established but an attempt is being made to obtain a maximum of efficiency so that other clinics may be set up throughout the province from time to time, using the Weyburn clinic as a model.

Treatment of Patients:

During this year, there has been an increase in the amount of insulin therapy administered with some good results. Electro-convulsive therapy is being used mainly as a symptomatic measure and we feel that this type of treatment is a very useful adjunct to our armamentarium. While there is considerable controversy as to the use or abuse of E.C.T., we have found that it decreases the amount of sedation necessary, replaces sedative hydro-therapy (which we are unable to administer) and has prevented the occurrence of deaths from exhaustion and dehydration in extremely

disturbed patients. The medical records are gradually being systematized and the filing system improved. Medical conferences are concerned less with statistical classification and more with individual personality study. The conferences are being attended by those taking the Mental Hygiene Course and an effort is being made to use them for teaching purposes as much as possible. An increased effort is being made to enlarge the activities of the patients in both occupational and recreational fields.

Occupational Therapy:

This has continued in the cabinet and basket shop during the year. Our occupational therapist in charge of the sewing room resigned and this position is being filled during the next month. The various industrial occupations have utilized patient services to a great extent. It is hoped that the industrial, occupational and recreational therapies will be supervised by Mr. Bates during the coming year so that there may be greater efficiency and greater benefit to the patients.

Power House Report:

During the year, service has been uninterrupted with one exception; during the night of the 4th of August a cyclonic wind removed part of the power house roof which resulted in a four hour shut down. The steady increase in electrical equipment, new buildings, etc. has now loaded the generating units to capacity and additional equipment will be required if this load is increased further. The engines are in good condition. However, during the year, one of these units had to be shipped for factory repairs, the result of a broken crank shaft, and we were operating with insufficient power for some considerable time. The boilers are in good condition and we have an adequate reserve in our boiler capacity over our present load. During the year, 15,681 tons of lignite bug dust fuel was consumed at a cost of \$30,894.54. The price of this fuel was increased in December an additional .25c per ton. 1,444,590 K.W. hours were generated. 7,830,100 cubic feet of water were purchased. Additional water used for laundry, power house, farm, lawns, etc. was obtained from our local river reservoir. This would approximate four million gallons. Our water shortage difficulties should be over in the near future as the pipe line from the five thousand acre-foot reservoir has now been completed and the filtration plant machinery is currently being installed.

Farm Report:

We have approximately 650 acres of land under cultivation, 85 to 90 acres of which is used for garden purposes. When the summerfallow is taken off this total, very little acreage remains for grain thus handicapping this department considerably. We were able to produce the following:

oats	10,000 bushels
barley	1,500 bushels

A considerable amount of green feed, silage, etc. was raised.

The institution was supplied with the following:

582 hogs (dressed weight)	155,910 lbs.
6 baby beef (dressed weight)	1,113 lbs.
699 chickens	4,194 lbs.
Turkeys	1,380 lbs.
6,640 dozen eggs.	

The sale of breeding stock to the public has been discontinued due primarily to an epidemic of rhinitis. This, however, has not affected the herd to any great extent from a production standpoint and it is hoped that it will be possible to eradicate it. The introduction of a dairy herd is well under way. Surplus stock was purchased from the Saskatchewan Hospital, North Battleford and a new barn is now completed with the exception of the installation of milk room equipment, which it is hoped will be completed in the near future. This barn is somewhat of an experimental venture in the loose method of stabling cattle and to date appears to be very satisfactory. The plans were primarily prepared by the Division of Sanitation. The introduction of this herd has made it necessary to produce or obtain large amounts of hay and straw thus considerably increasing the work at the farm and also additional machinery has been required. A large amount of hay was procured at a marsh located approximately 12 miles west of the hospital which entailed a very considerable amount of work but no initial outlay of public moneys.

Gardens, Grounds and Greenhouse Report:

The garden report for this year is better than was expected as the weather conditions were most unfavourable in the spring. Snow during the winter caused considerable damage to our trees and was also a handicap in the spring with reference to early planting. Quite a recovery was made during the month of August and our garden crops turned out very favourably. We harvested approximately 7,000 bushels of potatoes, and a considerable amount of other vegetables. The normal distribution of flowering plants was made throughout the hospital which helped brighten the wards. The City of Weyburn is planning an extensive 'paving of streets' program during the coming year and if this could be extended to the main hospital roads it would be a great improvement.

Construction and Maintenance Report:

During the past year we have had a very extensive building and maintenance program which kept our staff exceedingly busy. We constructed and completed two new cottages, a curling rink, a new bridge and rebuilt the roofs of the Power House and Greenhouse which were partially destroyed by a near cyclone as well as remodeling and converting one of our large houses into two suites. The general maintenance of the building, of course, was carried on although it suffered to some extent due to the excessive amount of construction work. This is rapidly being remedied. Our kitchen has had various much needed equipment installed, including a new three deck oven, a new diet kitchen range, a deep fat fryer and three dish-washing units. Some remodeling was done and the entire kitchen redecorated. A very considerable amount of work has been necessary on Public Works Projects, such as the new water supply and the new dairy barn as well as the curling rink referred to above. There have been in addition to the construction work, a very great number of repair requisitions especially in the plumbing department. Fire drills have been maintained and various changes made to see that this service is kept up to an efficient standard. Fire fighting equipment is in good repair.

TABLE II (b)

	Male	Female	Total
January.....	5	9	14
February.....	8	9	17
March.....	10	4	14
April.....	20	3	23
May.....	24	12	36
June.....	17	8	25
July.....	21	6	27
August.....	9	11	20
September.....	9	5	14
October.....	15	9	24
November.....	6	5	11
December.....	7	12	19
Still on Probation.....	151	93	244
Total Discharges.....	67	53	120
Total Discharges.....	84	40	124

TABLE II

During the year, we have been changing the method of discharging and re-admitting. Formerly, patients were discharged when they left on probation and then admitted under a new number when they returned so that during the early part of the year, patients listed as having been probated were actually discharged and the discharge column on this table only covers those who were discharged without a probationary period. There are in addition, 15 male and 9 female discharged from probation who were not included in this table as they did not affect the count. Table II (b) may clarify the situation and represents in each month the probations plus discharges, less those returned from probation.

TABLE III

COMPARATIVE MOVEMENT OF POPULATION BY YEARS

	1944-45	1945-46	1946-47	1947 (Jan. 1- Dec. 31)
Admissions (including Trans.-In.).....	374	404	400	356
Paroles.....	219	218	220	261
Deaths.....	126	137	124	124
Deportations.....	0	0	0	0
Elopements.....	3	2	6	0
Transfers-Out.....	0	1	522	121
Remaining on Register.....	2,488	2,534	2,063	2,008

TABLE IV.—MILITARY PATIENTS ADMITTED.

No.	Nativity	Age	Social Status	Sex	Diagnosis
1.	Sask.	26	S	M	Schizophrenia
2.	Sask.	30	S	M	Schizophrenia-Hebephrenic Type
3.	Sask.	26	M	M	Epilepsy
4.	U.S.A.	53	S	M	Manic Depressive Psychosis
5.	Ontario	47	S	M	Toxic Psychosis
6.	England	71	M	M	Psychosis with Cerebral Arteriosclerosis
7.	Sask.	32	M	M	Schizophrenia-Paranoid type
8.	Sask.	32	M	M	No Psychosis
9.	U.S.A.	23	S	M	Schizophrenia-Catatonic type
10.	England	72	S	M	Senile Psychosis
11.	Sask.	25	S	M	Schizophrenia
12.	Scotland	48	M	M	Psychoneurosis-Neurasthenia
13.	Ontario	41	S	M	Schizophrenia
14.	Sask.	51	S	M	Psychosis with Epidemic Encephalitis
15.	Sask.	37	M	M	Schizophrenia-Hebephrenic type

	M	F
In hospital Dec. 31/46	104	1
Admitted during year.....	15	0
Total.....	119	1
Discharged during year.....	10	0
Died during year.....	0	0
On Probation Dec. 31/47.....	10	0
Remaining in Hospital Dec. 31/47.....	99	1
Total on register Dec. 31/47.....	109	1

Table V (a)
TOTAL POPULATION ON BOOKS AT DEC. 31/47 BY DIAGNOSIS

Diagnosis (Psychotics)	M	F	Total
Schizophrenia—Undifferentiated.....	145	84	229
Simple.....	23	5	28
Catatonic.....	74	71	145
Hebephrenic.....	266	163	429
Paranoid.....	152	72	224
Manic Depressive—Undifferentiated.....	6	5	11
Manic Type.....	26	25	51
Depressive type.....	12	19	31
Mixed type.....	7	13	20
Circular type.....	0	3	3
Paranoia and Paranoid Condition.....	2	5	7
Involutional Psychosis.....	13	13	26
Psychosis with Convulsive Disorder.....	39	32	71
Psychosis with Mental Deficiency.....	27	25	52
Psychosis with Cerebral Arteriosclerosis.....	42	25	67
Senile Psychosis.....	67	39	106
Pre-senile Psychosis.....	7	9	16
General Paresis.....	44	4	48
Cerebral Syphilis.....	2	0	2
Alcoholic Psychosis.....	10	0	10
Toxic Psychosis.....	1	1	2
Traumatic Psychosis.....	5	1	6
Psychosis with Brain Tumor.....	1	0	1
Psychosis with Epidemic Encephalitis.....	15	5	20
Psychosis with Huntington's Chorea.....	1	1	2
Psychosis with Somatic Disease.....	4	4	8
Undiagnosed Psychosis.....	2	5	7
	993	629	1,622

TABLE V (b)
TOTAL POPULATION ON BOOKS AT DEC. 31/47 BY DIAGNOSIS

Diagnosis (without Psychosis)	M	F	Total
Mental Deficiency—Moron.....	27	15	42
Imbecile.....	85	79	164
Idiot.....	75	93	168
Epilepsy with Mental Deficiency.....	22	34	56
Epilepsy.....	18	9	27
Psychopathic Personality.....	5	1	6
Psychoneurosis—Undifferentiated.....	2	3	5
Anxiety State.....	3	0	3
Reactive Depression.....	3	2	5
Neurasthenia.....	6	2	8
Psychasthenia.....	0	1	1
Obsessive.....	1	1	2
Hysteria.....	1	2	3
Parkinsonism.....	2	0	2
Huntington's Chorea.....	0	3	3
Senility.....	4	0	4
Disseminated Sclerosis.....	1	0	1
Syphilis.....	0	1	1
Alcoholism.....	1	0	1
Without Psychosis.....	2	2	4
	258	248	506

MOVEMENT OF PATIENT POPULATION YEAR ENDED DECEMBER 31, 1947.

	Total			Insane			Mental Deficients (without psychosis)			Epileptics (without psychosis)			Other Type (without psychosis)			
	M		T	M		F	M		F	M		F	M		F	T
On books at beginning of year—																
In hospital.....	1,223	918	2,141	987	600	1,587	221	315	536	9	3	12	6	.....	.....	6
In boarding homes.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
On parole or otherwise absent.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total.....	1,223	918	2,141	987	600	1,587	221	315	536	9	3	12	6	.....	.....	6
Admissions during year—																
(do not include paroles or escapes)																
First admissions.....	158	93	251	121	71	192	10	10	20	8	3	11	19	9	.....	28
Readmissions.....	41	38	79	33	32	65	2	3	5	2	.....	2	4	3	.....	7
Transfers received.....	11	15	26	3	5	8	8	10	18	.....	.....	.....	.....	.....	.....	.....
Total admissions.....	210	146	356	157	108	265	20	23	43	10	3	13	23	12	.....	35
Separations during year—																
(do not include paroles or escapes)																
Discharged as recovered.....	7	4	11	7	4	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Discharged as improved.....	50	21	71	46	19	65	.....	.....	.....	2	.....	2	2	2	.....	4
Discharged as unimproved.....	21	13	34	14	3	17	5	9	14	2	.....	2	.....	1	.....	1
Discharged as without psychosis.....	6	2	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	2	.....	8
Discharged unclassified.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total discharges.....	84	40	124	67	26	93	5	9	14	4	.....	4	8	5	.....	13
Transfers to other mental hospitals.....	26	95	121	2	2	4	21	90	111	2	2	4	1	1	.....	2
Deaths in hospital.....	72	52	124	58	38	96	11	8	19	2	4	6	1	2	.....	3
Total separations.....	182	187	369	127	66	193	37	107	144	8	6	14	10	8	.....	18
On books at end of year—																
In hospital.....	1,184	824	2,008	968	598	1,566	198	224	422	8	.....	8	10	2	.....	12
In boarding homes.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
On parole or otherwise absent.....	67	53	120	49	44	93	6	7	13	3	.....	3	9	2	.....	11
Total.....	1,251	877	2,128	1,017	642	1,659	204	231	435	11	.....	11	19	4	.....	23

Average daily patient population in institution during year—Male 1,210.3% Female 852.69 Total 2,063.03 Normal capacity of institution 1,650

THE SASKATCHEWAN TRAINING SCHOOL, WEYBURN

WEYBURN, SASKATCHEWAN.

COMMISSIONER OF MENTAL SERVICES,

SIR:

I beg to submit the following report on the Saskatchewan Training School for the calendar year 1947.

The development of the Saskatchewan Training School in the former airport buildings four and one-half miles north east of the City of Weyburn, has progressed during the year 1947. At December 31, 1946 the patient population was 421, made up of 139 females and 282 males. Whereas at December 31, 1947 we had a resident population of 539—232 female patients and 307 male patients. In addition there were 18 female and 22 male patients on probation for rehabilitation and training. Some of these we hope may remain out more or less permanently, but it is difficult to determine in advance what population may have to return to the institution. At the time of writing this report it is expected to have a further resident population of 50 crippled patients in a new infirmary ward and 20 female honour and 25 male honour patients by the end of February 1948, making a total of 634 patients.

The progress has not been expedited as quickly as we would have desired due to a tentative decision respecting changing the site of the school, consequently any capital expenditures other than those already in progress were curtailed. One of the major curtailments was the purchase or rental of farm property. This would have assisted in easing our operating costs in the production of vegetables, dairy products, meats, etc.

In a temporary set up of this kind where the buildings are of wooden construction, the maintenance cost has been very heavy. This is exemplified by the wearing out of the floors alone. The institution has experienced considerable difficulty in the water and sewer. The condition of these lines has meant constant replacement throughout the year. All this has added considerably to the operating costs which would not be encountered to the same extent in a permanent set up. Early in the year a female ward with accommodation for 74 patients was completed and put into use, bringing to seven the number of wards in use. About the same time, a sick and receiving ward was set up with accommodation for 40 male and female patients, under the supervision of a registered nurse. In order to separate the young boys and girls from the older patients and to assist in their training, a children's ward was opened with accommodation for 40 boys and girls. In this ward they have their separate dormitories, but have a common playroom. Only children 12 and under have been placed in this ward.

Further to this, work was commenced on an infirmary ward, which will take care of about 50 crippled bed patients. Work on a female honour ward was also started and this will accommodate about 20 patients. Also in the same building is an occupational room for sewing and mending. These two projects have not been completed during the calendar year 1947. A beauty parlor, barber shop and a shoe repair shop were also equipped and put into operation. In these shops, as well as, with all of our maintenance personnel, patients have been assigned to assist the staff in these various trades. The object of this is to give the patients some training that will be of assistance to them when the time comes that they may be discharged from the institution. In conjunction with the school department two occupational shops were also opened. In one of these shops manual work, woodwork, etc., is being taught. The other is teaching domestic science in the line of cooking, sewing, mending, etc. The patients will graduate from these shops to the larger units in the institution, such as the woodwork shop, the carpenter shop, the sewing and dining rooms.

As the steam laundry has not been installed at this institution, the heavy laundry is being done by the Saskatchewan Hospital. Practically all of the lighter laundry is being done at this institution in our own laundry room, which is equipped with 4 domestic type washers. In the finishing room of our laundry all of the laundry from both our own washers and from the Saskatchewan Hospital that requires hand ironing, is finished.

The sewing room has been very busy in assisting to equip the institution with linen. Not only are they assisting in the equipping of the institution, but they also make most of the uniforms for the staff and other clothes for the patients. Another shop that has been very busy assisting in the equipping of the institution has been the woodwork shop. Due to difficulty in buying equipment, it has had to confine its activity to construction essential for the institution. This pressure has restricted the teaching program considerably in both these shops, but this condition will be changed as soon as it has met the essential needs of the institution.

The patient training program at the Training School is concerned with two general classes of patients. In the first place there are those who will always require the close supervision of institutional or home life and will probably never be able to contribute to the economic life of the province. Secondly, there are those patients who, given a reasonable opportunity to develop the abilities they possess, may be expected to contribute to the economic life of the province and to govern their own lives with a minimum of supervision. The program for the former includes training in personal management and the development of skills that will make the patient useful to himself and to the community life of the institution. For the latter, training is aimed at developing work habits and skills which will enable them to find employment outside the institution. In general, the female patients are trained for domestic service and home management. The most fruitful source of employment for male patients in Saskatchewan is farm labour. Lack of a farm in connection with the institution complicates the problem of training male patients. Wherever possible, available community resources are used to provide supervision of patients in the out-patient training program.

It is essential that all staff members be responsible for and competent in patient training. In this connection a staff training course for ward personnel has been undertaken. This is essentially the same course as that given at the Saskatchewan Hospital, Weyburn and North Battleford, with more emphasis on the problems of mental deficiency. Major subjects are in three fields: nursing, medicine and surgery, and psychiatry. During the 1947-48 class year the first year's course only, of the three year course leading to a diploma in psychiatric nursing is being given at the Training School. Subsequent years will raise the problem of integrating the course with the Saskatchewan Hospitals for completion of the practical phases of the work.

In addition to the Director of Education and Placement, who is responsible for the patient training program and staff training as outlined above, a Recreational Therapist was secured. The Recreational Therapist is responsible for the recreational training of the patients at this institution. In addition to the patient training, he devotes a portion of his time to staff recreation in an endeavour to maintain a high standard of staff morale.

A new entrance was made into the grounds of this institution necessitating the making of about 500 feet of road. This was to overcome the difficulty experienced last year, that the only entrance to the institution was being constantly blocked with snow. This has proved to be a very satisfactory solution this winter. Two diesel standby units for emergency power were ordered, but had not been installed at the end of the calendar year.

A series of tables is appended indicating movement of patients and the information respecting the types and condition of the patient population.

Yours truly,

R. O. DAVISON, M.D.,
Superintendent.

TABLE NO. I—ADMISSION AND MOVEMENT OF PATIENTS

	Male	Female	Total
No. of Patients on Register Jan. 1, 1947.....	282	139	421
Admissions.....	Male	Female	Total
First Admission.....	29	36	65
Readmission .....	.....	.....	.....
Readmission from Probation.....	17	15	32
Transfers in.....	27	93	120
Total Admissions.....	73	144	217
Total Under our Care During Year.....	355	283	638
Discharged	Male	Female	Total
Probation.....	39	33	72
Discharged.....	1	2	3
Deported.....	.....	.....	.....
Eloped.....	1	.....	1
Transferred.....	7	16	23
Total removed from Register during year.....	48	51	99
Total Remaining on Register Dec. 31, 1947.....	307	232	539

TABLE II.—PATIENTS IN RESIDENCE BY SEX AND MENTAL STATUS
YEAR ENDING, DECEMBER 31, 1947.

Mental Status	Male	Female	Total
	Number	Number	Number
Idiot.....	90	48	138
Imbecile.....	123	112	235
Moron.....	69	59	128
Borderline.....	10	07	17
Not Mentally Defective.....	15	06	21
Totals.....	307	232	539

TABLE III.—FIRST ADMISSION BY MENTAL STATUS AND AGE.

Age Group	Idiots	Imbeciles	Morons	Not Mentally Defectives	Border-line	Untyped	Total
	M F T	M F T	M F T	M F T	M F T	M F T	M F T
Under 10 Years.....	2 5 7	.. 2 2	1 2 3	.. .. .	.. .. .	.. .. .	3 9 12
10-14.....	3 1 4	3 3 6	3 2 5	1 .. 1	.. .. .	1 .. 1	11 6 17
15-19.....	3 .. 3	3 1 4	2 4 6	.. .. .	.. 1 1	.. .. .	8 6 14
20-24.....	1 .. 1	.. 1 1	.. 2 2	.. .. .	.. .. .	.. .. .	1 3 4
25-29.....	1 3 4	.. 2 2	.. .. .	.. .. .	.. .. .	.. .. .	1 5 6
30-34.....	.. 1 1	2 1 3	.. .. .	.. .. .	.. .. .	.. .. .	2 2 4
35-39.....	1 1 2	1 1 2	1 .. 1	.. .. .	.. .. .	.. .. .	3 2 5
40-44.....	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .
45-49.....	.. 2 2	.. .. .	.. 1 1	.. .. .	.. .. .	.. .. .	.. 3 3
50 and over....	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .
Unascertained	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .
Total.....	11 13 24	9 11 20	7 11 18	1 0 1	0 1 1	1 0 1	29 36 65

TABLE IV.—DISCHARGE BY MENTAL STATUS.

Age Group Years	Idiots	Imbeciles	Morons	Total
	M F T	M F T	M F T	M F T
Under 10 years.....	2 .. 2	1 .. 1	.. .. .	3 .. 3
10-14.....	1 .. 1	1 .. 1	.. .. .	2 .. 2
15-19.....	1 .. 1	.. .. .	.. .. .	1 .. 1
20-24.....	.. .. .	.. .. .	3 .. 3	3 .. 3
25-29.....	.. .. .	.. .. .	.. .. .	.. .. .
30-34.....	.. .. .	.. .. .	1 .. 1	1 .. 1
35-39.....	.. .. .	.. .. .	1 .. 1	1 .. 1
40-44.....	.. .. .	.. .. .	.. .. .	.. .. .
45-49.....	.. .. .	.. .. .	.. .. .	.. .. .
50 and over....	.. .. .	.. .. .	.. .. .	.. .. .
Unascertained.....	.. .. .	.. .. .	.. .. .	.. .. .
Total.....	4 .. 4	2 .. 2	5 .. 5	11 .. 11

TABLE V.—TRANSFER IN BY MENTAL STATUS AND AGE.

Age Group Years	Idiots			Imbeciles			Morons			Not Mentally Defective			Total		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Under 10.....	3	3	6	1	5	6	..	..	..	..	..	..	4	8	12
10-14.....	1	3	4	..	1	1	..	1	1	1	..	1	2	5	7
15-19.....	3	5	8	1	3	4	2	1	3	..	..	..	6	9	15
20-24.....	..	4	4	4	11	15	1	2	3	1	..	1	6	17	23
25-29.....	..	4	4	..	7	7	..	5	5	..	..	..	..	16	16
30-34.....	2	4	6	1	6	7	1	1	2	..	1	1	4	12	16
35-39.....	..	..	..	..	5	5	..	5	5	1	..	1	1	10	11
40-44.....	..	1	1	1	2	3	1	1	2	..	..	..	2	4	6
45-49.....	..	..	..	..	5	5	1	2	3	..	1	1	1	8	9
50 and over.....	..	..	..	..	3	3	1	1	2	..	..	..	1	4	5
Unascertained.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals.....	9	24	33	8	48	56	7	19	26	3	2	5	27	93	120

TABLE VI.—PAROLES BY MENTAL STATUS AND AGE.

Age Group Years	Idiots			Imbeciles			Morons			Not Mentally Defective			Borderline			Total		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Under 10.....	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	1	..	1
10-14.....	1	1	2	1	1	2	2	1	3	..	..	..	1	..	1	5	3	8
15-19.....	1	..	1	..	1	1	2	2	4	..	1	1	1	..	1	4	4	8
20-24.....	..	1	1	3	3	6	1	5	6	3	..	3	3	1	4	10	10	20
25-29.....	..	..	..	1	3	4	..	2	2	..	..	..	..	..	..	1	5	6
30-34.....	..	..	..	..	..	..	4	2	6	..	..	..	..	..	..	4	2	6
35-39.....	..	..	..	..	1	1	1	2	3	..	1	1	..	1	1	1	5	6
40-44.....	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	1	1
45-49.....	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	1	1
50 and over.....	..	..	..	..	1	1	2	1	3	..	..	..	..	..	..	2	4	..
Unascertained.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals.....	2	2	4	5	10	15	13	17	30	3	2	5	5	2	7	28	33	61

READMISSION FROM PAROLES.

Age Group Years	Idiots			Imbeciles			Morons			Not Mentally Defective			Borderline			Total		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Under 10.....	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
10-14.....	1	1	2	..	..	..	..	..	..	..	..	..	1	1	2
15-19.....	1	1	2	1	3	..	..	..	..	..	..	2	2	4
20-24.....	..	1	1	2	1	3	..	4	4	2	..	2	2	..	2	6	6	12
25-29.....	1	1	2	..	..	..	..	..	..	..	..	..	1	1	2
30-34.....	4	1	5	..	..	..	..	..	..	4	1	5
35-39.....	1	1	1	1	2	..	..	..	..	..	..	1	2	3
40-44.....
45-49.....	1	1	..	..	..	..	..	..	..	1	1
50 and over.....	1	1	2	..	..	..	..	..	..	1	1	2
Unascertained.....
Totals.....	1	1	2	4	5	9	8	9	17	2	0	2	2	0	2	17	15	32

TABLE VII.—DEATHS BY MENTAL STATUS AND CHRONOLOGICAL AGE.

Age Group Years	Idiots			Imbeciles			Total		
	M	F	T	M	F	T	M	F	T
Under 10 years.....	1	..	1	1	..	1
10-14.....
15-19.....
20-24.....
25-29.....	1	..	1	..	..	..	1	..	1
30-39.....
40-44.....	1	1	..	1	1
45-49.....
50 and over.....
Unascertained.....
Totals.....	1	..	1	1	1	2	2	1	3

ELOPED BY MENTAL STATUS AND AGE.

Age Group Years	Moron			Total		
	M	F	T	M	F	T
Under 10 years.....	..	..	..	..	..	..
10-14.....	1	..	1	1	..	1
Totals.....	1	..	1	1	..	1

TABLE VIII.—TRANSFER 'OUT' BY MENTAL STATUS AND AGE.

Age Group Years	Idiots			Imbeciles			Morons			Total		
	M	F	T	M	F	T	M	F	T	M	F	T
Under 10.....	2	3	5	..	..	..	..	1	1	2	4	6
10-14.....	..	1	1	..	..	..	..	..	..	..	1	1
15-19.....	1	..	1	..	..	..	..	..	..	1	..	1
20-24.....	..	1	1	..	..	..	..	..	..	..	1	1
25-29.....	..	1	1	..	2	2	1	..	1	1	3	4
30-34.....	..	1	1	..	1	1	1	..	1	1	2	3
35-39.....	..	..	..	..	1	1	..	..	..	..	1	1
40-44.....	..	..	..	2	..	2	..	..	..	2	..	2
45-49.....	..	1	1	..	..	..	..	1	1	..	2	2
50 and over.....	..	..	..	..	..	..	..	..	..	..	..	..
Unascertained.....	..	1	1	..	1	1	..	..	..	..	2	2
Totals.....	3	9	12	2	5	7	2	2	4	7	16	23

REGIONAL PUBLIC HEALTH, 1947

DR. C. F. W. HAMES,

Deputy Minister of Public Health.

1. General Statement:

During 1947 six health regions were in operation. Two of these regions, Assiniboia and North Battleford, were organized in June and August respectively. In the following table will be found the population in each health region, the number of months of operation and expenditures to the end of November by region:

Region	Population	Operational Mths.	Expenditure to Nov. 30/47
Swift Current No. 1.....	50,000	11	\$ 36,309.41
Assiniboia No. 2.....	35,000	5	13,889.21
Weyburn No. 3.....	50,000	11	32,922.31
Moose Jaw No. 6.....	44,000	11	28,470.10
North Battleford No. 13.....	62,000	3	11,930.69
Meadow Lake No. 14.....	14,000	11	12,610.16
	<hr/> 255,000	<hr/> 52	<hr/> \$136,131.88
Division of Regional Health Services		8 mths.	15,151.57
			<hr/> \$151,283.45

In April, the Division of Regional Health Services was established in the Department of Public Health in order to coordinate the supervision of regional public health operations and in order to coordinate public health and medical care activities in regions. The Division has been concerned with the development of standards of operation and procedures adaptable to requirements and resources in the province. An effort has been made to clarify responsibilities of health region personnel and relationships with divisions of the department in order to assure efficiency in administration.

The Division has devoted considerable study to the problem of clarifying the statutory provisions governing health region operations. As a result of these studies, certain amendments to existing legislation will be recommended to the Deputy Minister.

Regulations governing the organization of regional boards were revised in the interest of making the boards more representative of communities. The revision was included in Order-in-Council 920/47 of May 30, 1947.

In addition to regional boards which had already been established in the Swift Current and Weyburn Health Regions, two new boards were organized in the Moose Jaw and North Battleford Regions in September and November respectively.

An effort has been made to re-adjust regional boundaries in order to include certain areas which were not previously included and in order to bring regional boundaries more closely into line with trading area boundaries. Such changes affected municipalities lying between the Swift Current Health Region and the Moose Jaw and Assiniboia Regions.

Four bimonthly conferences of health officers were arranged after the organization of the Division of Regional Health Services in order to clarify common problems and in order to bring experience of health officers more directly to bear on further definition of policy. Growing out of these discussions many administrative problems have been clarified and further progress has been made in elaborating a standard system of recording.

There have been several significant developments in the organization of public health services in regions during the year. In April, a mental hygiene demonstration was organized in the Weyburn Health Region for the purpose of adapting procedures and policies in accordance with requirements in the province. The Department of Education and the Board of the Larger School Unit as well as the community have been actively co-operating in the development of the program. Associated with the demonstration in the health region is a course of instruction for public health nurses and other personnel organized on the initiative of the Commissioner of Mental Services. Public Health Nurses from all regions have participated in this course in anticipation of the extension of mental hygiene services to other regions.

Progress has been made in integrating other special services into the regional organization where health regions have been established. In Moose Jaw, the Venereal Disease Clinic, which previously had operated as an agency directly responsible to the Division of Venereal Disease Control, has now been made an administrative part of the Moose Jaw Health Region subject to the technical supervision of the Division. It is felt that in this way a more effective program of venereal disease control should be possible and at the same time possibilities for duplication of personnel may be reduced to a minimum.

The practice of having vital statistics and communicable disease reports routed through the regional centre was established during the year. This provides the health officer with the dual advantage of receiving information of value to the program immediately and, at the same time, giving him a clearer picture of health problems throughout his area.

Food Handlers' Schools and tuberculosis control activities have been carried on in regions in close co-operation with the regional staff. To date, the health region staff has been responsible for a portion of the health education program associated with the mass x-ray activities carried on by the Anti-Tuberculosis League. Conversations were initiated with the League during the year to further clarify relationships between regional staffs and the staff of the League in order that a more effective and continuous control of cases may be established.

A nutritionist was assigned to work in health regions during the year, and is at present participating in the organization of a demonstration program in the Moose Jaw Health Region. In general, new phases of activity are being developed on the basis of demonstrations so that administrative problems can be adequately clarified before the program is committed over a wide area.

A problem of considerable importance experienced in health region operations during the year was the problem of recruitment of an adequate staff of nursing personnel. This problem is a common one throughout the world at the present time. It is hoped that the coming year may see a joint approach to this rather serious question by inter-provincial conferences as there are many basic problems involved which could not be completely resolved by one Provincial Government independently.

The following tables have been prepared from the monthly reports submitted by each health region. Due to the fact that reporting from the various health regions has not been standardized, it has not been possible to compile a complete statistical analysis of the numerous health region activities. Certain of the more easily defined services have been tabulated to give an indication of their volume and gradual increase.

In January, 1947, there was a staff of 51 in Regional Health Services. This number has gradually increased during the year to a total of 76 made up as follows:

1. Divisional Director	1
2. Assistant to the Director	1
3. Regional Medical Health Officers.....	7
4. Senior Public Health Nurses.....	5
5. Senior Sanitary Officers	3
6. Public Health Nurses	29
7. Sanitary Officers	8
8. Assistant Sanitary Officers	4
9. Clerk-Stenographers	15
10. Health Educators	2
11. Nutritionist	1
TOTAL	76

TABLE I
NUMBERS RECEIVING SERVICE FROM NURSING HOME VISITS

1947	Region I	Region II	Region III	Region VI	Region XIII	Region XIV
January.....	510	.....	331	100	.....	56
February.....	787	.....	748	73	.....	26
March.....	862	.....	484	127	.....	87
April.....	625	.....	536	240	.....	148
May.....	271	.....	1,176	104	.....	77
June.....	183	.....	748	194	.....	56
July.....	586	94	757	220	.....	53
August.....	612	66	410	82	.....	13
September.....	238	131	288	117	150	4
October.....	719	78	252	104	160	14
November.....	278	99	232	85	223	6
December.....	422	82	228	84	176	0
Grand Total.....	6,093	550	6,191	1,445	709	540
15,528						

TABLE II
COMMUNICABLE DISEASE HOME NURSING VISITS

1947	Region I	Region II	Region III	Region VI	Region XIII	Region XIV
January.....	27	....	44	13	....	14
February.....	24	....	19	18	....	17
March.....	33	....	92	3	....	17
April.....	19	....	74	6	....	5
May.....	61	....	69	27	....	22
June.....	30	....	64	15	....	20
July.....	14	....	36	21	....	15
August.....	20	6	43	3	....	10
September.....	28	20	25	24	35	4
October.....	36	42	24	26	52	16
November.....	21	38	26	3	35	13
December.....	24	6	11	4	88	6
Grand Total.....	337	112	527	163	210	159
1,508						

TABLE III
CHILD HEALTH CLINIC ATTENDANCE

1947	Region I	Region II	Region III	Region VI	Region XIII	Region XIV
January.....	63	....	....	164	....	....
February.....	189	....	....	151	....	10
March.....	313	....	....	266	....	14
April.....	279	....	....	270	....	18
May.....	330	....	27	340	....	26
June.....	313	....	79	329	....	43
July.....	439	123	9	336	....	47
August.....	427	58	178	413	....	40
September.....	544	....	461	340	....	32
October.....	591	....	94	467	....	60
November.....	300	....	....	365	82	40
December.....	289	....	18	297	106	36
Grand Total.....	4,109	181	866	3,738	188	336
9,418						

TABLE IV
IMMUNIZATION CLINIC ATTENDANCE

1947	Region I	Region II	Region III	Region VI	Region XIII	Region XIV
January.....	130	....	1,531	446	....	....
February.....	409	....	987	708	....	....
March.....	881	....	1,173	2,524	....	....
April.....	1,103	....	531	4,379	....	273
May.....	732	....	1,562	2,697	....	1,016
June.....	645	....	798	2,619	....	1,466
July.....	577	40	393	787	....	614
August.....	217	....	145	359	....	557
September.....	1,727	406	141	731	110	43
October.....	2,442	1,561	2,782	1,822	1,973	2,711
November.....	355	1,265	1,846	3,583	2,493	1,763
December.....	132	461	278	1,985	861	158
Grand Total.....	9,350	3,733	12,167	22,640	5,437	9,601

TABLE V
SCHOOL HEALTH EXAMINATIONS

1947	Region I	Region II	Region III	Region VI	Region XIII	Region XIV
January.....	759	....	1,095	1,664	....	114
February.....	1,092	....	964	2,334	....	109
March.....	701	....	1,302	562	....	440
April.....	299	....	944	435	....	154
May.....	201	....	2,292	437	....	220
June.....	871	....	1,040	491	....	184
July.....	87	....	....	73	....	87
August.....	258	42	127	40	....	88
September.....	300	111	235	1,219	386	68
October.....	622	51	197	1,330	224	14
November.....	718	104	479	109	405	6
December.....	519	185	586	175	569	....
Grand Total.....	6,327	493	9,361	8,869	1,584	1,466

TABLE VI
SCHOOL VISITS

1947	Region I	Region II	Region III	Region VI	Region XIII	Region XIV
Nurses.....	214	23	610	187	92	....
Sanitary Insp.....	97	162	155	....	....	55

TABLE VII
OFFICIAL CALLS (Physician, Dentist, Municipal Officials, School Officials and Others)

1947	Region I	Region II	Region III	Region VI	Region VIII	Region IX
January.....	57	....	97	....	....	....
February.....	83	....	43	439	....	....
March.....	63	....	107	....	....	....
April.....	143	....	70	119	....	4
May.....	302	....	89	212	....	12
June.....	78	....	58	84	....	19
July.....	68	41	74	23	....	12
August.....	64	27	122	29	....	4
September.....	32	25	158	26	74	4
October.....	63	17	135	39	110	3
November.....	40	26	84	10	112	15
December.....	33	37	55	3	151	7
Grand Total.....	1,026	173	1,092	984	447	80

TABLE VIII
SANITARY INSPECTION

1947	Region I	Region II	Region III	Region VI	Region XIII	Region XIV
January.....	253	....	234	776	....	59
February.....	246	....	142	709	....	29
March.....	178	....	114	576	....	21
April.....	510	....	142	1,369	....	15
May.....	496	....	293	652	....	96
June.....	339	....	253	757	....	53
July.....	916	79	420	689	....	29
August.....	484	234	320	1,292	....	21
September.....	143	43	398	964	258	39
October.....	462	178	542	523	426	50
November.....	236	106	319	736	509	50
December.....	244	96	273	652	542	19
Grand Total.....20,600	4,507	736	3,450	9,691	1,735	481

TABLE IX
HEALTH EDUCATION MEETINGS ATTENDANCE

1947	Region I	Region II	Region III	Region VI	Region XIII	Region XIV
	6,509	411	2,410	1,255	154	1,500

TABLE X
CERTAIN SERVICES IN ALL REGIONS BY MONTHS 1947

	Sanitary Inspections	Immunization Attendance	Child Health Clinic Attendance	School Health Examinations
January.....	1,322	2,107	227	3,632
February.....	1,126	2,104	350	4,481
March.....	889	4,578	593	3,005
April.....	2,036	6,286	567	1,832
May.....	1,510	5,998	723	3,150
June.....	1,402	5,528	775	2,586
July.....	2,133	2,411	954	247
August.....	2,351	1,278	1,116	555
September.....	1,845	3,158	1,377	2,319
October.....	2,181	13,291	1,212	2,438
November.....	1,956	11,305	787	1,821
December.....	1,849	3,884	737	2,034
	20,600	62,928	9,814	28,100

AIR AMBULANCE SERVICEREGINA, SASKATCHEWAN,
December 15th, 1947.DR. C. F. W. HAMES,
Deputy Minister of Public Health.

SIR:

In this report we shall deal chiefly with the experience record, expansion, and modifications of the Air Ambulance Service for the year 1947, since the 1946 report contained all the information pertaining to the aims and organization of this division.

Experience Record: During the past calendar year, a notable increase in patient flights has taken place. This increase has been proportional in the case of each of the four seasons, when compared with flights completed last year, but there seems very little relation between the number of flights completed in the respective seasons of this year. Generally speaking, our experience has shown that more flights are requested during the winter than at any other time. The number of flights requested during the summer and fall periods, are about the same. During the period between winter and summer, flights requested are less by a considerable amount than at any other time. When roads are blocked in winter, the average range of patient flights from Regina is 125 miles, and patients, in many cases, are emergencies more because of their isolation due to the snow than for degree of illness. In summer the converse is true, patient flights averaging 175 miles from Regina, transportation being requested, not because roads are blocked, but rather because of time and distance. Patients carried in the fall periods are for the most part accident or polio victims.

Flying has been conducted in the same manner and under the same conditions as were encountered during 1946. Patients have been flown from airport to airport, from unprepared fields to airport, and in some cases, into unprepared fields. Several flights have been conducted outside the province, many of these to the Mayo Clinic in Rochester, Minnesota. Several towns and villages in the province, have constructed landing strips primarily for our use, but these are so limited that they are of very little advantage to this service.

Our aircraft serviceability and the standard of base maintenance have both remained at top efficiency, despite the lack of adequate personnel to enable the engineering staff to work normal periods. Unserviceabilities in aircraft have been restricted to times when aircraft could not be flown by reason of darkness or bad weather, or those periods when accidents of some proportion have occurred, the repair of which has been outside the scope of our staff.

It has been the policy of this division to equip the aircraft and personnel so that all possible natural hazards encountered in normal flying might be avoided. This policy has extended to provide every possible medical and comfort aid for our patients. This policy has borne fruit in that no aircraft has been completely damaged, no person has ever been injured, and no patient has ever died on our aircraft; to my knowledge no patient, while on our aircraft, has ever suffered any hardship. Further than this, there has never been a complaint from any patient or their family, regarding their treatment while aboard our aircraft.

In the past year, there have been fourteen complete days when flying could not be undertaken by this service. There have also been periods when it was inadvisable to attempt flying by virtue of pending bad weather, heavy icing, or bad weather at destination.

Expansion: As stated above in the generalized experience record, the increase in patient flights which took place during the year 1946, required that, in the public interest, the facilities of this service be increased to a point where, over a period of time the demands made upon this service could be generally dealt with, without increasing the total expenditure out of proportion.

To meet the increasing demands for aerial transportation, a third aircraft was ordered and purchased during the month of May, 1947. This aircraft, although not primarily designed for air ambulance work, was fitted out with all of the equipment normally required in this type of work, and it may be sufficient to say that since its purchase, this aircraft has performed very satisfactorily.

Partly to facilitate more demanding duties, and partly to alleviate unnecessary expenditures by this division during the lighter operating months of summer, the original Norseman aircraft of this service was loaned to the Department of Natural

Resources on the 1st of June. The contractual period of loan was to have been until September 30th, but on that date it was agreed that a transfer of this aircraft on a permanent basis to that department be effected. In return this service was awarded a smaller aircraft, a "Stinson Voyager", bringing our compliment of aircraft to three, the latter to act as a standby or replacement, mainly in case of unserviceabilities of one of the larger aircraft.

With increased demand for Air Ambulance transportation, it was well established at the end of last year's operation that hangar and base maintenance facilities must be made available and expanded to correspond to the additional needs of the service. Coincidentally, during the month of December of 1946, the municipal hangar of the City of Regina became available for lease and in consequence a contract was signed for the use of this hangar and its attendant gasoline concession for the Regina Airport. It was established after some investigation that the bulk of the overhead involved in the operation of the said hangar would be offset by the advantage of the gasoline concession.

The lease for the hangar and facilities therewith, was signed effective January 1, 1947, and has been the responsibility of this service since that time. Considerable work has been done with this property to increase the potential of maintenance capacity. A complete work shop has been installed where all maintenance, except major overhauls, may be completed, and a stock of spare parts for aircraft, engines, and radio has been purchased to facilitate routine and emergency repairs. A complete and standard method of aircraft inspection and maintenance has, as a result, been possible, and the difficulty of handling ski-equipped aircraft under winter hardships has been largely eliminated due to the acquisition of the hangar proper.

In addition to the above, an operations office, engineering office, and crew room have been established each of which play a valuable part in the smooth efficient operation of this service.

With the addition of a third aircraft and hangar facilities, it was necessary to make some increase in the compliment of personnel to operate and maintain the aircraft. Hitherto, the staff of this division had consisted of two pilots, three engineers, two flight nurses and one man in the office. First priority went to the increase of mechanical help and janitor services. A janitor and one mechanic were initially provided for this service in January, 1947. Subsequently, two additional mechanics were hired, but one of these was an experienced pilot, and when it became apparent that an addition to the pilot staff would be necessary, he was awarded the promotion and unfortunately no replacement for him on the mechanical staff was forthcoming. In addition to the aforementioned increases in staff, it was found that the accumulative paper work in connection with our operation, was overburdening the single man in the office, especially with the Supervisor holding an equal status on flying duties with the other pilots. To alleviate this situation, a stenographer was engaged during March of 1947.

As has been noted above, a third pilot became available from the mechanical staff, although there were only at that time two flight nurses employed. The result was, that, in effect, flight nurses were flying, or on duty, longer than their pilots. Provision had been made in the 1947 estimates for a third flight nurse, and therefore the position was advertised in October of this year, preparatory to the winter's operation. In November the original flight nurse with this service was married, and as a result, to fill the two vacancies thereby created, two new flight nurses were engaged.

With the exception of one who was previously employed in the Civil Service of the province for some years, all employees of this division are so employed on a temporary basis.

Modifications: Having regarded the experience of this service in the light of what has been heretofore said, certain modifications have been instigated, or are being considered.

1. It is now established that patients will not be considered for air ambulance transportation unless arrangement for hospitalization and physician's care are previously made by the local attending physician, or, in his absence, by the people themselves with no exceptions.
2. That flying shall only be conducted under such conditions as are deemed entirely safe, regardless of the emergent nature of the pending patient, and shall only be conducted into such areas as are known to the pilot as entirely safe from the standpoint of landing and takeoff.

3. No aircraft shall be flown, regardless of the emergency involved, unless it has been established to the satisfaction of those qualified, that the serviceability of the aircraft being used is beyond question.
4. Although the facilities of this service as regards aircraft, maintenance, and general personnel efficiency are presently highly regarded by the Department of Transport, it is a fact which has been established by older aviation companies than ourselves, that operating efficiency generally can never reach too high a standard. For the past year, and in future, our intention has been and will continue to be, to facilitate the service with a progressively higher efficiency rating in each of these phases. More thorough aircraft inspections have been established, only the best materials are used in aircraft repairs, only approved modifications are incorporated on the aircraft, and pilot efficiency is being increased through constant familiarity with current radio-navigational methods and aids, more flying practice in unusual landing and takeoff conditions, and lately, by the addition of a Link Trainer instrument flying training syllabus.

Summary: Without elaborating further in narrative, the approximate net yearly operating cost of the service to the Department of Public Health will be \$58,000.00, and the usefulness of the service is aptly given in the attached listings of patients carried, their locations, and ailments.

D. K. MALCOLM,
Supervisor.

Location where Patients Picked up:	Number Carried	Location where Patients Picked up:	Number Carried
Abernethy.....	3	Carlyle.....	5
Alameda.....	3	Carnduff.....	2
Amazon.....	1	Caron.....	2
Aneroid.....	1	Carrot River.....	3
Antler.....	7	Central Butte.....	1
Aquadell.....	1	Ceylon.....	6
Archive.....	1	Chamberlain.....	2
Arcola.....	12	Chaplin.....	1
Arena.....	1	Claybank.....	2
Assiniboia.....	2	Clemens.....	1
Avonlea.....	6	Climax.....	13
Aylesbury.....	1	Coderre.....	2
Balcarres.....	8	Coleville.....	1
Balgonie.....	1	Colgate.....	4
Baildon.....	1	Congress.....	1
Bateman.....	1	Corning.....	5
Beechy.....	5	Coronach.....	3
Belle Plain.....	1	Coure D'Alene.....	1
Bengough.....	14	Courval.....	3
Benson.....	1	Craik.....	1
Bernard.....	2	Crane Valley.....	2
Big Beaver.....	1	Creelman.....	2
Birch Hills.....	2	Cupar.....	1
Blaine Lake.....	1	Cymric.....	1
Bracken.....	3	Dahinda.....	1
Briercrest.....	1	Dalton.....	1
Broadview.....	1	Davidson.....	7
Broadway.....	1	Davin.....	1
Brooking.....	2	Dilke.....	3
Brownlee.....	3	Drake.....	1
Buffalo Gap.....	1	Duval.....	2
Cabri.....	4	Dumas.....	1
Calder.....	1	Dunclairn.....	1
Candiac.....	1	Dubuc.....	2
Canora.....	1	Dysart.....	2
Carragana.....	1	Earl Grey.....	1
Cardross.....	3	Eastend.....	5
Carievale.....	1	Eastleigh.....	1

Location where Patients Picked up:	Number Carried	Location where Patients Picked up:	Number Carried
Eastview.....	1	Lemburg.....	2
Eatonia.....	1	Lemsford.....	1
Edam.....	2	Leroy.....	1
Edenwold.....	5	Lestock.....	6
Edgeley.....	1	Liberty.....	3
Elrose.....	2	Limerick.....	1
Empress, Alta.....	1	Lipton.....	2
Esterhazy.....	5	Loreburn.....	5
Estevan.....	9	Loon Lake.....	3
Eston.....	2	Macklin.....	1
Ferland.....	1	Macoun.....	2
Fillmore.....	1	Main Centre.....	1
Finnie.....	1	Mankota.....	2
Fir Mountain.....	2	Manor.....	4
Fitzmaurice.....	1	Maple Creek.....	4
Foam Lake.....	5	Marcelin.....	1
Fosston.....	1	Markinch.....	1
Francis.....	2	Maryfield.....	3
Frobisher.....	2	Maxim.....	2
Frontier.....	9	Mazenod.....	1
Ft. Qu'Appelle.....	2	McCord.....	4
Gainsborough.....	1	McGee.....	1
Girvin.....	1	McTaggart.....	1
Gladmar.....	7	Meadow Lake.....	2
Glasnevin.....	2	Melfort.....	10
Glenavon.....	2	Melville.....	8
Glen Kerr.....	2	Meyronne.....	1
Glentworth.....	1	Midale.....	1
Goodeve.....	1	Milden.....	1
Goodwater.....	2	Milestone.....	1
Govan.....	3	Minton.....	1
Govanlock.....	1	Mitchellton.....	1
Gravelbourg.....	2	Moose Jaw.....	6
Gull Lake.....	1	Moreland.....	2
Hafford.....	1	Morse.....	2
Hallonquist.....	1	Mortlach.....	2
Handsworth.....	1	Mossbank.....	3
Hardy.....	2	Mutrie.....	2
Hawarden.....	1	Neville.....	3
Herbert.....	3	Neudorf.....	1
Hepburn.....	1	Nipawin.....	7
Holdfast.....	3	Nokomis.....	2
Horizon.....	1	Odessa.....	3
Hudson Bay Junction.....	5	Ogema.....	3
Hughton.....	1	Old Wives.....	1
Imperial.....	7	Ormiston.....	1
Indian Head.....	1	Outlook.....	1
Ituna.....	1	Pangman.....	1
Jedburgh.....	2	Paradise Hill.....	3
Kayville.....	6	Parry.....	2
Keeler.....	1	Patrick.....	1
Kelvington.....	2	Peebles.....	2
Kenaston.....	4	Penzance.....	1
Kendal.....	1	Perdue.....	1
Khedive.....	3	Piapot.....	3
Kincaid.....	3	Prelate.....	2
Kindersley.....	1	Prince Albert.....	6
Kipling.....	1	Punnichy.....	1
Kronau.....	2	Radisson.....	1
Krydor.....	1	Radville.....	8
Kyle.....	1	Raymore.....	1
Lac Pelletier.....	1	Readlyn.....	1
La Fleche.....	1	Redvers.....	1
Lajord.....	2	Regina.....	26
Lake Alma.....	2	Regina Beach.....	1
Lampman.....	2	Riceton.....	5
Lamont, Alta.....	1	Ritchie.....	1
Lang.....	1	Riverhurst.....	1
Langenburg.....	1	Rockglen.....	4

Location where Patients Picked up:	Number Carried	Location where Patients Picked up:	Number Carried
Rosetown.....	4	Tyvan.....	1
Rose Valley.....	3	Val Marie.....	7
Rouleau.....	2	Valor.....	1
Russell, Man.....	1	Vanguard.....	6
Saltcoats.....	1	Vantage.....	1
Saskatoon.....	4	Venn.....	1
Scottsburg.....	1	Verwood.....	1
Semans.....	1	Vesper.....	1
Shamrock.....	5	Viceroy.....	7
Shaunavon.....	8	Wadena.....	4
Simmie.....	1	Wapella.....	1
Simpson.....	1	Watrous.....	1
Smiley.....	1	Watson.....	1
Sonningdale.....	1	Wawota.....	2
Spalding.....	3	West Bend.....	1
Spiritwood.....	3	Westgate.....	1
Spring Valley.....	1	Weyburn.....	7
Stenen.....	1	Whitebear.....	1
Stony Beach.....	1	Wilcox.....	1
Stoughton.....	4	Willmar.....	1
Stranraer.....	1	Willows.....	1
Strasbourg.....	1	Willowbunch.....	7
Straun.....	1	Windthorst.....	6
Strongfield.....	1	Wynyard.....	1
Swan River, Man.....	3	Yellow Grass.....	1
Swift Current.....	11	Yorkton.....	6
Talmage.....	1	Unable to land due to poor visibility.....	6
Theodore.....	1	Transport Food.....	5
Tilney.....	2	Transport Blood Plasma.....	1
Tisdale.....	5	Transport Serum.....	1
Trossachs.....	2	Transport Mail.....	2
Truax.....	4		
Tugaske.....	1		

Ailments of Patients Transported	Number Carried	Ailments of Patients Transported	Number Carried
Acute Mastoid.....	2	Bergers Disease.....	1
Aplastic Anemia.....	1	Crushed Chest.....	1
Acute Abdomen.....	18	Cerebral Haemorrhage.....	16
Abortion.....	11	Cardiac.....	42
Acute Appendicitis.....	32	Carcinoma.....	47
Abscess:—		Choleciptitis.....	11
(1) Following tooth extraction.....	1	Coronary Thrombosis.....	1
(2) Under right axilla.....	1	Circulatory Disturbances.....	1
(3) Abscessed pelvis.....	2	Cellulitis.....	1
(4) Appendical.....	2	Complications Following Surgery.....	1
(5) Throat.....	5	Diabetic Coma.....	1
(6) Brain.....	1	Diabetes.....	8
(7) Lung.....	1	Duodenal Ulcer.....	1
Arthritis—acute.....	2	Dislocated Hip.....	3
Axe Attack.....	2	Dislocated Neck.....	1
Arteriosclerosis.....	3	Diphtheria.....	1
Acute Nephritis.....	1	Dissiminated Sclerosis.....	1
Asthma Acute.....	1	Epileptic Seizures.....	2
Alcoholic Acute.....	1	Empipma.....	1
Acute Urinary Distention.....	1	Extoptic Gestation.....	1
Acute Rheumatic Condition.....	7	Eclampsia.....	1
Aeronegaly.....	1	Eye Injury.....	6
Acute Enteritis.....	1	Erysipelas.....	1
Abdominal Wounds (accidental).....	6	Enteritis.....	2
Apoplexy.....	1	Encephalitis.....	3
Bowel Haemorrhage.....	1	Exzema with Complications.....	1
Back Injury.....	1	Fractures:—	
Burns Severe.....	3	(1) Pelvis.....	17
Brain Tumor.....	5	(2) Collar Bone and Arm.....	4
Bowel Obstruction.....	9		

Ailments of Patients Transported	Number Carried	Ailments of Patients Transported	Number Carried
(3) Forearm.....	3	Mumps (complications).....	4
(4) Feet.....	1	Neuritis.....	1
(5) Spine.....	4	Punctured Lung.....	1
(6) Clavicle.....	5	Phlebitis.....	3
(7) Larynx.....	1	Prostititus.....	9
(8) Wrist.....	1	Psychopathic.....	15
(9) Vertebrae.....	5	Pleurisy with Effusion.....	2
(10) Catartrochanter.....	3	Pregnancy.....	16
(11) Fibia.....	2	Pneumonia.....	20
(12) Tibia.....	7	Perforated stomach ulcer.....	8
(13) Elbow.....	1	Plaunta Praevae.....	4
(14) Skull.....	12	Peanut lodged in Throat.....	1
Frost Bite both Legs and Hip..	3	Poliomyelitis.....	40
Fish Bone Lodged in		Paralysis wth incontinence.....	1
Esophagus.....	1	Pregnancy with complications...	9
Fibroid Uterus.....	1	Progressive Anemia.....	1
Gastro-enteritis.....	2	Pernicious Anemia.....	1
Gangrene.....	10	Retained Placenta.....	1
Gun Shot Wound.....	3	Renal Calculi.....	12
Haemorrhage.....	14	Ruptured Liver.....	2
Haemorrhoids (infected and bleeding).....	3	Retention of Urine.....	2
Hypertension with Kidney complications.....	1	Ruptured Ovarian Tumor.....	1
Head Injury.....	4	Ruptured Penis.....	1
Hipteria.....	1	Ruptured Peritoneal Hamatoms	1
Hemiplegia.....	1	Severe Strained Back.....	1
Intestinal Obstruction.....	4	Septic Throat.....	1
Incomplete Abortion.....	3	Strangulated Hernia.....	3
Infected right side of Neck.....	1	Sciatica.....	1
Influenza with Lung Abscess.....	3	Severely Lacerated Leg.....	1
Intestinal Tumor.....	1	Spinabifida.....	2
Infected Jaw and Sinuses.....	1	Sinus-severe.....	1
Internal Injuries.....	3	Senile Decay.....	5
Intracranial Haemorrhage.....	2	Strep. Throat.....	1
Infantile Diarrhoea.....	1	Septicemia.....	1
Jaundice.....	2	Spinal Injury.....	5
Liver and Stomach Trouble.....	1	Subarachnoid Haemorrhage.....	1
Lung Infarct.....	1	Spastic Paralysis.....	1
Leukemia.....	4	Salphingitis.....	1
Leucotomy.....	1	Thyroid.....	1
Lung Haemorrhage.....	1	Tuberculosis.....	9
Lobectomy.....	1	Tick Delarue.....	1
Multiple Fractures and Wounds.....	3	Tympanitis and Cardiac Peritonitis.....	1
Meningitis.....	5	Truamatic Amputation.....	4
Malnutrition.....	1	Uremia.....	3
Menorrhagia.....	1	Uterine Haemorrhage.....	5
		Ulcerated gall bladder uterine fibroid and peritonitis.....	1
		Undiagnosed.....	4

DIVISION OF PHYSICAL FITNESS AND RECREATION

REGINA, SASKATCHEWAN,
December 29, 1947.

DEAR SIR:

I am enclosing herewith for your information a copy of the 1947 Report on Saskatchewan's Physical Fitness and Recreation Program. 1947 was not a year of expansion. We feel that it has definitely been a year of progress. The foundations upon which the Fitness and Recreation Program have been laid have proven to be solid, and we can look forward with confidence to a steady development of the program in the future.

Yours very truly,

SASKATCHEWAN RECREATION MOVEMENT,

J. B. KIRKPATRICK, ED. D.,
Director.

Saskatchewan's Physical Fitness and Recreation Program
operating under the National Physical Fitness Act (1943)
and The Saskatchewan Physical Fitness Act (1944)
1947

SECTION 1

*The function of the Provincial Government in Physical Fitness
and Recreation in Saskatchewan*

"Physical" fitness cannot be separated from mental, moral and spiritual fitness. To be effective, any program of physical fitness and recreation must be interpreted in such a way as to include these. We are interested in building better boys and girls, not just in building better bodies. Since the problem involves the worthy use of leisure, we have an expressed and active interest in the field of crafts, music, woodworking, and drama, as well as in exercises, games, and sports.

With regard to the manner of implementing a program, we believe:

(1) That recreation is primarily "community business", and that a recreation program should grow from within the community, in line with its particular needs and abilities, rather than be superimposed by a central authority. If a community wants a recreation program, it must be willing to work for, plan, and, at least until more federal and provincial funds are available, to finance that program. Our business is not to give any community a program but to help them develop one for themselves.

(2) That we are only a very small part of Saskatchewan Recreation. Recreation began in this province when the first two farmers pitched horseshoes in their yard, not three years ago when the S.R.M. was formed. It has been carried on by literally hundreds of organizations and thousands of individuals. It is no part of our job to control the work of these, or to direct their programs. Rather, we can serve best by helping communities to co-ordinate the work that is being done, by assisting individuals or groups when called upon, and by stimulating the formation of new groups where there is a need.

(3) That in our present society there are many agencies drawing our young people away from our basic social institutions, and that every effort should be made to provide wholesome recreation first of all in the Home, the Church, and the School. We believe that community organization should supplement and not supplant the work of these.

(4) That we must work very closely with the schools. If we do not have a recreation-conscious school population we cannot expect a recreation-wise adult population.

(5) That a prime function of any government group interested in recreation should be to provide opportunity for leadership training.

(6) That it is important to co-ordinate the work of this division with that of other government agencies which provide services in the recreation field.

- (7) That other legitimate functions of a government agency include:
- (a) the giving of publicity to recreation and to good work that is being done in the recreation field;
 - (b) the preparation and distribution of program aids as the need for these becomes apparent;
 - (c) the provision of a reference library and film service to recreation groups within the province;
 - (d) the stimulation and support of special projects in the field of physical fitness and recreation, with a view to making these self sustaining as early as possible;
 - (e) taking the initiative in calling together groups which have a common interest in the field of recreation, and helping them to co-ordinate their work;
 - (f) giving leadership to thinking on recreation problems.

SECTION 2

Administration:

(1) The Physical Fitness and Recreation Division, for the 1947-48 fiscal year, is operating on a budget of \$60,000, approximately \$17,500 of which is recoverable from Ottawa under the terms of the National Physical Fitness Act.

(2) The Provincial Council on Physical Fitness held two meetings during the year. Standing committees on Public Relations, Crafts and Legislation were set-up and are now functioning.

(3) Mr. C. M. Bedford was absent on Education Leave from January 1st to March 31st, during which time he took recreation courses at the University of Washington. Mr. C. S. Glew returned from leave of absence in May and worked for the division until September when he was again granted leave without pay to attend the McGill School of Physical Education. Miss M. Nicholson left on eight months' educational leave in September to attend the School for Social Work, University of British Columbia.

(4) Mr. G. L. A. Daverne resigned in September to take over the duties of Physical Education Director, Regina College. There was one change in clerical staff during the year: Miss L. Metzger replacing Miss L. LaCharity who was transferred to Air Ambulance Service.

(5) Present staff consists of: Director, Administrative Assistant, Supervisor of Group Work (on leave), 7 Recreational Field Representatives (two on leave without pay), Senior Clerk Stenographer, Clerk Stenographer, 2 Clerk Typists, (one vacancy on Field Staff).

SECTION 3

Specific Implementation of the Program of Physical Fitness and Recreation, in Terms of the Methods Outlined in Section 1.

RE: Section 1 (1)

A recent statistical survey of the work of the division for the first eleven months of 1947 has shown that a total of 726 visits were paid by members of the S.R.M. to communities for the purpose of discussing specific community recreation problems. Most of these visits were by field staff, who have the responsibility for continuous contact with communities, but on quite a number of occasions other staff members were called in as special consultants.

Paralleling the consultative services offered personally through field representatives is the central office service by mail. The following break down of mail enquiries received by the central office indicates the wide range of topics on which S.R.M. services have been requested. During this period S.R.M. received:

- 13 enquiries regarding construction of swimming and paddling pools;
- 49 enquiries regarding playgrounds (supervision, organization, finance, equipment, etc.);

- 61 requests for recreational dance materials;
- 69 requests for suggestions regarding social recreation (parties, dances, games, etc.);
- 19 requests for information on weaving;
- 41 requests for information on other crafts;
- 15 requests for information regarding the construction of tennis courts;
- 43 requests for assistance in organization and program suggestions for youth clubs;
- 17 enquiries regarding community halls (functional layout, finance, program);

NOTE—These requests were referred to the Community Centres Planning Committee on which S.R.M. is represented.

- 30 requests for information on camping;

NOTE—This represents only a small fraction of the correspondence on camping, most of which was funnelled through the newly formed Saskatchewan Camping Association.

- 8 requests for technical advice on gymnasium construction;
- 36 requests regarding the purchase or construction of various items of sports equipment;
- 35 requests for program suggestions for Christmas Concerts;
- 69 enquiries regarding track and field competitions;
- 132 enquiries on drama;
- 45 enquiries on skating and curling;
- 52 enquiries on sports including basketball, skiing, football, soccer, boxing, softball, hockey and badminton;
- 70 requests for information on general physical recreation;
- 24 enquiries on music;
- 8 requests for specific films.

NOTE—The foregoing represents only direct enquiries to central office. Requests referred to central office by field staff or handled directly by them are not included in this summary.

It is interesting to note the large number of requests for information on drama. This is one area in which we have had a specialist representative. There can be little doubt that a similar interest could be stimulated in crafts and other areas were we able to provide more services in those areas.

Reference should also be made under this heading to one service provided for our larger communities, though not for them exclusively. In co-operation with the Recreation Supervisors of Moose Jaw, Regina, Swift Current, Prince Albert, and Saskatoon, a Supervisor's Handbook for Playgrounds and Paddling Pools was published this year, and made available without cost to these centres and to other communities where playgrounds were in operation or were being planned. The material for this book was prepared originally by Mr. George Ward, reviewed by the entire group, edited by Dr. J. B. Kirkpatrick and Miss M. Nicholson of S.R.M. staff, and published by the division.

RE: Section 1 (2)

Continuing the policy of working with and through already organized groups, S.R.M. is represented on:

- The Community Centres Planning Committee—an inter-departmental committee which acts as a clearing house for community problems;
- The School Drama Festival Committee of the Saskatchewan Drama League which is concerned with the organization of school festivals;
- Ex-officio, on the executive of the Saskatchewan Lawn Tennis Association, with whom we are co-operating in laying plans for both high school and open regional tennis tournaments in 1948.

The S.R.M. also maintains a close working relationship with the A.A.U., the University of Saskatchewan, the Saskatchewan Basketball Association, the Saskatchewan Speed Skating Association, the Saskatchewan Amateur Hockey Association and the Saskatchewan Curling Association.

Probably our work with the Saskatchewan Camping Association should also be referred to under this heading. In the spring of 1947, the S.R.M. was responsible for calling a Camping Conference, which resulted in the formation of the Saskatchewan Camping Association. The Association affiliated with the Canadian Camping Association, collected fees, and has distributed program materials on camping.

Our role since the first meeting has been that of assisting the new Association in its work. For example, one of our staff was loaned to the Association for a two months' period to visit as many of the camps in the province as could be contacted, and thus to survey the camping picture in the province. The very comprehensive report which this representative prepared was mimeographed by the division, but was made available to camp groups and others through the Saskatchewan Camping Association. Until such time as the Association is financially able to carry on its program independently S.R.M. will continue to assist.

The essential point to note is that such assistance is always given through the Association, and the Association is given full credit for all the services it provides. We have no intention of providing camping services in competition to the Association, but will work only through it in this field.

RE: Section 1 (3)

In the magazine, Saskatchewan Recreation, there are special sections dealing with Recreation in the Home and Recreation in the Church. Much of the material in the magazine is also designed specifically for schools, and every teacher receives a copy of each issue.

RE: Section 1 (4)

There has had to be a change in the approach of the division toward work in the schools. Initially it was hoped that each large school unit might be persuaded, as the result of the Estevan experiment (see 1946 report) to engage a supervisor of physical education and recreation. While both the board and the teachers were well pleased with the results of the work done in Estevan, it has not been found practicable to implement the original proposal, even with a grant from this division. Many other interest groups also desired to see specialist services provided by large units—example, Audio-Visual instruction, Mental Hygiene, Library Services. The Large Unit Boards could hardly be expected to provide specialist personnel in every area, and the pattern that seems to be developing is the appointment of a helping teacher, who is usually engaged for specialist skills as well as general teaching ability. Conforming to this pattern, S.R.M. services to the schools will probably be stabilized along three general lines:

- (a) The provision of scholarships to encourage teachers to take further training in physical education and recreation. These scholarships for the ordinary teacher are \$25.00, but for a person who is in a key position to influence the work of teachers throughout the unit—example, helping teacher or Audio-Visual instructor a scholarship of \$100.00 has been provided.
- (b) In the organization of area sports, unit field days, etc., our field representatives have been able to assist to a considerable degree. It is anticipated that their services will continue to be used.
- (c) This year a very considerable amount of work was done at Teachers' Institutes, one day in service training sessions for teachers. A typical institute would be made up of about twenty teachers, meeting at a centrally located school. If the pattern followed this year is continued, the superintendent would take the morning session to deal with administrative or professional problems, and the afternoon session would be devoted to some special study.

Members of our staff were used extensively this fall for the afternoon sessions. Mrs. M. E. Burgess attended a number of institutes at which the topic was Creative Dramatics, while five other staff representatives dealt with the topic of tumbling and pyramid building as a winter activity. The division is thoroughly convinced of the unique value of this type of work, and is ready to co-operate fully with the Department of Education in extending it as fully as possible.

Number of Institutes attended—76

Number of teachers contacted—1,520 (approximately).

RE: Section 1 (5)

In a sense, the Teachers' Institutes which have just been described are a form of leadership training.

The summer school classes conducted each year at the University of Saskatchewan may also be classified as leadership training particularly since they are not confined to the professional training of teachers, but are open to other community leaders as well.

This year a total of 212 students completed the Summer School Physical Education courses at the University of Saskatchewan. There were 187 in the first year course, and 25 in the second year course. The following scholarships to the value of \$25.00 each were provided:

Physical Education S11	— 35;
Physical Education S12	— 14;
Art	— 8;
Music	— 10;
Arts and Crafts	— 10;
Drama	— 20;

In addition to these, four helping teachers or supervisors received \$100.00 scholarships in their respective fields of interest.

One of the problems in leadership training has always been that of contacting the strictly rural group. At Kenosee and at North Battleford in the winter of 1946-47, Miss Marion Bird conducted the recreation program at the Dominion-Provincial Youth Training Schools. These are co-educational schools to each of which between sixty to seventy young people come from rural areas for a period of six weeks.

Following up the work done last year Miss Bird is again attending each of these schools, but this winter is being aided by two of last year's students from each of last year's schools. These students are attending the school on a \$50.00 scholarship given by the division. They do not take the regular course, but are apprenticed to Miss Bird for the conduct of the recreation program. These four people should certainly gain a good experience in organizing and conducting recreational activities. The Extension Department and the Women's Department of the University of Saskatchewan, and the Wheat Pool representatives, who are jointly responsible for the organization of the schools, are most enthusiastic both with regard to the general recreational work and to this special project in leadership.

Apart from the Youth Training Schools, Wheat Pool representatives also organize each year a number of Co-operative Schools for rural young people. These are one week schools designed as a form of leadership training. Two staff members of the S.R.M. attended the school held at Prince Albert in July 1947, to give instruction in recreation and recreation leadership.

RE: Section 1 (6)

During the past year considerable progress has been made in co-ordinating the work of this division with that of other government agencies. The Saskatchewan Film Board distributes and services all the films purchased by this division. These films are available on request, and are also sent on a circuit when not otherwise in use.

The work of the division has been much more closely correlated with that of the Adult Education Division. Through its Lighted School Program, the Adult Education Division offers instruction in crafts, music, and art, as well as other subjects. In 1947 one of the S.R.M. Field Representatives undertook to organize Lighted School classes as part of his work. This procedure has proven to be mutually satisfactory, and it is likely that all field representatives will undertake a similar responsibility.

Joint conferences with members of the Adult Education staff have also served to clarify the work for which each division is chiefly responsible and to facilitate the elimination of overlapping in areas of joint interest.

We have been able to co-operate with the Department of Agriculture in locating instructors for some of the Farm Camps sponsored by that department. Staff members have also assisted with leadership training and recreation at local Leadership Schools.

While the University Extension Department is not a government department, it should perhaps be noted here that a close liaison is being developed with their work. This is largely through the medium of the Youth Training Schools previously mentioned under Leadership Training.

In helping to develop curricula, in providing assistance with teacher training programs, and in conducting summer school courses, the division has been able to co-operate most satisfactorily with the Department of Education.

RE: Section 1 (7a)

The magazine, Saskatchewan Recreation, is published five times a year. Its mailing list stands currently at 8,700. It goes to all school teachers, and to community leaders and other interested parties who have requested this service.

It is worth noting that the magazine has become the medium of publicity for organizations other than the S.R.M. The Saskatchewan Drama League has a section in each issue on School Drama Festivals. The Provincial Nutritionist and the Provincial Supervisor of Music are allotted regular space. The Red Cross Supervisor of Swimming and Water Safety publishes an article in each issue of the magazine.

There are regular sections which deal with Crafts and Hobbies, with Recreation in the Church, with Recreation in the Home, with Social Recreation, and with Sports. Contributed articles and reports fill these sections. It is safe to say at this stage that the magazine has finally found its proper function, and is doing a real service for recreation both in and out of the schools.

RE: Section 1 (7b)

Fresh program materials that have been prepared during 1947 include:
No. of Copies

300	Supervisor's Handbook for Playground and Paddling Pools.
550	Recreational Dances—a book of dances taught at the University Summer School classes compiled by Miss Jean Mooney, Miss Sheila Stanley, and Miss Mary Varey, with music by Mrs. M. Sanda.
2700	Tumbling, Balancing and Pyramid Building—a guide to the interested teacher or club leader prepared by J. W. Farthing, Field Representative, S.R.M.
2000	Suggestions for Recreational School Activities—prepared by Physical Education S12 class 1947.
750	Let's Go—Suggestions for Social Evenings Issue No. 1 prepared by Ruth Hamilton, S.R.M. Field Representative.

RE: Section 1 (7c)

A substantial library of reference books on all phases of the recreation program is being developed. There are now over five hundred volumes in the library. To date in 1947 there have been 578 books or pamphlets sent out on loan in answer to requests.

The film library is far from complete. At present it consists of fourteen films:

- 4 on basketball,
- 3 on baseball,
- 3 on tumbling,
- 4 on track and field athletics,
- 2 previously made films on summer school activities.

These films are kept in the library of the Saskatchewan Film Board when not actually on a circuit. They have been extensively used, however, having been shown—

Number of Showings

Attendance at Showings

151

13,600

RE: Section 1 (7d)

The special project undertaken in 1947 was the sponsorship of a speed skating tour by Craig Mackay, now one of Canada's Olympic Representatives, to Yorkton, Regina, and Moose Jaw with a view to developing an interest in the sport in those centres. Following these tours the President of the Saskatchewan Speed Skating Association presented a brief to the Provincial Council. The Council requested that the division co-operate fully with the Speed Skating Association in the further promotion of this sport.

RE: Section 1 (7e)

Twice during 1947 the Civic Recreation Directors in the province met at the expense of the S.R.M. For the first time a member of the Recreation Board of each centre was invited to attend the Conference along with the Director. Both board members and directors agreed that the joint meetings were most helpful and stimulating.

It was further decided that these meetings should be rotated between the different centres, so that the directors and their board members may have the opportunity of seeing first-hand what is being done in other civic recreation projects.

This seems to be a worthwhile service which is greatly appreciated.

RE: Section 1 (7f)

Every staff member is encouraged to grow professionally on the job. Professional articles of interest which come to the office are circulated to staff members. Staff members are sometimes asked to contribute articles either to the S.R.M. magazine or to other publications. Often they prepare program aids. Every staff member must be able to speak to a public gathering both with respect to his or her particular phase of the program and to the general administration and determined policy of the division. Specifically during the past year: 75 meetings, ranging from Home and School Clubs to provincial gatherings were addressed by S.R.M. staff members on the recreation program.

Three articles were contributed to the national magazine "Health";

Recreation for the Tired Executive by Dr. J. B. Kirkpatrick January-February issue;

Recreation for the Busy Housewife by Miss M. Nicholson, March-April issue;

S. R. M. by Mr. E. W. Stinson, November-December issue.

Two program aids by Ruth Hamilton and John Farthing have already been mentioned.

Miss Marion Bird, Mrs. Ruth Hamilton, Mr. E. W. Stinson and Dr. J. B. Kirkpatrick have contributed regularly to the magazine "Saskatchewan Recreation".

Respectfully submitted,

J. B. KIRKPATRICK, ED. D.,
Director.

DIVISION OF INDUSTRIAL HYGIENE

The arrangement with the Department of National Health and Welfare by which assistance was provided for the establishment of the Division of Industrial Hygiene continued through the year with the Field Officer of the Federal Department acting as Director of the Division.

Premises and Equipment:

The premises and furnishings planned for the Division were not available owing to delays in the construction of the Cancer Clinic Wing of the Grey Nuns' Hospital where the Division's laboratory will be situated. Limited temporary laboratory space was occupied for a total of six months, three months in each of two locations. This permitted some chemical work needed in evaluating health hazards in the survey of Crown Corporation plants. During the remaining six months only office space was available.

Early in the year a panel truck was supplied by the Department of National Health and Welfare to facilitate the work of the Division by making possible the convenient and safe transportation of bulky and delicate scientific apparatus, which would be needed in field studies.

Staff:

The staff of the Division has remained stationary at a Director and a Clerk Stenographer III. Additional laboratory assistance, which will be required when the Division is able to undertake full operation, could not be accommodated.

Surveys:

The survey of carbon monoxide exposures in commercial garages was continued with the study of garages in Saskatoon, Prince Albert, Moose Jaw and Swift Current. Other cities could not be visited owing to severe weather which delayed travelling. The garages visited in the survey numbered 109, employing 1,160 persons. Air tests for carbon monoxide were made and revealed that 51 garages, employing 750 persons, needed added ventilation to keep the carbon monoxide concentration within proper limits. The findings of the survey served as the basis of recommendations to the Department of Labour for the inclusion of ventilation requirements in the Garage Safety Regulations. Advice was given to garage managements regarding proper types of respirators for use in spray painting operations and merchants supplying this equipment in various cities were advised of the recommendations being made.

Factories operated by the Crown Corporations were studied for the detection of potential health hazards. By arrangement with the Industrial Health Division of the Department of National Health and Welfare, the assistance of Dr. E. A. Watkinson of that Division was secured. Recommendations were made for ensuring safe operation in cases of potential hazards, and in some cases, notably the clay products plant and printing plant, the exact needs could not be determined until laboratory facilities would make possible the estimation of exposure to dust and fumes. In spite of the limitations of laboratory space, air tests were made to determine exposures to acid mist, benzene vapour and air-borne dust.

The continuous survey of farm accidents inaugurated in 1946 failed to secure reliable reporting despite the wide distribution of posters and the co-operation of the Agricultural Representative Service of the Department of Agriculture and the Saskatchewan Association of Rural Municipalities. After careful consideration in consultation with the Department of Agriculture and the Division of Health Education, the system of soliciting reports from R.M. councillors was abandoned. Attempts to gather farm accident information through a press clipping service were not an outstanding success but promising results were obtained by routine study of rural newspapers and this plan will be continued. Contact was established with industrial hygiene officers in the United States interested in occupational health problems in farming, and arrangements were made to keep in close touch with developments in this field arising out of a long-range survey being undertaken in the State of North Dakota.

Studies of specific hazards in other industries, for example stone cutting, printing, drycleaning, coal mining and rock wool manufacture, had to be deferred until laboratory facilities would make it possible to carry out chemical analysis and dust counts required to determine the degree of exposure of workers to toxic substances.

Plans were made to study environmental conditions in Provincial Government offices in Regina. The study will be made early in 1948.

Consultation:

Co-operation with the Workmen's Compensation Board was continued, with the Board notifying the Division of claims covering alleged occupational disease. Fourteen such cases were referred to the Division. Of these, eleven involved dermatitis, one of which covered a considerable outbreak in a meat packing plant in which more than twenty of about thirty employees in one department were affected. After investigation, in which a medical officer of the Department of National Health and Welfare participated, recommendations for the elimination of the probable source of infection were made and the outbreak promptly subsided. Cases referred by the Compensation Board also included an unconfirmed claim of lead poisoning and a case involving exposure to mercury vapour.

Other matters on which the Division was consulted concerned the toxicity of weed killing chemicals, insecticides and cosmetic preparations; respirators; ventilation installations; paint spray booths; office illumination and heating; carbon monoxide hazard in a dwelling; the possible toxicity of a commercial solvent and the carbon monoxide content of blood samples. The inquiries on these subjects were received from Government Departments, industry, Regional Medical Officers, farmers and employees. Circumstances surrounding the death of a man engaged in weed killing operations were investigated.

Education:

Educational activities were carried on to supply information to the public on various health hazards, to stimulate the observance of safe practices in farming and to disseminate information concerning the Division's activities. These educational activities were seriously hampered by the inability to undertake laboratory studies of specific hazards.

The educational projects carried out included the preparation and distribution of a booklet on carbon monoxide and its control in garages; the preparation and distribution of four posters on farm safety; collaboration with the Division of Health Education in preparation of farm safety material for use in schools; press releases on such subjects as the dangers from weed killing chemicals, carbon monoxide hazards and the services available from the Division of Industrial Hygiene; preparation of information on toxic chemicals used in agriculture for distribution to Regional Medical Officers and an address to a union meeting.

Occupational Health and Safety Committee:

This Committee consists of representatives of: Department of Labour; Public Service Commission; Department of Agriculture; Department of Natural Resources and Industrial Development; Workmen's Compensation Board; Department of Public Works; Industrial Executive; Department of Reconstruction and Rehabilitation and the Department of Public Health.

Three meetings of this Committee were held during the year and sub-committees were set up to discuss details of those phases of the Division's program affecting (1) activities of the Labour Department and Workmen's Compensation Board, (2) matters concerning the environmental conditions in Government offices and (3) farm safety education. Activities of the Division affecting any of these matters were discussed with the appropriate agencies co-operating in the Committee and in all cases valuable assistance and suggestions resulted from the deliberations. Agencies not represented on the Committee were consulted in special instances, thus the Department of Education and the Division of Health Education participated in discussions of the farm safety campaign and the sub-committee responsible for the drafting of the Department of Labour's garage safety regulations arranged discussions of the proposed regulations with representatives of the garage employers and the union of garage employees.

Program in Health Regions:

Several Regional Medical Officers were visited by the Director of the Division in order to discuss occupational health problems existing in their Health Regions. Problems of studying possible occupational effects on the health of farmers were discussed and the Regional Medical Officers will bring to the attention of the Division any matters coming to their attention which they believe may contribute to the existing information on the subject. Problems of industries operating in the different Regions were discussed and a study of coal mining was requested.

G. W. ROGERS,

Acting Director.



