

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

### **Contributors**

Saskatchewan. Department of Public Health.

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# PUBLIC HEALTH

## *Annual Report*

Report of the Department of Public Health  
for the fiscal year April 1, 1961  
to March 31, 1962

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PROVINCE OF SASKATCHEWAN

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Department of Public Health,  
Regina, October 1, 1962.

To THE HONOURABLE  
Minister of Public Health,  
Province 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 fiscal year ending March  
31, 1962.

**ANNUAL REPORT**  
of the  
**DEPARTMENT OF PUBLIC HEALTH**  
1961-62

Department of Public Health,  
Regina, October 1, 1962.

To THE HONOURABLE A. R. BLANKENY,  
Minister of Public Health.

**Report of the Department of Public Health for the  
fiscal year April 1, 1961 to March 31, 1962**

I beg to present to you the annual report of the  
Department of Public Health for the fiscal year ending March 31, 1962.

REGINA, SASKATCHEWAN:  
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The annual reports of the Saskatchewan Hospital Services Plan, the Division of Vital Statistics, the Division of Hospital Administration and Standards, the Saskatchewan Cancer Commission, the Saskatchewan Anti-Tuberculosis League and the organized public health regions are printed separately and may be obtained on request.

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DEPARTMENT OF PUBLIC HEALTH,  
REGINA, *October 1, 1962.*

TO THE HONOURABLE F. L. BASTEDO,  
*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 fiscal year ending March 31, 1962.

Respectfully submitted,  
A. E. BLAKENEY,  
*Minister of Public Health.*

---

DEPARTMENT OF PUBLIC HEALTH,  
REGINA, *October 1, 1962.*

TO THE HONOURABLE A. E. BLAKENEY,  
*Minister of Public Health.*

SIR:

I have the honour to present herewith the annual report of the Department of Public Health for the fiscal year ending March 31, 1962.

Respectfully submitted,  
V. L. MATTHEWS, M.D.,  
*Acting Deputy Minister of  
Public Health.*

# DEPARTMENT OF PUBLIC HEALTH

at March 31, 1962

HON. W. G. DAVIES, Minister of Public Health

F. B. ROTH, M.D., Deputy Minister of Public Health

- |   |   |
|---|---|
| M. S. ACKER, M.D., D.P.H.<br>Director, Regional Health Services<br>Branch         | F. S. LAWSON, M.D.<br>Director, Psychiatric Services Branch                                       |
| ISABEL BARKER, B.Sc. (H.Ec.)<br>A/Director, Nutrition Services                    | V. L. MATTHEWS, M.D., D.P.H.<br>Director, Medical and Hospital<br>Services Branch                 |
| S. C. BEST, M.D., M.P.H., F.A.A.P.<br>Director, Division of Child Health          | LOUISE MINER, Reg. N.,<br>B.N., M.P.H.<br>Director, Division of Public Health<br>Nursing Services |
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| A. E. CHEGWIN, D.D.S., D.D.P.H.<br>Director, Division of Dental Health            | J. D. RAMSAY, M.B., Ch.B., D.P.H.<br>Director, Research and Statistics<br>Branch                  |
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| E. D. DONALDSON,<br>Administrative Director, Medical<br>Services Division         | H. E. ROBERTSON, Ph.D.<br>Director, Provincial Laboratories                                       |
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| B. H. HAALAND,<br>Executive Director, Saskatchewan<br>Hospital Services Plan      | GEORGE TOWNSHEND,<br>Assistant to the Deputy Minister   |
| P. E. HUNT,<br>A/Director, Hospital Administration<br>and Standards               | N. WILLIAMS, M.B., B.S.,<br>D.P.H., D.I.H.<br>Director, Occupational Health Branch                |
| A. F. HUSTON, M.D., M.R.C.P.<br>Director, Division of Physical<br>Restoration     |   |

Note: At March 31, 1962, the position of Medical Director, Medical Services Division, was vacant.

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## INTRODUCTION

Fifty years ago those responsible for the public health of Saskatchewan were led to devote the major part of their attention to a range of diseases to the public well-being which differed markedly from that facing us today.

A large portion of the annual report is devoted to a summary of the work done in the various branches of the Department of Public Health, Government of Saskatchewan, during the year 1961-62.

The report is divided into two main parts, the first of which is a general summary of the work done in the various branches of the Department of Public Health, Government of Saskatchewan, during the year 1961-62.

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## INTRODUCTION

Fifty years ago those responsible for the public health of Saskatchewan had to devote the major part of their energies to a range of threats to the public well-being, which differed markedly from that facing us today.

A large portion of the annual report of 1910, for instance, is dedicated to the subject of typhoid (there were 151 deaths). Efforts were intensified at that time to producing satisfactory water supplies and adequate sewerage systems, and the subsequent annual reports indicate the immense amount of work done in the way of planning for and providing these services.

At the same time great concern was evident about the number of infant deaths which were then occurring.

"During the whole period under 5 years of age, 1,638 deaths occurred or 44.25 per cent of the total deaths, a death rate of 2.05 per 1,000 population. This is a matter for very serious consideration. When the total death rate for the province is only 5.26 per 1,000, why should the rate for the first four years of life be so high? Earnest study is being devoted to the conservation of our forest, mineral deposits, etc. Surely the conserving of lives that might develop into good Canadian citizens is a subject of still more vital importance to the province and the Dominion. We shall not be true to our trust as a people if we continue to allow this sacrifice of Canadian born citizens". So says the report of 1914.

The relative risks have changed since then. The hazards facing the newborn infant have been steadily reduced and infant mortality is no longer the monstrous thing it was. But that sentiment, expressed two generations ago, is as trenchant now as it was then.

It may well be that the philosophy "we shall not be true to our trust as a people if . . ." should be transferred to our attitude regarding accident mortality. Day after day, year after year, the carnage caused by violence continues. Because these deaths do not stem from bacterium or virus or pathological process, the notion seems to have developed that they are a class apart, and that little or nothing can be done by way of prevention.

One measure of the efficiency of any department of health is its ability to shift its point of attack to meet changing circumstances, the ability to apply the correct amount of endeavour in the correct field at the correct time. The risks to life and limb which present themselves to the public are perpetually changing, and the health workers of half a century ago were very much aware of this fluctuating pattern of morbidity. "Some epidemic diseases that 50 years ago occupied a prominent place in mortality statistics" states the report of 1917, "no longer cause any great alarm as epidemics". These early reports, however, show an awareness that infectious disease was not the sole enemy of the people's health "The number of deaths through accidents is very high, and as most of these occur through carelessness, there is great need for conservation of life".

There is now need to reach a decision whether the equivalent of the time, energy and money which our predecessors applied to the prevention of typhoid should now be applied to the prevention of casualties. Many years ago began the investigation into the natural history of disease. A present urgency is to commence investigation into the natural history of disaster.

During the past year, the several programs of the department were continued, and the reports of the branches and divisions concerned, together with reports from independent agencies whose activities are devoted to health matters, are given in the pages which follow.

## SUMMARY OF LEGISLATION

During the second session of the Legislative Assembly of Saskatchewan in 1961, The Saskatchewan Medical Care Insurance Act, 1961, was enacted. This Act received the assent of the Lieutenant Governor November 17, 1961.

This Act provided for the establishment and administration of a province-wide medical care insurance plan. It provided for the Lieutenant Governor in Council to fix the premium rates to be paid by or on behalf of every resident. The function of establishing and administering the medical care insurance plan was assigned to a Commission known as the Saskatchewan Medical Care Insurance Commission.

The following is a summary of legislation administered by the Department of Public Health passed during the 1962 Session of the Legislative Assembly of Saskatchewan.

### *An Act to amend The Marriage Act*

The Marriage Act provides that a marriage may be solemnized on the authority of a marriage licence or of publication of banns. The amending Act contained more detailed procedures relating to the publication of banns than had previously been the case.

It was provided by amendment that marriage could be solemnized on the authority of publication of banns only if both parties to the marriage were in the habit of attending church. The amendments also provided for the purpose of clarification that marriage could be solemnized upon the publication of banns even though each party to the marriage belonged to a different religion.

The Act had required the clergyman about to solemnize the marriage to satisfy himself that banns had been proclaimed in accordance with the customs and requirements of the religious body to which he belonged. An amendment requires the clergyman to satisfy himself only that banns have been proclaimed in accordance with the provisions of the Act.

Another amendment specifically requires the clergyman solemnizing the marriage to complete the certificate of publication of banns and forward it, together with other documents, to the Director of Vital Statistics. This requirement had not previously been expressly provided.

Another amendment authorizes a marriage commissioner to solemnize a marriage in a place other than his office. The prescribed form of marriage ceremony to be conducted by the marriage commissioner was slightly revised.

The amending Act came into force July 1, 1962.

### *An Act to amend The Health Services Act.*

One amendment provided that where a municipal medical care insurance plan being financed by a general tax through a special levy was discontinued, the net proceeds remaining after all outstanding claims had been paid were to be deposited in the general account of the municipality and become part of the general municipal funds. This provision also applied to local improvement districts.

The other amendment referred to the non-profit health services associations transacting medical care insurance in Saskatchewan. The amendment provided that where the subscriber had paid a premium in respect of a period following the date upon which the medical care insurance plan commenced operation under The Saskatchewan Medical Care Insurance Act, 1961, he would be entitled upon request to the portion of the premium applicable to that period. Where the subscriber did not request the refund until after the date upon which the medical care insurance plan commenced operation, he would be entitled to a refund only in respect of that portion of the period following the first day of the month after the request for the refund had been made.

*An Act to amend The Mutual Medical and Hospital Benefit Associations Act*

The only amendment applied to a member of the Association who had paid a premium in respect of a period following the date upon which the medical care insurance plan commenced operation under The Saskatchewan Medical Care Insurance Act, 1961. The member would be entitled to a refund upon request, but where he did not make the request until the date of commencement of the medical care insurance plan he would be entitled to a refund of premium only in respect of that portion of the period following the first day of the month after the request for refund had been made.

*The Corneal Transplants Act, 1962*

The Bill containing this Act was introduced by the Minister of Public Health. Its provisions are described in this summary because, although departmental administration is not involved, the Department of Public Health is interested in the progress of the corneal transplant program. The provisions of the Act were taken from a model Act drafted by the Conference of Commissioners on Uniformity of Legislation in Canada.

Under the common law, a testator could not validly direct the disposition of any part of his body after his death. The Act provides that where a person who had directed in writing that his eyes be removed after death for improving or restoring the sight of a living person dies in hospital, the administrator of the hospital may authorize the removal of the deceased person's eyes. Where such a person dies outside a hospital, this authorization is conferred on certain specified relatives, and where there are no such relatives, on the person lawfully in possession of the body. A physician is authorized by the Act to remove the eyes from such a person and use them to improve or restore the sight of a living person.

*The Registered Psychologists Act, 1962*

This Act is being mentioned in this summary because of the interest of the Department of Public Health in professions concerned with the provision of health services.

The Act provides for the registration of psychologists with an association known as the Saskatchewan Psychological Association. The first members of the association were those persons who were members of the Association upon the date when the Act came into force. Other persons may become registered as members prior to December 31, 1966, if they have a Doctor of Philosophy degree in psychology and three years experience in the field of psychology or a Master of Arts degree in psychology and five years experience in the field of psychology. A person may be registered as a member at any time whether before or after December 31,



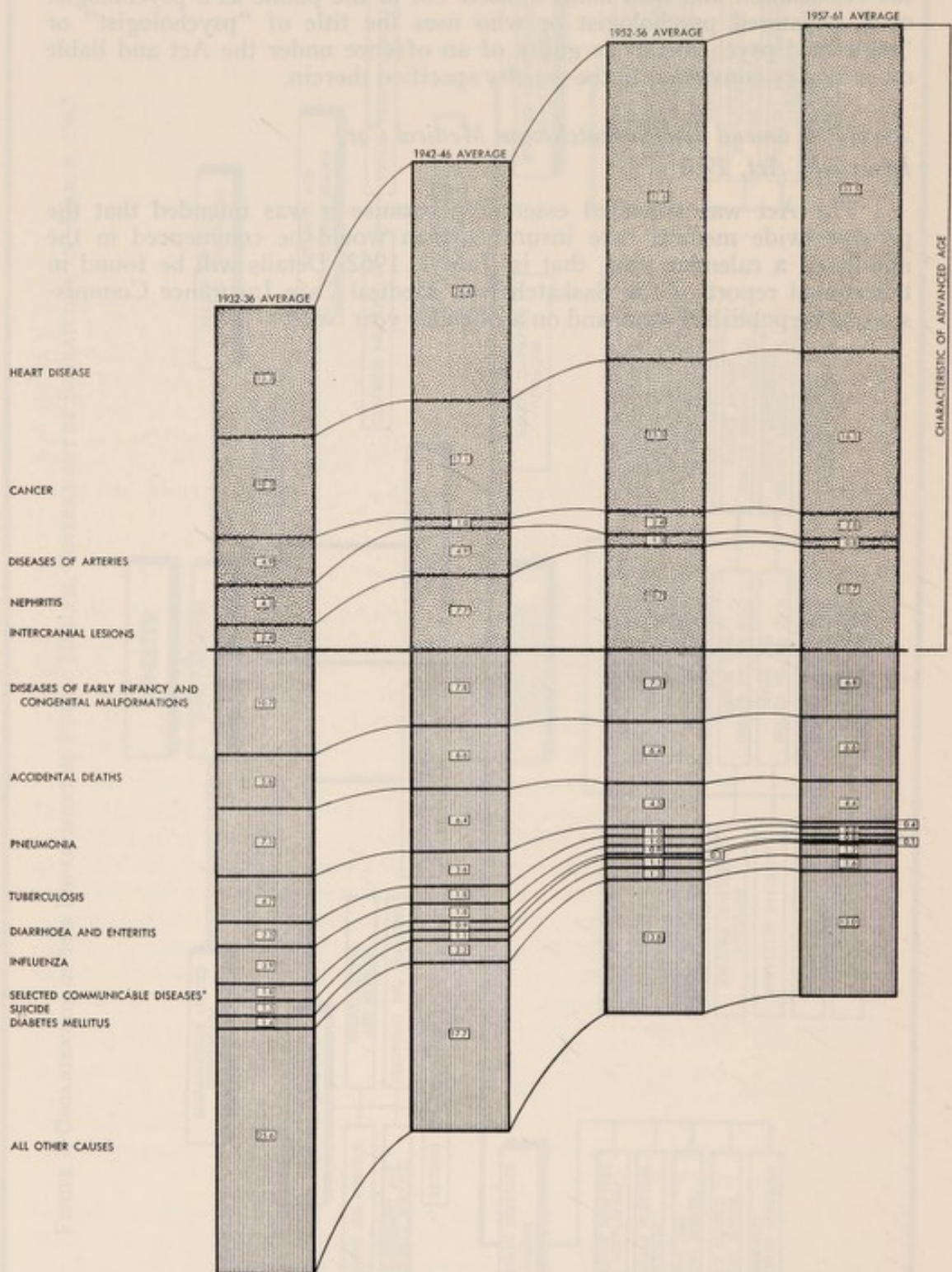


1966, if he has a Doctor of Philosophy degree in psychology and has passed the examinations held under the auspices of the University of Saskatchewan pursuant to this Act. A person who is not registered as a member of the Association and who holds himself out to the public as a psychologist or a registered psychologist or who uses the title of "psychologist" or "registered psychologist" is guilty of an offence under the Act and liable on summary conviction to the penalty specified therein.

*An Act to amend The Saskatchewan Medical Care Insurance Act, 1961*

The Act was amended essentially because it was intended that the province-wide medical care insurance plan would be commenced in the middle of a calendar year, that is, July 1, 1962. Details will be found in the annual report of the Saskatchewan Medical Care Insurance Commission, to be published soon, and on a calendar year basis.

FIGURE 2. PERCENTAGE DISTRIBUTION OF PRINCIPAL CAUSES OF DEATH, SASKATCHEWAN, 1932 TO 1936, 1942 TO 1946, 1952 TO 1956 AND 1957 TO 1961, AVERAGES COMPARED



SOURCE: ANNUAL REPORTS, DIVISION OF VITAL STATISTICS, DEPARTMENT OF PUBLIC HEALTH.  
 \* MEASLES, WHOOPING COUGH, DYPHERIA, AND SCARLET FEVER.

## REGIONAL HEALTH SERVICES BRANCH

The decentralization of public health and related services in this province was anticipated in 1929 when an experimental full-time health district was formed in the Gravelbourg area. One-half of the costs of services in this district was met by the constituent municipalities and the remainder shared by the provincial government and Rockefeller Foundation. This district, however, was discontinued after three years' operation.

In 1944 the report of the Saskatchewan Health Services Survey Commission recommended the division of the entire province into health districts to be staffed by full-time, trained public health personnel.<sup>1</sup> This recommendation was accepted and provision for establishment of health regions was included in the Health Services Act, 1944.

The first two health regions were formally established in December, 1945 and the last region, completing coverage of the entire province in April, 1961.

<i>Name and number of health region</i>	<i>Population<sup>2</sup></i>
Swift Current Health Region No. 1 .....	56,369
Assiniboia-Gravelbourg Health Region No. 2 .....	26,363
Weyburn-Estevan Health Region No. 3 .....	58,658
Regina Rural Health Region No. 5 .....	75,285
Moose Jaw Health Region No. 6 .....	55,993
Rosetown-Biggar-Kindersley Health Region No. 7 .....	52,556
Saskatoon Rural Health Region No. 8 .....	39,551
Humboldt-Wadena Health Region No. 9 .....	45,341
Yorkton-Melville Health Region No. 10 .....	78,692
Melfort-Tisdale Health Region No. 11 .....	53,039
Prince Albert Health Region No. 12 .....	67,719
North Battleford Health Region No. 13 .....	76,206

### Regional Boards of Health

During the year the regional boards continued to meet periodically to review the progress of public health services and to receive the reports of health officers and their senior professional staff. In July and August, the boards meet to review the estimates for the ensuing fiscal year as prepared by the regional medical health officers.

All regional boards maintained a deep interest in provincial medical care developments. In January, 1961, the Continuing Committee of Regional Boards (made up of regional board chairmen) submitted an extensive brief on regionalization to the Advisory Planning Committee on Medical Care. (Thompson Committee). A discussion of this brief is included in the departmental annual report for 1960-61.

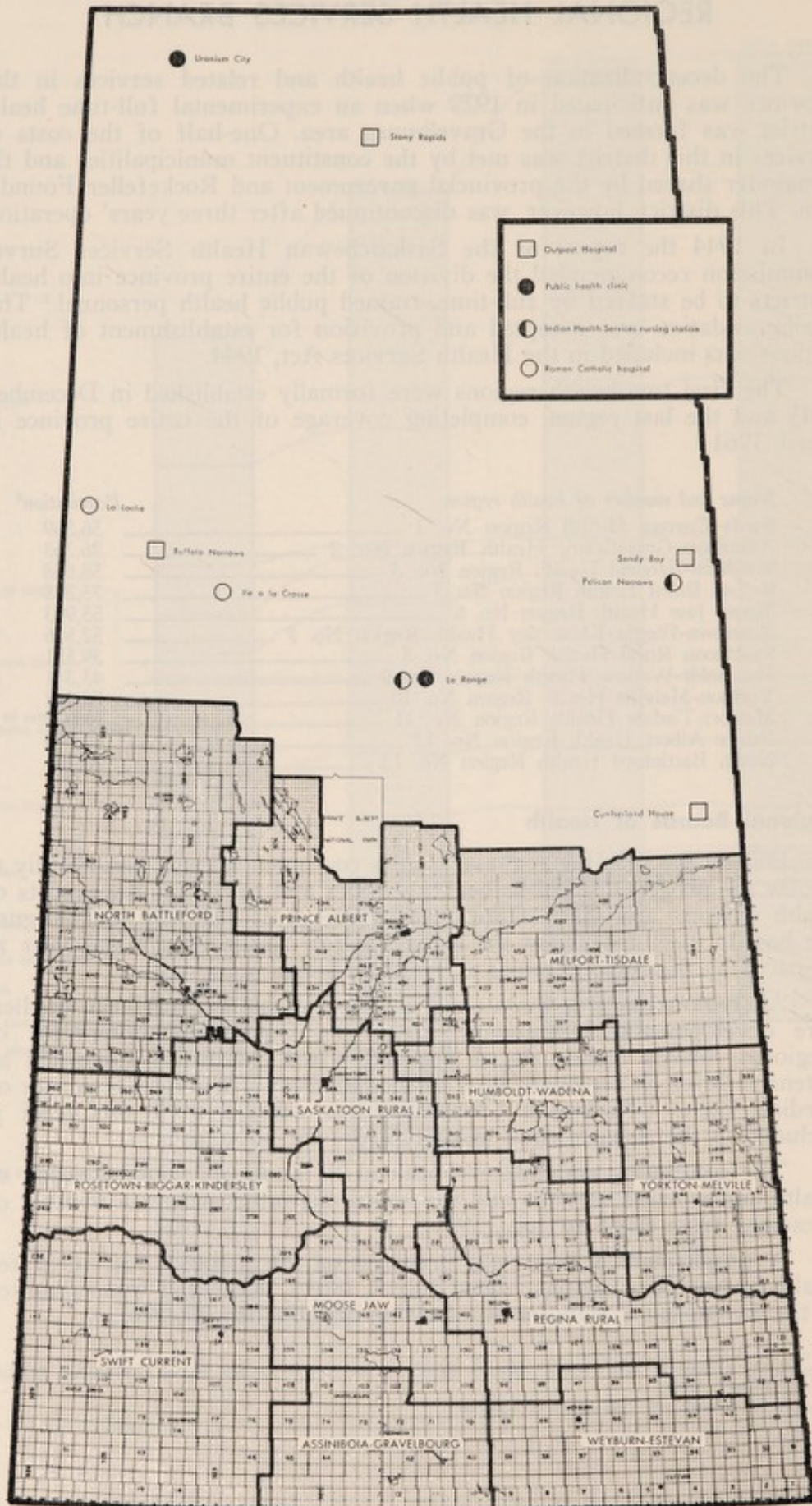
The continuing committee continued its study of regionalization of health and welfare services and the board chairmen met on a number of occasions from April to July, 1961.

A supplementary brief was prepared on the proposal for integrated health and welfare regions (dated July 7, 1961). This brief was submitted to the Thompson Committee at a hearing held on July 19, 1961.

<sup>1</sup> See Henry E. Sigerist, M.D. (Commissioner) *Report of the Health Services Survey Commission* (Regina: King's Printer, 1944)

<sup>2</sup> Population according to 1961 census of Canada.

FIGURE 3. ORGANIZED HEALTH REGIONS AND PUBLIC HEALTH SERVICES IN NORTHERN AREAS, SASKATCHEWAN, AT MARCH 31, 1962



This supplementary brief reaffirmed the values of integrated administration of various types of health and welfare services within regional areas. The range of services included:

- (a) community public health of preventive services
- (b) general practitioner medical services
- (c) certain basic specialist medical services
- (d) hospital care—planning, construction and operations
- (e) selected social welfare services

The regional board chairmen, however, recognized major practical problems in the way of extending this proposal across the province at the commencement of a provincial medical care program. They realized that it would be necessary to study existing statutes and overcome anomalies and contradictions; to develop new proposals for financing and sharing costs; to solve the problem of regional size; and to resolve the matter of employment of professional staff by regional bodies.

The chairmen, therefore, recommended to the Thompson Committee that a demonstration health and welfare region be established to achieve effective experience for a solution of these problems. The demonstration region should include a well developed regional hospital and a population of at least 80,000 to 100,000.

### **Public Health Personnel**

The success of any public health program, to a large extent, depends upon the recruitment of well trained, professional public health workers. During the year under review the staff situation had improved to a measurable degree. Certain classes of staff members, especially public health nurses, educational psychologists and sanitary officers were advancing their skills and knowledge by means of postgraduate training and special refresher courses.

Tables 1, 2 and 3 give the public health staff position at March 31, 1962. It will be noted that the public health nursing situation showed an improvement over the previous year. Vacancies continued to exist for educational psychologists, health educators, nutritionists and dental hygienists.

### **Public Health Nursing Services**

The services provided by the corps of public health nurses are basic to the total program of public health. The volume and scope of their activities continues to expand in response to public need and demand.

The Division of Public Health Nursing, whose report appears elsewhere, provides essential consultant services to nurses in the regions. In-service education in the special fields of rehabilitation and mental retardation was promoted. Extensive studies on the potential for home care services within regions were undertaken.

Table 4 presents a comparative summary of selected public health nursing programs over the past three fiscal years. In the light of a steadily high volume of established services, it will be of first importance to increase the numbers of public health nurses if new responsibilities in the fields of home care and rehabilitation are to be assumed. It is reasonable to visualize a requirement of a least one public health nurse to 4,000 population or less if these objectives are to be achieved.

### **Prenatal Services**

A high interest was maintained among expectant mothers who participated in organized prenatal classes in the regions. These classes are designed to supplement medical prenatal care provided by the family physicians. Consultant advice is given by the maternal consultant and the nursing consultant in Child and Maternal Health Services.

During the year 550 classes were conducted in all regions with a total attendance of 11,360.

### **Child Health Conferences**

A total of 11,651 child health conferences were held in all regions during 1961-62. The aggregate attendance was just over 109,000 infants and preschool children. It is at these conferences that basic preventive services and fundamental education for optimum physical and mental health is obtained by parents of these children.

### **Immunization Services**

Regular active immunization services to protect against smallpox, diphtheria, whooping cough, tetanus and poliomyelitis was maintained in all regions. Moreover, passive protection of contacts of infectious hepatitis, measles and german measles (rubella) was provided through the use of immune serum globulin. Detailed data on these services are presented in Table 5.

During December, 1961, the department undertook a special influenza vaccination program after it was clear that a large outbreak was likely to occur in many centres throughout the province. The Provincial Laboratories succeeded in isolating Type B (Great Lakes) influenza virus from early cases of the disease.

A limited supply of Type B (Great Lakes) influenza vaccine was obtained and was sufficient for the protection of about 20,000 persons. Priorities were established for older persons (over 65 years) and those with chronic disease in general hospitals, geriatric centres, nursing homes and tuberculosis sanatoria. Attending medical and nursing staffs were also protected.

Initially the monovalent Type B vaccine was used for the primary dose (0.1 ml. intradermally) followed by a reinforcing dose of polyvalent vaccine.

### **Oral Poliovirus (Sabin) Vaccine**

In February-March, 1961, a demonstration with the use of trivalent oral poliovirus vaccine was carried out in the city of Prince Albert on a community-wide basis. This demonstration was one of the important field trials carried out in Canada as a prerequisite for licensure of the vaccine.

The Prince Albert trial was entirely successful and fulfilled the major objectives set by the investigators. A full report of this trial has been published.<sup>1</sup>

Early in 1961 planning commenced for launching a province-wide vaccination of the entire population with trivalent vaccine. Extensive discussions were held with health officers in the regions and two major cities who would be responsible for carrying out the mass vaccinations.

<sup>1</sup>Robertson, H. E. et al: Community-Wide Use of a "Balanced" Oral Poliovirus Vaccine (Sabin), C.J.P.H., 1962, 53: p. 179-191.

Operational procedures were drawn up concerning pre- and post-vaccination surveillance, organization of feeding stations, documentation, method of dispensing, contraindications, recording of side effects, and publicity and public education.

Close liaison was maintained with the College of Physicians and Surgeons and district medical societies.

Two special studies were designed to be conducted during the mass feeding program. First, was a double-blind placebo study to evaluate the validity of side effects observed during the Prince Albert demonstration. Second was a study involving the feeding of a trivalent vaccine with a reduced concentration of Type II vaccine virus.

The province-wide vaccination was to have commenced on March 26, 1962 and conducted over a four week period. Due to inability of the Connaught Medical Research Laboratories to receive federal clearance and deliver the vaccine on time, it was necessary to postpone the start of the program until April 30, 1962.<sup>1</sup>

### **Rheumatic Fever Prophylaxis Program**

This program continued to function in all regions, and the cities of Saskatoon and Regina during 1961-62. On March 31, 1962 a total of 1,098 rheumatic fever patients had been admitted to the program, and were receiving a daily dose of 400,000 units of oral penicillin. This compared to 660 patients on March 31, 1961.

The provincial Rheumatic Fever Committee, met on a number of occasions during the year. Combined meetings were held with groups of regional rheumatic fever committees in attendance.

Progress has been made in the design of standard forms and records for the program. The committee, moreover, arranged for an educational display at the annual meeting of the College of Physicians and Surgeons.

### **Sanitation Services**

Progress continued in installation of waterworks and sewerage systems in the towns and villages of the province. Details of the consultant advice and supervision of these works by the Division of Sanitation are described in the report of that division. The division's report also describes the activities of the milk sanitarians in helping to maintain a high quality of milk production, processing and distribution.

### **Preventive Dental Services**

A considerable advance was realized during the year in the fluoridation of communal water supplies. By the end of 1961 a total of 32 municipalities with a population of over 217,000 were supplementing their water supplies with optimal amounts of fluoride. This compared to 17 municipalities with a population of 192,000 a year previously.

The free issue of fluoride tablets to expectant mothers and preschool children residing in areas without communal water supplies was continued throughout the province. This program is now carried in all health regions and the Northern Health District.

During the fiscal year a total of 1,623,300 tablets were distributed as a major measure for the prevention of dental decay.

<sup>1</sup> An account of the results of the province-wide Sabin vaccination program will be described in the Annual Report for 1962-63



### Northern Health District

The district covers approximately the northern half of the province and although nearly 119,000 square miles in area, almost one-quarter is under water. The 1961 census gave a total population of 17,687, with approximately 7,000 White persons and the balance being divided almost equally between Treaty Indians and Metis. The reduction in the absolute numbers of White residents and in the total population (estimated population of 19,000 in 1960) has resulted chiefly from the decline in mining activities. In spite of an extremely low population density, however, the fairly recent introduction of centralized health, education, trading and occupational facilities and opportunities, has resulted in considerable urbanization.

Prince Albert serves as the headquarters for this division and is a logical choice since it is a base for two air services, the headquarters of the Radio Division operated by the Department of Natural Resources and the few roads leading into the area have their origin there. From Prince Albert, the medical health officer, nursing supervisor and senior sanitary officer all make periodic visits over the entire area. Two physicians are employed by the department (one position vacant for a few weeks during the year) and are stationed at Ile a la Crosse, from where they make frequent visits to neighboring settlements. The remaining nursing and ancillary staff are stationed at six widely separated centres, so that few areas are left entirely without some service.

In addition to the usual preventive, sanitation and health educational services provided in a health region, this division provides directly many basic treatment services for residents of the Northern Saskatchewan Administration District. Minor illnesses, accidents and uncomplicated maternity cases are cared for at the four Outpost Hospitals and at St. Martin's Hospital at La Loche. Slightly more complicated conditions are treated at St. Joseph's Hospital at Ile a la Crosse, at the Municipal Hospital in Uranium City and at the La Ronge Hospital, but the serious conditions from the entire area are transported to outside medical centres with the arrangements in the majority of cases being made through the Prince Albert Office.

Further information concerning health services for medically indigent non-Treaty patients will be found in the Medical Services Division and Air Ambulance Service sections of this report, and in the Northern Affairs Branch section of the annual report of the Department of Natural Resources.

Outpost Hospitals are operated at the following settlements:

1. *Buffalo Narrows*—was opened in 1947 and due to increasing activity, a nursing assistant was added to the staff in 1957. Due to the steadily increasing services being provided at this centre, a request has been made to enlarge the building and to increase the staff.

2. *Cumberland House*—was opened in 1941 and the modernization of this old log building is continuing.

3. *Sandy Bay*—was opened in 1950. For the last few years, all services at this centre have been increasing.

4. *Stony Rapids*—was opened in 1948 and serves principally Treaty Indians.

In addition, there are public health clinics in two centres:

1. *Uranium City*—the excellent accommodation rented in the Municipal Hospital is shared with Indian Health Services and this agency again has a full-time nurse stationed there. Both nurses work together closely in providing services not only in the Municipal Corporation of Uranium City and District but to neighboring settlements such as Camsell Portage and Fond du lac, and the Indian Health Services nurse also visits Stony Rapids.

2. *La Ronge*—is a busy centre and the public health nurse stationed there serves the central and northeastern part of the Northern Health District. On many of her trips, she travels with an Indian Health Services nurse who is also stationed in La Ronge and shares clinic accommodation in the hospital. The La Ronge Hospital has been in operation for over two years and is meeting a long awaited need.

Hospital facilities and their locations in the Northern Health District as at March 31, 1962 were as follows:

Settlement	Estimated population in area	Name of hospital	Ownership	Bed capacity	Physicians supply	Nurse supply
Buffalo Narrows	900	Outpost <sup>1, 2</sup>	Department	3	—	1
Cumberland House	775	Outpost	Department	3	—	1
Ile a la Crosse	1,600	St. Joseph's	Roman Catholic	35	2 <sup>3</sup>	8
La Loche	1,050	St. Martin's <sup>4</sup>	Roman Catholic	9	—	2
La Ronge	1,700	La Ronge Hospital	Department <sup>5</sup>	25	1	6
Pelican Narrows	550	Nursing Station	Indian Health Services	4	—	2
Sandy Bay	600	Outpost	Department	3	—	1
Stony Rapids	375	Outpost	Department	3	—	1
Uranium City	2,735 <sup>6</sup>	Municipal	Municipal Corporation	26	2	7
		Gunnar	Gunnar Mining	7	1	3

No report of health services in northern Saskatchewan would be complete without paying tribute to the activities of the Canadian Junior Red Cross. Beginning in the fall of 1957, this organization has sponsored and paid for most of the cost of semi-annual dental clinics for school children, held each spring and fall at Ile a la Crosse and Cumberland House. This five-year demonstration project will conclude in May, 1962 and has shown conclusively what can be accomplished in increasing the numbers of caries-free children in two communities. Each year, a few children are sent to Regina for the treatment of various conditions such as congenital dislocation of the hip which occurs frequently in northern Saskatchewan, harelip and cleft palate, and the occasional serious burn.

<sup>1</sup> Outposts are small hospitals owned by the Department of Public Health, with nurse midwives in charge.

<sup>2</sup> A request has been made for a small extension to this Outpost Hospital.

<sup>3</sup> Position for a second physician at Ile a la Crosse was vacant for a few weeks only.

<sup>4</sup> This frame hospital constructed in 1950 is totally inadequate and preliminary plans are underway for replacement.

<sup>5</sup> Operated locally by the Lac La Ronge Hospital Association.

<sup>6</sup> Unofficial population census taken in February, 1962 and showing a marked reduction from the official June, 1961 census figure of 3,349.



TABLE 1. PUBLIC HEALTH STAFF EMPLOYED IN REGIONAL HEALTH SERVICES BRANCH, HEALTH REGIONS AND NORTHERN HEALTH DISTRICT BY TYPE OF STAFF, SASKATCHEWAN, MARCH 31, 1962

Staff	Provincial total	Regional Health Services Branch Head Office	Health region										Northern Health District		
			Swift Current No. 1	Assiniboia-Gravelbourg No. 2	Weyburn-Estevan No. 3	Regina Rural No. 5	Moose Jaw No. 6	Rosetown-Biggar-Kindersley No. 7	Saskatoon Rural No. 8	Humboldt Wadena No. 9	Yorkton-Melville No. 10	Melfort-Tisdale No. 11		Prince Albert No. 12	North Battleford No. 13
Total staff.....	243	6	20	9	21	16	18	20	14	16	28	17	12	25	21
Director.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Assistant director.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Regional medical health officer.....	11	.....	1	.....	1	1	1	1	1	1	1	.....	1	1	1
Assistant regional medical health officer.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Medical officer.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Senior sanitary officer.....	12	.....	1	1	1	1	1	1	1	1	1	1	1	1	2
Sanitary officer.....	37	.....	3	1	4	3	3	3	2	3	5	3	2	5	.....
Regional nursing supervisor.....	12	.....	1	1	1	1	1	1	1	1	1	1	1	1	1
Public health nurse II.....	12	.....	1	1	1	1	1	1	1	1	1	1	1	1	1
Public health nurse I.....	98	.....	10	4	10	4	8	9	6	7	14	8	2	13	3
Nurse attendant.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Supervisor, outpost hospital.....	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Health educator.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Health region fieldmen.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Administrative officer I.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Teacher psychologist.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Domestic staff.....	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Clerical staff.....	38	3	3	1	3	3	3	3	3	2	4	2	3	3	1



TABLE 3. PUBLIC HEALTH POSITIONS ESTABLISHED AND VACANCIES IN REGIONAL HEALTH SERVICES BRANCH, SASKATCHEWAN, MARCH 31, 1962

Staff	Positions established	Vacancies
Total.....	323	32
Director.....	1	....
Assistant director.....	1	....
Regional medical health officer.....	13	2
Assistant regional medical health officer.....	3	2
Medical officer.....	2	....
Senior sanitary officer.....	13	....
Sanitary officer.....	45	1
Regional nursing supervisor.....	13	1
Public health nurse II.....	12	....
Public health nurse I.....	125	6
Nurse attendant.....	1	....
Supervisor, outpost hospital.....	4	....
Health educator.....	5	1
Health region fieldmen.....	8	3
Administrative officer I.....	1	....
Teacher psychologist.....	8	2
Dental hygienist.....	6	5
Assistant dental hygienist.....	6	4
Nutritionist.....	6	1
Domestic staff.....	8	....
Clerical staff.....	42	4

TABLE 4. PUBLIC HEALTH NURSING PROGRAMS BY SELECTED SERVICES FOR SASKATCHEWAN HEALTH REGIONS, FISCAL YEARS, 1959-60 TO 1961-62

Services	Fiscal year		
	1959-60	1960-61	1961-62
Home visits.....	32,727	33,455	41,149
Prenatal.....	3,460	4,518	5,167
Postnatal.....	6,688	7,019	8,048
Other.....	22,579	21,918	27,934
Attendance at child health conferences.....	123,460	122,748	109,024
Number of visits to classrooms.....	9,333	9,505	11,360
Prenatal classes			
Number of classes.....	599	628	550
Attendance.....	3,679	3,863	3,782
Immunization.....	209,484	393,594	166,108
Calls on doctors, school officials, etc.....	14,694	12,610	18,218
Group education meetings.....	848	1,012	934

TABLE 5. PUBLIC HEALTH NURSING SERVICES IN THE ORGANIZED HEALTH REGIONS, SASKATCHEWAN, FISCAL YEAR 1961-62

Type of service	Regional total	Health region										North Battleford No. 13					
		Swift Current No. 1	Assiniboia-Gravelbourg No. 2	Weyburn-Estevan No. 3	Regina Rural No. 5	Moose Jaw No. 6	Rosetown-Biggar-Kindersley No. 7	Saskatoon Rural No. 8	Humboldt Wadena No. 9	Yorkton-Melville No. 10	Melfort-Tisdale No. 11		Prince Albert No. 12				
<b>Visits</b>																	
Total home visits.....	41,149	3,212	1,414	3,196	4,669	3,066	2,860	1,262	2,822	6,351	3,032	4,640	4,625				
Child health conferences.....	11,651	1,172	384	975	1,682	964	1,170	430	708	919	691	1,119	1,437				
<b>Prenatal program</b>																	
Mothers seen in home.....	4,004	290	162	436	691	126	360	57	85	190	172	587	848				
Prenatal home visits.....	5,167	370	154	556	823	158	592	118	87	238	217	695	1,159				
Prenatal classes.....	550	103	.....	63	44	47	35	10	18	66	52	58	54				
Aggregate attendances.....	3,782	561	.....	361	132	652	202	53	156	410	537	329	389				
<b>Postnatal program</b>																	
Home visits.....	8,048	874	396	762	446	1,068	403	55	141	714	580	1,585	1,024				
<b>Infant child health services</b>																	
Infants registered at a Child Health Centre.....	18,176	1,650	851	1,920	1,749	1,744	1,718	511	1,093	1,753	1,086	1,929	2,172				
Aggregate attendance.....	53,264	5,693	2,236	5,005	5,649	4,638	5,317	1,908	2,565	5,063	3,240	5,591	6,359				
<b>Preschool child services</b>																	
Children registered at a Child Health Centre.....	29,892	3,065	1,166	3,276	3,497	2,414	3,048	878	1,967	2,441	1,395	3,412	3,333				
Aggregate attendance.....	55,760	5,938	1,461	5,116	6,816	3,644	4,731	2,825	3,105	6,567	3,639	6,150	5,768				
<b>School child services</b>																	
Classroom visits.....	11,360	1,199	343	820	1,094	722	597	550	1,362	804	974	2,192	703				
School conferences with R.M.H.O.....	413	.....	.....	20	107	1	2	27	.....	14	5	.....	237				
<b>Miscellaneous services</b>																	
Calls on officials, doctors, etc.....	18,218	1,265	801	1,237	2,927	1,316	936	1,647	1,270	2,248	1,602	1,683	1,286				
Home visits to cases of mental illness.....	537	31	72	53	61	28	38	13	16	117	18	26	64				
Home visits to the physically handicapped.....	1,622	155	40	97	82	176	57	92	69	230	142	277	705				





TABLE 6. SANITATION SERVICES, SASKATCHEWAN, FISCAL YEARS 1959-60 TO 1961-62

Type of service	Fiscal year		
	1959-60	1960-61	1961-62
All inspections.....	77,634	86,008	87,977
Water supplies			
Municipal waterworks systems.....	577	714	894
Municipal water supplies.....	2,707	3,090	3,173
Private and other supplies.....	2,598	3,205	3,159
Milk supplies			
Producers.....	462	454	446
Producer-distributors.....	557	872	411
Pasteurizing plants.....	856	787	852
Food stores and slaughter houses			
Slaughter houses.....	519	453	497
Food stores.....	4,939	4,600	4,983
Public places			
Eating establishments.....	11,166	11,027	11,223
Hotels.....	1,762	1,894	1,965
Licensed premises.....	3,079	3,602	3,460
Barber shops.....	1,312	1,052	1,151
Waste disposal			
Municipal sewerage systems.....	425	474	596
Outdoor privies-private.....	6,820	7,627	4,320
Public rest rooms (municipal responsibility).....	1,187	1,398	1,446
Other public rest rooms.....	2,498	2,790	3,190
Municipal garbage collection.....	1,502	1,466	1,466
Waste disposal grounds.....	1,964	2,027	2,076
Camps, resorts and swimming pools			
Tourist camps.....	576	564	617
Summer resorts.....	326	403	556
Other camps.....	259	275	342
Swimming pools.....	238	341	349
Schools and institutions			
Schools.....	1,425	1,651	1,260
Hospital and social care.....	271	266	392
Communicable disease control			
Investigations.....	155	209	288
Miscellaneous			
Plumbing inspections.....	9,098	11,268	12,922
Nuisance inspections.....	3,825	4,322	4,919
General.....	15,696	18,148	20,027
Surveys.....	835	1,029	997
Other activities			
Public meetings.....	277	346	434
Council meetings.....	271	336	381
Samples submitted			
Milk-ring tests.....	454	1,087	706
Milk-routine.....	3,935	3,993	4,121
Water.....	5,689	6,632	7,298
Field tests			
Water.....	24,503	31,069	30,450
Milk sediment.....	2,731	6,887	11,643
Resazurin.....	2,145	2,654	1,700
Resazurin.....	3,049	3,607	2,652
Swab.....	16,578	17,921	14,455

## CHILD AND MATERNAL HEALTH SERVICES

### Introduction

This consulting and co-ordinating Division of Child Health was established in 1948 to operate a crippled children's program and to give special emphasis to the physical, emotional, and social well-being of mothers, children, and families.

The population at risk is large, e.g. growing children make up two out of five of the total Saskatchewan population; and there are some 13,000 brides and grooms each year. No single division carries all the responsibility for improvement in various mortality, morbidity or "normality" rates. In concert, many people have contributed. To give one kind of example of improvement, if one applied to today's volume of live births the infant mortality rate of only 30 years ago (1930—73.2 per cent) it would mean 1,763 infant deaths a year now instead of 637 infant deaths. The rate of 20 years ago (1940—50.7 per cent) if applied now would mean 1,220 infant deaths a year instead of 637 (1960—26.4 per cent, and 24,088 live births).

New meaning has been given to the work of the division by the introduction of a Medical Care Insurance Act, for financing both preventive and curative medicine for all persons and all age groups. The division's professional consulting staff of paediatrician, obstetrician, and public health nurse are heavily committed in work on various aspects of preventive medicine—health promotion, specific protection, diagnosis and treatment (such as standards for hospital nurseries), and rehabilitation (for example health supervision of crippled children). The main emphases continue to be consultation and liaison, education—particularly professional and public, and special studies.

### Consultation and Co-ordination

#### *College of Physicians and Surgeons of Saskatchewan*

The nature of the work has not changed but the College has rearranged the committees into the Maternal Health Study Committee, the Perinatal Study Group (the division's obstetrician is secretary of both), and the Child Health Study (the director is secretary).

On behalf of the committee the division's obstetrician attended the first meeting of the Committee on Maternal Welfare of the Canadian Medical Association.

The division studied 16 maternal deaths and prepared reports for the committee; and designed and published for the committee two special perinatal report forms, a hospital manual on their utilization, and rating procedure for local hospitals.

Initially perinatal mortality conferences were held in the larger city hospitals; and all Saskatchewan perinatal mortality records were reviewed by the division. Regular local meetings are being encouraged in all hospitals.

#### *Annual Paediatrics and Obstetric Refresher Course*

With the co-operation and approval of the College of Physicians and Surgeons, of the College of Medicine, and the Regina General Hospital, the division organized an annual course in paediatrics, obstetrics, and gynaecology. Discussions included public health and medical sociology. Sixty general practitioners (40 rural) registered. Attendance ranged up to 200.

*Joint Rheumatic Fever Committee*

The College and the Department of Public Health members of the Joint Rheumatic Fever Committee continued to assess program needs in Saskatchewan, recommend standards, and promote rheumatic fever prophylaxis. An internist is chairman and the director is secretary. Combined meetings were held with all local committees, educational material was displayed at the annual College meeting and on television, and a model form for physicians to apply for penicillin was designed, printed, and put into use.

*Canadian Paediatric Society*

The director was elected president and headed a Canadian delegation to be guests of the British Paediatric Association.

He also was a member of the Canadian Society's Committee which prepared and presented a brief to the Royal Commission on Health Services.

*American Public Health Association*

The director is a member of the committee on Family and Population Planning, and of the Maternal and Child Health Section governing Council.

*Conference on Mental Retardation*

For the third time the Saskatchewan Association for Retarded Children had a well attended conference for professional people regarding mental subnormality. Main emphasis this year were the rights of the retarded, public attitudes to them, and current research.

The nursing consultant continues as a member of the Association's Home Care Committee.

*Saskatchewan Council for Crippled Children and Adults*

As a member of the Medical Advisory Committee the director shared in discussions on the use of mobile clinics, the teaching of undergraduate medical students, greater involvement of various specialists, and the improvement of occupational opportunities.

*Canadian Nurses' Association*

Nationally, the nursing consultant did committee work on basic nursing education in public health and child and maternal health. Provincially, she assisted with refresher courses and institutes in these areas.

*Canadian Conference on Children, Saskatchewan Committee*

The director is chairman and the nursing consultant is a member. An important development was the convening of diverse faculty representatives of the University of Saskatchewan. There was recommended, and accepted, a proposal to establish a Child Study Centre on the campus, to teach undergraduates about children, and to conduct research.

*Child Welfare Branch, Department of Social Welfare and Rehabilitation*

The director is a formal consultant and during the year designed model forms for health supervision of wards, appraised standards of care, and made recommendations on specific adoption problems.

*Department of Indian and Northern Health Services*

The division shared in preparing a series of colour teaching slides to help public health nurses learn how to inspect children of various ages.

Together with the University Professor of Paediatrics, a formal study of Indian infant mortality was begun.

*Advisory Committee to the Minister of National Health and Welfare*

The director is a member of the main committee, and the obstetrician of a sub-committee on hospital standards.

The director and nursing consultant worked extensively with the Child and Maternal Health Division in designing a study of Saskatchewan child health conferences.

*Humboldt Summer Speech Pilot Project*

The division has much to do with a combined effort involving the Co-ordinating Council on Rehabilitation, the Canadian Red Cross Society and the medical officer of Humboldt-Wadena Health Region. Two speech therapists were recruited for the summer, were paid by the Canadian Red Cross Society, and saw all children referred because of speech difficulties. A careful evaluation and report was prepared.

*Special Consultation*

The several division members provided consultation on specific problems to a variety of government divisions, hospitals, and voluntary agencies.

**Education***Professional Education*

Division members, especially the nursing consultant, were steadily teaching regional public health staff, hospital staff, laboratory technicians and others about pregnancy, childhood, professional roles, and current research.

*College of Medicine and School of Nursing*

The director teaches the fundamental course in child and maternal health to postgraduate nursing students, and is a member of the Department of Social and Preventive Medicine. The obstetrician was a tutor to third year medical students. The nursing consultant helped with the development of a new course for advanced training of nurses in paediatrics, obstetrics, and child and maternal health.

The nursing consultant steadily recruits hospital nurses for advanced training in paediatrics and obstetrics.

*Regina Marriage Courses*

The Regina Marriage Committee is supported by all churches, professional groups and the city council. Courses continued as a part of adult education, available to all couples in the city contemplating marriage. The course was subsidized by three church groups and the city council.

**Accreditation of Small Hospitals**

The division proposed that in concert a plan be evolved for the some 100 Saskatchewan hospitals with fewer than 25 beds and hence not eligible for ordinary accreditation. The Maternal Health Study Committee, the Paediatric Society, the Obstetrical Society and the College of General Practice approved and agreed to assist. The division's obstetrician carries the major responsibility for procedure.

**Child and Maternal Health Grant**

Child and maternal health grant money is used for medical refresher courses, research on adenoviruses, the obstetric and nursing consultant positions, a consulting orthoptic centre at the University, paediatric research, seminars for paediatricians, advanced training of nurses, and conferences on mental retardation.

## COMMUNICABLE DISEASE CONTROL

The division has five functions:

1. maintaining a record of notifiable communicable diseases
2. acting as an information centre for doctors and health officers in the field
3. sending epidemiological data to the federal authorities
4. administering the machinery for the distribution of certain free vaccines and sera to health regions, hospitals and private physicians
5. administering the regulations governing the care of the dead.

### Administration of Regulations

The division operates under the Regulations Governing Control, Notification, Prevention and Treatment of Communicable Disease. Only important communicable diseases are now reported, although health officers notify the occurrence of unusual disease epidemics of whatever nature.

### Incidence

#### *Streptococcal Infections*

These infections, which include scarlet fever, had a reported incidence of 1,737 in 1961 compared with 2,715 last year.

#### *Infectious Hepatitis*

There were 849 cases of this virus infection reported during the year. Last year notifications totaled 704.

#### *Staphylococcal Infections*

Staphylococcal infections arising in hospitals during 1961 were 123 reported cases compared to 283 in the previous year.

#### *Tuberculosis*

During 1961 there were 210 cases reported (138 pulmonary, 72 other forms). This compares with 294 cases reported in 1960 (216 pulmonary and 78 other forms). Deaths in 1960 totaled 34 and this year 24. For a more detailed description of this problem, see the analysis submitted by the Anti-Tuberculosis League elsewhere in this report.

#### *Gastro-Intestinal Infections*

There were 356 cases reported with 63 deaths. Last year's figures were 287 cases with 62 deaths. The increase is believed to represent, in part at least, improved reporting.

#### *Typhoid and Paratyphoid*

Ten cases were reported in 1961 with one death. Two cases were reported in 1960.

*Salmonellae, Bacillary Dysentery, Shigellae Infections*

For the second year there was a sharp rise in reported incidence of these infections. There were 92 cases reported, with 3 deaths. In 1960 there were 66 cases reported and in the preceding year only 29.

*Influenza*

In 1961 an outbreak of influenza in Saskatchewan affected many thousands of persons. The causative organism was classified as "Type B".

*Poliomyelitis*

Only seven cases of this disease were reported in 1961, and no deaths. The preceding year had seen 55 reported cases, with 8 deaths.

*Aseptic Meningitis*

Eight cases of this infection (two coxsackie, six other and unspecified) were reported in 1961. Last year there were 11 cases (other and unspecified).

*Diphtheria*

Nine cases of diphtheria were reported in 1961 compared to seven in the previous year.

*Rare Diseases*

Six cases of brucellosis, three cases of dysentery amoebic and eleven cases of mononucleosis were reported in 1961.

**Preventive Measures***Poliomyelitis Vaccine Immunization*

Immunization against poliomyelitis was continued in 1961. Poliomyelitis vaccine, combined with diphtheria and tetanus vaccines were introduced as a "booster" for school children. Quantities and types of vaccine issued are shown in Table —.

*Rheumatic Fever Control Program*

This continuing program is designed as a prophylactic measure, aimed at countering the disabling after effects which commonly occurred as a sequel to rheumatic fever. The table shows the amount of penicillin distributed by the division during the year of reporting:

Total	Description	Number of Tablets	Cost
Total			\$10,022.41
Oral			
Penicillin	100x400,000 (approximate) unit tablets	324,000	\$ 7,994.20
	Strips of 14 444,250 unit tablets	41,846	\$ 1,485.51
Parenteral			
Penicillin	1x2 c.c. disposable syringe	270 (vials)	\$ 542.70

TABLE 7. REPORTED CASES\* AND DEATHS FROM SELECTED NOTIFIABLE COMMUNICABLE

Diseases	1952		1953		1954		1955	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Anthrax.....	....	....	....	....	....	....	....	....
Brucellosis.....	3	....	2	....	7	....	7	....
Diphtheria.....	7	....	5	....	11	....	11	3
Diphtheria carriers.....	1	....	....	....	7	....	14	....
Dysentery-amoebic.....	2	....	3	....	1	1	....	....
Dysentery-bacillary.....	41	....	49	....	54	1	31	....
Encephalomyelitis.....	13	2	12	2	18	2	13	1
Erysipelas†.....	....	....	....	....	....	....	....	....
Food poisoning.....	....	....	....	....	....	....	....	....
Gastroenteritis.....	79	39	188	85	165	77	199	40
Hepatitis-infectious.....	99	5	328	2	683	3	926	4
Impetigo of the newborn‡.....	....	....	....	....	....	....	....	....
Influenza.....	134	72	48	63	15	32	461	69
Malaria†.....	....	....	....	....	....	....	....	....
Meningococcal meningitis.....	25	7	39	8	17	1	22	6
Meningitis, viral or aseptic.....	....	....	....	....	....	....	....	....
Coxsackie.....	....	....	....	....	....	....	....	....
Other and unspecified.....	....	....	....	....	....	....	....	....
Mononucleosis†.....	....	....	....	....	....	....	....	....
Pertussis.....	623	21	387	6	163	....	653	3
Poliomyelitis.....	1,223	90	1,187	70	196	8	72	5
Psittacosis.....	....	....	....	....	....	....	....	....
Salmonella.....	....	....	....	....	....	....	4	....
Staphylococcal infections.....	....	....	....	....	....	....	....	....
Streptococcal infections.....	1,691	2	1,149	3	660	1	403	....
Trichinosis.....	....	....	....	....	....	....	....	....
Tuberculosis.....	463	104	574	87	561	42	449	57
Typhoid and paratyphoid fevers.....	19	1	10	....	20	....	26	1
Typhoid carriers.....	3	....	2	....	....	....	1	....
Vincent's angina†.....	....	....	....	....	....	....	....	....
								Annual
Anthrax.....	....	....	....	....	....	....	....	....
Brucellosis.....	0.3	....	0.2	....	0.8	....	0.8	....
Diphtheria.....	0.8	....	0.6	....	1.3	....	1.3	0.3
Diphtheria carriers.....	0.1	....	....	....	0.8	....	1.6	....
Dysentery-amoebic.....	0.2	....	0.3	....	0.1	0.1	....	....
Dysentery-bacillary.....	4.9	....	5.7	....	6.2	0.1	3.5	....
Encephalomyelitis.....	1.5	0.2	1.4	0.2	2.1	0.2	1.5	0.1
Erysipelas†.....	....	....	....	....	....	....	....	....
Food poisoning.....	....	....	....	....	....	....	....	....
Gastroenteritis.....	9.4	4.6	21.8	9.9	18.9	8.8	22.7	4.6
Hepatitis-infectious.....	11.7	0.6	38.1	0.2	78.3	0.3	105.6	0.5
Impetigo of the newborn‡.....	....	....	....	....	....	....	....	....
Influenza.....	15.9	8.5	5.6	7.3	1.7	3.7	52.5	7.9
Malaria†.....	....	....	....	....	....	....	....	....
Meningococcal meningitis.....	3.0	0.8	4.5	0.9	1.9	0.1	2.5	0.7
Meningitis, viral or aseptic.....	....	....	....	....	....	....	....	....
Coxsackie.....	....	....	....	....	....	....	....	....
Other and unspecified.....	....	....	....	....	....	....	....	....
Mononucleosis†.....	....	....	....	....	....	....	....	....
Pertussis.....	74.0	2.5	44.8	0.7	18.7	....	74.4	0.3
Poliomyelitis.....	145.1	10.7	137.8	8.1	22.5	0.9	8.2	0.6
Psittacosis.....	....	....	....	....	....	....	....	....
Salmonella.....	....	....	....	....	....	....	0.5	....
Staphylococcal infections.....	....	....	....	....	....	....	....	....
Streptococcal infections.....	200.6	0.2	133.4	0.3	75.6	0.1	45.9	....
Trichinosis.....	....	....	....	....	....	....	....	....
Tuberculosis.....	55.0	12.3	67.7	10.1	64.3	4.8	51.1	6.5
Typhoid and paratyphoid fevers.....	2.3	....	1.2	....	2.3	....	3.0	0.1
Typhoid carriers.....	0.3	....	0.2	....	....	....	0.1	....
Vincent's angina†.....	....	....	....	....	....	....	....	....

\* Incomplete reporting indicated where deaths from a specific disease exceed cases reported.

† Not shown prior to 1960.

‡ The between census estimates of population, for the years 1957-1960 inclusive have been adjusted on the basis of the actual count provided by the 1961 census. The rates per 100,000 population have been revised accordingly.

DISEASES, WITH ANNUAL RATES PER 100,000 POPULATION, SASKATCHEWAN, 1952-1961

Yearly distribution											
1956		1957		1958		1959		1960		1961]	
Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
....	....	....	....	1	....	....	....	....	....	....	....
1	....	1	....	1	....	....	....	2	....	6	....
15	....	....	....	3	1	2	....	7	....	9	....
1	....	....	....	....	....	....	....	....	....	1	....
....	....	....	....	....	....	....	....	....	....	3	....
48	....	36	....	28	....	14	....	55	....	53	1
6	3	3	1	7	1	4	3	6	5	12	1
....	....	....	....	....	....	....	....	3	1	....	....
....	....	....	....	....	....	37	1	6	....	....	....
133	45	123	33	55	45	42	63	287	62	356	63
1,020	11	929	1	943	6	672	3	704	9	849	8
....	....	....	....	....	....	....	....	3	....	1	....
23	20	985	90	....	....	396	84	....	....	....	....
....	....	....	....	....	....	....	....	1	....	....	....
12	3	4	4	8	3	7	1	9	3	16	1
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	11	7	11	5	6	....
....	....	....	....	....	....	....	....	3	1	11	....
368	8	107	3	82	3	88	....	143	1	47	....
21	3	31	4	3	....	46	3	55	8	7	....
....	....	....	....	....	....	2	3	....	....	....	....
7	....	7	1	20	....	15	....	11	....	36	2
....	....	477	....	363	2	271	6	283	1	123	4
240	3	160	3	370	....	1,780	1	2,715	1	1,737	....
....	....	....	....	11	....	1	....	....	....	....	....
355	46	344	31	307	23	242	28	294	34	210	24
11	....	7	1	10	....	7	....	2	....	10	1
3	....	1	....	2	....	3	....	....	....	....	....
....	....	....	....	....	....	....	....	4	....	5	....
rate per 100,000 population†											
....	....	....	....	0.1	....	....	....	....	....	....	....
0.1	....	0.1	....	0.1	....	....	....	0.2	....	0.6	....
1.7	....	....	....	0.3	0.1	0.2	....	0.8	....	1.0	....
0.1	....	....	....	....	....	....	....	....	....	0.1	....
....	....	....	....	....	....	....	....	....	....	0.3	....
5.5	....	4.1	....	3.1	....	1.5	....	6.0	....	5.7	0.1
0.7	0.3	0.3	0.1	0.8	0.1	0.4	0.3	0.7	0.5	1.3	0.1
....	....	....	....	....	....	....	....	0.3	0.1	....	....
....	....	....	....	....	....	4.1	0.1	0.7	....	....	....
15.1	5.1	14.0	3.7	6.2	5.1	4.6	6.9	31.4	6.8	38.5	6.8
115.8	1.2	105.6	0.1	105.8	0.7	74.1	0.3	76.9	1.0	91.8	0.9
....	....	....	....	....	....	....	....	0.3	....	0.1	....
2.6	2.3	111.9	10.2	....	....	43.7	9.3	....	....	....	....
....	....	....	....	....	....	....	....	0.1	....	....	....
1.4	0.3	0.5	0.5	0.9	0.3	0.8	0.1	1.0	0.3	1.7	0.1
....	....	....	....	....	....	....	....	....	....	....	1.0
....	....	....	....	....	....	....	....	....	....	0.2	....
....	....	....	....	....	....	1.2	0.8	1.2	0.5	0.6	....
....	....	....	....	....	....	....	....	0.3	0.1	1.2	....
41.8	0.9	12.2	0.3	9.2	0.3	9.7	....	15.6	0.1	5.1	....
2.4	0.3	3.5	0.5	0.3	....	5.1	0.3	6.0	0.9	0.8	....
....	....	....	....	....	....	0.2	0.3	....	....	....	....
0.8	....	0.8	0.1	2.2	....	1.7	....	1.2	....	3.9	0.2
....	....	54.2	....	40.7	0.2	29.9	0.7	30.9	0.1	13.3	0.4
27.3	0.3	18.2	0.3	41.5	....	196.3	0.1	296.7	0.1	187.8	....
....	....	....	....	1.2	....	0.1	....	0.1	....	....	....
40.3	5.2	39.1	3.5	34.5	2.6	26.7	3.1	32.1	3.7	22.7	2.6
1.2	....	0.8	0.1	1.1	....	0.8	....	0.2	....	1.1	0.1
0.3	....	0.1	....	....	....	0.3	....	....	....	....	....
....	....	....	....	....	....	....	....	0.4	....	0.5	....



TABLE 8. AMOUNT AND COSTS OF VACCINE, SERA AND CERTAIN DRUGS ISSUED IN SASKATCHEWAN, 1957-1961

Product	Year of service									
	1957		1958		1959		1960		1961	
	Amount*	Cost	Amount*	Cost	Amount*	Cost	Amount*	Cost	Amount*	Cost
Total		\$50,421.09	\$66,740.52	\$56,953.58	\$50,311.48	\$96,653.43				
Anti-measles serum	2,576	3,348.80	2,176	2,828.80	1,703	2,213.90	2,730	3,549.00	645	838.50
Cholera vaccine	93	55.80	103	63.42	71	46.86	108	71.28	167	110.22
Diphtheria antitoxin (units)	4,652,000	853.20	5,723,000	1,031.70	4,781,000	827.50	4,844,000	1,072.40	7,823,000	1,813.04
Diphtheria toxin for Schick test	14,100	203.04	17,800	270.88	18,625	298.00	18,850	301.60	18,900	302.40
Diphtheria toxoid	870	315.42	2,024	523.74	619	259.98	496	208.32	479	201.18
Diphtheria toxoid and tetanus toxoid (comb.)	1,139	720.58	2,950	1,567.80	2,275	1,320.48	1,544	1,043.58	3,340	2,139.90
Diphtheria toxoid and pertussis vaccine (comb.)	289	254.32	344	287.22	116	90.48	120	93.60	12	9.36
Diphtheria toxoid and pertussis vaccine and tetanus toxoid (comb.)	42,742	25,694.80	49,080	29,029.50	27,041	17,066.84	10,464	7,378.02	6,641	4,652.44
Pertussis vaccine	246	177.12	399	280.40	240	153.60	135	86.40	156	99.84
Rabies vaccine (14 x 2cc. vials)	6	48.00	5	40.00	11	88.00	6	48.00	1	8.00
Scarlet fever toxin for Dick test	610	21.96								
Smallpox vaccine	78,120	4,999.68	114,360	7,319.04	121,710	8,958.04	106,720	7,637.52	103,570	7,664.18
Solution silver nitrate 1% (capsules)	6,696	468.72	6,192	505.80	4,056	344.76	6,464	537.44	5,520	471.02
Staphylococcus antitoxin (units)	100,000	33.30								
Staphylococcus toxoid (2 x 2cc vial phgs.)	95	95.00								
Tetanus antitoxin (units)	16,177,500	3,301.80	13,975,500	3,098.71	11,488,500	3,049.63	13,343,500	3,768.86	9,930,500	2,982.18
Tetanus toxoid	1,444	1,083.00	2,969	1,539.00	2,558	1,687.50	2,750	1,605.00	4,524	2,479.50
T.A.B.T. vaccine	2,383	696.15	2,549	779.85	2,166	690.30	1,545	536.85	3,343	1,077.75
T.A.B.T.D. vaccine							300	90.00		
Typhoid-paratyphoid vaccine	3,575	815.10	4,102	961.50	1,890	449.55	1,606	457.05	1,587	436.95
Typhus vaccine	113	84.75	118	88.50	116	87.00	71	53.25	121	90.75
Penicillin—oral (units)	27,448,150,000	4,315.52	40,579,450,000	5,748.42	74,089,100,000	10,401.10	109,470,669,500	11,420.99	148,190,085,500	9,479.71
Penicillin—parenteral (disposable syringes)	184	367.78	194	389.94	88	176.88	254	510.54	270	542.70
Gamma globulin (2cc. vials)	783	587.25	2,106	2,889.90	375	1,012.50	530	989.55	505	883.75
Sodium fluoride (number of 2.21 mg. tablets)	2,189	1,880.00	2,249	7,452.25	1,665	7,074.50	2,443	8,550.50	2,833	9,915.50
Sulfadiazine (0.5 gm. tablets)			1,240	2.48	124,776	11.55	1,362,200	196.23	4,014,400	8,144.02
Poliomyelitis vaccine—plain (number of cc.)	828,576		1,700	41.67	3,300	69.63	9,300		10,600	223.66
Poliomyelitis vaccine with D.P.T. (number of cc.)			352,178		115,020		405,910†		32,310	5,926.04
Poliomyelitis vaccine with D.T. (number of cc.)					99,740		171,280†		102,790	28,764.40
Asian influenza vaccine			1,320		3,190		10†		23,330	6,471.00
Influenza type B. vaccine—5cc. (number of cc.)										
Influenza (polyvalent) vaccine—10 cc. (number of cc.)										
Grifulvin tablets (number of tablets)					3,000	330.00	1,000	105.50	2,100	840.00
Chloromycetin 250 mg. tablets (number of tablets)										
									384	85.44

\* Number of persons unless otherwise indicated.

† Individual costs of these items, prior to 1961, either unknown to this office or not chargeable to vaccine and sera vote.

‡ No charge.

TABLE 9. MONTHLY DISTRIBUTION OF REPORTED COMMUNICABLE DISEASES, SASKATCHEWAN, 1961

Disease	Month of notification											
	January	February	March	April	May	June	July	August	September	October	November	December
Brucellosis.....	6	.....	1	.....	2	1	5	3	3	.....	.....	.....
Chickenpox*.....	13	.....	.....	.....	4	.....	.....	.....	.....	.....	2	.....
Diphtheria.....	9	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diphtheria carrier.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dysentery amoebic.....	53	3	4	6	1	2	3	1	6	8	7	1
Dysentery-bacillary.....	12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Encephalomyelitis (other).....	356	37	42	28	18	21	21	20	32	45	27	1
Gastroenteritis.....	849	123	78	180	79	59	43	30	52	42	58	69
Hepatitis-infectious.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Impetigo of the newborn.....	42	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Measles (rubella)*.....	16	1	2	.....	.....	3	4	1	.....	1	2	3
Meningococcal meningitis.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Meningitis, viral or aseptic Coxsackie.....	6	.....	.....	.....	2	1	1	2	.....	1	.....	1
Other and unspecified.....	11	.....	1	1	1	.....	.....	4	2	.....	.....	.....
Mononucleosis.....	2	.....	.....	.....	1	1	.....	.....	.....	.....	.....	.....
Mumps*.....	6	.....	4	1	.....	.....	.....	.....	1	.....	.....	.....
Paratyphoid fever.....	2	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Paratyphoid carrier.....	47	6	10	.....	5	1	3	3	.....	6	.....	.....
Pertussis.....	7	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....
Poliomyelitis: paralytic.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Rubella (German measles)*.....	36	3	2	4	6	.....	4	2	.....	.....	.....	.....
Salmonellosis.....	123	20	15	14	13	5	12	6	7	10	9	6
Staphylococcal infections—arising in hospitals.....	1,737	685	367	49	49	13	39	29	31	41	104	67
Streptococcal infections.....	252	91	47	11	20	2	3	7	14	10	16	10
(scarlet fever).....	1,485	594	320	38	29	11	36	22	17	31	88	57
(streptococcal sore throat).....	138	14	4	9	13	13	13	17	11	15	1	27
Tuberculosis:	72	7	9	4	2	6	2	12	3	12	2	12
(1) pulmonary.....	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
(2) other forms.....	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Typhoid fever.....	5	.....	1	.....	.....	1	.....	.....	.....	.....	.....	.....
Vincent's angina.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total cases reported.....	3,561	904	543	296	200	127	150	142	156	196	254	247
Less cases not reportable*.....	59	.....	.....	.....	5	2	9	6	.....	.....	29	3
Net number of cases notifiable to Dominion Bureau of Statistics.....	3,502	904	543	296	195	125	141	136	156	196	225	244

\* Cases not reportable to Dominion Bureau of Statistics.

## DENTAL HEALTH SERVICES

The division of dental health is concerned with two major functions:

1. To promote, by all possible means, all known preventive measures against dental disease.
2. To initiate remedial programs, particularly for children, as a preventive measure against dental disease in adults.

In reporting on achievements and problems, the division notes both bright and dark areas.

### Prevention

Progress continues to be made in the purely preventive area, where emphasis centres on fluoridation. This is a remarkable achievement in view of apparently violent opposition to fluorides, expressed in certain quarters. Credit for the success must be accorded to the leadership and educational efforts of regional medical health officers, public health nurses and sanitary officers, all of whom have played a part. No untoward incidents of any consequence have been reported.

### Fluoridation of Community Water Supplies

During the year, 15 additional communities, comprising a total population of 19,556, commenced the fluoridation of their water supplies. In years to come it can confidently be expected that children now exposed to fluoridated water will develop 60 per cent fewer dental cavities than their predecessors.

URBAN CENTRES FLUORIDATING, WITH STARTING DATES AND POPULATIONS, TO MARCH 31, 1962

<i>Name</i>	<i>Commenced</i>	<i>1961 population</i>
Total .....		218,024
Moose Jaw .....	December, 1952 .....	33,206
Assiniboia .....	May, 1953 .....	2,491
Swift Current .....	October, 1954 .....	12,186
Weyburn .....	March, 1955 .....	9,101
Saskatoon .....	July, 1955 .....	95,526
Wynyard .....	August, 1956 .....	1,686
Eston .....	September, 1957 .....	1,695
Kindersley .....	February, 1959 .....	2,990
Kamsack .....	July, 1959 .....	2,968
Prince Albert .....	February, 1960 .....	24,168
Rosthern .....	May, 1960 .....	1,264
Tisdale .....	May, 1960 .....	2,402
Melville .....	July, 1960 .....	5,191
Montmartre .....	October, 1960 .....	482
Chaplin .....	February, 1961 .....	479
Canora .....	February, 1961 .....	2,117
Preeceville .....	May, 1961 .....	924
Luseland .....	June, 1961 .....	665
Watson .....	September, 1961 .....	910
Estevan .....	September, 1961 .....	7,728
Cabri .....	October, 1961 .....	711
Carrot River .....	October, 1961 .....	930
Naicam .....	October, 1961 .....	672
Star City .....	October, 1961 .....	571
Blaine Lake .....	November, 1961 .....	641
Leader .....	November, 1961 .....	1,211
Wadena .....	December, 1961 .....	1,311
Davidson .....	December, 1961 .....	928
Birch Hills .....	January, 1962 .....	534
Langham .....	February, 1962 .....	429
Foam Lake .....	March, 1962 .....	933
Wakaw .....	March, 1962 .....	974

URBAN CENTRES WITH WELLS WHOSE WATER CONTAINS OPTIMAL  
AMOUNTS OF NATURAL FLUORIDE

(incomplete coverage as all wells not tested)

<i>Name</i>	<i>1961 population</i>
Total .....	4,431
Hawarden .....	268
Strongfield .....	218
Loreburn .....	302
Unity .....	1,902
Beechy .....	402
Lawson .....	72
Riverhurst .....	281
Central Butte .....	459
Mawer .....	72
Eyebrow .....	285
Marquis .....	170

### Distribution of Fluoride Tablets

Where fluoridated community water supplies are not available, the second best method of supplementing the diet with fluoride is to take an appropriate daily dose in tablet form. The Department of Public Health has issued tablets to health regions for free distribution to expectant mothers and preschool children. Acceptance of this program has been good. During the fiscal year 1961-62, a total of 3,398 expectant mothers and 20,604 children received first issues of fluoride tablets. It is too soon yet to determine the number of children who continue with the fluorides once they reach school age and the purchase of tablets becomes a family responsibility.

### Remedial Treatment

All public health dental authorities agree that treatment of remediable dental defects in children is a legitimate public health objective which should accompany educational and preventive measures if an objective of dental health is to be attained. Even in areas with a much higher dentist-population ratio than Saskatchewan enjoys, organized care programs for children, with very few exceptions, are limited and to an extent ineffective because of (a) restrictions in the program, or (b) inability to obtain and retain qualified dentists. The organization of private practice does not appear to coincide too well with the development of an organized, long range type of children's program as contemplated. Although this is advocated by the organized profession, few individual members, when considering a career, appear willing to undertake the task. This is a paradoxical problem which, at the moment, seems to defy solution.

Although permissive legislation exists in Saskatchewan and financial assistance is obtainable from national health grants, it has been impossible to develop more than the two regional dental care programs for children which now operate in the Swift Current and Assiniboia-Gravelbourg health regions. There is a variety of reasons for this, but there is no doubt that the major reason is the national shortage of dentists. In this respect, Saskatchewan, with a ratio of one dentist to each 5,000 of the population, compared to one dentist to each 3,000 of the national population and even better ratios in Ontario and British Columbia, cannot expect to improve the dental care, even of children, until there is vast improvement in the number of dentists available in the province.

Various proposals have been put forward from time to time, none of which have as yet found favor in all of the quarters necessary for action to be taken. These proposals are listed briefly as follows:

The development of dental faculty at the University of Saskatchewan. Increased subsidies for students originating from Saskatchewan, who contract to return to the province for public service after training outside.

Increased training and employment, both publicly and privately of auxiliary dental personnel and more extensive delegation to them of minor procedures.

Meantime, the hope of another generation with improved dental health in adulthood, is being postponed from year to year for lack of an organized program concentrated at the childhood level. Annual Canadian expenditures for dental care are estimated at \$100,000,000, much of which is terminal, costly, and unnecessary, because it is preventable. Dental surveys indicate that not more than 30 per cent of the population obtained reasonably adequate dental care annually. Public knowledge and informed action is required to reverse a retrograde situation which is contrary to the principles of public health practice.

## PUBLIC HEALTH NURSING SERVICES

The main function of the Public Health Nursing Division is to develop and maintain a high quality public health nursing program as directed by departmental policy. This requires the following activities:

1. providing public health nursing consultant service to the director of the Regional Health Services Branch, medical health officers, nursing supervisors and other divisions
2. assisting in the development of in-service education programs for public health nurses
3. co-operating with other divisions, departments and related agencies
4. participating with the University of Saskatchewan School of Nursing in arranging for and supervising field experience for students of public health nursing
5. recruiting, selecting and assigning suitable public health nursing personnel
6. promoting research, evaluation and recommended revision of the public health nursing program
7. maintaining liaison with national, provincial and local nursing and public health departments and organizations

### Personnel

The establishment of the division consists of a director, two consultants and a clerk stenographer.

### General Consultant Services

The director and consultants met frequently with the director of the Regional Health Services Branch regarding public health nursing policies and programs, personnel policies, staff recruitment and placement. Considerable time was spent planning the oral poliomyelitis vaccine program. This included participation in a television program. Conferences were also held with other departments, division directors and representatives of related agencies. Assistance was given to other divisions in construction and revision of health education materials and report and referral forms. Various health workers from other provinces and countries interviewed members of the staff.

There were slightly fewer visits made to health regions and the Northern Health District than in the preceding year. One consultant spent most of three months performing regional nursing supervisor activities in the newly formed Saskatoon Rural Health Region. These included co-ordinating the public health nursing program, organizing additional public health nursing districts, interviewing applicants and assisting with orientation of new staff. She assisted in interpreting the public health nursing program to individuals and groups, as well as reporting to the regular meetings of the Regional Board of Health. Planning was begun, with staff of the University School of Nursing, for additional field experience programs for students of public health nursing. It is hoped some concurrent field experience programs will be developed in this region.

Another consultant was on loan for two months for a special study on home care, and consultants relieved as officers-in-charge of health regions for 16 days. It is felt that health regions benefit, directly or indirectly, from such consultant activities.

Sixty-four visits were made to health regions and the Northern Health District by the director and consultants. These visits provide an opportunity for consultation with medical health officers and nursing supervisors in their work situation, and keep the division staff up-to-date on problems encountered by field staff.

#### **Other In-Service Education**

The director and consultants participated in nine health region nursing staff conferences and in a total of six days of conferences of senior health region staff.

Regional nursing supervisors had 11 office interviews with the director.

Consultants spent 11 days assisting with orientation of new public health nursing staff.

The immunization section of the Public Health Nursing Manual was revised and distributed and a list of recommended public health nursing reference material was developed for use in health regions.

A consultant began preliminary work on the organization of a workshop on rehabilitation for public health nurses, and met with staff of the Moose Jaw Training School regarding public health nursing conferences on mental retardation.

Preparation was begun for a provincial public health nursing conference program, and a variety of films were previewed.

#### **Home Care**

A continuous study of home care was carried on throughout the year. It is believed that, with adequate nursing staff, some extension of nursing care could be given in homes in smaller urban and rural areas. A study was made for a pilot project to demonstrate the feasibility of an organized home care service within the health region program. This includes recommendations regarding administration, cost estimates of personnel, equipment and supplies and geographic limitations. It is hoped it will soon be possible to implement this project.

One consultant was loaned to the Saskatchewan Registered Nurses' Association for two months to co-ordinate a study on home care for submission to the Advisory Planning Committee on Medical Care. The report, "Study on Home Care Services in Saskatchewan", includes information regarding nursing, medical and homemaker services in the home, as reported from other countries and provinces, as well as Saskatchewan. Administrative procedures and problems were discussed and recommendations made.

A television program on home care was produced, in co-operation with the Division of Health Education and the Regina branch, Victorian Order of Nurses.

#### **University Student Program**

This program continues to expand. Thirty-one students of public health nursing received 93 weeks of supervised field experience in health regions. The director and consultants work with the University of Saskatchewan School of Nursing and health region staffs in arranging and supervising this program. Visits were made to health regions before and

during the programs which were conducted for 20 diploma students in the spring, and 11 degree students in the fall. It is important that public health agencies participate in these educational programs. In an attempt to improve this experience, the division worked with staff of the university to arrange and conduct a conference for regional nursing supervisors, and two conferences for guide nurses.

One or more of the division staff met monthly with the associate professor of public health nursing, during the university year.

### **University Education Under the Dominion-Provincial Grant**

Eleven nurses completed public health nursing diploma courses. Eight of these returned to public health posts, and three were newly appointed to staff. One nurse completed a Master of Arts degree, another a degree of Bachelor of Science in nursing.

One nurse is currently studying for the degree of Bachelor of Nursing, and nine for public health nursing diplomas.

### **Recruitment and Placement**

Fifteen personal interviews were held, and considerable time was spent in correspondence and telephone communication.

### **Evaluation**

Although it is essential that public health nursing programs be continually evaluated, we are handicapped by lack of qualified nursing staff. However, preparation has begun on a pilot study of child health conference services, in co-operation with the Division of Maternal and Child Health and the Research and Statistics Branch of the Provincial Department of Public Health, and the Child and Maternal Health Division of the Department of National Health and Welfare. Reasonable progress has been made by fairly intensive study, including seven days of conference.

### **Community Education**

A nursing consultant conducted a ten hour series of classes on community health in a Regina school of nursing. The director and consultants addressed five community groups, and began preparation of four other addresses.

### **Liaison With and Participation in Professional Associations**

#### *Saskatchewan Registered Nurses' Association*

The director was president, and is now past-president of this association. She is a member of a variety of committees including the Ad Hoc Committee on the future of nursing, and the Joint Committee of Medical, Hospital and Nursing Services. A consultant is a member of the Saskatchewan Registered Nurses' Association committee on nursing service.

The director participated in the presentation of a brief to the Royal Commission on Health Services.

#### *Canadian Nurses' Association*

The director attended a meeting of the Committee on Health Services to define principles to guide preparation of briefs to the Royal Commission on Health Services.



### *Canadian Public Health Association*

The director and consultants assisted with the annual national convention.

The director was, and one consultant is, a member of the executive of the Saskatchewan Branch, Canadian Public Health Association.

One consultant participated in preparation and presentation of a brief to the Royal Commission on Health Services.

### **Other**

One consultant, prior to her retirement began compiling a history of the division.

Public health nursing reference material, report and referral forms, were constructed or revised. This included material and report forms for the oral poliomyelitis vaccine program.

The director attended the five day annual meeting of the American Public Health Association.

### **Public Health Nursing Services in Health Regions and Northern Health District**

Statistics are included in the Regional Health Services Branch report. There is an encouraging increase in the number of home visits, an exceptionally time consuming service in rural areas.

Distribution of fluoride tablets to expectant mothers and preschool children continued to increase. More infants were added to a program to detect phenylketone bodies in the urine. More nurses participated in the audiometric screening program, and nurses were asked to follow up patients securing audiometers, through the Medical Services Division. Nurses are being requested to devote more time to rehabilitation of patients in their own homes. Nurses assisted with a speech program in one health region. Regional nursing supervisors continued to hold classes on community health for students in four schools of nursing.

All of these programs add considerably to the demands placed on public health nursing staff at all levels.

Most of the month of March was devoted to preparation for the province-wide oral poliomyelitis vaccine program. Public health nurses in Saskatchewan have a unique record of achievement of high immunization coverage.

Four nursing supervisors relieved as officers-in-charge of health regions for varying periods of time. Although this promotes continuity of the total health region program when the medical health officer position is vacant, it does reduce considerably the time, interest and energy which could be devoted to the public health nursing program.

Staff of this division provided public health nursing supervision of nursing staff of the Saskatoon Rural Health Region.

Nurses in the Northern Health District continue to carry public health nursing and midwifery programs unique to that area. Nurse-midwives continue to staff the four outpost hospitals. One midwife completed the diploma course in public health nursing, and one nurse returned after completing the midwifery course at Maternity Centre in New York. It was again necessary for the nursing supervisor to relieve at outpost hospitals for several months. Two public health nurses carried generalized public health nursing programs from two locations.

The problem of increasing demand on public health nursing time for both established and new programs, with no increase in staff, is continuous. Quality may very readily be sacrificed for quantity and there is evidence that only programs which allow for adequate depth of performance produce desired results.

The public health nurse is the field worker best known to the family. It seems obvious that her caseload should be reduced, to allow her to provide the more comprehensive nursing service being requested, for families in their own homes.

### **Nursing Staff of the Division of Public Health Nursing, Health Regions and Northern Health District**

The problem of recruiting any staff, much less staff qualified in public health, for smaller centres, continues. The total number of nurses employed increased by 11 over the previous year and there were nine positions vacant at the end of the year. There is an urgent need to establish incentives to attract qualified public health nurses to the more rural areas. Although the percentage of the total staff qualified in public health increased to 52.4 per cent from 47.7 per cent for the previous year, only 42 per cent of nurses holding Public Health Nurse I staff positions have public health qualifications.

### **Qualifications of Staff Employed as of March 31, 1962**

Total .....	147
Master of Public Health .....	2
Master of Arts .....	1
Bachelor of Science in nursing .....	10
Bachelor of Nursing and nurse-midwifery certificate .....	1
Bachelor of Arts and diploma in public health nursing .....	1
Certificate in public health nursing and administration .....	2
Certificate in public health nursing and nurse-midwifery .....	1
Diploma in teaching and supervision .....	2
Diploma in teaching and supervision and public health nursing .....	1
Diploma in public health nursing, nurse-midwifery and Queen's nursing certificates .....	1
Nurse-midwifery certificate .....	3
Nurse-midwifery and Queen's nursing certificates .....	3
Nurse-midwifery and health visitor's certificates .....	3
Nurse-midwifery, Queen's nursing and health visitor's certificates .....	1
Diploma in public health nursing .....	50
Registered nurses with no additional educational qualifications .....	65

## NUTRITION SERVICES

The Nutrition Division, offering primarily consultant services, has the chief aim of convincing the population that good nutrition plays an important part in the well-being of individuals. This aim is being pursued through regional nutritionists, assigned to health regions, and the provincial nutritionist, working out of headquarters.

The nutritionist is able to give a very limited amount of direct service to the public. The large area of Saskatchewan, along with a large population makes individual counselling not feasible. Therefore, the prime role of the nutritionist is to assist other public health workers to incorporate effectively nutrition teaching with other phases of their work.

The functions of this division are to offer consultant services to the staffs of health regions, to voluntary organizations and to other government departments such as Agriculture, Education and Social Welfare; to keep health region staffs informed on developments in nutrition; and to maintain a reference library on nutrition literature, materials and teaching aids.

### **Personnel**

Another function of this division is to recruit and train qualified personnel to work in the health regions. Women with qualifications for the position of a nutritionist continue to be in short supply. Two nutritionists were recruited and orientated. At the end of the fiscal year five health regions were staffed with regional nutritionists—Swift Current, Weyburn-Estevan, Regina Rural, North Battleford and Prince Albert (part-time). It is the aim of this division to provide each health region with a nutritionist. In this way service can be more concentrated and the population can be made more aware of good nutrition practices.

The Nutrition Division had the services of a full-time director for eight months this year.

### **Service to Public Health Staff**

The director visited nutritionists in the regions in order to give consultation and assistance in planning and evaluating of programs. A considerable amount of time was spent in searching for information and ideas requested by the nutritionists. Reference files and teaching aids used by public health workers were brought up to date.

In regions where there is no regional nutritionist, the director provided service when requested. Approximately 12 visits were made to regions, to present lectures to nurses, assist with animal feeding experiments, set up a lunch program, giving assistance to camps and food-handlers, and to attend the Annual Health Councillors meetings. Eight requests for animal feeding experiments were filled. Also approximately 200 requests for information and materials on various topics (foods, diet, budgetting, menu planning, etc.) were filled. School lunch report cards were evaluated for regions that use them.

This division as usual worked on a consultative basis with other divisions within the Department of Public Health. In conjunction with Nursing Services, Child and Maternal Health, Health Education and Dental Health divisions, various materials were produced such as formula preparation sheet, releases on Vitamin D, Canada's Food Guide, Nutri-Bio, instant milk. The Nutrition Section of the Nurses' Manual and the nutrition lecture outline for prenatal classes were revised. A list of recommended nutrition books for public health nurses was also prepared.

Three student nurses from the Grey Nuns' Hospital visited the Nutrition Division in order to become acquainted with its activities. A report was given to the remainder of the class.

### **Services to Other Departments and Agencies**

The Nutrition Division provides consultant services to departments or agencies expressing a desire or need for them.

The federal Nutrition Division requested that a survey be done on the haemoglobin levels of teenagers in Saskatchewan. This survey was organized but owing to the poliomyelitis program, has been postponed until the fall of 1962. Dr. Monagle, Chief of the Nutrition Division at Ottawa, spent two days in Saskatchewan becoming acquainted with the Nutrition Division and other public health divisions.

A talk and film on nutrition and weight control were presented to a meeting of the Physically Handicapped Homemakers at the Physical Restoration Centre.

The director discussed various questions, courses and reports with the consultant dietitian of the Hospital Administration and Standards Division of the Department of Public Health.

The Department of Natural Resources requested ideas for setting up a training program for their summer staff who work in restaurants in the parks of Saskatchewan. Assistance regarding menu planning and recipes was given to government cafeterias.

Teaching information and materials were provided to the instructor of the postgraduate class of nurses, at the School of Nursing, University of Saskatchewan.

Undergraduates at the College of Home Economics, University of Saskatchewan were given a lecture on nutrition services and community nutrition. Various orders for materials were filled.

A class of approximately 40 student nurses at Moose Jaw was given a lecture on community nutrition.

The Associated Milk Foundations acquired a part-time nutritionist for Regina. Ideas and materials were exchanged. Animals, cages and instructions were provided for an animal feeding experiment in one of the city schools.

Twenty-four press releases were submitted to Prairie Publishers Limited for use in approximately 50 newspapers.

Regina CKCK-T.V., "Joy Perkins Show" featured the director on two programs. Daily menus were planned for a five-month period.

At Moose Jaw, upon request of the agriculture representative, the director and Penny Powers presented two programs on various aspects of freezing foods.

At Prince Albert, the director appeared on an afternoon T.V. show to discuss community nutrition and community opportunities in that field.

Various discussions were held with dairies, equipment offices and others, regarding the cost, installation and operation of different types of milk dispensers or venders in schools.

The director attended and reported to the regional health staff conference in October. A session was prepared for the nutritionists.

The Dominion-Provincial Nutritionists' Conference and the meeting of the Canadian Council of Nutrition were attended by the director in Ottawa, in September. Various reports were prepared and distributed to interested staff.

Numerous telephone conversations were held with people requesting information on nutrition, diets, budgeting and other matters.

## SANITATION SERVICES

The Sanitation Division carries out functions in regard to the following:

- (1) waterworks and sewerage systems
- (2) fluoridation of water
- (3) water analysis
- (4) pollution control
- (5) milk quality control
- (6) urban and rural sanitation

While the bulk of the division's work is concerned with urban activities, the division also acts in an advisory and consultative capacity to rural health regions, in engineering and related matters.

### Personnel

The normal establishment of the division consists of a director, two engineers, four milk sanitarians and two clerk stenographers. Three of the milk sanitarians and one engineer are employed under federal health grants.

At the end of the fiscal year the posts of director, one milk sanitarian and one engineer were vacant.

### Waterworks and Sewerage Systems

Installations and extension of waterworks and sewerage systems require the approval of the Minister of Public Health. A major function of the division is comprised of approving plans and preparing certificates of approval. Equally important functions are the inspecting of works and the rendering of engineering advice to municipal councils.

#### *New Construction*

The upward trend in installations of waterworks and/or sewerage systems continued during 1961, when some 50 construction starts were made, compared to 28 in 1960 and 12 in 1959. The following tabulation records the centres in which new construction starts were made in 1961, and the type of work undertaken.

<i>Waterworks and sewerage systems</i>	<i>Waterworks system</i>	<i>Sewerage system</i>
Carrot River	Foam Lake	Rockglen
Sturgis	Wadena	Morse
Naicam	Stoughton	Willowbunch
Neudorf	Ogema	Neville
Langenburg	Beechy	Hudson Bay
Blaine Lake	Shaunavon	Dinsmore
Cupar	Cutknife	Coronach
Whitewood	Luseland	Elbow
Birch Hills	Strasbourg	Fillmore
Wakaw		Fox Valley
Delisle		Hanley
Govan		Dundurn
Kenaston		Harris
Langham		Lashburn
Milestone		Lipton
Semans		Lucky Lake
Torquay		Ou'Appelle
Creighton		St. Louis
Lumsden		Tugaske
Plenty		Hodgeville
Pennant		

It is of interest to note that in 1960 there were 18 municipalities operating sewerage systems only, and that the number increased to 29 in 1961. This situation, which is unique to Saskatchewan, is accounted for by lack of capital for waterworks, or lack of water supply, or both.

It is anticipated that the number of systems to be constructed in 1962 will equal or surpass the figure for 1961.

#### *Construction Approval Certificates*

During the past year 325 certificates, to a total value of \$15,800,000 were issued authorizing construction and extensions of waterworks and sewerage systems. Of these, 71 were for new systems, 254 for extensions. In 1960, 250 certificates were issued, representing work valued at \$14,700,000.

In addition to the authorization for construction, 70 provisional certificates were issued. These are approvals in principle for proposed waterworks and/or sewerage systems, as required by the Local Government Board before burgesses are permitted to vote on a capital money bylaw. The value of these proposed works, most of which will be constructed in 1962, was \$8,500,000.

#### *Urban Modernization Program*

The program of providing financial assistance to municipalities, through the Municipal Water Assistance Board, continues, and some 25 towns and villages received grants from the Board in 1961. However, this represented only about one-half of the works undertaken, although many municipalities proceeded with construction in the hope of receiving a grant in 1962. The fact that consumers are so ready to pay relatively high service charges attests to the desire of town and village residents to have waterworks and sewerage systems, amenities of larger urban life.

Nevertheless, there are still 18 towns and villages out of a total of 72, in the population range of 500 to 1,000, which still have neither waterworks nor sewerage systems. Moreover, 28 out of 45, in the 400 to 499 population range, are without services.

The total number of urban municipalities with both waterworks and sewerage systems is now 98 compared to 73 in 1960. The number with sewerage systems only, has increased to 29 from 18.

#### *Engineering Services*

During the year the division conducted nine preliminary engineering surveys for municipalities contemplating the installation of waterworks and/or sewerage. This is considerably fewer than the 19 carried out in the previous year. Municipalities can now obtain survey services from consulting engineering firms relatively cheaply, because of the contributions of provincial and federal governments through the winter works program.

Preliminary designs, reports and cost estimates were completed for the following centres:

Asquith	Lang	Riverhurst
Colonsay	Mervin	Stewart Valley
Domremy	Rama	Wilcox

Of these, four have engaged consulting engineers to carry out detailed designs and one will definitely construct this year. Of the 19 projects surveyed the previous year, ten have already been constructed.

The engineers attended 17 ratepayers' meetings held prior to capital money bylaw votes. At these meetings burgesses are acquainted with the need for waterworks and sewerage systems, as well as the proposed costs and method of financing.

During the year, division engineers made 112 inspections of water and sewage treatment plants. While sewage lagoons generally operate quite satisfactorily, some difficulties were experienced with those at Davidson, Wadena, Meadow Lake and Broadview. In each case the division visited the lagoon as often as possible and gave council assistance in correcting the situation.

As a public relations measure the engineers attended six official openings of waterworks and sewerage systems.

### **Fluoridation of Water**

The Minister of Public Health is, by statute, responsible for prescribing the general rules and procedures to be observed in the fluoridation of municipal public water supplies. The division of sanitation is responsible for distributing the Minister's orders and giving advice and supervision in the setting up of equipment, and the installation and operation of fluoridation systems. They also keep the records and analyses of fluoridated water required from the operating municipalities.

Sanitary officers in health regions assist local managers in their testing and control of fluoridated waters, and either of these officers may refer problems to the division.

Statistics on the municipalities fluoridating their water supplies, and the number of people benefitting therefrom, may be found in the Dental Health Services section of this report.

### **Water Analyses**

All water analyses conducted by the Provincial Laboratories are reviewed by the Division of Sanitation and interpretation, where necessary, is provided by the engineers. Analyses numbered approximately 15,000 in 1961 compared to 8,000 in 1954. Much of the increase is probably attributable to the province's program of rural electrification and farm modernization, and to the educational program of the Department of Public Health.

### **Pollution Control**

Stream pollution, though as yet not a major problem in the west, is of vital concern to the division.

During the winter of 1961-62 the town of Battleford again experienced taste and odor problems with their water supply. The division, together with engineers from the Alberta Department of Health, and engineers from the Department of National Health and Welfare, met with members of town council to discuss the problem. It appears the source of odor substances was the Canadian Chemicals plant in Edmonton, as in previous years. The council was assured of the co-operation of the three engineering divisions in attempting to control the situation.

The division co-operated with the Provincial Laboratories and the Department of National Health and Welfare in investigating the source of an infectious hepatitis outbreak at Eldorado in March of 1961.

### **Milk Quality Control**

The administration of milk regulations, under The Public Health Act, continues to be one of the major functions of the division.

There were 38 milk pasteurizing plants in operation during the fiscal year. A total of 664 inspections were made by the milk sanitarians, as part of the consultative service provided by the division.

The trend toward paper packaging of milk continues, but in Moose Jaw and Regina the plants are using hooded caps on glass bottles. There is also a steady trend toward bulk milk tanks on dairy farms. Bulk tank pickup of milk is now practised in the Prince Albert, Canora, Saskatoon and Swift Current milk sheds.

While it is the aim of the department to have the milk plants engage in more quality control work with the milk producers, the dairy farm inspections and related tests on raw milk continue to be one of the important duties of the milk sanitarian. During the year 11,440 tests were conducted on raw milk and 1,204 dairy farm inspections were made.

Although mastitis continues to plague the dairy farmer, the quality of raw milk is generally good.

During the year, several surveys, involving some 2,829 individual samples of milk, indicated the bacterial quality of raw milk to be of reasonably high standard and generally free of antibiotics. The number of animals infected with Q Fever has declined but this may be because of selling or killing off of cows rather than eradication of the disease. Re-checks on infected herds, discovered in 1960, were carried out during the year.

Milk sanitarians addressed a total of 54 producer meetings during the year.

### **Urban and Rural Sanitation**

The division no longer has sanitary officers on staff, since there are sanitary officers in all health regions. However, at the request of sanitary or medical health officers, consultative services were provided to the various health regions in connection with plumbing, water supply, sewage disposal, camps, resorts, swimming pools, schools and general sanitation.

The issuing of licences to butcher and beef ring slaughter houses was transferred from the division to the regional medical health officers, as of January 1, 1962 when the previous year's licenses expired.

The sale of fallen animals in Ontario created a flurry of concern across Canada. In Saskatchewan, approximately 80 per cent of the meat sold for human consumption is inspected by the Health of Animals Branch, of the federal Department of Agriculture. That department, in co-operation with the Saskatchewan Department of Agriculture, is considering ways and means of improving the meat inspection program in the province.



## VENEREAL DISEASE CONTROL SERVICES

The Division of Venereal Disease Control attempts to control the spread of venereal disease in Saskatchewan by three measures.

1. by providing facilities for the diagnosis and treatment of people suffering from venereal disease, or who have been exposed to it
2. by keeping accurate records on the ebb and flow of the different types of the disease, so that the program can be suitably adopted
3. by providing up-to-date information to practising doctors on diagnosis and treatment, and, with the help of the Health Education Division, by supplying teaching material, such as films, to the general public

### Venereal Disease in Canada

Ottawa reports that there were 18,755 cases of venereal disease in Canada in 1961. This total was made up of 2,317 cases of syphilis, 16,434 cases of gonorrhoea, and four others.

There were 1,018 more cases than last year—an increase of some 5.7 per cent. In that year, 1960, the revised figures put all cases at 17,737, made up of 2,044 syphilis cases, 15,688 gonorrhoea and five others.

These figures, when translated into rates, (see below) indicate the situation is worsening. The total picture for Canada, which looked very promising in the early 50's, continues to look less rosy. The improvement noted then, is not being maintained.

Gonorrhoea was again the major culprit in the rise of reported incidence. The rate for this was 88.1 per 100,000 population in 1960, and rose to 90.9 in 1961.

The number of syphilitic cases (all stages) increased by 273. There were 130 more cases of early syphilis (primary and secondary stages) in 1961 than in the previous year.

The various rates per 100,000 population are:

	<i>Syphilis (all stages)</i>	<i>Syphilis (primary and secondary stages)</i>	<i>Gonorrhoea</i>
1960 _____	11.5	2.6	88.1
1961 _____	12.8	3.2	90.9

### Venereal Disease in Saskatchewan

The province had 1,724 cases of venereal disease in 1961, compared with 1,470 cases reported in 1960—an increase of 254 cases. This reflects in part a significant upsurge in the reported incidence of early syphilis (primary and secondary), a continuation of the outbreak which occurred in 1960, in northern areas of Saskatchewan. Rates per 100,000 population for Saskatchewan are:

	<i>Syphilis (all stages)</i>	<i>Syphilis (primary and secondary stages)</i>	<i>Gonorrhoea</i>
1960 _____	9.6	5.2	152.0
1961 _____	21.2	11.0	166.4

*Syphilis*

A breakdown by type is given for 1960 and 1961:

	1960	1961
Total (all stages) .....	87	195
Early—primary stage .....	38	68
secondary stage .....	9	33
Prenatal congenital .....	1	—
Late and latent .....	39	94

*Gonorrhoea*

There were more people reported as having gonorrhoea. A greater increase, it is considered, would have occurred had it not been for the emphasis placed on case-holding and case-finding by private practitioners and other agencies. In 1961, reports were received from 255 physicians, showing the active part played by the medical profession in this control measure.

There were 1,528 cases of gonorrhoea in 1961, compared to 1,383 in 1960.

**Preventive Measures***Epidemiology*

Case-finding plus the assistance and co-operation of private practitioners and other medical agencies play a big part in limiting the spread of venereal disease.

Specific antibiotics help in reducing the time taken to make an infected person noninfective. Potential sources of infection have thus a shorter span of time in which to spread disease.

Information supplied by doctors helped in locating 355 contacts. Other medical agencies, including venereal disease clinics, gave information which unearthed a further 602 contacts.

These 937 contacts were examined with these results:

Positive .....	600
(syphilis—78, gonorrhoea—522)	
Nonspecific infection .....	20
Negative findings .....	317

Premarital serological tests numbered 15,274 with seven showing positive reactions. Of these seven, four were connected with previously reported syphilis cases and three with newly reported syphilis cases. In one of the three new cases, the diagnosis was confirmed by the *Treponema Pallidum* Immobilization test.

The investigation and follow-up of people showing positive reactions from Standard Tests of Serology, discovered 22 cases of syphilis, none of which had been previously reported. These were made up of five early syphilis (four primary and one secondary), 13 latent syphilis, three neurosyphilis and one cardiovascular. Not included in this group are those in which a diagnosis was later confirmed by the *Treponema Pallidum* Immobilization test, or those in which a positive premarital Standard Test of Serology had been found.

Follow-up of people showing positive tests for gonorrhoea resulted in 100 gonorrhoea cases being reported on notification cards. All these had been previously unreported.

Last year 248 physicians reported cases, and 45 of these were either new to the province or had not reported before. The parallel figures in 1961 were 255 and 50.

### *Consultative Services*

Advice is given by telephone and correspondence, regarding diagnosis, treatment and post-treatment care. Many requests for advice and information on the Treponema Pallidum Immobilization test (T.P.I.) were received from doctors and medical agencies.

For statistics on this test, see under "Diagnosis and Treatment".

### *Education*

New physicians entering the province to practice were supplied with information and materials connected with venereal disease control procedure. They were also provided with special articles of interest on diagnosis and treatment, including information about the Treponema Pallidum Immobilization test.

Lectures were given to nursing students. These were supplemented by films and pamphlets.

With the help of the Health Education Division a venereal disease education program was continued among the public. Letters asking for literature and information are continually being received, as are letters enquiring about venereal disease and its treatment. These are answered either from this division or from the Division of Health Education whichever is the more appropriate in each case.

## **Diagnosis and Treatment**

### *Clinical Services*

Full-time clinics were maintained during the year, one each in Regina, Saskatoon, Prince Albert and Moose Jaw. Each of these is staffed by a part-time medical director and a full-time nurse. Examination and treatment are free of charge.

Admissions and visits were:

	1960	1961
Admissions .....	1,605	1,716
Visits .....	3,987	5,030

Cost of operation of the clinics, in 1961, was approximately \$21,000.

Clinic facilities were also provided to the Prince Albert and Regina jails. The Prince Albert jails, serviced by our own venereal disease nursing personnel show these figures:

	1960	1961
Admissions .....	1,633	1,882
Visits .....	1,800	2,283

### *Additional Services*

The Red Cross Outpost at Green Lake was again used to provide free examination and treatment for the residents in that area. This service was started in July 1954 as Green Lake is some 30 miles from the nearest physician. This plan, which has proven satisfactory, has the approval of the medical health officer involved.

Costs of this plan for 1961 are shown near the end of this report.

*Special Diagnostic Procedures*

The Laboratory of Hygiene, Department of National Health and Welfare, Ottawa, continued to carry out T.P.I. tests for this division. This test can detect the difference between a biological (false) positive and a specific luetic reaction.

The fact that this test is available is becoming widely known among the physicians in the province, and it is being used to a greater extent where the diagnosis of syphilis is in doubt. False positive and doubtful reactions from standard tests can thus be clarified.

There were 94 specimens from selected cases forwarded to Ottawa in 1961, but three of these were broken in transit. The remaining 91 included three repeat tests.

The 88 specimens examined gave 61 negative and 27 positive results. This means that nearly 70 per cent of the examinations were negative, showing there are a large number of false positives obtained by standard tests. These false positives arise from a variety of causes other than syphilitic infection.

The 27 positive T.P.I. tests consisted of ten cases of previously reported syphilis, sixteen cases of previously unreported cases and one case of false positive.

*Drugs*

Both the aqueous and oil suspension types of Procaine Penicillin were issued during 1961. These at the moment are the drugs of choice in the treatment of venereal disease, and are practically the only medications used. However, in rare instances of penicillin-resistance and/or chronic cases of gonorrhoea and nonspecific urethritis, chloramphenicol, oxytetracycline, chlortetracycline and dihydrostreptomycin combinations may be used.

The cost of drugs of all types issued in 1961 was \$1,368.79. Last year \$1,136.32 was expended.

*Hospitalization*

In 1961 expenditure for hospitalization of venereal disease patients was nil. Payments to hospitals for cell counts of spinal fluid amounted to \$2 in 1961, \$6 was expended for three darkfield examinations.

**Payment for Treatment of Cases and Examination of Contacts**

Physicians are paid for these services, with the aid of federal grants.

Examination and treatment of 189 infected people, living outside areas with free government clinics, and unable to bear costs themselves, cost \$1,511 in reimbursement to physicians.

On a like basis, the examination of 41 reported contacts, also residing outside the free clinic areas, cost \$250. Physicians are paid for the examination of contacts regardless of the latter's financial status.

*Payments to Canadian Red Cross Society, Green Lake*

The Canadian Red Cross Society was paid \$26 for the treatment of 22 cases at the Red Cross Outpost, Green Lake, Saskatchewan.

**Expenditures for Venereal Disease Control**

Costs of the program for the past two years were:

	<i>Total costs</i>	<i>Federal grant</i>
Fiscal year 1960-61 .....	\$73,340.94	\$33,840.36
Fiscal year 1961-62 .....	\$74,193.11	\$35,733.43

TABLE 10. REPORTED CASES OF VENEREAL DISEASE BY TYPE AND STAGE OF VENEREAL DISEASE, REPORTING AGENCY, AND SEX OF PATIENT, SASKATCHEWAN, 1961

Type of venereal disease	All agencies			Reporting agency						Armed forces				
	Both sexes	Male	Female	Physicians			Clinics			Institutions		Both sexes	Male	Female
				Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male			
All venereal diseases.....	1,724	1,180	544	839	584	255	720	489	231	153	95	58	12	.....
All syphilis.....	195	105	90	97	47	50	85	48	37	13	10	3	.....	.....
Acquired early.....	101	68	33	43	26	17	54	39	15	4	3	1	.....	.....
Primary.....	68	48	20	31	18	13	33	27	6	4	3	1	.....	.....
Secondary.....	33	20	13	12	8	4	21	12	9	.....	.....	.....	.....	.....
Acquired latent and late.....	94	37	57	54	21	33	31	9	22	9	7	2	.....	.....
Cardiovascular.....	1	1	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Neurosyphilis.....	8	6	2	8	6	2	.....	.....	.....	.....	.....	.....	.....	.....
Latent.....	82	28	54	42	12	30	31	9	22	9	7	2	.....	.....
Tertiary, other.....	3	2	1	3	2	1	.....	.....	.....	.....	.....	.....	.....	.....
Type undetermined.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Prenatal congenital.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chancroid.....	1	1	.....	.....	.....	.....	1	1	.....	.....	.....	.....	.....	.....
Gonorrhoea.....	1,528	1,074	454	742	537	205	634	440	194	140	85	55	12	.....
Ophthalmia neonatorum.....	1	1	.....	.....	.....	.....	1	1	.....	.....	.....	.....	.....	.....
Other.....	1,527	1,073	454	742	537	205	633	439	194	140	85	55	12	.....

TABLE 11. REPORTED CASES OF VENEREAL DISEASE BY TYPE AND STAGE OF VENEREAL DISEASE, AND AGE GROUP OF PATIENT, SASKATCHEWAN, 1961

Type of venereal disease	Age group																					
	All ages			Under 1 year			1-4		5-14		15-19		20-29		30 and over		Not stated					
	Both sexes	Male	Female	Both sexes	M	F	Both sexes	M	F	Both sexes	M	F	Both sexes	M	F	Both sexes	M	F				
All venereal diseases.....	1,724	1,180	544	1	1	2	2	14	3	11	260	104	156	822	604	218	494	385	109	131	83	48
All syphilis.....	195	105	90	.....	.....	.....	.....	.....	.....	.....	25	8	17	73	39	34	73	45	28	24	13	11
Acquired early.....	101	68	33	.....	.....	.....	.....	.....	.....	.....	14	7	7	44	29	15	33	26	7	10	6	4
Primary.....	68	48	20	.....	.....	.....	.....	.....	.....	.....	9	6	3	28	17	11	26	20	6	5	5	4
Secondary.....	33	20	13	.....	.....	.....	.....	.....	.....	.....	5	1	4	16	12	4	7	6	1	5	1	4
Acquired latent and late.....	94	37	57	.....	.....	.....	.....	.....	.....	.....	11	1	10	29	10	19	40	19	21	14	7	7
Cardiovascular.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	.....	.....	.....	.....
Neurosyphilis.....	8	6	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	3	2	.....	.....	.....
Latent.....	82	28	54	.....	.....	.....	.....	.....	.....	.....	11	1	10	28	9	19	33	14	19	10	4	6
Tertiary, other.....	3	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
Type undetermined.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Prenatal congenital.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chancroid.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Gonorrhoea.....	1,528	1,074	454	1	1	2	2	14	3	11	235	96	139	748	564	184	421	340	81	107	70	37
Ophthalmia neonatorum.....	1	1	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Other.....	1,527	1,073	454	.....	.....	.....	.....	.....	.....	.....	235	96	139	748	564	184	421	340	81	107	70	37

TABLE 12. REPORTED CASES OF SYPHILIS AND GONORRHOEA AND ANNUAL RATES\* PER 100,000 POPULATION, SASKATCHEWAN, 1957-1961

Type of venereal disease	1957	1958	1959	1960	1961
	Number of cases				
Both venereal diseases.....	1,387	1,529	1,538	1,470	1,723
Syphilis.....	115	105	90	87	195
Early (primary and secondary)....	35	31	27	47	101
Latent and late.....	78	74	63	39	94
Prenatal congenital.....	2	....	....	1	....
Gonorrhoea.....	1,272	1,424	1,448	1,383	1,528
	Annual rate per 100,000 population				
Both venereal diseases.....	157.6	171.6	169.6	160.6	186.2
Syphilis.....	13.1	11.8	10.0	9.5	21.1
Early (primary and secondary)....	4.0	3.5	3.0	5.1	10.9
Latent and late.....	8.9	8.3	6.9	4.3	10.2
Prenatal congenital.....	0.2	....	....	0.1	....
Gonorrhoea.....	144.5	159.8	159.7	151.1	165.1

\* The between census estimates of population for the years 1957-1960 inclusive have been adjusted on the basis of the actual population count provided by the 1961 census. The rates per 100,000 population have been revised accordingly.

TABLE 13. ANALYSIS OF THE EXAMINATION OF VENEREAL DISEASE CONTACTS, SASKATCHEWAN 1960 AND 1961

Item	1960	1961
Total contacts examined.....	787	937
Sources of information re: contacts		
Physicians.....	288	355
Clinics.....	418	442
Institutions.....	4	9
Health regions.....	....	....
Public health nurses.....	27	64
Armed forces.....	8	7
Other agencies.....	32	33
Indian health services.....	10	27
Venereal disease control.....	....	....
Contacts located by:		
Physicians.....	107	223
Clinics.....	175	241
Public health nurses.....	41	48
City medical health officers.....	136	81
Health regions.....	198	187
Armed forces.....	2	2
Other agencies.....	57	45
Venereal disease control.....	5	4
Indian health services.....	66	106
Institutions.....	....	....
Results of examination:		
Syphilis.....	21	78
Gonorrhoea.....	477	522
Nonspecific.....	18	20
Negative.....	264	317
Unknown.....	7	....

TABLE 14. AMOUNTS OF DRUGS DISTRIBUTED AND COSTS FOR VENEREAL DISEASE PATIENTS, SASKATCHEWAN, 1960 AND 1961

Type of drug	Amount		Cost	
	1960	1961	1960	1961
All drugs.....			\$ 1,136.32	\$ 1,368.79
Procaine penicillin in oil (units).....	71,400,000	52,200,000	102.34	74.82
Aqueous procaine penicillin (units).....	1,530,000,000	507,000,000	286.58	689.71
Chloromycetin (.25 gm. capsules).....	848	832	270.30	185.12
Sulphathiazole (7½ grs.).....	2,500	2,100	17.75	14.91
Penplus (c.c.'s).....	620	.....	68.13	.....
Gantrisin (tabs.).....	4,000	2,100	112.32	58.97
Aureomycin (.25 gm. capsules).....	288	672	76.50	160.96
Terramycin (.25 gm. capsules).....	512	512	163.20	136.00
Crystamycin (c.c.'s).....	96	120	21.60	27.00
Rubbing alcohol (gals.).....	2	2	5.40	5.40
Miscellaneous drugs.....	.....	.....	12.20	15.90

TABLE 15. PLACE OF MEETING AND EXPOSURE IN MAJOR CITIES FOR 712 CASES OF VENEREAL DISEASE, SASKATCHEWAN, 1961

Place of meeting	Meeting place only		Meeting and exposure (including marital)		Place of exposure only	
	Number of cases	Per cent	Number of cases	Per cent	Number of cases	Per cent
Total.....	712	100.0	193	100.0	712	100.0
Hotels and motels.....	40	5.6	25	13.0	109	15.3
Beverage room in hotels.....	95	13.3	.....	.....	.....	.....
Rooming houses and apartments.....	7	1.0	7	3.6	29	4.1
Other (including private dwellings).....	61	8.6	25	13.0	247	34.7
Cafes.....	87	12.2	.....	.....	.....	.....
Dance halls.....	20	2.8	.....	.....	.....	.....
Pickup-automobiles (including taxis).....	.....	.....	.....	.....	171	24.0
Pickup-street, etc.....	170	23.9	.....	.....	.....	.....
Marital.....	.....	.....	95	49.2	.....	.....
Marital (common-law).....	.....	.....	41	21.2	.....	.....
Not stated.....	232	32.6	.....	.....	156	21.9



## PROVINCIAL LABORATORIES

The Provincial Laboratories function as a technical service arm of the Department of Public Health. The principal services provided are:

1. Safety tests of private and communal supplies of milk, drinking water, and a variety of public facilities
2. Diagnostic laboratory tests to aid physicians in the prevention, diagnosis, or treatment of disease
3. Related tests to other departments of government whenever the specialized facilities permit.

The specimens of milk, drinking water and those from public facilities are examined to detect any infectious or chemical agents which might be harmful to consumers or users. Such specimens are generally submitted by health department or other municipal agencies but may, on occasion, be accepted from private individuals. Such safety tests in 1961-62 accounted for 14 per cent of the work of the Provincial Laboratories.

The diagnostic laboratory tests are made on specimens sent by physicians from offices or hospital patients. A particular effort is made to provide a fast, useful laboratory service to physicians practising in small centers where laboratory facilities are limited or nonexistent. Laboratories in large hospitals also send many specimens for tests that, because of novelty, complexity, or cost, are best maintained at a central laboratory. Tests to aid the diagnosis of existing or suspected disease required 72 per cent of the work of the laboratory in 1961-62. Because of the preponderance of this type of work, the Provincial Laboratories have been defined as a hospital facility for federal-provincial sharing of costs of this portion of the total work of the laboratory.

The remaining 14 per cent of work load derived from service to other departments of government. The Department of Agriculture contracts for examination of creamery butter that guides the manufacture of butter of good keeping quality. The Treasury Department refers gasoline for detection of purple dye such as is used in tax-free gasolines. The Attorney General's Department and their various enforcement agencies refer specimens of seized alcoholic beverages for proof of alcohol content. In addition the laboratories provide many medical-legal examinations for coroners or physicians seeking to determine whether chemical poisons or drugs might have contributed to the sudden death of an individual.

The Laboratory makes strenuous efforts to maintain a rapid, efficient mail order service. They work on Saturday forenoons and all statutory holidays, that specimens mailed the previous day may be examined and reported without undue delay. The Laboratory contracts for two direct deliveries from the post office each day in addition to two departmental deliveries. They operate a sedan delivery truck to pick up specimens at the local hospitals and bus depot, to deliver rush shipments of outfits or biologicals to train, bus, or plane, and to gather suddenly needed supplies or repairs, all in order to expedite help for some patient need. Finally, in addition to making the tests on specimens submitted, the Laboratory provides physicians with outfits with which to collect the specimens, and suitable convenient mailing containers for transporting them to the laboratory. More than 125,000 mailing outfits are sent out and received each year.

The senior staff of the Provincial Laboratories, upon request, render many technical consultative and advisory services to other branches of the Department of Public Health, to other departments of the government, and to private agencies. Generally, such advice is based on research or testing carried on within the Laboratories. Examples of typical services which cannot be fairly represented by numbers are: serological surveys to determine the protective value of vaccine (poliomyelitis, whooping cough, influenza); algae identification and advice on control measures for reservoirs and bathing areas; diagnostic assistance to identify milk cows infected with Q fever or suffering from mastitis and recommendation for treatment or prevention; comparative tests of disinfectants or cleansing agents being promoted for sale to hospitals and institutions; and stability tests for organic dyes sold to the Treasury Department to identify tax-free gasolines.

A laboratory based epidemiological service affords a clearing house for information on the prevalence of specific infectious disease agents in the province, as deduced from weekly reports from all bacteriological laboratories. Accumulated information is exchanged each week with bacteriology departments of hospitals, and periodically mailed to interested physicians. Field investigations are carried out of epidemics, and evaluation studies carried out of various protective measures against such diseases as infectious hepatitis, poliomyelitis, diphtheria, typhoid fever, or cross infections in hospital. Aid is given upon request to medical officers of health requiring special laboratory assistance to diagnose or contain outbreaks of communicable disease or to solve unusual problems and working conditions.

The value of combining laboratory and epidemiology resources was proven by the province-wide epidemic of influenza which struck in late 1961. Histories and specimens of representative cases were collected and the laboratory isolated the responsible strain of influenza virus. Identification of the strain revealed it to be type B, Great Lakes strain. This was the first isolation of this strain in North America in 1961. Commercial influenza vaccines contained little of this antigen, but a small quantity of the raw concentrated antigen was obtained from a drug manufacturer. The Provincial Laboratories prepared and ampouled vaccine for 22,000 people. Swiftly administered to people in the most susceptible groups, and with a probable assist from nature, the epidemic slowed down and disappeared before the year was out. Both the laboratory and epidemiology services had been given a work-out, and had met the challenge.

An outline of the laboratory tests carried out in 1961-62 by the 44 staff members of all classifications appears below:

<i>Service</i>	<i>Specimens</i>	<i>Examinations</i>	<i>10 minute work units</i>
Provincial Laboratory total .....	187,679	313,845	817,714
Sanitary—milk, water, etc. ....	22,641	75,693	114,762
Clinical diagnostic—			
Venereal diseases .....	76,890	89,428	94,148
Other infections .....	33,880	60,938	281,931
Haematology .....	1,586	2,576	6,738
Chemistry .....	29,155	40,163	205,804
Medicolegal .....	1,528	4,331	24,057
Department of Agriculture .....	8,340	15,707	32,761
Animal diseases .....	13,659	25,009	57,513

#### **Safety Tests of Milk, Water and Public Facilities**

Frequent laboratory tests are required to confirm that public supplies of milk and drinking water are safe, clean and wholesome as they should be. Two samples of milk are picked up each week by sanitary officers

from each dairy in the province and submitted to the Laboratories for test of bacteria count, adequacy of pasteurization and butterfat. For these and related tests 7,168 samples of milk were tested during the year.

Regular tests of water from every municipal distribution system in the province are made to determine if chlorination or other treatment has removed objectionable bacteria. Many private well waters are received for tests of bacterial and chemical safety. Many such waters contain excessive amounts of salts which might be harmful to health. Results of laboratory tests of existing or proposed water supplies often enable a farmer or cottager to develop the better one of any alternatives. The Laboratories provide sterile bottles and mailing containers for such specimens which are examined without charge as a service to the public.

A National Health Grant maintains a service for the assay of nitrate ion in all samples of rural well waters. Approximately 20 per cent of all shallow wells in the province contain amounts of nitrates that might be life threatening to the infants who consumed such waters in artificial formulae. Physicians and health departments urge rural expectant mothers to have their supply of drinking water tested before the baby is born lest the water be needed to make formula. The need for this service may be judged from the fact that although 11,208 waters were examined for nitrates in the Provincial Laboratories, there were still two infant deaths due to nitrate poisoning in 1961-62.

Analytical control of fluoridated municipal water supplies is also supported by this grant as a means of checking on the assays of the local water plant operators. In general, good agreement has been obtained between the field and laboratory assays. This provides a double check on the concentration of fluoride ion maintained in the water supply. Many assays of fluoride ion are made on water supplies of rural families prepared to fluoridate their own water supply if tests show such water to be deficient in fluorides. A total of 2,648 water samples were tested for fluorides for one or other of the above reasons last year.

Outfits for testing the sanitation of public eating establishments, bakeries and food outlets, are provided at cost to health regions and city health departments. Over 25,000 vials of media and an equal number of sterile swabs were manufactured and provided for this service in 1961-62.

An outline of the sanitary examinations carried out in this service appears below:

<i>Waters</i>	<i>Specimens</i>	<i>Exam- inations</i>	<i>Milk, Cream and ice cream</i>	<i>Specimens</i>	<i>Exam- inations</i>
Total .....	15,473	47,829	Total .....	7,168	27,864
Coliforms .....		20,172	Coliforms .....		6,043
Dissolved solids .....		11,590	Specific gravity .....		2,924
Nitrates .....		11,288	Total solids .....		2,924
Fluorides .....		2,648	Phosphatase .....		4,754
Hardness, alkalinity ..		813	Plate count .....		6,139
Iron .....		394	Butterfat .....		4,051
Other chemical .....		924	Other dairy products .....		1,029

#### **Diagnostic Laboratory Tests To Aid Physicians in the Prevention, Diagnosis, or Treatment of Disease**

Laboratory diagnostic tests may be likened to scientific sleuthing in a specimen to discover what is wrong with the donor. The patient's symptoms provide the clues from which the physician requests a particular test or tests. If a bacterial invader has attacked the patient and the proper

specimens be submitted to the laboratory, the invader may be "caught in the act" or implicated by antibodies left behind. If the patient be suffering from a metabolic or functional disorder, the faulty system may be pinpointed by chemical tests. Once the cause or error has been identified, then the physician may use such information to make treatment more effective and to prevent similar cases. When disease producing bacteria are recovered from a specimen, the bacteria are tested for their unpredictable vulnerability to a number of antibiotics. Findings on critically ill patients are telephoned. This information is sometimes lifesaving. More often it shortens a patient's illness.

The demand for various types of clinical diagnostic laboratory services is reflected in the table below.

<i>Service</i>	<i>Specimens</i>	<i>Feature</i>
<i>Veneral disease</i>		
Syphilis .....	69,870	Laboratory tests remain the only way to diagnose many cases. About 15 per cent of the specimens are premarital, submitted in compliance with The Marriage Health Act.
Gonorrhoea .....	7,020	1,145 of these confirmed a diagnosis of gonorrhoea.
<i>Other infections</i>		
Boils, skin infections .....	9,751	Mostly staphylococci.
Sore throats .....	7,375	Ten case isolations of <i>C. diphtheria</i> (one fatal). Hundreds of cases of streptococcal infections confirmed.
Rheumatic fever .....	2,846	Antistreptolysin 0 titer fairly reflects exposure to causative agents, and measure of control.
Rheumatoid arthritis .....	1,070	Many <i>Salmonella</i> and <i>Shigella</i> infections, 3 cases of typhoid fever, 8 of paratyphoid, 98 miscellaneous salmonellosis, 101 cases of shigellosis. Seven city hospitals were supplied with 9,840 ml. of diagnostic antigens and 1,260 ml. of diagnostic antisera.
Gastroenteritis		
Septicemia .....	6,235	Specimens from really suspicious cases are generally sent direct to Sanatoria. A total of 17 atypical cases were diagnosed on basis of specimens sent to Provincial Laboratories.
Tuberculosis .....	462	Sent in by other laboratories for confirmation or identification.
Reference cultures .....	788	Cerebrospinal fluids from suspect cases of meningitis.
Meningitis .....	160	411 isolations of pathogenic yeasts. 33 isolations of fungi that cause ringworm, etc.
Yeasts and fungi .....	923	Many isolations of pinworms, two cases of tapeworm, one roundworm and one whipworm.
Parasites .....	507	
Virus infections		
for isolation .....	1,995	A total of 111 viruses were isolated including 5 poliovirus, 16 influenza, 25 parainfluenza, and 24 adenoviruses. These isolations served to identify causes of outbreaks and guide vaccination programs.
for serology .....	1,768	
<i>Haematology</i> .....	1,586	Differential cell counts to confirm observations of rural practitioners. Blood groupings for armed forces.
<i>Chemistry</i>		
Blood .....	17,575	Sugar, urea, cholesterol, electrolytes, liver function, protein fractions, enzymes, etc.
	8,240	Protein bound iodine (\$5). One of the few tests charged for.
Urine .....	2,773	Ketosteroids, heavy metals, hormones.
Spinal fluids, gastrics, stools .....	567	Miscellaneous tests.

### Medicolegal and Special Chemistry

A wide variety of chemical tests which may provide evidence for legal action is carried out by the provincial analyst.

Alcoholic beverages .....	305	Seized by law-enforcement agencies.
Gasolines .....	229	Seized by law-enforcement agencies to confirm presence of marker used in tax-free gasoline.
Human toxicologies .....	473	To check role of poisons or drugs.
Stomach washings .....	338	Identification of poisons.
Miscellaneous tests .....	142	No alternative laboratory to refer these to.
Dieldrin residues in dairy products .....	41	

### Dairy Laboratory

The Department of Agriculture contracts with the Provincial Laboratories for the latter to provide yeast and mold tests of creamery butter. Yeasts and molds, if present in significant numbers, may produce off-flavours in stored butter and so impair the excellent keeping quality of the Saskatchewan product. Each day a sample of butter is set aside from every commercial churn operating in the province, that objectionable yeasts and molds may be swiftly detected and their source eliminated. A total of 8,340 samples of butter were examined in the course of this program.

### Animal Diseases

A National Health Grant supports a laboratory service to aid the diagnosis of infectious diseases of animals and birds which might constitute a reservoir of infection for man. In order to obtain such information, specimens are accepted from veterinarians, milk sanitarians, wild life conservation officers, and farmers. Excellent co-operation is enjoyed with the Animal Pathologist of the Department of Agriculture stationed in an adjacent laboratory, so that the combined service meets the needs of both the Department of Agriculture and the Department of Public Health.

Although a wide variety of bacteriological examinations are carried out, most of them are devoted to assisting dairy farmers and milk sanitarians improve the quality of raw milk. Mastitis is very prevalent in dairy herds and the by-products of such infection are most undesirable whether they be bacteria, pus, or antibiotic residues excreted after intramammary treatment. All commercial raw milks in the province are periodically checked for mastitis-causing organisms, antibiotic residues, Q fever antibodies, brucella antibodies. Special tests may be made of quarter milk samples to help locate infected quarters in an animal that attention may be directed where needed.

An outline of the work of this section is set out below.

<i>Service</i>	<i>Specimens</i>	<i>Exam- inations</i>	<i>Service</i>	<i>Specimens</i>	<i>Exam- inations</i>
Raw milk .....	11,193		Miscellaneous .....	2,466	
Leucocytes (smear)		381	Culture and sensitivities .....		3,216
(Danish)		2,791	Parasites .....		125
Culture .....		11,031	Animal inoculations		101
Antibiotic residues —		2,144	Q fever .....		25
Brucella (Ring test)		2,532	Other .....		22
Q fever (CAT test)		2,641			

**Associated Laboratories**

The laboratories of the Saskatchewan Hospitals at Weyburn and North Battleford are administratively responsible to the respective hospitals, but they provide sufficient regional and local public health examinations to warrant inclusion here of their reports. The Provincial Laboratories maintain a senior technician in the laboratory at North Battleford to help provide sanitary examinations of milk and an emergency bacteriological service to residents of that area.

	<i>Saskatchewan Hospital Weyburn</i>	<i>Saskatchewan Hospital North Battleford</i>
Total examinations made .....	14,534	18,431
Haematology .....	6,680	9,376
Urinalysis .....	2,469	1,892
Clinical chemistry .....	4,575	4,490
Diagnostic bacteriology .....	224	517
Sanitary examinations of water .....	100	844
Sanitary examinations of milk .....	486	1,312
Specimens sent out to other laboratories .....	2,181	1,328

## PSYCHIATRIC SERVICES

### The Year in Review

The Psychiatric Services Branch is responsible for the provision of publicly supported facilities for the mentally disordered. The expression "mentally disordered" covers mental illness, mental retardation, psychoneurosis, psychopathic disorder, addiction, epilepsy or any other disorder or disability of the mind.

The facilities available in 1961-62 for the provision of this service included two mental hospitals, two training schools for the retarded, two psychiatric wards in general hospitals, six full-time mental health clinics, a psychiatric research unit and the consultant and administrative group in the branch office. In addition, financial support was supplied to the psychiatric ward and the psychiatric outpatient department of the University Hospital. The full-time clinical facilities provided staff for a considerable number of part-time outpatient clinics.

The branch's responsibility consists of providing care and appropriate training to those mentally retarded who are admitted to one of the inpatient facilities, offering advisory and consultative services to other agencies and to the community, and assessing persons referred to a psychiatric facility. A significant improvement of the provincial facilities for the mentally retarded was made during the year, by the conversion of the Prince Albert Sanatorium to a school for the care and training of retarded adults.

The plan for the future is to depart from the monolithic mental hospitals geographically remote from most of the population, and instead to supply a complete psychiatric service in the patient's own region. This objective can best be developed in stages, first through the establishment of a small clinic, then a more adequately staffed clinic, later the addition of inpatient facilities in a psychiatric ward, and finally the provision of a regional psychiatric centre with sufficient beds to serve the area of a health region and sufficient staff to provide all the required outpatient services for the district including, where desirable, home care.

Such steps were taken in 1958, 1959 and 1960 by the opening of full-time mental health clinics at Swift Current, Prince Albert and Yorkton respectively. In the year under review, budget limitations prevented starting a new clinic, but toward the end of the fiscal year preparations were made for opening a small psychiatric ward in Yorkton Union Hospital. This facility will be integrated with the mental health clinic, and will make it possible for a limited number of selected cases to receive inpatient psychiatric treatment in the community rather than go to a distant mental hospital.

In the basement of the new Yorkton Union Hospital, service facilities were completed for the community psychiatric centre which when completed, will provide the facilities for a comprehensive inpatient and outpatient program to meet all the psychiatric needs of the area residents.

### Declining Mental Hospital Populations

The trend toward decreasing patient populations continued with a decline of 94 during the year 1961. The preceding year had seen a rise of 20 patients in the inpatient population of the two mental hospitals, a temporary reversal of a downward trend which had been otherwise consistent since 1954.

At the end of 1950, the total number of patients in public mental hospitals in Canada was 47,994. The corresponding number in the two Saskatchewan mental hospitals was 3,752. At the end of 1960 (the latest Dominion Bureau of Statistics report available) the number of patients in mental hospitals had increased for Canada to 52,694 but had decreased for Saskatchewan to 3,271. This means that while the inpatient load of all mental hospitals in Canada rose by 9.8 per cent, the Saskatchewan hospitals had achieved a decrease of 12.8 per cent.

The decrease in patient population was accomplished in part by the transfer of mentally retarded patients from the Saskatchewan Hospital Weyburn to the new Training School at Moose Jaw, opened in 1955. In addition to 27 such patients transferred in 1955, a further 102 were moved to Moose Jaw in 1956. However, excluding these transfers, the net drop in mental hospital population from 1951 to 1961 was 478, representing a decrease of 12.6 per cent in the population of the two mental hospitals during the decade.

Reference has been made above to the absolute decrease of 12.8 per cent in mental hospital populations in Saskatchewan while the corresponding patient population for the country as a whole increased by 9.8 per cent. When mental hospital patients are considered as a ratio of the general population, a decline is evident for Canada as a whole, but not as great a decline as in Saskatchewan. As reported by the Dominion Bureau of Statistics, mental hospital patients in Canada at the end of 1950 represented 3.5 persons per 1,000 population. By the end of 1960 this figure had dropped to 3.0 per 1,000. Saskatchewan at the end of 1950 had 4.5 per 1,000 population in mental hospitals, and this had dropped by the end of 1960 to 3.6 per 1,000. However, the policy in Saskatchewan has been to admit all mentally ill persons who sought admission, regardless of the hospital bed capacity, while in some provinces waiting lists are maintained and selective admissions made.

It is significant that the decline in the number of mental hospital patients took place in spite of a very substantial increase in the annual admission rate. In 1950, admissions to the two mental hospitals, including readmissions, totalled 905 during the year. In 1961, total admissions reached 1,730 an increase of 91.2 per cent.

During the decade ending December 31, 1961, the number of admissions to the two mental hospitals totalled 13,848. Since 3,784 patients were in the hospitals at the beginning of this period, the number of patients dealt with totalled 17,832. A very considerable number of patients who had previously become chronic continued in the hospitals during this time. The rapid turnover of patients indicates therefore that a majority of the new admissions are remaining in hospital a relatively short time and that many more patients than previously are being returned to the community.

The discharge rate in relation to admissions shows the same trend. In 1950 the discharges from the two hospitals constituted 74.0 per cent of the admissions. In 1961 the discharges were 93.1 per cent of the admissions. This increase of 19 percentage points is seen as highly significant when viewed in relation to the increase of more than 90 per cent in admissions which took place during the same period.



### The Aging Trend in Mental Hospital Patients

The most striking change in the constitution of the patient population has been with regard to age. The trend toward caring for a heavier load of aged patients has shown itself in two ways. The proportion of patients in hospital who are more than 65 years of age has steadily increased. For example, at the end of 1956 the 604 patients over 65 years of age in the Saskatchewan Hospital North Battleford constituted 34.1 per cent of all the patients. By the end of 1961 the number of patients over 65 years had increased to 635, and this number constituted 38.5 per cent of the patient population.

The older group of patients apparently is an exception to the general trend of declining inpatient population. In the five-year period 1956 to 1961 the number of patients of all ages in the Saskatchewan Hospital North Battleford decreased by 6.9 per cent. On the other hand, the number of patients over 65 increased during the same period by 5.1 per cent. Thus the proportion of patients who are over 65 years of age becomes steadily greater.

The second way in which the aging trend affects the mental hospitals is in a steady increase in the number of admissions over 65 years of age. In the five-year period 1952 to 1956, admissions to the two mental hospitals included 1,358 persons over 65 years. In the five years from 1957 to 1961, 1,523 persons in this age group were admitted. This represented an increase of 12.9 per cent in the admissions of elderly persons. In 1961, more than one-third of the first admissions to the Saskatchewan Hospital North Battleford were 65 years of age or older.

The programs of the mental hospitals have had to be adapted to meet the needs of this group. It has meant, for example, an increased number of bedridden persons requiring extensive nursing and medical care, and a heavier demand for social work services since it is relatively more difficult to make arrangements for an aged person to return to the community when his mental condition no longer requires mental hospital care.

### Developments in Treatments

Two major changes in the treatment program of the mental hospitals continued during the year. The increased number of elderly patients has led to an increased amount of physical illness, and staff and facilities have been adapted to meet this need. At the same time the psychiatric programs of the mental hospitals have continued to adapt to the newer forms of therapy and the concepts of mental illness coming into general acceptance.

The discontinuance of psychosurgery seven years ago and of insulin coma therapy three years ago has been followed by a steadily decreasing use of electrotherapy and a corresponding increase in the use of psychotherapeutic drugs. At the same time the mental hospital programs have been adapted to the goals of social therapies by the development of therapeutic milieu, group therapy and a wide range of social, occupational and recreational activities in a group context. This socializing emphasis has also found expression in greater patient freedom, fewer locked doors, more frequent recreational visits to home or friends, more mingling of male and female patients, and more frequent discharges at the request of the patient or his relatives.

The improved hospital milieu together with the use of the new drugs appear to be responsible, at least in part, for a substantial upward trend in the proportion of discharges. The number of discharges for every 100 patients receiving care was almost two and one-half times as great in 1961 as it had been in 1951.

Concurrently with the increased discharge rate, Saskatchewan mental hospitals, in common with those across Canada, have experienced a substantial increase in admission and readmission rates. Some observers see the latter facts as alarming. They see the higher readmission rates as an indication that mental hospitals have developed the ability to bring about a remission of the symptoms which led to the patient's hospitalization, but that the ability has not yet been developed to maintain patients free of symptoms following discharge. These observers see the major problem of mental health services now as that of maintaining patient improvement after discharge.

This has been one of the conclusions of the five-year study of the Committee on Mental Health Services of the Canadian Mental Health Association, and it is one of the major conclusions of the Joint Commission on Mental Illness and Health authorized by the United States Congress, which utilized much of the nation's top mental health brain-power and experience over a five-year period at a cost of \$1,500,000.

The psychiatric program of the province has moved in the direction of regarding "rehabilitation", when it involves treatment, as being a continuation of the earlier treatment phase, and a part of it. As the psychiatric social work departments of each facility have been strengthened, effort has been made to integrate the work of the social workers with that of the psychiatrists, and the service of the mental health clinics with the care given in mental hospitals and psychiatric wards. In this way the patient has the benefit of continuity of professional assistance throughout the course of his illness and his rehabilitation.

### **Changes in Mental Health Legislation**

At the 1961 session of the Saskatchewan Legislature The Mental Hygiene Act was replaced by The Mental Health Act 1961, which came into force on August 1, 1961.

The Mental Health Act, although a revision of the previous Mental Hygiene Act, incorporates a number of new principles. Most of these have not been enacted elsewhere on this continent but the British Mental Health Act of 1959 contains a number of similar provisions. The changes in the British legislation were the result of several years of study by a Royal Commission on Mental Illness and Mental Deficiency.

The Saskatchewan Mental Health Act is based on the philosophy that the majority of the mentally ill and mentally retarded can be provided with care and treatment on the same basis as the physically ill. The legislative changes are designed to remove as much as possible the difference between the provisions for the psychiatrically ill and those for the physically ill in relation to admission, detention and discharge. The Act is an effort to give legislative support to the more advanced attitudes of the public and of professional persons, toward the mentally disordered.

The new provisions make admission to psychiatric facilities easier through the same informal procedures as apply with general hospitals. The individual or his nearest relative may have admission arranged through a practising physician without certificates or other formalities.

Detention of a mentally disordered person is provided for only in those individual cases where the patient requires protection or may be a danger to others. Provision for admission by medical certificate is retained in the new Act, but certificates need only be used when protection is involved. Certificates are valid only for 14 days, and if the hospital doctor finds that the patient should remain longer, he is required to issue a further certificate setting out reasons for detaining the patient. Such certificates must be renewed at stated intervals, and if examination reveals that a new renewal certificate is not warranted, the patient may not be further detained. The purpose of these provisions is to ensure that no person is held in an institution longer than his condition requires.

A patient admitted through the informal procedure may be discharged at his own request, or the request of his nearest relative, if applicable, unless it is felt that his discharge would result in harm to himself or others, in which case the medical officer in charge must issue a renewal certificate covering a further 14 days.

Another important change concerns the management of the patient's financial or business affairs. Under the previous legislation the fact of his admission made him incompetent to manage his affairs and where necessary they were taken over by the Administrator of Estates. The new Mental Health Act separates the question of the patient's competence to manage his affairs from the fact of his admission to inpatient psychiatric accommodation. Each patient is examined to determine whether he is competent to manage his affairs and only if he is found to be incompetent, and a certificate to that effect written by the medical officer in charge, are his affairs taken over by the Administrator of Estates.

Greater protection than previously is afforded to the civil rights of the patient. He and his nearest relative must be notified each time a certificate of his incompetence or for his detention is written and at the same time informed of the appeal procedures open to them. Appeals are heard by a board of citizens independent of the facility in which the patient is receiving treatment. Each review panel consists of three persons, one of whom must be a physician and one a solicitor.

The former Act contained separate provisions respecting admission to and discharge from institutions, psychiatric wards and mental health clinics. In the new Act, the expression "facility" includes all of these categories as well as psychiatric centres such as the one being constructed at Yorkton. Regulations have been proclaimed under the Act to specify the classes of patients who can be admitted to each type of facility.

The Mental Hygiene Act contained separate provisions for the mentally ill and the mentally retarded as well as recognizing categories such as addicts, epileptics and psychopaths. In the Act, the expression "mental disorder" includes these five categories and a new category "psychoneurosis". All of the provisions of the new Act now apply to mentally disordered persons in any of these categories. An important change was the definite inclusion of psychopaths within the provisions of the Act. The inclusion of psychoneurosis within the broad definition of mental disorder is also felt to be a desirable step. This will permit persons with milder manifestations of mental disorder to be treated in these facilities, presumably on an informal admission.

It was expected that some further changes in the legislation would be desirable after a reasonable trial period. In general the new provisions appear to be well accepted and to function efficiently. It seems likely that as physicians and the public become more familiar with the new

procedures, a larger proportion of patients will come for treatment informally. During the first four months in 1962, one-third of the admissions to mental hospitals were informal and almost all admissions to the Saskatchewan training schools were informal. At April 30, 1962, nine months after the new Act came into effect, 70 per cent of the patients in the four institutions were on informal status.

### **Staff**

No psychiatric program is any better than its staff. In some respects, the staffing of the branch was strong during the year. In other areas, it is very difficult to maintain quality and quantity of service. The deficiencies are in some cases due to an unrealistically small personnel establishment and in some cases to difficulties in recruiting qualified people.

The psychiatric nurses continue to form the hard core of the treatment program; there are a higher proportion of graduates and the new students were of an exceptionally high calibre. Extension of in-service nursing education and provision of bursaries for postgraduate work at university schools of nursing are keeping senior nurses abreast of modern nursing and administrative theories. As a result of an aggressive recruiting and training program, it was possible to increase the number of social workers, and more than half of those employed were fully trained. There are still not enough but the situation is improving.

The most serious staffing problem is the shortage of qualified psychiatrists. The number of certified specialists continues to drop. It is hoped that the new salary ranges announced late in the year will to some extent offset this trend. Psychiatrists do appear to be attracted by the community programs but it is difficult to retain them in the mental hospitals when their training is completed.

## **MENTAL HOSPITAL SERVICES**

### **Saskatchewan Hospital North Battleford**

Throughout 1961 the average daily patient population continued to drop slightly as it has done every year since 1955 (from 1,902 in 1954 to 1,693 in 1961). This decline was realized in spite of the highest annual admission rate in the history of the hospital (849).

The transition from the provisions of The Mental Hygiene Act (1953) to those of The Mental Health Act (1961) caused a considerable increase in the work load but a minimum of disruption. One result is that 75 per cent of the patients are now on an informal basis whereas a year ago the great majority had the status of certified patients.

#### *Treatment Program*

Psychopharmaceutical drugs continue to replace treatments common over the past decade. Psychosurgery was abandoned in 1955, insulin coma therapy in 1959, and the number receiving electric treatment is less than half what it was in 1958. The monthly average of patients on psychopharmaceutical drugs rose from 400 in 1958 to 682 in 1961.

Complementing the pharmaceutical increase is a continued emphasis on "milieu therapy", where attempt is made with the staff available to enhance the abilities of the patients to function more effectively in the social sphere. This is done primarily through group therapy and a varied

program of activities. The volunteer visiting program of the Canadian Mental Health Association has been consolidated and expanded. Shellbrook and Lloydminster have added their numbers to Saskatoon, Prince Albert and North Battleford. Plans are being made for further development with the ultimate aim of each hospital ward being visited at least monthly. An "adoption of wards" program is under consideration in this respect.

The decline in patient population should not be a cause for optimism. There are other opposing trends and their effect is gaining momentum. More than one-third of first admissions in 1961 were 65 years of age and over. The long stay group are aging. The hospital facilities are also getting older and the readaptation of buildings and physical facilities is becoming a severe problem. This group of patients requires more direct assistance from nurses for basic care. The need for general medicine and particular psychogeriatric medicine is increasing quickly. Concurrently, the supportive hospital industries are affected adversely. For instance, a higher proportion of aging patients means greater demands on the laundry, and there are fewer young patients able to work in the laundry and remain in hospital long enough to make this occupation reasonable. One farming area has already been reduced for this reason. Mechanization is a partial answer.

Efforts are being made to provide for increased patient freedom in keeping with the spirit of the new Mental Health Act. This is being done through a gradual desegregation of the sexes in some areas, increased "ground privileges", more open wards, and more frequent absences from the hospital for visiting purposes. Also, all patients are now assessed as to their ability to manage their own affairs and as a result many who would have lost this right prior to the passage in the new Act have now retained it. This is important for the morale of the patient and therefore important therapeutically also.

The approved home (boarding out) program served 38 patients at the end of the year, a number which could be increased quickly to the advantage of hospital and patients were more funds available for this purpose and if the social work staff were increased.

The hospital staff continues to work co-operatively with the mental health clinics and other resources, trying to provide a service available in the patient's own community, giving early diagnosis and treatment, to prevent alienation. Clinics in the northern part of the province are still too few to provide more than partial coverage.

The trend has been for experienced psychiatric specialists to leave and be replaced by physicians with only recently completed residency training in psychiatry. Many of the best qualified psychiatrists go to universities to teach undergraduate medical students who, however, do not enter the field of psychiatry. Only a tiny percentage of the new psychiatrists placed at the hospital in the past decade were Canadians. One wonders what will happen when the current supply of foreign medical graduates with an interest in psychiatry ceases.

The training course for psychiatric nurses graduated 26 students in 1961. At December 31, there were 89 students enrolled in the course. More nursing instructors are needed to insure that the theory imparted to the students is made meaningful on the wards.

There has been a general improvement in nursing care which accounts to a large extent for the fact the hospital population has been declining in spite of greatly increased admissions. Senior nurses now receive courses in ward administration and the implementation of a program providing for assistant ward supervisors has had a desirable effect.

It is difficult to maintain a full establishment of social workers because when these are trained they take supervisory positions in the community services. The social work establishment should be tripled as soon as possible, in order to retain a sufficient number for hospital work, while still providing a training situation for others who will contribute to the program in different ways. The two psychology positions are filled by well qualified people. The adjunctive therapy department, which includes occupational therapy, music therapy, recreational therapy and other special approaches, is providing most valuable services but additional personnel are urgently required.

Two bowling alleys were purchased through the patients' comfort fund and installed by the hospital's maintenance staff. This was an important addition to the hospital's recreational program as it provides patients with a type of activity popular with the outside community.

The program for microfilming the inactive medical records is progressing very well. It is a very slow and time consuming task but is a great space saver when completed.

#### *Facilities*

The Saskatchewan Hospital North Battleford is almost half a century old. Patient occupancy has exceeded the rated bed capacity (at present 1,120) for the past 44 years. Visiting groups, particularly students from the University of Saskatchewan, express astonishment at the success of the treatment program "under such conditions".

The buildings differ in degree of structural soundness. Many major alterations are required in order to bring about desirable changes in design and facilities. A new dietary area has been required for 15 years. Improvement, repair and readaptation cannot maintain it much longer.

There is no standby electrical service at the psychogeriatric unit. There is a grave danger of this unit being left without light, heat and water pumps for too long, particularly if there were a breakdown during the winter months.

Major repairs to hospital buildings are the only alternative to condemning many. The road around the psychogeriatric unit should be hard-surfaced and other roads on the grounds require maintenance. There is insufficient lighting on the grounds.

Innumerable minor and major maintenance repairs were made in wards, shops, dwellings, buildings and other facilities by the hospital's tradesmen. One of the most ambitious was the modification of the laundry building roof to allow heat escape during hot weather.

The new and modern filtration plant was turned over to the city of North Battleford from which the hospital now purchases its water at greater cost. The Department of Public Works had new wells dug for the water supply to the psychogeriatric unit.

In the farm and gardens area, the dairy herd has been freed from Bang's disease, has continued its high milk production to supply all the hospital's dietary needs, and is now maintained, to a large extent, by artificial insemination. A new barn cleaning and a new milking system have been installed to further replace patient labor by mechanized power.

The hog and poultry division of the farming operation is being discontinued and the products formerly supplied will be purchased. This step was determined by the dwindling patient labor force and the need to reassign it to more essential or otherwise profitable industries.

The field, garden and forage crops suffered some because of the seasonal drought but the situation would have been much worse without the available sprinkling and irrigation system.

### Saskatchewan Hospital Weyburn

A total of 852 people entered the Saskatchewan Hospital Weyburn in 1961. Separations totalled 948, reducing the number on the register over the year from 1,657 to 1,561. The decline in the number of patients actually in hospital was from 1,574 to 1,527. This figure does not, however reflect such a marked downward trend as might appear without closer analysis. The figure 1,574 for December 31, 1960 compares unfavourably with the 1,544 in hospital at December 31, 1959.

#### *The Program*

The treatment program has been structured to try and make best use of available facilities in terms of both personnel and equipment. The patient population is divided between those suffering primarily from physical illnesses and those suffering from psychiatric illnesses. The psychiatric service within the hospital has three major subdivisions. The admission ward is a mixed male and female unit of 27 beds. Patients spend from three to fourteen days for purposes of examination, diagnosis and treatment planning. Offices are available in this area for the professional staff, stenographers and visitors. The atmosphere is a very restful one and all patients remain in pyjamas and housecoats. Patients who are expected to be in the hospital for less than 60 days are transferred to one of two short-term treatment wards where psychiatrists are again readily available. Patients who are expected to remain in hospital for more than 60 days are sent to a ward where much of the responsibility for treatment rests on the nursing staff with advice available from a consultant psychiatrist who also treats patients as required.

The psychological, adjunctive therapy and social work services are available to work in conjunction with, or provide services for the psychiatric staff. The nurses are assisted by volunteer visitors, by the recreational and ward activities staff and by a selected group of clinical nursing consultants.

The physical side of the hospital is headed by an internist who has four physicians responsible to him and adequate supporting services such as pathological laboratory, x-ray department, operating room, two hospital wards, tuberculosis annex, two "bedridden" wards, three geriatric wards and an outpatient service for all other wards. Psychiatrists are available as consultants to any member of the care and treatment teams on these wards. Outside consultants give specialist advice as required.

A total of 222 volunteers from the community provided 3,123 hours of service to the hospital during the year. Over 400 gifts were received from the Christmas gift appeal of the Mental Health Association. Family Day (open house) was a tremendous success with over 1,200 relatives attending.

#### *Staff*

The strength and weakness of the staffing situation were demonstrated quite clearly during the year. It was difficult to recruit clinical specialists. For instance, it was not possible to maintain an adequate number of fully qualified and experienced psychiatrists; the superintendent since 1952, Dr. H. Osmond left during the year; there were vacancies in the special therapies (occupational, recreational, music) and in social work. Many social workers have received their start in social work at the Saskatchewan Hospital Weyburn, but are absorbed rapidly into the community services as soon as their training is complete, and many depart for better paying positions elsewhere. The numbers left to administer the social work program, and the training program for younger social workers, are chronically inadequate.

Recruiting in all other positions has been good. The average number of unfilled positions during the year was 11, a very small proportion in an establishment of 640 employees. The turnover in graduate nursing staff was 22 per cent as compared to the 1960 figure of 38 per cent. The relative stability of the nursing staff, together with the organizational changes which have been made in recent years, seems to have played a most important role in maintaining therapeutic efficiency, despite difficulties in staffing other key posts and despite the difficulties of working within a very tight budget.

### *Facilities*

A tragic fire occurred on the male infirmary ward October 3. Six very ill and elderly patients died with the effects of smoke being the major contributory factor. A public inquiry was held under the chairmanship of the Honourable Harold F. Thomson. The conclusion reached was that the fire had been started by a patient. A number of recommendations have been made to prevent future occurrence. These have been carried out.

Four complete wards, six cottages and numerous individual rooms and hallways were repainted. Exterior windows in the administration block were reputted and repainted. Two more wards were equipped with fluorescent lights. Emergency hookup for high voltage power was installed and tied into the transformer room in case of failure of tunnel service. A folder, hydraulic extractor, gas tumbler and dryer, conveyor loader and a three-piece uniform press were installed in the laundry. The pasteurizing room was completely renovated and a new can washer installed. A new gas pump and storage tank was installed at the store building. Six full size windows were installed on one ward. A new sidewalk was laid to the nurses residence. Approximately 5,000 square feet of floor tile was laid. One ward was completely renovated. Additional wash basins and toilet facilities were added to a number of wards and a number of ventilation fans were installed. A new boiler was installed in the power house and the Saskatchewan Power Corporation installed a new switchboard which will make possible a more balanced load.

### *Water Report*

Water processing in the filtration plant during 1961 was the highest recorded since the plant was placed in service in 1949. This was due to the low level of precipitation. The water level in the dam was low. However, there were no algae problems during the year. A new line from the settling tank at the filtration plant to the city storm sewer was installed to allow back wash to flow through the storm sewer to the river bed.

### *The Farm*

The field crops were poor due to drought and grasshoppers. Fortunately, there was a good carry-over of feed from 1960. Production of milk increased by one per cent. There was a 44 per cent increase in pork production.

Saskatchewan Hospital North Battleford and other mental hospitals are decreasing or discontinuing farm operations.

Considerable work was done on the hospital grounds. Many dead trees were removed and the undergrowth cleaned so that weeding and cultivating could be carried out. A new drive approach was cleared to the front entrance of the nursing residence and 174 yards of gravel were used in maintaining the roads and drives in the grounds. The cemetery was cleared of weeds several times during the summer. Many lawns were replanted. They had suffered from renovation work in recent years and from drought.



## SERVICES TO THE RETARDED

### **Saskatchewan Training School, Moose Jaw**

The year 1961 saw the biggest change in the provincial program for the retarded which has occurred since the training school opened in 1955—the opening of the Saskatchewan Training School, Prince Albert for a homogeneous group of retarded adults, ambulatory and in the range of intelligence which permits types of training other than academic. This left the Saskatchewan Training School, Moose Jaw responsible for three groups of patients.

1. the educable retarded, for whom there is now much more room than there was in the past
2. the severely retarded who require a great deal of nursing care
3. all new admissions

The accommodation left vacant by the transfer of 310 patients to Prince Albert is not suitable for the very severely retarded, infants, or any other patients requiring infirmary type care. However, it was suitable for patients in the middle and higher grades and the number of persons in these groups on the waiting list was very greatly decreased. The need remains for additional accommodation suitable for the many acutely urgent infirm cases on the waiting list.

### *The Program*

The number of educable children now in the training school is greatly increased over past years. It is the responsibility of the training school to provide the education and other forms of training required by this group. However, the staff and school facilities are inadequate for the purpose despite every possible emergency measure which has been taken, in order to meet what borders upon a crisis situation. It is the expectation of the populace that such education and training be provided and these expectations must be realized.

The program for temporarily admitting patients, especially during the summer months, was reduced in 1961 because of the preparations necessary to transfer patients to Prince Albert and the heavy work load involved in admitting replacements. However, this service will again be available in 1962. It permits parents to have a much needed rest and provides an opportunity for the professional staff at the training school to assess the patient and make recommendations which may be helpful to the family and community at large.

Seminars for parents of the retarded continue, and courses have been organized for public health nurses. Many of the health regions have availed themselves of this service and more courses have been arranged. The medical student groups have attended lectures and demonstrations. The time allocated for these has been increased at their request.

The foster-home plan has continued, and could have been increased but for the lack of funds. The social work department has completed its survey of the waiting lists except for one small area of the province. This service has been of great assistance to the institution and has also allowed supportive casework to be done.

Industrial projects have continued but contracts have been hard to find. Many of these most suited to this type of activity were transferred to Prince Albert.

The auxiliary to the training school continues to give very active support to the school program. They organize birthday parties, Sunday School, letter writing and resident visiting. They have funds accumulated for playground equipment.

Psychological research continues and reports have been published.

### *Staff*

The staff has been remarkably stable. The main turnover was the result of some senior nurses transferring to the new training school in Prince Albert. There is a most urgent need for another two teachers, a social worker, an adjunctive therapist and a placement officer who would concern himself solely with the rehabilitation of patients in the community. More nurses are also required and an attempt will be made to make more use of volunteer services from the community as an interim step.

The quality of applicants for student nursing positions has been excellent. The proportion of students to graduate nurses remains much too heavily balanced in favour of the former, who have to be away from the wards to a considerable extent attending lectures.

### *Maintenance*

The maintenance staff has had a busy year on regular maintenance to improve the comfort and usefulness of the buildings. Many areas received attention this year, but there is still much more to be done.

Heating alterations were made to two ward cottages. Two cottages were repaired and painted throughout. The transfer of residents to Prince Albert made it possible to close down these wards for complete renovation before the new admissions arrived.

Ventilation improvements have been effected to the tunnels, kitchen and dining room areas and as well to the sewage lift. Service rooms, sewer lift and refrigerator rooms were painted. Some fencing was erected and a new mattress sterilizer was installed. Furniture and many articles for the wards were made.

Under the Department of Public Works alterations and expansion of the fire alarm system were undertaken, including the installation of a general alarm, not as yet installed. An outside stairwell from the hospital ward has been started, and is expected to be completed soon.

The drought conditions of the past summer reduced the productivity of the gardens. In spite of these conditions, some progress was made in the landscaping of the grounds. However, this is much too slow and must remain so until proper watering facilities have been installed. The picnic areas were improved and were appreciated and well used by the residents during the heat of the summer months.

### **Saskatchewan Training School, Prince Albert**

The Saskatchewan Training School, Prince Albert opened on July 4, 1961. The school population at that date consisted of 309 retarded adults within the 20-50 I.Q. range. Of this total, 189 were male and 120 were female. During the year, one male was discharged and three males and one female were transferred to Moose Jaw.

### *Training Program*

The main purpose of the training school program at Prince Albert is to provide a sheltered community for the residents. The residents are referred to as Trainees. This title is significant insofar as it reflects the basic approach to programs. Part of the program provides training in work habits and simple skills in production which may be of use to the residents, even though they will never be able to lead an independent existence in the community. Of equal importance is socialization of individuals. Nursing staff have organized group programs that support the production program and provide experience in interpersonal adjustment. The occupational therapy area was industrially oriented throughout the year. In keeping with this industrial approach, snow fence, clothes horses, furniture and novelties were produced and sold locally. Contracts for sorting out nails and remodelling school desks were obtained.

A socialization program was developed by nursing staff and complemented the industrial program. In this area, programs were developed for the Trainees who could not participate in the industrial area. This meant that nurses' aides developed many kinds of group activities. A variety of music, painting, hobbycraft and work groups were formed. The purpose of these groups varied from simple activity groups to carefully structured groups aimed at changing behaviour patterns.

In-service training projects were required before and during the introduction of the industrial and socialization programs. The occupational therapy assistants were given regular weekly lectures by the social worker. The nurses' aides were instructed by the assistant head nurses on the floors. In April, the total staff was given a week's training. General duty personnel, technicians and others were included in this spring training program. It was felt this was important because these people worked with groups of Trainees in their own areas.

The opportunities to return to the community on a permanent or temporary basis was also given whenever possible. To this end, ten foster home placements were made during the year. These short-term placements were planned both as trial placements and holidays combined, with the object of breaking up patterns of institutionalization in individuals. Fifteen males and two females went out to work in the community on short-term leave. A few went out to work on short daytime jobs, returning in the evening to the training school.

During the year, many visitors from northern Saskatchewan visited their relatives in the training school. Visitors were encouraged to take Trainees out for short visits and to renew personal correspondence if it had been neglected. Personal correspondence for the Trainees was the responsibility of the nursing staff, except where definite problems existed. This helped many of the Trainees settle down despite considerable nostalgia for Moose Jaw.

### *School Events*

An opening night was held in the autumn and members of the Saskatchewan Retarded Children's Association were invited to dinner in the school. The Canadian Mental Health Association members visited the school at the time of their annual convention. Senior staff members from the school participated in the Saskatchewan Retarded Children's Association provincial convention which was held in Prince Albert in February.

At this time, the school was fortunate in receiving a visit from Dr. Edgar Doll who is a well-known authority on retardation in the United States. Dr. Doll addressed the senior staff at the training school and many new ideas were tried out because of his visit.

### *Staff*

Almost the full quota of staff was maintained throughout the year. There were very few resignations and when vacancies occurred, there was always a large number of applicants. There is a need for a greater number of staff as the program expands.

### *Facilities*

Buildings of the training school consist of the former sanatorium buildings, which are in good shape despite their age but are in need of extensive plumbing and wiring renovations. During the year a new fire alarm system was installed and several safety projects were carried out at the suggestion of the local fire chief. The need for increased water pressure became a problem when the city removed the local water tower. The Department of Public Works is planning to install a pneumatic system in the near future.

The buildings provided satisfactory living quarters for the Trainees. It is desirable that the verandas be winterized on each floor to create space for winter activities. Training shops and a recreation hall apart from the main buildings are also desirable. In general, however, the buildings and the surrounding forest provide a stimulating environment for the retarded and make possible a fairly varied program.

## PSYCHIATRIC WARDS IN GENERAL HOSPITALS

The three psychiatric wards in general hospitals in Saskatchewan in 1961 were the Munroe Wing of the Regina General Hospital, the Psychiatric Ward, Union Hospital, Moose Jaw and the Psychiatric Ward, University Hospital, Saskatoon. These wards admitted 1,424 patients during the year and of these 753 were receiving treatment for the first time in such a facility. Nearly one-half of the admissions were people suffering from psychoses. The remainder were suffering from what are ordinarily considered less severe disorders but which may be on occasion equally incapacitating.

All three psychiatric wards are closely integrated with outpatient departments, and staff are shared. This greatly facilitates the screening of admissions and the follow-up treatment of people discharged from inpatient care. Statistics available only from the psychiatric ward, Moose Jaw indicate that psychotic patients do not compose an undue proportion of the patients readmitted. That is, the patient diagnosed as psychotic upon admission is only slightly more likely to be readmitted later than someone diagnosed as psychoneurotic, character disorder and other groups.

**Munroe Wing, Regina General Hospital**

The Munroe Wing operates on the authority of The Mental Health Act, and by reason of an agreement between the Department of Public Health and the Board of Governors of the Regina General Hospital. It is a 32-year-old, open door, psychiatric unit of 35 beds. The number of day patients treated at any given time is limited by the available dining area.

The Munroe Wing provides short-term treatment for all types of informal psychiatric patients. The average length of stay in 1961 was 26.6 days, as against 28.7 in 1960. Treatment includes physical methods, psychotherapy and social interactions. Social workers are available for work with relatives and dealing with situations in the community.

The total number of admissions was 405, which is 52 more than in the previous year. Only 20 patients were transferred to Saskatchewan Hospital Weyburn. The number of day patients was 37 for the year, with a total of 632 days, with the average length of stay per patient 17.08 days. Day treatments have a very definite place in a psychiatric program but they do pose two special problems. Firstly, space has to be available and it is insufficient at present. Secondly, it is important to have a high quality of psychiatric and nursing care to see that patients are properly able to return to their homes in the late afternoon.

The Canadian Mental Health Association continued to send volunteers to the Munroe Wing to put on special programs and lead some evening activities.

The quota of qualified nursing staff was maintained throughout the year. There was a fully qualified psychologist. However, of the six psychiatrists available to the Munroe Wing and Mental Health Clinic only two were certified specialists. This ratio should be reversed. None of the three social workers was fully qualified. One hundred and twenty nursing students completed three-month affiliation courses in psychiatry at the Munroe Wing. These students received training by agreement between the Department of Public Health and the following schools of nursing: Regina General Hospital, Grey Nuns' Hospital (Regina), Holy Family Hospital (Prince Albert), St. Elizabeth's Hospital (Humboldt), St. Paul's Hospital and City Hospital (both Saskatoon).

**Psychiatric Ward, Union Hospital, Moose Jaw**

On July 1, 1956, by order of the Lieutenant Governor in Council, the third floor (south) of the Memorial Wing of the Union Hospital was declared a psychopathic ward for the purposes of The Mental Hygiene Act. The ward's function is to provide facilities for the observation, diagnosis and treatment of all classes of mental illness. The functions and operations of the Mental Health Clinic are closely integrated with those of the psychiatric ward, thus providing treatment and after-care of patients where necessary. This integrated program is designed for the treatment and maintenance of patients within their own community to prevent prolonged hospitalization and chronicity. In the five-year operation of this department, from August 1, 1956 to July 31, 1961, there have been 1,220 admissions and it was necessary only to transfer 80 patients (6.5 per cent) to a mental hospital.

During the year 1961 there were 339 admissions, an increase of 15.9 per cent over the previous year. The average daily census was 19.77 and the length of stay 20.33 days. A total of 17 patients were transferred to mental institutions in 1961. The percentage of patients who were 55 years

and over accounted for 23.53 per cent of the total admissions, a drop of 4.54 per cent over the previous year. There has been a significant increase in the 15-34 age group admissions, the increase being 10.9 per cent in this age group.

Two of the four psychiatrists available to the clinic and ward were certified specialists. The other two were residents in training. There was no psychologist and no social work supervisor until January 1962. The other social work position was filled by someone without formal qualifications. The nursing and occupational therapy departments were well staffed. Seventy-four nursing students from three general hospitals received training in psychiatric nursing. Visiting clergy, members of Alcoholics Anonymous and other related agencies contributed to both the training and treatment facilities. The in-service educational program for graduate nurses was continued. Milieu therapy as applied through nursing teams, group therapy, occupational, recreational and educational groups, art therapy and psychodrama plays a major role in the therapeutic program. Established psychotherapeutic and physical methods of treatment form the backbone of therapy. Patients were kept in contact with their homes, families, and affairs while under treatment. The day-patient concept has been particularly successful in the maintenance of chronic patients in the community.

The "open door" philosophy has been maintained and patients whose condition is considered satisfactory were allowed to visit home, shop and attend service. In the research area the evaluation of lysergic acid treatment in alcoholics was continued and the results of this study will be published in the near future.

The emphasis in the past and in the coming year will be the maintenance and treatment of patients in their community as long as possible, with hospitalization being considered just a stage in the illness. Community resources are being utilized for the rehabilitation of the patient. The excellent integration of psychiatry with other medical specialities has facilitated this approach. In the coming year, it is expected that our occupational therapy department will be utilized more in the rehabilitation of the chronically ill patient from the other wards of the hospital. The home care program for the aged will be put into effect in the coming year by the medical practitioners of Moose Jaw with the department acting as consultant. Research into psychotherapeutic methods and lysergic acid treatment will be continued.

#### **Department of Psychiatry, University Hospital, Saskatoon**

This psychiatric ward is not under the jurisdiction of the Saskatchewan Department of Public Health. However, the following brief description of its operations in 1961 will give the total picture on the contribution to the psychiatric program of psychiatric wards in general hospitals. The Saskatchewan Department of Public Health does contribute financially to the operation of this ward and the outpatient clinic.

Admissions during 1961 totalled 680. Three hundred and thirty-seven of these were first admissions and 343 were people who had been admitted on a previous occasion. A large number, 129, were transferred to the Saskatchewan Hospital North Battleford, 332 or approximately half of the patients admitted were suffering from psychoses. The remainder were suffering from psychoneurotic and other problems.

## MENTAL HEALTH CLINICS

During 1961 there were full-time outpatient clinics in Saskatoon, Regina, Moose Jaw, Swift Current, Prince Albert and Yorkton. Their role, realized insofar as staff establishments permit, are to (1) provide a consultation and treatment service to patients referred by physicians and various welfare agencies; (2) screen candidates considered for admission to a psychiatric ward, mental hospital or training school; (3) provide a follow-up service for patients from the community who have been treated in an inpatient facility; (4) engage in public education programs. Expressed otherwise, the objectives are to provide outpatient preventive, diagnostic, treatment and rehabilitative services at public expense in the patient's own community.

Once weekly, part-time clinics were held throughout the year in Weyburn and North Battleford and were staffed from the mental hospitals. The Estevan Clinic, staffed from Weyburn, was held at least twice monthly and the facilities were used by the social workers for follow-up purposes. Bi-monthly clinics staffed from Yorkton were established in Melville, Kamsack and Canora. Regular monthly clinics were carried out from North Battleford, in Biggar, Rosetown, and Kindersley; from Swift Current, in Maple Creek and Shaunavon; from Moose Jaw, in Davidson and Assiniboia; and from Regina, in Wolseley and Grenfell. Consultations from the Regina Mental Health Clinic were also made available to the Indian Hospital and Fort San, Fort Qu'Appelle. Unfortunately, it was necessary because of the limited staff establishment in Prince Albert (one psychiatrist, one social worker) to suspend the part-time clinics in Nipawin, Tisdale and Melfort. The clinic in Leader was suspended because there were few referrals from that area.

Table 28 illustrates vividly the increased utilization of clinics, and the increased services provided, in the past few years. The total number of patients seen in 1958 was 2,715, in 1961 it was 5,656. Of these, the full-time clinics saw 4,815 and the part-time clinics saw 841.

Expansion is necessary on three planes. Firstly, all clinics should have additional psychiatrists and social workers. Demands for services have made it necessary to limit treatment to "first aid" in many cases. Speech therapy services should be extended to Yorkton, Prince Albert, Moose Jaw and Swift Current. Secondly, more full-time clinics should be established in areas where present services are inadequate. Thirdly, these outpatient services should be integrated with services for inpatient care under the "regional psychiatric centre" plan.

### **MacNeill Clinic, Saskatoon**

This clinic is staffed by the director, a psychiatrist, a resident psychiatrist, a full-time social worker and a part-time social worker, a psychologist, a speech therapist, a nurse qualified in the use of many crafts commonly found in occupational therapy departments, and one reading therapist for whom assistance is provided throughout most of the year. This clinic has a long history of emphasizing the prevention, diagnosis and treatment of emotionally disturbed children and works closely with the school system, and with special agencies providing help to special groups of children. The presence of the reading therapist and speech therapist make possible a much more complete service to the younger people of the community than is possible at other clinics.

The staff of the clinic has for some years now been battling with a problem for which there is only one constructive answer—more staff. The problem grows worse as the number of referrals to the clinic continues to rise. In 1959, 721 different patients were seen. In 1961 the figure was 884. An attempt was made through waiting list procedures to maintain treatment at the level of quality established in the past, but it proved impractical because psychiatric treatment should be instituted promptly when there is a crisis in a home or school, and preferably before. The approach now is to cut the number of treatment hours per patient, making use of home therapy programs and the like. Whereas it is desirable for a patient to be assessed by consultation between the major professional disciplines, the practice has recently been established in some cases of some specialties working without consultation from the others.

The speech therapist made regular visits to the Prince Albert Mental Health Clinic and Saskatchewan Training School, Moose Jaw to provide much needed assistance in those areas. Both require the services of full-time speech therapists.

The main source of referrals during 1961 was the local medical practitioner. However, these were very often made after consultation between any or all of teachers, welfare agencies, nurses and others. Child patients outnumbered adults on a ratio of about 7 to 4. There were 531 who had not attended the clinic before as against 357 who had.

### **Regina Mental Health Clinic**

The Regina Mental Health Clinic is operated under authority of The Mental Health Act. It provides diagnostic, consultant and therapeutic outpatient service to the city of Regina and the southern part of the province, and serves to screen candidates for admission to Munroe Wing and provides some follow-up of patients discharged from the Saskatchewan Hospital Weyburn.

Consultations and patient evaluations were provided during the year to the Department of Social Welfare, Family Service Bureau, Catholic Welfare Society, regional health officers, Regina school psychologists, Embury House, Saskatchewan Boys' School, Dales House, city police and Regina jail. Periodic clinics were held at Fort Qu'Appelle Indian Hospital and Fort San, Grenfell and the Wolseley Geriatric Centre. In the hospital and geriatric settings the emphasis was on helping the nursing staff to deal with behavioural emergencies of patients. Seminars were provided on a monthly basis for educational psychologists of the province, lectures were given to some Department of Social Welfare employees, to nurses in both Regina hospitals and to magistrates.

During the year, 507 new patients were seen at the Regina Mental Health Clinic, as well as 250 seen in previous years. This constitutes an increase of nine patients over the previous year, despite the fact that there was no speech therapist for most of the time. The number of children dropped from 416 in 1960 to 204. The principal reason was the absence of a speech therapist, but it also appears that social agencies in the city are now better able to manage their cases without outside help. It has been difficult to implement an adequate play therapy program because no space is available. However, considerable behavioural therapy has been carried out by the clinic psychologist.



### **Moose Jaw Mental Health Clinic**

The clinic provides consultative, therapeutic and preventive services on an outpatient basis to the residents of Moose Jaw and district. Its operations are closely integrated with the functions of the psychiatric ward and the clinic acts as an admission, discharge and follow-up unit. The same professional staff serves both units facilitating better communication and continuity of treatment. For a five-year period from August 1, 1956 to July 31, 1961, a total of 3,194 patients were seen at the clinic and 16,953 interviews carried out.

For the year 1961, a total of 838 were referred, an increase of 11.2 per cent over the preceding year. There has been a steady increase both in the number of new cases and in the number of former cases referred for treatment. Patients are referred through the family physician, from the Department of Social Welfare and Rehabilitation, local clergy and the magistrate's court. Close supervision and support was provided to the aged, and the more chronic patients in the community through a home visiting program conducted by the social workers. Elderly patients in local hospitals, homes for the aged, and nursing homes received psychiatric consultation and treatment at regular intervals. Clinic staff have continued to supervise the Occupational Therapy Department at St. Anthony's Home. Casework is carried on at St. Anthony's Home by the social worker attached to the clinic. During the year, the medical staff acted as consultants to the Saskatchewan Training School.

Part-time clinics at Assiniboia and Davidson are conducted by the staff of the Moose Jaw Clinic on a monthly basis. These clinics provide both diagnostic and treatment services to these areas. In the field of public relations and education, members of the clinic staff have lectured to various service clubs and home and school associations, and have taken an active part in the District Medical Society proceedings. A psychiatric seminar for general practitioners was held during the year. With the aid of the District Medical Society a child guidance clinic was set up. Teachers from the various schools co-operated most willingly. A total of 97 children received help and it is hoped to expand these services in the coming year.

### **Swift Current Mental Health Clinic**

The clinic, which serves an area roughly equal to the Swift Current Health Region, saw a total of 363 patients in 1961, of whom 208 attended the clinic for the first time. The staff consisted of the director (a psychiatrist) one social worker and a part-time psychologist.

The director reports that the general practitioners are showing increasing sophistication in the diagnosis and treatment of people suffering from emotional disturbances or psychotic illnesses. They are aided in this respect by drugs now available which are very useful particularly where depressive conditions and anxiety states are concerned. Meanwhile, the clinic continues to see a large number of patients who have been maintained in the community for many years through the efforts of community agencies, and in particular the clinic. The clinic is consulted in almost all cases before any patient is referred to an inpatient facility.

### Prince Albert Mental Health Clinic

This clinic, with an establishment for only one psychiatrist, one psychologist and one social worker provides the only psychiatric service in the northeast of the province. The departure of the psychologist for further training midway through the year, together with increased referrals from Prince Albert and the trading area around the city, made it necessary to discontinue the part-time clinics in Melfort, Tisdale and Nipawin. Patients from those districts who can do so now attend the Prince Albert clinic. The psychologist had had a caseload made up largely of children and attempts were made to integrate these into the caseloads of the psychiatric director and the social work. Follow-up work and home assessments had to be curtailed.

A total of 570 different people were provided with services. Of these, 432 attended the clinic for the first time in 1961. Many of the remaining 138 are people who have attended the clinic for a considerable time, and are being kept out of hospital only by constant attention from many community recourses co-ordinated by the clinic.

There is a notable increase in the demand for services from the courts. A crime is often one of the first detectable symptoms of mental illness and the awareness of this on the part of magistrates, lawyers and police, together with the recognition of prompt treatment is desirable, and gratifying. There was a considerable increase too in the number of consultations in the local hospitals in co-operation with the general practitioners. There is a pronounced need for inpatient psychiatric services in the district. A day hospital arrangement, with additional staff, would be of some help pending the establishment of such services.

The speech therapist from the MacNeill Clinic (Saskatoon) visits the clinic one day monthly. She can deal only with the most emergent situations since there are sufficient cases in the region to occupy a speech therapist on a full-time basis.

### Yorkton Mental Health Clinic

The Yorkton Mental Health Clinic which was established on a full-time basis since July 1960, was beset for a time with staffing problems which were largely overcome in the last half of the year. The clinic was opened with one psychiatrist, two social workers and no psychologist, a vacancy which still exists. The psychiatrist departed in April 1961 and only part-time services were available until September. Meanwhile, the two very well qualified social workers carried on follow-up and guidance services. A new director and a new senior psychiatrist were appointed in September and since then the number of referrals has been increasing rapidly. The strong emphasis on providing rehabilitative and other forms of follow-up care adds greatly to the work load.

Since this clinic is the forerunner to the first community psychiatric centre in the province its modus operandi is of particular interest. The director points out, as others have done, that the role of a psychiatric clinic depends greatly upon how energetically psychiatry presents itself to the public and, above all, to the other doctors in the area. For instance, without an active educational program patients would be sent directly to mental hospitals as soon as the community or a small segment of it made its own diagnosis. In many cases, treatment can be administered quickly and effectively on an outpatient basis or, if hospitalization in a ward or mental hospital is required, the clinic may prepare the patient

and the family and make possible a much easier and rapid adjustment when treatment is terminated. All too often the understanding of psychiatric problems is naive and superficial. Against this is the fact that public education has resulted generally in people being very well disposed toward psychiatric personnel. Community education should be maintained.

Psychiatrists and social workers tend to work as teams. These teams have opened part-time clinics in Canora, Melville and Kamsack. This is part of the concept of providing treatment as close as possible to the patient's home, indeed often in the patient's home. More staff, to provide more of these services would contribute materially to cutting down the numbers of people requiring inpatient care and would cut down also on the numbers of people whose illnesses become chronic. An 11 bed ward in the new Union Hospital was almost ready for occupancy at the end of the year. News that construction would be resumed on the Regional Psychiatric Centre was most welcome.

#### **Psychiatric Outpatient Clinic, University Hospital, Saskatoon**

This clinic is integrated with the Psychiatric Ward, University Hospital and the same staff supply services to both.

Like the ward, it is used as a teaching facility for undergraduates in the medical school and for the training and supervised experience of graduate doctors seeking specialist qualifications in psychiatry.

During the year a total of 865 patients were provided with services. Six hundred and seventy-four of this number had had no previous contact with the University Hospital's psychiatric facilities.

## **PSYCHIATRIC RESEARCH**

The main research group, although under the jurisdiction of the Saskatchewan Department of Public Health, is housed in the University Hospital. There are also very active units at each of the mental hospitals. Smaller research projects are under way in some of the other facilities where particular staff members have problems they wish to investigate. The primary objectives of the main research group are to study the three psychiatric illnesses which comprise the chief burden to the Psychiatric Services Branch, schizophrenia, senility and alcoholism.

Space is now the chief obstacle to effective research. Much of the psychological research is now being conducted in a house provided through the Saskatchewan Division, Canadian Mental Health Association. Biochemical laboratories are crowded and it is very difficult to take the necessary safety precautions.

The announcement that funds would be available in 1962-63 for the planning of a research building was therefore most welcome.

#### **Schizophrenia**

Reference was made in the 1960-61 annual report to the discovery of an unknown substance found in a preponderance of schizophrenics and which seems to disappear with the remission of symptoms. A great deal of further work was done over the past year with results which confirm the initial study. This substance is very rarely found in non-psychiatric people, whether healthy or sick, but it is interesting to note that it occurs in about two-thirds of alcoholics and in most of the retarded children tested.

Work was continued on the diagnostic card sorting test mentioned in last year's report. It tests for the presence or absence of perceptual disorders and differentiates schizophrenic groups of patients from other groups of subjects. A very interesting finding in this respect, based on a study of 1,200 high school and teachers' college students, shows that students at age 13 have many more perceptual disabilities than those at age 20 and over. The incidence decreases in a linear manner with increase in age. There is also some evidence that students slow in high school have many more perceptual instabilities than those doing well in their school work. This appears to be unrelated to intelligence. A five-year study has been started to learn more about this interesting observation.

The hypothesis being tested at the psychiatric research unit is that schizophrenia is the result of the faulty metabolism of adrenalin with adrenochrome (a by-product produced under some conditions) the toxic agent. The hypothesis has received further support during the year from studies conducted elsewhere.

Confirmation also comes from outside on an observation made eight years ago in Saskatchewan, that schizophrenics given atropine responded with a decrease in blood pressure, while neurotics and others responded with an increase.

### **Senility**

The use of nicotinic acid for slowing development of senility is still being investigated.

### **Alcoholism**

Over 300 alcoholics have been treated with LSD-25. About one-half responded well. A control group was also given methedrine, or LSD modified by penicillamine in order to remove effect, and of this group only 10 per cent are well or much improved. LSD is now being used as a basic treatment for alcoholism in a considerable number of other American and Canadian centres, and the results are consistent with those in Saskatchewan.

### **Psychological and Sociological Studies**

Data continued to be collected on the relationship of anxiety to the performance of various tasks. These data will be analyzed in the coming year and papers published. It is expected that the results will contribute materially to basic knowledge in the behavioural sciences. These have been complex but carefully conducted studies, employing many measures of anxiety and tension, and utilizing many different variables including various types of drugs.

One of the most perplexing problems facing those working in the psychiatric field has been the inadequate system for classifying psychiatric disorders. It is often difficult for clinicians to agree on a diagnosis. Perhaps one of the reasons why valid and reliable objective diagnostic tests are difficult to develop, and seldom find universal acceptance, is the fact that different clinicians and investigators define illness differently. An attempt is being made to overcome this problem through a technique developed by one of the research psychologists when doing his doctoral thesis, and expanded now at the research unit. He divides patients into those with, and without a particular symptom and particular groupings

of systems. Each group then receives a large battery of psychological and chemical tests. In this way, one replaces nosological categories with a statement as to whether a particular symptom or symptom pattern exists. It will be possible when the results are tabulated to see how well the present classification system stands up, because any true disease must show a consistent pattern of symptoms.

The large scale follow-up study on schizophrenic patients discharged to the community continued in 1961-62 and is nearing conclusion. The follow-up which extended over a five-year period has been carried out on all schizophrenic patients discharged from the Saskatchewan Hospital North Battleford and from the Psychiatric Ward, University Hospital, providing that these patients were not also mentally defective, that they had no major physical defects, that they were not senile, that they were not hospitalized longer than one year and that hospitalization represented the patient's first admission to an inpatient psychiatric facility. The age limits were 18 and 50. The final report will be of interest to those engaged in psychiatric programs throughout the continent.

Investigations are continuing in especially designed laboratories to learn more about the perceptual functioning of people with and without mental illness. These are designed to add to basic knowledge and also to provide a better understanding of the experiential world of the schizophrenic patient.

TABLE 16. MOVEMENT OF PATIENT POPULATION OF THE MUNROE WING, REGINA GENERAL HOSPITAL, THE PSYCHIATRIC WARD, MOOSE JAW UNION HOSPITAL, AND UNIVERSITY HOSPITAL, SASKATOON, SASKATCHEWAN, 1961

Movement of patients	Total		Munroe Wing, Regina		Psychiatric Unit, Moose Jaw		University Hospital, Saskatoon		
	Both sexes	Sex of patient		Both sexes	Sex of patient		Both sexes	Sex of patient	
		Male	Female		Male	Female		Male	Female
In hospital January 1, 1961.....	79	32	47	27	16	16	36	11	25
Admissions during 1961.....	1,424	630	794	405	263	152	680	336	344
First admissions.....	753	362	391	233	139	91	337	177	160
Readmissions.....	670	267	403	171	124	61	343	159	184
Transfers from psychiatric institutions.....	1	1	.....	1	.....	.....	.....	.....	.....
Discharges during 1961.....	1,428	632	796	411	265	157	676	329	347
Returned home, improved.....	1,046	421	625	325	218	128	432	186	246
Returned home, unimproved.....	153	77	76	54	34	11	76	45	31
Transferred to general hospitals.....	46	23	23	11	5	6	23	11	12
Transferred to mental hospitals.....	166	103	63	20	7	11	129	79	50
Deaths.....	6	2	4	1	1	.....	5	2	3
Other.....	11	6	5	.....	.....	.....	11	6	5
In hospital December 31, 1961.....	75	30	45	21	14	5	40	18	22
Total number of patient days.....	31,281	.....	.....	11,498	.....	.....	12,566	.....	.....
Average daily census.....	85.7	.....	.....	31.5	.....	.....	34.4	.....	.....
Average length of stay (days).....	20.8	.....	.....	26.6	.....	.....	17.6	.....	.....

TABLE 17. AGE OF PATIENTS ADMITTED TO THE MUNROE WING, REGINA GENERAL HOSPITAL, AND THE PSYCHIATRIC WARD, MOOSE JAW UNION HOSPITAL, SASKATCHEWAN, 1961

Age of patient	Number			Per cent		
	Both sexes	Male	Female	Both sexes	Male	Female
Both Institutions						
All ages.....	744	294	450	100.0	100.0	100.0
Under 15.....	7	4	3	0.9	1.4	0.7
15-34.....	251	93	158	33.8	31.6	35.1
35-54.....	338	135	203	45.4	45.9	45.1
55 and over.....	148	62	86	19.9	21.1	19.1
Munroe Wing, Regina						
All ages.....	405	142	263	100.0	100.0	100.0
Under 15.....	5	2	3	1.2	1.4	1.1
15-34.....	134	47	87	33.1	33.1	33.1
35-54.....	188	57	131	46.4	40.1	49.8
55 and over.....	78	36	42	19.3	25.4	16.0
Psychiatric Ward, Moose Jaw						
All ages.....	339	152	187	100.0	100.0	100.0
Under 15.....	2	2	.....	0.6	1.3	.....
15-34.....	117	46	71	34.5	30.3	38.0
35-54.....	150	78	72	44.3	51.3	38.5
55 and over.....	70	26	44	20.6	17.1	23.5

TABLE 18. DIAGNOSIS OF PATIENTS ADMITTED TO THE MUNROE WING, REGINA GENERAL HOSPITAL, SASKATCHEWAN, 1961

Diagnosis*	Both sexes	Sex of patient	
		Male	Female
All diagnoses.....	405	142	263
Psychoses (300-309).....	191	68	123
Schizophrenic disorders (300).....	93	31	62
Manic-depressive reaction (301).....	20	6	14
Involitional melancholia (302).....	35	12	23
Paranoia and paranoid states (303).....	13	3	10
Senile psychosis (304).....	9	6	3
Presenile psychosis (305).....	5	2	3
Psychosis with cerebral arteriosclerosis (306)...	3	3	....
Alcoholic psychosis (307).....	3	2	1
Psychosis of other demonstrable aetiology (308)	7	2	5
Other and unspecified psychoses (309).....	3	1	2
Psychoneurotic disorders (310-318) .....	132	26	106
Anxiety reaction without mention of somatic symptoms (310).....	31	6	25
Hysterical reaction without mention of anxiety reaction (311).....	15	4	11
Phobic reaction (312).....	1	....	1
Obsessive-compulsive reaction (313).....	2	1	1
Neurotic-depressive reaction (314).....	68	14	54
Psychoneurosis with somatic symptoms affecting circulatory system (315).....	....	....	....
Psychoneurosis with somatic symptoms affecting digestive system (316).....	1	....	1
Psychoneurosis with somatic symptoms affecting other systems (317).....	4	....	4
Psychoneurotic disorders, other, mixed and unspecified types (318).....	10	1	9
Disorders of character, behaviour and intelligence (320-326).....	75	45	30
Pathological personality (320).....	23	14	9
Immature personality (321).....	12	5	7
Alcoholism (322).....	31	25	6
Other drug addiction (323).....	1	....	1
Primary childhood behaviour disorders (324)...	2	1	1
Mental deficiency (325).....	2	....	2
Other unspecified character, behaviour and intelligence disorders (326).....	4	....	4
Epilepsy (353).....	5	1	4
Other.....	2	2	....

\* Code numbers according to the *International Statistical Classification of Diseases, Injuries, and Causes of Death, 1955*, are shown in parentheses.



TABLE 19. DIAGNOSIS OF PATIENTS ADMITTED TO THE PSYCHIATRIC WARD, MOOSE JAW UNION HOSPITAL, SASKATCHEWAN, 1961

Diagnosis*	Both sexes	Sex of patient	
		Male	Female
All diagnoses.....	339	152	187
Psychoses (300-309).....	148	57	91
Schizophrenic disorders (300).....	67	27	40
Manic-depressive reaction (301).....	32	6	26
Involitional melancholia (302).....	8	2	6
Paranoia and paranoid states (303).....	1	1	....
Senile psychosis (304).....	5	3	2
Presenile psychosis (305).....	4	3	1
Psychosis with cerebral arteriosclerosis (306)....	14	3	11
Alcoholic psychosis (307).....	3	3	....
Psychosis of other demonstrable aetiology (308)	10	6	4
Other and unspecified psychoses (309).....	4	3	1
Psychoneurotic disorders (310-318).....	115	39	76
Anxiety reaction without mention of somatic symptoms (310).....	11	9	2
Hysterical reaction without mention of anxiety reaction (311).....	8	1	7
Phobic reaction (312).....	2	....	2
Obsessive-compulsive reaction (313).....	5	....	5
Neurotic-depressive reaction (314).....	66	19	47
Psychoneurosis with somatic symptoms affecting circulatory system (315).....	5	3	2
Psychoneurosis with somatic symptoms affecting digestive system (316).....	7	2	5
Psychoneurosis with somatic symptoms affecting other systems (317).....	2	1	1
Psychoneurosis disorders, other, mixed, and unspecified types (318).....	9	4	5
Disorders of character, behaviour and intelligence (320-326).....	64	51	13
Pathological personality (320).....	9	6	3
Immature personality (321).....	2	2	....
Alcoholism (322).....	45	38	7
Other drug addiction (323).....	3	3	....
Primary childhood behaviour disorders (324)....	3	1	2
Mental deficiency (325).....	1	1	....
Other unspecified character, behaviour, and intelligence disorders (326).....	1	....	1
Epilepsy (353).....	4	3	1
Other.....	8	2	6

\* Code numbers according to the *International Statistical Classification of Diseases, Injuries, and Causes of Death, 1955*, are shown in parentheses.

TABLE 20. DIAGNOSIS OF PATIENTS ADMITTED TO THE PSYCHIATRIC WARD, UNIVERSITY HOSPITAL, SASKATOON, SASKATCHEWAN, 1961

Diagnosis*	Inpatient			Out-patient
	Both sexes	Sex of patient		Both sexes
		Male	Female	
All diagnoses.....	710	351	359	674
Psychoses (300-309).....	332	155	177	191
Schizophrenic disorders (300).....	153	64	89	76
Manic-depressive reaction (301).....	44	19	25	44
Involutional melancholia (302).....	36	10	26	19
Paranoia and paranoid states (303).....	6	3	3	10
Senile psychosis (304).....	19	12	7	11
Presenile psychosis (305).....	1	1	....	....
Psychosis with cerebral arteriosclerosis (306).....	26	20	6	9
Alcoholic psychosis (307).....	4	3	1	3
Psychosis of other demonstrable aetiology (308).....	17	12	5	7
Other and unspecified psychoses (309).....	26	11	15	12
Psychoneurotic disorders (310-318).....	165	59	106	230
Anxiety reaction without mention of somatic symptoms (310).....	43	12	31	92
Hysterical reaction without mention of anxiety reaction (311).....	29	8	21	30
Phobic reaction (312).....	2	....	2	7
Obsessive-compulsive reaction (313).....	5	2	3	13
Neurotic-depressive reaction (314).....	52	17	35	46
Psychoneurosis with somatic symptoms affecting circulatory system (315).....	1	1	....	1
Psychoneurosis with somatic symptoms affecting digestive system (316).....	2	1	1	2
Psychoneurosis with somatic symptoms affecting other systems (317).....	4	3	1	6
Psychoneurotic disorders, other, mixed and unspecified types (318).....	27	15	12	33
Disorders of character, behaviour and intelligence (320-326).....	198	131	67	139
Pathological personality (320).....	50	28	22	36
Immature personality (321).....	20	8	12	16
Alcoholism (322).....	96	79	17	39
Other drug addiction (323).....	14	6	8	2
Primary childhood behaviour disorders (324).....	4	3	1	6
Mental deficiency (325).....	7	4	3	16
Other unspecified character, behaviour, and intelligence disorders (326).....	7	3	4	24
Epilepsy (353).....	9	2	7	2
Other.....	2	2	....	36
Not diagnosed.....	....	....	....	31
Without apparant psychiatric disability.....	4	2	2	45

\* Code numbers according to the *International Statistical Classification of Diseases, Injuries, and Causes of Death, 1955*, are shown in parentheses.

TABLE 21. MOVEMENT OF PATIENT POPULATION OF THE SASKATCHEWAN HOSPITALS, NORTH BATTLEFORD AND WEYBURN, 1961

Movement of patients	Total			Saskatchewan Hospital North Battleford			Saskatchewan Hospital Weyburn		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
On the register, January 1, 1961.....	3,522	2,129	1,393	1,865	1,129	736	1,657	1,000	657
In hospital.....	3,271	2,008	1,263	1,697	1,046	651	1,574	962	612
Boarding out.....	63	38	25	43	24	19	20	14	6
Otherwise absent.....	188	83	105	125	59	66	63	24	39
Admissions during the year.....	1,730	1,051	679	878	520	358	852	531	321
First admissions.....	990	624	366	516	319	197	474	305	169
Readmissions.....	728	419	309	360	201	159	368	218	150
Transfers received.....	12	8	4	2	....	2	10	8	2
Separations during the year.....	1,996	1,219	777	1,048	633	415	948	586	362
Discharges.....	1,611	954	657	849	488	361	762	466	296
Transfers to other mental hospitals.....	22	13	9	2	2	....	20	11	9
Deaths.....	363	252	111	197	143	54	166	109	57
On the register, December 31, 1961.....	3,256	1,961	1,295	1,695	1,016	679	1,561	945	616
In hospital.....	3,177	1,918	1,259	1,650	991	659	1,527	927	600
Boarding out.....	58	33	25	38	23	15	20	10	10
Otherwise absent.....	21	10	11	7	2	5	14	8	6

TABLE 22. FIRST ADMISSIONS, READMISSIONS, DISCHARGES, AND DEATHS BY AGE AND SEX, SASKATCHEWAN HOSPITAL, NORTH BATTLEFORD, 1961

Age group	First admissions	Re-admissions	Transfers in	Discharges	Deaths	Transfers out
Both sexes						
All ages.....	516	360	2	849	197	2
Under 15.....	4	1	....	6	....	....
15-24.....	50	27	....	84	....	....
25-44.....	152	175	2	393	2	....
45-64.....	126	103	....	256	24	1
65-69.....	23	16	....	28	11	1
70 and over..	161	38	....	82	160	....
Male						
All ages.....	319	201	....	488	143	2
Under 15.....	1	....	....	1	....	....
15-24.....	31	14	....	46	....	....
25-44.....	99	105	....	243	2	....
45-64.....	78	54	....	143	15	1
65-69.....	13	7	....	11	7	1
70 and over..	97	21	....	44	119	....
Female						
All ages.....	197	159	2	361	54	....
Under 15.....	3	1	....	5	....	....
15-24.....	19	13	....	38	....	....
25-44.....	53	70	2	150	....	....
45-64.....	48	49	....	113	9	....
65-69.....	10	9	....	17	4	....
70 and over..	64	17	....	38	41	....

TABLE 23. FIRST ADMISSIONS, READMISSIONS, DISCHARGES, AND DEATHS BY AGE AND SEX, SASKATCHEWAN HOSPITAL, WEYBURN, 1961

Age group	First admissions	Re-admissions	Transfers in	Discharges	Deaths	Transfers out
Both sexes						
All ages.....	474	368	10	762	166	20
Under 15.....	2	.....	.....	1	.....	.....
15-24.....	52	30	2	73	1	3
25-44.....	191	184	5	399	7	10
45-64.....	94	114	2	213	19	6
65-69.....	15	16	1	30	14	.....
70 and over..	120	24	.....	46	125	1
Male						
All ages.....	305	218	8	466	109	11
Under 15.....	.....	.....	.....	.....	.....	.....
15-24.....	40	22	1	53	1	3
25-44.....	133	120	4	265	6	4
45-64.....	57	58	2	111	9	3
65-69.....	4	9	1	16	11	.....
70 and over..	71	9	.....	21	82	1
Female						
All ages.....	169	150	2	296	57	9
Under 15.....	2	.....	.....	1	.....	.....
15-24.....	12	8	1	20	.....	.....
25-44.....	58	64	1	134	1	6
45-64.....	37	56	.....	102	10	3
65-69.....	11	7	.....	14	3	.....
70 and over..	49	15	.....	25	43	.....

TABLE 24. FIRST ADMISSIONS, READMISSIONS, DISCHARGES, AND DEATHS BY DIAGNOSIS, SASKATCHEWAN HOSPITALS, NORTH BATTLEFORD AND WEYBURN, 1961

Diagnosis*	Both institutions					Saskatchewan Hospital North Battleford					Saskatchewan Hospital Weyburn							
	First admissions	Re-admissions	Transfers in	Discharges	Transfers out	First admissions	Re-admissions	Transfers in	Discharges	Deaths	Transfers out	First admissions	Re-admissions	Transfers in	Discharges	Deaths	Transfers out	
All diagnoses.....	990	728	12	1,611	363	22	516	360	2	849	197	2	474	368	10	762	166	20
Psychoses (300-309).....	636	481	10	972	332	10	337	240	2	536	187	1	299	241	8	436	145	9
Schizophrenic disorders (300).....	215	297	9	594	52	9	91	138	2	314	24	1	124	159	7	280	28	8
Manic-depressive reaction (301).....	52	106	.....	153	8	.....	16	48	.....	76	3	.....	36	58	.....	77	5	.....
Involuntal melancholia (302).....	44	21	.....	77	3	.....	40	17	.....	62	1	.....	4	4	.....	15	2	.....
Paranoia and paranoid states (303).....	8	4	.....	15	2	.....	3	1	.....	4	1	.....	5	3	.....	11	1	.....
Senile and presenile psychosis (304-305).....	123	12	1	28	116	.....	52	5	.....	12	64	.....	71	7	1	16	52	.....
Psychosis with cerebral arteriosclerosis (306).....	143	23	.....	47	126	1	108	16	.....	33	83	.....	35	7	.....	14	43	1
Alcoholic psychosis (307).....	17	1	.....	6	3	.....	7	1	.....	5	5	.....	24	3	.....	1	3	.....
Other and unspecified psychoses (308-309).....	44	17	.....	52	22	.....	20	14	.....	30	11	.....	24	3	.....	22	11	.....
Psychoneurotic disorders (310-318).....	60	49	.....	146	5	.....	43	38	.....	86	2	.....	17	11	.....	60	3	.....
Anxiety reaction (310).....	11	4	.....	20	.....	.....	8	1	.....	8	.....	.....	3	3	.....	12	.....	.....
Hysterical reaction (311).....	3	3	.....	7	.....	.....	3	3	.....	7	.....	.....	.....	.....	.....	.....	.....	.....
Phobic reaction (312).....	.....	1	.....	1	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....
Obsessive-compulsive reaction (313).....	2	4	.....	6	.....	.....	.....	3	.....	2	.....	.....	2	1	.....	4	.....	.....
Neurotic-depressive reaction (314).....	33	28	.....	86	4	.....	25	24	.....	55	2	.....	8	4	.....	31	2	.....
Somatization reactions (315-317).....	2	2	.....	5	.....	.....	2	1	.....	3	.....	.....	.....	1	.....	2	.....	.....
Other, mixed and unspecified psychoneurosis (318).....	9	7	.....	21	1	.....	5	5	.....	10	.....	.....	4	2	.....	11	1	.....
Disorders of character, behaviour and intelligence (320-326).....	250	172	2	435	10	11	120	68	.....	189	2	1	130	104	2	246	8	10
Pathological personality (320).....	32	18	1	97	.....	.....	20	9	.....	33	.....	.....	12	9	1	64	.....	.....
Immature personality (321).....	22	10	.....	51	1	.....	14	7	.....	26	.....	.....	8	3	.....	25	1	.....
Alcoholism (322).....	157	114	.....	219	1	.....	68	39	.....	93	.....	.....	89	75	.....	126	1	.....
Other drug addiction (323).....	4	5	.....	8	.....	.....	.....	1	.....	1	.....	.....	4	4	.....	7	.....	.....
Primary childhood behaviour disorders (324).....	5	1	.....	6	.....	.....	3	.....	.....	5	.....	.....	2	1	.....	1	.....	.....
Mental deficiency (325).....	21	23	1	46	7	11	9	12	.....	26	2	1	12	11	1	20	5	10
Other unspecified character, behaviour and intelligence disorders (326).....	9	1	.....	8	1	.....	6	.....	.....	5	.....	.....	3	1	.....	3	1	.....
Epilepsy (353).....	11	17	.....	31	.....	1	4	12	.....	22	.....	.....	7	5	.....	9	.....	1
Other.....	33	9	.....	27	16	.....	12	2	.....	16	6	.....	21	7	.....	11	10	.....

\* Code numbers according to the International Statistical Classification of Diseases, Injuries and Causes of Death, 1955, are shown in parentheses.

TABLE 25. DIAGNOSIS OF PATIENTS ON REGISTER, SASKATCHEWAN HOSPITAL, NORTH BATTLEFORD, DECEMBER 31, 1961

Diagnosis*	Number			Per cent		
	Both sexes	Male	Female	Both sexes	Male	Female
Total on register, December 31, 1961.....	1,695	1,016	679	100.0	100.0	100.0
Psychosis (300-309).....	1,477	904	573	87.1	89.0	84.4
Psychoneurosis (310-318).....	60	9	51	3.5	0.9	7.5
Pathological personality (320).....	7	7	.....	0.4	0.7	.....
Epilepsy (353).....	25	13	12	1.5	1.3	1.8
Mental deficiency (325).....	89	56	33	5.3	5.5	4.8
Other.....	37	27	10	2.2	2.6	1.5
In hospital, December 31, 1961.....	1,650	991	659	100.0	100.0	100.0
Psychosis (300-309).....	1,442	886	556	87.4	89.4	84.4
Psychoneurosis (310-318).....	58	7	51	3.5	0.7	7.7
Pathological personality (320).....	7	7	.....	0.4	0.7	.....
Epilepsy (353).....	22	11	11	1.3	1.1	1.7
Mental deficiency (325).....	85	54	31	5.2	5.5	4.7
Other.....	36	26	10	2.2	2.6	1.5
Boarding out, December 31, 1961.....	38	23	15	100.0	100.0	100.0
Psychosis (300-309).....	29	17	12	76.3	73.9	80.0
Psychoneurosis (310-318).....	2	2	.....	5.3	8.7	.....
Pathological personality (320).....	.....	.....	.....	.....	.....	.....
Epilepsy (353).....	3	2	1	7.9	8.7	6.7
Mental deficiency (325).....	4	2	2	10.5	8.7	13.3
Other.....	.....	.....	.....	.....	.....	.....
Otherwise absent, December 31, 1961.....	7	2	5	100.0	100.0	100.0
Psychosis (300-309).....	6	1	5	85.7	50.0	100.0
Psychoneurosis (310-318).....	.....	.....	.....	.....	.....	.....
Pathological personality (320).....	.....	.....	.....	.....	.....	.....
Epilepsy (353).....	.....	.....	.....	.....	.....	.....
Mental deficiency (325).....	.....	.....	.....	.....	.....	.....
Other.....	1	1	.....	14.3	50.0	.....

\* Code numbers according to the *International Statistical Classification of Diseases, Injuries and Causes of Death, 1955*, are shown in parentheses.

TABLE 26. DIAGNOSIS OF PATIENTS ON REGISTER, SASKATCHEWAN HOSPITAL, WEYBURN, DECEMBER 31, 1961

Diagnosis*	Number			Per cent		
	Both sexes	Male	Female	Both sexes	Male	Female
Total on register, December 31, 1961.....	1,561	945	616	100.0	100.0	100.0
Psychosis (300-309) and psychoneurosis (310-318).....	1,366	773	593	87.5	81.8	96.3
Epilepsy (353).....	8	8	.....	0.5	0.8	.....
Mental deficiency (325).....	156	137	19	10.0	14.5	3.1
Other (including pathological personality).....	31	27	4	2.0	2.9	0.6
In hospital, December 31, 1961.....	1,527	927	600	100.0	100.0	100.0
Psychosis (300-309) and psychoneurosis (310-318).....	1,337	759	578	87.6	81.9	96.3
Epilepsy (353).....	8	8	.....	0.5	0.9	.....
Mental deficiency (325).....	154	135	19	10.1	14.5	3.2
Other (including pathological personality).....	28	25	3	1.8	2.7	0.5
Boarding out, December 31, 1961.....	20	10	10	100.0	100.0	100.0
Psychosis (300-309) and psychoneurosis (310-318).....	18	8	10	90.0	80.0	100.0
Epilepsy (353).....	.....	.....	.....	.....	.....	.....
Mental deficiency (325).....	1	1	.....	5.0	10.0	.....
Other (including pathological personality).....	1	1	.....	5.0	10.0	.....
Otherwise absent, December 31, 1961.....	14	8	6	100.0	100.0	100.0
Psychosis (300-309) and psychoneurosis (310-318).....	11	6	5	78.6	75.0	83.3
Epilepsy (353).....	.....	.....	.....	.....	.....	.....
Mental deficiency (325).....	1	1	.....	7.1	12.5	.....
Other (including pathological personality).....	2	1	1	14.3	12.5	16.7

\* Code numbers according to the *International Statistical Classification of Diseases, Injuries and Causes of Death, 1955*, are shown in parentheses.

TABLE 27. MOVEMENT OF PATIENTS, SASKATCHEWAN TRAINING SCHOOL, MOOSE JAW, AND SASKATCHEWAN TRAINING SCHOOL, PRINCE ALBERT, 1961

Movement of patients	Moose Jaw			Prince Albert*		
	Both sexes	Male	Female	Both sexes	Male	Female
On the register, January 1, 1961.....	1,204	603	601	....	....	....
In institution.....	1,127	570	557	....	....	....
In family care.....	34	13	21	....	....	....
Otherwise absent.....	43	20	23	....	....	....
Admissions during the year.....	251	141	110	310	189	121
First admissions.....	218	124	94	....	....	....
Readmissions.....	17	8	9	....	....	....
Transfers from other institutions in the province.....	16	9	7	310	189	121
Total patients on the register during 1961.....	1,455	744	711	310	189	121
Total separations.....	375	224	151	4	3	1
Discharges.....	35	17	18	....	....	....
Transfers to other institutions in the province.....	310	189	121	4	3	1
Deaths.....	30	18	12	....	....	....
On the register, December 31, 1961.....	1,080	519	561	306	186	120
In institution.....	1,012	490	522	297	180	117
In family care.....	30	15	15	....	....	....
Otherwise absent.....	38	14	24	9	6	3
Average daily census in institution, 1961.....	1,050	515	535	304	185	119

\* The Saskatchewan Training School, Prince Albert, opened July 4, 1961, with 309 patients transferred on that date from Moose Jaw.

TABLE 28. NUMBER OF PATIENTS ATTENDING FULL-TIME AND PART-TIME MENTAL HEALTH CLINICS, SASKATCHEWAN, 1955-1961

Centres	1955	1956	1957	1958	1959	1960	1961
All centres under Psychiatric Services Branch.....	2,199	2,116	2,211	2,715	4,016	5,018	5,656
Full-time centres.....	1,693	1,614	1,721	1,952	2,374	3,303	3,950
Regina.....	680	584	553	504	529	748	757
Moose Jaw.....	367	436	490	547	651	753	838
Saskatoon.....	646	594	678	753	721	829	884
Swift Current.....	....	....	....	148	300	324	363
Prince Albert.....	....	....	....	....	173	388	570
Yorkton.....	....	....	....	....	....	261	538
Part-time centres.....	506	502	490	763	850	953	841
Kindersley.....	....	40	36	78	69	81	27
Assiniboia.....	23	37	32	37	30	30	47
Prince Albert.....	58	67	52	104	54	....	....
Yorkton.....	66	56	92	102	93	30	....
North Battleford.....	193	119	133	194	222	159	186
Weyburn.....	81	91	88	186	90	146	137
Maple Creek.....	....	....	....	17	38	43	41
Shaunavon.....	....	....	....	18	34	37	24
Biggar.....	....	....	....	10	44	43	21
Rosetown.....	....	....	....	17	39	39	25
Davidson.....	....	....	....	....	6	15	19
Estevan.....	....	....	....	....	74	123	108
Leader.....	....	....	....	....	17	18	10
Nipawin.....	....	....	....	....	8	51	41
Tisdale.....	....	....	....	....	18	53	57
Melfort.....	....	....	....	....	14	37	36
Kamsack.....	....	....	....	....	....	12	18
Grenfell.....	....	....	....	....	....	6	9
Fort Qu'Appelle and Fort San.....	....	....	....	....	....	30	....
Melville.....	....	....	....	....	....	....	12
Wolseley.....	....	....	....	....	....	....	23
Swift Current.....	85	92	57	....	....	....	....
University Hospital, outpatient clinic.....	....	....	....	....	792	762	865



TABLE 29. NUMBER OF NEW PATIENTS ATTENDING FULL-TIME AND PART-TIME MENTAL HEALTH CLINICS, SASKATCHEWAN, 1958-1961

Centres	1958	1959	1960	1961
All centres.....	1,790	2,824	3,482	3,873
Full-time centres.....	1,290	1,590	2,264	2,574
Regina.....	346	349	527	507
Moose Jaw.....	350	421	446	512
Saskatoon.....	471	422	498	531
Swift Current.....	123	225	231	208
Prince Albert.....	.....	173	301	432
Yorkton.....	.....	.....	261	384
Part-time centres.....	500	563	645	625
Kindersley.....	67	38	43	23
Assiniboia.....	27	18	19	35
Prince Albert.....	43	36	.....	.....
Yorkton.....	69	61	21	.....
North Battleford.....	100	103	125	144
Weyburn.....	137	76	76	103
Maple Creek.....	12	31	24	25
Shaunavon.....	18	23	20	8
Biggar.....	10	22	22	19
Rosetown.....	17	21	26	21
Davidson.....	.....	6	14	17
Estevan.....	.....	74	94	95
Leader.....	.....	14	6	2
Nipawin.....	.....	8	36	20
Tisdale.....	.....	18	46	37
Melfort.....	.....	14	30	24
Kamsack.....	.....	.....	12	9
Grenfell.....	.....	.....	6	8
Fort Qu'Appelle and Fort San.....	.....	.....	25	.....
Melville.....	.....	.....	.....	12
Wolseley.....	.....	.....	.....	23
University Hospital, outpatient clinic.....	.....	671	573	674

## MEDICAL AND HOSPITAL SERVICES BRANCH

Throughout the 1961-62 fiscal year the Medical and Hospital Services Branch of the department continued its efforts to promote co-operation with other branches of the Department of Public Health, health regions and the cities of Regina and Saskatoon. The branch worked closely with the Department of Social Welfare and Rehabilitation and the director served on a number of interdepartmental committees, such as the Interdepartmental Committee on Rehabilitation.

The over-all purpose of this branch is to assist in improving the quality and effectiveness of the medical and hospital services which it supervises, and to improve co-ordination of these services with other health activities. Hence the branch is represented by the director on the Advisory Committee on Alcoholism, the Board of Directors of the Council for Crippled Children and Adults, the Arthritis and Rheumatism Society, the Co-ordinating Council on Rehabilitation, the University Medical Centre Planning Committee, and the Centralized Teaching Program for nursing students. The branch has continued to work closely with branches of the Department of Social Welfare and with the Saskatchewan Hospital Association, the College of Physicians and Surgeons of Saskatchewan and the Saskatchewan Registered Nurses' Association.

A major effort of the branch was the preparation of material and working papers for the Advisory Planning Committee on Medical Care. The branch director as a member of this committee was heavily committed in the committee activities.

The branch took an active part in the work of the committee on Aging and Long-Term Illness and the branch director served as a member of this committee. Several staff members prepared working papers for the committee and took part in regional educational programs.

### Physical Restoration Division

Not only has there been an increase in clinical activity, in both Regina and Saskatoon Centres, but an organized service for the Workmen's Compensation Board, and prosthetic services for amputees has been developed in the Regina Centre. New positions for a rehabilitation service worker with prime responsibility to visit patients in their homes both before and after admission and a rehabilitation home economist to provide highly skilled consultation to the handicapped homemaker have been established.

### Hospital Services Plan

The Saskatchewan Hospital Services Plan completed 15 years of operation. In the period from 1947 to 1961 the amount of the hospitalization tax has increased from \$5 per person with a family maximum of \$30, to \$24 per person with a family maximum of \$48. During 1961 out-of-province benefits available to beneficiaries of the Plan included payment for any period of inpatient general ward care during the year at provincial per diem rates and for any real medical need in Canada. Outside of Canada payment was limited to a maximum of 60 days of inpatient care with an average maximum per diem rate of \$15 for adults and children and \$5 for newborn babies.

For the first time, in 1961, there has been a reduction in hospital use by adults and children, and newborn babies. The average stay for newborn infants has decreased steadily from 9.2 days in 1947 to 6.8 days in 1961.

Care provided by the Plan in 1961 included the three geriatric hospitals and the Regina Physical Restoration Centre.

### **Hospital Administration and Standards**

The division continued in its major role as a consultant to local governing authorities of hospital care with the main emphasis on a good standard of care at reasonable cost.

Technical staff of the division have conducted training programs for combined laboratory and x-ray technicians for duty in small public general hospitals since 1947. This year 20 students graduated, bringing to 190 the total number of graduates since the program was started.

All hospital wards in the province are now rated according to standards established by the federal government.

In the current year, the Saskatchewan government gave \$1,821,071.20 as grants for hospital construction.

In union hospital districts, boundaries were altered increasing the number of municipal tax contributors by 212,200. Based on the 1961 census, some 78 per cent of the Saskatchewan population now contribute in this way.

A large amount of staff time went into work for the Hospital Survey Committee.

### **Medical Services Division**

The Medical Services Division has functioned for more than 17 years. Late in the calendar year, payment for out-of-province care for supplemental allowance recipients was authorized for a period of three months. Rates and conditions are as if services were provided in Saskatchewan. There is no stipulation that payment made by the division is to be payment in full.

The cost of dental services has increased.

Some 30,000 accounts are received each month for which total expenditures were \$1,650,037.51.

### **Air Ambulance Service**

In over 16 years of this service, nearly 14,000 patients have been transported. In spite of half of the 27,000 landings involved being in rough rural areas, the service continued to operate free of injuries to either crew or passengers.

The service continued to operate 24 hours a day, 365 days a year.

The addition of a new high performance Helio Courier aircraft has brought with it greatly increased performance under difficult landing and take-off conditions.

For the first time since the inception of the service, rates to be charged for in-province flights were to be \$35 (instead of \$25) for patient, regardless of the distance travelled, and passengers are charged \$15 each. Outside the province, the charges have been raised from 35 cents to 50 cents for each mile flown.

### Municipal Medical Care

During the year medical care plans were in operation in 72 municipalities, one local improvement district and 56 towns and villages, making a total of 129 plans.

Once again the costs of providing services have increased. The salary method of remuneration to the physician is still widely used but there is a trend to fee-for-service agreements. Agreements for both medical and surgical benefits frequently provide for payment on a combined salary and fee-for-service basis with medical care on a salary basis and surgery on a fee-for-service basis.

	1957	1958	1959	1960	1961
All revenues.....	\$ 900,958	\$ 947,840	\$ 950,177	\$1,128,059	\$1,184,124
Tax levies and penalties..	824,773	830,800	851,130	1,010,587	1,003,071
Grants.....	64,635	69,840	69,408	70,079	71,638
Sundry.....	14,600	12,880	12,839	13,732	13,385
Less allowance for discounts, reserves.....	10,000	10,000	10,000	10,000	15,000
Deficit for the year.....	6,950	44,320	26,800	43,661	111,030
All expenditures.....	\$ 900,958	\$ 947,840	\$ 950,177	\$1,128,059	\$1,184,124
Medical services.....	670,394	715,739	702,043	864,148	899,344
Outpatient services.....	72,070	69,499	73,962	75,826	82,692
Practising dentists.....	3,196	5,384	5,404	8,123	8,635
Radiology department....	24,187	26,141	27,516	29,831	30,206
Dental department.....	53,245	49,720	54,752	52,940	65,866
Grants.....	....	....	....	....	....
Statistics department....	10,427	11,611	10,809	12,984	12,246
Capital expenditures.....	1,643	1,013	1,242	4,007	554
Commissions to municipalities.....	24,600	24,401	25,356	30,141	29,292
Administration.....	41,196	44,332	49,093	50,059	55,289
Surplus for the year.....	....	....	....	....	....

TABLE 30. ANNUAL RATE PER 1,000 BENEFICIARIES OF REGIONAL AND NON-REGION PHYSICIANS' SERVICES BY TYPE OF SERVICE, SWIFT CURRENT MEDICAL CARE PROGRAM, SASKATCHEWAN, 1955-1960

Type of service	1955	1956	1957	1958	1959	1960
All physicians' services.....	4,398.7	4,105.4	4,471.9	4,594.0	4,395.0	4,408.8
Physicians' calls.....	3,690.9	3,463.7	3,756.3	3,793.8	3,810.7	3,727.6
Office.....	1,945.2	1,815.8	1,976.1	2,034.0	2,102.8	1,974.3
Home.....	185.1	190.9	238.5	225.7	235.3	214.8
Hospital.....	1,560.6	1,457.0	1,541.7	1,534.1	1,472.6	1,538.5
Surgical operations.....	279.8	263.6	272.2	269.9	252.9	242.4
Major.....	65.0	63.3	66.8	76.7	76.7	68.7
Minor.....	214.8	200.3	205.4	193.2	176.2	173.7
Confinements.....	29.6	28.0	26.6	28.0	26.9	26.3
Diagnostic procedures*.....	305.5	253.4	323.3	409.1	212.6	285.5
Laboratory.....	17.5	8.5	9.7	13.3	11.1	13.6
X-ray.....	2.0	9.0	8.4	11.2	10.9	10.0
Other†.....	286.0	235.9	305.2	384.6	190.6	261.9
Special services.....	92.9	96.7	93.5	93.2	91.9	127.0
Surgical assistant.....	20.5	19.6	19.5	21.4	20.2	22.3
Anaesthetist.....	57.4	60.4	61.8	63.8	62.8	68.9
Consultant.....	14.3	12.6	6.9	2.9	3.0	1.3
X-ray interpretation.....	0.7	4.1	5.3	5.1	5.9	34.5

\* Beginning in 1952, payments from the pooled funds for diagnostic procedures performed in physicians' offices were (with a few exceptions) discontinued.

† Besides E.K.G.'s, B.M.R.'s, allergy tests and gastric analysis previously included, this category in 1955 was expanded to cover special treatments, physical examinations, and unstated procedures.

#### Air Ambulance Service

In over 10 years of this service, nearly 14,000 patients have been transported. In spite of half of the 2,000 landings involved being in rough rural areas, the service continued to operate free of injuries to either crew or passengers.

The service continued to operate 24 hours a day, 365 days a year.

The addition of a new high performance Helio Courier aircraft has brought with it greatly increased performance under difficult landing and take-off conditions.

TABLE 31. NUMBER AND COST OF REGIONAL PHYSICIANS' SERVICES BY TYPE OF SERVICE, SWIFT CURRENT MEDICAL CARE PROGRAM, SASKATCHEWAN, 1960

Type of service	Number of services		Cost of services		
	Number	Annual rate per 1,000 beneficiaries	Assessed cost	Per cent	Average amount paid per beneficiary
All physicians' services.....	219,948	4,136.8	\$ 978,357	100.0	\$ 14.83
Physicians' calls.....	189,093	3,556.5	445,155	45.5	6.75
Office.....	102,208	1,922.3	210,161	21.5	3.19
Home.....	11,269	212.0	32,463	3.3	0.49
Hospital*.....	75,616	1,422.2	202,531	20.7	3.07
Surgical operations.....	12,075	227.1	307,282	31.4	4.66
Major.....	3,099	58.3	240,459	24.6	3.65
Minor.....	8,976	168.8	66,823	6.8	1.01
Confinements.....	1,368	25.7	106,112	10.9	1.61
Diagnostic procedures.....	12,930	243.2	30,501	3.1	0.46
Laboratory.....	163	3.1	209	†	**
X-ray.....	64	1.2	793	0.1	0.01
Other†.....	12,703	238.9	29,499	3.0	0.45
Special services.....	4,482	84.3	80,992	8.3	1.23
Surgical assistant.....	1,065	20.0	24,348	2.5	0.37
Anaesthetist.....	2,930	55.1	53,919	5.5	0.82
Consultant.....	65	1.2	728	0.1	0.01
X-ray interpretation....	422	8.0	1,997	0.2	0.03
Mileage.....	.....	.....	8,089	0.8	0.12
Other services.....	.....	.....	226	†	**

\* Excludes calls to operative cases paid for on an inclusive fee basis.

† Besides E.K.G.'s, B.M.R.'s, allergy tests and gastric analysis previously included, this category has been expanded to cover special treatments, physical examinations, and unstated procedures.

‡ Less than 0.05 per cent.

\*\* Less than one cent per capita.

TABLE 32. NUMBER AND COST OF NON-REGION PHYSICIANS' SERVICES BY TYPE OF SERVICE, SWIFT CURRENT MEDICAL CARE PROGRAM, SASKATCHEWAN, 1960

Type of service	Number of services		Cost of services		
	Number	Annual rate per 1,000 beneficiaries	Assessed cost	Per cent	Average amount paid per beneficiary
All physicians' services.....	14,466	272.1	\$ 131,330	100.0	\$ 1.42
Physicians' calls.....	9,098	171.1	23,192	17.7	0.25
Office.....	2,764	52.0	5,409	4.1	0.06
Home.....	150	2.8	798	0.6	0.01
Hospital*.....	6,184	116.3	16,985	13.0	0.18
Surgical operations.....	814	15.3	65,279	49.7	0.71
Major.....	554	10.4	62,645	47.7	0.68
Minor.....	260	4.9	2,634	2.0	0.03
Confinements.....	29	0.5	1,948	1.5	0.02
Diagnostic procedures.....	2,252	42.4	22,653	17.2	0.25
Laboratory.....	560	10.5	859	0.7	0.01
X-ray.....	467	8.8	4,484	3.4	0.05
Other†.....	1,225	23.1	17,310	13.1	0.19
Special services.....	2,273	42.8	17,881	13.6	0.19
Surgical assistant.....	120	2.3	3,332	2.6	0.04
Anaesthetist.....	734	13.8	12,255	9.3	0.13
Consultant.....	3	0.1	25	†	**
X-ray interpretation.....	1,416	26.6	2,269	1.7	0.02
Mileage.....	.....	.....	.....	.....	.....
Other services.....	.....	.....	377	0.3	**

\* Excludes calls to operative cases paid for on an inclusive fee basis.

† Besides E.K.G.'s, B.M.R.'s, allergy tests and gastric analysis previously included, this category has been expanded to cover special treatments, physical examinations, and unstated procedures.

‡ Less than 0.05 per cent.

\*\* Less than one cent per capita.

TABLE 33. NUMBER AND RATES OF REGIONAL AND NON-REGION SELECTED SURGICAL OPERATIONS, SWIFT CURRENT MEDICAL CARE PROGRAM, SASKATCHEWAN, 1960

Type of operations	Regional		Non-region	
	Number	Annual rate per 1,000 beneficiaries	Number	Annual rate per 1,000 beneficiaries
All surgical operations*	13,443	252.8	843	15.8
Amputation of extremities.....	43	0.8	5	0.1
Appendectomy.....	248	4.7	9	0.2
Biopsy of cervix.....	16	0.6†	5	0.2†
Blood transfusions.....	12	0.2	22	0.4
Cauterization of cervix.....	202	8.0†	3	0.1†
Cholecystectomy.....	94	1.8	16	0.3
Circumcision.....	605	21.8†	10	0.4†
Conjunctiva operations.....	43	0.8	3	0.1
Corneal operations.....	387	7.3	2	**
Cystocele and rectocele.....	38	1.5†	3	0.1†
Cystoscopy.....	97	1.8	84	1.6
Dilatation and curettage.....	323	12.7†	17	0.7†
Dilatation of urethra.....	49	0.9	14	0.3
Haemorrhoidectomy.....	135	2.5	5	0.1
Herniotomy.....	200	3.8	10	0.2
Hysterectomy.....	60	2.4†	10	0.4†
Hysteropexy.....	52	2.0†	1	...
Laparotomy (exploratory).....	14	0.3	1	**
Lumbar puncture.....	56	1.1	23	0.4
Phlebectomy.....	69	1.3	5	0.1
Proctoscopy, sigmoidoscopy.....	456	8.6	21	0.4
Prostatectomy.....	19	0.7†	31	1.1†
Reduction of fracture.....	591	11.1	36	0.7
Skin grafting.....	28	0.5	8	0.2
Suture of wound or injury.....	1,297	24.4	20	0.4
Thyroidectomy.....	11	0.2	4	0.1
Tonsillectomy and adenoidectomy.....	596	11.2	10	0.2
Other.....	7,702	144.9	465	8.7

\* Including confinements.

† Based on female beneficiaries only.

‡ Based on male beneficiaries only.

\*\* Rate less than 0.05.





	Amount per beneficiary										Estimated number of beneficiaries					
	\$	13.55	\$	13.66	\$	13.91	\$	16.53	\$	16.97		\$	16.72	\$	19.39	\$
Total.....																
Medical services.....		10.63		10.62		10.85		13.46		14.02		13.59		16.25		15.73
Region.....		9.73		9.82		10.14		12.14		12.41		12.27		14.83		14.36
Non-region.....		0.90		0.80		0.71		1.32		1.61		1.32		1.42		1.37
Outpatient services.....		1.46		1.38		1.36		1.45		1.36		1.43		1.43		1.45
Region.....		1.45		1.37		1.36		1.44		†		†		†		†
Non-region.....		0.01		0.01		†		0.01		†		†		†		†
Radiology services.....		0.40		0.42		0.49		0.49		0.51		0.53		0.56		0.53
Dental care.....		1.05		1.20		1.21		1.13		1.08		1.17		1.15		1.30
Regional dental services.....		1.01		1.15		1.16		1.07		0.97		1.06		1.00		1.15
Practising dentists.....		0.04		0.05		0.05		0.06		0.11		0.11		0.15		0.15
Other.....		0.01		0.04		.....		.....		.....		.....		.....		.....
		47,262		48,380		49,303		49,797		51,058		51,647		53,169		57,180

Source: Financial Statements, Health Region No. 1, 1954-1961.

\* "Amount per beneficiary" has been adjusted since the publication of the 1957-58 Annual Report because of a change in the estimated number of beneficiaries from 50,345 to 49,797.

† Figures not available.

‡ Less than one cent.

## PHYSICAL RESTORATION SERVICES

### **General**

The year was marked by increases in clinical activity in both centres, development of an organized Workmen's Compensation Board service and expansion of prosthetic services for amputees in the Regina centre. During March 1962, there were 28 clinics in the two centres at which 368 patients were assessed or reviewed. Regina Centre's Workmen's Compensation Board caseload averaged 10 patients per month between June 1961 and March 1962. They received remedial gymnasium services, physical therapy as well as tolerance and conditioning programs in the occupational shop. Total annual charges for brace and limb services in the Regina centre appliance shop amounted to \$10,503, at nominal rates. Patients continued to receive the benefit of ceiling charges of \$50 for appliances and \$100 for limbs using a national health grant project.

Provincial funds were utilized for two administrative training trips to outstanding rehabilitation centres in western Canada. One occupational therapy interne assigned by the Canadian Association of Occupational Therapy to the Regina centre also was paid from these funds.

### *Placements*

It should be noted that two graduating occupational therapists were placed—one in the University Hospital in December 1961 and one in the Regina centre in January 1962.

Four graduating physical therapy bursary students were placed in the centres in September 1961.

### *Rehabilitation Program Support*

Staff continued active support of such organizations as the Saskatchewan Council for Crippled Children and Adults, the Co-ordinating Council on Rehabilitation, International Council for Exceptional Children (Saskatchewan branch) and of local and regional rehabilitation seminars. Some topics discussed and for which projects were planned included sheltered work programs and facilities, speech and hearing services and vocational programs.

### **Regina Physical Restoration Centre**

The increases in services and caseload noted in the annual report of 1960-61 was noted again in 1961-62. The current caseload, as indicated by first visits to the centre, is now increased by 100 per cent over five years ago. (Table 35.)

### **Industrial Injury Services Provided by the Centre**

The services for industrial injury in co-operation with the Workmen's Compensation Board, which was started in the year 1960-61, has grown to a substantial part of the program. Regular clinics every second week were held with the specialist in physical medicine, in co-operation with the medical officer of the compensation board, to review patients on the Workmen's Compensation Board program.

### *Amputee Service*

A number of amputee clinics have been held and services rendered to amputees of all ages, both for the provision of new prostheses and the repair of old ones.

### *Other Programs*

The cerebral palsy program continued as before. The caseload was relatively constant tending to rise quite slowly and it appeared probable that serious cases of cerebral palsy in the southern part of the province were now known to the centre.

### *Poliomyelitis Program*

Nearly a decade has passed since the severe epidemics of 1952 and 1953, and many of the child patients are now young adults and adolescents, with their surgical and orthotic programs completed. This seems to be reflected in a slight steady fall in the number of cases attending poliomyelitis clinics.

### *Other Programs for Children*

The problem of the child paraplegic, usually due to spina bifida, appeared to be a large one in the program, although the numbers of these children were not great. Their problems were multiple and they required a great deal of staff time, but the long-term results appeared to be satisfactory.

### *Muscular Dystrophy*

Cases of muscular dystrophy presented particular problems which were drawn to the attention of the centre more and more frequently.

### *Services to Adults*

Chronic neurological cases represented a substantial portion of the adult caseload and often presented problems in diagnosis as well as management.

### *Services of Consulting Neurologists*

First, from the University Hospital, Saskatoon, and later from Regina, services have been of material assistance and monthly neurological clinics were held.

### *Hemiplegic Patients*

The problem of hemiplegia, usually of vascular origin, was statistically one of the largest handled by the centre. During the past year it was noticeable that the number of cases referred fairly soon after the onset of the hemiplegia had risen, and the results of a rehabilitation program have been correspondingly better.

### *Consultant Services*

The services of paediatricians, particularly in the cerebral palsy clinic, and orthopaedists, particularly in the poliomyelitis clinics have been invaluable for many years. Consultant services in internal medicine, neurology, plastic surgery, and urological surgery have all been of the greatest value with the increase in the number of cases of paraplegia of all causes, both in children and adults. It would appear that regular urological advice was one of the most important services requiring augmentation.

*Medical Services: Consultants at Clinics (by specialists)*

	<i>Consultants at clinics</i>
Total .....	9
Orthopaedics .....	2
Paediatrics .....	2
Radiologist .....	1
Internal medicine .....	1
Urology .....	1
Neurology .....	1
General practitioner .....	1
Dental and orthodontal .....	—
Physical Medicine* .....	—

\*Denotes member of Regina Physical Restoration Centre staff.

*Services Provided Outside the Centre*

Services to the geriatric centres in Regina, Melfort and Wolseley have been continued by the specialist in physical medicine in association with the medical director of the geriatric centres. The Regina centre was visited weekly and the other two centres monthly.

The services to the Moose Jaw Training School, and the Saskatchewan Hospital, Weyburn, were rendered on an occasional basis by the medical director.

Both the medical director and the specialist in physical medicine rendered regular service to the physical medicine department of the Regina General Hospital and some consultative service to individual patients in both the Regina General Hospital and the Regina Grey Nuns' Hospital.

Frequent visits were made by the orthotic technicians to general hospitals in Regina and Moose Jaw, at the request of private physicians, with bracing, appliance and limb problems.

**Community Services**

Attempts to relate the program of the Physical Restoration Centre to the needs of the community were prominent during the year 1961-62. Changes in staff function which appear significant were as follows:

*Rehabilitation Service Worker;* the rehabilitation service worker formerly the rehabilitation nurse at the centre, a registered nurse with special experience in the rehabilitation aspect of nursing, was appointed to work closely with the Social Service Department of the Physical Restoration Centre. Her function was to visit patients in their homes, both before admission and after admission, and to plan with the family and centre staff, the apparatus and arrangements required for the handicapped person to return home. Such practical matters as the size and situation of ramps, provision of grab bars in toilet areas, the height and situation of beds and chairs, all received attention. A similar service was also being rendered by this worker to schools when children were discharged from the centre with a residual disability; and a number of children in wheelchairs have been enabled to continue in their normal schools.

*Rehabilitation Home Economist*; the Physical Restoration Centre was fortunate in having a senior occupational therapist who was also trained in home economics. It was felt that the problems of the handicapped homemaker were such that a specially trained worker doing a good deal of field work might be of considerable value; and her services were also available in relation to the common problem of clothing modifications for handicapped people.

Both these new professional workers were available on a consultant basis to health region nursing staff and to district hospital nursing staff.

### *Community Seminars*

Staff from the Physical Restoration Centre took part in community seminars on the problems of rehabilitation in the community—Yorkton in January, Swift Current in March. The opportunity was taken to make these as concrete as possible with the discussion of specific patients. Plans were made for bringing in some nurses for training in rehabilitation methods from district hospitals and from the nursing staff of health regions.

Although time consuming, it could confidently be said that these efforts to establish close touch with the community were of value, as can be shown by a much more effective flow of patients to and from the regions where the seminars were focussed on very seriously handicapped patients.

### **Staff Education**

The medical director attended a conference in paediatric neurology in Minneapolis in February. He also addressed the American Academy of Physicians in Banff, by invitation, on the subject "Functional and Pathological Medicine".

The specialist in physical medicine attended a course at the Institute of Crippled and Disabled, New York, on arm prosthetics.

The administrative supervisor made a tour of rehabilitation centres in western Canada to study administrative methods.

Physiotherapists at the centre were given the opportunity to spend three months in the physiotherapy department of the Regina General Hospital to broaden their postgraduate experience.

Members of the staff took part in educational activities concerning the abilities of handicapped children under the auspices of the Council for Exceptional Children and at the annual conference of school superintendents.

### **The Function of the Regina Physical Restoration Centre**

The main function of the Physical Restoration Centre appeared to be that of a medical rehabilitation centre, concerned with the restoration of as much function as possible in people suffering from physical handicaps. In addition, the building continued to act as a focus for leisure time activities for many groups of handicapped people such as the Handicapped Civilians' Association, the Multiple Sclerosis Society, and others. Meeting the social and vocational needs of handicapped people still remained a major problem and may well fall outside the scope of activities proper to the centre.

*Orthopaedic and Appliance Shop Activity*

Year	Number of patients served	Number of new units constructed	Charges—nominal cost value of work completed
1960-61	642	200	\$ 5,716.75
1961-62	939 <sup>1</sup>	380 <sup>2</sup>	10,502.95

*New cases admitted to Regina Physical Restoration Centre by Diagnosis*

Year	Total	Cerebral palsy	Polio-myelitis	Paraplegia	Cerebral vascular accident	Traumatic	Other
1960-61	187	19	16	5	37	15	95
1961-62	327	34	16	16	35	97	129

*Separations from Regina Physical Restoration Centre*

	1959-60	1960-61	1961-62
Total	61	25	234
Assessed not accepted	8	1	17
Transferred to other agency	13	2	57
Home care or nursing home care	9	3	53
Family doctor follow-up	7	2	9
Further education	13	6	33
Employment—full or partial	11	3	33
Moved or not rehabilitated	—	5	30
Deceased	—	3	2

*Inpatient care—Rehabilitation Ward, Regina Centre*

Cases admitted	306
Cases separated	291
Cases remaining in hospital at year end <sup>3</sup>	41
Days of care provided for separations <sup>4</sup>	12,351
Days of care provided during year	14,204
Average days stay per separation	42.44
Total days divided by admissions	46.42
Total days divided by separations	48.81

*Average cost of services provided (based on daily active patient caseload)*

	1959-60	1960-61	1961-62
Average treatment cost per patient per day (excluding cost of ward care)	\$4.34	\$5.38	\$3.97
Average treatment cost per patient per day (including cost of ward care for in-patients)	—	7.75	5.75
Average cost per unit of treatment <sup>5</sup>	1.52	2.26	1.32

<sup>1</sup> Amputee patients included in this figure are 33, of which six received limbs manufactured by other prosthetists and resold at nominal cost by the centre. Thirteen received repairs at nominal cost from the centre, and nine received fitting and re-training services.

<sup>2</sup> Artificial limbs manufactured by the centre included in this figure is five—three upper extremity limbs and two lower extremity limbs.

<sup>3</sup> Days of care accrued in respect to these 41 cases were 2,804.

<sup>4</sup> "Days of care provided for separations" differs from "Days of care provided during year" in that all days of care are included in the former although some of the care may have been given in preceding years, while the latter includes only the care given in the past fiscal year. This includes care received by cases remaining in the hospital at the year end.

<sup>5</sup> Includes administration costs, capital expenditure on equipment, cost of materials and supplies, but excludes depreciation, cost of building maintenance, heat, water and power.

TABLE 35. NUMBER OF PATIENTS ON CASELOAD REGISTER, PHYSICAL RESTORATION CENTRE, REGINA, SASKATCHEWAN, FISCAL YEARS, 1957-58 TO 1961-62

Patient status and year	Regina Centre			
	Total	Cerebral palsy	Polio-myelitis	Other
<b>All patients</b>				
1957-58.....	719	210	445	64
1958-59.....	991	326	490	175
1959-60.....	999	343	486	170
1960-61.....	1,027	323	470	234
1961-62.....	1,141	351	441	349
<b>Inpatients (Rehabilitation ward)..</b>				
1957-58.....	43	11	14	18
1958-59.....	80	18	16	46
1959-60.....	164	49	38	77
1960-61.....	139	42	18	79
1961-62.....	135	49	10	76
<b>Outpatients</b>				
1957-58.....	80	27	32	21
1958-59.....	116	59	13	44
1959-60.....	216	108	46	62
1960-61.....	244	92	34	118
1961-62.....	319	103	15	201
<b>Home exercise program patients</b>				
1957-58.....	596	172	399	25
1958-59.....	795	249	461	85
1959-60.....	619	186	402	31
1960-61.....	644	189	418	37
1961-62.....	687	199	416	72

The physical therapist's role in the rehabilitation of children with cerebral palsy and polio-myelitis is discussed. There was general recognition for the need of a multi-disciplinary approach to the care of children with the multiple disabilities which characterize these conditions. The method presently employed was not adequate for individual therapists detailed and individual assignments, but rather to present an overall picture of the child with cerebral palsy with some indication as to the prospects of improvement under therapy and the ultimate rehabilitation potential. The system being studied at the present time is based on the "Fulhamer profile" of the Canadian Army. Various categories have been defined and the staff of the Saskatchewan Physical Restoration Centre co-operated in assessing and evaluating the method.

#### Physical Services

During the year, 107 new patients were seen at this centre, made up of 13 post-polio-myelitis children, three adults, ten cerebral palsy children, one adult, 62 other children and 18 adults. These were in addition to the 20 new deaf palate patients. In the same period, 210 patients were discharged.

#### Medical Services

Consultants listed by specialty and numbers were:

Ophthalmic.....

Paediatric.....

Dental.....

Therapist (palate) specialists.....

Child policy team.....



TABLE 36. FIRST VISITS OF PATIENTS TO REGINA PHYSICAL RESTORATION CENTRE, FISCAL YEARS 1957-58 TO 1961-62

Type of patient and year	Regina Centre
All patients	
1957-58.....	764
1958-59.....	444
1959-60.....	952
1960-61.....	1,151
1961-62.....	1,431
Poliomyelitis	
1957-58.....	487
1958-59.....	236
1959-60.....	487
1960-61.....	451
1961-62.....	426
Cerebral palsy	
1957-58.....	238
1958-59.....	112
1959-60.....	293
1960-61.....	473
1961-62.....	501
Traumatic injury	
1957-58.....	.....
1958-59.....	.....
1959-60.....	.....
1960-61.....	.....
1961-62.....	97
Amputees	
1957-58.....	.....
1958-59.....	.....
1959-60.....	.....
1960-61.....	.....
1961-62.....	20
Other	
1957-58.....	39
1958-59.....	96
1959-60.....	172
1960-61.....	227
1961-62.....	387

### Saskatoon Physical Restoration Centre

The over-all program of the Saskatoon Physical Restoration Centre continued to operate on the premises of the converted Air Force hut at the R.C.A.F. Station. Emphasis was placed on the safety of the patients in this building and fire drills were held at intervals. At the last drill, all personnel, including 15 wheelchair-bound patients, were evacuated from two floors in less than 40 seconds.

#### *Patient Services*

The director of this centre convened ten cleft palate clinics during the year. The cleft palate team reviewed 28 patients and evaluated 20 new cases. The total cleft palate caseload now carried in conjunction with the University Hospital, totals 116 patients (95 children and 21 adults). Of this total caseload, 92 patients were on the active list.

In addition to the cleft palate clinics, the regular weekly post-poliomyelitis cerebral palsy clinics, and combined clinics, continued. A yearly visit to this centre by a dentist was also established for review of the patients.

The Physical Restoration Centre continued its support of community and educational projects. Staff for mobile clinics, loaned to the Saskatchewan Council for Crippled Children and Adults, participated in instruction to third and fourth year medical students, student nurses from the three local hospitals and graduate nurses training in public health.

#### *Special Projects*

In the latter portion of the fiscal year, a part-time "supervising teacher of the physically handicapped" was taken on staff and rendered valuable assistance. In addition to his service, he prepared a research paper for his university class on "figure background perception in the brain injured child". This paper will be of considerable value in the teaching program.

Under the paediatric director, continuing efforts were made to develop diagnostic and prognostic criteria for brain damaged patients. There was general recognition for the need of a uniform method of assessment of children with the multiple disabilities which characterize cerebral palsy. The method presently conceived was not a substitute for individual therapists detailed and technical assessments, but was an effort to present an over-all picture of the child with cerebral palsy, with some indication as to the prospects of improvement under therapy, and the ultimate rehabilitation potential. The system being studied at the present time is based on the "Pulhemsar profile" of the Canadian Army. Various categories have been defined and the staff of the Saskatoon Physical Restoration Centre co-operated in assessing and evaluating the method.

#### *Patient Caseload*

During the year, 107 new patients were seen at this centre, made up of 13 post-poliomyelitis children, three adults; ten cerebral palsy children, one adult; 62 other children and 18 adults. These were in addition to the 20 new cleft palate patients. In the same period, 210 patients were discharged.

### Medical Services

Consultants listed by specialty and numbers were:

Orthopaedic .....	5
Paediatric .....	1
Dental .....	1
Physical medicine specialists .....	3
Cleft palate team .....	4

**Finance**

Costs based on the active patient caseload were:

Per diem per patient .....	\$3.30
Per unit per treatment .....	2.42

**Paraplegia Services**

Services continued through the year under the director, Department of Rehabilitation Medicine, University Hospital, Saskatoon. Further growth of caseload occurred within the period under review and a small over expenditure of funds developed.

Patients were categorized under the following headings

- On treatment at hospital
- Discharged requiring further treatment
- Maximum benefit—in nursing home
- Home care program
- Partially rehabilitated to self care at home
- Partially rehabilitated—undergoing social and vocational rehabilitation and/or treatment as outpatient
- Totally rehabilitated i.e. full-time employment

No patient moved from active treatment in hospital to total employment within the year. Some patients moved from the vocational rehabilitation program back into hospital. With another group there was encouraging transition from a state of considerable dependency to full employment.

*Caseload*

Total caseload as of April 1, 1961 .....	75
Patients in hospital as of April 1, 1961 .....	12
Patients on home care during year .....	5
Active—discharged requiring further treatment .....	3
Inactive—partially rehabilitated, undergoing social vocational rehabilitation .....	9
Inactive—rehabilitated to self care at home .....	19
Inactive—maximum benefits—in nursing homes .....	13
Attending Physical Restoration Centres .....	14
New patients admitted to program during year .....	14
Admitted to hospital .....	11
Admitted to Physical Restoration Centres .....	3
Old patients readmitted to hospital during year .....	20
Patients separated from program .....	20
Inactive—totally rehabilitated .....	15
Moved out of province .....	2
Deaths during year .....	3
Total caseload as of March 31, 1962 .....	89

The table below shows the distribution of causes of paraplegia. Spinal cord injury is by far the largest number (41 out of 89 cases) and paralytic poliomyelitis is still of major importance (17 out of 89 cases).

*Diagnosis of Active Paraplegia Cases*

Total .....	89
Spinal cord injury (traumatic, paraplegia or quadriplegia) .....	41
Post-poliomyelitis .....	17
Multiple sclerosis .....	5
Infections (extra-dural) .....	3
Post-meningitis .....	2
Disc protrusion .....	2
Acquired vascular disease of spinal cord .....	1
Congenital anomalies .....	7
Guillain Barre syndrome .....	2
Muscular dystrophy .....	3
Tumours .....	2
Unknown .....	4

TABLE 37. NUMBER OF PATIENTS ON CASELOAD REGISTER, PHYSICAL RESTORATION CENTRE, SASKATOON, FISCAL YEARS 1955-56 TO 1961-62

Patient status and year	Total	Saskatoon Centre			
		Cerebral palsy	Polio-myelitis	Cleft palate	Other
<b>All patients</b>					
1955-56.....	539	138	338	....	63
1956-57.....	662	137	356	....	169
1957-58.....	792	165	380	....	247
1958-59.....	811	161	365	....	285
1959-60.....	783	167	345	....	271
1960-61.....	586	145	304	....	137
1961-62.....	1,211	165	444	44	558
<b>Hospital inpatients</b>					
1955-56.....	4	....	4	....	....
1956-57.....	2	....	2	....	....
1957-58.....	4	....	4	....	....
1958-59.....	2	....	2	....	....
1959-60.....	7	....	7	....	....
1960-61.....	....	....	....	....	....
1961-62.....	....	....	....	....	....
<b>Hospital outpatients</b>					
1955-56.....	63	22	24	....	17
1956-57.....	61	15	28	....	18
1957-58.....	79	19	32	....	28
1958-59.....	71	18	20	....	33
1959-60.....	102	28	36	....	38
1960-61.....	119	40	40	....	39
1961-62.....	410	73	161	39	137
<b>Home exercise program patients</b>					
1955-56.....	472	116	310	....	46
1956-57.....	599	122	326	....	151
1957-58.....	709	146	344	....	219
1958-59.....	738	143	343	....	252
1959-60.....	674	139	302	....	233
1960-61.....	467	105	264	....	98
1961-62.....	801	92	283	5	421

TABLE 38. FIRST VISITS OF PATIENTS TO PHYSICAL RESTORATION CENTRE, SASKATOON, FISCAL YEARS 1955-56 TO 1961-62

Type of patient and year	Saskatoon Centre
<b>All patients</b>	
1955-56.....	623
1956-57.....	701
1957-58.....	820
1958-59.....	407
1959-60.....	452
1960-61.....	437
1961-62.....	458
<b>Poliomyelitis</b>	
1955-56.....	405
1956-57.....	427
1957-58.....	438
1958-59.....	190
1959-60.....	182
1960-61.....	199
1961-62.....	180
<b>Cerebral palsy</b>	
1955-56.....	96
1956-57.....	107
1957-58.....	134
1958-59.....	88
1959-60.....	90
1960-61.....	91
1961-62.....	96
<b>Cleft palate</b>	
1961-62.....	46
<b>Other</b>	
1955-56.....	122
1956-57.....	167
1957-58.....	248
1958-59.....	129
1959-60.....	180
1960-61.....	147
1961-62.....	136

## SASKATCHEWAN HOSPITAL SERVICES PLAN

The Saskatchewan Hospital Services Plan is a provincially operated program which provides Saskatchewan residents with insurance against the costs of hospital care. It is operated under authority of The Saskatchewan Hospitalization Act.

December 31, 1961, marked the completion of the Plan's fifteenth year of operation. Since the inception of the program it has been financed in part from the proceeds of a personal tax known as the hospitalization tax, which is levied annually on a family basis. The balance of its cost is provided from general funds of the province. Since April 1, 1950, the general funds have included a one-third share of revenue derived from a sales tax levied under authority of The Education and Hospitalization Tax Act. Since July 1, 1958, in accordance with an agreement under the Hospital Insurance and Diagnostic Services Act (Canada), the cost of the program has been shared by the government of Canada.

Eligibility for coverage of hospital bills is contingent upon prior payment of the hospitalization tax. There are no exclusions as to eligibility for benefits because of age or pre-existing physical conditions. Benefits of the Plan are available subject only to medical necessity for inpatient hospital care. The Plan also provides a limited schedule of outpatient services.

From its inception to April 1, 1950, the Plan was administered by the Health Services Planning Commission. Since that date, however, it has operated as a division of the Medical and Hospital Services Branch of the Department of Public Health.

### Coverage

Throughout the Plan's operations, residents of the province who have been provided with hospital care under federal or other provincial government programs have been excluded from participation. During the entire period, also, a number of classes of social welfare recipients have been covered under the Plan through payment of the hospitalization tax on their behalf by the province. Payment of the tax by municipalities has made coverage available to municipal social aid cases.

During the eleven and one-half years ended June 30, 1958, most persons responsible for their own support, who had resided in the province for a period of six months, were required to participate in the Plan. Residents of the Northern Saskatchewan Administration District (the sparsely settled far northern portion of the province) were not eligible to participate during 1947. From January 1, 1948, to December 31, 1958, however such residents were permitted to participate on a voluntary basis. Participation on a voluntary basis was also available during this period to Indians who had lived apart from Indian reserves for a period of 18 months.

On July 1, 1958, when the government of Canada began sharing in the cost of provincial hospital care insurance programs, the waiting period, in respect of newcomers to the province, was reduced from six months to three months. On the same date the Plan began covering

Indians living on reserves, and those away from reserves for less than 12 months through payment of the hospitalization tax on their behalf by the government of Canada. Indians who have lived apart from Indian reserves for 12 months or more are personally responsible for payment of the hospitalization tax. A further amendment to regulations provided for coverage of War Veterans' Allowance recipients through payment of the tax on their behalf by the federal government. Responsibility for payment of the tax on behalf of dependents of such recipients, however, remains with the family heads concerned.

Voluntary participation by residents of the Northern Saskatchewan Administration District continued until the end of 1958. Since January 1, 1959, regulations have required that residents of that area pay the hospitalization tax on the same basis as other residents of the province.

### **Hospitalization Tax**

Due dates for payment of the hospitalization tax are established by regulations to provide for payment one month in advance of the benefit period. The Plan's coverage does not become available until one month after date of payment in cases where the required tax is not paid by due date. With the exception of the year 1947, these conditions have applied since the Plan's inception. A number of changes have occurred, however, in annual tax rates, in the age limits of persons who could be included as dependents within family-tax assessments, and in the terms of payment. Taxes for the years 1947 to 1960 were payable in a lump sum in the case of single taxpayers. During the same period the family tax was payable by one or two instalments, depending on the level of individual family assessments. Beginning with the year 1961, persons assessed on a family basis could pay the tax by quarterly instalment, while single persons could pay by semi-annual instalments.

Legislation governing the Plan provides that arrears of taxes, in addition to the current tax, normally must be paid before the Plan's coverage becomes available. Coverage may be provided, however, without immediate payment in full of arrears, in cases where settlement of outstanding taxes has been authorized on an instalment basis by the Board of Revenue Commissioners. Arrears of taxes means unpaid hospitalization taxes levied in respect of any or all of the five years immediately preceding the current year.

A baby born to a mother who is a beneficiary is automatically covered by the Plan without registration for the period to which the mother's tax payment applies. Newborns are not registered with family units until the following year.

For 1947, the first year of the Plan's operation, the hospitalization tax was \$5 per person, with a family maximum of \$30. Identical rates were in effect for the year 1948. For 1949, tax rates were increased to \$10 for adults and \$5 for dependent children, with the family maximum remaining at \$30. Tax rates were continued at this level for each of the years 1950-1953. The adult rate was increased to \$15, the family maximum to \$40, and the rate for dependent children remained unchanged for each of the years 1954, 1955 and 1956. For 1957 and 1958, the adult rate was increased to \$20 and the family maximum to \$45, without any change in the rate for dependent children. The single adult rate for 1959 was reduced to \$17.50, and the family tax to \$35, with no tax required for dependent children under 18 years of age. These rates also applied for 1960, except that tax exemption provision for dependent

children was extended to include such children under 21 years of age, if they were attending certain types of educational or training institutions. At the same time the tax was removed for dependent children of any age who were mentally or physically incapacitated. For 1961, hospitalization tax rates, due dates and payment provisions were as follows:

For each self-supporting person or a spouse (including a widowed, divorced or separated person) .....	\$24
For each person who reached the age of 18 years before January 1, 1961 .....	\$24
(except unmarried dependents under 21 years before January 1, 1961, who were attending educational institutions or training at a school of nursing, and sons and daughters regardless of age who were dependent on parents for maintenance by reason of physical or mental infirmity)	
Dependents who had not reached the age of 18 years before January 1, 1961, were not taxable.	
Dependents who were exempt from taxation were required to be shown as beneficiaries on family hospital services cards.	
The family tax for a family head, his spouse and his non-taxable dependants was .....	\$48
The assessed tax was payable in a lump sum by November 30, 1960, or where the assessed tax was \$24, at least \$12 was due by November 30, 1960, and the balance by May 31, 1961. Where it was assessed on the family basis (\$48), at least \$12 was due by November 30, 1960, an additional \$12 by February 28, 1961, an additional \$12 by May 31, 1961, and the remaining \$12 by August 31, 1961.	

The hospitalization tax for 1962, collection of which began in the fall of 1961, was set at the same levels as the 1961 tax. No changes were made in the age limits or classification of persons designated as non-taxable dependents. Due dates and other requirements for payment of the tax are the same as those which applied to the year 1961.

In most areas of the province, cities, towns, villages, rural municipalities and local improvement districts are collectors of the hospitalization tax. Provincially operated hospitalization tax collection offices, however, have been established in the cities of Moose Jaw, Prince Albert and Regina. Where municipal corporations exist within the Northern Saskatchewan Administration District, the corporations are collectors. In this district also, a few mining companies have been appointed collectors for their employees. The Department of Natural Resources is the collector elsewhere in this far northern section of the province. Commissions are paid to collectors of the tax for their services at rates which are fixed annually. Commission rates paid during 1961 were three per cent on the first \$100,000 collected, and two and one-half per cent on amounts above that figure.

### Benefits

Since its beginning, the Plan's schedule of benefits has included most inpatient services required by beneficiaries in Saskatchewan hospitals. No limit, except as imposed by medical necessity, is placed on the amount of inpatient care which a beneficiary may obtain at the Plan's expense from such institutions. The schedule also includes inpatient services (within limits described later) obtained by beneficiaries from hospitals located outside the province. The benefit schedule excluded all outpatient services in the years prior to 1956. Effective January 1, 1956, the Plan began to pay for tissue pathology services provided by Saskatchewan hospitals on an outpatient basis. Emergency outpatient treatment (excluding private physician's services) rendered by Saskatchewan hospitals to beneficiaries within 24 hours of injury was added on July 1, 1958. The



24-hour limit was removed at the beginning of 1960. Outpatient services obtained by beneficiaries from institutions located outside the province are not covered by the program. Coverage of hospital bills for both inpatient and outpatient care by the Plan is contingent on medical necessity for such care, established in each case by the opinion of the physicians attending the beneficiary.

Although some changes have been made to the original list of services provided to inpatients, they are of a minor nature, involving drug items for the most part. The inpatient benefit schedule includes payment for public ward accommodation (including meals, special diets and necessary nursing care), use of operating, case and emergency rooms, surgical dressings and casts, x-ray, physiotherapy, anaesthetic drugs and equipment, and most drugs in general use. Benefits do not include the services of doctors or nurses not employed by hospitals, extra charges for private or semi-private accommodation, and services rendered purely for diagnosis. Also excluded are patent medicines, a few of the newer and more expensive medicines and all drugs not administered within hospitals. Hospitalization for the treatment of arthritis or rheumatism in institutions associated with mineral springs or spas is excluded from the schedule of benefits.

Coverage of hospital care obtained by beneficiaries outside Saskatchewan involves only those inpatient services which are included as benefits in Saskatchewan hospitals. During the period January 1, 1947, to December 31, 1960, a number of changes were made in the Plan's out-of-province benefits. Details of such benefits for years prior to 1961 are given in previously published annual reports. During 1961, the out-of-province benefits available to beneficiaries of the Plan were as follows:

- (a) For beneficiaries temporarily absent from the province:
  1. *In Canada*—payment for any period of inpatient general ward care during the year at the per diem rates payable by the provincial or territorial authority having jurisdiction, subject to there being medical necessity for such care.
  2. *Outside Canada*—payment for a maximum of 60 days of inpatient care during the year at the level of hospital services provided in Saskatchewan, subject to there being medical necessity for such services. Payment for such care could not exceed an average maximum of \$15 a day for adults and children and \$5 a day for newborn babies.
- (b) For beneficiaries who left Saskatchewan to establish residence elsewhere:

Payment was made to or on behalf of a beneficiary who had left the province and did not intend to return, on the same basis as provided to beneficiaries temporarily absent from the province, except that payment could not be made in respect of hospital care received after three months from the date on which residence was established outside Saskatchewan.

#### **Hospitalization Experience (Inpatient Care)**

Until July 1, 1958, the Plan's inpatient program included only care provided by public general hospitals. Since that date it has also included care provided by the geriatric hospitals at Regina, Saskatoon and Melfort. References to inpatient volume in this section of the report exclude care provided by these institutions. Particulars on the volume of chronic care covered in geriatric hospitals are provided separately.

The term "separations", as used in this report, includes deaths, discharges, and transfers to other hospitals. The term is to be considered synonymous with "discharged cases" as was used in annual reports of the Plan for the years prior to 1960. Unless otherwise stated, experience given on inpatient use of hospital facilities refers to separations and days of care received by such cases.

Excluding care provided by three provincial geriatric centres, Table 39 shows the Plan's volume of care, together with average stays, for the years 1947, 1951, 1956, 1960 and 1961.

TABLE 39. VOLUME OF HOSPITAL CARE COVERED BY THE SASKATCHEWAN HOSPITAL SERVICES PLAN, 1947, 1951, 1956, 1960 AND 1961

Year	Hospital cases*		Patient days		Average days of stay		
	Admissions	Separations	Days for separations†	Total days of care during year†	Per separation	Total days divided by admissions	Total days divided by separations
Adults and children							
1947.....	125,510‡	121,951	1,221,453	1,309,288	10.0	10.4	10.7
1951.....	155,119	154,848	1,715,232	1,721,629	11.1	11.1	11.1
1956.....	168,076	168,147	1,744,592	1,732,456	10.4	10.3	10.3
1960.....	192,112	192,276	1,883,696	1,878,816	9.8	9.8	9.8
1961.....	192,063	191,806	1,863,515	1,871,043	9.7	9.7	9.8
Newborns							
1947.....	20,706‡	20,415	187,092	188,430	9.2	9.1	9.2
1951.....	19,725	19,729	169,062	168,664	8.6	8.6	8.5
1956.....	22,323	22,352	165,597	165,777	7.4	7.4	7.4
1960.....	23,744	23,725	162,126	162,597	6.8	6.8	6.9
1961.....	23,496	23,505	159,998	159,447	6.8	6.8	6.8

\* Cases in hospital at December 31, 1961, and days of care accrued in respect of such cases were as follows:  
Adults and children 4,613 cases, 91,407 days,  
Newborns 383 cases, 2,126 days.

† "Days for separations" differ from "Total days of care during year" in that all days of care for "separations" are included in the former, even though some of the care may have been given in preceding years, while "Total days of care during year" cover all care provided to Saskatchewan Hospital Services Plan beneficiaries during a given year, including care received by patients remaining in hospital at the year-end.

‡ Includes beneficiaries in hospital when the Plan commenced operations on January 1, 1947.

Experience for adults and children in 1961 for the first time shows a reduction from the previous year in the volume of separations and related patient days. Separations for 1961 amounted to 191,806, compared to 192,276 for 1960. Patient-day volume for 1961 amounted to 1,863,515, compared to 1,883,696 for 1960. The reduction of 470 in separations amounts to 0.24 per cent, while the reduction of patient days of 20,181 amounts to 1.1 per cent. From 1960 to 1961, the Plan's covered population increased by 1.2 per cent.

The Plan's volume of care from year to year can be affected by many factors, including increases in covered population, changes in morbidity experience, changes in age-sex distribution of population, birth rates, hospital bed capacity, addition of classes of residents previously excluded from the Plan's operations, and advances in medical treatment of diseases. Because of the variety of these factors, it appears impossible to attribute a change in volume from one year to the next to one or two specific causes.

The Plan's level of newborn care, of course, is affected by changes in the province's birth rate from year to year. As may be seen in Table 39 newborn separations decreased by 220 from the 1960 total. Patient-day volume during the same period decreased by 2,128 or 1.3 per cent.

Between 1947 and 1951, the Plan's average stay in hospital for adults and children increased from 10 days to 11.1 days. Since 1951, the average stay has decreased gradually to 9.7 days for 1961. The average stay for newborns has decreased steadily from 9.2 days in 1947 to 6.8 days in 1961.

In addition to volume based on separations, Table 39 also shows total volume for the years listed, including days of care provided to patients remaining in hospital at December 31. Again it should be noted that care provided by geriatric hospitals is excluded. Total days of care for adults and children decreased by 7,773 between 1960 and 1961, and for newborns by 3,150.

Hospitalization rates for each of the Plan's 15 years of operation are shown in Table 40. The incidence of hospital care is expressed in terms of admissions and separations per 1,000 beneficiaries, and rates of volume of care reflect patient days per 1,000 beneficiaries (based on separations) and on total days of care provided during the year.

TABLE 40. HOSPITALIZATION RATES\* PER 1,000 BENEFICIARIES, SASKATCHEWAN HOSPITAL SERVICES PLAN, 1947-1961

Year	Hospital cases		Patient days	
	Admissions	Separations	Separations	Total days of care during year
1947.....	161	156	1,565	1,678
1948.....	178	178	1,875	1,920
1949.....	200	200	2,048	2,095
1950.....	204	203	2,197	2,235
1951.....	199	199	2,201	2,209
1952.....	205	205	2,175	2,155
1953.....	206	206	2,139	2,094
1954.....	204	204	2,084	2,045
1955.....	201	201	2,049	2,051
1956.....	202	202	2,099	2,085
1957.....	211	211	2,120	2,093
1958.....	206	205	2,043	2,063
1959.....	210	210	2,091	2,083
1960.....	214	214	2,094	2,088
1961.....	211	211	2,048	2,056

\* Excluding newborns.

During the 15-year period the case rate has varied from a low of 156 separations per 1,000 beneficiaries for the first year of operation to a high of 214 per 1,000 experienced in 1960. The 1961 rate dropped to 211 per 1,000. In terms of patient days per 1,000, rates increased rapidly over the first four years to a high of 2,201 per 1,000 in 1951. Although the system of payment adopted by the Plan in 1951 probably was influential in stabilizing rates for subsequent years, other factors also are involved. Variations from year to year are affected by many factors, including the availability of hospital beds, age and sex distribution of covered population, diagnoses, participation by groups considered "high risk" categories, etc. In examining rates for recent years it should be noted that since July 1, 1958, Indians and War Veterans Allowance recipients have been participating in the Plan. These two federal categories experience considerably higher hospitalization rates than the province's population as a whole.

Hospitalization rates for 1960 and 1961 are shown by age and sex in Tables 41 and 42.

TABLE 41. SEPARATIONS\* PER 1,000 BENEFICIARIES BY AGE AND SEX, SASKATCHEWAN HOSPITAL SERVICES PLAN, 1960 AND 1961

Age in years	Both sexes		Male		Female	
	1960	1961	1960	1961	1960	1961
All ages.....	214	211	171	169	259	255
0-1.....	389	403	432	454	344	348
1-4.....	175	173	189	188	160	158
5-14.....	122	117	125	117	119	117
15-24.....	214	213	103	100	326	326
25-44.....	219	215	102	101	336	329
45-64.....	206	205	181	181	233	231
65-74.....	341	337	336	336	346	338
75+.....	553	549	563	559	540	537

\* Excluding newborn care.

TABLE 42. PATIENT DAYS\* PER 1,000 BENEFICIARIES BY AGE AND SEX, SASKATCHEWAN HOSPITAL SERVICES PLAN, 1960 AND 1961

Age in years	Both sexes		Male		Female	
	1960	1961	1960	1961	1960	1961
All ages.....	2,094	2,048	1,845	1,821	2,359	2,288
0-1.....	3,587	3,699	3,988	4,182	3,162	3,177
1-4.....	1,247	1,209	1,309	1,311	1,181	1,099
5-14.....	704	650	732	661	675	637
15-24.....	1,385	1,348	753	720	2,020	1,981
25-44.....	1,652	1,599	885	853	2,421	2,346
45-64.....	2,469	2,439	2,245	2,225	2,718	2,674
65-74.....	5,498	5,382	5,429	5,441	5,585	5,310
75+.....	10,479	10,308	10,328	10,324	10,672	10,288

\* In respect of separations. Newborns excluded.

When the government of Canada became involved in cost-sharing of provincial hospital care insurance programs, under authority of the Hospital Insurance and Diagnostic Services Act, the Minister of National Health and Welfare established an advisory committee composed of a representative of each of the provinces and territories and a number of federal officials. The committee subsequently established a sub-committee which was made responsible for recommendations with respect to research and statistics related to general hospital care in Canada. One of the recommendations made by the sub-committee, and later approved by the parent committee, was that provincial hospital care insurance programs should present statistical morbidity data on a uniform basis. From the International Statistical Classification of Diseases, 1955 Revision, the sub-committee established a group of 98 diagnostic categories which were recommended as the basis for national study and comparison. The Saskatchewan Hospital Services Plan has adopted the diagnostic grouping of the Canadian List, and morbidity data in this report, accordingly, are presented on that basis.

The 15 most frequent causes of hospitalization for adults and children in 1961 are shown with incidence rates in Table 43 together with comparative data for the preceding year.

TABLE 43. LEADING DIAGNOSES OF HOSPITAL PATIENTS, SASKATCHEWAN HOSPITAL SERVICES PLAN, 1960 AND 1961

Canadian list numbers*	Diagnosis	Separations†		Per cent of separations		Separations per 1,000 beneficiaries	
		1960	1961	1960	1961	1960	1961
75-76	Deliveries.....	23,750	23,549	12.4	12.3	26.4	25.9
50	Hypertrophy of tonsils and adenoids.....	9,777	10,094	5.1	5.3	10.9	11.1
38-39	Diseases of heart.....	8,584	8,708	4.5	4.5	9.5	9.6
48	Pneumonia.....	10,147	8,621	5.3	4.5	11.3	9.5
86-90	Fractures.....	6,678	6,882	3.5	3.6	7.4	7.6
49	Bronchitis.....	5,683	5,604	3.0	2.9	6.3	6.2
73	Complications of pregnancy.....	5,588	5,393	2.9	2.8	6.2	5.9
6-18	Malignant neoplasms.....	4,908	5,060	2.6	2.6	5.5	5.6
46	Acute upper respiratory infections..	4,855	4,805	2.5	2.5	5.4	5.3
61	Diseases of gall bladder and pancreas.....	4,294	4,744	2.2	2.5	4.8	5.2
58	Gastroenteritis and colitis, except ulcerative (age 4 weeks and over)	4,175	3,967	2.2	2.1	4.6	4.4
55	Appendicitis.....	4,009	3,724	2.1	1.9	4.5	4.1
80	Arthritis and rheumatism, except rheumatic fever.....	3,505	3,372	1.8	1.8	3.9	3.7
47	Influenza.....	3,191	3,311	1.7	1.7	3.5	3.6
35	Diseases and conditions of the eye....	2,040	2,192	1.1	1.1	2.3	2.4

\* A Canadian List of 98 diagnoses selected for study by provincial hospital insurance programs.

† Excluding newborns.

### Chronic Care in Provincial Geriatric Hospitals

Prior to July 1, 1958, the Plan's coverage of inpatient care involved only public general hospitals. Since that date the Plan has covered care provided to its beneficiaries by the provincial geriatric hospitals at Regina, Saskatoon and Melfort. It has also covered inpatient care provided by the 50-bed Physical Restoration Centre associated with the Regina Geriatric Hospital. Although care provided by the three geriatric hospitals is almost entirely geriatric care, patients in the Physical Restoration Centre range in age from very young to very old.

Care provided during 1961 by the three geriatric hospitals and the Physical Restoration Centre involved 948 beneficiaries of the Plan. Of these, 417 remained under care at December 31. Separations during the year totalled 531, and deaths accounted for 18.8 per cent of the separations.

At the end of 1961 there were 417 patients who were beneficiaries receiving care in the geriatric hospitals. Females represented 58 per cent of the total of 417 patients. Patients 65 years of age and over accounted for 89.2 per cent of the total of 417.

The 417 cases remaining in hospital had accumulated 296,226 patient days of care at the Plan's expense at the year-end. Patients in hospital for one year or less accounted for 33.1 per cent of total cases and 7.5 per cent of the patient-day total. Those in for two years or less represented 53 per cent of the case total and accounted for 22.5 per cent of the patient-day total. Cases of more than two years duration represented 47 per cent of total cases and accounted for 77.5 per cent of patient days of care.

During the three and one-half years the Plan has been involved with geriatric care, diagnoses reported from year to year have been similar. Most of the long-stay cases involve multiple diagnoses commonly associated with aged persons. Approximately 60 per cent of the cases involve old and long-standing hemiplegia, Parkinson's disease and senility. Other diagnoses occurring frequently are arthritis and rheumatism (excluding rheumatic fever), vascular lesions affecting the central nervous system and arteriosclerotic and degenerative heart disease.

Payments by the Plan to the three geriatric hospitals during 1961 totalled \$1,096,531.

### **Hospitalization Experience (Outpatient Services)**

Until January 1, 1956, the Plan's schedule of benefits excluded all outpatient services. From that date outpatient services involved with tissue pathology were included. Since July 1, 1958, the schedule has included outpatient services provided by Saskatchewan hospitals in the course of providing emergency treatment after injury to beneficiaries. From July 1, 1958, to the end of 1959, such emergency treatment was covered by the Plan only if services were obtained within 24 hours of injury. Effective January 1, 1960, the 24-hour time limit was removed, and the Plan began to cover follow-up services related to the initial emergency treatment. The emergency treatment program covers all hospital services involved with outpatient service, including x-ray, laboratory services and use of an operating room. Drugs not included as benefits in the Plan's outpatient program, and drugs taken away from the hospital for use at home, however, are not covered.

The tissue pathology program involves use of hospital outpatient facilities in procuring tissue for pathological examination, and for subsequent examinations of such tissue by hospital pathology laboratories. It does not cover fees for private physicians' services involved in removing tissue within hospital outpatient departments nor in physicians' offices or clinics. At the end of 1961 there were ten public general hospitals in the province operating pathology departments.

Since 1956 there has been a marked increase in the number of pathological examinations covered under the Plan's tissue program. Total services (outpatient tissue removal and laboratory examinations) amounted to 2,604 in 1956 and 12,202 in 1961. Laboratory examinations amounted to 3,354 in 1956, as compared to 7,393 in 1961.

The Plan pays Saskatchewan hospitals \$5 for each outpatient admission for the emergency treatment program. From the beginning of 1956 to the end of 1959, its payments were \$2 for each tissue taken on an outpatient basis and \$4 for each specimen examined by a pathology laboratory. Since January 1, 1960, the Plan has paid \$5 for each tissue specimen taken and the same amount for the laboratory examination.

An examination of the types of service provided as initial treatment under the emergency treatment program in 1961 shows that 87 per cent of the cases came within three classes. Sutures and dressings accounted for 52 per cent, fracture reductions for 10 per cent, and x-ray examinations for 25 per cent. Home accidents accounted for 20,650 cases, or 48 per cent of total cases. Recreational accidents accounted for 24 per cent, street and highway accidents for 13 per cent and farm accidents (excluding those in farm homes) for 12 per cent.

**Cost of Operations**

Table 44 presents a comparison of the Plan's expenditures for the years 1947-1951, and 1957 to 1961, inclusive.

TABLE 44. SASKATCHEWAN HOSPITAL SERVICES PLAN EXPENDITURE\*,  
1947, 1951, 1957, 1958, 1959, 1960 AND 1961

Year	Total expenditure			Hospitalization expense			Administration expense		
	Amount	Per cent	Per capita	Amount	Per cent	Per capita	Amount	Per cent	Per capita
1947.....	\$ 7,560,763	100.0	\$ 9.68	\$ 6,963,258	92.1	\$ 8.92	\$ 597,505	7.9	\$ 0.76
1951.....	14,010,912	100.0	17.97	13,430,802	95.9	17.22	580,110	4.1	0.75
1957.....	24,553,642	100.0	29.66	23,757,006	96.8	28.70	796,636	3.2	0.96
1958.....	28,723,035	100.0	33.18	27,874,337	97.0	32.20	848,698	3.0	0.98
1959.....	32,588,183	100.0	36.68	31,783,824	97.5	35.78	804,359	2.5	0.90
1960.....	35,520,814	100.0	39.48	34,675,293	97.6	38.54	845,521	2.4	0.94
1961.....	36,056,608†	100.0	39.62†	35,082,017†	97.3	38.55	974,591	2.7	1.07

\* Figures for the years prior to 1961 have been adjusted to include retroactive increases in hospital rates of payment.

† May be increased by retroactive hospital rate changes effected after the date of this report.

Additional information on the province's hospital care insurance program for each of the years 1947 to 1961 may be obtained from separately published annual reports of the Saskatchewan Hospital Services Plan.

## HOSPITAL ADMINISTRATION AND STANDARDS

Because local governing authorities have considerable autonomy in respect to the construction, maintenance and operation of public general hospitals throughout Saskatchewan, the staff of the division of hospital administration and standards functions mainly as counsellors to these authorities. It is their objective to assure that members of the general public admitted to hospital receive a good standard of care at reasonable cost.

The work program of the division is therefore planned to that end, authority being derived from The Hospital Standards Act, regulations thereunder and also The Union Hospital Act. Of 165 hospitals in the province 111 are union hospitals.

### **Inspecting and Counselling**

Supervised by a medical director, representatives of many of the disciplines related to hospital activity make up the staff complement including hospital administration, accounting, nursing, dietetics, medical technology, pharmacy, and medical records.

For administrative purposes, the province is divided into eastern and western portions and some divisional personnel (medical technology, nursing, dietetics, and accounting) are assigned, as steadily as possible to one area or the other, under the supervision of senior staff.

Staff members representing pharmacy, case records and union hospital district activity, function on a province-wide basis.

Divisional staff offer guidance on such matters as planning construction projects, the purchase and installation of equipment, the development of hospital bylaws and medical staff rules and regulations, personnel policies, preparation of budgets, general administration. They process all applications and claims for hospital construction grants.

Since 1947 the medical technologists on staff have functioned as instructors and supervisors for the training of combined laboratory and x-ray technicians for duty in the small public general hospitals. Financed by federal monies, under the National Health Grants program, 20 such students were graduated during the year under review, bringing the total number graduating, since the inception of the program to 190.

Financial and statistical data are collected and analyzed to be used in setting equitable rates of payment for individual hospitals and for cost sharing purposes under the federal Hospital Insurance and Diagnostic Services Act.

The financial and statistical data from which equitable rates of payment to hospitals are determined, are obtained from the uniform accounting system used in Saskatchewan hospitals. A staff of field auditors checks completeness and accuracy of hospital accounting records. These auditors also assist in "on the job" training of new hospital personnel who may be unfamiliar with hospital accounting, and the uniform accounting system. The information provided by hospitals



through the uniform accounting system is collated and processed, and from this information, reports, tables and charts are prepared which are used by the Hospital Rate Board in assessing hospital operations, estimating rates of payment to hospitals and for calculating the federal share of costs.

Members of the field staff of this division made 1,611 visits to hospitals, travelling 192,206 miles in the process. Data about the inspection and counselling services provided are shown in Table 45.

### Regional Hospital Councils

The department has encouraged the development of hospital councils on a regional basis, with each council becoming a body corporate under authority of The Hospital Standards Act, having an executive officer responsible to the council to do such things as are deemed necessary by each council for its corporate purposes and for improving services and efficiency in the operation of the participating hospitals.

Each council develops its own work program and submits a budget to the department for review and approval. Costs for the approved program are apportioned among the member hospitals and recovered from the Saskatchewan Hospital Services Plan.

There are four such hospital councils in operation involving 69 hospitals, with council staff and activities centralized at the following urban centres:

Humboldt:

Quill Plains Regional Hospital Council—11 hospitals

North Battleford:

Northwest Regional Hospital Council—20 hospitals

Prince Albert:

North Central Regional Hospital Council—18 hospitals

Swift Current:

Southwest Regional Hospital Council—20 hospitals

### Hospital Construction and Accommodation

With the number of beds available for general hospital care continuing at a higher rate for the province than the Canadian average, hospital construction has had as a main objective the replacement of non-acceptable beds, plus improved service facilities and accommodation for staff, rather than the provision of new beds.

Accommodation in general hospitals is computed for a calendar year. On December 31, 1961, 165 general hospitals, nursing homes, geriatric centres and Indian Health Services hospitals and nursing stations were in operation (Table 46). Measured capacity totalled 6,983 beds with 7,527 beds estimated to be set up and in use.

All hospital wards in the province are now rated according to standards established by the federal government.

Provincial government assistance towards construction costs of general hospitals has been provided since 1945. This assistance has been matched in most instances by equivalent federal grants since 1948. During the fiscal year ending March 31, 1962, provincial grant payments for construction totalled \$1,821,071.20 apportioned as follows:

General hospital construction .....	\$1,800,335.36
Staff residences .....	9,315.84
Health centres .....	11,420.00

The following table shows the individual hospitals involved and the amounts of provincial grants paid during the 1961-62 fiscal year.

*Provincial construction grants paid during the fiscal year, 1961-62*

	<i>Amount paid</i>
Total .....	\$1,821,071.20
Birch Hills Health Centre .....	3,500.00
Fillmore Union Hospital .....	12,461.66
Foam Lake Union Hospital .....	5,000.00
Grenfell Union Hospital .....	72,747.00
Il a la Crosse Hospital .....	2,873.50
Loverna (Red Cross Society) .....	140.00
Macklin, St. Joseph's Hospital .....	1,012.17
Meadow Lake Union Hospital .....	1,700.44
Moose Jaw Providence Hospital .....	96,118.09
Nokomis Union Hospital .....	1,670.00
Norquay-Canora Union Hospital .....	16,793.33
Outlook Union Hospital .....	62,979.75
Prince Albert, Holy Family Hospital .....	262,900.00
Rabbit Lake Union Hospital Nurses' Residence .....	1,065.84
Regina Grey Nuns' Hospital .....	13,801.54
Rosthern Union Hospital .....	11,583.00
Saskatoon City Hospital .....	79,405.00
Saskatoon, St. Paul's Hospital .....	742,416.00
Stoughton Health Centre .....	7,920.00
Swift Current Union Hospital .....	23,149.23
Tisdale St. Therese Hospital .....	20,500.00
Wakaw Union Hospital .....	7,121.00
Weyburn Union Hospital .....	29,571.67
Whitewood-Moosomin Nurses' Residence .....	3,750.00
Wolseley Nurses' Residence .....	4,500.00
Yorkton Union Hospital .....	336,391.98

### Union Hospital District Activities

No new union hospital districts were established and no existing union hospital districts were disbanded during the fiscal year 1961-62.

The usual activity with respect to the inclusion of fringe areas to existing union hospital districts, the transfer of areas from one union hospital district to another, and area redefinitions of union hospital districts were carried on during the year, involving eight municipalities or portions of municipalities and ten union hospital districts.

There are now 111 union hospital districts officially established, involving a population of some 510,800, as at March 31, 1962.

Additional areas involving a population of some 212,200, contribute toward hospital capital costs by municipal taxation. Based on the 1961 census of 925,181, approximately 78 per cent of the population now contributes in this way.

### Hospital Survey Committee

During the year under review, a major contribution was made by all divisional field staff toward the work of the Hospital Survey Committee, by gathering, recording and collating information about the public general hospitals of this province, for inclusion in the report of the committee.

To a marked degree, this explains the increase over previous years, in numbers of hospital visits and miles travelled in the process.

TABLE 45. COUNSELLING SERVICES OF THE DIVISION OF HOSPITAL ADMINISTRATION AND STANDARDS, SASKATCHEWAN, 1959-1961

Inspecting and counselling services	1959	1960	1961
Number of visits.....	684	1,032	1,611
Inspecting and counselling in general.....	458	598	691
Assessment of physical plant, area and facilities....	6	9	8
Construction and renovation projects.....	2	97	55
Purchase and installation of equipment.....	5	2	4
General administration and business management	10	44	29
Personnel surveys and staffing problems.....	5	37	38
Costing surveys.....	11	6	3
Problems prior to rate or deficit decisions.....	46	46	68
Problems subsequent to rate or deficit decisions....	16	24	10
Institutes or conferences.....	36	64	55
Special problems (including hospital survey).....	58	65	607
Clinical Laboratory-X-ray Course interviews.....	31	33	42
Administration of Union Hospital District Affairs.....	.....	7	1
Miles travelled*.....	97,131	169,742	192,206

\* Continued work on the Hospital Survey Report accounts for the marked increase in miles travelled.

TABLE 46. NUMBER OF BEDS IN PUBLIC GENERAL HOSPITALS, GERIATRIC CENTRES, INDIAN HEALTH SERVICES UNITS AND NURSING HOMES UNDER PERMIT, SASKATCHEWAN, DECEMBER 31, 1958-1961

Item	Year			
	1958	1959	1960	1961
Number of institutions.....	166	165	165	165
Measured bed capacity				
Number of beds.....	6,727†	6,834	6,841	6,983
Beds per 1,000 population*.....	7.5	7.5	7.5	7.5
Beds set up				
Number of beds.....	7,394†	7,556	7,439	7,527
Beds per 1,000 population*.....	8.3	8.3	8.1	8.1
Beds set up in excess of provincial measured capacity				
Number of beds.....	667	722	598	544
Per cent.....	9.9	10.6	8.7	7.8

\* Based on revised intercensal estimates, 891,000 for 1958, 907,000 for 1959, and 915,000 for 1960; and on the census figure of 925,181 for 1961.

† This rise is mainly due to the inclusion of the Geriatric Centres and Indian Health Services Units.

## AIR AMBULANCE SERVICE

The Saskatchewan Air Ambulance Service was organized just over 16 years ago. In this period of continuous service, 13,646 patients have been transported. Approximately one-half of the 27,000 landings were completed in unprepared rural areas, and a record of no injuries to either crew or passengers as a result of accidents, has been maintained.

### Experience

The number of patients transported during the year decreased to a total of 1,055. In the year 1960-61, 1,079 patients were transported, and 1,033 in 1959-60. A total of 293,169 miles were flown in order to complete the flights, and aircraft were in the air for 2,033 hours compared with 305,708 miles and 2,074 hours in 1960-61. This constitutes a decrease of 12,539 miles and 41 hours. The decrease was due to the 24 fewer patients carried. Eleven flights were completed to centres outside the province. Fifteen other requests for out-of-province flights were not completed because of cost and other factors. Ten flights were made to transport blood for the Canadian Red Cross for which no charge was levied.

Of the 1,055 completed flights, 703 or 66.6 per cent were handled from the Saskatoon base. This is an increase of two flights or approximately 1.6 per cent increase over last year's figures. The number of flights completed from the Regina base decreased slightly from 378 to 352. It is apparent that the University Hospital in Saskatoon continues to be the preferred referral centre. This explains the imbalance in flight totals between the two bases.

A total of 218 emergency flights were completed by aviation services in the far north (not included in the total of 1,055). This figure has remained fairly constant over the last two years and is down only four flights from the previous year's level. Air Ambulance aircraft have been utilized whenever possible in the far north in an effort to keep the costs to a minimum, but because of the heavy demand for air service, the crew based at Saskatoon has at times found it difficult to cope with the demand.

There were 101 flight requests not completed during the year due to unsuitable and hazardous landing conditions, death of the patients before pickup, and unacceptable charges (outside the province).

Several flights were initiated and completed after dark, some to lighted airports and others into fields in small centres. Night flights into unprepared areas were attempted only if the area was previously known, or the terrain in the vicinity was of such a nature as not to result in excessive risk. The service continued to operate 24 hours a day, 365 days a year.

### Staff

The service continued to employ a staff of 19 persons—a supervisor and chief pilot, a senior flight nurse, three flight nurses, three pilots, eight maintenance staff, a caretaker, a radio technician and a stock clerk.

### Equipment

The oldest aircraft in the service (purchased in 1952) was replaced at the first of the year with a high performance Helio Courier aircraft of comparable physical size, but capable of greatly increased performance under difficult landing and take-off conditions. The addition of this aircraft has enhanced the ability of the service to provide safe, yearlong transportation.

Other items of specialized medical and maintenance equipment remain unchanged.

### Charges

The rates for in-province flights were changed for the first time since the service began in 1946. Within the province of Saskatchewan, patients are now charged \$35 regardless of distance, in place of \$25, and passengers are charged \$15 each. Outside the province, the charges have been raised from 35 cents to 50 cents for each mile flown.

### Service

The distribution of flights during the year, according to specified type of illness, is shown below. As in the past, the largest group of patients requiring emergency transportation were victims of accidents.

The greatest increase occurred in the categories of premature infants and diseases of the central nervous system.

	1959-60	1960-61	1961-62
All patients .....	1,033	1,079	1,055
Accident cases including fractures, burns and wounds .....	271	273	279
Arthritis .....	5	4	5
Cancer and tumours .....	71	105	74
Cardiac conditions .....	45	57	36
Chest conditions .....	39	39	39
Complications of communicable diseases .....	2	3	8
Diseases of blood .....	58	66	49
Diseases of central nervous system .....	107	118	140
Eye, ear, nose and throat disorders .....	4	—	14
Gastro-intestinal .....	165	192	203
Genito-urinary .....	92	53	64
Poliomyelitis .....	13	18	3
Pregnancy with complications .....	47	53	43
Premature infants and congenital deformities .....	59	61	74
Psychiatric disorders .....	17	20	4
Other (senile to nursing home, poliomyelitis for repair, post-operative complications) .....	38	17	20

## MEDICAL SERVICES (PUBLIC ASSISTANCE)

This is the 17th annual report prepared on the activities of the Medical Services Division which administers a program whereby a wide range of health services are made available to persons listed as eligible under one of the provincial public assistance categories. Administration is carried out under two programs. A brief description of the beneficiaries of these two programs follows:

### Beneficiaries — Program I

The beneficiaries of this program include:

- Recipients of Old Age Security pensions who qualify for the provincial supplemental allowance OAS(SA) on a needs test<sup>1</sup> together with their spouses and dependents.
- Recipients of Blind Persons Allowance (BPA) who qualify for provincial supplemental allowance on a needs test<sup>1</sup> together with their spouses and dependents.
- Recipients of Aid to Dependent Families (ADF) including incapacitated husbands and dependents. This category was previously known as Mothers Allowance.
- Beneficiaries of this program are nominated for health services by the Department of Social Welfare and Rehabilitation.

The following table shows the average number of recipients in each of the past five years:

<i>Fiscal year</i>	<i>Average number of beneficiaries</i>	<i>O.A.S.(S.A.)</i>	<i>A.D.F.</i>	<i>B.P.A.</i>
1957-58	28,390	19,310	8,540	540
1958-59	28,055	19,476	8,027	552
1959-60	27,321	19,005	7,780	536
1960-61	27,318	18,913	7,873	532
1961-62	26,845	18,099	8,188	558

The beneficiaries by age group for 1960-61 were as follows:

Total	27,318
Under 1	145
1-4	782
5-14	3,547
15-24	1,334
25-44	1,260
45-64	2,407
65-69	1,225
70 and over	16,118

### Beneficiaries — Program II

The following shows the categories of beneficiaries included under this program:

- Government Wards
- Jail
- Rehabilitation cases
  - (1) Vocational Rehabilitation
  - (2) Certain Metis Groups
- Social Aid cases in unorganized areas
  - (1) Local Improvement Districts
  - (2) Department of Natural Resources far north cases
- Indigent immigrants
- Prevention of Blindness cases
- Relief to destitute cases (far north)

<sup>1</sup> During the year the basis for qualification was changed from a means test to a needs test—or budget deficit.

Excluding those persons who receive care on a current episode basis only, such as Prevention of Blindness and Relief to Destitute, there was an average of 5,656 recipients under this program in 1961-62 as compared with 5,313 the previous year.

### Benefits

All beneficiaries are eligible for a wide range of services and have free choice of practitioner, including specialist physician services without referral. The medical care component of the benefits includes physicians' services in the home, office or hospital. Hospital care includes all benefits of the Hospital Services Plan to which is added outpatient services and many drugs not covered by the Plan. In addition, drugs and appliances, dental services, optical services, nursing, physiotherapy and chiropody may be obtained when required.

Reciprocal agreements exist with the British Columbia and Alberta governments whereby health services are extended to those pensioners who transferred between provinces on or prior to December 31, 1952. Pensioners transferring after that date must establish residence in the new province before being eligible for health services in those provinces.

Treaty Indians and Eskimos, whose health services are the responsibility of the federal government are excluded from benefits. Late in the calendar year 1961, out-of-province care for supplemental allowance recipients (i.e. Old Age Security (Supplemental Allowances) and Blind Persons Allowances) became a benefit for a period of three months, provided the allowance was not cancelled by the Department of Social Welfare and Rehabilitation. Payment is made at the same rates and conditions as if the services were provided in Saskatchewan. Professions rendering such services are under no obligation to accept Medical Services Division payment as payment in full, and some beneficiaries may be required to arrange for additional payments.

## HEALTH SERVICES<sup>1</sup>

### Medical and Surgical Services

By agreement with the College of Physicians and Surgeons of Saskatchewan complete medical, obstetrical and surgical services continued to be made available by the registered physicians of the province. Until April 1, 1958. Program I was administered on the basis of a per capita fund with services billed on a fee-for-service basis and an interim payment made on receipt of the account. A final pro rata disbursement of the fund was made at the fiscal year end. Since then the per capita fund has not applied and payment is made on a straight fee-for-service basis.

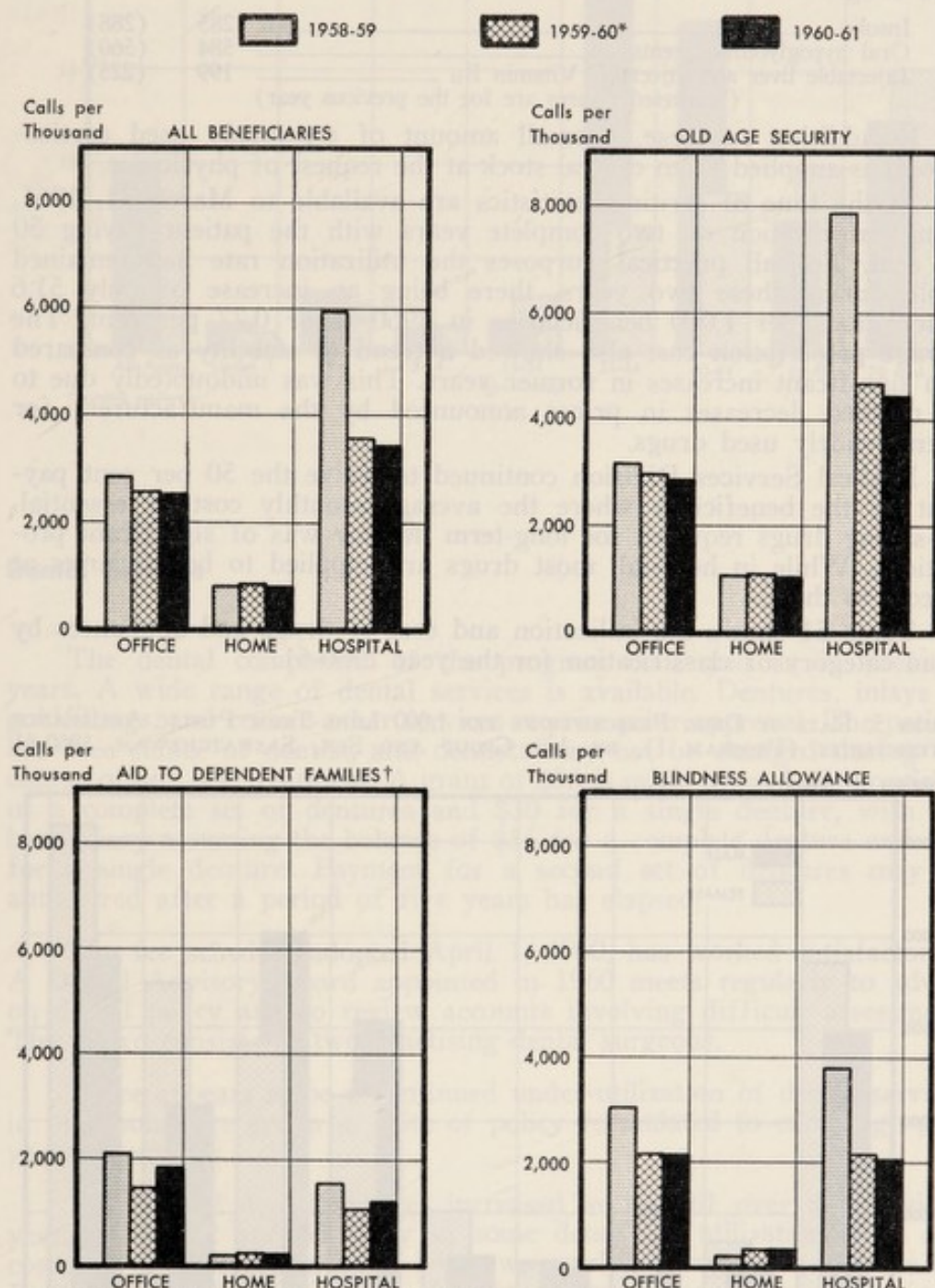
For the year 1961-62 it was agreed that payment would be made for Program I and 60 per cent of the 1959 Schedule of Fees of the Saskatchewan College of Physicians and Surgeons. This was the same as applied the previous year. Payment continued to be made for only the first 14 days of care provided by the physician for any one period of hospitalization. In Program II payment was made at 85 per cent of the 1959 Schedule of Fees of the College of Physicians and Surgeons. The 14 day limit on payment for hospital visits did not apply to Program II cases.

Table 47 shows utilization and cost of types of physicians' services in Program I. Table 48 shows a three year comparison of rates per capita costs for various types of physicians' services in Program I.

<sup>1</sup> Because the Annual Report of the Department of Public Health is published before statistical information is available for the current year, the data in most instances are for the previous year.

The particular point of interest continues to be the relationship that payments for hospital calls bears to total physicians' calls. While it is down slightly in 1960-61 from 1959-60, hospital calls still represent nearly half the total calls. This is accounted for by the fact that Program I has a high proportion of the older age group and these persons have a high rate of hospitalization as well as relatively longer periods of stay. Figure 4 shows the experience in this respect. Table 49 shows a comparison in the utilization, caseload, and payments for physicians' services for several years past.

FIGURE 4. RATE OF PHYSICIANS' CALLS PER 1,000 LONG-TERM PUBLIC ASSISTANCE BENEFICIARIES (PROGRAM I), BY TYPE OF CALL AND BENEFICIARY, SASKATCHEWAN, 1958-59 TO 1960-61



\* Due to a double counting of certain physicians' calls in 1959-60, the rates for office and hospital calls were inflated. Office and hospital calls per thousand beneficiaries for 1959-60 have been revised to indicate the correct figures.

† Formerly Mothers' Allowance



### Drug Services

Drugs and appliances continued as benefits under the program. They must have been ordered by a physician. Coverage is broad and excludes as "non-benefits" only a few of the many thousands of preparations available. The Drug Advisory Committee met late in the period under review and as a result of their recommendations several newly introduced drugs which were formerly "non-benefits" were approved for payment. Insulin and oral hypoglycemic agents for diabetes, as well as injectable liver and vitamin B<sub>12</sub> for pernicious anaemia, continued to be provided from departmental stocks when ordered by the attending physician. As of March 31, 1962, the following numbers of persons were receiving these drugs:

Insulin .....	285	(288)
Oral hypoglycemic agents .....	584	(560)
Injectable liver and injectable Vitamin B <sub>12</sub> .....	199	(225)
(bracketed figures are for the previous year)		

In addition to these, a small amount of commonly used corticosteroids is supplied from central stock at the request of physicians.

At the time of writing, statistics are available to March 31, 1961, giving information on two complete years with the patient paying 50 per cent. For all practical purposes the utilization rate has remained stable during these two years, there being an increase of only 51.6 prescriptions per 1,000 beneficiaries in 1960-61 or 0.77 per cent. The average prescription cost also showed a trend to stability as compared with significant increases in former years. This was undoubtedly due to the marked decreases in prices announced by the manufacturers for several widely used drugs.

Medical Services Division continued to waive the 50 per cent payment by the beneficiary where the average monthly cost of essential, life-saving drugs required for long-term therapy was of significant proportions. While in hospital, most drugs are supplied to beneficiaries at no cost to them.

Table 51 shows the utilization and cost of drugs and appliances by broad category of classification for the year 1960-61.

FIGURE 5. RATE OF DRUG PRESCRIPTIONS PER 1,000 LONG-TERM PUBLIC ASSISTANCE BENEFICIARIES (PROGRAM I), BY AGE GROUP AND SEX, SASKATCHEWAN, 1960-61

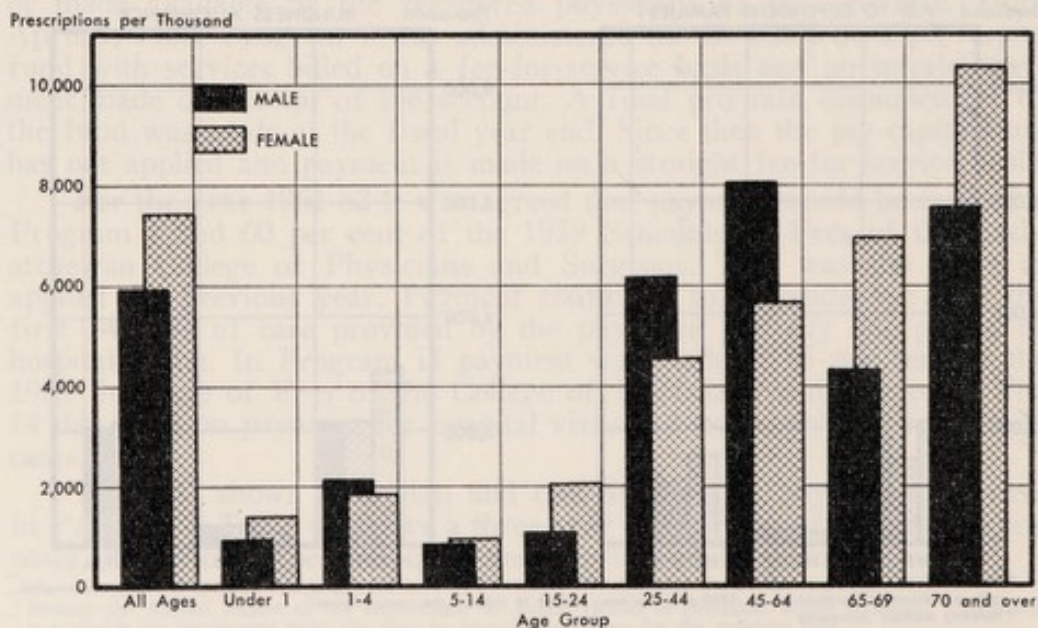
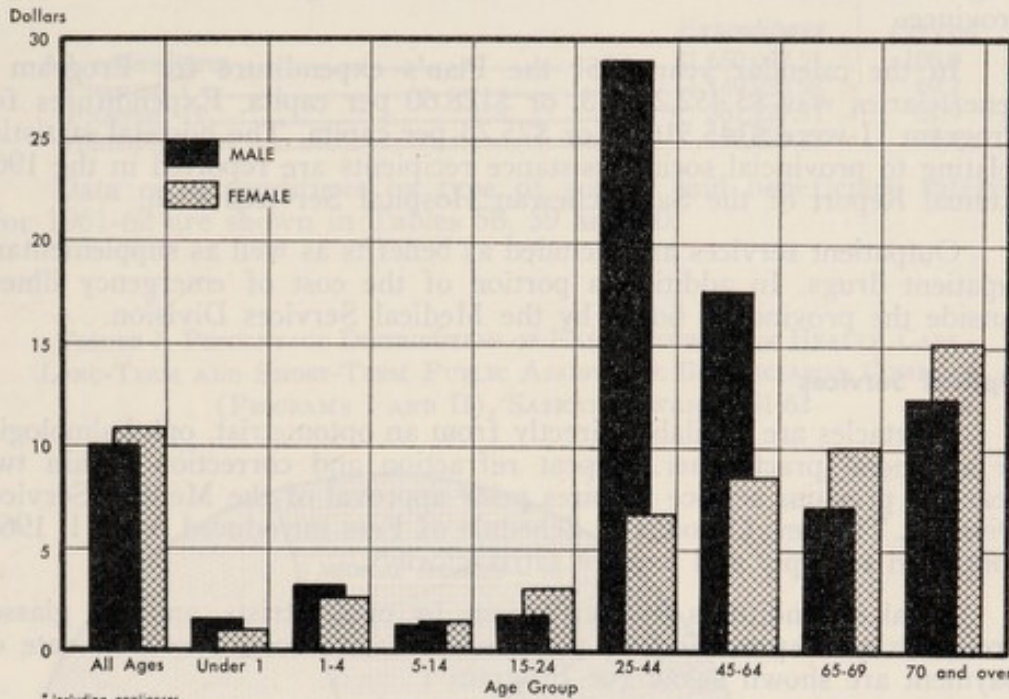


FIGURE 6. EXPENDITURES ON DRUG PRESCRIPTIONS\* PER LONG-TERM PUBLIC ASSISTANCE BENEFICIARIES (PROGRAM I), BY AGE GROUP AND SEX, SASKATCHEWAN, 1960-61



### Dental Services

The dental component of the program continued as in previous years. A wide range of dental services is available. Dentures, inlays or goldfillings, and certain other services require prior approval. The patient has free choice of dentist, and dentists may not be changed during the course of any one treatment. A grant of \$55 is made toward the provision of a complete set of dentures and \$30 for a single denture, with the beneficiary assuming the balance of \$55 for a complete denture and \$25 for a single denture. Payment for a second set of dentures may be authorized after a period of five years has elapsed.

The fee schedule adopted April 1, 1960, has worked satisfactorily. A Dental Advisory Board appointed in 1960 meets regularly to advise on dental policy and to review accounts involving difficult assessment. The Board consists of two practising dental surgeons.

There appears to be a continued under-utilization of dental services in the young age group in spite of policy formulated to encourage preventive dentistry.

The cost of dental services increased in 1960-61 over the previous year. Tables 52 and 53 show in some detail the utilization rates and costs for dental services. Table 54 shows yearly per capita expenditure for Programs I and II with the Program I categories being shown individually.

### Hospital Services

All persons under Program I are covered by the Saskatchewan Hospital Services Plan. The Plan estimates the funds required to cover these long-term beneficiaries and obtains it from the general revenues of the province.

In the calendar year 1961 the Plan's expenditure for Program I beneficiaries was \$3,452,215.43, or \$128.60 per capita. Expenditures for Program II were \$145,516.50 or \$25.73 per capita. The hospital statistics relating to provincial social assistance recipients are reported in the 1960 Annual Report of the Saskatchewan Hospital Services Plan.

Outpatient services are included as benefits as well as supplementary inpatient drugs. In addition a portion of the cost of emergency illness outside the province is borne by the Medical Services Division.

### Optical Services

Spectacles are available directly from an optometrist, ophthalmologist or a general practitioner. Repeat refraction and correction within two years of previous service requires prior approval of the Medical Services Division. The new Optometric Schedule of Fees introduced April 1, 1960, continued to apply and worked satisfactorily.

Total expenditures for refractions by optometrists, and eye glasses provided by all practitioners, and the per capita costs based on date of payment are shown below for Program I:

<i>Fiscal year</i>	<i>Total expenditure</i>	<i>Average cost per beneficiary</i>
1956-57	\$61,637	\$2.13
1957-58	64,494	2.27
1958-59	72,818	2.60
1959-60	69,062	2.53
1960-61	74,584	2.73
1961-62	69,698	2.60

Statistics relating to volume and costs of optical services for Programs I and II are shown in Tables 55 and 56.

### Other Services

Special nursing services rendered by a nurse registered with the Saskatchewan Registered Nurses Association are paid for on the request of the attending physician. Home nursing care as provided by the Victorian Order of Nurses is also paid for. Prior approval is required for nursing services.

Physiotherapy treatments are paid for on the recommendation of a physician. Such services require prior approval.

Chiropodist services and appliances for foot ailments are also included in the benefits.

### Volume of Health Services

Table 57 shows a six-year comparison of those long-term public assistance beneficiaries who received health services at least once during the year ending March 31, 1962, according to the type of service and category of beneficiary.

Detailed statistics of data on the operations of the program are obtained annually with the assistance of national health grants.

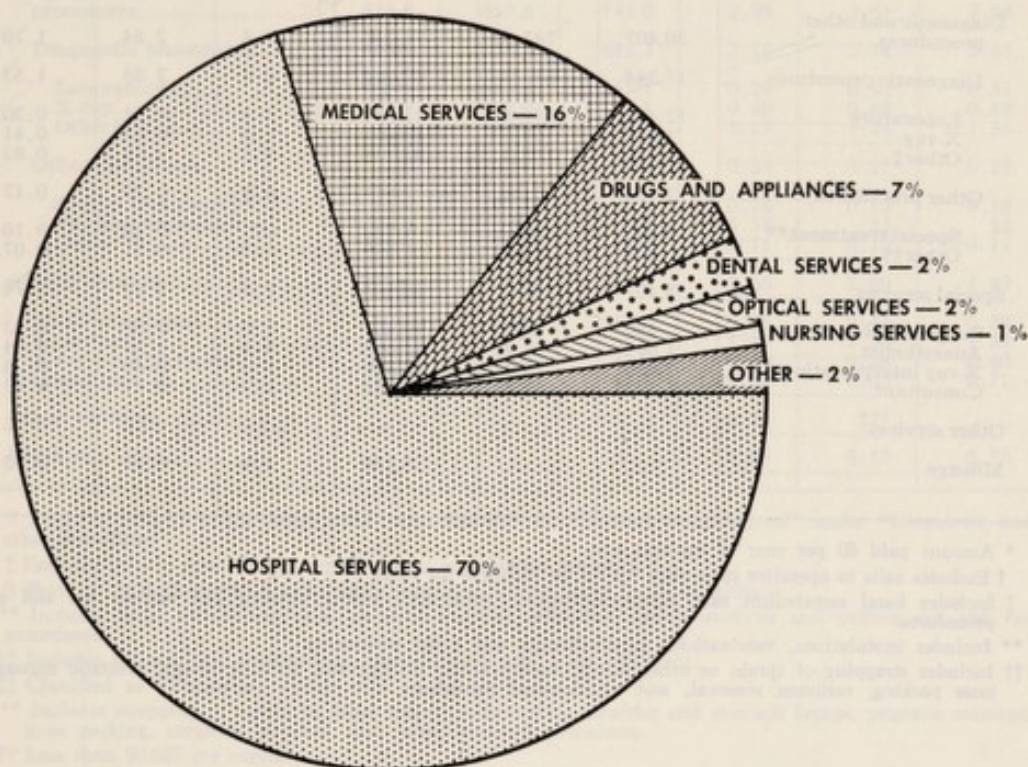
## Expenditures

Total expenditures by the Medical Services Division during 1961-62 were \$1,650,037.51. This involved processing an average of some 30,000 accounts for services each month.

	<i>Expenditures</i>	<i>Per cent</i>
All expenditures .....	\$1,650,037.51	100.0
Program I .....	1,149,920.98	69.7
Program II .....	361,227.21	21.9
Administration .....	138,889.32	8.4

Data on expenditures by type of service and beneficiary category for 1961-62 are shown in Tables 58, 59 and 60.

FIGURE 7. PERCENTAGE DISTRIBUTION OF EXPENDITURES\* ON HEALTH CARE, LONG-TERM AND SHORT-TERM PUBLIC ASSISTANCE BENEFICIARIES COMBINED (PROGRAMS I AND II), SASKATCHEWAN, 1961-62



Note: Included in "Other" are the following:  
 physiotherapy \$1,731; chiropody \$5,025; reciprocal agreement with  
 British Columbia \$17,950; hospital outpatient services \$17,824;  
 health grants \$67,648.

\* Excludes \$138,889 spent on administration.

TABLE 47. UTILIZATION AND COST OF PHYSICIANS' SERVICES BY TYPE OF SERVICE FOR LONG-TERM PUBLIC ASSISTANCE BENEFICIARIES (PROGRAM I), SASKATCHEWAN, 1960-61

Type of service	Volume of services		Cost of services			
	Number	Rate per 1,000 beneficiaries	Total assessed cost	Per cent	Assessed cost per capita	Average amount paid per capita*
All physicians' services.....	217,442	7,959.7	\$1,056,611	100.0	\$38.68	\$23.21
Physicians' calls.....	186,302	6,819.8	634,821	60.1	23.24	13.94
Office—initial.....	14,045	514.1	67,049	6.3	2.46	1.47
—repeat.....	55,694	2,038.7	171,082	16.2	6.26	3.76
Home.....	21,899	801.7	101,184	9.6	3.70	2.22
Hospital†—initial.....	474	17.4	3,339	0.3	0.12	0.07
—repeat.....	94,190	3,447.9	292,167	27.7	10.70	6.42
Surgical operations.....	5,220	191.1	242,379	22.9	8.87	5.33
Major.....	1,769	64.8	200,933	19.0	7.35	4.42
Minor.....	3,451	126.3	41,446	3.9	1.52	0.91
Confinements.....	106	3.9	7,821	0.7	0.29	0.17
Diagnostic and other procedures.....	20,407	747.0	77,535	7.4	2.84	1.70
Diagnostic procedures.....	17,544	642.2	69,664	6.6	2.55	1.53
Laboratory.....	12,486	457.1	13,854	1.3	0.51	0.30
X-ray.....	1,834	67.1	18,651	1.8	0.68	0.41
Other‡.....	3,224	118.0	37,159	3.5	1.36	0.82
Other procedures.....	2,863	104.8	7,871	0.8	0.29	0.17
Special treatment**.....	2,457	89.9	4,782	0.5	0.18	0.10
Other††.....	406	14.9	3,089	0.3	0.11	0.07
Special services.....	5,407	197.9	78,905	7.5	2.89	1.74
Surgical assistant.....	484	17.7	10,605	1.0	0.39	0.23
Anaesthetist.....	1,691	61.9	38,008	3.6	1.39	0.84
X-ray interpretation.....	2,050	75.0	10,809	1.0	0.40	0.24
Consultant.....	1,182	43.3	19,483	1.9	0.71	0.43
Other services.....	.....	.....	.....	.....	.....	.....
Mileage.....	.....	.....	15,150	1.4	0.55	0.33

\* Amount paid 60 per cent of assessed cost.

† Excludes calls to operative cases paid for on an inclusive fee basis.

‡ Includes basal metabolism rate, electrocardiogram, refractions, gastric analysis and various eye and ear procedures.

\*\* Includes inoculations, vaccinations, physiotherapy and x-ray treatments.

†† Includes strapping of sprain or other injury, catheterization, bladder and stomach lavage, prostatic massage, nose packing, cerumen removal, and all unstated procedures.

TABLE 48. RATE AND PER CAPITA COST OF PHYSICIANS' SERVICES FOR LONG-TERM PUBLIC ASSISTANCE BENEFICIARIES, (PROGRAM I), SASKATCHEWAN, 1958-59 TO 1960-61

Type of service	Rate of services per 1,000 beneficiaries			Assessed cost per capita		
	1958-59	1959-60	1960-61	1958-59	1959-60	1960-61
All physicians' services.....	10,638.5	7,996.8	7,959.7	\$ 41.28	\$ 38.75	\$ 38.68
Physicians' calls.....	9,636.1	6,963.6	6,819.8	25.65	23.59	23.24
Office—initial.....	*	491.0	514.1	*	2.29	2.46
—repeat.....	2,852.9	2,046.6	2,038.7	8.03	6.31	6.26
Home.....	807.9	827.4	801.7	3.47	3.81	3.70
Hospital†—initial.....	‡	22.0	17.4	‡	0.15	0.12
—repeat.....	5,975.3	3,576.6	3,447.9	14.15	11.03	10.70
Surgical operations.....	190.6	184.7	191.1	9.10	8.88	8.87
Major.....	72.6	65.6	64.8	7.73	7.43	7.35
Minor.....	118.0	119.1	126.3	1.37	1.45	1.52
Confinements.....	2.6	3.8	3.9	0.18	0.30	0.29
Diagnostic and other procedures.....	615.6	649.4	747.0	2.98	2.61	2.84
Diagnostic procedures.....	438.0	556.8	642.2	2.16	2.34	2.55
Laboratory.....	256.9	382.5	457.1	0.29	0.42	0.51
X-ray.....	69.8	68.0	67.1	0.60	0.68	0.68
Other**.....	111.3	106.3	118.0	1.27	1.24	1.36
Other procedures.....	177.6	92.6	104.8	0.82	0.27	0.29
Special treatment††.....	64.9	70.8	89.9	0.14	0.15	0.18
Physical examination.....	86.8	‡‡	‡‡	0.57	‡‡	‡‡
Other***.....	25.9	21.8	14.9	0.11	0.12	0.11
Special services.....	193.6	195.3	197.9	2.66	2.80	2.89
Surgical assistant.....	20.1	18.5	17.7	0.43	0.41	0.39
Anaesthetist.....	65.6	60.9	61.9	1.39	1.36	1.39
X-ray interpretation.....	67.2	74.6	75.0	0.30	0.38	0.40
Consultant.....	40.7	41.3	43.3	0.54	0.65	0.71
Other services.....	.....	.....	.....	0.36	†††	.....
Mileage.....	.....	.....	.....	0.35	0.57	0.55

\* Prior to 1959-60 initial office calls were classified as "Physical examinations" under "Diagnostic and other procedures".

† Excludes calls to operative cases paid for on an inclusive fee basis.

‡ Prior to 1959-60 initial hospital calls were not differentiated in these tables.

\*\* Includes basal metabolism rate, electrocardiogram, refraction, gastric analysis and various eye and ear procedures.

†† Includes inoculations, vaccinations, physiotherapy and x-ray treatment.

‡‡ Classified as "Physicians' initial calls" in 1959-60, 1960-61.

\*\*\* Includes strapping of sprain or other injury, catheterization, bladder and stomach lavage, prostatic massage, nose packing, cerumen removal, and other unstated procedures.

††† Less than \$0.005 per capita.

TABLE 49. PHYSICIANS PROVIDING CARE, AND PAYMENTS TO PHYSICIANS FOR LONG-TERM PUBLIC ASSISTANCE BENEFICIARIES (PROGRAM I), SASKATCHEWAN, 1954-55 TO 1961-62

Fiscal year	Beneficiaries			Physicians			Payments		
	Number*	Number receiving physicians' care	Per cent of beneficiaries receiving care at least once a year	Providing care	Beneficiaries receiving care per physician	Average per physician†	Final per cent payment	Average per physician per patient	
1954-55.....	29,080	18,604	64.0	721	25.8	\$ 613.07	49.4	\$ 23.76	
1955-56.....	29,364	19,317	65.8	735	26.3	670.12	55.1	25.50	
1956-57.....	28,997	19,518	67.3	736	26.5	721.24	55.4	27.22	
1957-58.....	28,390	19,666	69.3	750	26.2	693.05	52.5	26.45	
1958-59.....	28,055	18,037	64.3	809	22.3	715.79	50.0	32.09	
1959-60.....	27,321	20,194	73.9	823	24.5	643.20	50.0	26.25	
1960-61.....	27,318	20,305	74.3	822	24.7	771.52	60.0	31.24	
1961-62.....	26,845	20,168	75.1	823	24.5	776.11	60.0	31.68	

\* Average number of beneficiaries during the fiscal year.

† This represents both in- and out-of-province payments. During 1961-62, 719 Saskatchewan physicians received an average payment of \$882.40 while 104 out-of-province physicians averaged \$37.78.

TABLE 50. EXPENDITURES FOR DRUGS AND APPLIANCES AND NUMBER OF PRESCRIPTIONS PER CAPITA WITH AVERAGE PRESCRIPTION COST, FOR LONG-TERM PUBLIC ASSISTANCE BENEFICIARIES (PROGRAM I), SASKATCHEWAN, 1951-52 TO 1960-61

Fiscal year	Per capita expenditure*	Number of prescriptions per capita	Average prescription cost		Year	Average prescription prices (general population)		
			M.S.D. cost*	Full cost†		Saskatchewan‡	Canada‡	U.S.A.**
1951-52.....	\$ 6.47	4.2	\$ 1.51	\$ 1.81	1951	\$ 1.64	\$ 1.68	\$ 1.90
1952-53.....	7.72	4.6	1.61	1.93	1952	1.66	1.82	2.08
1953-54.....	8.27	4.9	1.70	2.09	1953	2.05	2.07	2.19
1954-55.....	9.68	5.3	1.82	2.19	1954	2.01	2.28	2.27
1955-56.....	11.58	5.8	2.00	2.41	1955	2.18	2.26	2.46
1956-57.....	12.64	6.1	2.07	2.49	1956	2.25	2.49	2.62
1957-58.....	14.59	6.8	2.13	2.57	1957	2.36	2.61	2.85
1958-59.....	16.62	7.3	2.27	2.73	1958	2.54	2.78	2.96
1959-60.....	10.43	6.7	1.55	3.10	1959	2.72	2.98	3.09
1960-61.....	10.57	6.8	1.56	3.12	1960	2.78	3.06	3.19

\* On December 1, 1948, patients became responsible for 20 per cent of the prescription price and on April 1, 1959, this was increased to 50 per cent; patient payments are not included in this price.

† Because of the fact that certain drugs and appliances are paid for in full by this division the average payment per prescription over the period 1951-52 to 1954-55 represents 83 per cent of the full assessed value. The figures for 1955-56 and the following years have been calculated on this basis.

‡ Canadian Pharmaceutical Journal.

\*\* Lilly Digest.



TABLE 51. UTILIZATION AND COST OF BROAD CATEGORY OF DRUGS\* BY LONG-TERM PUBLIC ASSISTANCE BENEFICIARIES (PROGRAM I), SASKATCHEWAN, 1960-61

Broad drug category	Prescriptions		Amount paid†		
	Number	Rate per 1,000 beneficiaries	Total	Average cost per beneficiary	Average cost per prescription
All prescriptions.....	185,332	6,784.2	\$ 288,760	\$ 10.57	\$ 1.56
Drugs used against acute infections and parasitic diseases.....	14,484	530.2	54,159	1.98	3.74
Drugs used in the palliation and therapy of neoplasms.....	.....	.....	.....	.....	.....
Drugs of endocrine origin and synthetic substitutes.....	3,220	117.9	6,315	0.23	1.96
Drugs affecting allergic metabolic and nutritional deficiency conditions.....	20,901	765.1	33,466	1.23	1.60
Drugs used against diseases of the blood and blood forming organs....	1,666	61.0	2,581	0.09	1.55
Drugs affecting the nervous system and mental diseases including psychoneurotic and personality disorders.....	46,432	1,699.7	57,467	2.10	1.24
Drugs affecting the sense organs (eye and ear).....	3,203	117.2	2,528	0.09	0.79
Cardiovascular drugs (drugs affecting diseases of the circulatory system).....	33,238	1,216.7	41,998	1.54	1.26
Drugs affecting diseases of the respiratory system (including the nose and throat).....	11,661	426.8	14,983	0.55	1.28
Drugs affecting diseases and conditions of the gastro-intestinal tract.....	22,026	806.3	26,634	0.97	1.21
Drugs affecting the genito-urinary system.....	12,973	474.9	17,372	0.64	1.34
Drugs affecting the skin and cellular tissue.....	8,849	323.9	8,886	0.33	1.00
Drugs used against diseases of the bones and organs of movement .....	3,906	143.0	8,552	0.31	2.19
Dental and oral preparations.....	294	10.8	155	0.01	0.53
Biologicals, vaccines, serums, diagnostic agents and non-specific parenteral solutions.....	827	30.3	874	0.03	1.06
Miscellaneous, poorly defined drug preparations.....	39	1.4	58	‡	1.49
Drugs and dressings used in accidents, poisoning and violence..	688	25.2	801	0.03	1.16
Surgical appliances and prosthetics..	925	33.8	11,931	0.44	12.90

\* Includes appliances and all dispensing agencies.

† "Amount paid" means (1) the amount paid for prescriptions dispensed by drugstores and physicians which is equivalent to 50 per cent of the full assessed price, (2) the amount paid for prescriptions dispensed by hospitals (cost plus 10 per cent) which is equivalent to 60-70 per cent of the full retail price.

‡ Less than \$0.005 per beneficiary.

TABLE 52. RATE OF DENTAL SERVICES PER 1,000 BENEFICIARIES BY TYPE OF SERVICE FOR BOTH LONG-TERM AND SHORT-TERM PUBLIC ASSISTANCE BENEFICIARIES (PROGRAMS I AND II), SASKATCHEWAN, 1956-57 TO 1960-61

Type of service	1956-57	1957-58	1958-59	1959-60	1960-61
All services.....	646.2	575.3	568.9	537.8	567.7
Fillings.....	260.8	222.2	215.0	197.4	236.8
Extractions.....	317.6	285.9	286.2	273.2	263.7
Dentures.....	67.8	67.2	67.4	67.2	66.6
Complete dentures*.....	34.1	36.4	35.6	36.5	34.3
Repairs.....	25.7	23.7	23.4	21.5	21.2
Relines.....	5.5	5.1	5.9	6.2	8.4
Partial dentures.....	2.5	2.0	2.5	3.0	2.7
Other.....	.....	.....	0.3	.....	0.6

\* Upper or lower denture.

TABLE 53. UTILIZATION AND COST OF DENTAL SERVICES BY TYPE OF SERVICE FOR BOTH LONG-TERM AND SHORT-TERM PUBLIC ASSISTANCE BENEFICIARIES (PROGRAMS I AND II), SASKATCHEWAN, 1960-61

Type of service	Volume of services			Cost of services			
	Number	Rate per 1,000 beneficiaries	Per cent	Total amount	Average cost per beneficiary	Average cost per service	Per cent
All services.....	18,526	567.7	100.0	\$110,436	\$ 3.38	\$ 5.96	100.0
Examination and report.....	.....	.....	.....	1,521	0.05	.....	1.4
Fillings.....	7,728	236.8	41.7	39,652	1.21	5.13	35.9
Extractions.....	8,606	263.7	46.5	20,966	0.64	2.44	19.0
Dentures.....	2,172	66.6	11.7	43,246	1.33	19.91	39.1
Complete dentures*.....	1,120	34.3	6.0	31,394	0.96	28.03	28.4
Repairs.....	690	21.2	3.7	4,579	0.14	6.64	4.1
Relines.....	273	8.4	1.5	5,100	0.16	18.68	4.6
Partial dentures.....	89	2.7	0.5	2,173	0.07	24.42	2.0
Other.....	20	0.6	0.1	108	†	5.40	0.1
Miscellaneous.....	.....	.....	.....	4,943	0.15	.....	4.5

\* Upper or lower denture.

† Less than one cent per beneficiary.

TABLE 54. PER CAPITA EXPENDITURES FOR DENTAL SERVICES BY SELECTED CLASSES OF BENEFICIARY FOR BOTH LONG-TERM AND SHORT-TERM PUBLIC ASSISTANCE BENEFICIARIES (PROGRAMS I AND II), SASKATCHEWAN, 1951-52 TO 1960-61

Fiscal year	All beneficiaries	Class of beneficiary		
		Old age security (SA)	Aid to dependent families*	Blind persons' allowance
1951-52.....	\$2.34	\$2.02	\$3.07	\$1.87
1952-53.....	2.21	1.86	2.97	2.32
1953-54.....	2.21	1.70	3.50	1.82
1954-55.....	2.34	1.59	3.80	2.11
1955-56.....	2.31	1.39	3.73	3.24
1956-57.....	2.77	1.57	4.62	3.05
1957-58.....	2.71	1.73	4.26	2.50
1958-59.....	2.75	1.72	4.56	3.21
1959-60.....	2.70	1.71	4.10	3.53
1960-61.....	3.38	1.96	5.91	3.11

\* Mothers' Allowance prior to 1961

TABLE 55. UTILIZATION AND COST OF OPTICAL SERVICES BY TYPE OF SERVICE FOR BOTH LONG-TERM AND SHORT-TERM PUBLIC ASSISTANCE BENEFICIARIES (PROGRAMS I AND II), SASKATCHEWAN, 1960-61

Type of service	Volume of services			Cost of services			
	Number	Rate per 1,000 beneficiaries	Per cent	Total	Average cost per beneficiary	Average cost per service	Per cent
All services.....	13,678	419.2	100.0	\$ 88,960	\$ 2.73	\$6.50	100.0
Services.....	6,291	192.8	46.0	35,353	1.09	5.62	39.7
Simple examination.....	102	3.1	0.7	308	0.01	3.02	0.3
Refraction without fitting fee.....	432	13.3	3.2	2,568	0.08	5.94	2.9
Refraction with fitting fee.....	3,632	111.3	26.6	28,661	0.88	7.89	32.2
Fitting fee only.....	2,125	65.1	15.5	3,816	0.12	1.80	4.3
Materials.....	7,387	226.4	54.0	53,607	1.64	7.26	60.3
Glasses.....	5,953	182.4	43.5	49,131	1.51	8.25	55.3
Repairs.....	63	1.9	0.5	115	*	1.83	0.1
Replacements.....	1,360	41.7	9.9	4,157	0.12	3.06	4.7
Other.....	11	0.4	0.1	204	0.01	18.55	0.2

\* Less than one cent.

TABLE 56. COST OF OPTICAL SERVICES BY TYPE OF SERVICE AND CLASS OF BENEFICIARY FOR BOTH LONG-TERM AND SHORT-TERM PUBLIC ASSISTANCE BENEFICIARIES (PROGRAMS I AND II), SASKATCHEWAN, 1960-61

Type of service	All beneficiaries	Class of beneficiary			
		Old age security (SA)	Aid to dependent families*	Blind persons' allowance	Short-term beneficiaries
Cost of services					
Total.....	\$ 88,960	\$ 53,150	\$ 20,448	\$ 831	\$ 14,531
Services.....	35,353	20,470	8,650	243	5,990
Simple examination.....	308	240	45	.....	23
Refraction without fitting fee.....	2,568	1,173	827	18	550
Refraction with fitting fee.....	28,661	17,025	6,839	168	4,629
Fitting fee only.....	3,816	2,032	939	57	788
Materials.....	53,607	32,680	11,798	588	8,541
Glasses.....	49,131	30,957	10,286	452	7,436
Repairs.....	115	83	21	.....	11
Replacements.....	4,157	1,530	1,491	79	1,057
Other.....	204	110	.....	57	37
Cost per capita					
Total.....	\$ 2.73	\$ 2.81	\$ 2.60	\$ 1.56	\$ 2.73
Services.....	1.09	1.08	1.10	0.46	1.12
Simple examination.....	0.01	0.01	†	.....	†
Refraction without fitting fee.....	0.08	0.06	0.11	0.03	0.10
Refraction with fitting fee.....	0.88	0.90	0.87	0.32	0.87
Fitting fee only.....	0.12	0.11	0.12	0.11	0.15
Materials.....	1.64	1.73	1.50	1.10	1.61
Glasses.....	1.51	1.64	1.31	0.85	1.40
Repairs.....	†	†	†	.....	†
Replacements.....	0.12	0.08	0.19	0.14	0.20
Other.....	0.01	0.01	.....	0.11	0.01

\* Formerly Mothers' Allowance.

† Less than one cent.

TABLE 57. PERCENTAGE OF BENEFICIARIES WHO RECEIVED HEALTH SERVICES AT LEAST ONCE DURING THE YEAR BY TYPE OF SERVICE AND TYPE OF BENEFICIARY, FOR LONG-TERM PUBLIC ASSISTANCE BENEFICIARIES (PROGRAM I), SASKATCHEWAN, 1956-57 TO 1961-62

Type of service	1956-57	1957-58	1958-59	1959-60	1960-61	1961-62
All beneficiaries						
At least one type of health service.....	85.3	87.0	87.8	89.4	90.1	91.3
Physicians' care.....	67.3	69.3	64.3	73.9	74.3	75.1
Drugs.....	61.8	64.7	62.9	69.5	69.4	71.1
Dental care.....	13.9	13.4	13.5	13.9	14.5	15.2
Optical care.....	18.1	19.0	19.5	19.8	20.3	19.7
Special nursing care.....	0.2	0.3	0.4	1.4	1.4	1.5
Chiropody.....	1.4	1.6	1.5	1.7	1.6	1.2
Hospital care*.....	8.2	9.2	9.1	9.6	9.1	9.4
Other.....	1.3	1.7	1.4	0.4	0.4	0.3
Old age security (supplemental allowance) group						
At least one type of health service.....	86.8	86.4	88.0	89.6	90.1	91.5
Physicians' care.....	70.5	70.4	67.8	76.2	76.3	77.6
Drugs.....	68.2	68.8	68.4	75.7	75.7	76.5
Dental care.....	7.4	7.7	7.9	7.8	8.1	8.1
Optical care.....	17.9	19.0	19.3	19.3	19.9	19.6
Special nursing care.....	0.2	0.5	0.5	1.9	1.9	2.1
Chiropody.....	2.0	2.2	2.0	1.7	2.2	1.2
Hospital care*.....	8.3	9.2	9.1	9.7	9.4	9.7
Other.....	1.6	2.3	1.8	0.4	0.4	0.3
Other beneficiaries						
At least one type of health service.....	82.5	88.1	87.4	89.1	90.2	90.8
Physicians' care.....	61.1	67.0	56.2	68.6	69.9	70.0
Drugs.....	49.3	56.0	50.6	55.3	55.1	60.1
Dental care.....	26.6	25.4	26.2	27.7	29.0	30.0
Optical care.....	18.3	18.9	19.9	20.8	21.4	19.7
Special nursing care.....	0.1	0.1	0.1	0.3	0.2	0.3
Chiropody.....	0.3	0.3	0.4	0.4	0.4	0.2
Hospital care*.....	8.0	9.3	9.2	9.3	8.4	8.8
Other.....	0.8	0.3	0.3	0.2	0.4	0.2

\* Does not include hospitalization under S.H.S.P.

TABLE 58. EXPENDITURE BY TYPE OF SERVICE AND CLASSIFICATION OF BENEFICIARY FOR LONG-TERM PUBLIC ASSISTANCE BENEFICIARIES (PROGRAM 1)  
SASKATCHEWAN, 1961-62\*

Type of service	Total	Total per capita cost	O.A.S. (S.A.)	O.A.S. (S.A.) per capita cost	A.D.F.†	A.D.F. per capita cost	B.P.A.	B.P.A. per capita cost
All services.....	\$ 1,131,970.98	\$ 42.17	\$ 883,154.06	\$ 48.79	\$ 230,190.28	\$ 28.11	\$18,626.64	\$ 33.38
Medical.....	640,881.09	23.87	509,860.65	28.17	120,276.90	14.69	10,743.54	19.26
Dental.....	83,197.51	3.10	32,243.46	1.78	49,221.75	6.01	1,732.30	3.10
Optical.....	69,698.02	2.60	49,129.39	2.71	19,780.63	2.41	788.00	1.41
Nursing.....	33,985.19	1.27	32,598.69	1.80	967.75	0.12	418.75	0.75
Physiotherapy.....	1,547.40	0.06	1,175.90	0.07	371.50	0.04		
Hospital‡	12,689.59	0.47	9,461.54	0.52	3,008.25	0.37	219.80	0.39
Drugs.....	276,216.53	10.29	238,249.35	13.16	33,406.97	4.08	4,550.21	8.17
Appliances.....	8,761.54	0.33	5,701.52	0.32	2,943.38	0.36	116.64	0.21
Chiroprody.....	4,994.11	0.18	4,733.56	0.26	213.15	0.03	47.40	0.09

\* Includes old age security and blind persons' supplemental allowance cases, and Aid to Dependent Families, including their spouses and children under 16 years.

† Formerly Mothers' Allowance.

‡ Includes inpatient hospital services received under S.H.S.P.

TABLE 59. EXPENDITURES FOR LONG-TERM PUBLIC ASSISTANCE BENEFICIARIES (PROGRAM I), UNDER THE MEDICAL SERVICES DIVISION FOR THE FISCAL YEAR 1961-62, AND THE SASKATCHEWAN HOSPITAL SERVICES PLAN FOR THE CALENDAR YEAR 1961

Classification	Total expenditure	Per capita expenditure
All health services.....	\$ 4,584,186.41	\$ 170.77
Total S.H.S.P.....	3,452,215.43	128.60
O.A.S. (S.A.) (S.H.S.P.).....	3,068,522.82	169.54
A.D.F.* (S.H.S.P.).....	332,466.68	40.60
B.P.A. (S.H.S.P.).....	51,225.93	91.80
Total medical care and related services.....	1,131,970.98	42.17

\* Formerly Mothers' Allowance.

TABLE 60. EXPENDITURE BY TYPE OF SERVICE AND CLASSIFICATION OF BENEFICIARY FOR SHORT-TERM PUBLIC ASSISTANCE BENEFICIARIES (PROGRAM II), SASKATCHEWAN, 1961-62

Type of service	Total M.S.D. and S.H.S.P.	M.S.D. beneficiaries	Class of beneficiary							Wards*	Correction cases	
			Social Welfare social aid	Social aid in L.I.D.'s	Natural Resources social aid	Vocational rehabilitation cases	Metis rehabilitation cases	Indigent immigrant cases				
<b>Total expenditures†</b>												
All services.....	\$ 356,087.75	\$ 210,571.25	\$ 7,449.95	\$ 80,888.32	\$ 9,318.46	\$ 10,726.16	\$ 5,661.76	\$ 493.49	\$ 86,201.12	\$ 9,831.99		
Medical.....	120,999.81	120,999.81	6,708.35	43,237.63	5,140.60	5,793.49	3,303.59	306.85	52,148.62	4,360.68		
Dental.....	24,551.60	24,551.60	174.00	5,074.00	2,102.50	1,075.50	909.00	4.00	13,852.50	1,360.10		
Optical.....	8,714.01	8,714.01	28.10	2,761.30	586.95	386.80	280.10	.....	3,675.11	995.65		
Nursing.....	293.00	293.00	.....	98.00	.....	.....	.....	.....	195.00	.....		
Physiotherapy.....	184.00	184.00	.....	107.50	.....	31.50	.....	.....	45.00	.....		
Hospital.....	147,882.70	2,366.20	15.50	655.50	46.35	90.30	87.75	133.35	682.15	655.30		
Drugs.....	49,311.64	49,311.64	520.50	28,060.00	1,284.98	1,926.46	1,080.80	49.29	13,949.35	2,440.26		
Appliances.....	4,119.99	4,119.99	3.50	894.39	157.08	1,410.31	0.52	.....	1,634.19	20.00		
Chiropody.....	31.00	31.00	.....	.....	.....	11.80	.....	.....	19.20	.....		
<b>Per capita expenditures</b>												
All services.....	‡	\$ 37.23	\$ 181.71	\$ 39.94	\$ 11.17	\$ 92.46	\$ 38.78	\$ 35.25	\$ 43.62	\$ 19.51		
Medical.....	.....	21.39	163.62	21.35	6.16	49.94	22.63	21.92	26.39	8.65		
Dental.....	.....	4.34	4.24	2.51	2.52	9.27	6.23	0.28	7.01	2.70		
Optical.....	.....	1.54	0.69	1.36	0.70	3.33	1.92	.....	1.86	1.98		
Nursing.....	.....	0.05	.....	0.05	.....	.....	.....	.....	0.10	.....		
Physiotherapy.....	.....	0.05	.....	0.05	.....	0.27	.....	.....	0.02	.....		
Hospital.....	.....	0.42	0.38	0.32	0.06	0.78	0.60	9.53	0.34	1.30		
Drugs.....	.....	8.72	12.70	13.86	1.54	16.61	7.40	3.52	7.06	4.84		
Appliances.....	.....	0.73	0.08	0.44	0.19	12.16	7.**	.....	0.83	0.04		
Chiropody.....	.....	0.01	.....	.....	.....	0.10	.....	.....	0.01	.....		

\* Includes Boys' School.

† Because of the nature of the payments or current type of care received by the beneficiaries, the following expenditures are not included in this table: Aid to Dependent Families (husbands) examinations, \$781.69; eligibility examinations for admission to geriatric centres \$2,181.50; miscellaneous health services, \$32,888.20; disabled persons allowance, \$2,146.04; prevention of blindness, \$11,423.55; relief to destitutes (Northern Administration District), \$33,582.39; municipal social aid health grants, \$87,647.39. The total expenditure for these items was \$150,653.96.

‡ S.H.S.P. expenditures include those for medical indigents. Because medical care is given on a current basis only, it is not possible to determine the number of beneficiaries involved in the per capita expenditure. Actual expenditure was \$145,516.50.

\*\* Less than one cent.

## MUNICIPAL MEDICAL CARE PROGRAMS

The main function of the division is the supervision of municipal plans that provide tax derived funds to finance medical care for the residents of rural and urban municipalities. These plans are organized and administered by local governing bodies which enter into agreements with physicians for providing specified services to the population of a municipality. Where the plan is confined to a single municipality, the municipal council acts as the administrative body, but where two or more municipalities join together to form a health services unit, the administrative duties are delegated to a joint board known as a Health Services Board appointed by the councils of the municipalities belonging to the unit.

### **Organization**

These plans are designed to attract and hold doctors in rural areas and to cushion the burden of medical bills by spreading medical costs over many families and over a period of time. Municipal medical care plans may provide for different kinds of services. Some provide basic medical care such as office, home and hospital visits. Others, in addition to basic care, finance limited or complete surgical and diagnostic care. The number and types of services that may be provided usually depend on the number of physicians in local practice and the facilities available to these physicians.

### **Finance**

A municipal medical care plan may be financed by three methods. The most widely used is a property tax. Another method which has become popular is a personal tax. The third method which is beginning to receive more attention is a combination of a property tax and a personal tax. In those municipalities where a property or land tax is used, the council may pass a bylaw excluding non-ratepayers from services until they have paid a personal tax.

Financial assistance is provided by the Department of Public Health in the form of grants and the supervisor of Municipal Medical Care programs in the department offers services for the development, revision, interpretation and fulfillment of medical care contracts and municipal bylaws.

### **Coverage**

During the year, medical care plans were in operation in 72 municipalities, one local improvement district, 15 towns and 41 villages. Of the 129 plans providing physician's services, 78 offered both medical and surgical care and 51 basic general medical services. A few of the latter provided for part of the cost of surgical care.

About 105 of the plans are approved on the understanding that proper standards of medical care are being promoted and that the responsibilities of the doctor and of the municipal council alike are clearly defined.



In the majority of programs providing general medical services only, the beneficiaries were restricted to the services of a single physician. Where both medical and surgical services were provided, the benefits varied from the services of a single physician, to the services of several physicians including referrals made to specialists.

A large number of visits were made by the supervisor during the year to discuss with physicians and local officials the various problems relating to services and taxation. Meetings were held with municipal councils health services boards, and other organizations, to discuss improvements in plans or extension of services.

The cost of providing services increased again this year. The salary method of remuneration to the physician is still widely used although there is a trend toward fee-for-service agreements. Agreements for both medical and surgical benefits frequently provide for payment on a combined salary and fee-for-service basis where medical care is on a salary basis and surgery is paid on a fee-for-service basis. The actual amount paid out in grants is shown in Table 61 and totalled \$64,003.44.

TABLE 61. MEDICAL CARE GRANTS TO MUNICIPALITIES, SASKATCHEWAN, DURING THE FISCAL YEAR 1961-62

<i>Rural Municipalities</i>			
Lomond No. 37 .....	\$ 207.75	Sasman No. 336 .....	\$ 614.75
Tecumseh No. 65 .....	212.00	Lakeview No. 337 .....	439.00
Norton No. 69 .....	201.25	Lakeside No. 338 .....	280.25
Stonehenge No. 73 .....	170.42	Leroy No. 339 .....	454.25
Maryfield No. 91 .....	209.50	Wolverine No. 340 .....	1,125.00
Walpole No. 92 .....	43.00	Colonsay No. 342 .....	189.75
Elmsthorpe No. 100 .....	234.75	Perdue No. 346 .....	208.25
Saltcoats No. 213 .....	753.30	Kelvington No. 366 .....	1,981.35
Cana No. 214 .....	1,443.75	Ponass Lake No. 367 .....	977.40
Stanley No. 215 .....	3,240.00	Spalding No. 368 .....	429.00
Tullymet No. 216 .....	766.50	St. Peter No. 369 .....	623.50
Lipton No. 217 .....	354.00	Porcupine No. 395 .....	2,163.00
Longlaketon No. 219 .....	1,501.25	Barrier Valley No. 397 .....	907.50
McKillop No. 220 .....	249.25	Pleasantdale No. 398 .....	1,337.25
Sarnia No. 221 .....	241.75	Bjorkdale No. 426 .....	3,489.75
Craik No. 222 .....	181.00	Tisdale No. 427 .....	578.25
Ituna Bon Accord No. 246 .....	2,826.45	Star City No. 428 .....	501.00
Kellross No. 247 .....	1,692.60	Hillsdale No. 440 .....	280.50
Touchwood No. 248 .....	586.95	Manitou Lake No. 442 .....	272.50
Emerald No. 277 .....	1,212.75	Arborfield No. 456 .....	312.50
Kutawa No. 278 .....	360.00	Willow Creek No. 458 .....	613.50
Milton No. 292 .....	108.25	Kinistino No. 459 .....	601.50
Buchanan No. 304 .....	464.75	Birch Hills No. 460 .....	201.00
Elfros No. 307 .....	353.00	Eldon No. 471 .....	339.50
Antelope Park No. 322 .....	16.50	Moose Range No. 486 .....	1,244.25
Preeceville No. 334 .....	4,626.60	Nipawin No. 487 .....	507.25
Hazel Dell No. 335 .....	3,662.10		

*Local Improvement Districts*

Local Improvement District No. 983 .....	\$ 4,761.00
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*Villages*

Alsask .....	\$ 56.00	Loon Lake .....	\$ 596.25
Archerwill .....	478.50	Marengo .....	32.50
Avonlea .....	85.50	Margo .....	64.25
Bulyea .....	43.00	Marsden .....	44.00
Earl Grey .....	193.50	Maryfield .....	113.00
Flaxcombe .....	36.75	Neilburg .....	63.75
Hubbard .....	280.50	Perdue .....	103.25
Jasmin .....	115.50	Quill Lake .....	113.25
Kelliher .....	477.75	Rose Valley .....	237.15
Kinley .....	29.00	Silton .....	66.75
Leroy .....	124.50	Truax .....	22.50
Lipton .....	101.25	Wishart .....	124.42
Leney .....	12.50		

*Towns*

Arborfield .....	\$ 137.25	Preeceville .....	\$ 1,321.65
Birch Hills .....	69.25	Strasbourg .....	143.75
Carrot River .....	368.55	Star City .....	151.00
Craik .....	150.75	Sturgis .....	1,202.85
Ituna .....	1,369.50	Saltcoats .....	224.10
Kelvington .....	835.80	Wadena .....	1,904.10
Kindersley .....	1,157.40		

*Summary*

Total .....	\$64,003.44
Rural Municipalities .....	46,591.17
Local Improvement Districts .....	4,761.00
Villages .....	3,615.32
Towns .....	9,035.95

## HEALTH SERVICES ASSOCIATIONS

Medical Services Incorporated and Group Medical Services continued to function during 1961 as the two large non-profit Associations in Saskatchewan providing insurance against the cost of physicians' and other services. Each Association enjoyed a moderate net increase in its subscribers enrolment during the year.

The Saskatoon Mutual Medical and Hospital Benefit Association Limited continued to be the only Association in operation incorporated under The Mutual Medical and Hospital Benefit Associations Act. Its membership total remained virtually unchanged during the year, with a net increase in membership of 60.

Membership enrolment in the three plans is shown in the following table:

Year	Total enrolment	Medical Services Incorporated	Group Medical Services	Saskatoon Mutual Medical and Hospital Benefit Association Limited
1960	293,898	214,002	74,816	5,080
1961			78,154	5,140

## OCCUPATIONAL HEALTH BRANCH

It is now four years since the Occupational Health Branch was established to protect and promote the health of persons at work. During this period it has become evident that the functions of the branch fall into three main groups (1) service (2) research and (3) teaching.

Obviously the prime function of such a provincial unit is service—to industry and government departments—but in providing this service, situations inevitably arise where unknowns are encountered. This leads to the development of the second function—research. There are evident limits to what can be accomplished in this respect by a branch which has only the essential nucleus of staff, these being a medical director, an occupational hygienist and an occupational health nurse. The pattern which has developed is for the branch to undertake the initial research, and then to work with other research groups with special experience and knowledge of the field in question. Two examples of this approach are given below.

It has become evident that the facilities for occupational health research are inadequate, not only in Saskatchewan, but in Canada as a whole. This is illustrated by the fact that it has been necessary to utilize the services of a research group in the United States on one of the projects. It is to be hoped that in the near future adequate research facilities in occupational health will be developed in Canada.

The third function of the branch, teaching, covers a wide range, extending from the teaching of occupational medicine to medical students and the principles of occupational health nursing to graduate and undergraduate nurses, to teaching farmers' wives how to protect the health of their husbands who are using toxic agricultural chemicals.

The above three functions together make up the program of the branch to protect and promote the health of persons at work. Advantage has been taken of opportunities to give talks to various groups, some of whose members may benefit by a knowledge of either the general or specific functions of the branch. These groups have included Rotary Clubs, professional engineers, medical societies and employees.

The Interdepartmental Committee on Occupational Health and Safety has continued to function successfully. The subjects discussed by the representatives of the Departments of Health, Labour, Mineral Resources and Workmen's Compensation Board include noise in industry, co-ordinating inspections, pipeline radiography regulations, industrial slums, sanitary inspection in industry, carbon monoxide hazard and its control in garages in winter, and industrial first aid facilities.

The director has continued his membership of the Medical Committee of the Saskatchewan Highway Safety Council and has outlined proposals for the establishment of a medical and psychological review panel for accident repeating drivers.

### **Occupational Diseases**

The interagency agreement, by which the Workmen's Compensation Board immediately notifies the branch director of the circumstances of claims for compensation for occupational disease, has demonstrated its

value in the several cases of suspected industrial disease which occurred during the year. Early notification of a case of suspected occupational disease enables the staff of the branch to conduct investigations at the work place, to determine whether or not a health hazard exists. If it does, recommendations are made immediately to the management to prevent or control the hazard. The branch's environmental survey, combined with their examination of the claimant for compensation, and their consultation with his physician usually enables an accurate diagnosis of the case to be made. This is of considerable assistance to the Workmen's Compensation Board, in reaching a decision concerning the payment of compensation. The cases referred which were considered to be occupationally related were pneumoconiosis (two cases), carbon monoxide poisoning (three cases), deafness (two cases), effects of exposures to welding fumes, and ammonia, and dermatitis. There were several other cases of illness which, after careful investigation, were not considered to be occupationally related. These included suspected lead poisoning, pentachlorophenol poisoning and pneumoconiosis. Consultations were held with private physicians concerning the diagnosis of these cases.

The recognition of advanced pneumoconiosis in a long-term employee of a brick plant, who later succumbed to this disease, necessitates a fresh look at the dust hazard in clay and brick plants, which are not generally considered by experienced occupational health physicians to constitute a significant pneumoconiosis risk. A detailed study of the dust hazard in these plants is planned for the forthcoming year. This, and other cases of pneumoconiosis, emphasize the importance of the development in Saskatchewan of an effective program for the health surveillance of men in hazardous trades, particularly those exposed to hazardous dusts.

### **Agricultural Health**

The branch continues its effort to ensure that the health of agricultural workers is protected and maintained. As in previous years, a major part of this effort has been directed towards the safe use of agricultural chemicals. The director gave a talk on this topic at the 1962 Grasshopper Control Conference in Regina. Since many physicians would be unfamiliar with the toxic effects and methods of treatment of Phosdrin poisoning, a circular letter, containing this information, was sent to each physician in the province just prior to the time when this chemical was to be used for spraying pasture and forage crops. A small supply of a specific antidote, available to physicians on request for use in severe cases of poisoning, was obtained and held by the branch. Among the 2,000 men who are estimated to have sprayed Phosdrin in 1961 only one case of poisoning came to the attention of the director, who, in consultation with the family physician, was able to confirm the diagnosis.

The desire for information concerning the toxic effects of agricultural chemicals is evidenced by the requests to the director for presentations on this subject at professional meetings. One was given at the Canadian Public Health Association Conference, and titled "The Possible Contribution of Medical Health Offices and their staffs to the Prevention of Insecticide Poisoning". The other was given to the combined meetings of the Saskatchewan Dietetic and Home Economics Associations, and dealt with "Agricultural Chemical Residues in Food."

Little is known about the incidence of mild to moderate ill effects among farmers, following the use of agricultural chemicals. Many will probably not consult their doctors, and if they do the relationship between symptoms and exposure to these chemicals may not always be recognized.

Plans have therefore been made to conduct a pilot survey in 1962 in one area of the province. This will be undertaken in co-operation with the agricultural representative of the Department of Agriculture, who will interview as many farmers as possible in his area towards the end of the season, using a standard questionnaire supplied by the Occupational Health Branch.

The design of agricultural machinery can significantly influence the safety, comfort and efficiency of the operator. The branch director has been consulted by the Department of Agriculture of the University of Saskatchewan, concerning a research project on tractor design. It was emphasized that a team approach would be necessary, the team including an agricultural engineer, a physiologist, a psychologist and possibly an occupational health physician. The first stage of this project will be a complete survey of the literature on the subject, following which a decision will be made as to the practicability of initiating a research program at Saskatoon.

### **Radiological Health**

Perhaps the outstanding event under this heading has been the leakage of radium from the Cancer Commission radon plant, at the University campus, Saskatoon. The staff of the branch spent a considerable amount of time and effort during the first three months of 1962 in outlining the areas and extent of contamination, and on decontamination in co-operation with staff from Atomic Energy of Canada Limited; the Radiation Protection Division of the Department of National Health and Welfare; and physicists on the staff of the Cancer Clinic at Saskatoon.

Assessment of body burden of radium, of the several persons who might have been exposed, was undertaken by collecting urine specimens which were analyzed at the Atomic Energy of Canada Limited laboratories at Chalk River. The results of the first analyses indicated that only one person, the radon pumper at the plant, might have a body burden exceeding the maximum safe level. However examination in the whole body radiation counter, at the Physics Department of the University of Toronto, indicated that his body burden was well within the safe limits. This finding was confirmed on subsequent urine analyses.

This incident emphasizes the importance of having had trained and experienced personnel available in the province to take immediate effective action in such a situation.

An exhibit on radiological health was shown at a course on radiology for physicians at the University Hospital.

The branch, which has delegated responsibilities under the Federal Atomic Energy Control Act, has continued its co-operation with the Radiation Protection Division of the Department of National Health and Welfare. Radiation sources have been inspected independently, and together with the staff of this federal division, when they were visiting the province.

A radiation health officer was appointed to administer the provisions of the Radiological Health Act 1961, and to promote advisory and consultative services in accordance with its provisions.

### **First Aid**

The Workmen's Compensation Board has the primary responsibility for first aid in industry, but there have been many aspects in which the branch director has also been active. The Workmen's Compensation

Board first aid regulations have been recognized to be out of date and the Board established an advisory committee, of which the branch director was a member, to redraft the regulations to bring them into line with current medical views on this subject.

The lay instructors of the St. John Ambulance Association play a major part in the first aid training of people, a large proportion of whom are gainfully employed. The director has assisted in the training and been responsible for the examination of these instructors.

Team first aid tests have been set and judged by the director, in co-operation with the St. John Ambulance Association, for competitions open to teams from industry and other organizations. Participation in these competitions acts as a stimulus to first aiders and gives them valuable experience in handling emergency situations under conditions which are made as realistic as possible.

Lectures on first aid have been given to school bus drivers illustrating the use of the materials carried in their first aid kits. A lecture was given on the medical aspects of casualty simulation, at a Civil Defence course.

Car first aid kits available commercially or through various voluntary organizations are generally not suitable for their intended purpose. The director has designed such a kit which is to be made available to the public through the St. John Ambulance Association.

### **Education**

The director has continued with his appointment as lecturer in the Department of Social and Preventive Medicine in the University of Saskatchewan. A total of 11 hours was devoted to teaching occupational health to the medical students.

A further two day course for factory and mine inspectors on the recognition of health hazards was held in Regina. Fourteen attended. All the branch staff gave lectures at this course.

### **Research**

The branch has undertaken the initial research into two occupational health problems. Mention of these was made in the 1960-61 annual report. One concerns the possible effect on the respiratory system of repeated or prolonged exposure to grain dust. The survey by personal interview, using a standard questionnaire, of 500 grain elevator men throughout the province did indicate that the incidence of certain respiratory symptoms was higher than would be expected among the general population not so exposed. It was therefore considered desirable to conduct detailed clinical studies on a proportion of the grain elevator men to determine the actual nature of the condition or conditions suffered by this occupational group. The medical literature has variously ascribed respiratory symptoms associated with exposure to grain dust, to mechanical irritation of the lungs, fungus infections, an allergic disorder and a pneumoconiosis. A national health grant has been applied for, and obtained, to enable a clinical study to be made in 100 grain elevator men selected mainly from the 500 interviewed. This research project is being sponsored jointly with the cardio-pulmonary unit of the Department of Medicine at the University Hospital, Saskatoon.

The other research project concerns Raynaud's Phenomenon of Occupational Origin, which for the past four years has been observed among many Saskatchewan uranium miners who have regularly used the jack-leg drill. The branch has been co-operating with research workers from the Department of Preventive Medicine at the Ohio State University who have in recent years been studying the biological effects of exposure to vibration. Two of the affected miners were sent to Ohio for detailed investigation. Changes, never previously described in connection with this disorder, were observed in the main arteries of the fingers of these miners. The thickened walls of these arteries, presumably a result of exposure to vibration and chilling, resulted in a diminished blood flow which is responsible for the symptoms suffered by the miners. A further study of these, and other miners, is to be undertaken in the coming year. It is of particular importance to know if these observed changes in the arteries are reversible when exposure to vibration ceases. If not, a much more serious view would have to be taken of this condition, necessitating drastic preventive measures.

### **Occupational Health Nursing**

Occupational health nursing has continued its program, largely on an informational and educational basis. Talks have been given to more varied groups and more training schools have been visited for the purpose of giving talks to student nurses.

Two, one day meetings of Saskatchewan occupational health nurses were held. Lectures and demonstrations on environmental aspects and health hazards of ionizing radiation and noise and vibration were given by members of the branch staff. Other topics discussed at these meetings were civil defence; some gynecological problems of women in industry; and health education in industry.

The bulletin for occupational health nurses is still published by the branch, about twice yearly. Requests for it have been received by other provinces.

Mimeographed material continues to be sent out to nurses on a variety of occupational health and related subjects.

The following pamphlets printed by the Department of National Health and Welfare have been distributed to nurses in occupational health in Saskatchewan:

1. The Occupational Health Nurse Specialist
2. Occupational Health Nursing as a part of Public Health Nursing Programs

Two articles on occupational health nursing, written by nurses in the province, have been accepted by two nursing journals.

A meeting of occupational health nursing consultants was held in Ottawa in March, 1962, and was attended by the supervising occupational health nurse. The following points were discussed:

1. Management should accept some responsibility for promoting the status of occupational health nursing.



2. There should be more research carried out in the field of occupational health nursing, and more articles written by occupational health nurses.
3. There is a problem involved in arranging study periods for the constantly changing nursing group in occupational health.
4. Work needs to be done on:
  - (a) bringing the Reference Handbook up to date
  - (b) editing, before reprinting, the Guide to a Manual
  - (c) completing the Hospital Employee Health Services Guide for printing. A health grant may be applied for, in order to finish this.

More hospitals are showing interest in health services for their employees and the supervising occupational health nurse has given some help in the matter of suitable health records for them.

### Occupational Hygiene

Hazards to the health of people at work, brought to the attention of the branch, were investigated in order to ascertain the extent and the severity of the hazards involved. These surveys of working premises involved both physical and chemical analysis of the worker environment, and were frequently supplemented by chemical analysis of biological specimens taken from the workers. Wherever possible, direct reading instruments were used to obtain immediate information on the severity of the hazard. Where these instruments were not applicable or where further confirmation was required, chemical analyses of environmental air and biological specimens were performed in the branch laboratory. A total of 65 on-the-spot air analyses were done supplemented by 149 chemical analyses performed in the branch laboratory.

Physical hazards were recorded on the spot, with appropriate instruments, and later evaluated and analyzed in the branch laboratory.

These survey results were correlated with medical examinations before suitable recommendations were proposed to the plant in question.

A summary of the 67 surveys carried out follows:

#### PHYSICAL HAZARDS

<i>Hazards</i>	<i>Type of industry involved</i>	<i>Number of surveys</i>
Noise	Animal feed mill	1
	Oil refinery	1
	Concrete mixing plant	1
Thermal comfort	Mines	3
	Office and research laboratory	1
Ventilation	Garage	2
	Laboratory	1
	Spray painting	2
	Coin operated dry cleaning	2
Radioactivity	Office and research laboratory	1
	Natural water, muds and fish	1
Radiation	Oil well logging	4
	Research laboratories	2
	Radium	20

## CHEMICAL HAZARDS

<i>Hazards</i>	<i>Type of industry involved</i>	<i>Number of surveys</i>
Gases (carbon monoxide, carbon dioxide, sulfur dioxide, hydrogen sulfide, methane, etc.)	Business office	1
	Garage	3
	Oil refinery	2
	Sewer	1
	Metal refining	1
	Metal fabricating	1
Solvent vapors	Septic tank manufacture	1
	Printing	1
	Auto wrecking	1
Metal fume (lead, cadmium, zinc)	Metal smelting and refining	1
	Oil refinery	1
Mercury vapor	Natural gas distribution	1
	Municipal water works	1
Fluorides	Steel fabrication	1
	Mining	3
Dust (silica)	Ore processing	1
	Monumental works	1
	Clay works	1
	Tunnelling	1
	Animal feed plant	1
Dust (vegetable)		

The problem of industrial deafness caused by noise in industrial processes is becoming more evident. There are primarily, two reasons for this: first, a greater awareness of the hazard by industry; secondly, lack of knowledge of noise abatement in designing industrial equipment and processes. The latter is particularly evident in older plants utilizing newer equipment where plant layout and design does not permit easy installation of noise-abatement controls, and in compressed-air-operated tools and equipment. The branch has continued to advocate the use of good ear plugs and/or ear muffs as personal protection for workers in noisy environments. Industry is advised to include audiograms as part of pre-employment medical examinations, and subsequent yearly audiograms of all workers in noisy environments.

**Air Pollution**

Through the co-operation of the Environmental Assessment Division of the Department of National Health and Welfare, four automatic air samplers were obtained on loan to determine baseline atmospheric dust pollution concentrations, in Regina and Saskatoon. The average results expressed as Coefficient of Haze Index (Coh units) for the period June to December, 1961 are summarized below:

<i>Environment</i>	<i>Regina</i>	<i>Saskatoon</i>
Business district .....	.6	.5
Light industrial area (residential) .....	—	.7
Residential area .....	.3	—

**Ambulance Services**

Twenty-six ambulance services registered with the department in December, 1961, these services operating a total of 33 ambulances and having 60 ambulance personnel available.

In May, 1961, a course in advanced first aid for road ambulance personnel was held in Regina, 22 attendants being present.

## HEALTH EDUCATION SERVICES

"The success of all public health programs depends in final analysis on the health education and motivation of the public."—World Health Organization.

The Health Education Division was established almost 18 years ago to give effect to the philosophy enunciated by the world health department. Its many and diverse activities have been closely related to the varied programs of a greatly expanded public health service. In some important areas it has done the trail-blazing leading to innovation of new services. A guiding principle has been that, ultimately, health is a personal responsibility which can be met if citizens have the facts and are motivated to apply them to their benefit.

### **Oral Poliomyelitis Immunization**

Public education and publicity associated with the mass immunization of the Saskatchewan population with the Sabin trivalent oral live poliomyelitis vaccine, which resulted in a response of 82 per cent, was perhaps the largest and certainly the most spectacular undertaking of the Health Education Division during the period reviewed. In this project there was particularly close liaison with the Regional Health Services Branch. In fact, throughout the year, the work called for daily consultations between the directors of the two units.

In this program, the division provided a variety of materials for the use of regional and city health officers; maintained a constant flow of suggestions; and used the mass media of press, radio and television for generalized persuasion of the public. While public funds were spent on advertising and broadcasting, the communications media were most generous in their news page and broadcast time support of the project.

During and after the actual campaign, the division supplied information and sample materials to health authorities who wrote for guidance from five other provinces. The director of health education submits that it would be economical and efficient if guidance and materials were to be made available to all public health agencies from a central source such as the Department of National Health and Welfare.

### **World Health Day**

Concurrently with work on the oral poliomyelitis immunization program, the division organized for the observance of World Health Day on April 7 and National Child Safety Day on May 7. World Health Day, marking the anniversary of the World Health Organization, was dedicated to the conservation of vision. To bring about the most effective observance in Saskatchewan, the division succeeded in interesting 43 Lions Clubs in the province in accepting responsibility for self and community education. The division supplied a printed "fact sheet" on blindness, its incidence, causes, and preventive measures, and also published facts about Canada's interest in and support of World Health Organization and other international activities.

### **Child Safety Program**

Child Safety Day originated in Saskatchewan in 1954 and has been observed annually on the first Sunday of May. Safety organizations as well as two provincial health departments in other parts of Canada joined in exploiting this special event, drawing to public attention the high incidence of accidents among children. In 1961 the Canadian Junior Chamber of Commerce began to sponsor the event on a national scale among its 270 local units, and the director of health education's offer, of a personal award to the units demonstrating the best programs, was accepted. In a number of widely scattered United States communities safety organizations also joined in the 1962 observance.

### **Rehabilitation Project**

The division worked closely with the Physical Restoration Branch and with the Co-ordinating Council on Rehabilitation (Saskatchewan), in advancing public understanding and involvement in rehabilitation of handicapped persons. Special attention was given to the modification of building plans to reduce the architectural obstacles facing handicapped persons. The division assisted in the production of a series of bulletins on architectural barriers directed to organizations, architects, contractors, and other builders.

### **Needs of Aged Emphasized**

In the field of aging, the division assisted in programs for a number of regional conferences, and published special articles in a number of provincial publications on preparation for the later years and the needs of older citizens.

### **New School for Retarded**

When the second Saskatchewan Training School (for the retarded) was about to be opened at Prince Albert for a large selected group of persons needing supervised workshop facilities, the division embarked on a renewed program of public education. Admission by geographical origin, although anticipated by some persons, was not practical in the program and the interpretation was designed to explain this to the satisfaction of the public.

### **Health Education Institute**

In June, 1961, the first Canadian institute on health education of the public, was conducted at the University of Saskatchewan under joint sponsorship of the Department of Public Health, the Department of Preventive and Social Medicine of the College of Medicine, and the Centre for Community Studies. This in-service training project was considered eminently successful. It was widely reported and was expected to serve as a pattern for similar professional institutes in the future. The proposal of the institute originated with the director of health education.

### **Safety Education**

In the field of safety education the division continued a vigorous, comprehensive attack on all types of preventable accidents. It worked with the Research and Statistics Branch in production of the first comprehensive accident fact book in Canada. The director was a featured speaker at the 43rd annual National Safety Congress in Chicago, and also was a featured speaker at the Canada Trade and Farm Equipment Show in Toronto.

### Other Activities

An unremitting dental health program underlined the importance of fluoride adjustment of water supplies. The campaign against cigarette smoking by children and young persons was maintained. Considerable effort was put into recruitment of public health personnel but the division was unsuccessful in filling health education posts.

### Voluntary Agencies

Effective liaison was maintained with provincial and local voluntary associations of all kinds in addition to those already named. There were useful consultations with various provincial women's organizations and the federation of Home and School Associations. Assistance has been given these bodies with choosing programs and with materials to put programs into active operation.

### Films and Literature

The division's library of health films grew to 435 titles, but the utilization of films appears to have decreased sharply since television began to reach all parts of Saskatchewan. The division hopes to be able to make greater use of television and radio, which are powerful educational tools, and throughout the past year a staff health educator presented health talks for women over two radio stations daily.

The division used 336 different publications, and distribution reached the half million. It supervised the uses to which both visual aids and publications were put, to obtain the best possible results.

The division's artist produced 14 major health exhibits, numerous table-top displays, and a variety of posters for special programs, aggregating 2,000 pieces. He also produced, by silk screen on sign cotton, arm bands for hundreds of volunteers who worked in the oral poliomyelitis immunization program. Numerous charts, awards, banners, and other such aids were produced in the art shop. Here also, visuals for television were turned out.

Numerous news releases were prepared in the division during the year, all of these being related to preventive and other programs of the department.

## RESEARCH AND STATISTICAL SERVICES

Difficulty was experienced during the year in enlisting suitably qualified staff, and the work of organizing, tabulating and analyzing data essential to the department's functioning, had to be borne by a staff well below full complement.

The branch is financed from both federal and provincial sources.

### **Continuing Projects**

These comprise the annual organizing and analyzing of data for such programs as the Swift Current Health Region Medical Care Plan, and Programs I and II of the Medical Services Division of the department. The editing and preparing for publication of the department's annual report, and that of the Vital Statistics Division, continue to be the responsibility of the branch.

The compilation of provincial accident data in the form of a comprehensive detailed analysis was also undertaken, but it appears likely that the detail formerly achieved, will in future, be somewhat curtailed because certain outpatient statistics will be no longer obtainable. Other work of a continuing nature include the compilation of monthly statistics on births and infant mortality.

### **Special Projects**

#### *Cancer*

There was continued collaboration with individual physicians of the cancer services in organizing and preparing data for analysis. Interest was focussed on the problem of Hodgkin's disease, with particular reference to the effect of treatment on survival.

#### *Aged and Long-Term Ill*

Continued assistance was given to the secretariat of the committee investigating this problem, particularly in respect of the analysis of the data obtained by various field studies carried out by the secretariat.

#### *Minerals in Drinking Water*

The branch provided assistance to the provincial laboratories in analyzing data obtained in an extensive field study carried out in several parts of the province. This was an attempt to determine the clinical effect, if any, caused by the ingestion over long periods of time, of highly mineralized drinking water. Preliminary findings were given at the annual meeting of the Canadian Public Health Association.

#### *Training*

One member of the staff attended a week's course on morbidity coding, held under the auspices of the Dominion Bureau of Statistics. A second member attended the fourth summer session of Statistics in the Health Sciences, a six week course at the University of Minnesota. Funds were obtained through federal grants.

### *Hospital Survey Report*

Work was continued in assisting the Hospital Survey Committee in estimating population trends in each hospital service area.

### *1961 Canadian Census*

As figures (preliminary and final) became available from the census, these were reorganized on the basis of provincial administrative areas to serve the statistical needs of the department.

### *Demographic Survey*

This work which aims at placing in one volume the trend of all vital indices in Saskatchewan since 1921, together with analysis and commentary, was almost completed by the end of the fiscal year. It is hoped that publication will be complete by summer 1962.

### *Hospitalization Data Analysis*

The great amount of pertinent information which was obtained from the analysis of the 1957 Saskatchewan Hospitalization Plan data, particularly by agencies interested in the prevalence of chronic disease, encouraged the branch to repeat the analysis using the more recent 1960 data.

### **Information Services**

These services were made use of by other branches and divisions of the department, other departments and public and private agencies. Close co-operation was maintained with other arms of the federal government, in particular the Dominion Bureau of Statistics and the Department of National Health and Welfare, whose unfailing encouragement and assistance in all matters pertaining to public health investigation is thoroughly appreciated.

## PUBLIC HEALTH LIBRARY

The Public Health Library was established in 1946 and in 1950 became a division of the Research and Statistics Branch. Library services are intended primarily for departmental personnel, but are extended to faculty of the College of Medicine of the University of Saskatchewan, students of the combined clinical laboratory x-ray training course, nursing students, organizations associated with the department, other departments, other libraries and individuals.

The library functions as (1) a specialized reference library, (2) a circulating library, (3) a central agency for the order of books, pamphlets and periodicals required by various branches and units of the department, and (4) as an agency for the complete or partial cataloguing of literature received for the library and for other units of the department.

### Library Resources

Presently the library is re-classifying some of its material, attempting by new definitions to make its resource categories more meaningful. Since library resource statistics will remain in a state of flux for the duration of the re-classification process, the following tentative categories have been set up to indicate the library's holdings:

1. General book collection .....	2,453
2. Reference shelf .....	157
3. Parliamentary debates and statutes .....	158
4. D.B.S. publications .....	282
5. Annual reports of governments .....	958
6. Periodicals	
(a) number of periodical titles purchased through the fiscal year	95
(b) number of periodical titles contributed .....	56
7. Catalogues and indexes .....	464
8. Pamphlets .....	4,689

This year, the library has added 25 Canadian and American university calendars to its holdings.

While most of the publications are acquired by purchase, some literature is secured free from governmental agencies, societies, commercial firms, scientific institutions, and individuals who supply reprints of research studies.

### Reference Service

In response to requests, information is secured both by the use of the library's book, pamphlet and order catalogue, and through the use of standard reference texts, specialized medical and hospital texts, dictionaries and indexes. This service is extended verbally, by telephone and by mail.

### Loan Services

During the fiscal year 1961-62, 1,418 books and bound periodicals, 1,439 pamphlets and single copies of periodicals were loaned in response to special requests from departmental personnel. Ninety-six people received 1,344 issues of 92 periodicals circulated on circulating lists.



Since it is not possible for the library to have on its shelves every publication needed, the resources of the library were augmented by borrowing from universities, scientific institutions, and other libraries. During the fiscal year 1961-62 interlibrary loans numbered 87.

Recording the location of publications ordered for the various unit libraries of the department allows the library to hold information facilitating inter-office borrowing. While some books are in constant use and are, therefore, not available for loan, others may be borrowed for a short time by requesting them through the Public Health Library, or requesting information from the Public Health Library enabling direct borrowing. In this case "direct borrowing" means borrowing between offices without using the Public Health Library as an intermediate borrowing agent. Local loans this year numbered 74.

"Publications of the Week", a list of selected books, pamphlets and reports newly received, was distributed irregularly to 100 people. When a publication is in heavy demand, a reserve system ensures that the request is filled and forwarded to the borrower as soon as possible.

### **Order Services**

Publications purchased for the library, as well as those purchased by other branches, divisions and services, are ordered by the library in co-operation with the Administrative Services Branch and the provincial government purchasing agency<sup>1</sup>. A copy of all records pertaining to the order, receipt and payment processes are maintained in the library. This year the library placed 1,101 orders for publications for the department.

### **Cataloguing and Indexing Activities**

Public Health Library books are classified and catalogued according to the Library of Congress classification and cataloguing systems. Pamphlets and reports are catalogued by author, title and subject. Periodicals are scanned and outstanding articles of permanent value are indexed.

Pertinent information on all books ordered through the library for units of the department is retained by title in the library's order file. In addition, some books for unit libraries are partially catalogued,<sup>2</sup> this information being held in the union catalogue.

<sup>1</sup> Except the Saskatchewan Training Schools, the Saskatchewan Hospital, North Battleford, and the Saskatchewan Hospital, Weyburn.

<sup>2</sup> Only author, title, and shelf list catalogue cards are made.

## SASKATCHEWAN VITAL STATISTICS

The Vital Statistics Division continued to provide the administrative machinery required for the registration of births, stillbirths, deaths, marriages, divorces and adoptions in Saskatchewan.

Division registrars, of whom there are approximately 800 in the province, forward their returns of birth, death and stillbirth registrations on a weekly basis to the central office in Regina. From these registrations the central office creates notice of birth, death and stillbirth cards by health statistical area. These notification cards are then sorted by health region and residence and forwarded as soon as possible to the medical health officers of the health regions. The purpose of this procedure being to keep the health officers informed of the vital events occurring to residents of their regions.

Marriage registrations are filed directly with the central office in Regina by the officiating clergyman or marriage commissioner and are not channelled through a division registrar.

The total number of registrations processed in 1961 was 37,025. A comparison of the number of registrations for 1957, 1958, 1959, 1960 and 1961 follows:

<i>Processed registrations</i>	1957	1958	1959	1960	1961
Total .....	37,524	37,310	38,037	37,244	37,025
Births .....	23,939	24,011	24,437	24,050	23,691
Stillbirths .....	309	278	270	238	313
Deaths .....	6,769	6,557	6,922	6,767	6,937
Marriages .....	6,507	6,464	6,408	6,189	6,084

Registrations were checked for completeness, and indexed, numbered, microfilmed, and filed in a fireproof vault as permanent records.

Births which are not registered at the time of event, and corrections on the original registration of birth, continue to present a problem. Each application for correction is carefully investigated and satisfactory evidence must be produced to assure that there actually was an error at the time of the original registration. In addition to an application for a delayed registration, the applicant must also file satisfactory documentary evidence in accordance with the "Standard Minimum of Evidence for Delayed Registrations" agreed to by all provinces in 1944. A large amount of correspondence is necessary in handling correction and delayed registration files.

Likewise, considerable correspondence and personal interviews are necessary in connection with legitimation of births, registration of illegitimate children, alteration of given names and adoptions, before the proper notations can be entered on the original registrations concerned.

The numbers of delayed registrations and notations made in 1957, 1958, 1959, 1960 and 1961 are as follows:

Type of investigation	1957	1958	1959	1960	1961
Delayed registration .....	1,476	1,663	1,539	1,533	1,671
Correction of original registration .....	2,467	2,177	1,710	1,697	1,641
Registration of illegitimate child in name of father .....	38	27	43	36	46
Legitimation of birth .....	79	100	102	158	114
Alteration of vital statistics registration resulting from change of name certificate .....	469	470	413	423	446
Alteration of given name .....	429	414	362	340	354
Adoption notation .....	515	483	468	481	488

Current birth, stillbirth, death and marriage registrations are micro-filmed at the earliest possible date after registration. The films are forwarded to the Dominion Bureau of Statistics which compiles vital data for the country as a whole. Documents submitted as supporting evidence in connection with the division's activities are also placed on microfilm for reference.

Certified copies of the original registrations, certificates, and statements or verifications were issued as part of the function of the division to the public or other agencies, as proof of these events, upon receipt of an application in the required form and payment of the prescribed fee.

The revenue received from these and from other sources for the years 1957 to 1961 inclusive was as follows:

	1957	1958	1959	1960	1961
Total .....	\$87,384	\$86,700	\$84,459	\$88,086	\$87,020
Vital statistics fees .....	63,142	62,110	60,881	63,673	63,854
Marriage licence fees .....	18,779	18,628	18,233	18,486	17,711
Revenue from microfilm .....	3,757	3,766	3,852	3,834	3,734
Revenue from change of name .....	1,706	2,196	1,493	2,094	1,721

The Division of Vital Statistics also provides the administrative machinery necessary to carry out the provisions of The Marriage Act. This includes recognition of religious denominations, registration of clergymen authorized to perform marriages, appointment of issuers of marriage licences, supplying of marriage licences to issuers, printing and distributing of all required forms, and checking of forms such as statutory declarations, health certificates, licences, banns, consent forms for the marriage of minors, divorce certificates, and death certificates.

Under the authority of The Change of Name Act, all applications for change of name must be submitted to this division for consideration. All approved registrations of change of name are retained as permanent records in a fireproof vault. In 1961 there were 192 change of name applications accepted for registration compared to 207 in 1960.

### Vital Data

According to the census of Canada in 1961, the population of Saskatchewan was 925,181. This represents an increase of 10,181 over 1960 or 1.11 per cent (Table 62).

Live births registered during 1961 totalled 23,994 and deaths 7,107, resulting in a natural increase of 16,887 or 18.2 per 1,000 population. This rate is 0.6 less than that for 1960.

In 1961, the birth rate per 1,000 population was 25.9 or 0.4 less than the year before. At the same time, the death rate increased to 7.7 per 1,000 population, from 7.5 in 1960.

During the year under review, the number of stillbirths recorded in Saskatchewan was 331. The stillbirth rate per 1,000 live births was 13.8. A significant factor of this increased number and rate of stillbirths is the change in definition of the term "stillbirth". (See explanation in Table 64).

As regards infant mortality, the year 1961 showed a decrease from the previous year. The number of infants dying in their first year of life was 618 as against 637 in 1960. The infant mortality rate in 1961 decreased to 25.8 from 26.4 in 1960. The all time record low has been established at 25.5 per 1,000 live births in 1957.

Among the leading causes of death, heart disease and malignant neoplasms (cancer) retained the first and second places, respectively. Together they accounted for slightly over one-half of all deaths in the province in 1961 (Table 65). Other leading causes of death were vascular lesions affecting the central nervous system, accidents, diseases peculiar to early infancy, pneumonia, diseases of arteries, congenital malformations, diabetes mellitus, and suicide and self-inflicted injury, in that order. These ten leading causes accounted for 85 per cent of deaths occurring in Saskatchewan in 1961. In this connection, it is worth recalling that tuberculosis disappeared from among the ten leading causes of deaths in 1954. A comparison of the ten leading causes of deaths can be found in Table 65.

From 6,209 in 1960, the number of marriages decreased to 6,149 in 1961, and the marriage rate decreased from 6.8 to 6.6 per 1,000 population. The rate of divorces and annulments per 1,000 population increased from 0.24 to 0.28 in 1961. In 1961, the ratio of divorces and annulments to marriages was 1:24 as against 1:29 in 1960 (Table 67). These figures do not include separations on which no statistical data are being compiled.

Year	Births per 1,000 population	Deaths per 1,000 population	Infant mortality rate per 1,000 live births	Stillbirths
1961	25.9	7.7	25.8	331
1960	26.3	7.5	26.4	308
1959	26.7	7.4	26.1	295
1958	27.1	7.3	25.9	282
1957	27.5	7.2	25.5	269
1956	27.9	7.1	25.3	256
1955	28.3	7.0	25.1	243
1954	28.7	6.9	24.9	230
1953	29.1	6.8	24.7	217
1952	29.5	6.7	24.5	204
1951	29.9	6.6	24.3	191
1950	30.3	6.5	24.1	178
1949	30.7	6.4	23.9	165
1948	31.1	6.3	23.7	152
1947	31.5	6.2	23.5	139
1946	31.9	6.1	23.3	126
1945	32.3	6.0	23.1	113
1944	32.7	5.9	22.9	100
1943	33.1	5.8	22.7	87
1942	33.5	5.7	22.5	74
1941	33.9	5.6	22.3	61
1940	34.3	5.5	22.1	48
1939	34.7	5.4	21.9	35
1938	35.1	5.3	21.7	22
1937	35.5	5.2	21.5	9
1936	35.9	5.1	21.3	0
1935	36.3	5.0	21.1	0
1934	36.7	4.9	20.9	0
1933	37.1	4.8	20.7	0
1932	37.5	4.7	20.5	0
1931	37.9	4.6	20.3	0
1930	38.3	4.5	20.1	0
1929	38.7	4.4	19.9	0
1928	39.1	4.3	19.7	0
1927	39.5	4.2	19.5	0
1926	39.9	4.1	19.3	0
1925	40.3	4.0	19.1	0
1924	40.7	3.9	18.9	0
1923	41.1	3.8	18.7	0
1922	41.5	3.7	18.5	0
1921	41.9	3.6	18.3	0
1920	42.3	3.5	18.1	0
1919	42.7	3.4	17.9	0
1918	43.1	3.3	17.7	0
1917	43.5	3.2	17.5	0
1916	43.9	3.1	17.3	0
1915	44.3	3.0	17.1	0
1914	44.7	2.9	16.9	0
1913	45.1	2.8	16.7	0
1912	45.5	2.7	16.5	0
1911	45.9	2.6	16.3	0
1910	46.3	2.5	16.1	0

TABLE 62. POPULATION TREND FOR SASKATCHEWAN, CENSUS YEARS 1901 TO 1961, AND ESTIMATES FOR 1957, 1958, 1959 AND 1960

Year	Canada		Saskatchewan		
	Total population	Total population	Per cent of Canada's population	Increase over preceding population	
				Number	Per cent
1901.....	5,371,315	91,279	1.70	19,279	.....
1906.....		257,763		166,484	182.39
1911.....	7,206,643	492,432	6.84	234,669	91.04
1916.....		647,835		155,403	31.56
1921.....	8,787,940	757,510	8.62	109,675	16.93
1926.....		820,738		63,228	8.35
1931.....	10,376,786	921,785	8.88	101,047	12.31
1936.....		931,547		9,762	1.06
1941.....	11,506,655	895,992	7.79	-35,555	-3.82
1946.....		832,688		-63,304	-7.07
1951.....	14,009,429	831,728	5.94	-960	-0.12
1956.....	16,080,791	880,665	5.48	48,937	5.88
1957*.....	16,610,000	880,000	5.30	-665	-0.08
1958*.....	17,080,000	891,000	5.22	11,000	1.25
1959*.....	17,483,000	907,000	5.19	16,000	1.80
1960*.....	17,870,000	915,000	5.12	8,000	0.88
1961.....	18,238,247	925,181	5.07	10,181	1.11

\* Note that numbers and percentages as given for these years vary slightly as a result of postcensal adjustments from the numbers and percentages as shown in the annual reports of Saskatchewan Vital Statistics for the years 1957, 1958, 1959 and 1960.

TABLE 63. NATURAL INCREASE IN POPULATION, SASKATCHEWAN, 1916-1961

Year	Live births	Deaths	Natural increase*	
			Number	Rate per 1,000 population
1916-1920 average....	20,764	6,260	14,504	21.2
1921-1925 average....	21,541	5,853	15,688	20.1
1926-1930 average....	21,298	6,256	15,042	17.5
1931-1935 average....	20,325	6,037	14,288	15.4
1936-1940 average....	18,675	6,365	12,310	13.5
1941-1945 average....	18,444	6,437	12,007	14.1
1946-1950 average....	21,907	6,473	15,434	18.5
1951.....	21,733	6,440	15,293	18.4
1952.....	22,605	6,625	15,980	19.0
1953.....	23,703	6,687	17,016	19.8
1954.....	24,981	6,323	18,658	21.4†
1955.....	24,746	6,661	18,085	20.6†
1956.....	24,059	6,666	17,393	19.7
1957.....	23,921	6,743	17,178	19.5
1958.....	23,843	6,483	17,360	19.5
1959.....	24,319	7,003	17,316	19.1†
1960.....	24,088	6,868	17,220	18.8†
1961.....	23,994	7,107	16,887	18.2

\* The natural increase is the excess of live births over deaths.

† Note that the rates as given for these years vary slightly as a result of postcensal adjustments from the rates as shown in the annual reports on Saskatchewan Vital Statistics for the years 1954, 1955, 1959 and 1960.

TABLE 64. NUMBER OF STILLBIRTHS, INFANT DEATHS, AND MATERNAL DEATHS, WITH RATES PER 1,000 LIVE BIRTHS, SASKATCHEWAN, 1926-1961

Year	Live births	Stillbirths*		Infant deaths†		Maternal deaths	
		Number	Rate	Number	Rate	Number	Rate
1926-1930 average.....	21,298	551	25.9	1,560	73.2	126	5.9
1931-1935 average.....	20,325	488	24.0	1,260	62.0	91	4.5
1936-1940 average.....	18,675	393	21.0	1,025	54.9	68	3.6
1941-1945 average.....	18,444	348	18.9	858	46.5	52	2.8
1946-1950 average.....	21,907	350	16.0	883	40.3	29	1.3
1951.....	21,733	303	13.9	676	31.1	22	1.0
1952.....	22,605	314	13.9	787	34.8	13	0.6
1953.....	23,703	319	13.5	797	33.6	13	0.5
1954.....	24,981	327	13.1	708	28.3	22	0.9
1955.....	24,746	300	12.1	745	30.1	11	0.4
1956.....	24,059	291	12.0	680	28.3	8	0.3
1957.....	23,921	280	11.7	609	25.5	5	0.2
1958.....	23,843	270	11.3	616	25.8	13	0.5
1959.....	24,319	247	10.2	626	25.7	10	0.4
1960.....	24,088	221	9.2	637	26.4	10	0.4
1961.....	23,994	331‡	13.8	618	25.8	6	0.3

\* The definition of stillbirth as employed in this report is as follows: A stillbirth is the birth of a viable foetus after "at least 28 weeks pregnancy in which pulmonary respiration does not occur. Such a foetus may die (a) before (b) during or (c) after birth but before it has breathed". (Vital Statistics Handbook: Ottawa, 1947, p. 57).

† Deaths of children under one year of age.

‡ In 1961, the definition of stillbirths was changed from "at least 28 weeks pregnancy" to "at least 20 weeks pregnancy".

TABLE 65. TEN LEADING CAUSES OF DEATH WITH PERCENTAGES AND RATES PER 100,000 POPULATION, SASKATCHEWAN, 1960 AND 1961

Cause of death*	Number		Per cent		Rate per 100,000 population	
	1960	1961	1960	1961	1960†	1961‡
All causes.....	6,868	7,107	100.0	100.0	750.6	768.2
Ten leading causes.....	5,810	6,043	84.6	85.1	635.0	653.2
Heart diseases (410-443).....	2,384	2,424	34.7	34.1	260.6	262.0
Malignant neoplasms (140-205).....	1,132	1,238	16.5	17.4	123.7	133.8
Vascular lesions affecting the central nervous system (330-334).....	684	683	10.0	9.6	74.8	73.8
Accidents (E800-E962).....	455	474	6.6	6.7	49.7	51.2
Diseases peculiar to early infancy (760-776).....	353	332	5.1	4.7	38.6	35.9
Pneumonia (490-493).....	331	321	4.8	4.5	36.2	34.7
Diseases of arteries (450-456).....	166	231	2.4	3.3	18.1	25.0
Congenital malformations (750-759)....	118	132	1.7	1.9	12.9	14.3
Diabetes mellitus (260).....	112	114	1.7	1.6	12.2	12.3
Suicide and self-inflicted injury (E970-E979).....	75	94	1.1	1.3	8.2	10.2
Other.....	1,058	1,064	15.4	14.9	115.6	115.0

\* Code numbers according to the *International Statistical Classification of Diseases, Injuries, and Causes of Death, 1955*, are shown in parentheses.

† The rates for 1960 are based upon the revised population estimate for the year. The 1961 rates are based on the census.

TABLE 66. ACCIDENTAL DEATHS BY CAUSE OF DEATH, SASKATCHEWAN, 1959-1961

Accidental deaths*	Number			Rate per 100,000 population†		
	1959	1960	1961	1959	1960	1961
Total.....	444	455	474	49.0	49.7	51.2
Motor vehicle accidents.....	162	160	169	17.9	17.5	18.3
Other transport accidents.....	24	32	25	2.6	3.5	2.7
Accidental poisoning.....	13	10	25	1.4	1.1	2.7
Accidental falls.....	56	88	71	6.2	9.6	7.7
Accident caused by machinery.....	25	9	24	2.8	1.0	2.6
Accident caused by fire and explosion of combustible material.....	35	28	43	3.9	3.1	4.6
Accident caused by hot substance, corrosive liquid, steam and radiation....	3	3	.....	0.3	0.3	.....
Accident caused by firearm.....	8	19	12	0.9	2.1	1.3
Accidental drowning and submersion.....	28	34	30	3.1	3.7	3.2
All other accidental causes.....	90	72	75	9.9	7.8	8.1

\* Causes according to the *International Statistical Classification of Diseases, Injuries, and Causes of Death*, 1955, Vol. 1, p.p. 375-380.

† The rates for 1959 and 1960 are based upon the revised population estimates for these years. The rates for 1961 are based upon the census.

TABLE 67. DIVORCES AND ANNULMENTS, RATIO TO MARRIAGE AND RATES PER 1,000 POPULATION, SASKATCHEWAN, 1955-1961

Item	1955*	1956	1957	1958	1959*	1960	1961
Number of divorces and annulments.....	242	226	246	286	277	216	255
Number of marriages.....	6,494	6,403	6,510	6,464	6,388	6,209	6,149
Ratio of divorces and annulments to marriages.....	1:27	1:28	1:26	1:22	1:23	1:29	1:24
Rate of divorces and annulments per 1,000 population.....	0.27	0.26	0.28	0.32	0.31	0.24	0.28
Rate of marriages per 1,000 population.....	7.4	7.3	7.4	7.3	7.0	6.8	6.6

\* Note that rates as given for these years vary slightly as a result of postcensal adjustments from the rates shown in the annual reports on Saskatchewan Vital Statistics for the years 1955 and 1959.

## SASKATCHEWAN CANCER SERVICES

*The following report on the Saskatchewan Cancer Commission is included in this annual report of the Department of Public Health. Detailed tables may be found in the annual report of the Commission, which is published separately.*

The Saskatchewan Cancer Commission, charged with the administration of the Cancer Control Act under the Minister of Public Health, continued during the year the operation of the Allan Blair Memorial Clinic, located in the Regina Grey Nuns' Hospital, and the Saskatoon Cancer Clinic, located in the University Hospital.

### **Nature and Scope of Services**

The major principle underlying the provincial cancer program is that the most effective and satisfactory treatment of this disease can be provided only through centralized facilities and personnel. This principle recognizes that cancer is fatal if untreated; requires the organization of costly and highly specialized treatment services for its control; and involves heavy financial outlays, because of the need for early detection, prompt investigation, treatment and continuous case review.

The function of the centralized clinics is to assure accurate diagnosis and the provision of experienced, expert treatment and follow-up programs for persons who have cancer.

#### *The Family Doctor*

The commission bases its cancer program on the conception that the ultimate success of a province-wide plan of cancer management depends upon the partnership and co-operation of the family doctor. He is the first and most important detection centre and all patients coming to either clinic are required to be referred there by him.

#### *Diagnostic Services*

A patient may be referred to a clinic by his private physician when the presence of cancer is suspected. Here he is examined and suitable diagnostic procedures are initiated. Specialists are called into consultation when required. If a patient has no cancer he is discharged from the clinic and instructed to return to his own physician. When cancer is diagnosed, the decision as to treatment is made in consultation with the patient's referring doctor or a consultant. In all cases the patient's doctor receives full records of his examination, investigation, and subsequent course.

#### *Treatment Services*

When surgery is recommended the patient has free choice of a surgeon in private practice, but usually his family physician suggests a suitable specialist. When neither referring doctor nor patient have a preference, a roster of certified specialists, maintained by the clinic is used. Clinic staff carry out surgery only of certain minor procedures of a diagnostic character.

All radiotherapy is done by members of the clinic staff.



### *Follow-up Services*

Since cancer may recur or spread, a patient must be followed from the point of discovery on. One of the most important functions of the clinic in relation to cancer control is the operation of an extensive system of regular follow-up after treatment. This consists of a system of recheck examinations at the clinic, based upon careful contact maintenance between clinics and patients. Only a very small percentage of patients fail to participate in the follow-up program.

### *Clinic Staffs*

Each clinic has full-time medical, nursing and clerical staffs, and a full-time physicist. Part-time consultants are available in physics, pathology, diagnostic radiology, biochemistry and medical tariff. The operation of an emanation plant at the University of Saskatchewan for the production of radon is under supervision of the consulting physicist, the commission assuming payment of a technician's salary. Full radiotherapeutic and isotope facilities are available in each clinic for patients who require them, whether or not they have cancer.

### *Social Worker*

The Saskatchewan Division of the Canadian Cancer Society provides funds for the social worker attached to each clinic. This worker assists the medical and nursing staff in the care and comfort of cancer patients, being particularly concerned with their social and psychological needs.

### *Lay Education*

Lay education in cancer remains the responsibility of the Canadian Cancer Society in co-operation with the Health Education Division of the Department of Public Health.

## **Eligibility and Financial Benefits**

To be eligible for diagnosis and treatment at the expense of the province, a patient must be a resident of Saskatchewan for at least three months immediately prior to admission to a cancer clinic and must be referred by a doctor.

Free services are not extended to patients for whom the federal government is responsible, nor to those who are not residents of Saskatchewan. Such patients are accepted by the clinics on a fee-for-service basis.

Except for certain diagnostic procedures revealing the presence of malignant disease, or in the case of an operation where unsuspected cancer is discovered, financial responsibility is not accepted for services rendered before actual admission of the patient to a cancer clinic. This policy is employed to encourage referral, at the least suspicion of possible cancer, to the advantages of the specialized knowledge, techniques, and facilities of the clinics. It appears that more than 90 per cent of those suffering from cancer are being registered in cancer clinics.

### *Diagnostic Services*

After diagnosis, patients found to have cancer are not charged for diagnostic services. Others pay a nominal fee of \$10, upon discharge from the clinic.

The commission pays clinic hospitals for use of laboratory and x-ray facilities.

### *Treatment Services*

Surgical care in hospital, and terminal medical care in the home or hospital, are given by private practising doctors and paid for by the commission. Radiotherapy to cancer patients is provided without charge by clinic staffs. Certain nonmalignant diseases are also treated at the clinics, because facilities to treat these conditions are not available elsewhere. In such cases patients are charged on a fee-for-service basis.

### *Home Nursing*

Authorized home visits by the Victorian Order of Nurses for certain cases is paid for by the commission.

### *Hospitalization and Drugs*

Payment of hospitalization for cancer patients is the responsibility of the Saskatchewan Hospital Services Plan in cases where the annual hospitalization tax has been paid. If the tax has not been paid, hospitalization costs become the responsibility of the patient. However, the commission pays for drugs listed as non-benefits of the hospital plan, in the case of cancer patients in hospital. The patient is responsible for the cost of outpatient drugs.

### **Cost of Services Provided**

The total cost of operating the commission and the two clinics in 1961-62 was \$1,513,941.10, of which a national health grant contributed \$498,702.35. This cost does not include hospitalization expenditures made by the hospital services plan.

Medical and surgical fees were \$656,574.29, staff salaries, \$456,439.18. Hospitals in which clinics are located were paid \$236,064.53 for diagnostic, laboratory and x-ray facilities, as well as for various other services rendered to them.

### **Volume of Services Provided in 1961-62**

Table 68 gives a summary of all patients seen at the cancer clinics for the year 1961.

The above facts indicate that a high level of efficiency was attained despite some adverse circumstances. Members of the medical, nursing and other staff groups are to be commended for their cooperation and devotion. It is hoped that steps now taken to prevent seasonal staff loss will be successful. If staff loss does not occur, it is likely that the coming year will see further increases in most hospital services.

### *Developments During 1961*

The levelling off in numbers of procedures did not indicate any cessation of progress. Indeed, much was accomplished during the year. Some of the more important developments are listed hereunder.

TABLE 68. SUMMARY OF ALL PATIENTS SEEN AT THE CANCER CLINICS, SASKATCHEWAN, 1961

Cases	Both clinics	Regina clinic	Saskatoon clinic
All cases.....	23,146	11,127	12,019
Number of patients admitted to the clinics for the first time in 1961 for the diagnosis and treatment of cancer.....	3,873	1,732	2,141
Number of patients discharged from the clinics previous to 1961 with benign conditions, who returned to the clinics in 1961 with cancer.....	225	84	141
Number of patients seen in 1961 but not admitted to the clinics, as superficial examination appeared to exclude cancer.	448	201	247
Number of patients admitted to the clinics in 1961 solely for the diagnosis or treatment of nonmalignant conditions*.....	706	92	614
Number of review examinations of all patients seen in 1961†.....	17,894	9,018	8,876

\* Diagnosis refers to various radioactive isotope uptake studies.

† The above figures do not include attendance of patients for treatment only.

## UNIVERSITY MEDICAL CENTRE

### THE UNIVERSITY HOSPITAL

The past year was the seventh year of operation since the hospital opened in 1955. The general levelling off of hospital activities, noted in recent reports, continued, and for the first time, there have been slight decreases in certain areas. This apparent slowing in momentum was brought about mainly by two factors.

First, the hospital has been operating reasonably close to optimum capacity for the past three years and potential to increase services is limited or, in some areas, almost nonexistent. Second, there was a planned reduction in bed occupancy for three months during the summer. Because of a shortage of nursing and technical staff, it was deemed advisable to curtail the volume of patient services rather than risk a lowering in quality of patient care. Had it not been for this action, it is certain that volume of service would have shown a marked increase. This, in turn, would have resulted in a substantial financial deficit.

Despite the lessening in some activities and the stability of others, as compared to 1960, there were essentially the same number of patients admitted and treated in 1961 as in the previous year. This has meant that, throughout the year, hospital personnel have been taxed to the utmost. Likewise, activity during the peak periods of staffing has set new records. There were 10,019 adult admissions, 39 fewer than in 1960, and 1,192 newborn admissions, 51 more than in 1960, for a total of 11,211 admissions as compared to 11,199 in 1960.

A coincidence of staff resignations with the summer vacation period caused staff to be reduced during the three summer months. Therefore, to maintain services at a high standard, it was necessary to reduce occupancy during this period. As a result, the total number of patient days in hospital was lowered. Likewise, throughout the year, the average length of patient stay was reduced, which further lowered the total number of patient days of care rendered during the year. However, the reduction in average length of patient stay (from 16.1 in 1960 to an average of 15.0 days per patient in 1961) allowed for a more rapid turnover and for the hospital to admit a slightly increased number of patients, while maintaining occupancy at a considerably reduced level. Average occupancy for 1961 was 79.1 per cent as compared to 82.9 per cent for 1960.

The above facts indicate that a high level of efficiency was attained despite some adverse circumstances. Members of the medical, nursing and other staff groups are to be commended for their co-operation and devotion. It is hoped that steps now taken to prevent seasonal staff loss will be successful. If staff loss does not occur, it is likely that the coming year will see further increases in most hospital activities.

#### **Developments During 1961**

The levelling off in numbers of procedures did not indicate any cessation of progress. Indeed, much was accomplished during the year. Some of the more important developments are listed hereunder.

A third intensive care and observation unit was completed in the neurosurgical department. All seriously ill patients may now be cared for in units adjacent to the nursing station. Segregation of critically ill patients according to the type of illness and type of treatment is also possible.

A suite of offices has been provided for the speech therapist and for a third specialist in rehabilitation medicine. These offices, constructed in space previously used for medical record and x-ray film storage, will also serve as headquarters for the hospital's home care program. Part of the previous storage area now affords accommodation for additional locker space for staff members and for a small extension to the rehabilitation appliance shop.

The new medical records extension, begun in 1960, was completed during the year. This splendid new addition provides much improved office space for the medical records staff and greatly enlarged storage space for medical records and x-ray films. The importance of making adequate provision for medical records in a teaching hospital may be realized from the fact that, during the year, over 4,500 records were intensively reviewed by medical students and doctors for educational and research purposes. This is exclusive of thousands of records filed and refiled in the course of the discharge and admission of patients.

The east classroom, one of the two largest, was extensively renovated. Air conditioning was installed; an automatic screen was added and the lighting system was revised to provide rheostat control at several points for illumination intensity, depending on the need. This classroom, which is heavily utilized throughout the year, is now a more comfortable and effective place in which to teach and learn.

A neurological x-ray room was established in the operating room suite. It is now possible to carry out complicated studies on critically ill and/or anaesthetized patients with increased safety and without unnecessary movement of patients.

Many smaller improvements were made in offices, laboratories and wards throughout the building.

Tape recorded music in an operating theatre, used experimentally during the last year, has been so well received by patients, doctors and nurses that consideration will be given to permanent installation in operating room areas. The soothing effect of the music is particularly useful when patients are conscious during local anaesthesia.

During the year there were 59 special meetings, institutes and conventions held in the hospital. Some of these were —

- Psychiatric Institute
- Postgraduate Course for General Practitioners in Obstetrics,  
Gynaecology and Paediatrics
- Physiotherapy Refresher Course
- Institute on Maternal and Child Health Care (S.R.N.A.)
- Annual Meeting of the Canadian Association of Physical Medicine and  
Rehabilitation
- School of Nursing Improvement Program—Canadian Nurses' Association
- Sectional Meetings of the College of Physicians and Surgeons of  
Saskatchewan
- Housekeeping Institute

Special consultation on the hospital facilities required for children was received from a team of experts. The consultants stressed the need for a special children's centre at University Hospital to augment children's services presently available in the city, northern Saskatchewan and, to some extent, in the whole province.

During the year a large number of students received training at the hospital—

Total .....	473
Medical students .....	93
Nurses .....	211
Internes and residents .....	65
Laboratory technologists .....	32
Occupational and physical therapists .....	8
Centralized teaching program for x-ray technicians .....	20
Dietary internes (graduate) .....	4
Integrated dietary internes (student) .....	6
Pharmacy internes .....	2
Medical records students .....	1
Orderlies .....	6
Ward aides .....	25

Fifty diploma and 29 degree student nurses attended graduation ceremonies in September. In the seven years since University Hospital began in 1955, 292 diploma students and 121 degree students, for a total of 413 student nurses, have completed their hospital training at University Hospital.

Since the hospital opened, there have been 6,809 deliveries without a maternal death owing to pregnancy or its management.

The University Hospital Women's Auxiliary contributed a great deal towards patient, student and staff welfare at the hospital. This was done with money, thousands of hours of service and many more thousands of dollars worth of goodwill and cheerfulness. The Auxiliary won first prize in a contest sponsored by the National Council of Hospital Auxiliaries of Canada. The prize was offered for the photograph that best depicted the work being done by a hospital auxiliary and was won with a picture illustrating the work of the Auxiliary with the children in the hospital.

Many students in various disciplines in hospital, medical and other health occupations spent short periods of study at the hospital. For example, in the Department of Anaesthesia eight physicians from Saskatchewan and other points spent periods of time in postgraduate study during the year. During the past four years, 22 general practitioners from the western provinces have taken postgraduate courses in anaesthesia. Other physicians have pursued study in various medical and surgical fields. Many of the hospital departments have been host to visiting students from other parts of the province and beyond.

Several hospital departments, notably pharmacy, dietary and laundry, provided consultant services to other hospitals and hospital regions in the province. This extension of teaching services beyond the walls of the hospital is a valuable adjunct to educational objectives of the hospital.

In contrast with 1960, when 22 poliomyelitis cases were admitted to the Northern Saskatchewan Poliomyelitis Treatment Centre at the hospital, only two cases—neither serious—were admitted in 1961. It is hoped that the advent of Sabin vaccine will complete the rout of poliomyelitis started so well by the Salk vaccine.

The clinical uses of radioactive isotopes continued to expand, showing an increase of 20 per cent over 1960.

Following a serious fire which destroyed the Prince Albert laundry, University Hospital commenced processing all laundry from the Victoria Hospital, Prince Albert. It is of particular interest that this was done (and is being continued) with a minimum of extra effort. It is obvious

that one well equipped hospital laundry could easily serve at least three or four hospitals and possibly more. There would be marked savings resulting from elimination of unnecessarily duplicated facilities. This experience points out the need to scrutinize hospital building plans carefully to eliminate duplication, particularly when hospitals are located in close proximity.

A new student nurse program in the delivery suite assures each mother constant attendance throughout her labour and delivery. This is a valuable student experience and a comforting one for the patient. Several enquiries have been received from other centres of nursing education, as a result of the success achieved by this program.

The hospital outpatient department continues to grow in size and in ability to serve as a teaching medium. A total of 22,568 visits were made to the outpatient department and department offices during the year. These were exclusive of patients referred only for diagnostic tests, and represented an increase of 3,571 visits over 1960.

Emergency service provided by the hospital has increased steadily each year. Visits to the emergency department increased from 5,540 in 1959, to 6,544 in 1960 and 7,422 in 1961.

Despite losses in some departments, over-all staff stability is increasing. Three hundred and three staff members, or 34.96 per cent of the total permanent staff, have been employed at the hospital five years or longer.

The Department of Psychiatry commenced a home care program. This program was modelled after the program developed two years ago by the Department of Rehabilitation Medicine but is specially designed for patients suffering from mental and emotional illnesses. The success achieved by this new project will warrant its continuance.

A project was also conducted to determine whether the psychiatric ward was admitting patients who were representative of the sickest patients in the community. During the year 42 patients who have been certified to North Battleford were admitted. Of 30 patients in the group under 65 years of age, 29 were discharged home and only one finally required treatment in North Battleford. Of the 12 patients over 65 years of age, eight were discharged home and four required treatment in North Battleford. This reflected the well established difficulty in returning older patients to the community. The project also demonstrated that, if treatment centres were available in general hospitals, very few patients would require incarceration in mental institutions.

During the year considerable progress was made towards approval of a new house staff residence. This building is much needed in order to provide additional space for rehabilitation facilities and to improve the utilization of active treatment wards in other departments. It will also improve the accommodation available for house staff.

### **Revenue and Expenditure**

Revenue for the year totalled \$4,512,798 and expenditures \$4,494,896, showing a small surplus for the year's operations of \$17,902. The budget reduction (the fourth in as many years) reached the critical stage. Had it not been for the restriction on the use of beds during the summer months, operations for the year would either have been at a substantial financial deficit or would have resulted in lowering standards of patient care to a dangerous level.

As in previous years, the bulk of income was derived from services to patients, the balance being made up of a variety of other services. Of the total expenditure, \$3,167,247 or 70.4 per cent represented salaries and wages.

Building depreciation was eliminated from rate calculations in 1961. This results in a loss of funds to the hospital of approximately \$200,000 annually. Depreciation payments in capital equipment were \$116,104. Capital expenditure for 1961 building and new equipment amounted to \$217,118.

### Recommendations

The year saw a levelling off or slight decrease in many activities at the hospital. At the same time considerable progress was made by improvements in many areas and increased activity in some. The hospital was opened during a two-year period 1955 and 1956. It has been fully operational for five years, 1957-1961 inclusive, and at near optimal capacity for three years, 1959, 1960 and 1961. With sufficient personnel and funds some further expansion in service is possible within the existing buildings. However, in many areas (recovery rooms, rehabilitation, paediatrics, laboratories, psychiatry, office facilities, lecture rooms and others) the hospital is in dire need of expansion in space, equipment and personnel if the full potential of service to the province is to be realized.

The city of Saskatoon is increasing in population by 4,000 to 5,000 persons per year, there is a growing tendency for referral of patients, particularly those more ill, from small to large centres. During recent years, improvements in highway and other methods of transportation have enabled people to travel easily. This they tend to do, moving to the larger centres for all manner of trading purposes, including medical and hospital care. Of necessity, the more complex services in hospital are only available in the larger centres — some only at University Hospital. Teaching and research require continuing support in order to flourish and thus result in greater good for all. These are but some of the reasons that impel serious consideration and implementation of recommendations that have been made in previous years. Briefly, these recommendations are restated as follows:

Extension of services through the provision of a hospital service wing to house improved and enlarged laboratories, operating rooms, recovery rooms, dietary facilities, outpatient facilities, lecture rooms, offices and a chapel.

Extension of active care facilities for rehabilitation of both young and old persons.

Provision of a Saskatchewan Children's Centre in order to make much better provision for the health needs of children.

Provision of extended facilities for the treatment of mental illness by enlarging the psychiatric department.



TABLE 69. GROWTH IN SERVICE OFFERED AT THE UNIVERSITY HOSPITAL, SASKATOON, SASKATCHEWAN, 1957-1961

Service	1957	1958	1959	1960	1961
Patients discharged from hospital.....	9,802	10,406	10,669	11,183	11,209
Surgical operations.....	4,556	4,950	5,263	5,952	5,937
Births.....	1,020	1,069	1,126	1,088	1,126
Emergency visits.....	4,151	4,619	5,540	6,544	7,422
Outpatient visits.....	13,943	15,154	17,721	18,997	22,568
X-ray examinations.....	21,845	25,790	28,681	30,050	29,797
Units of laboratory work.....	561,652	739,463	851,315	1,025,863	1,016,263
	Percentage increase				
	1957-1958	1958-1959	1959-1960	1960-1961	
Patients discharged from hospital.....	6.2	2.5	4.8	*	
Surgical operations.....	8.6	6.3	13.1	-0.3	
Births.....	4.8	5.3	-3.5	3.5	
Emergency visits.....	11.3	19.9	18.1	13.4	
Outpatient visits.....	8.7	16.9	7.2	18.8	
X-ray examinations.....	18.1	11.2	4.8	-0.8	
Units of laboratory work.....	31.7	15.1	20.5	-0.9	

\* Less than 0.05 per cent.

TABLE 70. GROWTH IN NUMBER OF PATIENTS DISCHARGED FROM THE UNIVERSITY HOSPITAL, SASKATOON, SASKATCHEWAN, 1958-1961

Item	1958	1959	1960	1961
Total patients discharged.....	10,406	10,669	11,183	11,209
Total patient days.....	157,928	157,658	160,807	152,986
Average days stay per patient.....	16.8	16.6	16.1	15.0
	Percentage increase			
	1958-1959	1959-1960	1960-1961	
Total patients discharged.....	2.5	4.8	*	
Total patient days.....	-0.2	2.0	-4.9	

\* Less than 0.05 per cent.

TABLE 71. ANALYSIS OF CARE BY DEPARTMENTS, UNIVERSITY HOSPITAL, SASKATOON, SASKATCHEWAN, 1961

Department	Discharges	Percentage involving autopsies	Percentage involving consultations	Average stay
Departments				
Medicine.....	2,033	75.5	37.9	18.2
Neurosurgery.....	281	100.0	46.7	22.8
Obstetrics and gynaecology.....	2,422	42.9	39.5	8.3
Gynaecology.....	870	.....	.....	.....
Obstetrics (delivered).....	1,140	.....	.....	.....
Obstetrics (other).....	412	.....	.....	.....
Ophthalmology.....	610	.....	6.1	7.4
Paediatrics.....	1,224	87.5	24.9	15.1
Psychiatry.....	652	75.0	17.5	20.6
Rehabilitation medicine.....	149	100.0	60.4	50.8
Surgery.....	2,712	79.5	29.5	16.2
Patients				
All patients.....	11,209	80.1	28.8	.....
Adults and children.....	10,083	80.0	31.8	15.0
Newborn.....	1,126	81.8	1.4	7.3

## THE UNIVERSITY COLLEGE OF MEDICINE

### Introduction

The retirement of Dean Wendell Macleod in December, 1961, marked the end of a major phase in the development of the College of Medicine, in transition from a two-year to a four-year College. Dean Macleod attempted to incorporate into the clinical years the best of what he had learned from a survey of medical education on two continents, selected staff to implement the new program, and saw the first 109 graduates go into further training and practice. He was conscious of, and wanted to improve the role of the College of Medicine in the University, and stressed that the College does much more than produce M.D.'s and R.N.'s. Dean Macleod's contributions to the College of Medicine are appreciated by staff and students, and the achievements of the future will be based on the foundations established by Dean Macleod.

Two of the original department heads resigned during the year. Professor Hilliard had established the Department of Medicine, and built it up into a strong well-balanced department. He left to be Chief of Medicine at the Toronto Western Hospital, and Professor of Medicine at the University of Toronto. Professor Robertson initiated a sound program for the development of a Department of Social and Preventive Medicine and gathered a nucleus of four full-time teachers, and supportive part-time staff. Professor Robertson resigned to become the Director of the Milbank Fund, Dr. Steele to assume a post with the Ministry of Health in England, and Dr. Wolfe to practise in Saskatoon. Unfortunately only one full-time staff member remains, and the Department of Social and Preventive Medicine must be rebuilt.

The Medicare controversy in Saskatchewan inevitably had its effect on the College of Medicine, despite attempts to remain aloof from open debate and participation. We have now passed through the initial phases of the situation, but undoubtedly there are many problems to be resolved in the future before a new plateau is reached.

### Teaching

Students in the first four years of medicine numbered 40, 32, 31 and 30 respectively for a total of 133. There were 481 students in the School of Nursing and 443 students from other colleges and schools, for an over-all total of 1,057 students. Calculated on an "equivalent student" basis, there was a total of 298 full-time students in the College of Medicine in 1961-62. There is a great awareness of the high "cost per student" in the College, and the difficulties of calculating such an index. The cost of professional education poses difficult problems for a University, and direct federal subsidy may be necessary to maintain medical schools at an adequate standard.

Academic performance has been satisfactory. Unfortunately one candidate was failed for his degree. The 29 successful graduates included five who obtained their degree with "distinction". There were no failures in the Medical Council of Canada examinations, a "first" for the College

of Medicine. One student is required to repeat the third year, there were a total of eight supplemental examinations in second year, two students were dropped in first year, one must repeat the year, and one student required a supplemental examination to achieve the average of 60 per cent.

I am happy to report that the number of applicants from Saskatchewan increased to 60, against an average of 45 over the past ten years. We would prefer higher academic performance from these candidates, but a satisfactory first-year class will be available for the 1962-63 session. The financial problems of students in the College of Medicine are under study, and it is anticipated that increased financial support for students of medicine may be available in the future.

Dr. Badgley completed a preliminary report on a survey of Saskatchewan medical students in 1961, and the study is continuing. This should provide useful information concerning the selection of students, their performance, finances, and permit us to speak in quantitative terms rather than generalizations.

The curriculum content of the College of Medicine is a recurrent problem. No drastic changes in curriculum are proposed for 1962-63, but during this time the Committee on Studies hopes to undertake a major review of the curriculum, and to propose new and refreshing ideas concerning the course content, and methods of instruction, in the College of Medicine.

It is realized that by the standards of introductory courses in Arts and Science, our teaching load does not seem to be excessive. But all teaching in the College of Medicine is at the level of advanced or graduate classes. The percentage of non-medical students taught in the pre-clinical departments ranges from 52 per cent to 80 per cent and the total number of students taught is as high as 377 in the Department of Physiology, excluding 201 nurses taught in the Centralized Teaching Program. It is hoped that with the reorganization of the Dean's office more detailed studies may be made on these matters, and an evaluation of all of our activities which is fair to both the University and to the staff.

Teaching continues at both the undergraduate and graduate levels in the medical sciences. We must develop our undergraduate honours courses and provide more and better candidates for the College of Graduate Studies. Expansion in this area may well outstrip developments in the other teaching activities of the College of Medicine.

A successful refresher course on radiology was conducted in January, 1962, under the auspices of the Department of Diagnostic Radiology. This was well conceived and presented, and is one facet of the program in continuing education which we hope to expand in future years.

### Staff

There were 13 resignations from the College of Medicine in 1961-62, double the average of the past few years. They were:

Dr. J. W. Macleod, Dean of Medicine.

Four pre-clinical teachers: Dr. Wiley, Department of Bacteriology; Dr. Fritsche, Department of Anatomy; Dr. Groenendyck, Department of Anatomy; Dr. Lipp, Department of Physiology.

Eight clinical teachers: Dr. Hilliard, Department of Medicine; Dr. Robertson, Department of Social and Preventive Medicine; Dr. Stratford, Neurosurgery; Dr. Baxter, Department of Medicine (Neurology); Dr. Smart, Radiology; Dr. Braun, Pathology; Dr. Steele, Social and Preventive Medicine; Dr. Clark-Roberts, Anaesthesia.

This increase in the number of resignations is real cause for concern. Eight of the 13 are moving to better salaries and more attractive posts, the others for a variety of reasons, both domestic and academic.

It is wrong to assume that the Medicare controversy was the only factor in all eight individuals leaving clinical departments. In some cases it undoubtedly was a factor, but it is difficult to make a quantitative assessment.

I think the major factors were geography, facilities and salaries. We must face the fact that western Canada is not attractive to many individuals, and should do our best to select for academic survival in these surroundings. Despite our recent building programs, we are becoming crowded, and other universities with newer building programs are able to provide prospective staff with better facilities for teaching, research, and study. I feel that we are lagging behind in competitive salaries, not so much by Canadian standards, but by the standards becoming operative in the United States. The vast amounts of money being expended on medical research in the United States are placing us at a disadvantage of up to \$2,000 in salary, as well as in facilities and support of research.

Our difficulty in competing with the United States does not stem from the contribution of the states, but rather from the massive federal contribution. Our major hope is that universities have been able to make an impression on the Royal Commission on Health Services, and the Commission in its turn an impression on the government concerning urgent need for greater federal contributions to medical education, both in capital and in maintenance costs.

It will be apparent that this is an urgent problem when it is realized that while 13 were lost from the staff in 1961-62, only four new appointments were made, two being in cancer research. Fourteen budgetted vacancies are unfilled, 10 in the clinical years and four in the pre-clinical years. In some instances we are going into the second year with an unfilled vacancy. It must be admitted that many prospective candidates were reluctant to consider Saskatchewan seriously with so many unknowns in the future and it is to be hoped that with the Saskatoon agreement we may have more success in attracting clinical candidates.

New appointments from outside the University during the year were: Dr. J. F. Morgan as Professor of Cancer Research; Dr. Ross as Assistant Professor of Cancer Research; Dr. Hardy as Assistant Professor of Pediatrics; Dr. Kostick as Assistant Professor of Anatomy. Dr. Begg was promoted from Professor of Cancer Research to Dean of Medicine, Dr. Bailey from Professor of Medicine (Neurology) to Professor and Head of the Department of Medicine, Dr. Horlick from Associate Professor to Professor of Medicine, Drs. Buchan, Merriam, Ian McDonald, Paine, Fedoroff and Woodford were promoted from Assistant to Associate Professors, and Drs. Lee, Ashenhurst, Jackson, Fedoruk and Jaworski were promoted from Lecturer to Assistant Professor.

Some faculty reorganization occurred during the year. The old Faculty Executive has ceased to exist; it has been replaced by meetings between the Dean and the department heads as necessary. An attempt has been made to reduce the amount of committee work to which the staff members are subjected, and to confine faculty meetings to academic matters, introducing one major factor for discussion each meeting.

It should be noted that the Association of Canadian Medical Colleges has now been accepted into the Canadian Universities Foundation, and will form one of the Secretariats within this organization.

### Miscellaneous

A Brief to the Royal Commission on Health Services was presented to the Commission at the Regina hearings in January, 1962. Subsequently a Brief was presented by the Association of Canadian Medical Colleges at the Toronto hearings in May, 1962, and the College of Medicine assisted in the preparation of this Brief.

In general both briefs pointed out the problems of recruitment of students and staff, and the provision of facilities for teaching, service and research, and made proposals to overcome these problems. In the simplest form these proposals were requests for financial assistance. I feel that the financial problems of the College of Medicine are real and pressing but this is a dangerous over-simplification. We must examine our activities very closely to be sure that we are making the best use of support and facilities presently available. One is repelled by such phrases as "medicine at the crossroads", but it is well to be aware of the historical value of reform from within. If we wish to direct and control our own future we must demonstrate that we are capable of finding satisfactory solutions to our problems.

The supply of funds for medical research is increasing, but so is the demand at a national level. The Medical Research Council had an increase of one million dollars in its budget from three to four million dollars, but at the same time the demand exceeded the supply by a million dollars. Many applicants had their requests limited, or refused entirely. I am concerned that our staff have had to turn to the United States for support of research, in the order of \$143,000 of the \$656,000 in extramural support of research. There are suggestions that there may be serious limitations on United States funds in the future, and unless additional means of support can be found, some of our projects will be in a very precarious state.

Building requirements of the College of Medicine have now become urgent. Maximum use has been made of the space presently available, and we have lost prospective staff by their reaction to our space problem. The Building Committee of the College of Medicine has the matter under study, and the University has been asked to give this the highest possible priority, in view of its other commitments and responsibilities.

The budget will require progressive increase over the years if we are to accomplish those things we wish to do. The training of the various types of health personnel bears a direct relation to the interests and responsibilities of the Department of Public Health. The question of the diversion of funds in the provincial budget for health into the training of health personnel should be explored. Granted the budget is only one of the tools we require to achieve our ends, but it occupies a key position.

We must attract more and better students to the College of Medicine, including students in the medical sciences. Financial assistance is one aspect of the matter, but we must not neglect other factors which attract or repel students. It will be necessary for us to project ourselves back to the high school level to get the numbers and types of individuals we require. A study of the curriculum and teaching methods should not be forgotten in this matter, and a more stimulating and imaginative approach to instruction in medicine and the medical sciences should contribute to this urgent problem.

The Department of Social and Preventive Medicine must be rebuilt, and this must be done in relation to the reorganization of medical services in Saskatchewan. Recent events in Saskatchewan emphasize the need for understanding on the part of all members of the medical profession of the place of medicine in modern society, and acceptance of the fact that the practice of medicine must change as society changes. These ends can best be achieved by working with the profession, while being aware of the needs and responsibilities of government.

Integration of the University Hospital and the College of Medicine should be improved, and one facet which should be studied is postgraduate training. Some method should be found to bring the interne and resident training more into the University sphere, integrated in some fashion with our Faculty of Graduate Studies. The entire development of the University Medical Centre has been under review in the past year, and the coming year will see certain decisions which will have a bearing on our future.

The College of Medicine in a province with a population of less than a million should view the entire province as its sphere of influence and source of training facilities. We must establish more fruitful relations with the City Hospital and St. Paul's Hospital in Saskatoon, as well as the Regina General Hospital and the Grey Nuns' Hospital in Regina, and possibly hospitals in other centres such as Moose Jaw.

## SASKATCHEWAN ANTI-TUBERCULOSIS LEAGUE

*Through the courtesy of the Board of Directors and G. D. Barnett, M.D., Director of Medical Services and General Superintendent, the following report is included in this annual report of the Department of Public Health.*

The year 1961 marked a milestone in the history of the League. It was on February 17, 1911, that the founders gathered together in Regina to lay the foundation of the Saskatchewan Anti-Tuberculosis League.

The year 1961 was notable also as the year in which the Prince Albert sanatorium ceased operations. On May 2, 1961, the last bus load of tuberculosis patients were transferred from Prince Albert to Fort San. On July 1, 1961, the Prince Albert institution was turned over to the Department of Public Health to be operated by them for the care of mentally retarded patients.

After the Prince Albert Sanatorium was closed, the average daily census at Saskatoon rose to 141 and at Fort San to 194. This resulted in reopening of Pavilion 31, 26 and West 1 at Fort San. It was felt that the census would be stabilized for awhile, but by the end of June, it became apparent that the admission of new cases would be down considerably from the previous year. At the quarterly Board meeting on July 22, this situation was outlined and a long-term planning committee established. As a result the Board has recommended (1) that patient accommodation at the Saskatoon Sanatorium be used to the fullest extent by transferring patients from Fort San and by admitting patients from the southern portion of the province (2) that the buildings at Fort San be returned to the provincial government, as and when they are no longer required for sanatorium purposes. By the year end patient census at Saskatoon was down to 120 and at Fort San to 96. Plans were well under way to transfer a sufficient number of patients to Saskatoon so that the remaining number of patients at Fort San could be accommodated in the West Infirmary and on Ward 26. The year 1961 has been one of continuous planning to adapt to changing conditions.

Despite the disruption and changes, the work of the League, both in treatment and prevention, has been pursued in even greater volume. This year more people had medical advice from the League than in many previous years. Altogether 327,103 persons were examined or had medical advice in 1961, compared to 315,900 in 1960 and to 279,112 in 1959.

The result of this volume of work was that 146 new active cases of tuberculosis were discovered in 1961, compared to 208 in 1960, a decline of 62 cases (actually a decline of 52 cases, when allowance is made for the fact that the figure for 1960 included ten tuberculous refugees from Europe). In addition 75 active cases were readmitted to sanatorium for further treatment compared to 99 in 1960, a decline of 24 cases. The reduction in the number of active cases (new and readmitted) should be viewed with satisfaction as it indicates further improvement in the tuberculosis picture for the province.



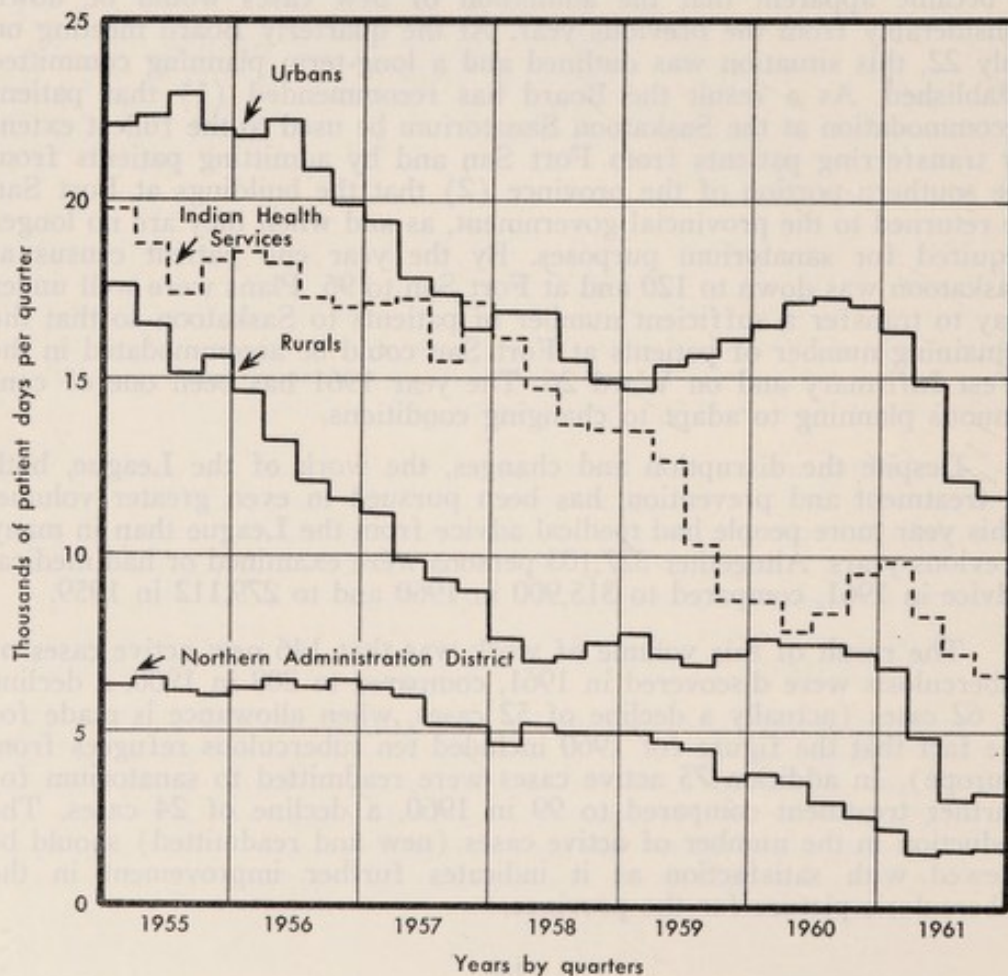
The age distribution of the new active cases (non-Department of Indian Affairs) for 1961 is shown below and compared with the cases discovered in 1950, 1959 and 1960.

Year	Total	0-4	5-9	10-19	20-29	30-39	40-49	50-59	60-69	70+	Percentage over age of 60
1950	415	27	39	72	98	69	42	25	26	17	10.4
1959	192	14	16	15	30	25	21	18	21	32	27.6
1960	208	15	21	24	27	32	21	23	16	29	21.6
1961	146	12	8	14	19	21	17	19	11	25	24.6

Once again it is apparent that the population over the age of 60 continues to contribute more cases than any other single age group. According to Saskatchewan Hospital Services Plan population figures, the age group 60 and over constitutes 12.7 per cent of the total population. It contributed 24.6 per cent of the new active cases. This indicates that we must continue to direct our preventive program to this segment of the population.

In the annual medical report for 1960, we stated that 56 per cent of new active cases arose in individuals with previously untreated inactive disease. Such individuals have been receiving more attention as more of them are brought under regular x-ray and sputum examination. This

FIGURE 8. PATIENT DAYS SPENT IN TUBERCULOSIS SANITORIA, SASKATCHEWAN, 1955-1961



phase of our program will increase yearly as more such cases are discovered and placed on our registry. Table 72 shows the distribution of this group by age, sex and health region and also the distribution, according to health regions, of the active cases (new and readmitted) discovered in 1961.

Total number of treatment days in 1961 was 118,863 compared to 157,919 in 1960, a decrease of 39,056 days. Figure 8 shows the distribution of patient days according to agency financially responsible. It is apparent from this chart that treatment days for rural and urban patients made a considerable adjustment during 1961. Since 1958 the number of treatment days for rural patients has remained fairly steady. In the case of urban patients the number of days increased during 1959 and 1960. In 1961 both categories showed a marked drop after the first quarter of the year. This reflects a decrease in the number of new active cases discovered and a decrease in the number of old cases readmitted. The number of patient days for Treaty Indians shows a more orderly decline, if the slight increase that occurred in the latter half of 1960 is ignored.

It might be of interest to note that since the first sanatorium was opened on October 17, 1917, the total number of treatment days provided by the League has been 9,943,215 to the end of 1961. During this period 17,663 active cases of tuberculosis were discovered and 5,156,333 examinations carried out.

The average length of stay for all patients discharged during 1961 was 388.98 days or 13.04 months. This compares with 12.08 months (365.5 days) in 1960.

During 1961 there were 25 deaths from tuberculosis compared to 34 in 1960—a decrease of nine. Of the total deaths, 22 occurred among the White population and three among the registered Indian population. Corresponding figures for 1960 were 26 White deaths and eight Indian deaths. The following table shows the age distribution of patients who died as a result of tuberculosis in Saskatchewan in 1958, 1959, 1960 and 1961.

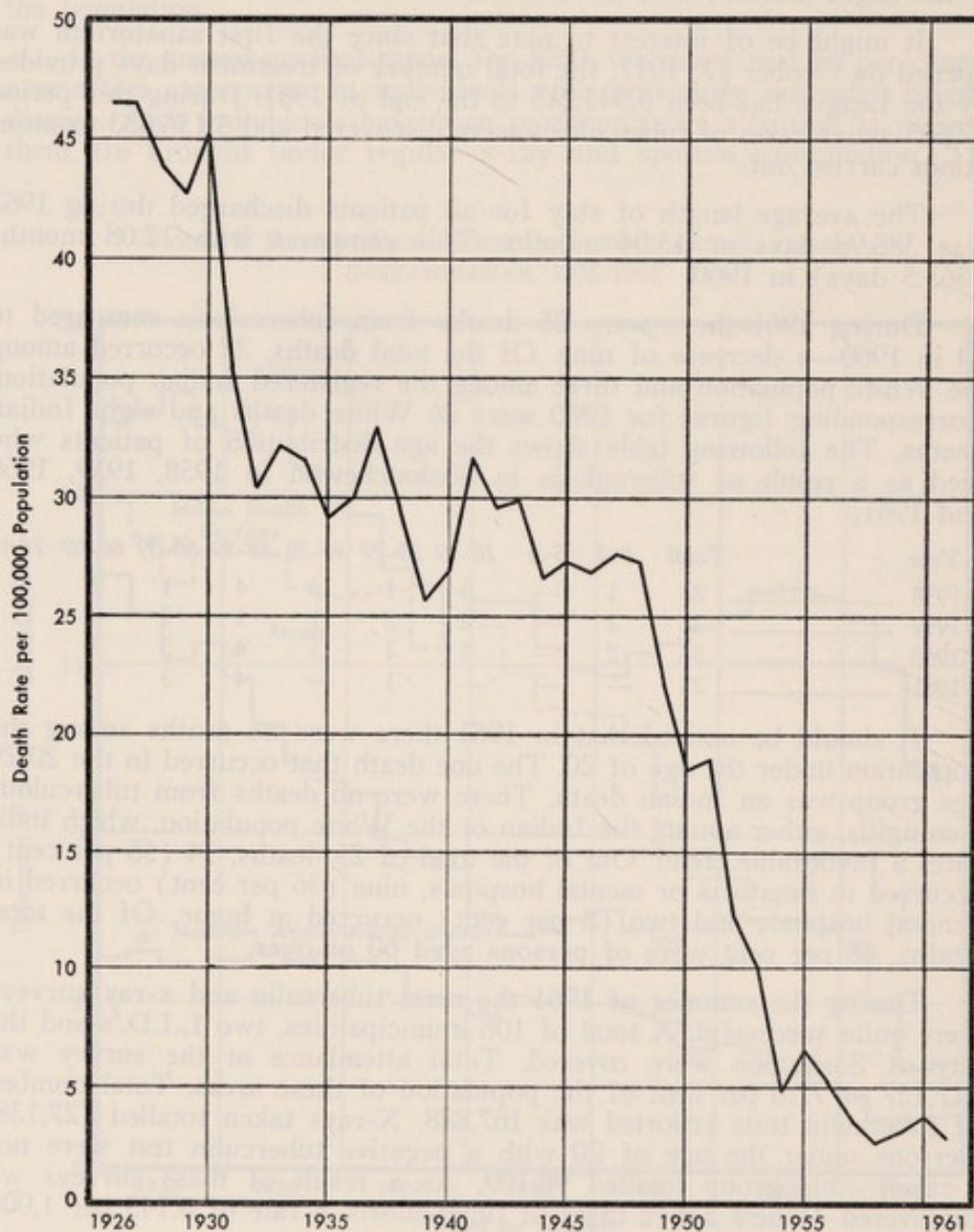
Year	Total	0-4	5-9	10-19	20-29	30-39	40-49	50-59	60-69	70+
1958	23	1	—	1	1	3	4	1	6	6
1959	28	2	—	2	2	1	1	5	4	11
1960	34	2	—	1	1	5	4	5	5	11
1961	25	—	—	—	1	—	4	3	5	12

It should be noticed that in 1961 there were no deaths among the population under the age of 20. The one death that occurred in the 20-29 age group was an Indian death. There were no deaths from tuberculous meningitis, either among the Indian or the White population, which indicates a favourable trend. Out of the total of 25 deaths, 14 (56 per cent) occurred in sanatoria or mental hospitals, nine (36 per cent) occurred in general hospitals and two (8 per cent) occurred at home. Of the total deaths, 68 per cent were of persons aged 60 or over.

During the summer of 1961 the mass tuberculin and x-ray surveys were quite successful. A total of 106 municipalities, two L.I.D.'s and the city of Saskatoon were covered. Total attendance at the survey was 217,157 or 77.6 per cent of the population of these areas. Total number of tuberculin tests reported was 167,888. X-rays taken totalled 127,138. Persons under the age of 20 with a negative tuberculin test were not x-rayed—this group totalled 90,109. As a result of mass surveys we discovered 31 new active cases of tuberculosis, a rate of 0.143 per 1,000

examinations, or a ratio of one new case per 7,005 examinations (1:7005). This compares to a ratio of 1:6914 in 1960 and 1:5452 in 1959. In the city of Saskatoon we discovered 18 new cases among the 67,183 persons examined, a ratio of 1:3732. School children in Saskatoon were tuberculin tested. The results of these tests are shown in Table 73. Table 74 shows the results of the tuberculin survey for the province as a whole and Table 75 gives the results of tuberculin tests by age from 1 to 19. Table 75 is of special interest because it shows the percentage of children having positive tuberculin tests at specific age levels. The 14 year old group is of particular interest as it has been stated by World Health Organization officials that this age group could be used as an index of tuberculosis control. It has been suggested that if one per cent or less of the 14 year old children in a country have positive tuberculin tests then tuberculosis might be considered under control.

FIGURE 9. TUBERCULOSIS DEATH RATE PER 100,000 POPULATION, SASKATCHEWAN, 1926-1961



Of that portion of the population tested in Saskatchewan in 1961, 3.77 per cent of the 14 year old children had positive tuberculin tests. The total number tested was 4,847, which is a good sample of the total number of this age in the province.

It is also interesting to compare the results of the tuberculin test of school children in Saskatoon in 1961 with those obtained from the same age groups during the Regina survey in 1957. This comparison is shown in Table 73 and indicates that the amount of tuberculous infection to which children in the two cities are being exposed continues to decline. This is a direct result of our early case finding program. Children aged 5-19 constitute an excellent barometer to indicate the amount of infection present in a community and whether it is rising or falling. Our plans for mass surveying in 1962 include the city of Regina. At that time the school population will be tuberculin tested again and it will be interesting to compare the results with those from Regina in 1957, and with those from Saskatoon in 1961.

As in the previous year, one of our mobile vans carried out a mass survey at Beauval, Ile a la Crosse and Buffalo Narrows. The equipment from a second van was flown into Uranium City and a survey held in that district for the second year in a row. In the Beauval, Ile a la Crosse and Buffalo Narrows survey a total of 1,267 x-rays were taken and no active cases discovered. In Uranium City and district, 1,672 x-rays were taken and no active cases discovered.

A special survey, using portable x-ray equipment, was carried out at Cumberland House and Pemmican Portage, a total of 523 x-rays were taken and no new cases of tuberculosis were discovered.

The guests and staff of all the nursing homes in the province were surveyed again in 1961. A total of 3,101 x-rays were taken and no active cases found.

Under the hospital admission x-ray program, 129 hospitals participated. A total of 54,893 x-rays were taken and 19 new active cases discovered. This is equivalent to a rate of 0.346 per 1,000 x-rays or a ratio of one new case per 2,889 x-rays. This compares with 61,464 x-rays in 1960 when 37 new active cases were discovered, a ratio of 1:1661 and a rate of 0.601 per 1,000 x-rays. In addition to the 19 new active cases found, 27 cases were classified as suspects, 17 as previously known active cases and 1,805 as inactive tuberculosis.

### Admission X-rays

The following table gives the number of admission x-rays taken by the various hospitals during 1961. The figures in brackets indicate the number of new active cases of tuberculosis discovered.

<i>Hospital</i>	<i>No. of X-rays</i>	<i>Hospital</i>	<i>No. of X-rays</i>
Total (19 including 4 Indians)	54,893	Climax (0)	41
Arborfield (0)	18	Coronach (0)	75
Assiniboia (0)	280	Cudworth (0)	401
Balcarres (1)	574	Cumberland House (0)	13
Beechy (0)	126	Cupar (0)	167
Bengough (0)	179	Delisle (0)	45
Bienfait (0)	312	Dinsmore (0)	106
Biggar (0)	633	Doddsland (0)	57
Big River (0)	411	Eastend (0)	138
Birch Hills (0)	199	Eatonia (0)	13
Broadview (0)	384	Edam (0)	4
Buffalo Narrows (0)	9	Elrose (0)	106
Cabri (0)	153	Esterhazy	689
Canora (1)	1,240	Estevan (1)	1,456
Carrot River (1)	349	Eston (0)	443
Central Butte (1)	331		

<i>Hospital</i>	<i>No. of X-rays</i>	<i>Hospital</i>	<i>No. of X-rays</i>
Fillmore (0) .....	308	North Battleford Saskatchewan Hospital (1) .....	2,398
Foam Lake (0) .....	185	North Battleford (Notre Dame) (0) .....	174
Frontier (0) .....	53	Outlook (0) .....	343
Goodsoil (0) .....	365	Oxbow (1) .....	176
Gravelbourg (0) .....	653	Pangman (0) .....	54
Grenfell (0) .....	52	Pelican Narrows (0) .....	1
Gull Lake (0) .....	105	Ponteix (1) .....	175
Hafford (0) .....	227	Porcupine-Carragana (0) .....	445
Herbert (0) .....	485	Preeceville (0) .....	464
Hodgeville (0) .....	65	Prelate (0) .....	92
Hudson Bay (0) .....	147	Prince Albert— Holy Family (1) .....	1,794
Humboldt (0) .....	323	Prince Albert—Victoria (1) .....	1,865
Ile a la Crosse (2) .....	681	Qu'Appelle (0) .....	249
Imperial (0) .....	141	Quill Lake (0) .....	254
Indian Head (0) .....	411	Rabbit Lake (0) .....	47
Invermay (0) .....	101	Radville (0) .....	209
Kamsack (0) .....	9	Redvers (0) .....	251
Kelvington (0) .....	111	Regina General (5) .....	9,881
Kerrobert (0) .....	291	Rockglen (0) .....	33
Kincaid (0) .....	92	Rose Valley (0) .....	369
Kindersley (0) .....	344	Rosthern (0) .....	251
Kipling (0) .....	511	Saltcoats (0) .....	45
Kyle-Whitebear (0) .....	110	Sandy Bay (0) .....	23
Lafleche (0) .....	168	Saskatoon University (0) .....	5,266
La Loche (1) .....	125	Shaunavon (0) .....	227
Lampman (0) .....	171	Shellbrook (0) .....	331
Langenburg (0) .....	686	Smeaton (0) .....	137
La Ronge (1) .....	222	Spalding (0) .....	84
Lashburn (0) .....	78	Spiritwood (0) .....	179
Leader (0) .....	284	Swift Current Union (0) .....	70
Leoville (0) .....	158	St. Walburg (0) .....	166
Lestock (0) .....	723	Stony Rapids (0) .....	18
Loon Lake (0) .....	266	Theodore (0) .....	95
Lucky Lake (0) .....	166	Tisdale (0) .....	193
Maidstone (0) .....	295	Turtleford (0) .....	216
Mankota (0) .....	117	Unity (0) .....	392
Maple Creek (0) .....	621	Uranium City (0) .....	65
Meadow Lake (0) .....	162	Val Marie (0) .....	96
Melfort (0) .....	1,170	Vanguard (0) .....	247
Melville (0) .....	1,231	Wakaw (0) .....	558
Midale (0) .....	20	Watrous (0) .....	318
Milden (0) .....	79	Watson (0) .....	21
Montmartre (0) .....	208	Wawota (0) .....	108
Moose Jaw Providence (0) .....	680	Whitewood (0) .....	143
Moose Jaw Union (0) .....	938	Willowbunch (0) .....	58
Moosomin (0) .....	26	Wolseley (0) .....	477
Mossbank (0) .....	89	Wynyard (0) .....	393
Neilburg (0) .....	202	Zenon Park (0) .....	167
Nipawin (0) .....	1,219		
Nokomis (0) .....	240		
Norquay (0) .....	209		

### Summary of Medical Services

The various medical services of the League, including treatment, diagnosis, follow-up, examination of Indians, examination of teachers' college students, school children, nurses, and the reading of hospital admission x-rays, when taken together comprise a total of 327,103 persons who had medical advice during the year. Of this number, 288,432 were examined by the medical staff of the League; 1,385 persons were examined by family physicians at the request of the League; 16,792 Indians were examined in association with the Indian Health Services; and 20,494 admission x-rays for city hospitals were examined by outside radiologists.

### Class of New Patients Discovered

The proportion of early cases to moderately advanced and far advanced, among the new cases of active pulmonary tuberculosis discovered in 1961, was as follows:

Year	Minimal	Moderately advanced	Far advanced
1960	53.63%	29.05%	17.32%
1961	52.58%	28.46%	18.96%

The proportion of adult pulmonary cases under treatment in the Sanatoria on December 31, 1961, who have had positive sputa since admission and would have been spreaders of infection had they not been hospitalized was as follows:

Adult pulmonary cases	135
Adult pulmonary cases with positive sputa	91 or 67.41%

The number of new active cases admitted during the year was 127. The number of readmissions (including a small number of first admissions among previously known cases) was 75. New cases admitted constituted 62.87 per cent of all admissions and readmissions, 37.13 per cent. This compares with 65.98 per cent and 34.02 per cent in 1960.

There were 146 new cases of active tuberculosis discovered in 1961, both pulmonary and non-pulmonary—62 less than in 1960.

The percentage of non-pulmonary new cases discovered during the past year was 20.54 per cent compared with 13.94 per cent in 1960.

Of the new cases of active tuberculosis discovered in 1961, 19 or 13.01 per cent were treated or observed outside the Sanatoria.

### Stationary Clinics

The following table shows the total number of examinations made at the clinics for the past two years, with an increase of 481 in 1961. This increase is due to the Prince Albert clinic which began operation after the Prince Albert sanatorium was closed.

In 1961, 23 new active cases were discovered among 1,077 first examinations—a percentage of 2.13. This compares with 16 new active cases found in 1960 among 1,031 first examinations, a percentage of 1.55.

Nine new active cases were found among persons previously examined, the same number as in the preceding year.

	1960	1961
Total	4,426	4,907
Regina	2,451	2,285
Moose Jaw	582	753
Swift Current	297	320
Yorkton	313	339
Canora	186	215
North Battleford	261	236
Tisdale	86	101
Melfort	73	65
Meadow Lake	159	82
Prince Albert	—	511
Wadena	18	—

### Review of Ex-patients

During the year 3,858 review examinations of ex-patients were carried out by various services of the League, and 75 were readmitted for treatment.

### Contacts

A total of 4,529 contact examinations were made compared with 4,967 in 1960. The incidence of new active cases found in 1961 was 1.12 per cent.

	<i>New cases</i>		<i>Review cases</i>		<i>Total</i>	
	<i>1960</i>	<i>1961</i>	<i>1960</i>	<i>1961</i>	<i>1960</i>	<i>1961</i>
Total .....	1,947	1,653	3,020	2,876	4,967	4,529
Family physicians .....	732	744	628	641	1,360	1,385
Clinics .....	521	458	1,297	1,484	1,818	1,942
Sanatoria .....	694	451	1,095	751	1,789	1,202

### Summary of Preventive Work

Total <sup>1</sup> .....	312,212
Examinations made at the three sanatoria .....	3,767
Persons seen at other stationary clinics .....	4,907
Persons x-rayed in miniature x-ray survey <sup>2</sup> .....	127,138
Persons under 20 years tuberculin tested and who were negative reactors (not x-rayed) .....	90,019
Persons examined at Saskatchewan Teachers' College, Regina .....	666
Persons examined at Saskatchewan Teachers' College, Saskatoon .....	544
Persons examined at the University Summer School, Saskatoon .....	494
Persons examined in school surveys .....	1,625
Persons examined in nursing homes .....	3,101
Persons examined in miscellaneous surveys .....	3,744
Students nurses examined .....	526
Contacts examined by family physicians .....	1,385
Non-Treaty persons examined .....	2,902
Indian films read by League staff in co-operation with the Indian Health Services .....	16,501
Hospital admission films taken and interpreted by League staff and radiologists .....	54,893

### B.C.G. Vaccination

The total number of vaccinations done by the League in 1961 was 1,300. This compares to 1,435 in 1960.

The number of B.C.G. vaccinations reported to the League in 1961 by the Saskatchewan Hospitals at Weyburn and North Battleford was 351. The Saskatchewan Training School reported 159, and the Indian Health Services 151.

The total cost of the preventive work was \$210,679.42 compared to \$200,774.50 in 1960.

### Examination of Indians

During 1961, 1,795 Indian children were examined in the Lebret, Marievale, Muscowequan, Gordon, St. Phillips, Duck Lake, Prince Albert and Onion Lake Residential schools. No new active cases were discovered.

A total of 14,706 Indians (adults, preschool and day school children) were examined at the following reserves: Beardy's, Beaver Lake, Joseph Bighead, Big River, Black Lake, Carry-The-Kettle, Cote, Cowessess, Canoe Lake, Carson Lake, Clear Lake, Cree Lake, Cumberland House, Day Star, Deschambeault, Fishing Lake, Fond du Lac, Gordon, Kahkawistahaw, Keesekoose, Key, Kinistino, Lac La Ronge, La Loche, Little Island, Little Pine, Little Red River, Loon Lake, Meadow Lake, Mista-

<sup>1</sup> This is an increase of 7,812 examinations over 1960.

<sup>2</sup> In addition 167,888 tuberculin tests were given.

wasis, Montreal Lake, Mosquito, Muskeg Lake, Muscowequan, Muscowpetung, Nut Lake, Onion Lake, Ochawapace, Patuanak, Pelican Lake, Pelican Narrows, Peter Pond, Poundmaker, Pasqua, John Smith, James Smith, South End Reindeer, Shoal Lake, Sturgeon Lake, Stanley, Sturgeon Landing, Sweet Grass, Saulteaux, Stony Lake, Sakimay, Starblanket, Thunderchild Uranium City, Waterhen, Wollaston Lake, Whitebear and Witchekan Lake.

Among this group 19, or .129 per cent, required treatment.

The usual fine co-operation of the Indian Health Services was obtained throughout the year.

### **Examination of Students in Teachers' College**

The students of the Teachers' College at Regina and Saskatoon were examined during the year.

In Regina, 635 students were tuberculin tested. Thirty had positive tuberculin reactions because of previously having had B.C.G. vaccine. Of the remainder, 9.79 per cent were positive tuberculin reactors.

In Saskatoon, 518 students were tuberculin tested. Twenty-six had positive tuberculin reactions because of having had B.C.G. vaccine. Of the remainder, 11.2 per cent were positive tuberculin reactors.

No new active cases were discovered.

### **Co-operation of Teachers**

Appreciation is expressed to the members of the teaching profession in Saskatchewan, for the co-operation they have given to the League in promoting the facts about the prevention of tuberculosis to their students. It is important that students be made aware of the present situation regarding tuberculosis in this province—the dangers of an infectious case in the community and the necessity for maintaining our present case finding program.

### **Affiliation Course in Tuberculosis Nursing**

The affiliation course for student nurses, which has been held at the Fort Qu'Appelle and Saskatoon sanatoria for a number of years, was continued in 1961. A total of 245 students participated—114 at Saskatoon and 131 at Fort Qu'Appelle. Thirteen courses of four weeks' duration were held at each sanatorium.

### **Financial**

During the year, 118,863 days of treatment were given in Sanatoria and hospitals compared with 157,919 days during the preceding year—a decrease of 39,056.

Per diem cost of treatment advanced to \$14.31 from \$12.10 in 1960—an increase of \$2.21.

Net cost of treatment was \$1,700,740 compared with \$1,910,460 in 1960, a decrease of \$209,720.



**Municipal Levies**

Total levy collections during the year were \$973,490. Levies outstanding as at December 31, 1961, were \$2,678.

**Borrowings**

Borrowings of the League as at December 31, 1961, were \$50,000, identical with the borrowings as at December 31, 1960.

TABLE 72. DISTRIBUTION OF ACTIVE\* AND INACTIVE† CASES ACCORDING TO AGE, SEX AND HEALTH STATISTICAL AREA IN THE PROVINCE OF SASKATCHEWAN, 1961

Health Statistical Area	Type	Total‡	Age Group																	
			0-4		5-9		10-19		20-29		30-39		40-49		50-59		60-69		70+	
			M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Total cases	Inactive Active	Male Female	6	6	25	20	100	121	126	177	265	352	413	421	627	481	704	502	1,093	679
Area No. 1	Inactive Active	375 2	298 4	1	2	7	14	8	13	29	28	35	40	61	58	72	49	147	84	1
Area No. 2	Inactive Active	195 1	159 3	...	...	5	4	6	8	12	18	12	30	26	21	47	28	80	45	1
Area No. 3	Inactive Active	363 1	339 4	2	1	10	8	20	21	31	34	55	41	71	72	73	61	94	84	...
Area No. 5	Inactive Active	593 15	475 4	5	3	22	25	22	22	27	46	60	69	116	80	134	90	187	118	...
Area No. 6	Inactive Active	259 7	212 2	1	1	3	1	9	14	16	28	37	31	45	25	55	40	88	66	1
Area No. 7	Inactive Active	97 4	100 3	...	...	1	2	2	5	6	17	13	11	12	14	16	12	30	25	...
Area No. 8	Inactive Active	72 4	45 4	1	...	...	3	...	2	3	4	6	4	9	6	13	6	19	8	...
Area No. 9	Inactive Active	118 4	109 1	...	...	5	7	6	6	5	9	14	20	22	25	23	10	31	19	...
Area No. 10	Inactive Active	766 13	595 7	2	6	14	32	13	28	54	64	90	84	144	107	163	136	275	127	...
Area No. 11	Inactive Active	51 4	33 3	...	...	2	2	2	2	2	5	7	6	3	5	7	7	21	8	...
Area No. 12	Inactive Active	81 14	70 4	1	1	2	4	4	8	7	6	11	8	15	9	19	9	17	15	...
Area No. 13	Inactive Active	60 6	55 3	...	...	1	1	1	1	4	6	2	8	12	12	16	7	18	13	...
Area No. 14	Inactive Active	5 2	1 1	...	...	1	...	1	...	...	...	1	...	...	...	...	1	2	1	...
Area No. 15	Inactive Active	21 7	20 5	2	1	3	4	2	6	2	5	2	2	3	2	5	...	2	...	...
Area No. 16	Inactive Active	348 13	282 19	4	1	13	5	22	28	48	58	59	54	71	33	48	36	69	52	...
Area No. 17	Inactive Active	99 35	108 22	4	2	11	11	8	13	19	24	9	13	17	12	13	11	13	14	...

\* Active cases refers to new active cases and readmitted active cases discovered in 1961.  
 † Inactive cases refers to cases classified as pulmonary inactive that have no record of having received treatment in a sanatorium in Saskatchewan.  
 ‡ Total column includes also the patients with "not stated" age.

TABLE 73. COMPARISON OF THE 1961 TUBERCULIN SURVEY IN SASKATOON SCHOOLS WITH THE 1957 TUBERCULIN SURVEY IN REGINA SCHOOLS

Age group	Sex	Regina school survey, 1957			Saskatoon school survey, 1961		
		Total tuberculin tests	Number positive	Per cent positive	Total tuberculin tests	Number positive	Per cent positive
5-9.....	T	6,412	300	4.7	6,837	64	0.9
	M	3,274	145	4.4	3,429	31	0.9
	F	3,138	155	4.9	3,408	33	1.0
10-14.....	T	5,894	581	9.9	7,275	188	2.6
	M	2,983	273	9.2	3,771	95	2.5
	F	2,911	308	10.5	3,504	93	2.7
15-19.....	T	2,917	407	14.0	3,143	196	6.2
	M	1,582	214	13.5	1,622	104	6.4
	F	1,335	193	14.5	1,521	92	6.1

TABLE 74. SASKATCHEWAN TUBERCULIN SURVEY, BY FIVE-YEAR AGE GROUPS, 1961

Age	All tuberculin tests	Tuberculin negative	Tuberculin positive	Doubtful	Percentage negative	Percentage positive	Percentage doubtful
All ages.....	167,888	137,158	29,904	826	81.7	17.8	0.5
Male.....	86,625	69,000	17,160	465	79.7	19.8	0.5
Female.....	81,263	68,158	12,744	361	83.9	15.7	0.4
0-4.....	24,880	24,826	42	12	99.8	0.2	*
Male.....	12,649	12,623	20	6	99.8	0.2	*
Female.....	12,231	12,203	22	6	99.8	0.2	*
5-9.....	29,129	28,803	281	45	98.9	1.0	0.1
Male.....	14,843	14,674	141	28	98.9	1.0	0.1
Female.....	14,286	14,129	140	17	98.9	1.0	0.1
10-14.....	24,928	24,153	708	67	96.9	2.8	0.3
Male.....	12,825	12,408	375	42	96.8	2.9	0.3
Female.....	12,103	11,745	333	25	97.0	2.8	0.2
15-19.....	14,601	13,641	901	59	93.4	6.2	0.4
Male.....	7,767	7,232	499	36	93.1	6.4	0.5
Female.....	6,834	6,409	402	23	93.8	5.9	0.3
20-24.....	6,060	5,307	713	40	87.6	11.8	0.6
Male.....	3,087	2,657	409	21	86.1	13.3	0.6
Female.....	2,973	2,650	304	19	89.1	10.2	0.7
25-29.....	6,642	5,513	1,073	56	83.0	16.2	0.8
Male.....	3,132	2,602	502	28	83.1	16.0	0.9
Female.....	3,510	2,911	571	28	82.9	16.3	0.8
30-34.....	7,822	6,128	1,651	43	78.3	21.1	0.6
Male.....	3,801	2,956	826	19	77.8	21.7	0.5
Female.....	4,021	3,172	825	24	78.9	20.5	0.6
35-39.....	8,850	6,213	2,590	47	70.2	29.3	0.5
Male.....	4,387	2,977	1,387	23	67.9	31.6	0.5
Female.....	4,463	3,236	1,203	24	72.5	27.0	0.5
40-44.....	9,116	5,980	3,093	43	65.6	33.9	0.5
Male.....	4,445	2,646	1,776	23	59.5	40.0	0.5
Female.....	4,671	3,334	1,317	20	71.4	28.2	0.4
45-49.....	8,466	5,089	3,318	59	60.1	39.2	0.7
Male.....	4,294	2,403	1,860	31	56.0	43.3	0.7
Female.....	4,172	2,686	1,458	28	64.4	35.0	0.6
50-54.....	7,072	3,564	3,446	62	50.4	48.7	0.9
Male.....	3,833	1,802	2,002	29	47.0	52.2	0.8
Female.....	3,239	1,762	1,444	33	54.4	44.6	1.0
55-59.....	5,651	2,378	3,208	65	42.1	56.8	1.1
Male.....	3,151	1,180	1,933	38	37.4	61.4	1.2
Female.....	2,500	1,198	1,275	27	47.9	51.0	1.1
60-64.....	4,395	1,663	2,686	46	37.8	61.1	1.1
Male.....	2,387	796	1,565	26	33.3	65.6	1.1
Female.....	2,008	867	1,121	20	43.2	55.8	1.0
65-69.....	3,844	1,382	2,393	69	36.0	62.3	1.7
Male.....	2,163	662	1,463	38	30.6	67.6	1.8
Female.....	1,681	720	930	31	42.8	55.3	1.9
70 and over..	6,364	2,454	3,798	112	38.6	59.7	1.7
Male.....	3,826	1,349	2,401	76	35.3	62.8	1.9
Female.....	2,538	1,105	1,397	36	43.5	55.0	1.5
Not stated....	68	64	3	1	94.1	4.4	1.5
Male.....	35	33	1	1	94.3	2.9	2.8
Female.....	33	31	2	....	93.9	6.1	....

\* Less than 0.05 per cent.

TABLE 75. SASKATCHEWAN TUBERCULIN SURVEY, INFECTION INCIDENCE BY YEAR OF AGE 1 TO 19, 1961

Age	All tuberculin tests	Tuberculin negative	Tuberculin positive	Doubtful	Percentage negative	Percentage positive	Percentage doubtful
Total.....	93,538	91,423	1,932	183	97.74	2.06	0.20
Male.....	48,084	46,937	1,035	112	97.62	2.15	0.23
Female.....	45,454	44,486	897	71	97.87	1.97	0.16
Under 1 year	3,175	3,175	....	....	100.00	....	....
Male.....	1,650	1,650	....	....	100.00	....	....
Female.....	1,525	1,525	....	....	100.00	....	....
1 year.....	4,693	4,689	4	....	99.91	0.09	....
Male.....	2,347	2,345	2	....	99.92	0.08	....
Female.....	2,346	2,344	2	....	99.92	0.08	....
2 years.....	5,677	5,658	13	6	99.67	0.23	0.10
Male.....	2,889	2,880	7	2	99.69	0.24	0.07
Female.....	2,788	2,778	6	4	99.65	0.21	0.14
3 years.....	5,612	5,598	11	3	99.75	0.20	0.05
Male.....	2,865	2,860	3	2	99.83	0.10	0.07
Female.....	2,747	2,738	8	1	99.67	0.29	0.04
4 years.....	5,723	5,706	14	3	99.70	0.25	0.05
Male.....	2,898	2,888	8	2	99.65	0.28	0.07
Female.....	2,825	2,818	6	1	99.75	0.21	0.04
5 years.....	5,689	5,662	25	2	99.53	0.44	0.03
Male.....	2,874	2,862	11	1	99.59	0.38	0.03
Female.....	2,815	2,800	14	1	99.47	0.49	0.04
6 years.....	6,280	6,235	40	5	99.28	0.64	0.08
Male.....	3,165	3,139	22	4	99.17	0.70	0.13
Female.....	3,115	3,096	18	1	99.39	0.58	0.03
7 years.....	5,995	5,923	60	12	98.80	1.00	0.20
Male.....	3,073	3,037	28	8	98.83	0.91	0.26
Female.....	2,922	2,886	32	4	98.76	1.10	0.14
8 years.....	5,806	5,724	66	16	98.59	1.14	0.27
Male.....	2,994	2,954	32	8	98.66	1.07	0.27
Female.....	2,812	2,770	34	8	98.51	1.21	0.28
9 years.....	5,359	5,259	90	10	98.13	1.68	0.19
Male.....	2,737	2,682	48	7	97.99	1.75	0.26
Female.....	2,622	2,577	42	3	98.29	1.60	0.11
10 years.....	5,306	5,190	106	10	97.81	2.00	0.19
Male.....	2,762	2,704	52	6	97.90	1.88	0.22
Female.....	2,544	2,486	54	4	97.72	2.12	0.16

TABLE 75. SASKATCHEWAN TUBERCULIN SURVEY, INFECTION INCIDENCE BY YEAR OF AGE 1 TO 19, 1961 — *Concluded*

Age	All tuberculin tests	Tuberculin negative	Tuberculin positive	Doubtful	Percentage negative	Percentage positive	Percentage doubtful
11 years.....	4,975	4,840	123	12	97.29	2.47	0.24
Male.....	2,537	2,474	56	7	97.51	2.21	0.28
Female.....	2,438	2,366	67	5	97.04	2.75	0.21
12 years.....	4,957	4,816	123	18	97.16	2.48	0.36
Male.....	2,523	2,442	70	11	96.79	2.77	0.44
Female.....	2,434	2,374	53	7	97.53	2.18	0.29
13 years.....	4,843	4,652	173	18	96.06	3.57	0.37
Male.....	2,484	2,380	93	11	95.82	3.74	0.44
Female.....	2,359	2,272	80	7	96.31	3.39	0.30
14 years.....	4,847	4,655	183	9	96.04	3.78	0.18
Male.....	2,519	2,408	104	7	95.59	4.13	0.28
Female.....	2,328	2,247	79	2	97.52	3.39	0.09
15 years.....	4,034	3,822	198	14	94.74	4.91	0.35
Male.....	2,097	1,987	98	12	94.76	4.67	0.57
Female.....	1,937	1,835	100	2	94.74	5.16	0.10
16 years.....	3,679	3,489	184	6	94.84	5.00	0.16
Male.....	1,888	1,787	99	2	94.65	5.24	0.11
Female.....	1,791	1,702	85	4	95.03	4.75	0.22
17 years.....	3,154	2,939	200	15	93.18	6.34	0.48
Male.....	1,648	1,530	109	9	92.84	6.61	0.55
Female.....	1,506	1,409	91	6	93.56	6.04	0.40
18 years.....	2,282	2,091	179	12	91.63	7.84	0.53
Male.....	1,309	1,191	113	5	90.99	8.63	0.38
Female.....	973	900	66	7	92.50	6.78	0.72
19 years.....	1,452	1,300	140	12	89.53	9.64	0.83
Male.....	825	737	80	8	89.33	9.70	0.97
Female.....	627	563	60	4	89.79	9.57	0.64

TABLE 76. STAFF OF THE TUBERCULOSIS SANATORIA, SASKATCHEWAN, DECEMBER 31, 1961\*

Staff	Total	Sanatoria		
		Fort San	Saskatoon	Prince Albert
Total.....	436	173	145	118
Administrative and clerical.....	31	19	10	2
Salaried doctors (full-time).....	13	5	5	3
Graduate nurses.....	48	13	24	11
Nurses' assistants.....	99	39	31	29
Graduate dietitians.....	1	1	.....	.....
Orderlies and cleaners.....	51	18	18	15
Instructors.....	5	3	2	.....
Academic.....	3	2	1	.....
Vocational.....	2	1	1	.....
Technicians.....	14	5	6	3
X-ray.....	6	2	2	2
Laboratory.....	8	3	4	1
All other employees.....	174	70	49	55

\* With the exception of the Prince Albert Sanatorium, which ceased operation as a tuberculosis institution on May 2, 1961.

TABLE 77. SURGICAL, RADIOLOGICAL AND LABORATORY SERVICES RENDERED TO PATIENTS IN THE TUBERCULOSIS SANATORIA, SASKATCHEWAN, 1961

Type of service	Total	Sanatoria		
		Fort San	Saskatoon	Prince Albert
Surgical operations.....	312	76	229	7
Major.....	103	31	70	2
Minor.....	209	45	159	5
Pneumoperitoneum and pneumothorax treatments.....	10	4	6	.....
Laboratory examinations.....	31,640	11,508	15,083	5,049
X-ray examinations in sanatoria.....	12,292	3,903	6,910	1,479
Mass miniature x-ray survey films*.....	127,138	66,955	41,195	18,988
Miniature x-ray special survey films.....	6,853	1,193	1,807	3,853
Special x-ray surveys—large films.....	4,334	2,074	1,102	1,158
Kahn tests.....	810	398	381	31
Autopsies performed.....	6	4	1	1

\* In addition 90,019 tuberculin tests were done.

TABLE 78. PREVENTIVE SERVICES PROVIDED AT THE TUBERCULOSIS SANATORIA, SASKATCHEWAN, 1961

Type and place of preventive services	Total	Sanatoria		
		Fort San	Saskatoon	Prince Albert
Clinics conducted within sanatoria				
Cases diagnosed.....	852	204	595	53
Cases reviewed.....	2,915	835	1,688	392
Pneumothorax, pneumoperitoneum and special treatments.....	10	4	6	....
Clinics in outside hospitals				
Cases diagnosed and reviewed.....	4,907	3,912	....	995
X-ray examinations.....	3,875	2,896	....	979
Photofluorographic surveys				
Persons examined (mass surveys)*.....	127,138	66,955	41,195	18,988
Persons examined (special surveys)....	6,853	1,193	1,807	3,853
Special surveys using large films				
Persons examined.....	4,334	2,074	1,102	1,158

\* In addition 90,019 tuberculin tests were done.

TABLE 79. NUMBER OF PERSONS SEEN WITH ACTIVE TUBERCULOSIS BY TYPE OF CASE AND TYPE OF TUBERCULOSIS, SASKATCHEWAN, 1961

Type of case	Total	Type of tuberculosis	
		Pulmonary	Non-pulmonary
All active tuberculosis cases.....	221	181	40
New cases.....	146	116	30
Admitted to sanatoria.....	127	101	26
Not admitted to sanatoria.....	19	15	4
Old cases.....	75	65	10
Readmissions.....	69	59	10
First admissions (previously diagnosed).....	6	6	....



TABLE 80. BED COMPLEMENT AND MOVEMENT OF PATIENTS OF TUBERCULOSIS SANATORIA, SASKATCHEWAN, 1961

Item	Total*	Sanatoria		
		Fort San	Saskatchewan	Prince Albert
Bed complement.....	525	163	143	219
Infirmiry beds†.....	525	163	143	219
Pavilion beds.....	....	....	....	....
Movement of patients				
Total patients under care during this year‡.....	884	346	354	184
Patients in sanatoria, January 1, 1961.....	390	108	123	159
Admissions during year.....	374	156	193	25
Transfers from other sanatoria.....	120	82	38	....
Discharges, deaths and transfers.....	668	250	234	184
Discharges.....	532	232	216	84
Deaths.....	16	6	8	2
Transfers to other sanatoria.....	120	12	10	98
Patients in sanatoria, December 31, 1961.....	216	96	120	....
Total patient days.....	118,863	49,910	52,207	16,746
Average daily census.....	414.82	136.76	143.03	135.03

\* The average length of treatment for active tuberculosis cases discharged in 1961 was 11.25 months.

† The Prince Albert Sanatorium ceased operation as a tuberculosis institution on May 2, 1961.

‡ This includes tuberculosis patients cared for in general hospitals at the expense of the Saskatchewan Anti-Tuberculosis League.

TABLE 81. INCOME AND EXPENDITURES, TUBERCULOSIS SANATORIA, SASKATCHEWAN, 1961

Income, 1961		
Municipal levy		
Rural.....	\$	442,630.19
Urban.....		487,264.90
Northern Saskatchewan Administration District.....		42,104.64
Patients' fees.....		535,405.89
Provincial government grants.....		327,532.00
Surplus, December 31, 1960, carried forward.....		11,799.69
Total revenue.....		\$ 1,846,737.31
Expenditures, 1961		
Net expenditure for the year.....		1,700,740.12
Total expenditure.....		\$ 1,700,740.12
Surplus, December 31, 1961.....		\$ 145,997.19

TABLE 82. DETAILS OF OPERATING COSTS OF THE TUBERCULOSIS SANATORIA, SASKATCHEWAN, 1961

Item	Total	Sanatoria		
		Fort San	Saskatoon	Prince Albert
Administration.....	\$ 98,118.66	\$ 41,502.95	\$ 42,856.57	\$ 13,759.14
Interest and discounts.....	11,990.51	5,031.23	5,262.78	1,696.50
Hospital.....	732,526.21	324,074.45	310,740.21	97,711.55
Dispensary.....	26,524.54	8,022.49	16,831.29	1,670.76
Laboratory.....	36,739.78	12,034.53	23,134.62	1,570.63
X-ray.....	22,972.22	8,205.86	12,345.73	2,420.63
Kitchen.....	287,692.51	130,129.67	120,063.60	37,499.24
Stewards.....	19,743.37	8,473.99	7,611.29	3,658.09
Housing.....	62,864.62	34,821.95	20,619.37	7,423.30
Maintenance of buildings.....	39,762.48	19,687.26	17,476.99	2,598.23
Power house.....	213,181.61	108,239.31	69,095.27	35,847.03
Laundry.....	51,836.21	19,827.28	21,323.12	10,685.81
Grounds.....	27,263.93	8,923.36	12,856.78	5,483.79
Garage.....	7,784.55	5,206.97	681.04	1,896.54
School grants.....	4,861.41	4,861.41	.....	.....
Staff insurance.....	12,330.00	5,177.37	5,415.33	1,737.30
Replacements (under Sec. 12 Sanatoria Act).....	26,000.00	12,708.80	13,291.20	.....
League patients in other hospitals.....	12,062.57	6,409.46	3,408.96	2,244.15
Superannuation fund.....	55,589.93	27,172.36	28,417.57	.....
Contingent liability re-superannuation.....	31,926.13	.....	.....	31,926.13
Compensation.....	4,162.82	1,524.24	1,492.37	1,146.21
	\$ 1,785,934.06	\$ 792,034.94	\$ 732,924.09	\$ 260,975.03
Deduct				
Accounts charged to health grants.....	67,042.76	25,450.80	27,285.53	14,306.43
Accounts charged to preventive fund.....	14,684.71	7,415.29	6,556.97	712.45
Canteen and postal revenue.....	355.98	.....	.....	.....
S.H.S.P. (re patients' fees).....	3,051.94	2,219.18	793.46	39.30
Miscellaneous and service charges.....	58.55	58.55	.....	.....
	\$ 85,193.94	\$ 35,499.80	\$ 34,635.96	\$ 15,058.18
Total net expenditure.....	\$ 1,700,740.12	\$ 756,535.14	\$ 698,288.13	\$ 245,916.85
Number of patient days.....	118,863	49,910	52,207	16,746
Cost per patient day.....	\$ 14.31	\$ 15.16	\$ 13.38	\$ 14.69

TABLE 83. PATIENTS' FEES AND GOVERNMENT GRANTS, TUBERCULOSIS SANATORIA, SASKATCHEWAN, 1961

Source of revenue	Total	Sanatoria		
		Fort San	Saskatoon	Prince Albert
Total grants and fees.....	\$ 862,937.89	\$ 383,400.94	\$ 314,007.43	\$ 165,529.52
Provincial government grants.....	327,532.00	133,196.00	165,416.00	28,920.00
Patients' fees.....	438,023.18	202,406.95	143,333.55	92,282.68
Federal government.....	415,101.53	179,485.30	143,333.55	92,282.68
Indian Affairs.....	371,891.23	163,007.60	118,134.65	90,748.98
Veterans' Affairs.....	43,210.30	16,477.70	25,198.90	1,533.70
Provincial government.....	21,804.20	21,804.20	.....	.....
Re immigrants and refugees.....	21,804.20	21,804.20	.....	.....
Yukon Territory.....	1,117.45	1,117.45	.....	.....
Estimated additional earned income (re difference in rates paid and actual rates).....	97,382.71	47,797.99	5,257.88	44,326.84

TABLE 84. SUMMARY OF MEDICAL SERVICES OF THE TUBERCULOSIS SANATORIA SASKATCHEWAN, 1960 AND 1961

Medical service	Sanatoria	1961							Refugees		
		1960	Total	Rural	Urban	Local Improvement Districts	Northern Administration District	Department of Indian Affairs		Department of Veterans' Affairs	Yukon
Reception cards	Total.....	5,160	4,262	1,053	2,607	22	49	300	220	1	10
	Fort San.....	1,397	1,280	538	591	...	15	86	40	...	10
	Saskatoon.....	2,318	2,520	415	1,850	11	17	56	170	1	...
	Prince Albert.....	1,445	462	100	166	11	17	158	10	...	...
Admissions	Total.....	572	485	71	214	6	38	128	18	...	10
	Fort San.....	194	237	44	86	...	15	76	6	...	10
	Saskatoon.....	206	231	25	127	6	17	44	12	...	...
	Prince Albert.....	172	17	2	1	...	6	8	...	...	...
Diagnosis	Total.....	1,321	852	179	641	...	2	29	1	...	...
	Fort San.....	286	204	94	104	...	...	6	...	...	...
	Saskatoon.....	773	595	74	518	...	...	2	1	...	...
	Prince Albert.....	262	53	11	19	...	2	21	...	...	...
Reviews	Total.....	3,256	2,915	801	1,749	16	9	138	201	1	...
	Fort San.....	913	835	400	401	...	...	34	34	...	...
	Saskatoon.....	1,332	1,688	314	1,202	5	...	9	157	1	...
	Prince Albert.....	1,011	392	87	146	11	9	129	10	...	...
Pneumothorax, pneumoperitoneum, or special treatment	Total.....	11	10	2	3	...	...	5	...	...	...
	Fort San.....	4	4	...	...	...	...	4	...	...	...
	Saskatoon.....	7	6	2	3	...	...	1	...	...	...
	Prince Albert.....	...	...	...	...	...	...	...	...	...	...
Discharges	Total.....	5,158	4,436	1,095	2,671	22	61	348	221	1	17
	Fort San.....	1,409	1,292	541	623	8	8	63	40	...	17
	Saskatoon.....	2,302	2,523	438	1,855	9	10	40	170	1	...
	Prince Albert.....	1,447	621	116	193	13	43	245	11	...	...
Patients on strength as at January 1, 1961	Total.....	...	390	73	161	6	27	109	7	...	7
	Fort San.....	...	108	22	67	...	...	9	3	...	7
	Saskatoon.....	...	123	35	67	4	...	13	3	...	...
	Prince Albert.....	...	159	16	27	2	26	87	1	...	...
Patients on strength as at December 31, 1961	Total.....	...	216	31	97	6	15	61	6	...	...
	Fort San.....	...	96	19	35	...	7	32	3	...	...
	Saskatoon.....	...	120	12	62	6	8	29	3	...	...
	Prince Albert.....	...	...	...	...	...	...	...	...	...	...
Hospital days for the year 1961	Total.....	157,919	118,863	17,822	54,879	2,226	6,967	31,851	3,298	1	1,819
	Fort San.....	49,135	49,910	8,799	22,124	...	2,376	13,530	1,262	...	1,819
	Saskatoon.....	45,291	52,207	7,089	30,135	2,025	2,116	8,931	1,910	1	...
	Prince Albert.....	63,493	16,746	1,934	2,620	201	2,475	9,390	126	...	...

## APPENDIX A

**ACTS ADMINISTERED BY  
THE DEPARTMENT OF PUBLIC HEALTH**

- The Anatomy Act
- The Change of Name Act
- The Cancer Control Act
- The Health Services Act, 1950
- The Hospital Standards Act
- The Marriage Act
- The Mental Health Act
- The Mutual Medical and Hospital Benefit Associations Act
- The Public Health Act
- The Saskatchewan Hospitalization Act
- The Union Hospital Act
- The Venereal Disease Prevention Act
- The Vital Statistics Act

(The Tuberculosis, Sanatoria and Hospitals Act is administered by the Saskatchewan Anti-Tuberculosis League.)

## NATIONAL HEALTH GRANTS

The fiscal year 1961-62 saw continuation of the National Health Grant program with little or no change in the conditions attached to the availability of the funds to the province. It should be pointed out that the funds in each grant may be spent only after individual projects, which describe in detail the services and facilities to be provided, are submitted to the Department of National Health and Welfare and approved by officials of that department. Generally speaking, projects which meet the criterion of providing a new health service, an extension of an existing service, or the provision of free treatment or for the training of health and hospital personnel, receive approval within the limitations of the funds available.

The total expenditure for the fiscal year 1961-62 amounted to \$2,517,866. Table 85 provides details of the expenditures under the individual grants for this and preceding years while the following paragraphs will outline in general terms the kinds of services provided and the benefits obtained as a result of the utilization of the funds.

### **Professional Training Grant**

The funds made available in this grant for the year 1961-62 amounted to \$95,713 and could be utilized for the training of health and hospital personnel.

Provision was made for the training of ten public health nurses, six hospital nurses in the field of teaching and supervision and nursing service administration, three speech therapists, three physicians specializing in public health, eight physical and occupational therapists, one physician specializing in clinical neurology, one nurse obtaining a Master's degree in Nursing Education, and one educational psychologist obtaining advanced training. In addition a number of others received financial assistance for short training courses in health statistics, morbidity coding, hospital management and medical records, operating room techniques and paediatric nursing.

The actual expenditure for these training courses amounted to \$71,852. Plans were made to train additional personnel but for a variety of reasons some candidates decided at the last minute to forego the training with the result that some funds remained unspent.

### **Hospital Construction Grant**

The allotment of funds to Saskatchewan under this grant for 1961-62 amounted to \$886,208 with some \$969,498 allotted in previous years, but unspent, being made available also. The latter sum applies to hospital construction projects commenced in previous years for which grant commitments have been made but not paid because construction had not progressed to the point that funds could be disbursed. One of the conditions attached to this grant is that documents which certify 25, 50, 75 or 100 per cent of construction of any project has been completed, must be submitted to the federal department before funds are made available to the province to turn over to local hospital authorities. This procedure accounts for the delay in disbursement of grants for construction even though a commitment for a specified sum may have been made.

The actual expenditure for the fiscal year amounted to \$808,596.61 and assisted in meeting the cost of construction and renovation in some 34 projects for a net gain of 183 general hospital beds, 29 staff beds and 3 health centres. Construction and renovations were completed and grants were paid for hospital projects at Big River, Carrot River, Fillmore, Grenfell, Herbert, Morse, Ile a la Crosse, Leader, Macklin, Meadow Lake, Melville, Norquay, Canora, Outlook, Oxbow, Pangman, Prince Albert (Victoria Hospital), Regina (Grey Nuns'), Rose Valley, Rosthern, Tisdale, Wakaw, Weyburn and Yorkton. Work is continuing on a number of other projects and grants will be made available as construction proceeds.

Hospital staff accommodation was constructed at Coronach, Dinsmore, Mankota, Rabbit Lake and Whitewood-Moosomin hospitals and grants were paid on these projects. Assistance was also made available to finance the construction of health centres at Ogema, Stoughton and North Battleford.

### **Mental Health Grant**

There was a reduction in the amount of money made available in this grant for 1961-62 over that for the previous year by about \$5,000. The sum of \$406,253 was actually spent out of an allocation of \$459,549.

The funds made available in the Mental Health Grant may be used to assist in the training of personnel, the conduct of surveys and studies and for the progressive extension of free treatment and for the rehabilitation for the mentally ill. Similarly to other special grants, it is necessary to submit to the authorities of the federal department individual projects outlining particulars of services to be provided, and plans for training of personnel, and secure their approval in keeping with the general terms mentioned above before the funds may be utilized.

Nearly \$250,000 was spent to provide clinical services in the mental hospitals, the training schools and the mental health clinics throughout the province. Some \$53,000 was used to train staff in a variety of disciplines such as social work, psychology, psychiatric nursing, psychiatry and occupational and physical therapy, so that their skills and abilities could be put to the optimum use in the institutions and clinics providing treatment.

Financial provision to the extent of nearly \$110,000 was made for the carrying out of research activities in the field of mental health in Saskatchewan. It would seem that this is an area of work in which increasingly larger sums of money will continue to be spent in the search for causes and cures, and means of prevention of mental illness. The finding of highly trained and research oriented staff continues to be a major problem, while the retention of the services of such staff also presents difficulty because of the opportunities afforded to them in the expanded activities in this field of endeavour elsewhere.

### **Tuberculosis Control Grant**

The initial allocation of funds under this grant amounted to \$151,234 for the fiscal year but was later increased to \$159,210 when permission was granted to transfer funds from another grant where it was evident that an underexpenditure would occur. This sum was expended in full by the Saskatchewan Anti-Tuberculosis League.

The League continued to carry on an energetic program of prevention, case findings and treatment services. The funds in this grant assisted in defraying the cost of these services, by providing the money needed for additional staff in the treatment program, in meeting the cost of the mass x-ray screening program and the purchase of equipment and supplies used for this purpose.

#### **Public Health Research Grant**

The policy respecting funds to be made available under this grant differs from the other health grants in that there is not a specific allotment set aside for each province. The over-all allotment for Canada is established by Parliament and each province is then invited to submit projects which are considered to be worthy of financial support, within the general terms of the grant. These projects are then assessed by a committee appointed by the federal department and recommendations are made to the Minister of National Health by that committee as to whether the work to be undertaken should be supported financially.

The total sum made available by Parliament for all of Canada amounted to \$1,781,000 in the fiscal year 1961-62. Projects submitted by Saskatchewan and approved amounted to \$78,395, of which \$63,455 was actually spent. As in the previous year, the work was carried on under the direction and supervision of faculty members of the College of Medicine, Agriculture and Engineering of the University of Saskatchewan.

#### **General Public Health Grant**

The General Public Health Grant is made available to assist in extending and improving health services including the training of personnel and conducting surveys and studies in the field of public health.

Some \$751,565 was allotted to Saskatchewan in 1961-62 and projects totalling \$746,540 were submitted to the federal department and received approval. In the final analysis the sum of \$659,386 was actually spent. The underexpenditure can be attributed in part to staff vacancies which occurred during the year, and the inability to replace staff immediately, or to the difficulty experienced in recruiting staff with the specialized training needed for the programs for which financial provision was made.

Public health programs in health regions and the cities received assistance to the extent of about \$245,000. Approximately \$48,000 was utilized toward the purchase of poliomyelitis vaccines which was made available without charge to all persons in Saskatchewan. Funds to the extent of nearly \$210,000 were spent for a wide variety of services including, health education, sanitary engineering, laboratory services, statistical studies, home care services, venereal disease control, glaucoma treatment services, hospital counselling services.

The funds available in this grant were also used to finance the cost of studies and surveys in the area of the problems of the aged and long-term ill, hospital accounting procedures, hospital and institutional facilities. Some \$60,400 was spent for these projects.

The department continued to use funds from this grant to finance the training of personnel in the fields of hospital administration, occupational health, public health nursing, medical records and laboratory technology as well as to conduct training institutes and specialized short courses. Expenditures in this area amounted to about \$95,000.

**Cancer Control Grant**

This grant is made available to the province to assist in meeting the cost of a program of cancer control including diagnosis and treatment. It is a matching grant requiring the province to spend from its own funds at least an amount equal to the federal contribution of \$183,505. Elsewhere in this report details of the expenditure of provincial funds will be found and it will be seen that the provincial expenditures for this purpose exceed the federal contribution by a considerable amount so that the full amount of the grant was claimed and received.

**Medical Rehabilitation and Crippled Children's Grant**

The allotment to Saskatchewan under this grant for 1961-62 was \$138,807 or slightly less than for the previous fiscal year. The conditions, under which it could be utilized were virtually unchanged in that the province had to spend on Medical Rehabilitation and Crippled Children's Services an amount equal to or greater than the federal grant before the funds could be claimed. In short, it is a matching grant.

Projects totalling some \$118,000 were submitted to the federal officials and received their approval and actual expenditures amounted to \$97,980. Approximately \$88,500 was spent in providing for staff and rehabilitation services in the two rehabilitation centres operating in Regina and Saskatoon, and just under \$10,000 was utilized for the training of personnel. As was the case in the previous year, the underexpenditure is attributed to the unavailability of trained and specialized staff in this field. Efforts are being continued to seek out personnel to take training in the specialities involved in this program, as well as to recruit persons who have the special skills needed to make these services available.

**Child and Maternal Health Grant**

The funds available to Saskatchewan under this grant amounted to \$91,468 for 1961-62 or some \$2,000 less than the previous year. Furthermore due to an anticipated underexpenditure in this grant, nearly \$8,000 was transferred, with federal approval, to the Tuberculosis Control Grant to meet certain expenditures for needed equipment in the tuberculosis control program. Actual expenditures amounted to nearly \$68,000.

Institutes and short training courses for Saskatchewan physicians and nurses continued to be financed under this grant to the extent of some \$3,000 and research work related to children's diseases and afflictions continued to be carried on and were financed to the extent of about \$16,000. Funds were also utilized for children's dental services and preventive ophthalmological and consultation services amounting to nearly \$22,000. About \$4,000 was utilized for testing of drinking water to detect the presence of nitrates and fluorides, and the remainder of the funds spent provided for staff salaries for a physician and nurse, who devoted their entire time to maternal and child health problems in hospitals and health regions throughout the province.



TABLE 85. GRANTS ALLOCATED AND AMOUNTS EXPENDED UNDER THE NATIONAL HEALTH GRANTS PROGRAM, SASKATCHEWAN, 1952-53 TO 1962-63

Name of grant	1952-53	1953-54	1954-55	1955-56	1956-57	1957-58	1958-59	1959-60	1960-61	1961-62	1962-63
	Amount made available										
Total.....	\$3,446,194	\$3,711,811	\$3,037,159	\$2,307,250	\$3,061,043	\$3,296,896	\$4,088,063	\$3,603,465	\$3,733,013	\$2,758,049	\$2,896,345
Crippled children.....	33,476	31,874	31,792	31,571	31,190	30,801	29,285	28,858	.....[a]	.....[a]	.....[a]
Professional training.....	34,881	31,874	31,792	31,571	31,190	30,801	29,285	28,858	94,856	95,713	96,569
Hospital construction (b).....	2,105,732[c]	2,066,522[d]	1,220,206[e]	385,551[f]	1,101,018[g]	1,295,775[h]	2,156,988[i]	1,685,363[j]	1,857,967[k]	886,208[l]	1,029,128[m]
Veneral disease control.....	32,476	31,874	31,792	31,571	31,190	30,801	29,285	28,858	.....[n]	.....[n]	.....[n]
Mental health.....	379,963	372,459	431,607	428,373	422,805	417,118	416,932[o]	418,682[p]	464,936	459,549	454,824
Tuberculosis control.....	216,002	236,535	228,065	227,582	222,476	220,290	209,688	201,969	151,035	159,210[q]	148,740
Public health research [r].....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Health survey [s].....	428,879	411,500	430,500	439,000	489,500[t]	528,500[u]	489,500[v]	569,000[p]	744,881	751,565	758,246
General public health.....	214,785	210,244	209,625	207,958	205,087	202,156	190,717	187,495	185,656	183,505	181,618
Cancer control.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Laboratory and radio-logical services.....	.....	252,900	301,350	351,200	355,050[t]	368,500[w]	367,500[x]	279,000[p]	140,406[a]	138,807[a]	137,406[a]
Medical rehabilitation.....	.....	33,134	62,192	61,777	61,063	60,333	57,485	56,682	93,276	83,492[q]	89,784
Child and maternal health.....	.....	32,895	58,238	111,096	110,474	111,821	111,398	118,700[p]	.....	.....	.....
	Expenditure from grants										
Total.....	\$1,980,964	\$1,931,165	\$2,561,443	\$2,813,399	\$2,067,582	\$2,231,368	\$2,901,361	\$2,170,633	\$2,561,851	\$2,517,866	.....
Crippled children.....	32,815	24,229	26,173	22,875	30,070	29,490	24,762	25,320	64,514	71,852	.....
Professional training.....	29,997	22,759	29,243	25,710	24,636	21,286	23,157	26,812	878,925	808,596	.....
Hospital construction.....	776,645	499,585	889,908	1,005,723	258,217	320,446	1,147,491	561,978	.....	.....	.....
Veneral disease control.....	29,258	30,647	31,792	31,571	31,190	30,801	29,285	28,858	.....	.....	.....
Mental health.....	339,275	338,890	396,491	400,298	398,471	401,824	402,663	392,312	395,567	406,253	.....
Tuberculosis control.....	216,002	236,523	228,061	227,538	222,476	220,290	209,688	201,968	151,035	159,210	.....
Public health research.....	25,788	26,064	22,385	19,692[v]	20,736	39,929[v]	46,288[v]	29,839	49,496	63,455	.....
Health survey.....	3,150	.....	.....	388,673	416,624	502,575	436,844	462,215	675,045	659,386	.....
General public health.....	313,249	252,289	373,347	388,673	416,624	502,575	436,844	462,215	185,656	183,505	.....
Cancer control.....	214,785	210,244	209,625	207,958	205,087	202,156	190,717	187,495	.....	.....	.....
Laboratory and radio-logical services.....	.....	154,483	279,936	336,925	316,675	344,480	281,168	95,110	81,517	97,980	.....
Medical rehabilitation.....	.....	4,042	41,588	57,987	57,987	53,999	48,653	47,115	80,096	67,629	.....
Child and maternal health.....	.....	30,830	32,894	108,141	106,148	104,022	106,934	111,611	.....	.....	.....
	Per cent of grants expended										
Total.....	84.1	51.3	83.5	76.8	58.3	67.7	71.0	60.2	68.6	91.3	.....
Crippled children.....	98.0	76.0	82.3	72.4	96.4	95.7	84.6	87.7	.....	.....	.....
Professional training.....	85.9	71.3	91.9	81.4	79.0	69.1	79.1	92.9	68.0	75.1	.....
Hospital construction.....	36.8	24.1	72.9	57.7	16.3[w]	24.7	53.2	33.3	47.3	91.3	.....
Veneral disease control.....	90.0	96.1	100.0	100.0	100.0	100.0	100.0	100.0	.....	.....	.....
Mental health.....	89.2	90.9	91.8	93.4	94.2	96.3	96.6	93.7	85.1	88.4	.....
Tuberculosis control.....	100.0	99.9	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	.....
Public health research.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Health survey.....	99.9[x]	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
General public health.....	73.0	85.6	86.7	88.5	85.1	95.1	89.2	81.2	90.6	87.7	.....
Cancer control.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	.....
Laboratory and radio-logical services.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Medical rehabilitation.....	.....	61.0	92.8	95.9	89.2	93.5	76.5	34.1	58.1	70.6	.....
Child and maternal health.....	.....	12.1	66.8	93.8	95.0	89.5	84.6	83.1	85.9	81.0	.....
	.....	93.7	56.4	97.3	96.1	93.0	96.0	94.0	.....	.....	.....

Sources: Unless otherwise noted, statements on operations of the health grants program for Saskatchewan were prepared by the Directorate of Health Insurance Studies, Department of National Health and Welfare.

- [a] Combined with "Medical Rehabilitation" in 1960-61. Now called "Medical Rehabilitation and Crippled Children Grant".
- [b] The hospital construction grant was cumulative. The amount not utilized during the year in which it was allocated could accumulate from year to year.
- [c] The figure for the fiscal year 1952-53 includes an allotment for that year plus unexpended portions of previous three allotments for the years 1948-49 to 1949-50.
- [d] The hospital construction allotment for 1953-54 is composed of: Allocation for new projects ..... \$ 589,772  
Revoke ..... \$ 1,676,750

\$ 2,066,522

- [e] This total is made up as follows: Allocation for new projects ..... \$ 388,643  
Revoke ..... \$ 831,563  
\$ 1,220,206

[f] Ottawa's final statement for the fiscal year 1955-56 shows amount of hospital construction grant available as \$1,741,291. Percentage figured on amount available shown on Ottawa's final statement for the fiscal year 1955-56.

- [g] Amount available for hospital construction for 1956-57: Allocation for new projects ..... \$ 380,229  
Revoke ..... \$ 720,789  
\$ 1,101,018

[h] Ottawa's final statement for 1956-57 shows the amount of Hospital Construction Grant available as \$1,587,085.

This total is made up as follows:

New projects	\$ 374,794
Annual allocation	\$ 747,204
Revoke	\$ 1,121,988
Revoke	\$ 173,777
	\$ 1,295,775

[i] This total is made up as follows:

New projects	\$ 903,581
Annual allocation	\$ 756,782
Revoke	\$ 1,660,363
Revoke	\$ 25,000
	\$ 1,685,363

[j] This total is made up as follows:

New projects	\$ 919,123
Annual allocation	\$ 1,212,865
Revoke	\$ 2,131,988
Revoke	\$ 25,000
	\$ 2,155,988

[k] This total is made up as follows:

Annual allocation	\$ 897,103
Revoke	\$ 960,864
	\$ 1,857,967

[l] In addition to this amount, there was a revoke of \$969,498 from previous year.

[m] In addition to this amount, there was a revoke of \$1,316,206 from previous years.

[n] Discontinued.

[o] Includes transfer of \$50,000 and \$22,000 from Laboratory and Radiological Services Grant and Mental Health Grant respectively.

[p] Includes transfer of \$165,000 from Laboratory and Radiological Services Grant to Mental Health, General Public Health and Child and Maternal Health Grant in the amounts of \$30,000, \$125,000, and \$10,000, respectively.

[q] A transfer of \$7,976 was made to this grant from Child and Maternal Health Grant in 1961-62, but was not shown in the amounts available in the 1960-61 report.

[r] Various amounts for public health research were made available nationally each year and were apportioned among the provinces on a basis of projects submitted and approved.

[s] One allocation of \$43,506 was made in 1948-49 to conduct a health survey. The allocation was spent over a five year period.

[t] A transfer of \$45,000 from Laboratory and Radiological Services Grant to the General Public Health Grant is considered in the figures shown for these two grants.

[u] Includes transfer of \$80,000 from Laboratory and Radiological Services Grant to General Public Health Grant. (Transfer not included in 1956-57 annual report table).

[v] Amount excluded from total.

[w] Percentage figured on amount available shown in Ottawa's final statement for the 1956-57 fiscal year.

[x] Cumulative percentage of the original allocation of \$43,506.

Table 15. Kinetic Data for the Reaction of Ethylmagnesium Chloride with Ethylmagnesium Chloride in Benzene at 0°C.

Run	[MgCl <sub>2</sub> ] <sub>0</sub> (M)	[MgCl <sub>2</sub> ] <sub>t</sub> (M)	t (min)	k <sub>1</sub> (min <sup>-1</sup> )	k <sub>2</sub> (min <sup>-1</sup> )	k <sub>3</sub> (min <sup>-1</sup> )	k <sub>4</sub> (min <sup>-1</sup> )	k <sub>5</sub> (min <sup>-1</sup> )
1	0.0100	0.0075	15	0.015	0.015	0.015	0.015	0.015
2	0.0100	0.0050	30	0.015	0.015	0.015	0.015	0.015
3	0.0100	0.0025	45	0.015	0.015	0.015	0.015	0.015
4	0.0100	0.0010	60	0.015	0.015	0.015	0.015	0.015
5	0.0100	0.0005	75	0.015	0.015	0.015	0.015	0.015
6	0.0100	0.0002	90	0.015	0.015	0.015	0.015	0.015
7	0.0100	0.0001	105	0.015	0.015	0.015	0.015	0.015
8	0.0100	0.0000	120	0.015	0.015	0.015	0.015	0.015
9	0.0100	0.0000	135	0.015	0.015	0.015	0.015	0.015
10	0.0100	0.0000	150	0.015	0.015	0.015	0.015	0.015
11	0.0100	0.0000	165	0.015	0.015	0.015	0.015	0.015
12	0.0100	0.0000	180	0.015	0.015	0.015	0.015	0.015
13	0.0100	0.0000	195	0.015	0.015	0.015	0.015	0.015
14	0.0100	0.0000	210	0.015	0.015	0.015	0.015	0.015
15	0.0100	0.0000	225	0.015	0.015	0.015	0.015	0.015
16	0.0100	0.0000	240	0.015	0.015	0.015	0.015	0.015
17	0.0100	0.0000	255	0.015	0.015	0.015	0.015	0.015
18	0.0100	0.0000	270	0.015	0.015	0.015	0.015	0.015
19	0.0100	0.0000	285	0.015	0.015	0.015	0.015	0.015
20	0.0100	0.0000	300	0.015	0.015	0.015	0.015	0.015

