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PUBLIC HEALTH

Annual Report

Report of the Department of Public Health
for the fiscal year April 1, 1958
to March 31, 1959.

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ANNUAL REPORT of the DEPARTMENT OF PUBLIC HEALTH

1958-59

Report of the Department of Public Health for the
fiscal year April 1, 1958 to March 31, 1959

REGINA, SASKATCHEWAN:

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1959.



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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

DEPARTMENT OF PUBLIC HEALTH,
REGINA, August 1, 1959.

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, 1959.

Respectfully submitted,

J. WALTER ERB,
Minister of Public Health.

DEPARTMENT OF PUBLIC HEALTH,
REGINA, August 1, 1959.

TO THE HONOURABLE J. WALTER ERB,
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, 1959.

Respectfully submitted,

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

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INTRODUCTION

Half a century has elapsed since Saskatchewan's first public health act was passed, whereby the Bureau of Public Health came into being. That first step in preventive medicine legislation has been succeeded by others down through the years, each an attempt to put to advantage new skills and advances in medical science. An expanding body of knowledge, however, brings in its wake certain disadvantages; it becomes increasingly more difficult for any one person thoroughly to grasp and comprehend the entire field in all its complexity, as the number of disciplines engaged increases.

Basically, the aim of public health is the anticipation of, and effective action against, the occurrence of disease. Yearly, the mechanics of achieving this aim become ever more intricate. To the Department of Public Health falls the task of integrating the numerous disciplines involved into a unified and efficient onslaught against the myriad agents opposing the population's physical and mental well-being.

As the level of technological development changes in the province, so alter the number and type of hazards to which its inhabitants are exposed. Steadily there is added to the list of recognized dangers and ills an ever-enlarging increment of more subtle factors, the malign influence of which may be intuitively rather than statistically recognized. Even when intuitive recognition graduates to statistical recognition, counteraction may be impossible because the practical answer has not yet been devised, or ineffective because of communal apathy. It is becoming increasingly manifest that legislative and executive action is of little avail unless backed by solidity of public opinion. The onus of initiating preventive health measures has passed in large degree to the private individual. To him has fallen such decisions as to whether his children are to be immunized against poliomyelitis, whether dental decay is to be combatted by fluoridation, and whether cigarette smoking is worth the risk involved.

Disregarding the possibility of major discoveries emanating from the clinic or the laboratory, it may be claimed that advances of measurable proportions can now be made almost only through the collective action of an enlightened public. Powerful tools have been placed at our disposal; the extent to which they are to be used depends upon popular demand.

To ensure that the citizen is indeed informed and knowledgeable on these matters, now comprises a bulky portion of the department's duties. With such advertising media as the press, radio and television, never has it been so easy to make contact with the population: paradoxically, never has it been more difficult to obtain its attention. To compete successfully on this score against a plethora of commercial injunctions, appeals and exhortations is one of the main problems facing those responsible for the dissemination of public health knowledge. In this sphere of activity, however, there lies an enormous potential for advancing the health status of the province.

Population-wise, Saskatchewan's situation continued to improve, the losses sustained by migration during the nineteen-forties being almost replaced. At the end of the fiscal year it is estimated that the province's population was approaching 900,000, the largest total for some eighteen years. The improving economic position relative to the other provinces

must be regarded as being responsible in some measure for this diminution of migration loss. Increasing industrialization, and consequent diversification of the provincial economy, together with constantly improving health facilities, lead to the hope that this favourable trend will continue for some years to come.

From an organizational standpoint, one more step forward was recorded during the year when the Melfort-Tisdale Health Region came into being in January. The establishment of this new region leaves now unorganized only the area around Saskatoon and that of Humboldt-Wadena.

While the regional health program instituted several years ago progresses steadily in the southern half of the province, there still remain the problems and difficulties of bringing efficient health services to the Northern Health District with its 119,000 square miles and widely-scattered population of 17,730. It is not surprising, in the face of the obstacles implicit in these figures, that the per capita cost of providing the district with health services is over \$7, three times the rate prevailing in a typical health region. One of the rewards of this outlay, however, is to be seen in the infant mortality rate—regarded by many as a reliable index of the general standard of community well-being—which although still much worse than anywhere else in the province, is revealing at last a definite downward trend.

Coverage under the hospital services plan during the year was extended to include war veterans, Indians, and military personnel residing in Saskatchewan, thereby increasing the proportion of the population so covered to 97.5 per cent, while the qualifying period for newcomers was reduced from six months to three.

Concurrent with these changes, expansion took place in the facilities available in hospitals, the measured bed capacity increasing to 6,727, representing a ratio of 7.6 beds per 1,000 population. It is self-evident that there must exist an optimum bed/population ratio, which if exceeded, indicates over-servicing and wastage. Much theorizing has taken place as to what precisely this desirable ratio might be, but it is doubtful whether such a magical figure, equally applicable to all parts of the country, can be obtained. It should be borne in mind that with the gradual increase in the numbers of the elderly, more bed accommodation will be required, because of the known higher incidence of illness in this group.

The large amount of informative data which arises as a by-product in such a project as the Saskatchewan Hospital Services Plan, gives an inkling of what ill health means to the community in terms of economic loss. The province's hospitalization totals can be translated only into the language of the economist: no reckoning can be made of personal pain, grief and worry, which have no frame of reference whereby they can be measured. They do not lend themselves to algebraic summation. These intangibles, plus the hard-cash picture presented by the morbidity figures, heavily underline the old adage weighing the relative merits of prevention and cure, and accentuate the dictum that any policy designed to minimize the need for curative measures is sound both from the humanitarian and economic standpoints.

The assumption might wrongly be drawn that all medical activities fall into one or other class, that each one can be categorized as being either curative or preventive. This is not entirely true, as there are numerous endeavours which defy such clear-cut definition, and which combine in varying degrees the elements of both approaches. The existence

of this area of fusion serves to remind us that prevention and cure are not two separate irreconcilable philosophies, but are two time-dictated techniques, possessing a unity of purpose—the attaining of the maximum degree of health obtainable.

Elsewhere, non-recognition of this basic unity has resulted in poorly balanced services with unsatisfactory liaison between the respective arms. As the province's health facilities evolve, this concept of the collateral nature of the two disciplines should be kept constantly in view, in order that the individual obtain the greatest possible degree of consolidated service.

The report which follows, details the activities of the various branches and divisions of the Saskatchewan Department of Public Health together with related agencies. From these can be constructed an overall picture of the state of health of Saskatchewan.

Summary of Legislation — 1959 Session of the Legislature

The following is a summary of legislation administered by the Department of Public Health passed during the 1959 Session of the Legislative Assembly of Saskatchewan.

An Act to amend The Union Hospital Act

The form of declaration to be taken by a person who presents himself for voting but whose name is not on the voters' list was amended so that the form would be applicable to a person being taxed in respect of a business or a special franchise as well as in respect of real property. This amendment did not extend the right to vote but merely made the form of declaration applicable to a small class of persons entitled to vote but whose names were, for some reason, not included in the voters' list.

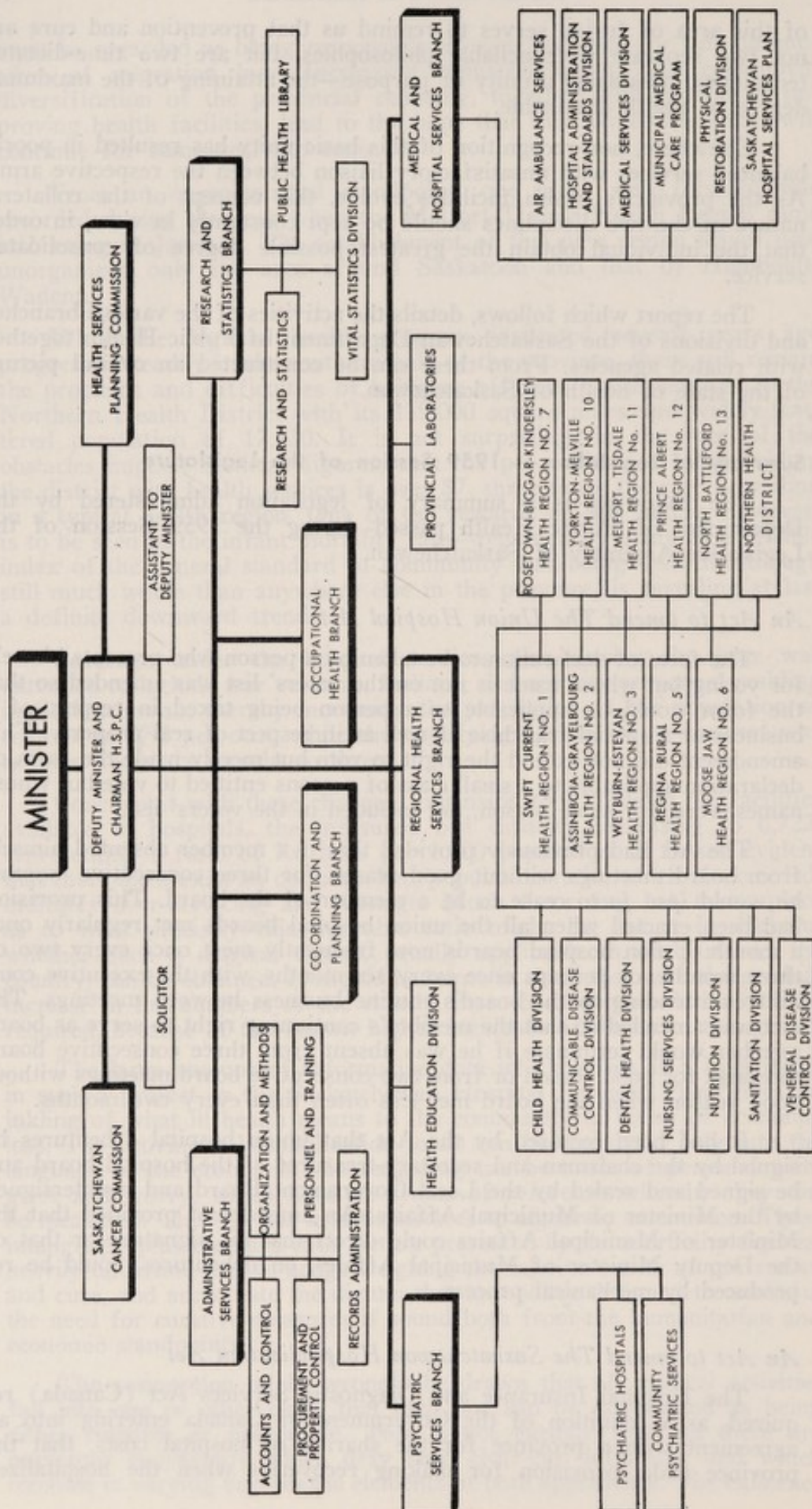
The Act had previously provided that if a member absented himself from board meetings without good reason for three consecutive months, he would *ipso facto* cease to be a member of the board. This provision had been enacted when all the union hospital boards met regularly once a month. Union hospital boards now frequently meet once every two or three months, or perhaps once every six months, with the executive committees attending to the board's routine business between meetings. The Act was amended so that the member's continuing right to serve as board member would terminate if he was absent from three consecutive board meetings for good reason or from two consecutive board meetings without good reason when the board met less often than every two months.

It had been required by the Act that union hospital debentures be signed by the chairman and secretary-treasurer of the hospital board and be signed and sealed by the Local Government Board and countersigned by the Minister of Municipal Affairs. An amendment provided that the Minister of Municipal Affairs could direct that his signature or that of the Deputy Minister of Municipal Affairs, on debentures, could be reproduced by mechanical process.

An Act to amend The Saskatchewan Hospitalization Act

The Hospital Insurance and Diagnostic Services Act (Canada) required, as a condition of the Government of Canada entering into an agreement with a province for the sharing of hospital costs, that the province make provision for making recoveries when the hospitalized

FIGURE 1. ORGANIZATION OF THE DEPARTMENT OF PUBLIC HEALTH, GOVERNMENT OF SASKATCHEWAN, MARCH 31, 1959



person was legally entitled to recover the cost of hospitalization from the person whose negligence or wrongdoing had caused the injury for which he had been hospitalized. Provision was therefore made in the Act for the Minister to make recoveries in case of third party liability.

The regulations under the Hospital Insurance and Diagnostic Services Act (Canada) contained a definition of the expression "resident." The regulations under The Saskatchewan Hospitalization Act had also been revised to include a similar definition. The Act was then amended so that the expression would have the meaning ascribed to it by the regulations.

Residents in the Northern Saskatchewan Administration District had previously been permitted to pay the hospitalization tax upon a voluntary basis. The regulations were amended so that a compulsory levy of the tax was imposed upon these residents for the year 1959. Because this district was so sparsely settled and so wide-spread in area, it was believed that the most appropriate method of providing for tax payment was for the Minister of Natural Resources to pay the tax on behalf of all residents and to make recoveries from these residents for the amount so paid at a later more opportune time. The Act was, therefore, amended vesting the Minister of Natural Resources with this authority.

An Act to amend The Hospital Standards Act

The amendments to this Act were primarily enacted for the purpose of creating more flexibility and efficiency in the operation of the agreement between the province and the Government of Canada for the sharing of hospital services insurance costs.

The expression "institution" was broadened to permit more flexibility as to the type of institution providing out-patient services only, which may be included in the cost-sharing program.

Another amendment requires each hospital to submit a monthly return to the Minister of Public Health setting forth its financial transactions and a summary of the hospital services provided by it during the preceding month. This information is required by the Department of Public Health in order that it may, in turn, prepare a monthly report for the Minister of National Health and Welfare pursuant to its agreement with the Government of Canada for the sharing of hospital services insurance costs.

An Act to amend The Marriage Act

This Act was amended so as to permit clergymen residing in any country to perform marriage ceremonies in this province provided that they were registered under the Act. The Act had previously required all clergymen to be resident in Canada in order that they would be qualified to perform marriage ceremonies. This amendment would primarily apply to American clergymen who might occasionally be requested to perform a marriage ceremony while visiting in Saskatchewan on recreation or a preaching mission.

The following enactments were of interest to the Department of Public Health although they are administered by the professional organization charged with this responsibility by the legislature.

An Act to amend The Chiropractic Act

Several provisions were enacted to facilitate the prosecution of an unlicensed practitioner under the Act.

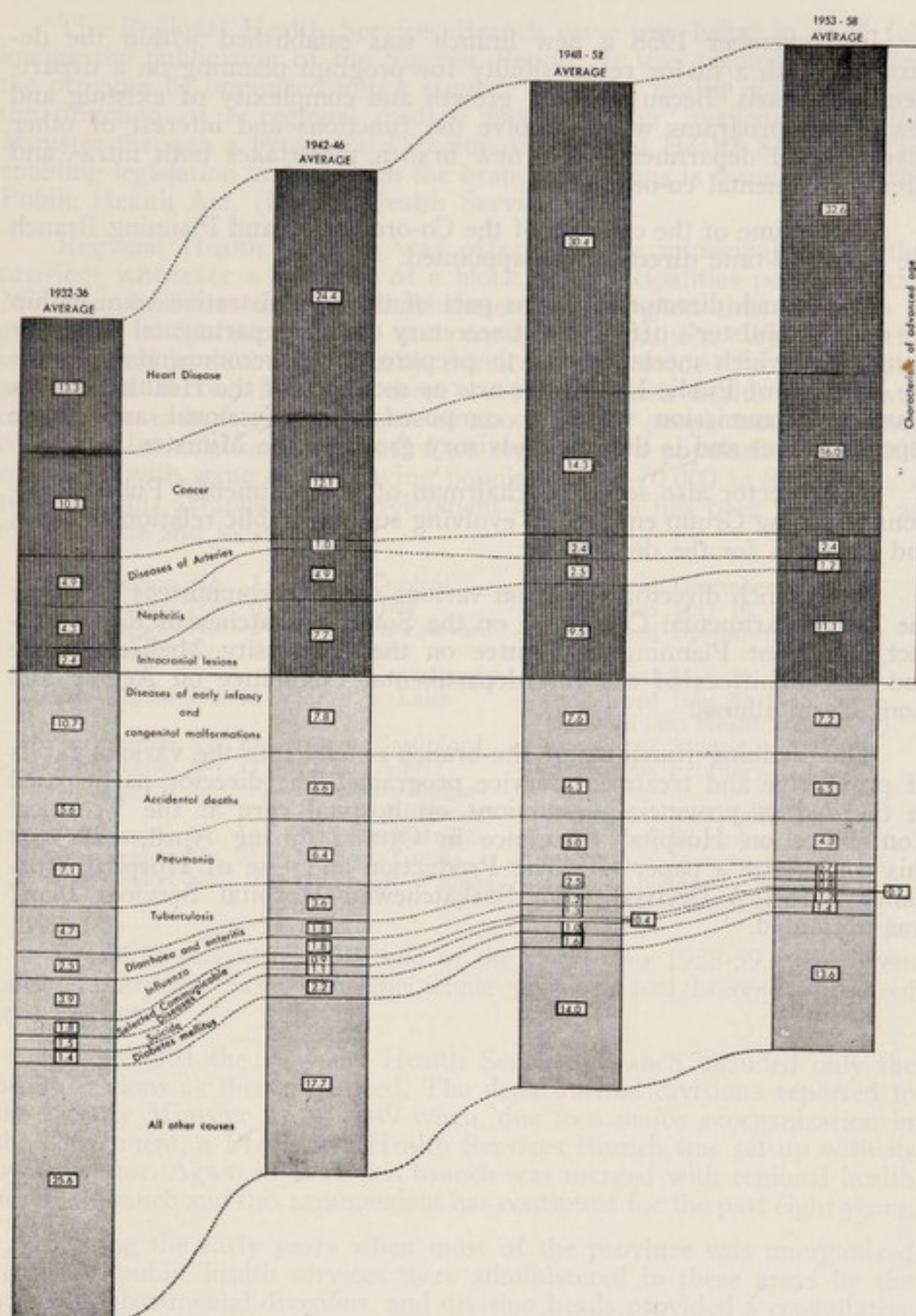
The Dental Profession Act, 1959

This enactment represented a complete revision of the former Act regulating the practice of dentistry in this province.

The expression "dentistry", which had not been defined in the former Act, was defined in the new enactment.

Several new principles were contained in that part of the Act creating offences by persons not qualified to practice dentistry under the Act. The Act does not create an offence for an unlicensed person to alter or repair a denture or other prosthetic appliance for hire, gain, or hope of reward. The other change made by the Act is that an unlicensed person commits an offence under the Act if he directly fits, manufactures, or supplies, a denture or other dental prosthetic appliance unless he obtains a certificate of oral health completed by a qualified dentist or medical physician in respect of the patient. In effect, this provision permits an unlicensed person to deal directly with the patient in connection with the fitting, supplying and manufacturing of a denture or other dental prosthetic appliance, provided that the certificate of oral health be obtained. The Act had not previously permitted an unlicensed person to provide any dental services directly to the patient.

FIGURE 2. PERCENTAGE DISTRIBUTION OF PRINCIPAL CAUSES OF DEATH, SASKATCHEWAN, 1932 TO 1936, 1942 TO 1946, 1948 TO 1952 AND 1953 TO 1958, AVERAGES COMPARED



CO-ORDINATION AND PLANNING BRANCH

In November 1958 a new branch was established within the department with a major responsibility for program planning on a department-wide basis. Because of the growth and complexity of existing and new health programs which involve the functions and interest of other governmental departments, this new branch undertakes both intra- and inter-departmental co-ordination.

At the time of the creation of the Co-ordination and Planning Branch the first full-time director was appointed.

The branch director serves as part of the administrative team within the deputy minister's office. He is secretary of the Departmental Advisory Committee which meets weekly to prepare policy recommendations for the Minister of Public Health. He acts as secretary of the Health Services Planning Commission which is composed of professional and public representatives and is the main advisory group to the Minister.

The director also serves as chairman of a departmental Public Relations Planning Group engaged in evolving suitable public relations policies and activities for the department.

The branch director serves on various external committees including the Interdepartmental Committee on the South Saskatchewan River Project, the Joint Planning Committee on the University Medical Centre and subcommittees of the Interdepartmental Committee on Ageing and Long-Term Illness.

The planning functions of the branch extend into the various facets of preventive and treatment service programs. The director participated in the federal-provincial discussions on hospital care at the Technical Conference on Hospital Insurance in Ottawa during April, 1959. At this conference a paper on "The Production and Use of Hospital Morbidity Statistics Derived from Saskatchewan Hospital Services Plan" was presented.

REGIONAL HEALTH SERVICES BRANCH

The Regional Health Services Branch came into being in 1946 following the publication of the Sigerist Report. It was recommended that the province be organized into a number of large "health regions" under the direction of a regional medical health officer, responsible to the Minister through a Provincial Director of Regional Health Services. The enabling legislation under which the branch functions is found in (a) the Public Health Act, (b) the Health Services Act.

Regional Health Services was offered to the municipalities of the province whenever a majority of a block of municipalities petitioned the Minister. Initiative for the establishment of a region thus lay with a group of co-operating urban and rural municipalities. Whenever the issue seemed in doubt, the Health Services Act provided for a plebiscite and in one or two instances these were held. Each health region was intended to embrace a population of about 50,000 people but in practice considerable variation developed. One region has a population of 28,000 compared with some others having populations of 70,000 to 80,000. As a result of this arrangement, development of regions has been irregular as to both time and location:

Health Region No. 1 — Swift Current	— established December 11, 1945.
Health Region No. 6 — Moose Jaw	— established May 16, 1946.
Health Region No. 3 — Weyburn-Estevan	— established December 11, 1945.
Health Region No. 2 — Assiniboia-Gravelbourg	— established May 26, 1947.
Health Region No. 14 — Meadow Lake	— established July 29, 1946 (since absorbed into Health Region 13).
Health Region No. 13 — North Battleford	— established August 9, 1947.
Health Region No. 12 — Prince Albert	— established February 1, 1951.
Health Region No. 7 — Rosetown-Biggar-Kindersley	— established May 1, 1957.
Health Region No. 10 — Yorkton-Melville	— established December 1, 1957.
Health Region No. 11 — Melfort-Tisdale	— established January 1, 1959.
Health Region No. 9 — Humboldt-Wadena	— 1960 — budgetary provision — not actually established as yet.

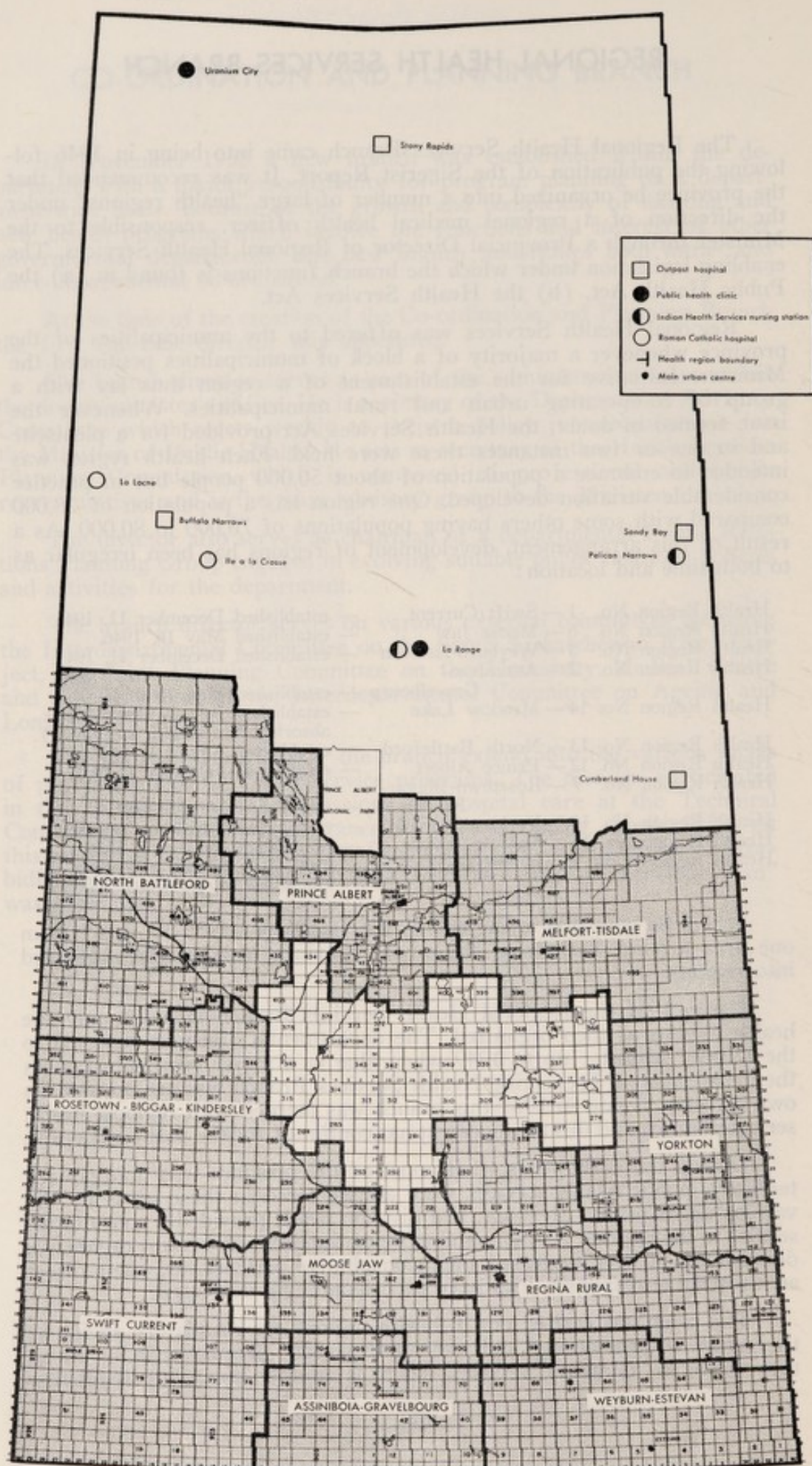
It will be seen that at the end of the fiscal year 1958-59, apart from one area around Saskatoon, the whole province had become organized into regions.

Up to 1951 the Regional Health Services Branch included only the health regions as then organized. The departmental divisions reported to the Deputy Minister up to 1949 when, due to a major reorganization in the department, a Preventive Health Services Branch was set up with its own director. Again in 1951 this branch was merged with regional health services branch and this arrangement has continued for the past eight years.

During the early years when most of the province was unorganized territory, public health services were administered in these areas by the various departmental divisions, and division heads provided a consultative service to the regions. As more and more of the province became organized, division heads have increased their consultative services and their direct administrative responsibilities have correspondingly decreased.

The programs carried out in health regions are mandatory so far as they relate to promotional and preventive service, permissive in so far as they relate to "curative" services. There is another important distinction

FIGURE 3. ORGANIZED HEALTH REGIONS AND PUBLIC HEALTH SERVICES IN NORTHERN AREAS, SASKATCHEWAN, AT MARCH 31, 1959



between these two types of service. The promotional and preventive health services are paid for from provincial funds to the extent of two-thirds with the important proviso that in no case may the direct tax on the co-operating municipalities be more than 50 cents per capita. Where a regional board wishes to introduce "curative" services the necessary taxes must be levied to finance these. The board must also recruit and pay its own employees. However, the provincial health department does make grants-in-aid. At present only two health regions maintain programs of a curative nature.

Organization of Health Regions

Each health region is divided into "health districts", each with its district health council made up of one representative appointed by the respective municipal councils. Each council appoints one or more (number decided by the Minister) representatives who, together, constitute a regional board of health. This board is not the health authority in the region—each municipal council continues to retain this authority as in the past, although the regional medical health officer is the local health officer for each municipality.

Health Objectives

Whenever a health region is established, the department insists that a preventive and promotional service be provided, but it is realized that additional services on the curative side are needed to round out an integrated health service. Nonetheless, to an increasing degree the public is coming to realize that health cannot be achieved merely by providing more efficient and extensive curative services. The regional health services branch endeavours to foster a better appreciation of this viewpoint. It attempts to set up programs that promote positive health. By mobilizing the resources of the community and the individual, protective barriers may be set up against the hazards that surround the latter. At the same time an attempt is made to immunize the individual not only against specific infections such as diphtheria and poliomyelitis but against the stresses brought on by anxiety, competition, poverty, ignorance and unemployment. The well-being of the community is promoted or hindered by many factors of a complex character. It is the objective of the Regional Health Services Branch to play its part in the moulding of the shape of things to come.

Regional Curative Programs

It has become clear to an increasing number of people over the years that the cost of providing an acceptable standard of medical and dental care is very expensive. The cost in any one year for any one person is unpredictable but could be ruinous. Some type of insurance against the cost of care, and particularly medical care, is making an increasing appeal to the public. Experience teaches that an acceptable standard of medical care cannot be provided for all through the individual paying a personal tax or premium. Between what the doctor demands for his services and what the patient can pay there is apt to be a gap which must be made up by some kind of subsidy or grant-in-aid.

Since its inception in 1945 the Swift Current Health Region¹ has closed the gap by levying a property tax to provide some 25 per cent of

¹ Details on the Swift Current Health Region medical care program may be found in the section of this report dealing with programs of the Medical and Hospital Services Branch.

the budget. This, along with some government grants-in-aid has enabled the Swift Current Board to provide both medical care and a children's dental program on a personal levy of \$19 per annum to a single person—\$31 for man and wife, \$40 a family of 3 and \$48 for a family of 4 or more at the present time. Over the years the cost has gone up steadily and the new contract with the medical society to cover services in 1960 envisages a sharp increase.

Health region boards at various times have tried to negotiate contracts with medical societies other than Swift Current, without success. The main stumbling block appears to be the insistence of the Minister upon boards and medical societies recognizing two principles:

- (a) Administration of such a scheme must be in the hands of the taxing body, i.e., the regional board.
- (b) The scheme must be comprehensive in the sense that everyone residing in the region be covered.

Negotiations are continuing and there is a growing appreciation by all parties of what is involved in a workable scheme.

Developments During the Year

In January 1959 the Melfort-Tisdale Health Region was established with the regional health centre located at Tisdale. This brings the total of established health regions up to ten with two more remaining for development.

Planning

During the year headquarters staff in collaboration with regional staffs continued to give intensive study to the quality and extent of the service to various eligible groups. It became apparent that the public was taking increasing advantage of the programs offered. It also became apparent that as 100 per cent "coverage" was approached the staff was totally inadequate to provide the service offered even if no consideration was given to expanding the service in directions not hitherto provided. The old yardsticks of one public health nurse per 5,000 population and one sanitary officer for 15,000 population will have to be revised to meet existing demands.

Prenatal Services

Health officers are giving more thought to this program and the service is expanding, but the number of expectant mothers eligible for the service, and not taking advantage of it, is still too great. More attention is being given to "in-service" training.

Child Health Centres

In every well established health region there is a Child Health Centre not far from the child's home—a centre for every 1,000 population. Attendance is increasing so that instead of the centre operating for half a day once per month with a single nurse in charge, many centres operate for a full day or a day and a half, and require two nurses. In addition to immunization, an educational program is carried on regarding the growth and development of the normal child. No treatment is given at these centres. If the child needs medical care the mother is referred to the family doctor. Child health centres are intended for the infant and

preschool child but there is an increasing tendency for these centres to evolve into "people's health centres", as advice is sought for the whole family.

Immunization

Routine vaccination against smallpox, and immunization against diphtheria, whooping cough, tetanus and poliomyelitis was continued as in former years. Here again determined efforts were made to reach the eligible population. Considerable apathy was experienced among adults in regard to protection against poliomyelitis, but actual checks of random groups in several regions revealed that the number inoculated was greater than at first thought. While sporadic cases of these communicable diseases continue to appear in the population, the absence of epidemics indicates that the level of protection is reasonably good.

Rheumatic Fever Control Program

Penicillin continued to be provided gratis to approved cases of rheumatic fever where a regional program had been established. Programs have been set up in: Swift Current Health Region No. 1; Assiniboia-Gravelbourg Health Region No. 2; Weyburn-Estevan Health Region No. 3; Regina Rural Health Region No. 5; Moose Jaw Health Region No. 6; Rosetown-Biggar-Kindersley Health Region No. 7; Prince Albert Health Region No. 12. Programs were projected but not actually set up in the cities of Regina, Saskatoon and in Yorkton-Melville Health Region No. 10.

In an effort to eliminate streptococcal "carriers", six million units of penicillin were provided to physicians, on request, for cases of scarlet fever and septic sore throat. This service was taken advantage of in the Moose Jaw Health Region and in the Regina Rural Health Region, but to a much less extent in other areas of the province.

Waterworks and Sewerage

Interest in developing water and sewerage systems for the smaller towns and villages continues at a high level. The health regions work closely with the Division of Sanitation in fostering these developments and the province sometimes assists municipalities by purchasing debentures. Much progress is being made, details of which appear elsewhere in this report.

General Sanitation

It is encouraging to report that the importance of providing safe water and safe disposal of human waste is being recognized more and more. Evidence of this is reflected in the "modernization" of homes even on the farm, the increasing number of towns and villages that are providing public waterworks and sewage disposal systems and the keen interest being shown by the government in these schemes. In the health regions the advice of sanitary officers is being sought to an increasing degree so that difficulty is being experienced in meeting the demands for service.

Preventive Dental Services

The wellnigh universal incidence of dental decay continues to be a challenge. The number of dentists available to do curative or "end-result" dentistry decreased and this emphasizes the importance of prevention.

This branch has tried to meet the challenge by dental education in our child health centres and schools by nurses and teachers; dental education by dental hygienists; encouraging fluoridation of communal water supplies; topical application of sodium fluoride to 3-year olds and 7-year olds; and distribution of sodium fluoride tablets to expectant mothers.

During the year more towns added sodium fluoride to their water supplies, and there were fewer losses among dental hygienists. Five regions now enjoy the services of a dental hygienist.

Nutrition Services

The contribution which good nutrition can make to health continues to be emphasized. The department has been successful in recruiting a number of regional nutritionists who, after suitable orientation, have promoted a number of old projects and some new ones: (1) animal feeding projects (2) dietary surveys (3) weight reducing projects (4) investigations into avitaminosis in old people and "teen-agers". Details regarding these activities can be found elsewhere in this report.

The recruitment problem remains unchanged.

Northern Health District

The Northern Health District is a huge area embracing roughly one-half of the province. It has a sparse population scattered at widely separated points. Access is difficult to most settlements except by air, but this situation is improving. Some 17,730 people live in an area of 119,000 square miles.

The department maintains a Medical Health Officer at Prince Albert to supervise health services to the area. There are hospitals at Ile a la Crosse, Uranium City and La Loche. In addition nurse-midwives are stationed at outpost hospitals at Buffalo Narrows, Stony Rapids, Sandy Bay, and Cumberland House. A new hospital is under construction at La Ronge. A public health nurse is stationed at Uranium City.

Private physicians are located at Uranium City and at La Ronge, while the department maintains a physician in residence at Ile a la Crosse.

In addition to the medical services outlined above, routine public health services are provided throughout the area by the medical and nursing staff. Environmental problems in sanitation are supervised by a sanitary officer.

There is no regular dental or optical service, but through the good offices of the Canadian Red Cross, dentists and optometrists do visit some of the settlements from time to time.

During February and March a mobile x-ray clinic operated by the Saskatchewan Anti-Tuberculosis League visited the western half of the Northern Administration District and screened 2,197 persons. Only one active case was discovered, with 332 cases considered "inactive" and 21 "doubtful".

Cost of the Service

An idea of the money spent on bringing a health service to this area may be gained from the following table:

<i>Sub-sub-vote</i>	<i>Approved estimates</i>	<i>Amount spent</i>
Total	\$132,510	\$131,745
General administration	52,240	52,035
Buffalo Narrows	21,950	22,376
Cumberland House	16,770	19,237
Sandy Bay	16,100	15,722
Stony Rapids	18,060	16,226
Uranium City	7,390	6,149

A good deal of money was spent in the improvement and modernization of the various outposts.

Extent of Services

Medical services available at the various hospitals take care of most of the routine cases but the more serious problems have to be transported out of the area for treatment in larger hospitals. Details of this service appear elsewhere in this report.

At the outpost hospitals a unique service is rendered by the resident nurse-midwives. In addition to taking care of normal maternity cases, these women render medical advice and treatment to the best of their ability. They also carry out all the ordinary public health services. An idea of the scope of their activities may be gleaned from the following summary: confinements 108; home visits 3,993; school visits 213; adult office visits 4,816; and days of hospitalization—adult and children 1,785. Six nurses rendered these services.

Immunization

Despite a scattered population every effort was made to bring an immunization service to the people. The following excerpts from the statistics are of interest—primary vaccinations against smallpox 385; primary courses of inoculation with diphtheria-pertussis-tetanus toxin 409; Salk vaccine administered 1,133.

Venereal Disease Control

Venereal disease control has improved in the Northern Health District. Cases are being reported on the prescribed form by the physicians at Ile a la Crosse and La Ronge as well as by the nursing supervisors at the various outpost hospitals. Incidence in 1956 was 136 cases, in 1957—178 cases and 1958—156 cases. These figures include one case of secondary syphilis in 1956 and two cases of latent syphilis in 1958.

Every effort is being made to locate and treat contacts. Reports of the contact investigations are forwarded to the Division of Venereal Disease Control.

TABLE 1. PUBLIC HEALTH NURSING SERVICES IN THE ORGANIZED HEALTH REGIONS AND IN NURSING SERVICES DISTRICTS, SASKATCHEWAN, FISCAL YEAR 1958-59

Type of service	Provincial total	Regional total	Health Region								Nursing services district		
			Swift Current	Assiniboia-Gravelbourg	Weyburn-Estevan	Regina Rural	Moose Jaw	Rosetown-Biggart-Kindersley	Yorkton-Melville	Melfort-Tisdale*		Prince Albert	North Battleford
Visits													
Homes visited.....	26,192	25,344	2,899	1,577	1,866	3,522	2,488	1,992	2,631	268	4,698	3,403	848
Child health conferences.....	5,864	5,727	677	216	679	1,064	440	620	567	40	627	797	137
Maternal and child health													
Prenatal (mother seen in home or office).....	3,313	3,245	485	206	115	767	87	175	182	40	675	513	68
Postnatal (to one month).....	1,962	1,919	94	7	237	277	15	127	39	---	50	1,073	43
Women seen in hospitals.....	6,271	6,167	712	437	393	574	1,380	217	258	27	1,174	995	104
Newborns (to one month).....	6,428	6,364	734	430	479	517	1,410	223	259	28	1,168	1,116	64
Number seen in home or office.....	5,717	5,447	689	218	685	724	207	464	712	105	791	852	270
Infants (one month to one year).....	53,862	52,682	7,068	3,240	6,592	8,103	4,947	4,999	4,199	304	6,043	7,187	1,180
Number seen in home.....	12,118	11,547	1,848	410	664	1,684	761	1,087	1,210	271	2,188	1,424	571
Number seen in child health and other centres.....	68,401	66,374	8,776	2,595	7,753	11,255	4,945	7,843	7,724	482	7,368	7,633	2,027
Preschool children													
Number seen in home.....													
Number seen in child health and other centres.....													
School child services													
Number of first visits to schools.....	2,268	2,212	200	83	165	397	255	106	421	12	274	299	56
Number of other visits and calls.....	4,058	3,974	490	91	229	413	373	331	579	54	799	615	84
Number inspected by R.M.H.O.....	1,340	1,340	---	---	134	406	732	---	63	---	5	---	---
Number inspected by general practitioner.....	51	51	---	---	---	51	---	---	---	---	---	---	---
Parents seen regarding school health problems.....	20,610	19,635	2,809	580	1,194	2,956	1,763	2,727	3,139	323	2,518	1,626	975
Special services													
Mental health													
Visits on behalf of adults and children.....	925	832	112	80	17	202	56	66	46	9	127	117	93
Tuberculosis control													
Visits on behalf of adults and children.....	193	190	5	13	23	58	13	4	33	---	2	39	3
Physical disability													
Visits on behalf of adults and children.....	1,311	1,240	173	49	102	181	89	40	195	10	200	201	71
Adult health problems.....	7,539	7,416	1,109	178	594	1,463	152	297	952	40	1,367	1,264	123
Infectious hepatitis.....	1,155	1,155	56	26	53	783	64	15	119	---	37	---	---
Rheumatic fever.....	1,215	1,215	258	133	119	415	195	11	2	---	80	2	---
Streptococcal infection.....	418	418	31	22	14	278	57	1	---	---	13	2	---

General disease control																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
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*Melfort-Tisdale Health Region No. 11 was established January 1, 1959.

TABLE 3. EXPENDITURES FOR PUBLIC HEALTH SERVICES IN THE ORGANIZED HEALTH REGIONS, SASKATCHEWAN, FISCAL YEARS 1952-53 TO 1958-59

Health Region	1952-53*	1953-54†	1954-55‡	1955-56‡	1956-57‡	1957-58‡	1958-59‡
Total.....	\$420,269	\$535,035	\$644,528	\$699,124	\$732,650	\$935,644	\$1,167,886
Swift Current No. 1.....	68,637	85,130	91,689	101,673	103,962	117,305	122,348
Assiniboia-Gravelbourg No. 2..	48,542	51,236	53,610	52,257	47,785	51,298	51,543
Weyburn-Estevan No. 3.....	62,987	87,114	94,951	95,368	101,378	119,952	130,827
Regina Rural No. 5.....	28,404**	79,325	115,322	141,607	156,693	163,897	170,892
Moose Jaw No. 6.....	46,648	64,668	78,409	83,353	78,180	96,175	107,391
Rosetown-Biggar-Kindersley No. 7.....	.....	.....	.....	.....	.....	91,913††	102,216
Yorkton-Melville No. 10.....	.....	.....	.....	.....	.....	45,329††	138,271
Melfort-Tisdale No. 11.....	.....	.....	.....	.....	.....	.....	40,403††
Prince Albert No. 12.....	74,433	73,184	94,036	105,366	109,771	128,467	141,175
North Battleford No. 13.....	83,004	87,865	109,482	112,556	124,327	121,308	162,820
Meadow Lake No. 14.....	7,614	6,513	7,029	6,944	10,554	11,450‡	.....

*In the Weyburn-Estevan, Regina Rural, Prince Albert, and North Battleford health regions, expenditures under national health grants programs are included for 1952-53.

†All regions except Assiniboia-Gravelbourg and Meadow Lake participated in the national health grants program in 1953-54. Grant expenditures are included in the figures shown.

‡All regions (except Meadow Lake and Melfort-Tisdale) received national health grants in these years and the amounts are included in the figures shown.

**December 1, 1952 - March 31, 1953

††Rosetown-Biggar-Kindersley Health Region No. 7 was established May 1, 1957, and Yorkton-Melville Health Region No. 10 on December 1, 1957.

‡‡Melfort-Tisdale Health Region No. 11 was established January 1, 1959.

‡Meadow Lake Health Region No. 14 was absorbed into North Battleford Health Region No. 13 April 1, 1958.

CHILD AND MATERNAL HEALTH SERVICES

In 1958 the Division of Child Health completed 10 years as a separate establishment endeavouring to place special emphasis on promotion of health and prevention of disease for that special group in the population especially vulnerable because of growth and development, namely children before birth and throughout the growing years, and pregnant women. It is of interest to trace some of the major changes and the remaining unchanged features of the decade. The division was established initially only as a crippled children's section, using the new national crippled children's grant. This was a small beginning in rehabilitation in a small health department. There were also some provincial funds for poliomyelitis but the emphasis was on diagnosis, treatment, and rehabilitation. Other divisions of the Department of Public Health were busy operating an air ambulance service and building hospitals which contributed to good diagnosis, treatment and rehabilitation, including that of children.

In 1952 and 1953 there were large poliomyelitis epidemics in the province with a heavy burden of residual paralytic poliomyelitis patients. Partly because of these developments, the Division of Physical Restoration was established in 1953 and both federal and provincial funds then in the Division of Child Health were transferred. This transfer of funds and major responsibility enabled the director to give much more emphasis to health promotion and specific protection. Already qualified as a specialist in paediatrics, he obtained qualifications in public health and went on to recruit a specialist in obstetrics who has since qualified in public health, and a nursing consultant with both extensive experience in hospital nursing and public health nursing, and also with a Master's degree. The reorganization of the entire health department incorporating the older small department and the more recently developed Health Services Planning Commission made it relatively clear that the Child Health Division must be ready to advise a variety of well organized separate divisions and branches. In one division recommendations led to a greatly simplified immunization program abandoning the use of scarlet fever toxin and introducing the use of several combined antigens. Assistance with the development of a good rheumatic fever prophylaxis program in one region conducted jointly by the local health department and medical society, has served as a model for similar developments in other regions. Based on agreement with health regions, large base hospitals, and a College of Physicians and Surgeons committee, besides the work of the Physical Restoration Division, there were maintained two centres for acute serious respiratory poliomyelitis. The elaborate organization required for these units once heavily used, is so little needed now that they operated on a standby basis in 1958, there being only one case of poliomyelitis in the entire province.

Other developments to which the division has contributed have been the expansion of full-time public health regions (and of course a full-time branch directorate) from six when the division was established to at present eleven; increased teaching, research, and consultation about the broad field of child and maternal health in the College of Medicine and the School of Nursing at the University; and more recently the development of a full-scale Department of Social and Preventive Medicine to teach medical students, nurses and others the nature of public health practice and its impact on medicine and nursing.

There has been a shift in the work of the division toward increased community organization and liaison and special studies. The director is a member of the new Advisory Committee in Child and Maternal Health to the Minister of National Health and Welfare as arranged by the Federal Chief of Child and Maternal Health. The Canadian Conference on Children in 1960, has the nursing consultant as the prairie member of the central steering committee, and the division director is director of one of the national project studies and chairman of the Saskatchewan committee. Nineteen fifty-six saw the development of a standing committee on child and maternal health of the College of Physicians and Surgeons of Saskatchewan with the director a member, both in the initial working party stage and in the permanent committee. This has led to greatly increased joint interest in special studies. Arising from this a confidential study of maternal mortality and the first phases of an elaborate perinatal mortality study have developed, with the medical consultant in maternal health in the division acting as the full-time secretary and also enquirer for the studies.

Despite these several and important developments of the decade there still remains a number of features unimproved in the over-all child and maternal health programs in Saskatchewan. In general there is poor systematic community-wide marriage preparation for child rearing and family life. There is still a high death rate due to accidents which continue to lead the field in the childhood years. There is still professional and parental ignorance of family function and child rearing. There is still a high proportion of infant deaths due to prenatal factors and prematurity. Indian mortality has dropped considerably but is still much above non-Indian infant mortality.

The following table shows that death rates in Saskatchewan are fairly low compared to Canada and the world. Ten years ago the Saskatchewan maternal mortality rate was 1.0 per 1,000 live births (and for Canada 1.5) and by 1957 in Saskatchewan it was 0.2 and in Canada 0.5. Ten years ago infant mortality in Saskatchewan was 40.2 and in Canada 44.0. Now in Saskatchewan it is 25.5 per 1,000 live births and in Canada 31.0. The mothers and children who died to make up these rates number in the hundreds and thousands. We know many such deaths are preventable with the knowledge we already have, were it systematically and properly applied.

Item	1948 RATES				1957 RATES ¹				1958 RATES
	Saskatchewan	Canada	World lowest	World highest	Saskatchewan	Canada	World lowest	World highest	Saskatchewan
Marriage ²	8.4	9.6			7.4	8.0			7.3
Live births ²	25.2	27.0	17.2 ³	57.5 ⁴	27.2	28.3	12.0 ⁵	49.7 ⁶	26.9
Maternal mortality ⁷	1.0	1.5			0.2	0.5			0.5
Stillbirths ⁷	16.1	19.7			11.7	14.6			11.2
Neonatal mortality ⁷	22.7	26.0			16.0	20.0	11.9 ⁸	38.0 ⁹	17.8
Infant mortality ⁷	40.2	44.0	22.8 ⁹	199.0 ¹⁰	25.5	31.0	17.1 ¹¹	117.7 ¹²	25.9

¹ 1957 figures are the most recent comparable final figures. World figures are those presently available from World Health Organization publications.

² Rate per 1,000 population.

³ Austria.

⁴ Egypt.

⁵ Uruguay.

⁶ Guatemala.

⁷ Rate per 1,000 live births.

⁸ Netherlands.

⁹ New Zealand.

¹⁰ Roumania.

¹¹ Sweden.

¹² Chile.

A publication last year of the World Health Organization says in part "... It is recognized that the health of mothers and children is closely related to general health of the community and to the social, economic and cultural background of the country as a whole. All measures which improve the general public health will benefit mothers and children ... but, unlike other segments of the population, mothers and children are exposed to the processes of reproduction and of growth and development. Consequently, public health programs must include measures directed to meeting these special needs." The following paragraphs will outline a little of the detail of how the division has worked in the past year.

Education and Consultation

All three professional members of the division carry a steady program of education and consultation within the department, to other government agencies, to hospitals, and to the public. These include visits to the several regions for staff conferences, and for education and discussion about such things as prenatal classes, hearing conservation, home institutional care of retarded children, child and maternal health service statistics, and public health follow-up of premature babies discharged from hospital. Guides were prepared on infant feeding, and preparation of infant formulae. The division prepared a whole new section on immunization for the public health nurses' manual and for a similar manual currently being prepared by Indian Health Services. A uniform poster was designed for regions publicizing prenatal classes. Other consultations were with the Division of Physical Restoration in the revision of a physicians' referral form for crippled children, and with several hospitals regarding staphylococcus control, and also the management of maternity and newborn space either existing or being constructed. These were sometimes with the Division of Hospital Administration and Standards and sometimes with the hospital directly. The Saskatchewan film censor asked for assistance in some censoring of pertinent films. Among the suggestions which came for comment was a request to the Premier by a judge for more extensive medical requirements in the premarital health examination.

The director continued as a formal consultant to the Child Welfare Branch of the Department of Social Welfare regarding health supervision of government wards, and placement of children with particular health problems. He continued to give the basic course in maternal and child health care for the University School of Nursing.

Co-ordination and Liaison

Together with the university and the College of Physicians and Surgeons a refresher course in paediatrics and obstetrics was conducted, primarily for rural family physicians. One hundred and forty-three doctors attended, and of these 67 were rural doctors. Eighty-four nurses and internes also attended. An innovation was a largely attended joint meeting with the Saskatchewan Branch of the Canadian Public Health Association, chaired by the director, with a panel discussion on the family doctor and the health department.

This first course was held at the Regina General Hospital. A second course at the end of 1958 at the University Hospital brought 111 physicians—78 from out of the city.

The division in conjunction with the Nutrition Division and the University Department of Paediatrics, commenced a special clinical study of the isolated northern community of Pine House, with a view to

demonstrating the existence of nutritional deficiency. A team visited the settlement, carried out examinations in detail, conducted a diet enquiry, and submitted laboratory specimens to the Federal Nutrition Division Laboratory. Extensive interest was shown by the local community in the nutrition improvement brought about by the addition of a nutrition supplement to the diet. Several parts of this project will be published and it is expected to be concluded in 1960.

The Regina and District Medical Society has embarked on a joint program with the local T.V. station having physicians discuss various topics of interest to the general public. The division has shared in the preparation and participation of these programs.

As a provincial representative the director is a member of the new national Advisory Committee in Child and Maternal Health, and the medical consultant is a member of its sub-committee on hospital standards.

The National Advisory Committee for the 1960 Canadian Conference on Children, together with the Steering Committee, asked the director to be the Saskatchewan chairman for a Saskatchewan committee to parallel similar committees in nine other provinces in preparation for the 1960 conference. The membership of the present Saskatchewan committee will illustrate the breadth of its membership and interest. The members are the Director of Curricula, the Director of Child Welfare, the director of a crippled children's program, the Associate Professor in Public Health Nursing at the University, the director of a mental health clinic, a world renowned member of the Saskatchewan Homemakers, the Nursing Consultant in this division, an Archdeacon, a prominent lawyer, the Provincial Co-ordinator of Rehabilitation, and a Professor of Education. Meetings are held regularly and work is going ahead obtaining answers in Saskatchewan for 17 questionnaires designed for country-wide application, the findings to be presented at the conference in 1960.

Other requests for assistance included an outline on the elements of prenatal care for the Homemakers study program, from the mayor and public health staff of Saskatoon city, from the Child and Maternal Health Committee of the College of Physicians and Surgeons for a new post-partum exercises leaflet which was prepared by the division and published by the Health Education Division for distribution to doctors. The "hospital to public health referral form" for premature infants is no longer issued by the division but has been established as a permanent record of the Regional Health Services Branch. Requests for information came in from other provinces.

The Canadian Medical Association has a section for salaried physicians and the director was elected chairman for the Saskatchewan group for the current year.

Special Studies

1. *Maternal Mortality*

A maternal mortality study, a joint undertaking of the College of Physicians and Surgeons and this department resulted in a questionnaire being completed either by the division director or the medical consultant, for 19 maternal deaths. Some of these, after detailed study by the division, proved to be non-obstetric but all were presented anonymously for clinical evaluation by the standing college committee on child and maternal health.

2. Perinatal Mortality

A new manual was written by the division and distributed to each of the 17 co-operating hospitals. A particular physician was chosen to head this up in each of the hospitals and to see that all stillbirth and neonatal death data were entered on a copy of the new form, with an evaluation on preventability and cause by the local hospital committee, before submission to a Regina study committee, and then the sub-committee on perinatal mortality of the College.

3. Salk Vaccine Failures

Together with the Provincial Laboratories the division continued to study intensively all alleged Salk vaccine failures. Of 11 patients studied there were no instances of Salk vaccine failure. Four patients had no failure or reaction despite rumours which led to their inclusion early in the study. Five fully vaccinated patients were proven to have no poliomyelitis. One unvaccinated person was proven to have paralytic poliomyelitis, and one partially vaccinated person was proven to have non-paralytic poliomyelitis.

Child and Maternal Health Grant

As in the past the child and maternal health grant has been used for paediatric and obstetric equipment for selected hospitals, nursing institutes, postgraduate refresher courses for doctors, an assistant to the Regina City Health Officer, salaries and travel for the medical consultant and nursing consultant in the division, and for research at the University. New items this year were the salary of an orthoptic technician at the University Hospital for a preventive program for children, and for postgraduate training in public health for the medical consultant.

COMMUNICABLE DISEASE CONTROL SERVICES

The Division of Communicable Disease Control maintains a record of notifiable communicable diseases, acts as an information centre for doctors and health officers in the field, and transmits epidemiological data to the federal authorities.

The division provides the necessary administrative machinery for the free distribution of certain vaccines and sera to health regions and private physicians.

The division also administers the regulations governing the care of the dead.

Administration of Regulations

As in the past this division continued to operate under the Regulations Governing Control, Notification, Prevention and Treatment of Communicable Disease. Only important communicable disease is now reported but health officers are expected to notify the occurrence of unusual disease and epidemics of all communicable disease.

Under reported cases it will be seen that infectious hepatitis heads the list with 943 cases, slightly more than last year (929). Now that staphylococcal infections in hospitals are notifiable the widespread character of this problem becomes apparent.

In 1958 there was a resurgence of scarlet fever with 240 cases reported. The disease was mild in character with no deaths.

Tuberculosis

The number of reported cases and deaths continued to decline reflecting the altered situation in regard to this disease. In 1957 there were 344 cases reported, with 31 deaths. This year the case incidence fell to 307 with only 23 deaths.

Gastro-intestinal Infections

Gastro-enteritis continues to be reported as an important cause of death (45) although only 55 cases were reported. The 5-year table gives the picture:

<i>Year</i>	<i>Cases</i>	<i>Deaths</i>
1954	165	77
1955	199	40
1956	133	45
1957	123	33
1958	55	45

This situation can only be regarded as an area of ignorance. Doubtless gastro-enteritis was a prominent symptom in all these cases but the true cause of death was probably unknown.

Typhoid Fever

There were no typhoid deaths but 10 cases were reported as against seven last year.

Other salmonellae, Bacillary dysentery, Shigellae infections

These infections are all endemic in the province. There were no deaths but the reported incidence remains much the same as reported last year. Unless the patient is a food-handler no special restrictions are imposed.

Influenza

Outbreaks of influenza occurred as in previous years. Various strains including "Asian like" were isolated but on the whole illness was less severe.

Poliomyelitis

We had a favourable experience with this disease in 1958. One case of paralytic poliomyelitis and two non-paralytic cases were reported. Type I was isolated.

Salk vaccination

Table 4 shows the picture as at December 31, 1958.

Rare Diseases

One case of anthrax developed. The organism was recovered but the source was not identified. Brucellosis again contributed one case and there was one case of psittacosis.

Diphtheria

Three cases of diphtheria, with one death were reported this year.

Rheumatic fever control program

Regional programs continued to expand. There are now eight programs in existence. This division distributed free penicillin and the following table gives the details:

	Code	Description	Number of tablets	Number of units	Cost
Total			—	40,579,450,194	\$6,138.36
Oral	Pentids	12x200,000 unit tablets	8,760	1,752,000,000	665.42
	P.G.A.	100x444,250 unit tablets	87,400	38,827,450,000	5,083.00
Parenteral	Bicillin	1x2 c.c. disposable syringes	—	194	389.94

TABLE 4. NUMBER OF PERSONS IMMUNIZED AND PER CENT COVERED UNDER THE SALK VACCINATION PROGRAM AS AT DECEMBER 31, 1958

Health region, district or city	Estimated eligible population*	Dose			Per cent coverage		
		First	Second	Third	First	Second	Third
Provincial coverage.....	596,500	488,631	446,650	380,966	81.9	74.9	63.9
Swift Current No. 1.....	36,625	30,800	28,877	24,822	84.1	78.8	67.8
Assiniboia-Gravelbourg No. 2..	19,358	17,451	16,616	15,359	90.1	85.8	79.3
Weyburn-Estevan No. 3.....	39,107	34,855	31,189	28,352	89.1	79.8	72.5
Regina Rural No. 5.....	51,321	46,108	44,534	38,579	89.8	86.8	75.2
Moose Jaw No. 6.....	36,683	32,819	31,296	18,632	89.5	85.3	50.8
Prince Albert No. 12.....	45,739	35,776	31,766	27,641	78.2	69.5	60.4
North Battleford No. 13.....	52,397	46,455	41,932	36,419	88.7	80.0	69.5
Northern Health District.....	9,897	6,438	5,283	3,114	65.1	53.4	31.5
Nursing districts (includes Rosetown and Yorkton health regions).....	190,916	144,170	129,533	114,382	75.5	67.8	59.9
Regina city.....	64,043	52,405	48,483	41,326	81.8	75.7	64.5
Saskatoon city.....	50,414	41,354	37,141	32,340	82.0	73.7	64.1

*Based on 1956 census.

TABLE 5. REPORTED CASES AND DEATHS DUE TO NOTIFIABLE COMMUNICABLE DISEASE, WITH RATES PER 100,000 POPULATION, SASKATCHEWAN, 1958

Disease	Cases			Deaths		
	Number	Rate	Per cent of notifiable cases	Number	Rate	Per cent of total deaths
Total.....	2,211	249.0	100.0	84	9.4	100.0
Anthrax.....	1	0.1	*	.....	.....	.....
Brucellosis.....	1	0.1	*	.....	.....	.....
Diphtheria.....	3	0.3	0.1	1	0.1	1.2
Dysentery-bacillary.....	28	3.2	1.3	.....	.....	.....
Encephalomyelitis.....	7	0.8	0.3	1	0.1	1.2
Gastro-enteritis.....	55	6.2	2.5	45	5.1	53.5
Hepatitis-infectious.....	943	106.2	42.7	6	0.7	7.1
Meningococcal meningitis.....	8	0.9	0.4	3	0.3	3.6
Pertussis.....	82	9.2	3.7	3	0.3	3.6
Poliomyelitis.....	(3)	(0.3)	(0.1)	.....	.....	.....
(a) with paralysis.....	1	0.1	*	.....	.....	.....
(b) without paralysis.....	2	0.2	0.1	.....	.....	.....
Psittacosis.....	1	0.1	*	.....	.....	.....
Rocky mountain spotted fever.....	1	0.1	*	.....	.....	.....
Salmonella.....	20	2.3	0.2	.....	.....	.....
Staphylococcal infections.....	358	40.3	16.2	2	0.2	2.4
Streptococcal infections.....	370	41.7	16.8	.....	.....	.....
Trichinosis.....	11	1.3	0.5	.....	.....	.....
Tuberculosis.....	(307)	(34.6)	(13.9)	(23)	(2.6)	(27.4)
(a) pulmonary.....	243	27.4	11.0	21	2.4	25.0
(b) other forms.....	64	7.2	2.9	2	0.2	2.4
Typhoid and paratyphoid fevers.....	10	1.1	0.5	.....	.....	.....
Typhoid carriers.....	2	0.2	0.1	.....	.....	.....

*Less than 0.05 per cent.

DENTAL HEALTH SERVICES

Although there may exist a difference of opinion as to the impact of dental health on society as a whole, there can be no disagreement with the statement that dental disease in Saskatchewan continues to be widespread, and, in general, is increasing in both prevalence and incidence. While some diseases like smallpox, tuberculosis and poliomyelitis have been eradicated or considerably checked in Saskatchewan, dental illness has been increasing steadily, the two important factors associated with this increase being the acute shortage of dentists and the dietary habits of the people.

Health departments, being conscious of the impact of dental disease on the general health of the public, have been promoting and adopting the following three methods for its control:

1. Repair the damage to the individual tooth by means of a filling and replace lost teeth by various artificial devices.
2. Attempt to educate the public in the control of diet and improvement of oral hygiene practices as a means of preventing disease in the first place.
3. Apply techniques of a community nature, which have recently been demonstrated to have absolute preventive values, without effort on the part of the individual.

Dental Programs

Various dental surveys conducted in recent years by different authorities, verify that adults receive more adequate dental attention than do children. Recognizing this fact and appreciating the value of early treatment, various localities in Canada have launched programs for child dental care and treatment. In Saskatchewan because of the shortage of sufficiently qualified dentists and the lack of willingness on their part to devote their abilities to the somewhat limited field of children's dentistry, a treatment program for children on a comprehensive scale could not be put into practice. The two children's programs started previously have, however, continued through the past year.

It is difficult to assess in concrete statistical terms the benefits received by the section of the population covered by such programs. It is obvious, however, that in the course of time if such programs are allowed to operate, the future adult dental health of the children concerned is bound to show improvement. In dentistry a tooth saved is comparable to a life saved through a course of immunization or through the purification of a water supply.

Dental Health Education

Health education is another important aspect of the program for prevention of tooth decay. There is a mass of evidence to indicate that diet is an important factor in dental health or disease. During the developmental period, adequate minerals are required to be built into the teeth; later, care should be taken to prevent the destruction of the protective layer of enamel by acid attack from a variety of highly attractive foods and food accessories. The knowledge and practical application of proper nutrition can do much to improve the dental health of the individual.

The most vivid example available to us, comes from the United Kingdom and Norway, in the compulsory restrictions of war-time rationing. In both countries, in a period of five years, the tooth decay rates of children entering school dropped 50 per cent.

Oral hygiene practices can be vastly improved and to an extent may counteract risks from decay producing diets, if consistently practiced.

An assessment of the effectiveness of the various media of health education present a practical difficulty. From actual observation it is gathered that in a given period of time only a segment of the population is reached and persuaded to put into practice the preventive measures of purely individual and personal character. It is phenomenal that dental decay increases individually or nationally as the standard of living rises. There appears to be a strong link with what food is eaten. Food can be deficient in minerals and at the same time produce acid in the mouth which can dissolve the insufficient mineral from the tooth already weakened by deficiencies in the diet. As a remedy two alternatives may be suggested, (1) to live on unprocessed food or (2) to replace the deficiencies necessary for health. The second is being pursued on many fronts.

Measures to Restore Mineral Deficiencies

Mineral supplements to restore mineral deficiencies in modern diets are of more recent application, of which fluoride has been shown, by over a quarter century of research, to be of direct benefit as a preventive of tooth decay.

Although considerable progress has been made in persuading local authorities to adopt this measure, much remains to be done. With the exception of some unjustified opposition, all reports received from world-wide fluoridation projects, indicate favorable results and show no proof of ill-effects even after 12 or more years of use. Moreover, careful scientific studies at autopsy of persons exposed to fluoride in water for a lifetime reveal no disease or pathology attributable to that supplement.

It may be pointed out that today more than one million Canadians are using fluoridated water. Nine communities with a total of 68,000 people started using fluoridated water during 1958. In total, water fluoridation is in effect in 39 Canadian communities with populations totalling about 1,028,000. In the United States, fluoridation benefits 1,762 communities covering 34,600,000 people.

Raising the level of fluoride via the water supply to a beneficial level, involves no effort on the part of the individual. However this measure has the drawback that the equipment and the controls are necessarily restricted to localities with a piped communal water supply. For this reason, in rural localities some other method is required to make the fluoride available. Although involving much more personal attention by parents, the Department of Public Health has sponsored a project whereby fluoride in tablet form can be made available to those interested, through the organized health region services. Fluoride content of existing water supplies must first be determined in each individual case. It is interesting to note that many areas in Saskatchewan have been found to contain optimal amounts of fluoride, not hitherto known. Others have amounts which require little supplementation to raise the total intake of fluoride to the appropriate level. The health department endeavours to make certain that all persons convinced of the value of fluoride as a diet supplement will be provided with this element of protection, irrespective of cost or location.

PUBLIC HEALTH NURSING SERVICES

The function of the Division of Public Health Nursing is to assist in the development of the public health program as directed by departmental policy. To accomplish this, the director works closely with the director of the Regional Health Services Branch and with other divisions, departments and agencies.

The director and two nursing consultants provide a consultant service to the medical health officers and regional nursing supervisors in the organized health regions and to nurses in districts outside of health regions. They keep in close touch with general nursing activities by acting on committees of the Saskatchewan Registered Nurses' Association, by assisting with the teaching program in training schools for nurses, and in training of public health nurses at university.

With the formation of the Melfort-Tisdale Health Region the area outside of health regions is considerably reduced much to the satisfaction of this division, since without regional organization it is not possible to give other than a minimum of public health nursing service.

Recruitment

The problem of maintaining a sufficient number of nursing staff to satisfy the increasing demands for service is one of constant concern. The type of nurse required is above the average in ability and personal attributes, and such nurses are in great demand for positions of authority in other agencies.

Increased competition is to be expected and it is time that thought was given to making the position of the public health nurse in Saskatchewan more attractive.

Many of the locations in which it is desired to station nurses are in small towns or villages where suitable living accommodation is hard, or even impossible, to obtain. If a good dwelling place could be provided, one of the difficulties in recruiting would be eliminated.

The present situation has been alleviated, in some measure, by the employment of married nurses already resident in the area, and without whose much appreciated help the program could not have been brought into these districts. During the fiscal year appointments totalled 45 and resignations 33.

Allocation of Staff at March 31

Total	133
Director	1
Consultants	2
Public health nurse I in areas outside regions	4
Northern Health District—	
Supervisor of Northern Health District	1
Supervisors of outpost hospitals	4
Public health nurses I	2
Health regions—	
Public health nurse III—regional nursing supervisors	10
Public health nurse II	5
Public health nurse I	90
University leave	9
Other leave	5

It will be noted that some titles have been changed. The positions previously referred to as Field Supervisors are now known as Consultants, and the nurses once entitled Senior Nurses are now known as Regional Nursing Supervisors. The new designations better describe the function of these nurses.

It is pleasing to note that five regions now have established positions for a public health nurse II, who is mainly concerned with staff training and as assistant to the regional nursing supervisor.

Qualifications of Staff

The actual number of qualified personnel is about the same as last year. There have been some losses but with the return of nurses from university in a few months, the losses will be made up again. The proportion of qualified nurses is not increasing and it is fortunate that some qualified nurses can be obtained each year through the offer of bursaries.

The qualifications of the present staff were as follows:

Total	133
Certificate in public health nursing	42
Bachelor of Science in Nursing	4
Masters degree in public health nursing	1
Bachelor of Nursing, nurse-midwifery and certificate in public health nursing	2
Nurse-midwifery and certificate in public health nursing	1
Queen's nurse and nurse-midwifery certificates	3
Administration and certificate in public health nursing	3
Health visitor's and nurse-midwifery certificates	3
Bachelor of Arts and certificate in public health nursing	1
Bachelor of Science in Nursing and certificate in public health nursing	2
Bachelor of Nursing and certificate in public health nursing	1
Nurse-midwifery certificate	4
Registered nurses	66

University Training under the Dominion-Provincial Grant

Ten nurses completed university courses in public health in June 1958, and nine nurses are presently enrolled and will be returning to districts in June 1959.

Administrative and Supervisory Report

The consultants gave considerable time to the health regions. Relief was provided to one region in the absence of the regional nursing supervisor. Training for new staff nurses was given in three regions.

All regions were visited several times by either, or both, the director or consultants.

Three outposts were visited by the director during the winter.

Nursing Education

A series of classes was given to senior nursing students in each of ten training schools for nurses by the two consultants and three regional nursing supervisors. This service is becoming heavier, and recently requests have been received for the provision of field experience for some of the instructors in schools of nursing. This is most desirable, but present resources do not permit extension of the division's services to include it.

Field Experience for University Students

Fifteen nurses were given field experience to complete their public health studies. Periods were mainly for four weeks. Four students required only three weeks.

This service involves general arrangement and supervision by a consultant who works closely with the instructor at the university, the regional nursing supervisor and the field guide. The student is given every possible help to make the experience valuable.

In-Service Education

The consultants have been much in demand to help regional staff in educational programs at the regional level. Sometimes they have actively participated in conferences.

A special unit of education was arranged for nurses whose family responsibilities make university training impractical. This was a two-week course held at Valley Centre, Fort Qu'Appelle, in February, and 19 nurses attended.

The course was conducted by the consultants of the Division of Nursing Services and Child and Maternal Health. One of the teacher psychologists gave one unit of instruction.

The nurses participated with interest and enthusiasm. In their evaluation of the course it was evident that they felt that they had benefitted considerably.

The report of regional medical health officers and supervisors indicated that the nurses returned to work with increased understanding and appreciation of the public health program. It is hoped to repeat this program in the coming year.

Conferences

One meeting of regional nursing supervisors with the director and consultants was held which was very useful and much appreciated by all. With constant changes of personnel and of programs, it is felt by many that more frequent combined conferences of the regional supervisory personnel with the director of regional health services and the directors of other divisions would be of great value to all concerned.

Areas Outside of Health Regions

The most complete service given in these areas was that of the poliomyelitis immunization program under the direction of one of the consultants, and with the help of registered nurses employed as casual help the vaccine was offered to the entire area.

The report of the vaccine given appears on the statistical returns. The amount of nursing time and effort given to this service in proportion to other services is quite high, but until all the area is in regions this remains the most urgent of many needs.

These nurses have worked under considerable difficulty with a minimum of assistance and have in this one service alone, accomplished much. They deserve the grateful thanks of the public and of this department.

NUTRITION SERVICES

The Nutrition Division is primarily a consultant service whose aim is to make the population recognize the role which good nutrition can play in the well-being of individuals. This is being achieved through regional nutritionists who carry out various programs and use such media as radio, television and newspapers.

To accomplish this aim the director works closely with the regional nutritionists, other members of the public health staff and various government departments and agencies.

During the fiscal year an orientation program was established by the division and two new regional nutritionists were recruited and orientated. Although women with degrees in Home Economics and dietetic internship or teacher training are necessary for such posts, it has proved advantageous to provide further orientation for these positions before a nutritionist takes her post in a health region. Five health regions were staffed with nutritionists; Regina Rural, Weyburn-Estevan, Prince Albert, North Battleford and Swift Current. Suitably qualified women continue to be in short supply but recruiting efforts are continually being made. It is the aim of the division to provide each health region with a nutritionist, so that services can be more concentrated and the population can be made more aware of good nutrition practices.

Public Health Staff

In order to consult directly with regional nutritionists, medical health officers, nursing supervisors and other personnel engaged on the programs and to initiate new programs, the director of nutrition services made more than twenty visits to the different health regions during the year under review.

The most successful program this fiscal year was through weight reduction clubs for women. Classes were organized basically to teach the principles of good nutrition, proper food selection and preparation. The program was carried out by the nutritionists in the Prince Albert, North Battleford, Weyburn-Estevan and Swift Current health regions. Details of other programs carried out by the regional nutritionists can be found in their respective annual regional reports. Attempts were made to meet the needs of the regional staffs for teaching aids and materials and a reference file is maintained at headquarters for their use. In regions where there is no nutritionist, the director gave assistance by participation at nurses' conferences, food handlers' schools, preparation of nutrition talks, orientation of new public health nurses, setting up animal feeding experiments and by filling requests for information and materials.

It had been suggested that using young chicks instead of white rats or guinea pigs as test subjects might prove a more time saving method of evaluating nutrition levels, and trial experiments were carried out to determine whether this was practical. It was found that discrepancies were harder to detect using this method, and the technique has not been adopted by this division.

Other Government Departments and Agencies

The aim of this division was to provide consultant service beyond the public health staff to other government departments and agencies. During

the fiscal year an increasing number of agencies requested assistance from this division demonstrating a growing awareness of our teaching and services. A series of radio talks which were carried over eight radio stations in the province were prepared and presented for the Department of Agriculture. These in turn were used by the Department of Travel and Information as news releases to various papers in the province. Assistance was also given in the preparation and presentation of a television program. In co-operation with Women's Services, a program planned and directed to homemakers, "The Healthful Eating Project" was presented to a total of approximately fifteen clubs in the province. This program entailed a brief survey of the eating habits of the area so that the project could be used to show homemakers what foods needed emphasis in their meal planning. A Food Cost Survey was prepared for the Department of Social Welfare and Rehabilitation and a pamphlet to help plan the spending of food allowances.

Lectures and talks were prepared and presented to a group of Medical Laboratory Technicians, Regina College; School of Nursing, University of Saskatchewan; service clubs; farm women and student nurses. Other government departments which received assistance from this division were the Department of Education and the Department of Indian Health Services.

Nutrition Materials

Although the majority of literature used by this division is received from and produced by the Nutrition Division, Department of National Health and Welfare, Ottawa, these have not always been able to meet our needs. A new booklet "Good Eating" was produced by this division. The booklet is intended to be used by low income groups as a guide for planning meals and includes a collection of nutritionally adequate low cost menus and recipes. To further help this group, another pamphlet "Buy These First" was produced.

The pamphlet "Children Can Like Their Vegetables" was revised and reprinted.

Several films and filmstrips were previewed and showings were arranged for persons who could use them to advantage.

Surveys

A third phase of the survey on the elderly, started by the division in 1956-57, was studied during the year. A group of 185 persons, 65 years and over, living in a geriatric centre was chosen. Estimation was made of the vitamin C content of each individual's urine and the Nutrition Division Laboratory, Department of National Health and Welfare, Ottawa, reported on the vitamin B content. A study was made of the nutritive content of the master menus used by the centre. Persons whose specimens showed negative outputs of the vitamins were placed on a therapeutic multivitamin pill and their urine specimens subsequently analyzed. Finally these persons were individually examined and their case histories studied.

The nutrition survey on the school of Metis children at Pine House¹ in the Northern Health District started in 1958 was continued in 1959.

¹ Pine House consists of a small isolated settlement between La Ronge and Ile a la Crosse which includes a school, a general store and post office, and a fish filleting plant with a quick freeze and locker.

This survey will be completed in 1960. A trip was made to Pine House to check on the food supplement being received by the children and a second food record was prepared and analyzed. A short survey was also undertaken on a group of preschool children at Pelican Narrows.

Conferences

During the fiscal year two conferences and one institute were attended. These were the Dominion-Provincial Nutrition Conference and the Canadian Council on Nutrition Conference at Ottawa, and the Community Nutrition Institute at Syracuse, New York.

A conference for the regional nutritionists was planned.

SANITATION SERVICES

The area of the province over which the Division of Sanitation has direct responsibility in matters pertaining to environmental sanitation has shrunk, with the establishment of health regions, to that portion centered by the city of Saskatoon and extending eastward to Wynyard and Wadena. This area consisting of the proposed Humboldt-Wadena and the Saskatoon rural health regions, was completely surrounded when the Melfort-Tisdale health region went into operation at the first of January, 1959.

It is anticipated that within a year or two the entire province will consist of fully established health regions and the function of the division will be confined to sanitary engineering in the waterworks and sewerage field and general consultative services in public health engineering. Thus, it will revert to its earlier role with the Bureau of Public Health when the latter was created in 1909 as a fore-runner of the Department of Public Health.

Personnel

At the end of the fiscal year the staff consisted of four sanitary officers, four milk sanitarians, two civil engineers, two clerk-stenographers and the director. One of the engineers, three milk sanitarians and one sanitary officer are employed under federal health grants.

Training Program

During the year, in-service training of seven sanitary officers was completed and six new trainees were recruited. As in previous years the division made available a one-month academic course and provided a chairman for the local examining board for the certification of sanitary inspectors as sponsored by the Canadian Public Health Association. All sanitary officer training is a project under federal health grants.

The division continued its annual training school for waterworks and sewage plant operators. Classes were conducted during the latter part of February and the first of March. The total attendance was forty three. This training is also a project under federal health grants.

During the year a new approach to the training of milk plant operators was explored by instituting one-week schools conducted at Regina. Two such schools were held, one in November 1958 and one in March 1959. The total attendance was thirty two. With the exception of one lecturer, all lectures and laboratory demonstrations were conducted by departmental personnel. This enterprise was well supported by the management of milk processing plants and was enthusiastically endorsed by those in attendance. No funds from health grants were required for this program.

Waterworks and Sewerage

Construction Activity

There has been no reduction in activity in the municipal waterworks and sewerage field in the past few years. The number of approval

certificates issued was 198 which is identical to the number for the fiscal year 1957-58. However, the value of construction represented by the certificates was \$15,760,000 as compared with \$13,670,000 in the previous year. Furthermore there were only 16 provisional certificates included in the total and their value was \$1,760,000 as compared with 22 in 1957-58 for a value of \$4,200,000. Provisional certificates are issued for proposed work only and do not authorize construction. Consequently, the construction actually carried out in this fiscal year exceeds that of the former by a considerable margin.

Work on a public waterworks and sewerage system at Grenfell and Bienfait was completed during the fiscal year, but due to lack of surface run-off at Grenfell the use of the waterworks system has been delayed temporarily. A waterworks system was installed for the towns of Meadow Lake and Rockglen. The former had a sewerage system in use before the waterworks system was provided. The latter has no sewerage system. A sewerage system was built at Yellow Grass which has operated a waterworks system for almost fifty years. The same applies to the town of Outlook, which has had a waterworks system for about 45 years, but never had the benefit of public sewers. Two other towns, Craik and Strasbourg installed a sewerage system. These towns have no public waterworks.

Water Supply Problems

The number of urban municipalities which operate a sewerage system without benefit of a waterworks system totals eleven. In addition plans have been completed for a similar arrangement for an additional seven towns where work has been or is about to commence. This is a unique situation and probably exists nowhere on the North American continent or elsewhere. The reason can be explained by the dearth of an adequate water supply within reach of the municipalities. As an example of the difficulty encountered, one small municipality, in this fiscal year spent approximately \$20,000 searching for water without success. The problem is so acute that early in 1959 the government set in motion a project intended to provide relief in the not too distant future. A fact-finding engineering study of the water resources of the province has been commenced and it is hoped that this survey will encompass the entire problem and provide a guide for early action. The basis for the study and method of approach was initiated and guided by engineers of the division.

Urban Modernization

In addition to the problem of water supply, another difficulty has faced the smaller urban centers. That was the legislative restrictions placed on capital spending. However, at the last session of the legislature these obstacles were removed, thus permitting the small towns much greater scope. As a result renewed interest has been created and it is anticipated there will be much activity in modernization plans in the immediate future. If and when the water supply problem is solved it will not be long before all our urban municipalities of any appreciable size will have modern conveniences. This should constitute an additional important step in safeguarding the health and welfare of the public and the communities involved.

Engineering Services

The division continues to receive numerous requests from municipalities for preliminary engineering surveys in connection with water-

works and sewerage. Eleven surveys were completed in 1958-59 and included the following municipalities: Kyle, Porcupine Plain, Preeceville, Wakaw, Ogema, Imperial, Central Butte, Beechy, Delisle, Shaunavon and White Bear.

The division also continues its routine inspectional and consultative service in the waterworks and sewerage field. Stream pollution has not been a problem for several years and the annual Inter-provincial Conference on stream pollution has been deferred indefinitely.

Fluoridation

There are now eight urban centres where artificial fluoridation of the public water supply is practised. These are Moose Jaw, Swift Current, Saskatoon, Weyburn, Assiniboia, Wynyard, Eston and Kindersley. Fluoridation equipment has been obtained by two other municipalities and it is anticipated they will be added to the list soon.

Water Analyses and Laboratory Studies

The division scrutinizes the laboratory reports on samples of water analyzed by the Provincial Laboratory. All such analytical reports are channeled through the division which provides an interpretation service. The number of samples submitted to the laboratory, and hence the number of opinions given by the division, is increasing every year. The total for the year under review was 9,797 which is 1,110 more than the previous year, which in turn, was higher by 600 than the year before that.

During the year the division acquired space in the new Provincial Laboratories for a small laboratory for its own use. The laboratory has been equipped to permit water and sewage analysis which normally is not done by the Division of Laboratories, such as special problems in water and sewage treatment, preliminary water quality studies for municipal supply systems, etc. Considerable use has been made of the facilities provided and more use will be made of the laboratory as time goes on.

Milk Quality Control

Field Activities

There were 43 milk pasteurizing plants in operation at the beginning of the fiscal year but the number was reduced to 41 by the end of the year. One plant went out of business and the interests of the other were acquired by a larger operating group and the plant was closed. A total of 365 plant inspections were made by the milk sanitarians. Although classified as inspections, these visits are more in the nature of consultative services. Inspections are conducted for the purpose of determining, if and where, defects exist. This serves as essential information for the sanitarian and enables him to judge the standard of operation. He is then in a position to advise the operator regarding faulty procedures or equipment, if any, and how best to institute corrective measures for high quality milk production. He is also in a position to discuss and advise on plant or operating problems which may arise from time to time.

Dairy farm inspections and tests on raw milk serve the same purpose as do the inspections of processing plants. They provide the milk sanitarian with the information required to judge the merits of each individual operation and clarifies his approach to operating problems where they exist. Advice is freely given and the dairymen frequently approach our

field staff for assistance. Requests for assistance and advice cover all phases of milk production. During the fiscal year 11,813 field tests on raw milk were made by the sanitarians and the dairy farm inspections totalled 1,085.

Several times each year all milk sanitarians either arrange or make themselves available for meetings of one day duration or less for the milk producers in a given milk shed. At these meetings one or more subjects concerning some aspect of milk production is discussed and followed up by a question period.

Milk Quality Competition

As a further control on the bacterial quality of pasteurized milk, two samples of the finished products are obtained weekly from each plant. The samples are examined in the provincial laboratory for bacterial content, effectiveness of pasteurization, etc. A few samples are examined by the branch laboratory at the Saskatchewan Hospital, North Battleford, and at the dairy laboratory, University of Saskatchewan. Plants are graded annually on the basis of the laboratory findings, coupled with physical plant features and operating technique. They are grouped into two categories, A & B, depending on volume of output. A trophy and a cash prize is awarded annually to the plant with the highest standing, and a cash award to the runner-up. This year two plants tied for the first place in Group A. They were the Saskatchewan Co-operative Creameries Ltd., Regina, and Palm Dairies Ltd., Saskatoon. The winner in Group B was Wolseley Dairy, Wolseley, and the runner-up was the Saskatchewan Co-operative Creameries Ltd. at Canora.

Antibiotics in Milk

Surveys were again undertaken during the year in connection with antibiotics, and certain species of bacteria in market milk. The surveys are carried out with the co-operation of the Provincial Laboratories where all milk samples are examined and analyzed. The records indicate that the extent of milk contamination with antibiotics has dropped to a point where public health concern is not serious. However, a policy of surveillance is being maintained.

Urban and Rural Sanitation

During the fiscal year the Melfort-Tisdale health region went into operation. As a result headquarters for one sanitary officer was established at Humboldt. All the sanitary environmental activity which is within the scope of sanitary officers on the division staff is now carried out from either Humboldt or Saskatoon.

The sanitary officers made a total of 8,732 inspections as follows:

Total inspections	8,732
Water, milk and food supplies	1,445
Public places	2,401
Waste disposal	3,076
Camps, resorts and swimming pools	99
Schools and institutions	156
Communicable disease	3
Miscellaneous	1,552

General

A total of 245 plumbing permits were issued and the value of permit fees was \$1,277. Plumbing inspections made by the division staff totalled 510.

During the year 119 butcher and 9 beef ring slaughter-house licenses were issued. The amount of fees collected was \$613.

Other activities included the granting of public eating establishment certificates and tourist camp permits.

The milk sanitarians and district sanitary officers addressed a total of 128 municipal and public meetings.

Regulations with which the division is directly concerned are those governing sanitation, plumbing, milk production and distribution, public eating establishments, hotels and rooming houses, tourist camps, construction and mining camps, barber shops, bake shops, apartment blocks, swimming pools and fumigation with hydrocyanic acid gas.

VENEREAL DISEASE CONTROL SERVICES

A similar program to that of former years was conducted by the Division of Venereal Disease Control during 1958, the main objective being to reduce the spread of venereal disease through the following:

1. Provision of diagnostic and treatment facilities for persons suffering with, or exposed to, venereal disease.
2. Compilation of statistical data on various phases of venereal disease in order that a comprehensive picture may be obtained, thus enabling the program to be shaped accordingly.
3. Provision of current information to the medical profession on diagnosis and treatment pertaining to venereal disease and, through the co-operation of the Division of Health Education, the supplying of educational material, including films, to the general public.

Incidence of Venereal Disease in Canada

For the year 1958, Canada, according to recent statistical data by federal authorities had a reported incidence of 16,854 cases of venereal disease (2,010 syphilis, 14,836 gonorrhoea, and 8 other). This is an increase of 314 cases or 1.9 per cent from the previous year 1957 when 16,540 cases were reported (2,213 syphilis, 14,313 gonorrhoea and 14 other).

This was the highest incidence since 1954 when 18,056 cases were reported.

The foregoing figures for gonorrhoea reflect an increase in reported incidence, from 86.4 per 100,000 population per annum in 1957, to 87.0 in 1958.

The reported incidence of syphilis (all stages) however, shows a decrease of 203 or 9.2 per cent in 1958 from 1957.

Early syphilis (primary and secondary) showed a slight increase of 8 cases in 1958 (4.7 per cent), the rate per 100,000 remained the same at 1.2

<i>Syphilis (all stages)</i>		<i>Syphilis (Primary and Secondary)</i>		<i>Gonorrhoea</i>	
<i>1957</i>	<i>1958</i>	<i>1957</i>	<i>1958</i>	<i>1957</i>	<i>1958</i>
13.4	11.8	1.2	1.2	86.4	87.0

Incidence of Venereal Disease in Saskatchewan

A total of 1,530 cases of venereal disease were reported in Saskatchewan during 1958 as compared with 1,389 cases reported in 1957, showing an increase of 141 cases or 10.2 per cent.

Included in the total incidence of 1,530 cases were: 105 cases of syphilis, 1,424 cases of gonorrhoea and 1 case of chancroid. During the previous year, 1957, there was a reported incidence of 1,389 cases made up of 115 cases of syphilis, 1,272 cases of gonorrhoea and 2 cases of chancroid.

Comparative rates for syphilis and gonorrhoea per 100,000 population, in Saskatchewan for 1957 and 1958 were as follows:

<i>Syphilis (all stages)</i>		<i>Syphilis (Primary and Secondary)</i>		<i>Gonorrhoea</i>	
1957	1958	1957	1958	1957	1958
13.1	11.8	4.0	3.5	144.7	160.4

Syphilis

A total of 105 cases of syphilis (all stages) were reported in Saskatchewan during 1958 as compared with 115 cases in 1957, down by 10 cases or 8.7 per cent.

Thirty-one cases of early syphilis (19 primary and 12 secondary) were reported during 1958 as against 35 cases in 1957 (27 primary and 8 secondary) a decrease in early syphilis of 4 cases or 11.4 per cent.

This decrease, which follows an increase in both 1956 and 1957, is due in part to the vigorous follow-up of contacts, subsequent to the outbreak of primary and secondary syphilis which occurred initially in 1956.

No cases of prenatal congenital syphilis were reported in 1958 as against 2 cases reported in 1957.

A slight decrease is noted in the reported incidence of late and latent syphilis, there being 74 cases reported in 1958, compared to 78 in 1957.

Gonorrhoea

Although 1958 reflected an increase in the reported incidence for this infection, it is considered at least in part that this increase had been the result of more intensive and more successful locating of infected contacts, consequently reported as cases by private physicians and other medical agencies.

An indication of the more active participation in the reporting of venereal disease by private practitioners is borne out by the fact that in 1957, 223 physicians reported cases, whereas in 1958, 248 physicians reported cases, depicting an increase of 25 physicians reporting. However, there would appear to be a rise in incidence of gonorrhoea in this province, consistent with the general increasing trend in Canada and in other countries.

During 1958, a total of 1,424 cases, including one case of ophthalmia neonatorum, were reported as compared with 1,272 cases reported in 1957. This represents an increase of 152 cases or 11.9 per cent.

Preventive Measures

Epidemiology

It is considered that the spread of venereal disease has been limited in this province by the continued emphasis placed on case-finding and case-holding measures. The effectiveness of our venereal disease program has been made possible through the valuable assistance and co-operation of private practitioners and other medical agencies.

During 1958, as in the immediate previous years, the use of specific antibiotics has aided in curbing the spread of venereal disease because of the ability of these antibiotics to bring about non-infectivity in a very short period of time.

Information supplied by physicians in 1958 made possible the locating of 297 contacts to venereal disease. Other medical agencies, including venereal disease clinics, supplied information which brought about the locating of an additional 517 contacts, totalling 814 contacts located and examined. The results of the examination of these contacts were: Positive—566 (syphilis 19, gonorrhoea 547); non-specific infection—10; negative findings—238; total 814.

Of a total of 12,641 premarital serological tests, 14 exhibited positive reactions and of these, 5 were in connection with previously reported cases of syphilis; 5 were connected with newly reported cases of syphilis in the latent stage; 2 were considered false positives and the remaining 2 were from transient patients. No further information was obtainable on the last two cases.

Twenty-seven cases of syphilis previously unreported, were discovered through the investigation and follow-up of persons exhibiting positive serologic reactions during 1958. These cases included 6 early syphilis (1 primary, 5 secondary) 15 classified as latent, 2 cardiovascular and 4 neurosyphilis.

The follow-up and investigation of persons with positive tests for gonorrhoea resulted in the reporting of 90 cases of gonorrhoea on notification cards. These cases had previously been unreported.

It is gratifying to note that again an increase occurred in the number of physicians reporting venereal disease in 1958 as in 1957. A total of 223 physicians reported cases in 1957, of which 48 were either new to the province or had not previously reported. During 1958, a total of 248 physicians reported cases and of these 53 had either newly arrived in this province or had not previously reported.

Consultant Services

Consultative services were made available in 1958, as in previous years. Advice was given by telephone and correspondence regarding diagnosis, treatment and post-treatment care in connection with venereal diseases. Included in these consultations were recommendations concerning the use of the Treponema Pallidum Immobilization test (T.P.I.). Many requests for advice and information regarding this special diagnostic test having been received from physicians and other medical agencies.

Statistical data regarding this test may be found under "Diagnosis and Treatment".

Education

Following the custom of former years, information of special interest, concerning diagnosis and treatment was made available to medical personnel.

New physicians entering the province to practise were supplied with information and materials concerning venereal disease control procedure as well as with special articles of interest on diagnosis and treatment, including information pertaining to the Treponema Pallidum Immobilization test.

Lectures were given to nursing students and health educators (trainees) during 1958. These were supplemented by films and pamphlets.

The Division of Health Education, in co-operation with the Division of Venereal Disease Control, continued to conduct a venereal disease education program among the public. Letters requesting literature and information have been received by this division, these being referred to the Division of Health Education for attention. In addition, letters of enquiry regarding venereal disease and treatment have been replied to from the division.

Diagnosis and Treatment

Clinical Services

Full-time venereal disease clinics were maintained in Saskatchewan during 1958 as in previous years; one being located in each of the four major cities (Regina, Saskatoon, Prince Albert and Moose Jaw). At these clinics, each of which is staffed by a part-time medical director and a full-time nurse, examination and treatment were made available free of charge.

In connection with these clinics, there were a total of 1,414 admissions and 2,826 visits during 1958 compared with 1,183 admissions and 2,824 visits in 1957.

Total cost of operation in connection with these clinics amounted to approximately \$22,000.

In addition to the four major clinics, clinic facilities were made available to the Prince Albert jails and the Regina jail.

During 1958, in connection with the Prince Albert jails, which are serviced by provincial health department venereal disease nursing personnel, there were 1,416 admissions and 1,563 visits as compared with 1,803 admissions and 1,484 visits in 1957.

Additional Services

As in 1957, free examination and treatment were again made available to the residents of Green Lake and area where some 250 natives reside. The Red Cross Outpost at Green Lake was used as a treatment centre, thus continuing the arrangements made in July, 1954 whereby services were made available to the population of Green Lake, situated 30 miles from the nearest physician.

This particular service to a remote area of the province is proving satisfactory and the plan has the approval of the medical health officer for the area involved.

Special Diagnostic Procedures

The facilities for the T.P.I. test continued to be made available by the Laboratory of Hygiene, Department of National Health and Welfare, Ottawa, and were utilized by this division for diagnostic purposes. This test is designed for differentiating between a biological (false) positive and a specific luetic reaction.

The purpose and availability of this test is becoming more widely known among the physicians of this province. Consequently, it is being utilized to a greater extent in those instances where a diagnosis of syphilis is in doubt, positive or doubtful reactions from standard tests of serology being the only criterion of possible infection.

Ninety-three specimens from selected patients were forwarded to Ottawa during 1958 and of these one was broken in transit and one gave no demonstrable results upon examination, and because of the patient's demise, a repeat specimen could not be obtained; thus a balance of 91 specimens remained.

Examinations of the 91 specimens revealed 48 negative and 43 positive reactions. From these results will be seen, as in previous years that nearly 50 per cent of the examinations resulted in negative findings, indicating that there does occur a considerable number of false positive reactions from standard tests of serology; these reactions being due to a variety of causes, other than syphilitic infection. This emphasized the real diagnostic value of the Treponema Pallidum Immobilization test.

The following is a breakdown of the 43 positive T.P.I. reports.

Total	43
Previously reported cases of syphilis	11 (25.6%)
Previously unreported cases of syphilis	29 (67.4%)
Repeat test	1
No further information because of death of patient	1
Patient had "Yaws" ¹ in childhood	1

Drugs

Procaine penicillin, both aqueous and oil suspension types, have been issued during 1958. These currently are the therapy of choice in the treatment of venereal disease and also being practically the only medications used in the treatment of venereal disease with the exception of the following antibiotics, chloramphenicol, oxytetracycline, chlortetracycline, dihydrostreptomycin combinations, which are used in the rare instances of penicillin-resistance or chronic cases of gonorrhoea and non-specific urethritis.

The cost of drugs of all types distributed in 1958 amounted to \$890.81, a slight decrease from 1957 during which year \$996.98 was expended. Particulars of drug issuance and cost are shown in Table 11.

Hospitalization

Costs for the hospitalization of venereal disease patients during 1958 amounted to \$69, there being only one patient whose hospitalization was considered necessary. In 1957, 2 patients were hospitalized at a cost of \$437.20.

An amount of \$3 in connection with cell contents pertaining to spinal fluid examinations was paid to hospitals in 1958; \$5 was expended in 1957 for this purpose.

Payment for Treatment of Cases and Examination of Contacts

The policy of reimbursing physicians, initiated in 1948 with the aid of national health grants was continued in 1958.

Payments amounting to \$1,015.50 were made to physicians for examination and treatment of 116 cases, residing outside areas where free government clinics were maintained and who were unable to bear costs themselves.

¹ The positive finding was considered due to this treponemal infection.

Under a similar plan, payments amounting to \$202 were made to physicians for the examination of 38 reported contacts to reported cases of venereal disease, residing outside free clinic areas and regardless of their financial status.

An amount of \$17 was paid to the Canadian Red Cross Society for the treatment of 12 cases resident in Green Lake, with patients involved being treated at the Green Lake Red Cross Outpost.

The policy of payment to physicians and other agencies together with the operation of venereal disease clinics in the major cities of the province makes possible medical care for all residents of the province who may contract venereal disease or be exposed to same.

Expenditures for Venereal Disease Control

Costs of the venereal disease program for 1957-58 amounted to \$65,812.41 and of this amount, \$30,801 was provided through the national health grants. This latter amount was the maximum grant available.

For the fiscal year 1958-59 an amount of \$68,705.53 was expended and of this amount \$29,285 was provided through national health grants for venereal disease control. This latter amount was the maximum grant available.

Category	1957-58	1958-59	1957-58	1958-59	1957-58	1958-59
Salaries and wages	1,000	1,000	444	444	556	556
Medical supplies	100	100	100	100	0	0
Travel	100	100	100	100	0	0
Telephone	100	100	100	100	0	0
Postage	100	100	100	100	0	0
Printing	100	100	100	100	0	0
Repairs	100	100	100	100	0	0
Insurance	100	100	100	100	0	0
Utilities	100	100	100	100	0	0
Depreciation	100	100	100	100	0	0
Other	100	100	100	100	0	0
Total	1,600	1,600	1,044	1,044	556	556
National Health Grants	30,801	29,285	30,801	29,285	0	0
Total Expenditure	\$65,812.41	\$68,705.53	\$65,812.41	\$68,705.53	\$65,812.41	\$68,705.53

TABLE 7. REPORTED CASES OF VENEREAL DISEASE BY TYPE AND STAGE OF VENEREAL DISEASE, REPORTING AGENCY, AND SEX OF PATIENT, SASKATCHEWAN, 1958

Type of venereal disease	All agencies			Physicians			Clinics			Reporting agency			Institutions			Armed forces		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
All venereal diseases.....	1,530	1,046	484	764	533	231	636	428	208	116	71	45	14	14	...	...	...	...
All syphilis.....	105	65	40	86	53	33	16	9	7	1	1	...	2	2	...	...	...	...
Acquired early.....	31	19	12	23	14	9	8	5	3	...	...	...	...	...	...	...	...	...
Primary.....	19	15	4	11	10	1	8	5	3	...	...	...	...	...	...	...	...	...
Secondary.....	12	4	8	12	4	8	...	...	...	...	...	...	...	...	...	...	...	...
Acquired latent and late.....	74	46	28	63	39	24	8	4	4	1	1	...	2	2	...	...	...	...
Cardiovascular.....	5	2	3	5	2	3	...	...	...	...	...	...	...	...	...	...	...	...
Neurosyphilis.....	13	10	3	13	10	3	...	...	...	...	...	...	...	...	...	...	...	...
Latent.....	56	34	22	45	27	18	8	4	4	1	1	...	2	2	...	...	...	...
Tertiary, other.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Type undetermined.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Prenatal congenital.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chancroid.....	1	1	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Gonorrhoea.....	1,424	980	444	677	479	198	620	419	201	115	70	45	12	12	...	...	...	...
Ophthalmia neonatorum.....	1	1	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Other.....	1,423	979	444	676	478	198	620	419	201	115	70	45	12	12	...	...	...	...

TABLE 8. REPORTED CASES OF VENEREAL DISEASE BY TYPE AND STAGE OF VENEREAL DISEASE, AND AGE GROUP OF PATIENT, SASKATCHEWAN, 1958

Type of venereal disease	All ages			Age group												Not stated								
	Both sexes	Male	Female	Under 1 year			1-4			5-14			15-19						20-29			30 and over		
				Both sexes	M	F	Both sexes	M	F	Both sexes	M	F	Both sexes	M	F	Both sexes	M	F	Both sexes	M	F	Both sexes	M	F
All venereal diseases.....	1,530	1,046	484	2	1	1	3	1	2	12	2	10	245	106	139	687	499	188	479	367	112	102	70	32
All syphilis.....	105	65	40	.....	.....	.....	.....	.....	.....	1	1	.....	13	4	9	20	12	8	60	44	16	11	4	7
Acquired early.....	31	19	12	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	1	5	9	7	2	13	10	3	3	1	2
Primary.....	19	15	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1	6	5	1	11	9	2	1	1	.....
Secondary.....	12	4	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	1	4	3	2	1	2	1	1	2	.....	.....
Acquired latent and late.....	74	46	28	.....	.....	.....	.....	.....	.....	1	1	.....	7	3	4	11	5	6	47	34	13	8	3	5
Cardiovascular.....	5	2	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	2	2	1	.....	1
Neurosyphilis.....	13	10	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10	8	2	2	.....	.....
Latent.....	56	34	22	.....	.....	.....	.....	.....	.....	1	1	.....	7	3	4	10	5	5	33	24	9	5	1	4
Tertiary, other.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Type undetermined.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Prenatal congenital.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chancroid.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	.....	.....	.....	.....	.....	.....	.....
Gonorrhoea.....	1,424	980	444	2	1	1	3	1	2	11	1	10	232	102	130	666	486	180	419	323	96	91	66	25
Ophthalmia neonatorum.....	1	1	.....	1	1	.....	3	1	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Other.....	1,423	979	444	1	1	.....	3	1	2	11	1	10	232	102	130	666	486	180	419	323	96	91	66	25

TABLE 9. REPORTED CASES OF SYPHILIS AND GONORRHOEA AND ANNUAL RATES PER 100,000 POPULATION, SASKATCHEWAN, 1954-1958

Type of venereal disease	1954	1955	1956	1957	1958
Number of cases					
Both venereal diseases.....	1,510	1,331	1,266	1,387	1,529
Syphilis.....	99	200	108	115	105
Early (primary and secondary).....	16	18	29	35	31
Latent and late.....	82	168	76	78	74
Prenatal congenital.....	1	14	3	2	....
Gonorrhoea.....	1,411	1,131	1,158	1,272	1,424
Annual rate per 100,000 population					
Both venereal diseases.....	173.0	151.6	143.8	157.7	172.2
Syphilis.....	11.3	22.8	12.3	13.1	11.8
Early (primary and secondary).....	1.8	2.0	3.3	4.0	3.5
Latent and late.....	9.4	19.2	8.6	8.9	8.3
Prenatal congenital.....	0.1	1.6	0.3	0.2	....
Gonorrhoea.....	161.7	128.8	131.5	144.6	160.4

TABLE 10. ANALYSIS OF THE EXAMINATION OF VENEREAL DISEASE CONTACTS, SASKATCHEWAN, 1956-1958

Item	1956	1957	1958
Total contacts examined.....	666	659	814
Sources of information re: contacts			
Physicians	279	241	297
Clinics.....	270	313	407
Institutions.....	42	14	5
Health regions.....	1	2	2
Public health nurses.....	42	60	57
Armed forces.....	3	3	7
Other agencies.....	27	21	31
Indian health services.....	2	5	8
Venereal disease control.....	....	....	....
Contacts located by:			
Physicians.....	158	108	137
Clinics.....	36	63	63
Public health nurses.....	76	86	67
City medical health officers.....	147	121	208
Health regions.....	180	185	197
Armed forces.....	5	....	....
Other agencies.....	25	41	53
Veneral disease control	6	10	21
Indian health services.....	33	45	68
Institutions.....	....	....	....
Results of examination:			
Syphilis.....	12	22	19
Gonorrhoea.....	458	436	547
Non-specific.....	5	11	10
Negative.....	191	190	238

TABLE 11. AMOUNTS OF DRUGS DISTRIBUTED IN SASKATCHEWAN FOR VENEREAL DISEASE PATIENTS, AND COSTS, 1957 AND 1958

Type of drug	Amount		Cost	
	1957	1958	1957	1958
All drugs.....	.....	.....	\$ 996.98	\$ 890.81
Arsenicals (amps.).....	.....	.....	.....	.....
Bismuth (c.c.'s).....	.....	.....	.....	.....
Procaine penicillin in oil (units).....	396,300,000	80,100,000	209.68	73.96
Aqueous procaine penicillin (units).....	669,000,000	1,320,000,000	140.49	295.12
Chloromycetin (.25 gm. capsules).....	256	240	81.76	76.65
Sulphathiazole (7½ grs.).....	1,820	2,600	8.90	12.79
Distilled water (10 c.c. amps.).....	.....	.....	.....	.....
Distilled water (50 c.c. bottles).....	.....	.....	.....	.....
Penplus (c.c.'s).....	820	810	90.20	89.10
Aureomycin (.25 gm. capsules).....	912	864	290.70	275.40
Terramycin (.25 gm. capsules).....	392	144	107.04	40.14
Crystamycin (c.c.'s).....	122	66	27.45	14.85
Rubbing alcohol (gals.).....	4	.....	13.08	.....
Miscellaneous drugs.....	.....	.....	27.68	12.80

TABLE 12. PLACES OF MEETING AND EXPOSURE FOR 647 CASES OF VENEREAL DISEASE, SASKATCHEWAN, 1958

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.....	647	100.00	153	100.00	647	100.00
Hotels.....	54	8.35	27	17.65	102	15.77
Cafes.....	90	13.91	.....	.....	.....	.....
Dance halls.....	31	4.79	.....	.....	.....	.....
Rooming houses and apartments.....	5	0.77	4	2.61	18	2.78
Pickup—street, etc.....	235	36.32	1	0.65	3	0.46
Pickup—automobiles including taxis.....	3	0.46	.....	.....	150	23.18
Marital.....	.....	.....	79	51.64	.....	.....
Marital (common-law).....	.....	.....	19	12.42	.....	.....
Other (including private dwellings).....	70	10.82	23	15.03	184	28.44
Not stated.....	159	24.58	.....	.....	190	29.37

PROVINCIAL LABORATORIES

The Provincial Laboratories are a fact-finding service arm of the department. They examine specimens selected by the health-care team to guide their efforts to prevent disease and to treat those diseases that exist. They serve as a reference center to which hospital laboratories may refer specimens for check on their work. The laboratories strive to extend the variety and improve the quality of diagnostic services available to the people of the province through their health officers or physicians. The laboratories also carry out examinations requested by other departments of government whenever facilities permit. The Department of Agriculture contracts for examinations of creamery butter that guide the manufacture of butters of good keeping quality. The Treasury Department refers gasolines for detection of the purple dye used in tax free gasolines. The Attorney General's Department and their various enforcement agencies refer specimens of suspect alcoholic beverages being illegally consumed or manufactured. The laboratories also provides a service to coroners by assaying for chemical poisons in the internal organs submitted from humans who have died under suspicious circumstances and where the coroner wishes to rule out homicide.

The majority of specimens originate from rural physicians and small hospitals. A particular effort is made to provide them with prompt service. Such mail-order service, even with the limitations of transport time, commonly helps the patient directly by speeding his diagnosis and indirectly by encouraging physicians to take up and hold rural practice where they can enjoy a modicum of laboratory diagnostic service. Approximately half of the diagnostic specimens derive from physicians' offices and the other half from hospitals. With only a few exceptions where deterrents seem necessary, all services of the laboratories are provided without charge.

The year 1958 was a memorable one for the Provincial Laboratories for they were given possession of a fine new building. The laboratories are now in their fourth location since they were established in 1905. Originally set up in quarters on Dewdney Avenue, they were moved to the legislative buildings in 1911, to the Grey Nuns Hospital in 1948, and, upon expiration of their rental contract in 1958, to their new quarters in the legislative grounds. The purpose-designed one storey building materially enhances the ability of the laboratories to render the many varied services required of it.

The following table sets out the number of examinations required of each section of the laboratory in the 1958-59 fiscal year. With the exception of scores for sanitary examinations, the work units are those adopted by the Dominion Bureau of Statistics with each unit representing an average of ten minutes of technician time. The scores for sanitary examinations of milk and water were calculated at 25 per cent of the Dominion Bureau of Statistics allowance because of the efficiency in consecutive identical examinations. A similar experience-justified downward revision of unit values for mass serological examinations was adopted in January 1959 to permit a more valid comparison of the various services provided. Based on this amended schedule of units applied for the last three months of the fiscal year, the services required of the Provincial Laboratories were distributed 73.2 per cent for diagnosis of

human diseases, 14.7 per cent for safety examinations of milk and water, and 12.1 per cent for services to departments of government other than health.

<i>Examinations and services</i>	<i>Specimens</i>	<i>Examinations</i>	<i>Units</i>
Total examinations made in the Provincial			
Laboratories	159,035	248,873	673,010
Infectious diseases	101,191	125,815	328,892
Haematology	1,871	2,284	6,354
Chemistry	19,302	30,424	186,954
Sanitary—milk and water	16,730	58,986	89,051
Dairy	9,080	10,672	22,809
Animal diseases	10,861	20,692	38,950

Examinations for Infectious Diseases

The prevention and treatment of diseases caused by infectious agents is more readily accomplished when the identity and habits of the microbial invader are known. The laboratory strives to help obtain this information by supplying containers and outfits suitable for collecting and mailing for examination specimens of body fluids or tissues. The specimens are promptly examined for disease-producing bacteria that they may be identified and tested for their unpredictable vulnerability to a variety of antibiotics. This information enables the physician to select an effective antibiotic or combination of antibiotics should they be needed. In addition to disease-producing bacteria, search is made for disease-producing fungi, parasites, or viruses. During the course of the past fiscal year it is estimated that the laboratory supplied over 100,000 outfits for use in collecting and mailing specimens for such examinations. Some details of the examinations are set out in the following table.

<i>Infectious diseases</i>	<i>Specimens</i>	<i>Examinations</i>	<i>Units</i>
Total	101,191	123,894	328,892
Syphilis	76,493	89,392	179,289
Gonorrhoea	5,413	5,415	9,672
Nasopharynx	3,615	3,629	18,171
Tuberculosis	483	1,011	5,045
Pyogenic and systemic infections	8,291	12,574	47,665
Bacterial dysentery	4,356	7,139	19,526
Bacterial meningitis	155	285	908
Mycotic infections	838	1,249	10,415
Parasitic infections	277	292	770
Virus infections	1,270	2,908	37,431

Syphilis

The symptoms of this disease can mimic so many other diseases that laboratory tests are the most reliable means of diagnosis. A total of 89,392 examinations were made for this purpose. About one-sixth of these were derived from health examinations of betrothed as The Marriage Health Act requires a certificate that the parties contracting marriage do not suffer from this disease in a communicable form.

The procedures and reagents used for this examination are most carefully controlled. All reagents are standardized and supplied by the Laboratory of Hygiene, Department of National Health and Welfare, that sensitivity and specificity of the tests may be uniform throughout Canada. All specimens are first screened by a flocculation test and those showing any reaction are further tested with quantitative flocculation and complement-fixation tests. When the results of these tests on a patient are persistently inconclusive or do not fit the clinical picture, a further

specimen may be referred to the Laboratory of Hygiene for the ultra-specific test, the Treponema Pallidum Immobilization test. Of the some 98 specimens referred for this test in the past year, 41 were found to be positive.

Gonorrhea

A total of 5,413 specimens, mostly films of discharge, were submitted from which 732 positive findings were recorded. This is about the same proportion of positives as observed in the preceding year. There is certainly no evidence to suggest that incidence of this disease is decreasing.

Eye, Ear, Nose, and Throat

The pathogen most frequently recognized in the 3,650 swabs received was Beta-hemolytic streptococci, with 324 isolations made. There were three outbreaks of diphtheria involving a total of six cases with one death. All occurred in non-immunized individuals. The carriers responsible for two of the outbreaks were discovered, but source of infection for the fatal case could not be located. In each case the strain was Gravis Type 11.

A large number of school children with sore throats examined for bacteria and viruses yielded evidence that the responsible agent was Streptococcus viridans, generally regarded as a non-pathogen. Luxuriant nearly pure cultures were obtained directly from the swabs and alternative viruses were not found in the specimens.

Tuberculosis

The majority of specimens for this examination are sent directly to the sanatoria for examination from typical cases. Specimens from cases with less well-defined symptoms are generally sent to the provincial laboratory. Nevertheless twelve cases of hitherto unsuspected tuberculosis were discovered by examination of the 483 specimens received.

Pyogenic Infection

A total of 8,291 specimens of pus from abscesses or other lesions were submitted for the identification of causative organism and sensitivity of that organism to antibiotic. A total of 259 autogenous or polyvalent vaccines were prepared in response to physicians' requests for help in combatting stubborn staphylococcal infections. This vaccine has appeared to work when many other regimes of treatment have failed. More than 80 per cent of the clinicians who have reported on this vaccine have commented that the vaccine appeared to help.

Bacterial Dysentery

Although there were no large outbreaks of dysentery, there were sufficient serious cases to provoke 4,356 specimens. Salmonella or Shigella were recovered from 161 of these specimens from 74 patients. There were eight cases of typhoid fever reported and one death. Three hitherto unrecognized typhoid carriers were discovered and brought under surveillance. There were seven isolations of pathogenic E. coli from cases of infant diarrhoea. The following table records the pathogenic enteric bacteria isolated in the past year.

Salmonella

S. berta	1	S. paratyphi B	1	S. typhi C ₄	2
S. bredeney	1	S. saint paul	1	S. typhi D ₁	2
S. heidelberg	3	S. san diego	1	S. typhi F ₁	3
S. kentucky	1	S. tennessee	6	S. typhi A	2
S. newport	1	S. thompson	3	S. typhi C ₂	1
S. oranienburg	1	S. typhimurium	6		

Shigella

Sh. flexneri 3A	12	Sh. sonnei	27
Sh. flexneri 2A	3	Sh. alkalescens	1

Haemolytic Escherichia

E. coli 086:B7	1	E. coli 0119:B14	1	E. coli 026:B6	5
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As in former years, diagnostic antigens and antisera for *S. typhi* H and O, *S. paratyphi* AH, *S. paratyphi* BH and O, and *Brucella abortus* were supplied to the seven larger hospitals of the province.

Bacterial Meningitis

The number of cases of bacterial meningitis appears to decline yearly although 155 specimens of spinal fluid were submitted from suspect cases. Meningococci were recovered from two of them and streptococci from one, and pneumococci from one. In addition to gram films and cultures, routine examinations include cell count, protein, colloidal gold, chloride and sugar assays.

Mycotic Infections

A total of 1,249 examinations were made on the 838 specimens submitted from suspected infections of skin, hair or nails. Some 273 of these specimens yielded confirmation of such infection. The most common pathogen was *Candida albicans* which turned up in 228 specimens.

An outbreak of ringworm amongst school children in the southeast corner of the province provoked a considerable number of these specimens. The fungus responsible in these cases was *Microsporum audouini* which was recovered from 22 cases.

Parasitology

A variety of intestinal parasites were recovered or identified in the 277 specimens referred from suspect cases. The laboratory was able to confirm two cases of amoebic dysentery (*Endamoeba histolytica*), five cases of round-worm infection (*Ascaris lumbricoides*), and one case of fish tapeworm (*Diphyllobothrium latum*), one case of dog tapeworm (*Dipylidium caninum*) and one case of beef tapeworm (*Taenia saginata*).

An outbreak of Trichinosis occurred in northern Saskatchewan amongst a band of Indians and eight of their number were serologically proven to have been infected from the ingestion of semi-cooked bear meat. The laboratory continued to supply, upon request, skin-test antigens for parasitic infections such as Toxoplasmosis, Histoplasmosis, Echinococcosis and Trichinella infection. With the exception of the latter, all tests reported were negative.

Virus Diseases

The Provincial Laboratories maintain relatively complete facilities for the laboratory diagnosis of virus diseases. Repeatedly, they have proven their worth by clarifying the diagnosis of obscure infections. The

information obtained from these virus studies is being increasingly appreciated by physicians as manifest by the steady increase in number of satisfactory specimens referred for these studies.

A severe outbreak of respiratory disease amongst Indian children on reservations near Kamsack was vigorously explored in an effort to identify any virus that might have been responsible. A total of 17 children died in the interval between July 1 and October 1. The services of this virus unit enabled influenza to be ruled out as a significant contributing factor. An adeno virus type 3 was recovered from the lungs of one victim and Coxsackie virus from the stools of two others, but all other virus studies were negative. Klebsiella pneumonia was the most common pathogen recovered from the cases. While undoubtedly there were a number of contributing factors that increased the susceptibility of these patients, the absence of detectable virus suggests that Klebsiella pneumonia was indeed responsible for many of the cases and deaths.

At the request of the Preventive Services Branch of the department, the laboratory undertook to serologically assess the immunity to poliomyelitis of a cross-section of the population. Random specimens were arranged or collected by health officers from designated age groups and submitted for assay of antibody to each of the 3 types of polio virus. Vaccination records, if any, accompanied each specimen. Examination of the 525 specimens submitted provided confirmation of both the need for and the value of the vaccine. Approximately 36 per cent of the non-vaccinated donors under 40 years of age had no antibodies to type I polio virus, the major culprit in recent epidemics. Over 89 per cent of those vaccinated with two or more doses had developed detectable antibodies.

Three cases of psittacosis in humans were serologically confirmed in one outbreak in Saskatoon, but belated attempts to recover the virus from the suspect canary source were unsuccessful.

Other viruses recovered in the course of investigation of clinical cases included Coxsackie B3—two cases, Coxsackie B5—three cases, Coxsackie A9—three cases, Coxsackie A10—three cases, Adeno Type 3—five cases, and still unidentified viruses from stools of 3 patients suffering from meningo-encephalitis. Serology was carried out for a wide variety of virus diseases and serological evidence of mumps encephalitis obtained in twelve cases. Some of these cases of mumps had no symptoms of previous parotid involvement.

Haematology

The laboratory examines blood films for differential cell count to confirm the reading by rural physicians or hospital technicians. A total of 1,871 specimens were referred for such examinations. Blood samples for Rh determination are regularly referred to the Red Cross Blood Transfusion Depot with the exception of specimens from recruits for the armed forces for whom the Provincial Laboratories provide blood grouping and Rh typing.

Sanitary Examinations

These tests are designed to determine if communal milk and water supplies are clean and safe to drink. Specimens are collected by sanitary officers or milk sanitarians and submitted for evidence of faecal pollution. Milk samples are also tested for adequacy of pasteurization. In addition

to samples of water from municipal supplies, many samples are accepted from private rural water supplies to determine if there is evidence of pollution or excessive content of minerals.

A national health grant provides for assays of nitrates and fluorides in the water supplies of rural expectant mothers. A relatively high proportion of rural well waters contain amounts of nitrat ion that, if ingested by infants in formulae, would provoke serious methemaglobinemia. Rural physicians urge their confinement cases to have their water supply tested before the baby is born lest an alternative nitrate-free supply of water be needed for infant formulae. During the past year some 7,760 waters were tested for nitrate, whereupon 17.4 per cent proved to have more than 10 p.p.m. of nitrate nitrogen. One case was recorded of cyanosis ascribable to nitrates.

The Department of Public Health also promotes fluoride tablet consumption of one milligram per day by expectant mothers to guarantee an adequacy of this mineral so important to tooth buds of the newborn. Prerequisite to supply of such tablets is the need to determine the amount of fluoride in the patient's water supply lest such fortification be unnecessary or undesirable. Analyses to date have turned up a number of wells which contain a near optimum concentration of fluoride and no wells that contain an excessive amount. Water supplies containing between 0.7 and 1.5 p.p.m. of fluoride were recognized in the communities of Alvina, Balcarres, Carrievale, Central Butte, Ernfold, Greenland, Heath Park, Herbert, Hawarden, Herschel, Hodgeville, Keddleston, Kelstern, Lawson, Loreburn, Lucky Lake, Marquis, Milestone, Riverhurst, Savern, Strongfield, Tugaskie and Wiseton. Weekly checks are also made on all municipally fluoridated waters in the nine communities of Assiniboia, Eston, Kamsack, Kindersley, Moose Jaw, Saskatoon, Swift Current, Weyburn and Wynyard.

In addition to the above examination on milk and waters, approximately 40,000 outfits of sterile swabs and culture media were provided to sanitary officers to enable them to test the cleanliness of dishes and cutlery in public eating establishments and beverage rooms. These tests serve to demonstrate to operators of these establishments a measure of their cleanliness.

Chemistry Section

A near complete chemical and biochemical service is provided to aid the diagnosis of metabolic and degenerative disorders. Tests for diabetes, hepatitis, nephritis, cardiac disorders, hormones and enzymes are included. A particular effort is made to oblige requests for new tests that supplement or extend the usefulness of established tests. Some of these tests, while very useful, are also very complex and require elaborate instruments and considerable investigation before they can be made routinely available.

The appreciation given this service was attested by another 10 per cent annual increase in the number of specimens referred to this section over the previous year. A total of 19,302 specimens were received for 30,424 examinations. The great majority of these tests are provided free of charge, but deterrent charges are levied for three of the more expensive abuse-prone tests, i.e. protein bound iodine, follicle-stimulating hormones, and fat in feces. The demand for the charge-procedure protein bound iodine continued to rise at a remarkable rate and almost doubled that of the preceding year. A review of the results obtained on some 10,800 bloods analysed in the past three years for thyroid hormone indicates

that 18.6 per cent of them contained subnormal amounts and 14.1 contained above normal amounts.

This section also provides medico-legal examinations as required by coroners or pathologists investigating cases of sudden or unattended deaths where there is doubt that homicide may be ruled out. Internal organs from more than 150 such cases are examined each year for evidence of poisons, drugs or other toxic substances. Specimens are also examined for the Department of Agriculture (insecticides, herbicides, animal poisons), the Provincial Treasurer (purple gasolines) and the Attorney General's Department (alcohol in beverages).

An outline of the chemical examinations made in the past year is set out in the following table.

All examinations	30,424		
<i>Blood</i>			
Amylase	284	Phosphatase-alkaline	1,552
Bilirubin	1,137	Potassium	520
Calcium	422	Phosphorus	385
Carbon monoxide	75	Protein bound iodine	5,095
Cephalin cholesterol	1,350	Protein-total	966
Chloride	223	Protein fractions	1,182
Cholesterol	2,014	Salicylates	26
Cholesterol esters	46	Sodium	319
Creatinine	192	Thymol turbidity	1,091
Glucose	2,560	Transaminase	196
Iron	33	Urea	781
Lipase	31	Uric acid	322
Mercuric chloride	146	Van den Bergh	104
Methaemoglobin	27	Miscellaneous	115
Phosphatase-acid	919		
<i>Urine</i>			
Catechol amines	38		
Follicle stimulating hormones	21		
Heavy metals	75		
Phenyl pyruvic acid	17		
Porphyrins	31		
Steroids, 17-keto	291		
17-hydroxy	67		
ketogenic	23		
Routine chemical and microscopic	2,053		
Miscellaneous	130		
Gastric analysis	100		
Spinal fluid	628		
<i>Faeces</i>			
Fat	140		
Urobilinogen	29		
Other	16		
<i>Medicolegal</i>			
Tissues for poison	4,282		
Alcohol	250		
Gasoline for purple dye	83		
Water and sewage	37		

Dairy Section

The Department of Agriculture contracts with the Provincial Laboratories to examine a sample of butter from each churn that operates in the province on any day. Tests are made to detect objectionable yeasts and molds that reduce the keeping quality of stored butter by producing off-flavors.

This unit also carries out the sanitary examinations of milks and ice creams. Two samples of pasteurized milk are received from each creamery each week for the detection of coliforms and measurement of butterfat content. Spot samples of cream and ice cream are examined when received at intervals. These tests are designed for the protection of both the producer and the consumer.

Animal Pathology

The national health grant supports a diagnostic unit for the diseases of animals and poultry that might constitute a health hazard for humans. Recognition of significant reservoirs of such diseases might allow the health officer to forewarn practitioners to be on the lookout for cases of similar human disease. Specimens are accepted from medical health officers, private physicians, veterinarians, officials of the Department of Agriculture, Department of Natural Resources and in many cases from the general public.

A special effort is made to help detect and recognize milk cows suffering from mastitis. Milk from such cows commonly contains objectionable by-products that cannot be eliminated by pasteurization. Two surveys of milks from all commercial shippers in the province were carried out for detection of pathogenic staphylococci, streptococci and residual antibiotics. Tests were also made for evidence of Q fever infection. The survey showed 38 per cent of the 1,101 herds tested had some animals infected with mastitis. No evidence of Q fever was detected in any of the herds. There was some evidence to relate an outbreak of sore throats in one group of school children with staphylococci in the raw milk distributed in that village.

An outline of the services provided is set out in the following table.

	<i>Specimens</i>	<i>Examinations</i>
<i>All animal pathology services</i>	10,861	20,692
<i>Milk quality</i>	7,105	
Leucocytes		3,333
Culture		6,285
Antibiotics		2,241
Ring tests		3,415
Q Fever		1,101
<i>Other veterinary services</i>		
Bang's test (Brucellosis)	2,666	2,666
Cultures and sensitivity	734	1,295
Autopsies	168	168
Parasites (poultry)	53	53
Animal inoculations	62	62
Blood films and counts	37	37
Vaccines	7	7
Miscellaneous	29	29

Contractual Services

The Provincial Laboratories contract with the Dairy Department of the University of Saskatchewan to examine weekly milk samples from dairies located in the northern part of the province. This arrangement permits a faster service to those areas and reduces the shipping problem that would be involved in despatch to Regina. A total of 347 samples were so examined for our account.

Associated Laboratories

The laboratories of the Saskatchewan mental 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. A considerable volume of milk and water examinations are made for residents of the northwest part of the province from the North Battleford hospital. These examinations and other emergency bacteriological services are made available with the assistance of a national health grant. An outline of the work of the two laboratories is set out below.

Type of examination	Saskatchewan Hospital North Battleford	Saskatchewan Hospital Weyburn
All examinations	17,757	12,543
Haematology	7,896	6,514
Biochemistry	4,264	2,752
Diagnostic bacteriology	666	42
Urine analysis	1,964	2,912
Sanitary examinations of water	1,784	52
Sanitary examinations of milk	1,183	271

PSYCHIATRIC SERVICES

The Year in Review

The Psychiatric Services Branch is responsible for programs dealing with mental illness, mental deficiency and mental health promotion. The purposes of the branch involve education, identification of community needs, preventive treatment, treatment, rehabilitation and research. For the unfortunate few who do not recover, the branch provides continuing care.

In 1958-59 an average population of over 4,500 citizens was receiving in-patient treatment. Over 2,700 people came to the community services as out-patients during the year. A staff of more than 1,900 employees devoted themselves to the welfare of this group of over 7,200 citizens.

This report is based on the activities of a wide range of psychiatric facilities: three psychiatric wards, fifteen community psychiatric services, one research unit, two provincial hospitals and one training school for defectives. It tells what was done about minor and major mental ills and shows something of the extent of these ills.

Admissions to the two provincial hospitals were the same as in the previous year. The number of patients decreased in one hospital and rose slightly in the other. The total patients in the two hospitals fell despite a decreasing death rate. Admissions to the psychiatric wards increased. The number of out-patients seen at the community psychiatric services increased greatly. The population of the training school remained much the same. The tables following this report should be consulted.

Treatment of patients in the hospitals and psychiatric wards and clinics was marked by the vigour and breadth of activities. The mental patient entered a new era of greater respect for the individual and special attention to his place in the community. Thoughtful modification of the structure of the treatment organization was a feature of this new era. The continuing regular visits of women from the Canadian Mental Health Association and other groups was another indication of development in the mental health field.

The staff of all units was involved in education. The public was taught, psychiatric nurses were trained and the professional groups shared educational experiences. Employees representing medicine, nursing, social work, psychology, and the special therapies were sent to centers for post-graduate training.

The research unit attracted great interest and keen scrutiny. It remained productive of both ideas and data. The value of a full-time research staff, as opposed to divided efforts, was further demonstrated.

The various facilities for treatment were modified and strengthened. Alterations were made to the southern hospital and geriatric wards were added to the hospital in the north.

Another full-time community clinic was opened to serve the southwestern part of the province. More mental health promotion and early treatment centers were planned. The future should see the dawn of the community psychiatric hospital, combining in one unit the activities of mental hospital, psychiatric ward and community clinic. This new type of hospital and "The Saskatchewan Plan" which describes it have received

widespread acclaim. World health authorities continue their advocacy of the small community psychiatric hospital. Other provinces and states have moved to adopt and implement similar plans. The Saskatchewan Plan was reviewed in the Canadian Journal of Public Health, May 1958. Supporting opinions, rationale and advantages were outlined. It is hoped that the vision developed so carefully in this province will soon become a reality.

SHORT-TERM TREATMENT SERVICES

Munroe Wing, Regina General Hospital

The Munroe Wing is a 29-year-old psychiatric unit. It consists of 33 beds in a 739-bed voluntary hospital, 50 years old this year. "The Wing" operates under the authority of the Mental Hygiene Act and under an agreement between the Department of Public Health and the Board of Governors of the hospital.

The "therapeutic community" idea of the World Health Organization remained central. A dozen different group activities were used and music and dance therapy were started. Evening activities were an integral part of the treatment program, at times organized by the patients themselves, at other times arranged by visitors from the community. Picnics for almost all patients were held for the second summer this year and without mishap. It was good for students to nurse their patients in a recreational setting in the country.

The trend towards increased admissions and shorter average stay continued. Total admissions numbered 348, an increase of 9 per cent over the previous year. This increase was partly due to more male admissions. Readmissions increased slightly over previous years. This was due to an increased proportion of female readmissions, 45 per cent of all female admissions being readmissions while only 30 per cent of all male admissions were readmissions. The average length of stay was 27 days, average population the same. Of 79 patients over age 55, seven were transferred to mental hospital. Total transfers to mental hospital were 19; only six of these had been in the unit for over a week; four transfers may represent "failures", consisting of that questionable entity "chronic schizophrenia".

Day-patients increased markedly, in effect increasing the patient capacity to a figure in the forties.

Three psychiatrists from the unit conducted monthly part-time clinics at Prince Albert, Yorkton and Qu'Appelle Indian Hospital. For the first six months of the year the part-time clinic at Swift Current was operated from the Munroe Wing. Over 300 patients were seen by the psychiatrists operating these four clinics.

In-service training was stepped up. Educational experiences were designed to include all graduate staff and improve both morale and communication. Films were shown regularly once a week and seminars were held weekly. The usual 100 nursing students received intensive training in psychiatric nursing during the year. The devotion of the lay staff remained a great asset and was a fine contribution to the therapeutic atmosphere.

The Women's Division of the Saskatchewan Farmers' Union contributed generously and the funds were used to have cupboards built in

the Occupational Therapy Department. New pictures and drapes were hung in both wards and many of the rooms. Replacement of flooring, particularly in the classroom, was discussed with the administration of the General Hospital. The marked increase in male admissions led to discussions about recreational space for men.

Psychiatric Ward, Union Hospital, Moose Jaw

On July 1st, 1956, by order of the Lieutenant-Governor in Council the third floor of the Memorial Wing of the Union Hospital Moose Jaw, was declared a psychopathic ward for the purposes of the Mental Hygiene Act. It provides for the observation, diagnosis and treatment of early and recurrent forms of mental illness. The functions and operations of the mental health clinic are closely integrated with those of the psychiatric ward, thus providing for continuing treatment and after-care of patients where necessary. This integrated program is designed for the treatment of patients within their own community, and to prevent the transfer of patients to distant mental hospitals.

In the year 1958-59 there were 227 admissions, an increase of 30 per cent over the preceding year. Readmissions have also increased to the point where first admissions and readmissions each contribute 50 per cent to the total figure. Such a high readmission rate can be expected in view of the general policies of treating all forms of psychiatric disorders and keeping patients in their own community environment. On the other hand the average length of stay per patient has been reduced from 26.3 days to 24.5 days. The advancing age of the general population is reflected in the large number of patients admitted who are 55 years of age and over. This latter group accounts for 29.9 per cent of the total admissions, and from this group, transfers to mental hospitals are more frequent. A total of 16 patients were transferred to mental institutions in 1958-59. Beds have always been available for emergency admissions, and only on rare occasions has a general waiting list been maintained.

The professional staff was constant during the year. Four psychiatrists, a psychologist, social worker, occupational therapist, and a staff of graduate and nursing students combined in-patient and out-patient therapy into an effective therapeutic program. A resident psychiatrist continued training in this setting, and more than 50 nursing students from general hospitals received training in psychiatric nursing. Representatives of the Canadian Nursing Association inspected and commended the nursing program. Visiting clergy, members of Alcoholics Anonymous, and other related agencies contributed to both the training and treatment facilities.

While the established psychotherapeutic and physical methods of treatment form the backbone of therapy, increasing emphasis was placed on milieu therapy. This therapy is applied through nursing teams, group discussions, occupational, recreational and educational groups, art therapy and psychodrama. Patients were kept in contact with their homes, families and affairs while under treatment, and in certain instances were encouraged to maintain a prescribed amount of contact with their regular employment. Ward doors were open at all times, and patients whose condition was considered satisfactory were allowed to visit at home and shop and to attend church services. Co-operative management by nurses and patients made physical restraints entirely unnecessary.

It has been proved conclusively that isolating patients for prolonged periods in mental institutions, far removed from their home, creates many and peculiar problems. The policy in the past, and again in the coming

year will be to retain patients in their own locality as far as possible. A large proportion of patients suffer from chronic and recurrent illness and it is expected that readmissions will continue to increase. It is also expected that there will be a further increase in the admission rate of aging patients. To deal with such developments a program of rehabilitation and supervision is being devised. These services can be provided through home visiting and supervision by social workers, through the help of voluntary welfare agencies and the regular assessment of patients at mental health clinics.

Psychiatric Ward, University Hospital

The Department of Public Health budgeted for 20 positions at this fully-staffed psychiatric ward at the University Hospital in Saskatoon. Admissions rose 12 per cent during the year and the average daily census increased from 31.2 to 33.9 patients.

COMMUNITY PSYCHIATRIC SERVICES

Mental Health Clinic, Regina

The clinic provides an out-patient service to Regina and the surrounding districts. The clinic provides diagnostic, consultative and therapeutic service for patients suffering from emotional or mental illness. The authority for its operation is Section 37 (a) of the Mental Hygiene Act.

Patients were accepted on a referral from physicians and agencies which include the provincial Department of Social Welfare and Rehabilitation, and, in the city of Regina the Family Service Bureau and the Catholic Welfare Society. In addition, consultation was provided for the Harrow DeGroot School for retarded children and the Regina public school system. Clinic personnel attended part-time clinics at Prince Albert and Fort Qu'Appelle. Lectures were given to the nursing students at the Regina General Hospital and the Regina Grey Nuns' Hospital.

In the year 1958 a total of 504 patients were seen. Of these, 346 had not before received psychiatric attention. Clinic psychiatrists continued to care for in-patients at the Munroe Wing, assisted with the teaching program for affiliate students, and took an active part in special study meetings held weekly.

For half of 1958 the clinic was without the services of a psychologist. This made difficult the adequate assessment of some types of cases.

The trend for a greater demand for marriage counselling services continued. It seems necessary to note this trend when staff is being selected.

The need for additional space remains a big problem. A well-equipped playroom would greatly facilitate work with children. Investigations are to be made to see if some improvement can be made.

MacNeill Clinic, Saskatoon

The MacNeill Clinic has been the busiest of all the out-patient centers. The personnel consists of the director, another psychiatrist, a psychologist, a social worker, an occupational therapist, a full-time and part-time reading therapist, a speech therapist and two stenographers.

That the inclusion of so many disciplines is desirable is amply demonstrated by the very great demand for the various services they provide. For instance, when speech therapy and reading therapy were instituted at the MacNeill Clinic, both were operating from waiting lists within a matter of months.

A second factor which greatly influences the work load is the excellent liaison between the clinic and the school systems. The MacNeill Clinic specializes in child psychiatry and a little more than half of the patients are children. On the average, considerably more man hours are required in the assessment and treatment of children than of adults. It is also even more essential to fully involve the families. Seven hundred and fifty three patients received the services of the MacNeill Clinic in 1958. Of these, 471 were people who had not been to the clinic in any previous year. These figures represent 111 per cent of the 1957 caseload. In terms of man hours, the increase from 1957 to 1958 was 38 per cent. The work load has been doubled since 1956.

The part-time clinic in Prince Albert was formerly staffed from the MacNeill Clinic. However, in order to make more time available for the work in Saskatoon, that clinic was turned over to the staff of the Munroe Wing, Regina General Hospital.

The personnel of this clinic continue to be extremely active in the field of mental health education and mental health promotion. In particular, the director, a child specialist, provides regular guidance to medical students and nurses and, on a consultant basis, to medical practitioners, welfare agencies and public groups. The social worker works closely with the educational services and the psychologist does much consultant work for the John Dolan School.

Mental Health Clinic, Moose Jaw

The clinic provides consultative, therapeutic and preventive services on an out-patient basis to residents of Moose Jaw and district. It is closely integrated with the functions and operations of the psychiatric ward, and acts as an admission, discharge and follow-up unit. The same professional staff serves both units, facilitating better communication and continuity of treatment.

Over the last five years there has been a steady increase in the demand for services from this clinic. In the year 1958, a total of 547 patients were referred; an increase of 11.6 per cent over the preceding year. While the number of new patients remained steady there was a marked increase in the number of former cases referred for treatment. Patients are referred through their family physician, from the Department of Social Welfare and Rehabilitation, local clergy and magistrates courts.

While diagnosis still is the most frequent purpose of referral, there was an ever increasing demand for treatment on an out-patient basis. To cope with this demand, group psychotherapy sessions were conducted regularly on certain evenings. The average attendance at these meetings was 20 patients. Various media were utilized to promote discussion, and art work was very useful in this respect. Close supervision and support was provided for the more chronic patients in the community through a home visiting program conducted by the social worker attached to the clinic. Many elderly patients with symptoms of senility in local hospitals, homes for the aged, and nursing homes received the benefits of psychiatric consultation at regular intervals. The part-time clinic at Assiniboia is

conducted by the staff of the Moose Jaw Clinic at monthly intervals. In the field of public relations and education, members of the clinic staff have lectured to various service clubs, home and school associations, etc. and were active in community projects.

Statistics for the year, 1958-59 indicate a marked increase in treatment interviews. Any further extension of treatment service cannot be undertaken without additional professional staff. Excellent co-operation from local physicians ensured that no patient was denied care and treatment.

Mental Health Clinic, Swift Current

This clinic was established July 1958 to provide out-patient psychiatric services in the southwest part of the province. It replaced a clinic held on a once monthly basis and staffed from professional personnel in Regina.

The services provided are to some extent unique since it is the first full-time clinic to deal with a primarily rural population. The orientation is one of social psychiatry with treatment philosophy being geared not to the patient only but to the patient in the context of his environment. Geography has dictated that the clinic must be very mobile and domiciliary visits and hospital consultation throughout the southwest have become part of the regular routine. In order to facilitate better coverage, monthly part-time clinics were established at Shaunavon and Maple Creek.

The clinic served people with a wide range of problems. The referrals from general practitioners and from social welfare agencies included not only people suffering from mental and emotional disorders but also those seeking guidance of many kinds such as marital and vocational. In larger urban centers many of these problems are funnelled to other agencies which do not exist in Swift Current. The clinic provided assessment and consultative services to the administrators of special classes for retarded children. It also worked closely with the local branch of the Canadian Mental Health Association and, as one joint project, a recreational club for patients was started. This is held at the clinic once weekly and is supervised by the psychiatric social worker.

The clinic was very active in mental health promotion and the staff were in great demand to interpret to various groups the psychiatric program of the province, mental health principles and the career opportunities in the mental health field.

There are no in-patient psychiatric facilities in the Swift Current area but very close liaison has been maintained with the psychiatric ward of the Union Hospital, Moose Jaw; the Munroe Wing, Regina General Hospital and the Saskatchewan Hospital Weyburn. Patients are assisted to remain in the community wherever possible and with the fine co-operation of the general practitioners in the southwest, few patients are now being sent directly for in-patient care without first having been screened through the clinic. Patients discharged from in-patient centers are referred to the clinic for follow-up services. The principle of a regional psychiatric service covering the southwest has aroused great interest and as it is progressively instituted will certainly have the support of the public.

Part-Time Community Clinics

Part-time clinics were held at Kindersley, Assiniboia, Prince Albert, Yorkton, North Battleford, Weyburn, Maple Creek, Shaunavon, Biggar,

Rosetown, and at Qu'Appelle Indian Hospital. These were staffed from the hospitals, the psychiatric wards and the full-time clinics.

These clinics provided consultation rather than treatment. Particular attention was paid to supply referring agencies with careful reports. Special efforts were made to use community resources in implementation of any recommendations.

In 1958, 763 patients were seen at the part-time centers, an increase of 56 per cent over the previous year.

PSYCHIATRIC RESEARCH

The psychiatric research group in Saskatchewan has its headquarters at the University Hospital, Saskatoon but full-time researchers are also based at the Saskatchewan Hospital North Battleford and the Saskatchewan Hospital Weyburn. The disciplines represented include psychiatry (five), psychology (five), biochemistry (four), nursing (five), and a considerable number of laboratory technicians, follow-up workers, statisticians and clerical staff. In addition to these full-time personnel much assistance is received from clinical and administrative personnel in the various psychiatric facilities.

The central theme of the research continued to be the biochemistry of schizophrenia. Once again, the Saskatchewan theory that the metabolism of adrenalin derivatives may be responsible for the schizophrenic processes received further verification. The senior staff gave lectures across North America and in Europe and about 40 research papers were published. Senior personnel were invited to contribute reviews, chapters and monographs to chemical, psychiatric and psychological publications. The biochemists have been remarkably successful with the synthesis of adrenalin derivatives which were heretofore thought unstable and have also been able to demonstrate the presence of some of them in humans. The most important of these is adrenochrome which, when administered to subjects, produces symptoms similar to schizophrenia.

Much effort was expended in learning more about the particular way in which the schizophrenic person experiences the world. The research group at the Saskatchewan Hospital Weyburn were particularly concerned with the description of the schizophrenics' world—his perceptions and his thought processes. This group has also investigated in detail the effect of hospitalization on the schizophrenic person and the results of the research as being applied through architectural design and decorative changes. The understanding of schizophrenia was further increased through the use of drugs which produce models of the symptomatology.

A long-term project is underway to provide more information about the course of the schizophrenic illness. Schizophrenic patients were discharged and followed up in the community and assessed in a systematized fashion. Some groups are receiving medication and the results will be compared against those groups who have received no treatment following discharge from hospital. The co-operation received from the patients and their families in this research has been quite outstanding.

Studies have also been carried out in other directions. At the Saskatchewan Hospital North Battleford, for instance, a study is underway to determine whether or not the cholesterol lowering action of nicotinic acid (suggested in Saskatchewan some years ago and now confirmed) will

be of assistance in protecting people against arteriosclerosis. Nicotinic acid has already become a treatment for angina pectoris. Results also indicate that nicotinic acid may be of some help to acute schizophrenics. A senior specialist in psychiatry was awarded an English M.D. on the basis of his study of narcolepsy.

It was discovered that one of the adrenaline derivatives, leuco-adrenochrome, has anti-tension and anti-depression properties and another derivative is useful for producing a feeling of well-being and alertness in the absence of tension. Research will be carried out on the usefulness of these substances in the treatment of some psychiatric disorders.

Considerable research has been done into a method of treating alcoholism and this research is expanding with the co-operation of the province's bureau on alcoholism. A good percentage of alcoholics who have previously responded to no form of therapy have improved markedly following the administration of lysergic acid diethylamide and accompanying psychotherapy.

In summary, the research group has been extremely active and is known all over the world for its contributions. One of the reasons for this is that the majority of the staff are full-time researchers rather than part-time as is common in many places. Another reason is the interdisciplinary approach which makes it possible to examine the extremely promising hypothesis of the Saskatchewan group from many different points of view.

INSTITUTIONAL SERVICES

Saskatchewan Hospital North Battleford

This hospital is responsible for the provision of psychiatric services to the northern half of the province. Although the admission rate this year was comparable to that of previous years, the average daily patient population continued to decline. From 1954 to 1958 the populations were 1,902, 1,890, 1,842, 1,805 and 1,749.

Treatment

Increasing group activities, diversification of occupational and recreational therapy, group and individual psychotherapy, and milieu therapy enriched the therapeutic atmosphere of the hospital. Physical treatments were still applied. With use of the psychopharmaceuticals there was a further reduction in electrotherapy and insulin coma therapy.

The program of self-care, both intra-mural and extra-mural, helped in resocialization and rehabilitation of patient. With more psychiatric social workers and their greater participation in the therapeutic team, rehabilitation measures were more effective. Rehabilitation was enhanced by the valuable services of the Canadian Mental Health Association volunteer visitors. These visitors bridged the gap between the patients and the community. Under direction of the hospital staff they helped the patients develop positive relationships. They visited regularly from North Battleford, Saskatoon and Prince Albert on weekly, bi-monthly or monthly basis.

The part-time mental health clinics at North Battleford, Kindersley, Biggar and Rosetown are active.

Staff

A relatively full staff was maintained. Good numbers of qualified young people are turning to psychiatric nursing as a career and it was possible to avoid the use of temporary nursing aides except during the vacation months.

A supervisor of social work was appointed with a resulting improvement in that department. Psychologists were not available. It was difficult to maintain an adequate working force in some technical areas notably the laboratory and the kitchen.

Training of Staff

The residency training program for psychiatrists, approved by the Royal College of Physicians and Surgeons of Canada, continued with an active enrolment of three. Clinical psychiatric and clinical pathological conferences were conducted regularly. The superintendent and clinical director continued seminars in psychiatry at the Saskatchewan Hospital North Battleford and at Saskatoon. Medical students at the University of Saskatchewan were taught.

The psychiatric nurse training program maintained its intensive activity with 150 students. Thirty-three students graduated in 1958. The "block system" for the first year students was instituted and promised to be worthwhile.

Jointly on the part of management and the Saskatchewan Psychiatric Nurses Association a series of lectures was given to the members of the Saskatchewan Psychiatric Nurses Association by staff and guest professionals. The lectures were on modern trends in psychiatry and psychiatric nursing.

Two psychiatric social workers were away on postgraduate courses and a third completed a second year at the School of Social Work in Manitoba. One nurse attended the University of Saskatchewan School of Nursing to specialize in teaching and supervision. This course was completed by another nurse. Some members of medical and nursing staff attended out-of-province scientific sessions with benefit to the hospital and themselves. Psychiatrists, nurses and social workers responded to numerous invitations to act as guest speakers for community groups.

Facilities

Construction of new wings to the irrigation site building, started the previous year, was completed. Psychogeriatric wards now provide bedroom and dayroom facilities for 120 elderly and ambulatory patients. This eased overcrowding somewhat in the older parts of the hospital and the accommodation in the new units meets minimum standards.

In the main buildings of the hospital there were improvements in ward furnishings. Additional T.V. sets and fishing equipment were contributed.

Natural gas was introduced at the irrigation site during the year and to the power plant and the kitchen of the main building. Coal as standby was replaced by oil. The change to natural gas reduced the cost of producing steam used for heat and generation of electrical energy.

The sterilizer for clothing and mattresses was replaced by installations using dry heat and cold sterilization. Construction of a delivery

ramp at the main building was completed. Improvements in the laundry service came from construction of chutes at the main building, the installation of a second extractor in the laundry and the making of plans for reorganization of laundry activities. An additional log root-cellar with temperature control was constructed and garden produce preserved in better state. The sewage lagoon was completed and the obsolete sewage disposal plant demolished.

Farming operations continued with a trend towards more mechanization. Potato harvesters from the previous year and the use of a new combine-bailer accelerated harvesting. These machines reduced the dependence upon patient help. On land north of the river where irrigation was not provided the field crops yielded below average. The orchard yielded well. The return on livestock and gardens was good.

Within the limits of staff and budget, major repairs were made in three cottages, the nurses' home, and the men's quarters. Maintenance was carried on throughout the hospital and other buildings. The Department of Public Works carried out a survey of staff dwellings on the grounds for the purpose of renovation. A survey is recommended for modernization of ward and dietary space which will provide classroom and office accommodation. Reservoir pumps at the main building will require installation. The decreasing water supply at the irrigation site and a change in the water supply of fire hydrants at the irrigation site continue as pressing needs.

Saskatchewan Hospital Weyburn

The Saskatchewan Hospital Weyburn served the southern half of the province by providing care and treatment to 614 admissions as well as approximately 1,500 long-stay patients. Out-patient services were limited to the Weyburn district but plans were laid for an extension through part-time clinics. Aged patients constitute an increasing percentage of admissions, meanwhile the chronically hospitalized are also becoming steadily older.

The year ended with 21 more patients in hospital than at December 1957. However, the average patient population for the year was 1,564 as opposed to 1,581 the previous year. New admissions increased by 44 to 321 and added to 293 readmissions gave an admission total of 614.

Treatment

Progress was made in organizing the hospital into two co-ordinated and different sorts of therapeutic activity. There was (1) individual therapeutic activity and (2) social and group therapeutic activity. This differentiation allowed clarification of the function of the different professional groups. A nurse co-ordinator for voluntary visitors was appointed. The occupational and recreational therapy departments were reorganized and extended, with the appointment of four "activity" nurses and a supervisor. The result was continued progress in the task of keeping more patients therapeutically active most of the time.

The recreational therapy department was broken into a series of individual therapeutic enterprises. These were: (1) music therapy; (2) art therapy and (3) physical therapy. (It is hoped later to be able to add more.) These sub-departments were responsible to a co-ordinator of individual therapies. A senior recreational therapist took charge of "after five" activities when many of the staff have left the hospital and

patients were encouraged to take more responsibility for their social activities.

Experiments were started to determine the most fruitful means of utilizing the skills of the social workers. A series of lectures to social workers were given and efforts made to co-ordinate the social work, nursing and psychiatric activities. Problems in relationship and communication in the nursing organization were discussed and their solutions sought.

Whereas the milieu therapy approach received the dominant attention of the administration because of the structural changes required, the individual treatment of patients continued along traditional lines. The tranquillizing drugs were extremely helpful both in their direct therapeutic effect with some patients and as an adjunct to good nursing. Many patients were continued on these drugs following parole and discharge. Electric therapies continued to be useful with disorders of short duration, particularly depressions.

The aged population received improved care for their physical needs. The number of physicians, as opposed to psychiatrists, was increased to make three full-time medical personnel available to care for their needs and also the needs of the younger patients who occasionally require care in the infirmary. Many of the very aged patients are quite feeble on admission and they require the best which physical medicine can offer. This is difficult when the wards are large and the number of nurses limited.

Staff

Three doctors joined the staff during the year and one was transferred. Medical strength was maintained but remained a matter for concern.

The number of psychiatric nurses increased from 112 at the end of 1957 to 132 at the end of 1958. Total nursing staff remained the same as at the end of 1957 and was 406. With the introduction of the 40-hour week there were still few nurses compared to the number of patients and the service needed.

The social work department now has an establishment for 12 and because of a very active training program these positions are progressively being filled by capable people.

Research

An anthropological study of the hospital was carried out with the aid of a Commonwealth Fellowship. Other research this year was continued on lines similar to the previous one. Perceptual studies were expanded. Studies of disculturation were encouraging. A series of drug studies was carried out. The hospital research was closely linked to that of the director of psychiatric research at the University Hospital and during the summer months blood was sent to the University on ice for various researches. Vast numbers of possible projects were presented and the ones most relevant were selected.

The personnel department did an interesting research of sick leave. This showed that psychiatric nurses took no more sick leave than other government employees. It had been curious that both union and management had supposed that these nurses took more sick leave than in fact they did.

Training of Staff

The clinical director took part in an institute on chronic schizophrenia and hospital treatment. The superintendent gave a seminar on mental hospital design at Columbia University School of Public Health. One physician obtained his certificate as a specialist in psychiatry through the Royal College of Physicians and Surgeons of Canada.

The Saskatchewan Psychiatric Nurses Association made progress towards further professionalization. This should have a valuable effect. The electrocephalogram technician returned from training.

The personnel department gave good service; a training program and outside recruitment yielded an average annual increase in graduate nursing staff of 20 nurses. The hospital was up to strength for a longer period than in any time during the past ten years. This was partly due to economic conditions.

Facilities

The chief engineer had a busy year during which a new boiler was installed, eliminating the coal gang and shovelling of coal by patients. A new water heater was installed and an obsolete generating unit replaced. The water department gave efficient service and at the filtration plant gas heating was installed along with an intake pump. The maintenance staff was extremely busy and the results of their efforts were seen about the hospital. The plumbing and wiring was largely renewed with the help of the Department of Public Works.

The dietitian continued improvement of feeding arrangements, more modern equipment was installed, and the kitchen area remodelled. A modern smoke-house permitted curing of hams to improve the diet. The dining rooms were improved and the general principle of decentralized dining rooms was developed, although staff shortages made this difficult.

The milk production increased while vegetable production, however, suffered due to drought. Extensive changes were made with the new road system planned by the Department of Public Works.

The cleaning department gave good service, but with the hospital being an enormous building, the cleaning department needs to be strengthened. The laundry appeared out of date and a new one seemed necessary.

Microfilming of records proceeded but more slowly than hoped. By extensive use of dictaphones and a copier, secretarial needs were kept in check but modern equipment was needed to save on personnel. During the year under review, the hospital became busier, more writing was done, and this was all to the good.

The central part of the building for occupational, recreational, research, training and personnel facilities was completed. A fine room was allocated for the visiting program and was commented on by nearly all visitors. One of the basements was extensively remodelled. Plans were made for the next stage in the roof conversion on the southeast wing. Extensive paving was done, particularly in front of the building.

Comment

The hospital continued to improve. The clinical organization was more sensitively attuned to therapeutic function. Despite many obstacles and much to be learned, real progress was made. There was a need to ask penetrating questions and seek for answers.

The business side of the hospital was becoming more able to meet the needs of the clinical side. There were still difficulties and shortages of all sorts. However, it was gratifying to see how determinedly these were tackled.

It is important at this stage to maintain the momentum of the program. Simply carrying on at the current level is discouraging to those keen people on whose keenness the well-being of the patient chiefly depends.

Saskatchewan Training School, Moose Jaw

The Saskatchewan Training School, Moose Jaw provides accommodation for roughly 1,100 mentally retarded people in all age groups. It is the only centre offering in-patient care to the mentally retarded with the exception of a small privately operated community in Rosthern. The turnover of patients is relatively small because only those retarded with the higher intelligence levels can be trained to take up productive lives outside of the hospital. In recent years it has been necessary to admit almost entirely severely retarded children since this group have presented the most serious problems in home and community. The majority of these require permanent care.

Because the greater number of patients being cared for are severely retarded and cannot be discharged, the rate of admission is very low. Over 500 children and adults are awaiting admission. This is in spite of the relatively large amount of accommodation provided for the retarded in Saskatchewan as compared with other provinces and other parts of the world.

Those patients who most urgently required admission were given priority as suitable beds became available. The training school is designed on a cottage basis permitting segregation on the basis of sex, age, intellectual level and level of physical health. When a bed becomes available in a particular cottage it must be filled from the waiting list by a patient who meets the criteria for that particular cottage.

During 1958, a total of 41 patients were discharged or died. There were 48 new admissions and three readmissions. Some patients were admitted on a temporary basis during the summer months when beds were available because of a summer camping program.

Treatment

The activity program generally expanded during the year. Some of the programs, initiated in 1958, and others which were started on a smaller scale in earlier years, proved extremely stimulating and useful both for the patients and for staff morale. Perhaps the most prominent was the expansion of the camping activities.

A camp site at Long Lake was made available by the Lions Club on a dollar a year basis and 150 patients were transported there for 10-day camping trips. The response of the patients was remarkable. They tended to function at the maximum of their potentialities, and in some cases at well above estimated levels. Some regular absconders dropped this habit during and following camping. Fine group feeling developed and they returned to the training school to put much more zest into their training programs there. While at camp, the patients learned swimming and safety rules and received training as cubs, scouts and guides.

A large number of younger patients spent the summer days in day camps in the ravine on training school property. They returned to their cottages to sleep or when the weather was unsuitable. This enterprise was also a great success, although the administration would have been very difficult without a very enthusiastic staff.

A Girl Guide company was formed and run by volunteers from the city of Moose Jaw. These girls took part in activities of Guides in the city in the same way as the Scouts and Cubs have done for a longer period of time. This is resulting in better acceptance of the patients in the community and in improved socialization of the patients.

The volunteers from the city were formally organized into an auxiliary. They arranged volunteer visits, birthday parties, Christmas presents, evening activity classes, home visits to members in the city, and an "adoption" program for letters and presents. Three hundred and fifty patients were involved. This group of citizens has also helped out at sports days and concerts.

Another unique and highly worthwhile program began late in 1958. The staff of the training school started a program of seminars for the parents of retarded children in the community. One or both parents could attend the three-day seminar which consisted of lectures and demonstrations designed to be of help to the parents faced with bringing up a retarded child in the community.

Other activities consisted of supplying speakers who assisted with the work of the association for retarded children.

The intensification of the treatment program was assisted through the recruitment of a clinical director and through additions to the occupational and recreational therapy department. A research study of the use of tranquilizers was carried out successfully and over-activity in the severely retarded was markedly reduced. The destruction of clothes and furniture became almost nil and useful activity has increased accordingly. The staff of the training school is co-operating with the professor of paediatrics at the University of Saskatchewan in his program of studies into the causation of mental retardation. The psychologists were planning a study into rehabilitation.

Staff

There was a considerable turnover of staff, particularly in the nursing group. In that group, separation from the service was on a ratio of approximately seven nursing staff to one in any other group. Fortunately, the recruitment of student psychiatric nurses showed some improvement although the number of male applicants is still quite inadequate. The ratio of student nurses to graduate nurses was still much too high. The position of supervisor of therapy remained unfilled and in the absence of a sufficient number of trained occupational therapists, occupational therapist assistants had to be employed instead.

An active staff training program is helping to improve the situation. The block system for training first-year nursing students permits the training of greater numbers at that level. This in turn leads to larger second- and third-year classes. Deficiencies in the number of qualified occupational therapists were partly balanced through the supervisor of occupational therapy spending more time on the training of nurses in various techniques. The quality of the senior nursing staff is improving through awards of financial assistance to selected staff members while

attending the University of Saskatchewan. The senior social worker is also receiving further training. Two staff members were sent to Kingston, Ontario to qualify as occupational therapy assistants through a four-month psychiatrically orientated course.

Facilities

Considerable progress can be reported in the corrective maintenance within the institution. Assistance was available through the Department of Public Works.

The heating changeover in the hospital and administration building was completed. This included an increase in radiation, re-zoning of the whole area, changing from hot water to steam in certain areas, and operating on exhaust steam with a considerable saving in heating costs.

Due to a change in water treatment, a vast improvement was achieved in maintenance of the steam line distribution. Not only did this reduce the corrosion element but it reduced the fed water make-up in the boilers of the power plant as well. Replacement and relocation of the condensate tanks in the power plant proved most satisfactory.

Number two pump station was improved to a very appreciable extent by relocating all electric controls and emergency pumping equipment to the main floor. An additional alarm installed has paid for itself many times over in the prevention of flooding of raw sewage.

The installation of a ventilation system in the laundry added greatly to the comfort and working conditions of both staff and patients employed there. The control of lint in the laundry reduced motor maintenance.

In the kitchen area, the installation of special glass has reduced the glare and heat. Ventilation of the bakeshop and kitchen eliminated problems.

The repairing of defective roofs was carried on throughout the year. The roof on the hospital and administration building was renewed in its entirety. Roofs of other buildings were patched. This work will continue.

Lack of hot water in the wards in the Parkview area was corrected with the installation of five new tanks. These were replaced as the others had corroded to such an extent that they were leaking badly.

More perimeter fencing was done. The build-up of shelter belts was continued with more trees planted both in the spring and fall.

Lawns were planted around the staff residences, and grading of lawn areas around the Parkview cottages was also done. Fall rye was planted to hold some of these areas until they can be completed. A considerable effort is still required to complete the landscaping of the grounds.

TABLE 13. MOVEMENT OF PATIENT POPULATION OF THE MUNROE WING, REGINA GENERAL HOSPITAL, THE PSYCHIATRIC WARD, MOOSE JAW UNION HOSPITAL, AND UNIVERSITY HOSPITAL, SASKATOON, SASKATCHEWAN, 1958

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		Both sexes	Sex of patient	
		Male	Female		Male	Female		Male	Female		Male	Female
In hospital January 1, 1958.....	57	28	29	16	9	7	12	5	7	29	14	15
Admissions during 1958.....	1,053	476	577	348	157	191	227	95	132	478	224	254
First admissions.....	611	276	335	215	110	105	111	49	62	285	117	168
Readmissions.....	442	200	242	133	47	86	116	46	70	193	107	86
Discharges during 1958.....	1,043	477	566	343	158	185	220	91	129	480	228	252
Returned home, improved.....	800	346	454	257	116	141	181	75	106	362	155	207
Returned home, unimproved.....	88	43	45	54	24	30	12	4	8	22	13	7
Transferred to general hospitals.....	32	14	18	10	4	6	11	6	5	11	4	7
Transferred to mental hospitals.....	104	58	46	19	11	8	16	6	10	69	41	28
Deaths.....	4	4	.....	3	3	.....	.....	.....	.....	1	.....	.....
Other.....	15	12	3	.....	.....	.....	.....	.....	.....	15	12	3
In hospital December 31, 1958.....	67	27	40	21	8	13	19	9	10	27	10	17
Total number of patient days.....	28,186	.....	.....	9,943	.....	.....	5,863	.....	.....	12,380	.....	.....
Average daily census.....	77.2	...	.....	27.2	....	....	16.1	....	....	33.9	....	....
Average length of stay (days).....	25.4	.....	.....	27.3	.....	.....	24.5	.....	.....	26.9	.....	....

TABLE 14. AGE OF PATIENTS ADMITTED TO THE MUNROE WING, REGINA GENERAL HOSPITAL, AND THE PSYCHIATRIC WARD, MOOSE JAW UNION HOSPITAL, SASKATCHEWAN, 1958

Age of patient	Number			Per cent		
	Both sexes	Male	Female	Both sexes	Male	Female
Both Institutions						
All ages.....	575	252	323	100.0	100.0	100.0
Under 15.....	4	1	3	0.7	0.4	0.9
15-34.....	160	62	98	27.8	24.6	30.3
35-54.....	265	112	153	46.1	44.4	47.4
55 and over.....	146	77	69	25.4	30.6	21.4
Munroe Wing, Regina						
All ages.....	348	157	191	100.0	100.0	100.0
Under 15.....	4	1	3	1.2	0.6	1.6
15-34.....	108	47	61	31.0	29.9	31.9
35-54.....	158	70	88	45.4	44.6	46.1
55 and over.....	78	39	39	22.4	24.9	20.4
Psychiatric Unit, Moose Jaw						
All ages.....	227	95	132	100.0	100.0	100.0
Under 15.....	....	....	....	....	....	....
15-34.....	52	15	37	22.9	15.8	28.0
35-54.....	107	42	65	47.1	44.2	49.3
55 and over.....	68	38	30	30.0	40.0	22.7

TABLE 15. DIAGNOSIS OF PATIENTS ADMITTED TO THE MUNROE WING, REGINA GENERAL HOSPITAL, SASKATCHEWAN, 1958

Diagnosis*	Both sexes	Sex of patient	
		Male	Female
All diagnoses.....	348	157	191
Psychoses (300-309).....	190	87	103
Schizophrenic disorders (300).....	98	47	51
Maniac-depressive reaction(301).....	34	10	24
Involitional melancholia (302).....	25	8	17
Paronia and paranoid states (303).....	3	2	1
Senile psychosis (304).....	16	9	7
Presenile psychosis (305).....	1	1	....
Psychosis with cerebral arteriosclerosis (306)....	3	....	3
Alcoholic psychosis (307).....	6	6	....
Psychosis of other demonstrable aetiology (308).....	2	2	....
Other and unspecified psychoses (309).....	2	2	....
Psychoneurotic disorders (310-318).....	79	26	53
Anxiety reaction without mention of somatic symptoms (310).....	23	9	14
Hysterical reaction without mention of anxiety reaction (311).....	14	4	10
Phobic reaction (312).....	1	....	1
Obsessive-compulsive reaction (313).....	3	3	....
Neurotic-depressive reaction (314).....	17	3	14
Psychoneurosis with somatic symptoms affecting circulatory system (315).....	....	....	....
Psychoneurosis with somatic symptoms affecting digestive system (316).....	4	....	4
Psychoneurosis with somatic symptoms affecting other systems (317).....	3	2	1
Psychoneurotic disorders, other, mixed, and unspecified types (318).....	14	5	9
Disorders of character, behaviour and intelligence (320-326).....	65	35	30
Pathological personality (320).....	19	11	8
Immature personality (321).....	15	5	10
Alcoholism (322).....	24	16	8
Other drug addiction (323).....	2	....	2
Primary childhood behaviour disorders (324)...	2	1	1
Mental deficiency (325).....	1	1	....
Other unspecified character, behaviour, and intelligence disorders (326).....	2	1	1
Epilepsy (353).....	6	5	1
Other.....	8	4	4

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

TABLE 16. DIAGNOSIS OF PATIENTS ADMITTED TO THE PSYCHIATRIC WARD, MOOSE JAW UNION HOSPITAL, SASKATCHEWAN, 1958

Diagnosis*	Both sexes	Sex of patient	
		Male	Female
All diagnoses.....	227	95	132
Psychoses (300-309).....	112	49	63
Schizophrenic disorders (300).....	24	9	15
Manic-depressive reaction (301).....	28	12	16
Involutional melancholia (302).....	14	4	10
Paranoia and paranoid states (303).....	10	7	3
Senile psychosis (304).....	8	3	5
Presenile psychosis (305).....	2	1	1
Psychosis with cerebral arteriosclerosis (306).....	15	9	6
Alcoholic psychosis (307).....	6	3	3
Psychosis of other demonstrable aetiology (308).....	5	1	4
Other and unspecified psychoses (309).....	....	....	....
Psychoneurotic disorders (310-318).....	83	29	54
Anxiety reaction without mention of somatic symptoms (310).....	12	2	10
Hysterical reaction without mention of anxiety reaction (311).....	6	3	3
Phobic reaction (312).....	3	1	2
Obsessive-compulsive reaction (313).....	....	....	....
Neurotic-depressive reaction (314).....	43	11	32
Psychoneurosis with somatic symptoms affecting circulatory system (315).....	4	4	....
Psychoneurosis with somatic symptoms affecting digestive system (316).....	3	....	3
Psychoneurosis with somatic symptoms affecting other systems (317).....	8	6	2
Psychoneurotic disorders, other, mixed, and unspecified types (318).....	4	2	2
Disorders of character, behaviour and intelligence (320-326).....	28	16	12
Pathological personality (320).....	10	7	3
Immature personality (321).....	6	1	5
Alcoholism (322).....	8	5	3
Other drug addiction (323).....	2	1	1
Primary childhood behaviour disorders (324).....	....	....	....
Mental deficiency (325).....	1	1	....
Other unspecified character, behaviour, and intelligence disorders (326).....	1	1	....
Epilepsy (353).....	1	....	1
Other.....	3	1	2

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

TABLE 17. DIAGNOSIS OF PATIENTS ADMITTED TO THE PSYCHIATRIC WARD, UNIVERSITY HOSPITAL, SASKATOON, SASKATCHEWAN, 1958

Diagnosis*	In-patient			Out-patient
	Both sexes	Sex of patient		Both sexes
		Male	Female	
All diagnoses.....	507	244	263	688
Psychoses (300-309).....	237	109	128	188
Schizophrenic disorders (300).....	107	54	53	58
Manic-depressive reaction (301).....	44	18	26	79
Involutional melancholia (302).....	39	12	27	20
Paranoia and paranoid states (303).....	6	4	2	9
Senile psychosis (304).....	11	5	6	11
Presenile psychosis (305).....	1	1	....	....
Psychosis with cerebral arteriosclerosis (306).....	5	2	3	8
Alcoholic psychosis (307).....	2	2	....	1
Psychosis of other demonstrable aetiology (308).....	6	2	4	....
Other and unspecified psychoses (309).....	16	9	7	2
Psychoneurotic disorders (310-318).....	130	44	86	201
Anxiety reaction without mention of somatic symptoms (310).....	43	18	25	112
Hysterical reaction without mention of anxiety reaction (311).....	26	7	19	39
Phobic reaction (312).....	2	1	1	1
Obsessive-compulsive reaction (313).....	7	2	5	12
Neurotic-depressive reaction (314).....	30	8	22	15
Psychoneurosis with somatic symptoms affecting circulatory system (315).....	1	1	....	....
Psychoneurosis with somatic symptoms affecting digestive system (316).....	4	1	3	1
Psychoneurosis with somatic symptoms affecting other systems (317).....	1	....	1	2
Psychoneurotic disorders, other, mixed, and unspecified types (318).....	16	6	10	19
Disorders of character, behaviour and intelligence (320-326).....	128	88	40	169
Pathological personality (320).....	32	23	9	32
Immature personality (321).....	14	6	8	20
Alcoholism (322).....	49	44	5	17
Other drug addiction (323).....	5	3	2	1
Primary childhood behaviour disorders (324).....	1	1	....	10
Mental deficiency (325).....	6	2	4	44
Other unspecified character, behaviour, and intelligence disorders (326).....	13	5	8	37
Epilepsy (353).....	8	4	4	8
Other.....	12	3	9	130

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

TABLE 18. MOVEMENT OF PATIENT POPULATION OF THE SASKATCHEWAN HOSPITALS, NORTH BATTLEFORD AND WEYBURN, 1958

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, 1958.....	3,548	2,109	1,439	1,930	1,153	777	1,618	956	662
In hospital.....	3,339	2,036	1,303	1,785	1,107	678	1,554	929	625
On trial leave.....	193	72	121	129	45	84	64	27	37
Boarding out.....	16	1	15	16	1	15	*	*	*
Admissions during year.....	1,334	694	640	711	367	344	623	327	296
First admissions.....	767	437	330	446	251	195	321	186	135
Readmissions.....	553	249	304	260	114	146	293	135	158
Transfers received.....	14	8	6	5	2	3	9	6	3
Discharges.....	1,091	536	555	593	286	307	498	250	248
Transfers to other mental hospitals.....	13	8	5	9	6	3	4	2	2
Deaths.....	288	185	103	171	106	65	117	79	38
On the register, December 31, 1958.....	3,490	2,074	1,416	1,868	1,122	746	1,622	952	670
In hospital.....	3,317	2,014	1,303	1,742	1,073	669	1,575	941	634
On trial leave.....	156	55	101	112	46	66	44	9	35
Boarding out.....	17	5	12	14	3	11	3	2	1

*Figures not available.

TABLE 19. FIRST ADMISSIONS, READMISSIONS, DISCHARGES AND DEATHS BY AGE AND SEX, SASKATCHEWAN HOSPITAL, NORTH BATTLEFORD, 1958

Age group	First admissions	Re-admissions	Transfers in	Discharges	Deaths	Transfers out
Both Sexes						
All ages.....	446	260	5	593	171	9
Under 15.....	3	2	....	4	....	2
15-24.....	46	14	4	61	....	1
25-44.....	151	120	1	264	3	1
45-64.....	75	85	....	179	24	2
65-69.....	27	13	....	32	14	2
70 and over..	144	26	....	53	130	1
Male						
All ages.....	251	114	2	286	106	6
Under 15.....	1	1	....	2	....	1
15-24.....	25	7	2	35	....	1
25-44.....	81	60	....	134	2	1
45-64.....	36	26	....	72	18	1
65-69.....	15	4	....	15	8	2
70 and over..	93	16	....	28	78	....
Female						
All ages.....	195	146	3	307	65	3
Under 15.....	2	1	....	2	....	1
15-24.....	21	7	2	26	....	....
25-44.....	70	60	1	130	1	....
45-64.....	39	59	....	107	6	1
65-69.....	12	9	....	17	6	....
70 and over..	51	10	....	25	52	1

TABLE 20. FIRST ADMISSIONS, READMISSIONS, DISCHARGES AND DEATHS BY AGE AND SEX, SASKATCHEWAN HOSPITAL, WEYBURN, 1958

Age group	First admissions	Re-admissions	Transfers in	Discharges	Deaths	Transfers out
Both sexes						
All ages.....	321	293	9	498	117	4
Under 15.....	3	1	....	5	....	....
15-24.....	33	19	1	43	1	1
25-44.....	103	130	3	223	....	3
45-64.....	68	101	2	175	17	....
65-69.....	18	15	1	18	7	....
70 and over..	96	27	2	34	92	....
Male						
All ages.....	186	135	6	250	79	2
Under 15.....	2	....	....	4	....	....
15-24.....	20	13	1	27	1	1
25-44.....	66	64	2	125	....	1
45-64.....	35	40	1	76	11	....
65-69.....	13	9	1	6	6	....
70 and over..	50	9	1	12	61	....
Female						
All ages.....	135	158	3	248	38	2
Under 15.....	1	1	....	1	....	....
15-24.....	13	6	....	16	....	....
25-44.....	37	66	1	98	....	2
45-64.....	33	61	1	99	6	....
65-69.....	5	6	....	12	1	....
70 and over..	46	18	1	22	31	....

TABLE 21. FIRST ADMISSIONS, READMISSIONS, DISCHARGES, AND DEATHS BY DIAGNOSIS, SASKATCHEWAN HOSPITALS, NORTH BATTLEFORD AND WEYBURN, 1958

Diagnosis*	Both Institutions						Saskatchewan Hospital North Battleford						Saskatchewan Hospital Weyburn					
	First admissions	Re-admissions	Transfers in	Discharges	Deaths	Transfers out	First admissions	Re-admissions	Transfers in	Discharges	Deaths	Transfers out	First admissions	Re-admissions	Transfers in	Discharges	Deaths	Transfers out
All diagnoses.....	767	553	14	1,091	288	13	446	260	5	593	171	9	321	293	9	498	117	4
Psychoses (300-309).....	556	411	7	713	265	9	330	191	1	400	163	6	226	220	6	313	102	3
Schizophrenic disorders (300).....	172	214	5	398	30	7	109	102	1	215	15	4	63	112	4	183	15	3
Manic-depressive reaction (301).....	33	88	.....	121	6	.....	14	35	.....	58	3	.....	19	53	.....	63	3	.....
Involutional melancholia (302).....	38	26	.....	68	4	.....	29	14	.....	48	2	.....	9	12	.....	20	2	.....
Paranoia and paranoid states (303).....	12	12	.....	15	1	.....	2	2	.....	2	1	.....	10	12	.....	13	.....	.....
Senile psychosis (304).....	97	11	1	36	92	1	69	5	.....	8	59	1	26	5	1	12	29	.....
Presenile psychosis (305).....	.....	.....	.....	.....	.....	.....	2	1	.....	16	4	.....	.....	.....	.....	.....	.....	.....
Psychosis with cerebral arteriosclerosis (306).....	140	20	1	21	98	1	79	14	.....	14	63	1	61	6	1	7	35	.....
Alcoholic psychosis (307).....	8	12	.....	15	2	.....	2	4	.....	7	2	.....	6	8	.....	8	.....	.....
Psychosis of other demonstrable aetiology (308).....	56	28	.....	39	32	.....	20	13	.....	20	14	.....	32	12	.....	7	18	.....
Other and unspecified psychoses (309).....	.....	.....	.....	.....	.....	.....	4	3	.....	12	.....	.....	.....	.....	.....	.....	.....	.....
Psychoneurotic disorders (310-318).....	85	55	.....	152	8	.....	57	34	.....	93	2	.....	28	21	.....	59	6	.....
Anxiety reaction (310).....	19	5	.....	19	1	.....	12	1	.....	9	.....	.....	7	4	.....	10	1	.....
Hysterical reaction (311).....	10	4	.....	17	.....	.....	7	2	.....	11	.....	.....	3	2	.....	6	.....	.....
Phobic reaction (312).....	1	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	2	.....	.....
Obsessive-compulsive reaction (313).....	2	6	.....	7	.....	.....	.....	6	.....	5	.....	.....	2	.....	.....	2	.....	.....
Neurotic-depressive reaction (314).....	37	29	.....	77	5	.....	26	16	.....	49	.....	.....	11	13	.....	28	5	.....
Somatization reactions (315-317).....	6	2	.....	6	1	.....	5	1	.....	5	1	.....	1	1	.....	1	.....	.....
Other, mixed and unspecified psychoneurosis (318).....	10	9	.....	24	1	.....	7	8	.....	14	1	.....	3	1	.....	10	.....	.....
Disorders of character, behaviour and intelligence (320-326).....	122	72	7	203	11	4	56	27	4	82	6	3	66	45	3	121	5	1
Pathological personality (320).....	34	9	.....	50	.....	.....	13	3	.....	16	.....	.....	21	6	.....	34	.....	.....
Immature personality (321).....	18	7	.....	25	.....	.....	9	3	.....	16	.....	.....	9	4	.....	9	.....	.....
Alcoholism (322).....	37	25	.....	70	1	.....	16	9	.....	29	1	.....	21	16	.....	41	.....	.....
Other drug addiction (323).....	1	5	.....	5	1	.....	1	4	.....	3	1	.....	.....	1	.....	2	.....	.....
Primary childhood behaviour disorders (324).....	3	1	.....	6	.....	.....	3	1	.....	3	.....	.....	.....	.....	.....	3	.....	.....
Mental deficiency (325).....	15	20	7	25	5	4	6	6	4	10	3	3	9	14	3	15	2	1
Other unspecified character, behaviour and intelligence disorders (326).....	14	5	.....	22	4	.....	8	1	.....	5	1	.....	6	4	.....	17	3	.....
Epilepsy (353).....	4	15	.....	16	4	.....	3	8	.....	11	.....	.....	1	7	.....	5	4	.....
Other.....	.....	.....	.....	7	.....	.....	.....	.....	.....	7	.....	.....	.....	.....	.....	.....	.....	.....

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

TABLE 22. DIAGNOSIS OF PATIENTS ON REGISTER, SASKATCHEWAN HOSPITAL, NORTH BATTLEFORD, DECEMBER 31, 1958

Diagnosis*	Number			Per cent		
	Both sexes	Male	Female	Both sexes	Male	Female
Total on register, December 31, 1958.....	1,930	1,153	777	100.0	100.0	100.0
Psychosis (300-309).....	1,704	1,040	664	88.3	90.2	85.4
Psychoneurosis (310-318).....	67	9	58	3.5	0.8	7.5
Pathological personality (320).....	11	9	2	0.6	0.8	0.3
Epilepsy (353).....	22	14	8	1.1	1.2	1.0
Mental deficiency (325).....	97	67	30	5.0	5.8	3.9
Other.....	29	14	15	1.5	1.2	1.9
In hospital, December 31, 1958.....	1,785	1,107	678	100.0	100.0	100.0
Psychosis (300-309).....	1,583	996	587	88.7	90.0	86.6
Psychoneurosis (310-318).....	48	9	39	2.7	0.8	5.8
Pathological personality (320).....	10	9	1	0.6	0.8	0.1
Epilepsy (353).....	18	12	6	1.0	1.1	0.9
Mental deficiency (325).....	97	67	30	5.4	6.1	4.4
Other.....	29	14	15	1.6	1.2	2.2
Boarding out, December 31, 1958.....	16	1	15	100.0	100.0	100.0
Psychosis (300-309).....	12	1	11	75.0	100.0	73.3
Psychoneurosis (310-318).....	4	....	4	25.0	....	26.7
Pathological personality (320).....	....	....	....	....	....	....
Epilepsy (353).....	....	....	....	....	....	....
Mental deficiency (325).....	....	....	....	....	....	....
Other.....	....	....	....	....	....	....
On trial leave, December 31, 1958.....	129	45	84	100.0	100.0	100.0
Psychosis (300-309).....	109	43	66	84.5	95.6	78.6
Psychoneurosis (310-318).....	15	....	15	11.6	....	17.8
Pathological personality (320).....	1	....	1	0.8	....	1.2
Epilepsy (353).....	4	2	2	3.1	4.4	2.4
Mental deficiency (325).....	....	....	....	....	....	....
Other.....	....	....	....	....	....	....

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

TABLE 23. DIAGNOSIS OF PATIENTS ON REGISTER, SASKATCHEWAN HOSPITAL, WEYBURN, DECEMBER 31, 1958

Diagnosis*	Number			Per cent		
	Both sexes	Male	Female	Both sexes	Male	Female
Total on register, December 31, 1958.....	1,622	952	670	100.0	100.0	100.0
Psychosis (300-309) and psychoneurosis (310-318).....	1,421	784	637	87.6	82.4	95.1
Epilepsy (353).....	5	2	3	0.3	0.2	0.5
Mental deficiency (325).....	167	138	29	10.3	14.5	4.3
Other (including pathological personality).....	29	28	1	1.8	2.9	0.1
In hospital, December 31, 1958.....	1,575	941	634	100.0	100.0	100.0
Psychosis (300-309) and psychoneurosis (310-318).....	1,377	774	603	87.4	82.2	95.1
Epilepsy (353).....	5	2	3	0.3	0.2	0.5
Mental deficiency (325).....	166	138	28	10.6	14.7	4.4
Other (including pathological personality).....	27	27	....	1.7	2.9	....
On trial leave, December 31, 1958.....	44	9	35	100.0	100.0	100.0
Psychosis (300-309) and psychoneurosis (310-318).....	41	8	33	93.2	88.9	94.2
Epilepsy (353).....	....	....	....	....	....	....
Mental deficiency (325).....	1	....	1	2.3	....	2.9
Other (including pathological personality).....	2	1	1	4.5	11.1	2.9
Boarding out, December 31, 1958.....	3	2	1	100.0	100.0	100.0
Psychosis (300-309) and psychoneurosis (310-318).....	3	2	1	100.0	100.0	100.0
Epilepsy (353).....	....	....	....	....	....	....
Mental deficiency (325).....	....	....	....	....	....	....
Other (including pathological personality).....	....	....	....	....	....	....

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

TABLE 24. MOVEMENT OF PATIENTS, SASKATCHEWAN TRAINING SCHOOL, MOOSE JAW, 1958

Movement of patients	Both sexes	Sex of patient	
		Male	Female
On the register, January 1, 1958.....	1,169	584	585
In institution.....	1,118	555	563
On trial leave.....	51	29	22
Admissions during the year.....	51	28	23
First admissions.....	43	24	19
Readmissions.....	3	1	2
Transfers from other institutions in the province.....	5	3	2
Total patients on the register during 1958.....	1,220	612	608
Discharges, transfers and deaths.....	41	18	23
Discharges from institution.....	11	2	9
Discharges while on leave.....	12	7	5
Transfers to other institutions in the province.....	8	3	5
Deaths in institution.....	9	6	3
Deaths while on trial leave.....	1	....	1
On the register, December 31, 1958.....	1,179	594	585
In institution.....	1,123	563	560
On trial leave.....	56	31	25
Average daily census in institution, 1958	1,118	555	563

TABLE 25. NUMBER OF PATIENTS ATTENDING FULL-TIME AND PART-TIME MENTAL HEALTH CLINICS, PSYCHIATRIC SERVICES BRANCH, SASKATCHEWAN, 1958

Centres	All patients	Previous patients	New patients
All centres.....	2,715	925	1,790
Full-time centres.....	1,952	662	1,290
Regina.....	504	158	346
Moose Jaw.....	547	197	350
Saskatoon.....	753	282	471
Swift Current.....	148	25	123
Part-time centres.....	763	263	500
Kindersley.....	78	11	67
Assiniboia.....	37	10	27
Prince Albert.....	104	61	43
Yorkton.....	102	33	69
North Battleford.....	194	94	100
Weyburn.....	186	49	137
Maple Creek.....	17	5	12
Shaunavon.....	18	....	18
Biggar.....	10	....	10
Rosetown.....	17	....	17

MEDICAL AND HOSPITAL SERVICES BRANCH

In the 1958-59 fiscal year, the Medical and Hospital Services Branch continued its efforts to promote the closest co-operation with health regions and other branches of the Department of Public Health. The overall objective of this branch is to assist in improving the quality and the effectiveness of the medical and hospital services which it supervises or administers. In order to achieve greater co-ordination the branch during the year was represented by the director on the Interdepartmental Committee on Rehabilitation, on the Board of Directors of the Saskatchewan Council for Crippled Children and Adults, on the Advisory Committee on Alcoholism and on a committee dealing with the Study on Long-Term Illness and Ageing. The director was also appointed to the Board of the Canadian Arthritis and Rheumatism Society, Saskatchewan Branch and continued to serve with the Department of Social Welfare and Rehabilitation on a joint committee on eligibility for health services.

Hospital Services Plan

The signing of an agreement between the governments of Saskatchewan and Canada on the sharing of costs of the provincial scheme of universal hospital care was the culmination of many meetings and a great deal of work. Representatives from the Saskatchewan Hospital Services Plan, the Division of Hospital Administration and Standards and the branch director all took part in technical conferences on hospital insurance and sub-committees appointed to look into specific problems. It is obvious that in the formulation of national policy and procedures the long experience of the Saskatchewan Hospital Services Plan has had a major influence.

The salient points of the Federal Act are that it provides for the sharing of costs for insured in-patient and out-patient services. Insured services according to the Federal Act excludes services provided by mental hospitals, tuberculosis hospitals and nursing homes and the capital costs of hospital buildings or the depreciation or debenture interest in connection with capital costs. With the above exceptions the federal definition of insured services is very comprehensive. The formula for sharing is that the federal contribution will be calculated as 25 per cent of the national per capita cost and 25 per cent of the provincial per capita cost of insured services multiplied by the insured population in the province for the year.

A number of changes occurred in the Saskatchewan Hospital Services Plan in the fiscal year. Briefly these changes which are explained in more detail in the divisional report were as follows:

- (a) effective July 1, 1958, the waiting period for new residents was reduced from six months to three months,
- (b) the town of Creighton and the boundary areas of the city of Flin Flon were added to that portion of the province having universal coverage,
- (c) coverage became available to all Indians resident in the province,
- (d) coverage became available to all War Veterans' Allowance recipients in the province,

- (e) three geriatric hospitals were approved by the Minister for payment under the Saskatchewan Hospital Services Plan,
- (f) out-of-province coverage was extended to a maximum of 92 days, with the following proviso:

In Canada

When care is obtained in a participating province, payment is made at the per diem rates of payment established by provincial authorities. When care is obtained in a non-participating province, payment is made at daily rates not exceeding \$15 for adults and children and \$2 for newborns.

Outside Canada

Payment for a maximum of 60 days during the year at daily rates not exceeding \$15 for adults and children and \$2 for newborns.

On January 1, 1959, the Northern Saskatchewan Administration District became an area of universal hospital coverage the same as the remainder of the province. The rate of taxation for an adult was decreased from \$20 to \$17.50, and the family maximum decreased from \$45 to \$35. The tax for unmarried dependents under the age of 18 years was removed entirely.

The in-patient and out-patient services provided by cancer clinics were included in the definition of insured services under the Federal Agreement. The services provided to patients by the Provincial Laboratories with certain exceptions were defined as insured services in the Agreement.

Physical Restoration Division

A new service established in the year was a cleft palate clinic organized by the director of the Saskatoon Physical Restoration Centre. This clinic makes use of a number of specialists who provide consultation to the family physician on the best method of treatment of the problems associated with cleft palate. The specialists represented at the clinic are a paediatrician, a plastic surgeon, an orthodontist, a dentist, an otolaryngologist, a speech therapist and a medical social worker. This brings the team approach to the speech, dental, medical and other problems associated with cleft palate.

The paraplegia program has been carried on most successfully by Dr. T. E. Hunt, Chairman of the Paraplegic Screening Committee in Saskatoon. This has continued to serve a very important need and some extension of services to the home of the paraplegic patient is envisaged in the future.

Saskatchewan played host to the International Northern Great Plains Conference on Rehabilitation and Special Education in 1958. This conference was held at the University of Saskatchewan and the staff at the Physical Restoration Division took a very active part in the conference and the program. It was a real success and it caused a good deal of public interest in the overall field of rehabilitation.

Hospital Administration and Standards

The pattern of an increasing flow of patients to regional and larger district hospitals is continuing to evolve. There seems to be pressure on

the bed supply in the cities of the province with decreasing utilization of a number of the smaller community hospitals in rural areas. This trend appears to be influenced by the improvement in the facilities for transportation and also the wish of people to obtain services of specialists who are located in the larger urban centres. Studies are continuing on the utilization of hospitals. These are related to the length of stay in hospital by age, surgical rates, problems of long-stay patients and chronic illness. The medical advisor to the Hospital Services Plan has continued to review long-stay cases and with the co-operation of the medical profession and other agencies the reduction of a few years ago is being maintained. The bed-need formula is used and has been effective in maintaining good relationships with hospitals on their budgets and hospital rate decisions. The Hospital Rate Board continues to apply this formula to the determination of anticipated or recommended occupancy in each hospital during the year. This formula has also been used as a guide to estimate needs for additional beds when the Department of Public Health has been called upon to review construction proposals.

This division has continued to study the problem of institutional care for the chronically ill and has taken an active part in the committee studying long-term illness and ageing. Additional proposals have been made about the operation of chronic disease hospitals with special emphasis on rehabilitation. Attempts are being made to increase the interest of general hospitals in developing departments of physical medicine and rehabilitation.

A considerable amount of new hospital construction was carried out during the year. The emphasis appears to be mainly on remodelling, renovation and the improvement of service facilities of hospitals rather than marked extensions in size of hospitals. Increasing attention is also being given to the construction of health centres for housing physicians' offices and public health services in rural areas.

Medical Services Division

The volume of medical and related services provided to the public assistance beneficiaries by the Medical Services Division continues to increase. A new agreement was negotiated between the College of Physicians and Surgeons and the government and the agreement for the fiscal year was that physicians' accounts would be paid at 50 per cent of the 1956 Schedule of Fees for Program I and 85 per cent of the Schedule of Fees for Program II. It was estimated that this would cost approximately \$21 per capita for the long-term public assistance beneficiaries. The services provided and statistical reports on the volume of care are shown in detail in the divisional section of this report.

A special study of drug prescriptions and drug costs was carried out during the year, with continued study on drug utilization in detail. The Drug Advisory Committee established some years ago has continued to provide valuable assistance to the department in advising on those items which should be included as benefits. A special follow-up has been carried out on the use of Tolbutamide and Insulin by public assistance beneficiaries.

The Central Medical Assessment Board composed of physicians appointed by the College of Physicians and Surgeons has continued to give valuable advice and counsel to the division.

Regional Medical Care Program

The public medical care program in the Swift Current Health Region, in its twelfth year of operation, continues to be the only program of its kind in the province. The plan covers 48,000 residents offering a fairly comprehensive service. This program is administered by the Regional Board of Health and is financed from personal and property taxation imposed by the regional board under authority of The Health Services Act. The Board also received grants from the provincial government to assist them in carrying out their program. The present rate of personal taxation was \$19 for a single person, \$31 for a family of two, \$40 for a family of three and \$48 for a family of four or more. The Board also levied a property tax of approximately 2.4 mills which raised about 25 per cent of their revenue while the personal tax raises approximately 75 per cent.

Every person residing in the region for 90 days or more is eligible for care unless otherwise entitled to services through some special federal or provincial program. It should be emphasized that eligibility is based on residence only and is not affected by the payment or non-payment of the personal or property tax. Throughout 1958 benefits were unchanged and these may be stated briefly as follows:

Medical, surgical, and obstetrical care is provided by physicians resident within the region in their office, at home or in the hospital, with the exception of deterrent fees on home and office visits.

Seventy-five per cent of the schedule of fees is paid for medical and surgical care of patients referred outside the region, where such specialist care is not available within the region, and for emergency care while outside the region.

The costs of diagnostic and treatment services at hospital out-patient departments are paid on a special schedule of fees.

In order to raise the standard of radiology within the region, the board employs a radiologist whose responsibilities include interpretation of x-ray films and the examination of patients referred from all physicians and hospitals in the region and the supervision of radiological standards of the region's hospitals.

A limited dental care program with major emphasis on prevention is operated for children under 12 years of age by four dentists operating from three permanent dental clinics. They are on the regional staff.

In 1958 the Regional Board continued its three-year contract with the Swift Current Medical Society to provide necessary medical care. The Board has guaranteed to pay 100 per cent of the assessed accounts under the 1949 schedule of fees. The total cost of medical services within the region increased by \$45,000 over 1957 and the region showed an operating deficit of \$44,000. There were no significant changes in the volume of service during 1958.

As the table below shows, the total cost of administration increased from 1957.

	1954	1955	1956	1957	1958
All administration costs	\$65,058	\$67,292	\$68,755	\$65,796	\$68,733
Office salaries	33,727	30,145	29,078	27,734	28,853
Meetings	3,016	3,567	4,962	3,834	3,767
General office expense	7,128	11,441	10,010	9,628	11,711
Commissions to municipalities	21,187	22,139	24,705	24,600	24,401

The revenues of the region again increased in 1958. There was a deficit for the year of \$44,320 as the following table shows.

	1954	1955	1956	1957	1958
All revenues	\$771,091	\$801,916	\$822,748	\$900,958	\$947,840
Tax levies and penalties	732,409	743,929	756,888	824,773	830,800
Grants	56,026	61,211	63,988	64,635	69,840
Sundry	2,656	6,776	11,872	14,600	12,880
Less allowance for discounts, reserves	20,000	10,000	10,000	10,000	10,000
Deficit				6,950	44,320
All expenditures	\$771,091	\$801,916	\$822,748	\$900,958	\$947,840
Medical services	502,430	513,909	535,096	670,393	715,739
Out-patient services	68,792	66,631	67,141	72,070	69,499
Practising dentists	1,871	2,699	2,359	3,196	5,384
Radiology department	18,672	20,184	24,325	24,187	26,141
Dental department	47,941	55,599	57,516	53,245	49,720
Grants	500	1,800			
Statistics department	11,738	11,903	10,044	10,427	11,611
Capital expenditures	12,674	10,006	4,431	1,643	1,013
Commissions to municipalities	21,187	22,139	24,705	24,600	24,401
Administration	43,871	45,153	44,050	41,196	44,332
Surplus for the year	41,416	51,893	53,081		

TABLE 26. ANNUAL RATE PER 1,000 BENEFICIARIES OF REGIONAL AND NON-REGION PHYSICIANS' SERVICES BY TYPE OF SERVICE, SWIFT CURRENT MEDICAL CARE PROGRAM, SASKATCHEWAN, 1953-1957

Type of service	1953	1954	1955	1956	1957
All physicians' services.....	4,047.6	3,991.0	4,398.7	4,105.4	4,471.9
Physicians' calls.....	3,676.5	3,567.8	3,690.9	3,463.7	3,756.3
Office.....	2,165.2	1,845.6	1,945.2	1,815.8	1,976.1
Home.....	162.1	178.8	185.1	190.9	238.5
Hospital.....	1,349.2	1,543.4	1,560.6	1,457.0	1,541.7
Surgical operations.....	241.2	273.8	279.8	263.6	272.2
Major.....	73.2	75.1	65.0	63.3	66.8
Minor.....	168.0	198.7	214.8	200.3	205.4
Confinements.....	27.0	29.2	29.6	28.0	26.6
Diagnostic procedures*....	16.0	25.1	305.5	253.4	323.3
Laboratory.....	9.0	13.0	17.5	8.5	9.7
X-ray.....	5.8	10.0	2.0	9.0	8.4
Other†.....	1.2	2.1	286.0	235.9	305.2
Special services.....	86.9	95.1	92.9	96.7	93.5
Surgical assistant.....	17.7	20.9	20.5	19.6	19.5
Anaesthetist.....	59.3	63.8	57.4	60.4	61.8
Consultant.....	4.7	6.4	14.3	12.6	6.9
X-ray interpretation....	5.2	4.0	0.7	4.1	5.3

*Beginning in 1952, payments from the pooled fund 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.

TABLE 27. NUMBER AND COST OF REGIONAL AND NON-REGION PHYSICIANS' SERVICES BY TYPE OF SERVICE, SWIFT CURRENT MEDICAL CARE PROGRAM, SASKATCHEWAN, 1957

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
Regional services					
All physicians' services.....	213,002	4,277.4	\$ 600,748	100.0	\$11.85
Physicians' calls.....	180,168	3,618.0	219,609	36.6	4.35
Office.....	96,693	1,941.7	79,057	13.2	1.57
Home.....	11,778	236.5	14,070	2.3	0.28
Hospital†.....	71,697	1,439.8	126,482	21.1	2.50
Surgical operations.....	12,962	260.3	223,159	37.2	4.41
Major.....	2,935	58.9	165,174	27.5	3.26
Minor.....	10,027	201.4	57,985	9.7	1.15
Confinements.....	1,319	26.5	64,567	10.7	1.28
Diagnostic procedures.....	14,580	292.8	29,708	4.9	0.57
Laboratory.....	125	2.5	153	†	....
X-ray.....	63	1.3	750	0.1	0.01
Other**.....	14,392	289.0	28,805	4.8	0.56
Special services.....	3,973	79.8	59,162	9.8	1.15
Surgical assistant.....	850	17.1	17,601	2.9	0.34
Anaesthetist.....	2,857	57.4	39,813	6.6	0.78
Consultant.....	139	2.8	1,367	0.2	0.02
X-ray interpretation....	127	2.5	381	0.1	0.01
Mileage.....	....	....	4,543	0.8	0.09

TABLE 27. NUMBER AND COST OF REGIONAL AND NON-REGION PHYSICIANS' SERVICES BY TYPE OF SERVICE, SWIFT CURRENT MEDICAL CARE PROGRAM, SASKATCHEWAN, 1957
—(Concluded)

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
Non-region services					
All physicians' services.....	9,688	194.5	\$ 78,624	100.0	\$ 1.20
Physicians' calls.....	6,882	138.2	13,671	17.4	0.21
Office.....	1,709	34.3	3,163	4.0	0.05
Home.....	97	1.9	367	0.5	0.01
Hospital†.....	5,076	102.0	10,141	12.9	0.15
Surgical operations.....	594	11.9	39,924	50.8	0.61
Major.....	392	7.9	37,521	47.7	0.57
Minor.....	202	4.0	2,403	3.1	0.04
Confinements.....	8	0.2	449	0.6	0.01
Diagnostic procedures	1,521	30.5	8,035	10.2	0.12
Laboratory.....	359	7.2	579	0.7	0.01
X-ray.....	354	7.1	2,658	3.4	0.04
Other**.....	808	16.2	4,798	6.1	0.07
Special services.....	683	13.7	11,683	14.8	0.18
Surgical assistant.....	119	2.4	2,722	3.4	0.04
Anaesthetist.....	222	4.5	5,291	6.7	0.08
Consultant.....	204	4.1	2,728	3.5	0.04
X-ray interpretation....	138	2.7	942	1.2	0.02
Mileage.....	....	....	....	....	....

*Amount paid was based upon a total pooled fund of \$650,000.

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

‡Less than 0.05 per cent.

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

TABLE 28. NUMBER AND RATES OF REGIONAL AND NON-REGION SELECTED SURGICAL OPERATIONS, SWIFT CURRENT MEDICAL CARE PROGRAM, SASKATCHEWAN, 1957

Type of operation	Regional		Non-region	
	Number	Annual rate per 1,000 beneficiaries	Number	Annual rate per 1,000 beneficiaries
All surgical operations.....	12,962	260.3	602	12.1
Amputation of extremities.....	42	0.8	....	....
Appendectomy.....	253	5.1	11	0.2
Biopsy of cervix.....	36	1.5*	....	....
Blood transfusions.....	294	5.9	....	....
Cauterization of cervix.....	632	26.6*	....	....
Cholecystectomy.....	28	0.6	10	0.2
Circumcision.....	597	22.9†	2	0.1†
Conjunctiva operations.....	120	2.4	....	....
Corneal operations.....	356	7.1	....	....
Cystocele and rectocele.....	76	3.2*	....	....
Cystoscopy.....	89	1.8	....	....
Dilatation and curettage.....	318	13.4*	14	0.6*
Dilatation of urethra.....	105	2.1	....	....
Haemorrhoidectomy.....	90	1.8	4	0.1
Herniotomy.....	187	3.8	1	†
Hysterectomy.....	62	2.6*	7	0.3*
Hysteropexy.....	12	0.5*	....	....
Laparotomy (exploratory).....	25	0.5	....	....
Lumbar puncture.....	64	1.3	....	....
Phlebectomy.....	69	1.4	3	0.1
Proctoscopy, sigmoidoscopy.....	621	12.5	....	....
Prostatectomy.....	....	....	33	1.3†
Reduction of fracture.....	918	18.4	35	0.7
Skin grafting.....	25	0.5	....	....
Suture of wound or injury.....	1,012	20.3	....	....
Thyroidectomy.....	15	0.3	9	0.2
Tonsillectomy and adenoidectomy....	671	13.5	2	†

*Based on female beneficiaries only.

†Based on male beneficiaries only.

‡Less than 0.05 per 1,000 beneficiaries.

TABLE 29. EXPENDITURES AND AMOUNTS PER BENEFICIARY FOR MEDICAL OUT-PATIENT, X-RAY, AND DENTAL SERVICES, SWIFT CURRENT MEDICAL CARE PROGRAM, SASKATCHEWAN, 1951-1958

Type of service	1951	1952	1953	1954	1955	1956	1957*	1958
	Expenditures							
Total.....	\$ 601,966	\$ 616,887	\$ 644,830	\$ 639,706	\$ 659,356	\$ 686,256	\$ 823,091	\$ 866,483
Medical services.....	480,704	472,147	502,400	502,430	513,909	535,096	670,393	715,739
Region.....	445,750	436,500	461,500	460,000	475,000	500,000	604,426	633,623
Non-region.....	34,954	35,647	40,900	42,430	38,909	35,096	65,967	82,116
Out-patient services.....	49,420	69,484	71,817	68,792	66,632	67,141	72,070	69,499
Region.....	49,198	69,305	71,500	68,524	66,437	66,937	71,591	†
Non-region.....	222	179	317	268	195	204	479	†
Radiology services.....	16,038	16,951	17,786	18,672	20,184	24,287	24,187	26,141
Dental care.....	55,804	58,305	52,827	49,812	58,631	59,732	56,441	55,104
Regional dental services.....	46,420	51,157	49,727	47,941	55,932	57,373	53,245	49,720
Practising dentists.....	9,384	7,148	3,100	1,871	2,699	2,359	3,196	5,384

Amount per beneficiary								
Total.....	\$12.64	\$13.49	\$13.56	\$13.54	\$13.63	\$13.91	\$16.53	\$16.97
Medical services.....	10.09	10.32	10.57	10.63	10.62	10.85	13.46	14.02
Region.....	9.36	9.54	9.71	9.73	9.82	10.14	12.14	12.41
Non-region.....	0.73	0.78	0.86	0.90	0.80	0.71	1.32	1.61
Out-patient services.....	1.04	1.52	1.51	1.46	1.38	1.36	1.45	1.36
Region.....	1.03	1.52	1.50	1.45	1.37	1.36	1.44	†
Non-region.....	0.01	†	†	0.01	0.01	†	0.01	†
Radiology services.....	0.34	0.37	0.37	0.40	0.42	0.49	0.49	0.51
Dental care.....	1.17	1.28	1.11	1.05	1.21	1.21	1.13	1.08
Regional dental services.....	0.97	1.12	1.05	1.01	1.16	1.16	1.07	0.97
Practising dentists.....	0.20	0.16	0.06	0.04	0.05	0.05	0.06	0.11
Estimated number of beneficiaries								
47,640	45,730	47,538	47,262	48,380	49,303	49,797	51,058	

Source: *Financial Statements*, Health Region No. 1, 1951-1958.

*"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

The division's sixth year of operation saw completion of the remodelled Regina Physical Restoration Centre. Essential work was completed by July 14, 1958. Total cost of conversion of the Saskatchewan Boys' School to a comprehensive physical rehabilitation facility was \$96,690.56. As a result of the expanded space, 33,550 square feet, improved services in medical care, rehabilitation nursing, physical therapy, occupational therapy, speech therapy, special education, medical social work and psychology were made available. An x-ray unit and a large hydrotherapy whirlpool bath were installed. Plans were being made to develop an occupational assessment and training shop and a braceshop. A disabled homemakers' training kitchen was developed in the occupational therapy section.

The Saskatoon Physical Restoration Centre was re-roofed and new slate siding was added. The Department of Public Works installed asphalt and grassed surfaces adjoining the centre. A disabled homemakers' training kitchen was also installed.

Administration and Organization

New positions were added in each centre to improve supervisory and administrative responsibilities. For the Regina centre these included a clinic supervisor, a senior physical therapist, a senior occupational therapist and a senior speech therapist. In the Saskatoon centre, a senior physical therapist position was added.

Appointments to established positions of a clinical psychologist, a medical social worker, a rehabilitation nurse and a remedial gymnast assisted to complete the rehabilitation team in the Regina centre. Plans to add positions of a vocational counsellor and bracemaker were under discussion at the year end.

Total staff establishment for the division at March 31, 1959 was as follows:

	<i>Number of staff</i>	<i>Central office</i>	<i>Regina centre</i>	<i>Saskatoon centre</i>
Total	83	2	53	28
Funds provided by:				
Provincial Department of Public Health	59	2	33	24
Provincial Department of Public Works	2	—	2	—
Dominion-Provincial Grant	17	—	15	2
Saskatchewan Council for Crippled Children and Adults	5	—	3	2

The most pressing staff shortages at the year end remained in the two physiatrist (specialist in physical medicine) vacancies and in the need for a combined vocational counsellor-placement officer, in the Regina centre. The positions of permanent medical specialists were being advertised in the United Kingdom. The Saskatchewan Council for Crippled Children and Adults were seeking a qualified counsellor for loan to the Regina centre vocational service.

Expenditures for consultative and diagnostic procedures, as prescribed by the directors of the centres, for disability evaluation were as follows:

	<i>Total</i>	<i>Dominion-provincial grants</i>	<i>Provincial</i>
Both centres	\$2,411.06	\$2,028.71	\$382.35
Regina centre	622.95	496.00	126.95
Saskatoon centre	1,788.11	1,532.71	255.40

The number of patients who received these consultative, laboratory and radiological procedures were—Regina centre 82, and Saskatoon centre 147. Average expenditure per patient receiving evaluation and diagnostic services was \$15.30.

A regular monthly conference was established jointly by the Regina Physical Restoration Centre and the Provincial Geriatric and Rehabilitation Hospital to resolve problems and establish policies affecting both. Volunteer staff and co-ordination were administered by supervisory representatives from each centre. Voluntary personnel undertook provision of equipment and assisted by leading recreation and entertainment programs, for in-patients and out-patients of the Regina centre.

Central agency administration and methods analyst personnel studied Regina centre's administration and organization. Their report was received at the end of the year. It contained valuable suggestions designed to improve internal practices regarding admission, evaluation, review and follow-up of disabled patients. Certain organization changes were also to be implemented during the course of the next year or two.

Program

The International Northern Great Plains Conference on Rehabilitation and Special Education was held at University Hospital, Saskatoon on August 20-22, 1958. This conference was well attended by staff of the two physical restoration centres. Staff members acted as resource persons, program planners, panel leaders and recorders. Topics were assigned by disciplines, divided into medical, nursing, therapy, psycho-social vocational, special education and administration. Subjects of study included physical and vocational rehabilitation, long-term illness, nursing, personnel, financing and co-ordination of services.

Two key speakers were invited from Cleveland, Ohio, with the assistance of the provincial and national health grant funds administered by this division. Total registration for the conference exceeded 300, including delegates from North Dakota, South Dakota, Montana, Wyoming, Alberta, Manitoba and Saskatchewan.

The federal-provincial grant funds appropriated for professional training of rehabilitation and other health personnel totalled \$8,704.60. Courses taken included (1) physical and occupational therapy undergraduate training—7 students (2) advanced training in physical rehabilitation methods—2 students (3) medical short course (above-knee prosthetics)—1 student, and (4) travel—(key speakers to the Great Plains Conference)—2 physiatrists. Training was provided at McGill University, University of Toronto, University of Alberta, Crippled Children's School at Jamestown, North Dakota, and at the New York University—Bellevue Medical Centre in New York.

Three students were also registered in physical and occupational therapy undergraduate courses with provincial bursary assistance. On completion of training, three undergraduate bursary students were em-

ployed in Saskatchewan, two as physical therapists and one as an occupational therapist. Two new bursary students were selected from a group of grade 12 students who had applied for training in September, 1958.

Three student internes in physical and occupational therapy were assigned to the centres by the Canadian Association of Occupational Therapy and the Canadian Physiotherapy Association, for further training in their disciplines. Four additional internes were assigned to the centres by the professional association, for similar training in the following year. Extension of aid into graduate bursary assistance for the speech therapy and physical medicine specialties was under discussion at the end of the year.

Community Relations

During the year, staff of the Physical Restoration Division served disabled patients at 11 mobile consultation clinics sponsored by the Saskatchewan Council for Crippled Children and Adults. Considerable reorganization and revision of mobile clinic arrangements were undertaken by the Saskatchewan Council with the assistance of the Provincial Co-ordinator of Rehabilitation, public health nursing staff and staff of the Physical Restoration Division. Mobile clinics were held at nine local centres. These were North Battleford, Prince Albert, Melfort, Tisdale, Yorkton, Weyburn, Estevan, Moose Jaw and Swift Current.

Medical, therapy, attendant and administrative staff of the division co-operated actively with other government, voluntary and private agencies in activities such as vocational rehabilitation services, recreational swim classes, Camp Easter Seal, selection of vocational training courses and discussed provision of a short-stay custodial care unit.

Negotiations were held between the Saskatchewan Council, the Provincial Co-ordinator of Rehabilitation and the Department of Public Health which resulted in the development of a plan for vocational counselling combined with special placement services to be provided by the council in the Regina Centre. The Saskatchewan Council continued their support of the centres by providing seven patient transportation vans and drivers, assisting patients with purchase of orthopedic shoes and providing for a small medical social worker's emergency fund.

Support for a variety of rehabilitation projects was accorded by the division to such other rehabilitation institutions and agencies as the Canadian Arthritis and Rheumatism Society, the Canadian Red Cross, the Workmens' Compensation Board, the University Hospital, and the Department of Social Welfare and others.

In-service and staff education programs continued regularly throughout the year in each centre. These programs had the advantage of medical and other specialists to lead discussion of problems encountered in the various rehabilitation services offered to physically disabled children and adults. Such subjects as cerebral palsy, aphasia, prostheses, activities of daily living, rehabilitation services in Saskatchewan and supervisory techniques were studied. Experienced therapists of the division offered consultative services to three general hospitals which were planning the development of physical medicine departments.

Medical and Clinical

Cleft palate clinics were held regularly each month at the University hospital throughout the period under review, under the chairmanship of

the director, Saskatoon centre. It was anticipated that these pilot clinics would lead to the establishment of permanent cleft palate clinics in Saskatoon by the year end.

The complement of medical consultants engaged by the department on a regular part-time basis by the year end included the following:

	<i>Total</i>	<i>Saskatoon centre</i>	<i>Regina centre</i>
All specialties	20	10	10
Orthopedic surgeons	4	2	2
Paediatricians	3	1	2
Physical medicine specialists	3	3	—
Dental and orthodontistry	4	2	2
General practice	3	—	3
Other (for special clinics)	3	2	1

In addition, two full-time physiatrists were engaged at the Regina centre for one-half of the period under review. Regional public health staff, including nurses and medical officers, rendered invaluable services in case-finding, referrals, appointments, follow-up and in the operation of Saskatchewan Council mobile clinics throughout the province.

Paraplegia Program

Paraplegia program services are made available to patients who have been screened by the chairman of the Paraplegia Screening Committee.

Expenditures made by the division, from division funds only, for the year ending March 31, 1959 were as follows:

All expenditures	\$7,472.30
Doctors' fees	3,052.45
Braces and prosthetic appliances	1,082.50
Wheelchairs	1,200.67
Drugs	1,371.78
Other (including out-patient physical therapy treatments)	764.90

The caseload growth to March 31, 1959 was as follows:

Total caseload as of April 1, 1958	36
New cases added by March 31, 1959	15
Deaths during the year	2
Total caseload as of March 31, 1959	49

The hospital admissions from April 1, 1958 to March 31, 1959 are shown below.

Total number ¹ of patients admitted during year	27 ²
Patients in hospital as of April 1, 1958	9
Patient readmissions during the year	4
New patients during year	14

Total admissions during the year were 41, with related patient days in hospital 3,346, of which 2,986 days were spent while on the paraplegia program.

¹ In addition, one person was treated as an out-patient at the Physical Restoration Centre.

² Nine with single admission, 18 with multiple admissions.

The following table shows the diagnoses of the patients according to aetiology of paraplegia:

Total active cases treated during the year	28
Spinal cord injury (traumatic paraplegia)	13
Post poliomyelitis	5
Disseminated sclerosis	2
Spinal cord tumor	2
Progressive muscular dystrophy	1
Subdural abscess	1
Multiple herniated cervical discs	1
Spina bifida	1
Irradiation necrosis of spinal cord	1
Leukemia ¹	1

Results of the program according to disposal were:

Active	9
Still in hospital	7
Discharged requiring further hospitalization	2
Inactive	19
Totally rehabilitated	3
Undergoing socio-vocational rehabilitation	7
Able to look after self at home	3
Requiring additional nursing care (maximum benefits)	6

Rehabilitation Ward

The following statistics show the patient days care, Rehabilitation Ward, Regina, from July 1, 1958, to March 31, 1959.

Cases admitted	125
Cases discharged	101
Cases remaining at March 31, 1959	24 ²
Days for discharged cases ³	6,470
Total days of care during year	8,657
Average days stay per discharged case	64.1
Total days divided by admissions	69.3
Total days divided by discharges	85.7

Unresolved Problems

There was a continuing shortage of technical health personnel, particularly in physical therapy, occupational therapy, speech therapy, medical social work, vocational counselling and physical medicine. Long-range plans were made to overcome most of the deficiencies by the provision of assisted training and contractual returns through service in Saskatchewan.

No suitable method yet has been found for assisting medically-indigent patients, with complex disabilities, to obtain required surgery, braces and prosthetic appliances. Many private members of the Saskatchewan College of Physicians and Surgeons do assist individual patients, however, by providing surgical correction when prescribed.

¹ This case is now deceased.

² Days of care accrued in respect of these 24 cases were 2,187.

³ "Days for discharged cases" differ from "Total days of care during year" in that all days of care for a discharged patient are included in the former, even though some of the care may have been given in preceding years, while the latter includes only the care given during the past fiscal year, including care received by patients remaining in hospital at the year end.

TABLE 30. NUMBER OF PATIENTS ON CASELOAD REGISTERS, PHYSICAL RESTORATION CENTRES, SASKATCHEWAN, FISCAL YEARS 1953-54 TO 1958-59

Patient status and year	Both centres	Regina centre				Saskatoon centre			
		Cerebral palsy	Polio-myelitis	Rehabilitation assessment	Other	Cerebral palsy	Polio-myelitis	Rehabilitation assessment	Other
All patients									
1953-54.....	1,182	112	504	...	...	105	461	...	...
1954-55.....	1,158	197	437	...	12	136	328	...	48
1955-56.....	1,193	196	427	...	31	138	338	...	63
1956-57.....	1,358	213	433	9	41	137	356	69	100
1957-58.....	1,511	210	445	4	60	165	380	95	152
1958-59.....	1,802	326	490	2	173	161	365	98	187
Hospital in-patients									
1953-54.....	70	2	44	...	...	...	24	...	...
1954-55.....	56	9	29	...	3	1	14	...	...
1955-56.....	40	4	29	...	3	...	4	...	...
1956-57.....	23	5	8	1	7	...	2	...	...
1957-58.....	47	11	14	2	16	...	4	...	...
1958-59.....	82	18	16	1	45	...	2	...	...
Hospital out-patients									
1953-54.....	103	18	33	...	...	16	36	...	...
1954-55.....	106	23	33	...	...	18	25	...	7
1955-56.....	121	29	26	...	3	22	24	...	17
1956-57.....	142	36	33	2	10	15	28	4	14
1957-58.....	159	27	32	2	19	19	32	...	28
1958-59.....	187	59	13	1	43	18	20	...	33
Home exercise program patients									
1953-54.....	1,009	92	427	...	...	89	401	...	...
1954-55.....	996	165	375	...	9	117	289	...	41
1955-56.....	1,032	163	372	...	25	116	310	...	46
1956-57.....	1,193	172	392	6	24	122	326	65	86
1957-58.....	1,305	172	399	...	25	146	344	95	124
1958-59.....	1,533	249	461	...	85	143	343	98	154

TABLE 31. FIRST VISITS OF PATIENTS TO PHYSICAL RESTORATION CENTRES, SASKATCHEWAN, FISCAL YEARS 1953-54 TO 1958-59

Type of patient and year	Both centres	Regina centre	Saskatoon centre
All patients			
1953-54.....	1,213	619	594
1954-55.....	1,230	633	597
1955-56.....	1,289	666	623
1956-57.....	1,418	717	701
1957-58.....	1,584	764	820
1958-59.....	851	444	407
Poliomyelitis			
1953-54.....	911	504	407
1954-55.....	884	487	397
1955-56.....	878	473	405
1956-57.....	904	477	427
1957-58.....	925	487	438
1958-59.....	426	236	190
Cerebral palsy			
1953-54.....	201	112	89
1954-55.....	238	144	94
1955-56.....	277	181	96
1956-57.....	319	212	107
1957-58.....	372	238	134
1958-59.....	200	112	88
Rehabilitation assessment			
1957-58.....	37	11	26
1958-59.....	50	13	37
Other			
1953-54.....	101	3	98
1954-55.....	108	2	106
1955-56.....	134	12	122
1956-57.....	195	28	167
1957-58.....	250	28	222
1958-59.....	175	83	92

SASKATCHEWAN HOSPITAL SERVICES PLAN

The Saskatchewan Hospital Services Plan completed twelve years of operation December 31, 1958. Throughout this period it has provided a comprehensive program of protection against the costs of hospital care to residents of the province.

Legislative authority for the operation of the Saskatchewan Hospital Services Plan is provided by the Saskatchewan Hospitalization Act. Prior to April 1, 1950, the Plan was administered by the Health Services Planning Commission. Since that date, however, it has functioned as a division of the Medical and Hospital Services Branch of the Department of Public Health.

A family tax, known as the hospitalization tax, which is levied annually, provides part of the funds required to operate the Plan. The remainder of the cost is met from general funds of the province, which, since April 1, 1950, have included a one-third share of revenue derived from the sales tax levied under authority of the Education and Hospitalization Tax Act. Since July 1, 1958, the government of Canada has shared in the cost of the province's general hospital care, in accordance with an agreement between the government of Canada and the province under the Hospital Insurance and Diagnostic Services Act (Canada). Federal contributions under the agreement, however, are made to the province's Consolidated Fund.

The Plan covers Saskatchewan residents against the costs of hospital care on an insurance basis. Eligibility for coverage of hospital bills is contingent on prior payment of the hospitalization tax. The Plan's main purpose is to remove the financial deterrent against necessary hospital care by spreading the total cost of care over the population generally. Benefits are provided without regard to age or pre-existing physical conditions, subject only to medical necessity for the hospital care involved. This principle, for beneficiaries of the Plan, removes the threat of catastrophic hospital bills, which prior to the Plan's introduction, was a major concern in times of family illness.

Saskatchewan hospitals are paid for the care of the Plan's beneficiaries at rates which reflect the cost of efficient operation. Since most of the care provided by hospitals involves beneficiaries of the Plan, hospital operating income during the twelve years the Plan has been in existence has been largely assured. The resultant stability in the financial condition of Saskatchewan hospitals has led to a steady improvement in hospital services and facilities.

On July 1, 1958, with federal participation in the cost of provincial hospital care insurance programs, a number of changes were made to the scope of the Plan's coverage and its schedule of benefits. These changes were made to comply with federal requirements and to accommodate reciprocal arrangements with other provinces. The changes involved are described under the headings "coverage" and "benefits" which follow.

Coverage

From the Plan's inception at the beginning of 1947 until July 1, 1958, the Plan required participation of all persons residing in the province for

a period of six months, with the exception of persons provided with hospital care by federal or provincial government programs, residents of the sparsely settled northern area of the province known as the Northern Saskatchewan Administration District, and treaty Indians. Residents of the Northern Saskatchewan Administration District were permitted to participate on a voluntary basis. Treaty Indians who had resided apart from Indian reserves for 18 months were also granted this privilege.

Among the regulation changes becoming effective July 1, 1958, was reduction of the waiting period, in respect of participation in the Plan by newcomers to the province, from six months to three months.

Effective July 1, 1958, the Plan's regulations were amended to provide for coverage of Indians living on reserves, and those who have been away from reserves for less than 12 months, through payment of the hospitalization tax on their behalf by the government of Canada. At the same time Indians who have lived apart from Indian reserves for 12 months or more became personally liable for payment of the hospitalization tax. Regulations were also amended, effective July 1, 1958, for coverage of recipients of the War Veterans' Allowance (excluding widows and orphans) through payment of the tax on their behalf by the government of Canada. War Veterans' Allowance recipients who are provided with coverage under this arrangement, however, are liable for payment of the tax on behalf of dependent family members residing in Saskatchewan.

Since the Plan's inception, residents of the Northern Saskatchewan Administration District have been permitted to participate in the Plan on a voluntary basis. Although no changes in this regard were made in respect of the year 1958, during the year regulations were established which required such residents to pay the tax for the year 1959 and subsequent years on the same basis as other residents of the province.

Two incorporated areas located within the boundaries of the Northern Saskatchewan Administration District, the Municipal Corporation of Uranium City and District and the Village of La Ronge, have been compulsory payment areas since April 1, 1956. Residents of two further urban areas situated within this district, the town of Creighton and the Saskatchewan boundary area of Flin Flon, Manitoba, have been required to participate in the Plan since July 1, 1958.

Certain classes of persons receiving social assistance are covered by the Plan through payment of the hospitalization tax on their behalf by provincial or municipal government agencies responsible for their hospital care.

Prior to July 1, 1958, newly arrived residents of the province were not covered by the Plan until the first day of the seventh calendar month following the month in which residence was established. Benefits were available from the first day of the seventh calendar month on payment of a pro rata tax before the end of the sixth month. During the period January 1, 1956, to June 30, 1958, former Saskatchewan residents, who returned to reside in Saskatchewan within twenty four months from the end of a forty-eight month period as beneficiaries, were granted the privilege of participating on a voluntary basis, upon payment of the required amount of tax, from the first day of the second calendar month following re-establishment of residence in the province. On departure from the province for the purpose of establishing residence elsewhere, former residents could obtain proportionate refunds, or could continue as beneficiaries for the remainder of the benefit period.

From July 1, 1958, newcomers to the province have been taxed on a pro rata basis from the first of the calendar month following completion of three months' residence. Payment of the required tax before the expiration of three months' residence provides coverage the day following the end of that three-month period. If the tax is not paid by that date, the Plan's protection does not become available until one month after it is paid. When beneficiaries leave the province for the purpose of residing elsewhere, coverage is provided for a period of three months following the date of establishment of residence in the new location. These former residents may obtain proportionate tax refunds dating from the first day of the fourth calendar month following the month of establishment of residence outside Saskatchewan, provided that the refund application is received by December 31 of the year for which tax payment has been made.

The Plan's covered population total is based on tax collection reports received up to August 31 of each tax year. The proportion of covered population to total population ranged from 92.1 per cent to 94.4 per cent during the years 1947 to 1957. In 1958, however, the covered population total of 865,544 represents 97.5 per cent of the inter-censal estimate of 888,000. The higher ratio for 1958 is attributable mainly to the fact that since July 1, 1958, the government of Canada arranged for coverage of recipients of the War Veterans' Allowance (excluding widows and orphans), for Indians residing on reserves, and for those who have been away from reserves for less than 12 months.

The August 31 total of reported beneficiaries is used as the average for the year, rather than an average arrived at from 12 month-end totals, in order to permit a machine analysis of covered population by age, sex and marital status for each municipality in the province.

Hospitalization Tax

Except for the cities of Moose Jaw, Prince Albert and Regina, where provincial collection offices have been established, the hospitalization tax is collected by the cities, towns, villages, rural municipalities and local improvement districts of the province. In the Northern Saskatchewan Administration District, where during 1958 the hospitalization tax was collected from residents on a voluntary basis, the Department of Natural Resources is the collector. Each collection agency is paid a commission for collecting the tax at the rate of three per cent on the first \$100,000 collected, and two and one-half per cent on amounts above that figure. The minimum annual commission for a collection district is \$20.

The tax rates which applied to the year 1958 were as follows:

For each self-supporting person or a spouse (including a widowed, divorced, or separated person)	\$20
For each person who reached the age of 18 years before January 1 of the tax year	\$20
For each dependent child under 18 years	\$ 5
The maximum tax for a taxpayer, his spouse, dependents under 18 years, children over 18 who were incapacitated by reason of physical or mental infirmity, and dependents 18 years or over but under 21 years on January 1 of the tax year, who were attending educational institutions or training at a school of nursing	\$45

Collection of the hospitalization tax applicable to 1959 commenced on September 1, 1958. The 1959 tax rates differ from those which applied for 1958 in that the adult tax rate was reduced from \$20 to \$17.50, the tax for dependents under the age of 18 years on January 1, 1959, was removed entirely, and the family maximum tax of \$35 replaced the former maximum of \$45.

As previously mentioned, provision of the Plan's benefits is contingent on prior payment of the hospitalization tax. Legislation governing the Plan also provides that arrears of taxes, in addition to the currently required amount of tax, must be paid before the Plan's coverage becomes available. Provision is made, however, for settlement of arrears of taxes on an instalment basis when approved by the Board of Revenue Commissioners. In cases where the tax is paid after it is due, coverage of hospital bills by the Plan commences one month after the date of tax payment. The tax for 1958 was payable by November 30, 1957, if the total tax came to \$22.50 or less; if more than that amount, at least \$22.50 was payable by November 30, 1957, and the balance by May 31, 1958. Full payment of the tax by November 30 provided coverage under the Plan for all of 1958. Payment of the first instalment by November 30 ensured coverage under the Plan for the first half of the tax year, and payment of the second instalment by May 31 for the last six months of the year.

For 1958, as in prior years, a baby born to a mother whose tax was paid was covered by the Plan without additional tax payment for the period to which the mother's tax payment applied.

Benefits

Subject only to medical necessity for in-patient care, in the opinion of the attending physician, no limit is placed on the amount of care which may be obtained by a beneficiary at the expense of the Plan from Saskatchewan hospitals. Since the beginning of the Plan, however, definite limits have existed on the amount of in-patient care which may be provided at the Plan's expense when hospitalization occurs outside Saskatchewan. During the years 1947 to 1955, inclusive, the Plan's schedule of benefits excluded all out-patient hospital services. Effective January 1, 1956, however, tissue pathology services provided by Saskatchewan hospitals on an out-patient basis were added to the benefit schedule. Emergency treatment (excluding private physicians' services) rendered to a beneficiary by an out-patient department of a Saskatchewan hospital within twenty-four hours of injury became an additional benefit on July 1, 1958. Out-patient services obtained by beneficiaries from institutions located outside the province are not covered by the program.

The Plan pays, on behalf of in-patient beneficiaries, for public ward accommodation (including meals, special diets and general nursing care), use of operating and case rooms, surgical dressings and casts, x-ray treatments, anaesthetic drugs and equipment, physiotherapy and most drugs in general use. Benefits do not include the services of doctors or nurses not employed by hospitals, extra charges for private and semi-private accommodation, hospitalization for arthritis or rheumatism in institutions associated with mineral springs or spas, patient medicines, and a few of the newer and more expensive drugs.

For the period January 1, 1947, to June 30, 1958, the Plan's coverage of hospital bills incurred outside the province with minor exceptions was limited to payment for sixty days of care per year, with ceilings on per diem rates of payment. For 1947 and 1948 these per diem maximums were \$4 for adults and children and \$1 for newborns. From 1949 until the end of 1953 the per diem maximum payments were \$5 for adults and children and \$1 for newborns. For the years 1954, 1955 and 1956, they were increased to \$7.50 for adults and children and \$1.50 for newborns. Effective January 1, 1957, the maximum per diem payments were set at \$10 for adults and children and \$1.50 for newborns, and these maximum rates continued until June 30, 1958.

On July 1, 1958 when federal sharing of the province's hospitalization costs began, the basis of providing out-of-province coverage was changed considerably. Beneficiaries temporarily absent from the province are covered, within certain limits, until their hospital services cards for the year expire. Those who terminate residence in the province are covered, subject to other limitations, for a period of three months after residence has been established elsewhere. These changes were made, as previously mentioned, to accommodate reciprocal arrangements with provincial insurance plans in other Canadian provinces. Present regulations of the Plan enable newcomers to Saskatchewan to obtain the Plan's coverage when they have resided in the province for three months, and provide beneficiaries who leave the province with protection against hospitalization costs for a period of three months after residence has been established elsewhere. This principle, which generally has been accepted by other provincial plans, makes it possible for Canadian residents to move from one "insured" area to another without experiencing gaps or overlapping in their hospital care insurance. Out-of-province benefits during the last six months of 1958 were provided on the following basis:

(a) For beneficiaries temporarily absent from the province:

(1) *In Canada*—payment for a maximum of 92 days of care during the year on the following basis:

—when care is obtained in a province to which the government of Canada makes contributions for hospital insurance, payment is made at per diem rates payable by the provincial insurance plan in that province.

—when care is obtained in a province not participating with the government of Canada in hospital insurance, payment is made at daily rates not exceeding \$15 for adults and children and \$2 for newborn babies.

(2) *Outside Canada*—payment is made for a maximum of 60 days of care during the year at daily rates not exceeding \$15 for adults and children and \$2 for newborn babies.

(b) For beneficiaries who leave Saskatchewan to establish residence:

(1) *Elsewhere in Canada*—payment is made for a maximum of 92 days of care during the three-month period following establishment of new residence, at the same rates applicable to beneficiaries temporarily absent from Saskatchewan.

(2) *Outside Canada*—payment is made for a maximum of 60 days of care during the three-month period following the establishment of new residence, at daily rates not exceeding \$15 for adults and children and \$2 for newborn babies.

Hospitalization Experience

Exclusive of chronic care provided by the province's geriatric centres, during 1958 the Plan accepted responsibility for a total of 177,509 discharged cases, involving a total of 1,767,952 patient days of care provided to adults and children. The case total represents an increase of 1.8 per cent over 1957 experience, while the patient day total reflects an increase of 0.7 per cent over the previous year's total. The average stay in hospital for adults and children during 1958 decreased to 10.0 days from the 1957 average of 10.1 days. The average stay for 1958 is the lowest since 1947,

when the same average applied. The average stay has declined gradually from the high of 11.1 days in 1951, the year in which the Plan's present system of payment to Saskatchewan hospitals was introduced.

The increased volume of hospital care for 1958 over 1957 experience is attributable mainly to the addition of previously excluded groups to the Plan's covered population. A contributing factor, however, is a slight increase in the proportion of persons 70 years of age and over in the Plan's covered population for 1958.

Total care covered by the Plan during 1958 (adults and children), exclusive of care in the province's geriatric centres, amounted to 1,785,457 patient days. This total includes days of care in respect of beneficiaries remaining in hospital at the year end. The comparative total for 1957 was 1,732,273 patient days. The volume of in-patient general hospital care covered by the Plan for each of the years 1947 to 1958 is shown in Table 32.

TABLE 32. VOLUME OF HOSPITAL CASES COVERED BY THE SASKATCHEWAN HOSPITAL SERVICES PLAN, 1947-1958

Year	Hospital cases*		Patient days		Average days of stay		
	Admitted	Discharged	Days for discharged cases†	Total days of care during year†	Per discharged case	Total days divided by admissions	Total days divided by discharges
Adults and children							
1947.....	125,510‡	121,951	1,221,453	1,309,288	10.0	10.4	10.7
1948.....	137,924	138,030	1,455,744	1,490,968	10.5	10.8	10.8
1949.....	153,411	152,957	1,569,581	1,605,230	10.3	10.5	10.5
1950.....	156,145	155,951	1,684,721	1,714,071	10.8	11.0	11.0
1951.....	155,119	154,848	1,715,232	1,721,629	11.1	11.1	11.1
1952.....	161,274	161,499	1,710,689	1,694,509	10.6	10.5	10.5
1953.....	165,262	165,410	1,719,606	1,683,542	10.4	10.2	10.2
1954.....	165,172	165,127	1,688,474	1,657,274	10.2	10.0	10.0
1955.....	165,267	165,006	1,685,923	1,688,144	10.2	10.2	10.2
1956.....	168,076	168,147	1,744,592	1,732,456	10.4	10.3	10.3
1957.....	174,238	174,355	1,754,947	1,732,273	10.1	9.9	9.9
1958.....	178,061	177,509	1,767,952	1,785,457	10.0	10.0	10.1
Newborns							
1947.....	20,706‡	20,415	187,092	188,430	9.2	9.1	9.2
1948.....	19,224	19,164	173,743	174,615	9.1	9.1	9.1
1949.....	19,419	19,402	171,356	172,117	8.8	8.9	8.9
1950.....	19,212	19,201	169,563	169,543	8.8	8.8	8.8
1951.....	19,725	19,729	169,062	168,664	8.6	8.6	8.5
1952.....	20,817	20,742	170,188	170,763	8.2	8.2	8.2
1953.....	21,560	21,606	172,082	171,303	8.0	7.9	7.9
1954.....	22,765	22,767	173,969	174,294	7.6	7.7	7.7
1955.....	22,715	22,729	173,590	173,352	7.6	7.6	7.6
1956.....	22,323	22,352	165,597	165,777	7.4	7.4	7.4
1957.....	21,942	21,927	159,467	159,153	7.3	7.3	7.3
1958.....	22,510	22,483	159,376	159,663	7.1	7.1	7.1

*Cases in hospital at December 31, 1958, and days of care accrued in respect of such cases were as follows:

Adults and children 4,669 cases, 95,927 days,

Newborns 400 cases, 2,589 days.

†"Days for discharged cases" differ from "Total days of care during year" in that all days of care for a discharged patient are included in the former, even though some of the care may have been given in a preceding year, 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.

The Plan's hospitalization rates for each year since its inception at the beginning of 1947 are shown in Table 33. It will be seen that the rates per 1,000 beneficiaries rose rapidly from 1947 to 1949, then levelled off in 1950. For 1957, however, there was a sharp rise in the number of cases per 1,000 beneficiaries, although the rate dropped again in 1958. In 1958 hospitalization was provided at the rate of 2,043 patient days per 1,000 covered population, compared to the 1957 rate of 2,120 per 1,000. In terms of discharged cases per 1,000 covered population, the 1958 rate was 205, compared to 211 for the previous year. The 1957 case figure was the highest since the Plan's inception.

TABLE 33. HOSPITALIZATION RATES* PER 1,000 BENEFICIARIES, SASKATCHEWAN HOSPITAL SERVICES PLAN, 1947-1958

Year	Hospital cases		Patient days	
	Admitted	Discharged	For discharged cases	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

*Excluding newborns.

Table 34 shows the number of discharged cases per 1,000 beneficiaries by age and sex for the years 1957 and 1958, while Table 35 shows patient days per 1,000 on the same basis.

TABLE 34. DISCHARGED CASES* PER 1,000 BENEFICIARIES BY AGE AND SEX, SASKATCHEWAN HOSPITAL SERVICES PLAN, 1957 AND 1958

Age in years	Both sexes		Male		Female	
	1957	1958	1957	1958	1957	1958
All ages.....	211	205	165	163	259	251
0-1.....	286	311	320	354	249	264
1-4.....	167	162	179	176	153	147
5-14.....	125	116	128	120	121	112
15-24.....	219	207	110	101	325	312
25-44.....	220	215	105	102	334	328
45-64.....	206	201	175	174	242	232
65-69.....	301	296	292	282	313	313
70+.....	450	451	447	447	454	456

*Excluding newborn care.

TABLE 35. PATIENT DAYS* PER 1,000 BENEFICIARIES BY AGE AND SEX, SASKATCHEWAN HOSPITAL SERVICES PLAN, 1957 AND 1958

Age in years	Both sexes		Male		Female	
	1957	1958	1957	1958	1957	1958
All ages.....	2,120	2,043	1,830	1,792	2,429	2,311
0-1.....	2,451	2,782	2,755	3,158	2,120	2,374
1-4.....	1,007	1,054	1,116	1,175	891	924
5-14.....	739	667	798	718	676	614
15-24.....	1,504	1,378	835	760	2,160	1,986
25-44.....	1,746	1,679	932	902	2,554	2,458
45-64.....	2,592	2,498	2,198	2,181	3,038	2,856
65-69.....	4,753	4,674	4,661	4,476	4,871	4,929
70+.....	8,762	8,387	8,664	8,376	8,889	8,400

*In respect of discharged cases. Newborns excluded.

The 12 leading causes for hospitalization of adults and children in 1958 are shown in Table 36 in order of frequency, together with 1957 data for the same diagnoses.

TABLE 36. LEADING DIAGNOSIS OF HOSPITAL PATIENTS, SASKATCHEWAN HOSPITAL SERVICES PLAN, 1957 AND 1958

List numbers*	Diagnosis	Cases discharged†		Per cent		Cases per 1,000 beneficiaries	
		1957	1958	1957	1958	1957	1958
	All causes.....	174,355	177,509	100.0	100.0	210.7	205.1
C43	Deliveries, complications of pregnancy, childbirth and the puerperium.....	30,109	30,786	17.3	17.3	36.4	35.6
BN47-50	Accidents, poisonings, and violence.....	13,662	14,460	7.8	8.2	16.5	16.7
C29	Acute pharyngitis and tonsillitis and hypertrophy of tonsils and adenoids.....	11,876	12,183	6.8	6.9	14.3	14.1
C42	Diseases of genital organs.....	8,225	8,881	4.7	5.0	9.9	10.3
C31	Pneumonia.....	8,277	7,484	4.7	4.2	10.0	8.6
C25	Arteriosclerotic and degenerative heart disease.....	4,611	5,285	2.6	3.0	5.6	6.1
C32	Bronchitis.....	4,361	4,832	2.5	2.7	5.3	5.6
C12	Malignant neoplasms, including neoplasms of lymphatic and haematopoietic tissues.....	4,190	4,433	2.4	2.5	5.1	5.1
C35	Diseases of stomach and duodenum, except cancer.....	3,830	4,284	2.2	2.4	4.6	5.0
C39	Diseases of gallbladder and bile ducts.....	3,892	4,062	2.2	2.3	4.7	4.7
C36	Appendicitis.....	4,015	3,930	2.3	2.2	4.9	4.5
C13	Benign neoplasms and neoplasms of unspecified nature.....	3,788	3,925	2.2	2.2	4.6	4.5
	All other.....	73,519	72,964	42.3	41.1	88.8	84.3

*Classified according to *International Statistical Classification of Diseases, Injuries, and Causes of Death*, 1955 Revision, Vol. 1, pp. 382-385.

†Excluding newborns.

Since July 1, 1958, hospital care provided to beneficiaries of the Saskatchewan Hospital Services Plan by the provincial geriatric centres in Regina, Saskatoon and Melfort has been covered by the Plan. Due to the nature of the care provided and the average length of stay involved, care

provided by the geriatric centres is not reviewed according to discharged cases, as is done for beneficiaries provided care by the province's public general hospitals. Since a high proportion of the patients continue as geriatric patients from one year to the next, relatively few patients are discharged in the course of a year. Accordingly, the Plan's experience for the geriatric centres is reviewed on the basis of the number of persons provided with care during the year, whether or not they remain as patients at the end of the year.

During the six-month period ended December 31, 1958, 635 patients, involving a total of 81,230 days of care, received care from the three provincial geriatric centres at the Plan's expense. Although the patients were mostly aged, the Regina centre provided some care to younger persons referred to it for rehabilitation services which it provides. The average amount of care provided during the six-month period was 127.9 days. The Plan's patients were admitted to the centres at an annual rate of 1.5 cases per 1,000 covered population, and care was provided to them at an annual rate of 187.7 patient days per 1,000 covered population.

The 1958 experience of the Plan in respect of the provision of out-patient services, together with a brief description of each of the services, was as follows:

Emergency Out-Patient Services

Effective July 1, 1958, the Plan's schedule of benefits was expanded to cover payment for out-patient services provided by Saskatchewan hospitals within 24 hours of injuries incurred by beneficiaries. Visits or referrals to hospital for purely diagnostic services, where accidents or injury are not involved, are not covered by the program. The program covers the initial visit only to the out-patient department, and does not cover return visits within the 24-hour period. All hospital services required by the injured beneficiary during the initial out-patient visit, however, are provided without charge, including use of operating room, x-ray services and laboratory services. Private physicians' services are not covered by the program. Drugs not included as benefits under the in-patient program, and all drugs taken away for use at home, are chargeable to beneficiaries. Hospitals are paid by the Plan under this program at a flat rate of \$5 for each beneficiary provided with service. During the six-month period ended December 31, 1958, the Plan accepted responsibility for a total of 12,165 accounts under the emergency out-patient program.

Out-Patient Tissue Pathology Services

Effective January 1, 1956, the Plan began to pay for tissue pathology services provided by Saskatchewan hospitals on an out-patient basis. The program provides payment for the use of hospital out-patient facilities involved in the procurement of tissues for pathological examination, and for subsequent examination of such tissues by pathology laboratories of Saskatchewan hospitals.

The program does not cover payment for physicians' services involved in obtaining tissues, nor does it cover the cost of obtaining tissues in private physicians' offices or clinics. Saskatchewan hospitals are paid for the service at \$2 for each specimen taken on an out-patient basis, and \$4 for each specimen examined by a pathology department. During 1957, seven general hospitals in the province operated pathology departments, while during 1958 the number was increased to nine. During 1958, the Plan covered a total of 3,263 out-patient department services, and 4,989 examinations performed by pathology laboratories.

Cost of Operation

Table 37 shows the Plan's total expenditure, hospitalization expense and administration expense for each of its 12 years of operation.

* * *

Additional information respecting covered population, hospitalization experience and cost of operation for each of the years 1947 to 1958 may be obtained from separately published annual reports of the Saskatchewan Hospital Services Plan.

TABLE 37. SASKATCHEWAN HOSPITAL SERVICES PLAN EXPENDITURE*, 1947-1958

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
1948.....	9,204,893	100.0	11.85	8,632,778	93.8	11.11	572,115	6.2	0.74
1949.....	10,712,977	100.0	13.98	10,190,211	95.1	13.30	522,766	4.9	0.68
1950.....	12,244,165	100.0	15.97	11,708,786	95.6	15.27	535,379	4.4	0.70
1951.....	14,010,912	100.0	17.97	13,430,802	95.9	17.22	580,110	4.1	0.75
1952.....	15,082,822	100.0	19.18	14,482,027	96.0	18.42	600,795	4.0	0.76
1953.....	16,430,980	100.0	20.44	15,826,998	96.3	19.69	603,982	3.7	0.75
1954.....	17,765,043	100.0	21.93	17,070,440	96.1	21.07	694,603	3.9	0.86
1955.....	19,751,175	100.0	24.00	19,045,162	96.4	23.14	706,013	3.6	0.86
1956.....	22,347,533	100.0	26.89	21,617,217	96.7	26.01	730,316	3.3	0.88
1957.....	24,553,642	100.0	29.66	23,757,006	96.8	28.70	796,636	3.2	0.96
1958.....	27,822,496‡	100.0	32.14	26,973,798‡	96.9	31.16	848,698	3.1	0.98

*Figures for 1947 to 1957 have been adjusted to include retroactive increases in hospital rates of payment.

†Figures for 1947 to 1955 represent in-patient expenses only. Figures for 1956, 1957 and 1958 include out-patient expenses of \$17,916, \$22,316 and \$87,307 respectively.

‡May be increased by retroactive hospital rate changes effected after the date of this report.

HOSPITAL ADMINISTRATION AND STANDARDS

The main function of the Division of Hospital Administration and Standards is to ensure that general hospitals provide a satisfactory standard of patient care and related services, while at the same time maintaining a reasonable economy in respect to hospital operating costs. The legal and executive basis for this program is the Hospital Standards Act and the regulations thereunder.

A further function is that of supervising the administration of union hospital district affairs, a responsibility of union hospital boards. Authority for this phase of activity is derived from the Union Hospital Act.

The staff of the division consists of a medical director, an assistant director of standards, an assistant director of accounting, hospital administrative consultants, and counsellors in the fields of accounting, dietetics, laboratory, nursing, pharmacy, radiology and union hospital affairs.

This staff provides counselling and consultation in these various specialties, collates financial and statistical information and administers programs relating to grants for hospital construction.

Field visits of individual counsellors are supplemented by written reports to hospitals and attendance at hospital board meetings. The division also produces printed material to guide and assist hospitals adequately to meet the hospital needs of the community.

Training of Hospital Staff

During the fiscal year 1958-59, the division continued training courses for x-ray and clinical laboratory technicians to serve the smaller hospitals. Twenty graduated during the year. The Department of National Health and Welfare continued to support this program financially.

Using both national health grants and provincial funds, bursaries having been made available through the division for the postgraduate training of nurses, training medical record librarians, medical social workers, x-ray and laboratory technologists, and the extension course in hospital organization and management.

Regional Hospital Councils

There are four regional hospital councils in operation involving 65 hospitals. Council staff and activities are centralized at the following urban centres:

Humboldt

Quill Plains Regional Hospital Council—10 hospitals

North Battleford

Northwest Regional Hospital Council—19 hospitals

Prince Albert

North Central Regional Hospital Council—18 hospitals

Swift Current

Southwest Regional Hospital Council—18 hospitals

Hospital Accommodation and Construction

Accommodation in general hospitals is computed on a calendar year basis. On December 31, 1958, 166 general hospitals, nursing homes, geriatric centres and Indian Health Services hospitals and nursing stations were in operation (Table 38). Measured capacity totalled 6,727 beds with 7,394 beds actually set up and in use.

As shown in Table 38 there has been an increase of eight institutions in operation for 1958. This change was brought about with the closing of the Pierceland Red Cross nursing station and the addition of three geriatric centres, two Indian hospitals and four Indian Health Services nursing stations.

All hospital wards in the province are now rated on the basis of standards established by the federal government.

Provincial government assistance towards construction costs of general hospitals has been provided since 1945. Since 1948 this assistance has been matched in most instances by equivalent federal grants. During the fiscal year ended March 31, 1959, provincial grant payments for construction totalled \$626,928.15, apportioned as follows:

General hospital construction	\$529,382.21
Staff residences	81,044.45
Health centres	16,501.49

Additional national health grants have been utilized to provide x-ray and laboratory equipment, as well as other equipment for the improvement of maternal and infant hospital care. Details of these grants are shown in the national health grants appendix to this report. Such grants terminated effective July 1, 1958, when the province entered into an agreement with the federal government in respect to a hospital insurance program.

Financial and Accounting Service

Financial and statistical data is collected and analyzed in order that equitable rates of payment may be set for the individual hospitals and for cost sharing purposes under the Hospital Insurance and Diagnostic Services Act.

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 check the completeness and accuracy of hospital accounting records. The 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. From this information, reports, tables and charts are prepared which are used by the Hospital Rate Board in determining the rates of payment to hospitals and for federal sharing purposes. In addition, eight accounting institutes were held at various centres in the province to advise hospitals on the current revisions in the prescribed accounting system and requirements under the Hospital Insurance and Diagnostic Services Act.

General Counselling

The members of the counselling staff of the division made 821 visits to hospitals, travelling 109,677 miles in the process. The counselling services provided are shown in Table 39.

Union Hospital District Activity

One new union hospital district was created during the fiscal year 1958-59. This was the Yorkton Union Hospital District created officially on November 26, 1958, involving a population of some 20,092.

The usual activity with respect to the inclusion of fringe areas to existing union hospital districts was carried on during the year. These additions involved eight municipalities and those union hospital districts centering on Assiniboia, Cupar, Kelvington and Vanguard.

At present, there are 111 union hospital districts organized, involving a population of approximately 505,000. The smallest union hospital district is 774 at Goodsoil, with the largest containing a population of 44,518 at Moose Jaw.

Additional municipal areas involving a population of 164,425 contribute toward hospital capital costs by taxation. Approximately 76 per cent of the population of the province now contribute in this way.

TABLE 38. NUMBER OF BEDS IN PUBLIC GENERAL HOSPITALS, GERIATRIC CENTRES, INDIAN HEALTH SERVICES UNITS AND NURSING HOMES UNDER PERMIT, SASKATCHEWAN, DECEMBER 31, 1955-1958

Item	Year			
	1955	1956	1957	1958
Number of institutions.....	161	159	158	166
Measured bed capacity				
Number of beds.....	5,662	5,867	6,002	6,727
Beds per 1,000 population*.....	6.4	6.7	6.8	7.6
Beds set up				
Number of beds.....	6,604	6,758	6,752	7,394
Beds per 1,000 population*.....	7.5	7.7	7.7	8.3
Beds set up in excess of provincial measured capacity				
Number of beds.....	528	498	395	667
Per cent.....	8.7	7.9	6.2	9.9†

*Based on 1956 census population of 880,665 and intercensal estimates, 878,000 for 1955, 879,000 for 1957 and 888,000 for 1958.

†This rise is due to the inclusion of the Geriatric Centres and Indian Health Services Units.

TABLE 39. COUNSELLING SERVICES OF THE DIVISION OF HOSPITAL ADMINISTRATION AND STANDARDS, SASKATCHEWAN, 1958

Counselling services	Total	Dieticians	Nurses	Laboratory	Radiology	Pharmacy	Auditor III's
Number of visits.....	821	69	166	190	173	99	124
Inspecting and counselling.....	460	47	110	132	99	72	....
Assessment of physical plant, areas and facilities.....	63	....	....	1	....	....	62
Construction and renovation projects.....	20	1	8	2	6	3	....
Purchase and installation of equipment.....	16	1	....	15	....	....	....
General administration and business management.....	9	3	6	....	....	....	....
Personnel surveys and staffing problems.....	44	12	20	3	5	....	4
Costing surveys.....	15	....	....	....	....	15	....
Problems subsequent to rate and deficit decisions.....	4	....	....	....	....	1	3
Institutes or conferences.....	41	5	22	2	2	3	7
Special problems.....	66	....	....	20	39	5	2
Clinical Laboratory-X-ray Course interviews.....	37	....	....	15	22	....	....
Problems prior to rate or deficit decisions.....	46	....	....	....	....	....	46
Miles travelled.....	109,677	6,906	22,709	23,503	24,722	11,923	19,914

AIR AMBULANCE SERVICE

The Saskatchewan Air Ambulance Service carried its 10,000th patient on September 25, 1958. In over 13 years of continuous service 10,479 patients have been transported as of March 31, 1959. Even though approximately one-half of the 21,000 landings were completed in unprepared rural areas, a record of no injuries to either crew or passenger as a result of accidents has been maintained throughout the 13 years.

The number of patients transported during the year was greater than the previous corresponding period. In the year 1958-59 there were 959 patients compared with 893 in 1957-58. A total of 292,627 miles were flown in order to complete the flights and aircraft were in the air for 2,042 hours compared with 266,764 miles and 1,836 hours in 1957-58. It will be noted that this constitutes an increase of 25,863 miles and 206 hours. The increase was mainly due to the 66 more patients carried and partly because the average distance per patient was greater. Seventeen flights were completed to centres outside the province. Ten other requests for out-of-province flights were not honoured because the patient could not afford the high cost necessary under our present rate structure. Twenty-three flights were to transport blood for the Canadian Red Cross for which no charge was levied.

Of the 959 completed flights, 586 or 61.1 per cent were handled from the Saskatoon base of the Air Ambulance Service. This represents an increase of 56 flights or approximately 2 per cent increase over the last year's figures. This was due to the fact that a large number of patients were transported to the University hospital. The demand by the public for air ambulance services, particularly the increased requests from northern areas of the province continues to exist.

A total of 441 flights were completed by aviation services in the far-north (not included in the total of 959), showing an increase of 47 flights over the past year. These flights are checked for eligibility and paid for by the Air Ambulance Service. The overall total of 1,400 patients carried is the largest number in any given 12 month period, ever since the inception of the service. Costs for commercial aviation assistance in the far north have been steadily increasing from year to year even though air ambulance aircraft have been utilized whenever possible. Because of the heavy demand for air service, the crew based at Saskatoon has always been hard pressed and at times find it difficult to cope with this demand.

There were 75 flight requests not completed during the year due to unsuitable and hazardous landing conditions, death of patients before pick-up, and unacceptable charges (outside the province).

After a complete overhaul in the air ambulance shop, the older model Beechcraft was placed back in service in March 1959. The complete aircraft complement of four Cessna 195's and two Beechcraft machines have been in service since that date.

The service continued to employ a staff of 19 persons — a supervisor and chief pilot, three pilots, a senior flight nurse, three flight nurses, eight maintenance staff, a caretaker, a radio technician and a stock clerk.

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 undue risk. The service continued to operate from both bases (Regina and Saskatoon), 24 hours-a-day, 365 days a year.

Charges for transportation have not been changed. Within the province of Saskatchewan, patients are charged a flat rate of \$25 regardless of distance, and passengers \$10. Outside the province, the charges are 35 cents per mile for total miles flown.

The number and distribution of flights during the year, according to specified types of illnesses is shown in the following table. As has been general in the past, the majority of patients requiring emergency transportation were victims of accidents.

	1956-57	1957-58	1958-59
All patients	975	893	959
Accident cases including fractures, burns and wounds	255	258	234
Arthritis	5	7	3
Cancer and tumours	111	91	69
Cardiac conditions	52	44	49
Chest conditions	61	48	45
Communicable diseases (except poliomyelitis)	5	1	7
Diseases of blood	38	21	32
Diseases of central nervous system	93	56	108
Eye, ear, nose and throat disorders	10	10	8
Gastro-intestinal diseases	166	155	173
Genito-urinary diseases	47	62	80
Poliomyelitis	8	14	2
Premature infants and congenital deformities	46	37	58
Pregnancy with complications	40	26	41
Psychiatric disorders	20	23	15
Senility	3	10	20
Others (convulsions following inoculation—convalescent surgical and medical cases)	15	30	15

MEDICAL SERVICES (PUBLIC ASSISTANCE)

Two major health services programs of the health department, designed to cover the health care needs of special groups of the population who receive public assistance were continued during 1958-59 in substantially the same form as in previous years. The groups served totalled approximately 35,000 persons.

The first program provides benefits to persons receiving regular and continued social assistance in the form of pensions or mothers' allowances. A health services card, issued to the head of the family, entitles the holder and his dependents to health care as required.

The second program provides benefits mainly to recipients of social aid or short-term cases. Only a few of these cases whose benefits extend over a considerable period, are given health services cards.

These two programs are designed to cover the health care needs of all persons who are considered a provincial responsibility, leaving to the municipality the responsibility for providing health services to relief, old age assistance, disabled person's allowance recipients and the medically indigent with local residence.

The departments of Social Welfare and Rehabilitation and of Municipal Affairs (Local Improvement Districts Branch) determine the cases who will receive financial assistance in the form of pensions, allowances or social aid. The health department arranges for the provision of essential health services and determines the manner in which these health services will be provided.

The success of these programs depends to a large extent upon the active and willing co-operation of the health professions. The physicians of Saskatchewan in particular as well as the dentists, nurses, physiotherapists, optometrists, pharmacists and chiropodists have rendered efficient health services to a group whose health needs are often greater than the community in general.

HEALTH SERVICES FOR LONG-TERM BENEFICIARIES (PROGRAM 1)¹

The beneficiaries of this program include (1) recipients of old age security pensions who qualify for the provincial supplemental allowance on a means test, together with their spouses and dependents—these are designated by the terminology O.A.S. (S.A.); (2) recipients of blind persons' allowances who qualify for the provincial supplemental allowance on a means test, together with their spouses and dependents, designated by B.P.A.; and (3) recipients of mothers' allowance including incapacitated husbands and dependents, designated by M.A.

The following table shows the average number of recipients in each of the past five years:

¹ As 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 will be for the previous year.

<i>Fiscal year</i>	<i>Average number of beneficiaries</i>	<i>O.A.S. (S.A.)</i>	<i>M.A.</i>	<i>B.P.A.</i>
1954-55	29,080	19,926	8,572	582
1955-56	29,364	19,435	9,406	523
1956-57	28,997	19,228	9,233	536
1957-58	28,390	19,310	8,540	540
1958-59	28,055	19,476	8,027	552

All beneficiaries are eligible for a wide range of services and have free choice of practitioner. Medical care includes the services of physicians and surgeons in home, office, or hospital. Comprehensive hospital care includes all benefits of the Hospital Services Plan, together with certain additional benefits such as out-patient services and extra drugs. In addition, dental services, drugs and appliances, optical services, nursing, physiotherapy, and chiropody may be obtained when required.

Reciprocal agreements exist with the governments of British Columbia and Alberta to provide health services to those pensioners, transferred between the three provinces on or before December 31, 1952. Pensioners moving after that date are required to establish residence in the new province before becoming eligible for health services in the province concerned.

Treaty Indians and Eskimos whose health services are the responsibility of the Federal Government are excluded from benefits. Health services (except in emergencies) are not available outside Saskatchewan unless prior approval is granted.

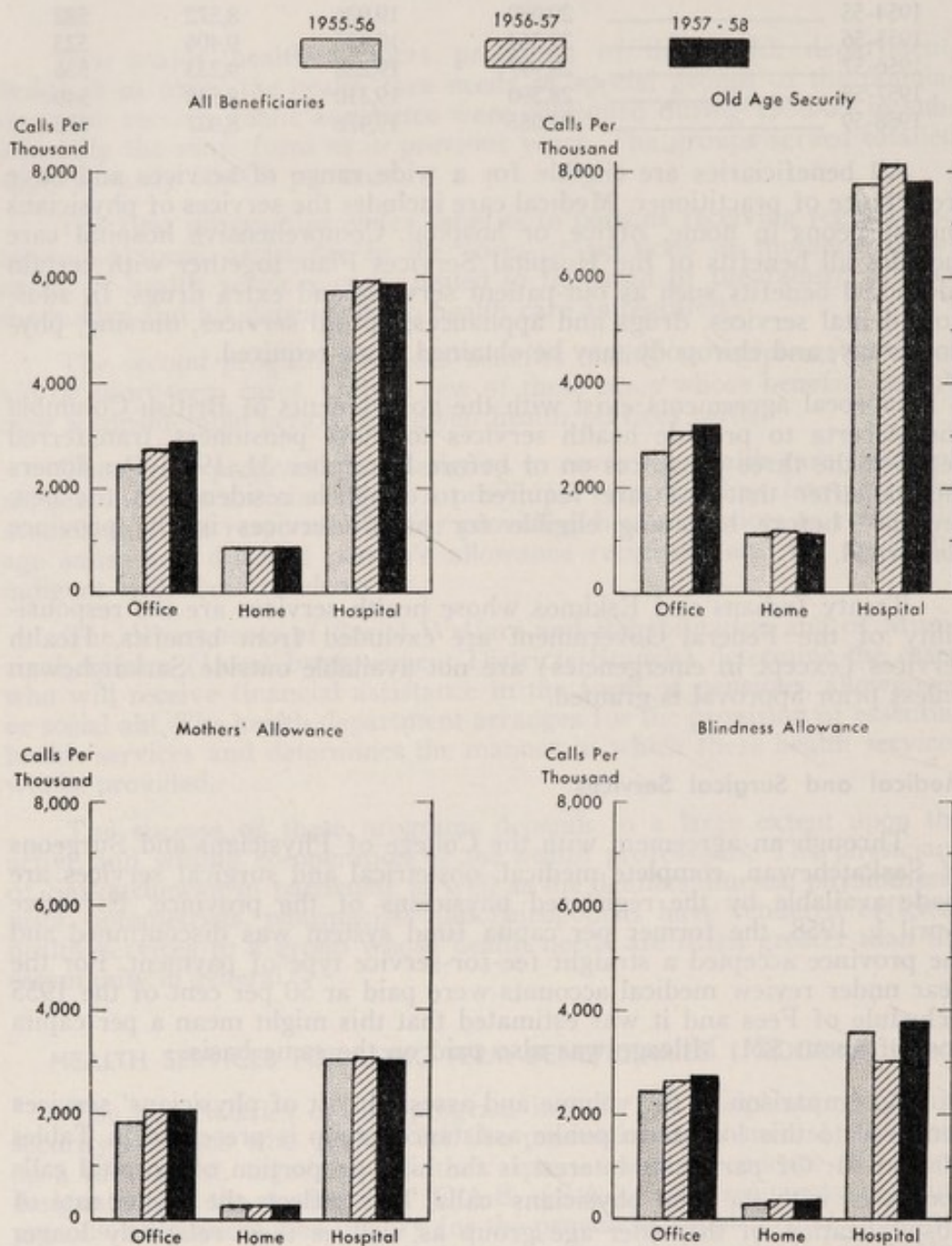
Medical and Surgical Services

Through an agreement with the College of Physicians and Surgeons of Saskatchewan, complete medical, obstetrical and surgical services are made available by the registered physicians of the province. Effective April 1, 1958, the former per capita fund system was discontinued and the province accepted a straight fee-for-service type of payment. For the year under review medical accounts were paid at 50 per cent of the 1955 Schedule of Fees and it was estimated that this might mean a per capita cost of about \$21. Mileage was also paid on the same basis.

A comparison of the volume and assessed cost of physicians' services rendered to this long-term public assistance group is presented in Tables 40 and 41. Of particular interest is the high proportion of hospital calls compared with the total physicians' calls. This reflects the higher rate of hospitalization of the older age group as well as their relatively longer periods of stay in hospital. The demands of this group are shown in Figure 4 as being consistently higher than that of the mothers' allowance and blind persons' allowance. The trend in utilization of physicians' services, average physician caseload and physicians' payments is shown in Table 42. It will be noted that the number of beneficiaries is slightly less than last year, mostly attributable to the Mothers' Allowance group. The number receiving at least one physician service during the year has also dropped.

The Central Medical Assessment Board nominated by the College of Physicians and Surgeons and appointed by the Minister of Public Health, continued to be a valuable adjunct to the operation of this program.

FIGURE 4. RATE OF PHYSICIANS' CALLS PER 1,000 LONG-TERM PUBLIC ASSISTANCE BENEFICIARIES (PROGRAM 1), BY TYPE OF CALL AND BENEFICIARY, SASKATCHEWAN, 1955-56 TO 1957-58



Drug Services

In co-operation with Saskatchewan pharmacists the Division of Medical Services continued to provide a wide range of pharmaceutical services to the provincial public assistance cases during 1958-59. Payment was made to 335 pharmacies compared with 324 the previous year. The beneficiary continued to pay 20 per cent of the cost of most drugs with Insulin, Tolbutamide, Injectable Liver Extract and Injectable Vitamin B₁₂ being provided from department stocks at no cost. Assessment of accounts for services rendered subsequent to March 31, 1958, was made according to the revised Prescription Pricing Schedule. This schedule provides a much simplified method of assessing accounts. It is estimated that this schedule would increase the average prescription cost by up to 4 per cent.

As a result of the meeting of the Drug Advisory Committee during the year, several items were deleted from the non-benefit list. These were Alpha Tocopherol, Gold Salts, Ion Exchange compounds for control of Sodium absorption, Chlorothiazide, Furocin, Antibiotics with stress Formula, Atasal and Hydrochloroquin.

The provision of Tolbutamide from department stocks proved to be highly successful. As of March 31, 1959, approximately 347 beneficiaries were receiving their Tolbutamide requirements from the department. The number of failures has been very low which indicates that physicians have been able to make a good assessment of their patients' candidacy for this therapy.

Table 43 shows that the average prescription price (at 80 per cent for 1957-58) rose by 2.9 per cent from the previous year. This, however, compares favorably with national and provincial averages. The utilization rate increased by 11.5 per cent. Any control measure designed to stabilize costs will have to be aimed at the utilization rate.

In 1958-59 the percentage of the eligible population which received drug services dropped for the first time in several years (Table 44). This combined with a reduction in the total eligible, resulted in an appreciably smaller number of persons availing themselves of this service. In spite of this decrease in patients the cost per eligible beneficiary increased by \$2.

Table 45 shows the ten types of prescriptions which made up the bulk of expenditures. Multivitamins and vitamins and minerals continue to head this list by a wide margin from the cost view point. The notable feature of this table is the fact that the so-called ataractics or tranquilizers which made their first appearance here in 1956-57 have moved to fourth place in 1957-58. They are, in fact, threatening to involve greater expenditures than Tetracycline—a broad spectrum antibiotic.

Dental Services

The distribution of dental services to the three groups of beneficiaries under Program I, reveals that the old age security group in 1957-58 received 5,013 services or 260 per 1,000, the mothers' allowance beneficiaries 9,368 services or 1,097 per 1,000, and the blindness allowance group, 258 services or 478 per 1,000.

The cost of dental services was less than the previous year due in part to a reduction in utilization. Tables 46 and 47 show in more detail the utilization rate and costs for this service and Table 48 shows the per capita expenditure.

FIGURE 5. RATE OF DRUG PRESCRIPTIONS PER 1,000 LONG-TERM PUBLIC ASSISTANCE BENEFICIARIES (PROGRAM 1), BY AGE GROUP AND SEX, SASKATCHEWAN, 1957-58

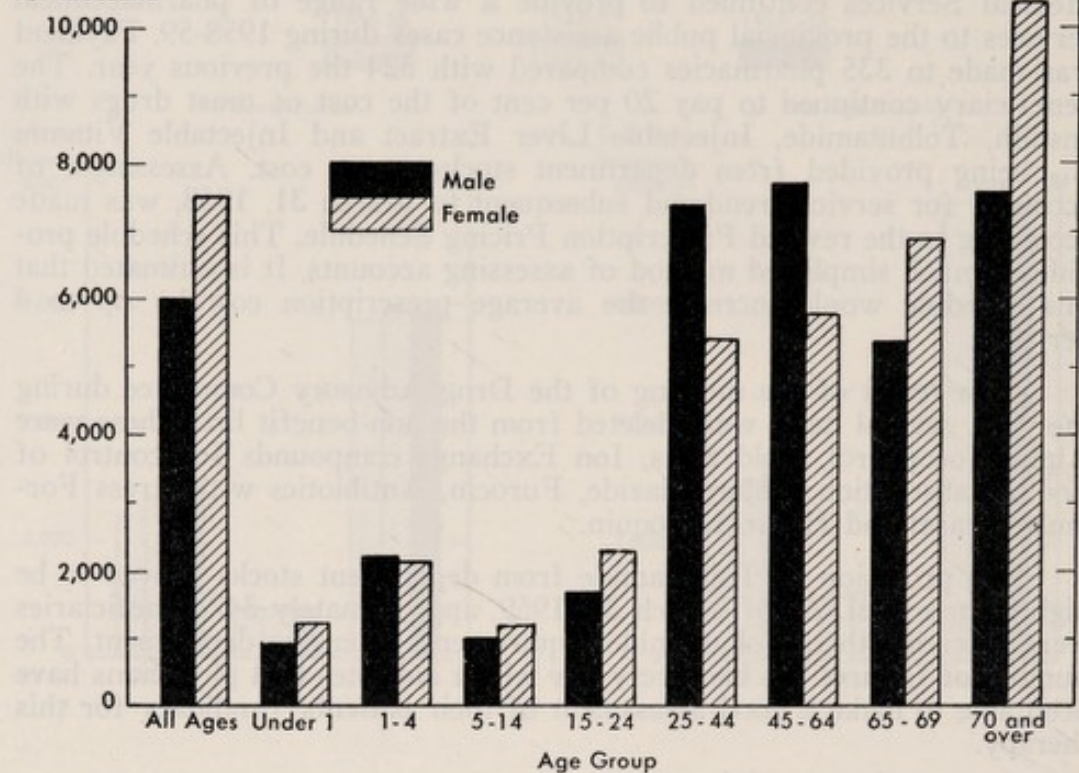
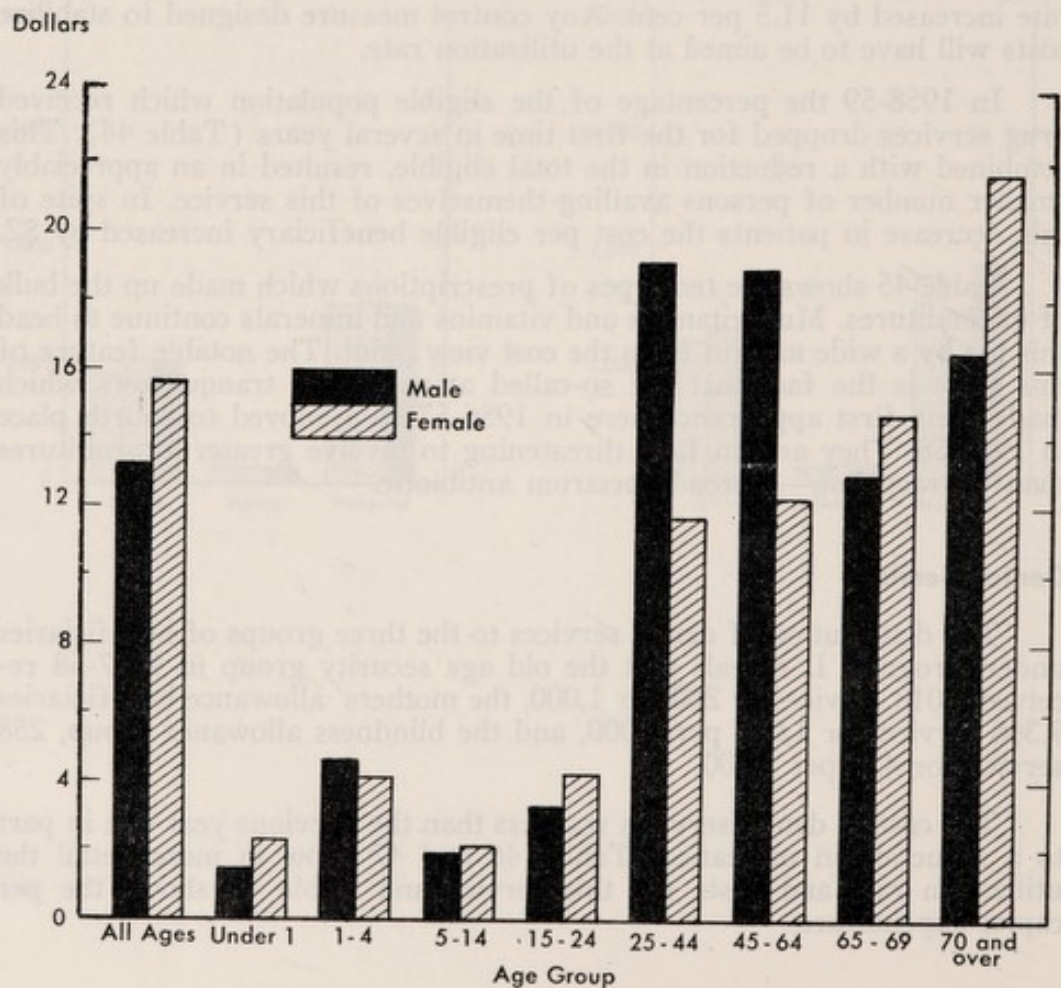


FIGURE 6. EXPENDITURES ON DRUG PRESCRIPTIONS PER LONG-TERM PUBLIC ASSISTANCE BENEFICIARY (PROGRAM 1), BY AGE GROUP AND SEX, SASKATCHEWAN, 1957-58



Despite the regulations being designed to encourage preventive work, there is a serious under-utilization of dental services in the age group under 14 years.

Hospital Services

Each beneficiary is entitled to coverage under the Saskatchewan Hospital Services Plan. The Plan simply estimates the funds required to cover these long-term beneficiaries and obtains it from the general revenues of the Provincial Government.

Out-patient services, a portion of emergency hospital services for patients outside the province and certain drugs which are excluded from the Hospital Services Plan are also provided. The per capita cost for these services was 47 cents in 1958-59.

Hospital statistics in respect of the provincial social assistance recipients are contained in considerable detail in the 1958 Annual Report of the Saskatchewan Hospital Services Plan (page 12). In 1958, the Plan expenditures for long-term beneficiaries amounted to \$2,935,453.32¹ or approximately \$104.64 per capita.

Nursing Services

On the request of the attending physician, special private-duty nurses are provided for certain cases. Home nursing care through the Victorian Order of Nurses is also paid, when prior approval is obtained. The per capita cost for this service was \$1.01 for 1958-59.

Optical Services

Spectacles are available directly from an optometrist, an ophthalmologist or a general practitioner. Repeat refraction and corrections within two years of previous service require prior approval of the Medical Services Division.

Total expenditures for refractions by optometrists and eye glasses provided by all practitioners, and per capita costs based on the date of payment are shown below:

<i>Fiscal year</i>	<i>Total expenditure</i>	<i>Average cost per beneficiary</i>
1954-55	\$59,885	\$2.06
1955-56	54,739	1.86
1956-57	61,637	2.13
1957-58	64,494	2.27
1958-59	72,818	2.60

Information regarding the volume and costs of optical services for both programs appears in Table 49 and Table 50.

The increased costs for 1958-59 are to some extent explained by the acceptance of the 1955 College of Physicians and Surgeons Schedule of Fees on a straight fee-for-service basis of 50 per cent and also to a minor adjustment of fees in the optometrists schedule.

¹ Based on discharges for the calendar year 1958.

Other Services

Services by physiotherapists in private offices or in hospital out-patient departments are provided, when prescribed by a physician and approved by the Medical Services Division. The services of chiropodists are included as benefits. Prior approval is necessary when appliances are required.

The following is a comparison of expenditures for both physiotherapy (other than that provided by physicians) and chiropody services for the past five years, based on the date of payment.

<i>Fiscal year</i>	<i>Physiotherapy</i>		<i>Chiropody</i>	
	<i>Total cost</i>	<i>Per capita cost</i>	<i>Total cost</i>	<i>Per capita cost</i>
1954-55	\$1,909	\$0.07	\$5,043	\$0.17
1955-56	3,134	0.11	4,636	0.16
1956-57	2,851	0.10	5,018	0.17
1957-58	2,998	0.11	5,590	0.20
1958-59	2,429	0.09	6,222	0.22

Volume of Health Services

Table 51 shows a six-year comparison of those long-term public assistance beneficiaries who received health services at least once during the year, according to the type of service and type of beneficiary.

Detailed statistics of data on the operations of the program are obtained annually with the assistance of national health grants.

Expenditures

Data on expenditures by type of service and classification of long-term beneficiary in 1958-59, based on date of payment, are shown in Table 52 and Table 53¹. The \$24.48 per capita for medical services is inflated because of a final payment made during this year as a result of the previous years per capita fund expenditures. Total expenditures for medical services is shown as \$686,721.13 which includes an amount of \$123,519.42 representing a final payment of the per capita fund from the previous year, this leaves an expenditure of \$563,201.71 on the last current year's account for a per capita cost of \$20.07.

HEALTH SERVICES FOR SHORT-TERM BENEFICIARIES (PROGRAM II)

This program is designed to provide health services to so-called short-term public assistance cases who are the responsibility of the provincial government, in contrast to the beneficiaries of Program I, who are recipients of regular and continued assistance.

There has been no significant changes made in this program in the past year as far as beneficiaries or benefits are concerned. This also applies to the Prevention of Blindness and Relief to Destitute programs and certain special contractual types of services.

Excluding those persons who receive care on a current basis only, such as prevention of blindness and relief to destitute, there was an average

¹ These beneficiaries include old age security (supplemental allowance) recipients, blind persons' allowance recipients and mothers' allowance recipients together with dependents.

of 6,348 social aid recipients in 1958-59 compared with 4,928 in the previous year. The figure for 1958-59 now includes Local Improvement District medical indigents, accounting for a considerable portion of the increase in the caseload as well as an increase in the provincial social aid group of over 500 cases.

Expenditures for all Services to Short-Term Beneficiaries

Table 54 shows the expenditures by type of service and classification of short-term social aid beneficiaries in 1958-59 based on date of payment. The total expenditure for this program was \$781,177 of which \$471,349 was incurred by the Medical Services Division and \$309,827 by the Saskatchewan Hospital Services Plan.

Volume of Health Services

The following table shows the number of short-term beneficiaries who received health services at least once during the year 1956-57 to 1958-59 according to type of service and type of beneficiary.

Type of Service	1956-57	1957-58	1958-59
At least one type of health service	85.9 ¹	91.2 ¹	87.5 ¹
Physicians' care ²	56.0	65.8	68.6
Drugs	48.9	54.5	59.9
Dental care	19.3	20.7	22.0
Optical care	11.4	12.1	13.4
Special nursing care	(³)	(³)	(³)
Chiropody	0.2	0.2	(³)
Hospital care ⁴	11.3	10.3	10.6
Other	0.6	0.3	(³)

Total Expenditures Including Administration

Expenditures by the Medical Services Division during 1958-59 totalled \$1,967,859. This involved processing an average of 30,012 professional accounts a month compared to 29,656 in the previous year. The percentage distribution of total expenditures by the division is shown graphically in Figure 7.

The expenditures for each program and for administration were as follows:

	Expenditures	Per cent
All expenditures	\$1,967,859	100.0
Program I	1,373,591	69.8
Program II	471,350	23.9
Administration	122,918	6.3

A comparison of the administrative costs for this entire health services program for the public assistance groups of the population during the last five years is as follows:

¹ Excludes services to 924 persons not classified as beneficiaries who received a total of 2,506 services on a limited current basis only.

² Does not include medical examination for M.A. incapacitated husbands or disabled persons allowance applicants.

³ Less than 0.05 per cent.

⁴ Does not include hospitalization under S.H.S.P.

<i>Year</i>	<i>Administration expenditures</i>	<i>Per cent of total expenditures</i>
1954-55	\$ 99,974	7.9
1955-56	107,503	7.6
1956-57	106,519	6.6
1957-58	119,343	7.3
1958-59	122,918	6.3

FIGURE 7. PERCENTAGE DISTRIBUTION OF EXPENDITURES ON HEALTH CARE, LONG-TERM AND SHORT-TERM BENEFICIARIES COMBINED (PROGRAMS 1 AND 11), SASKATCHEWAN, 1958-59

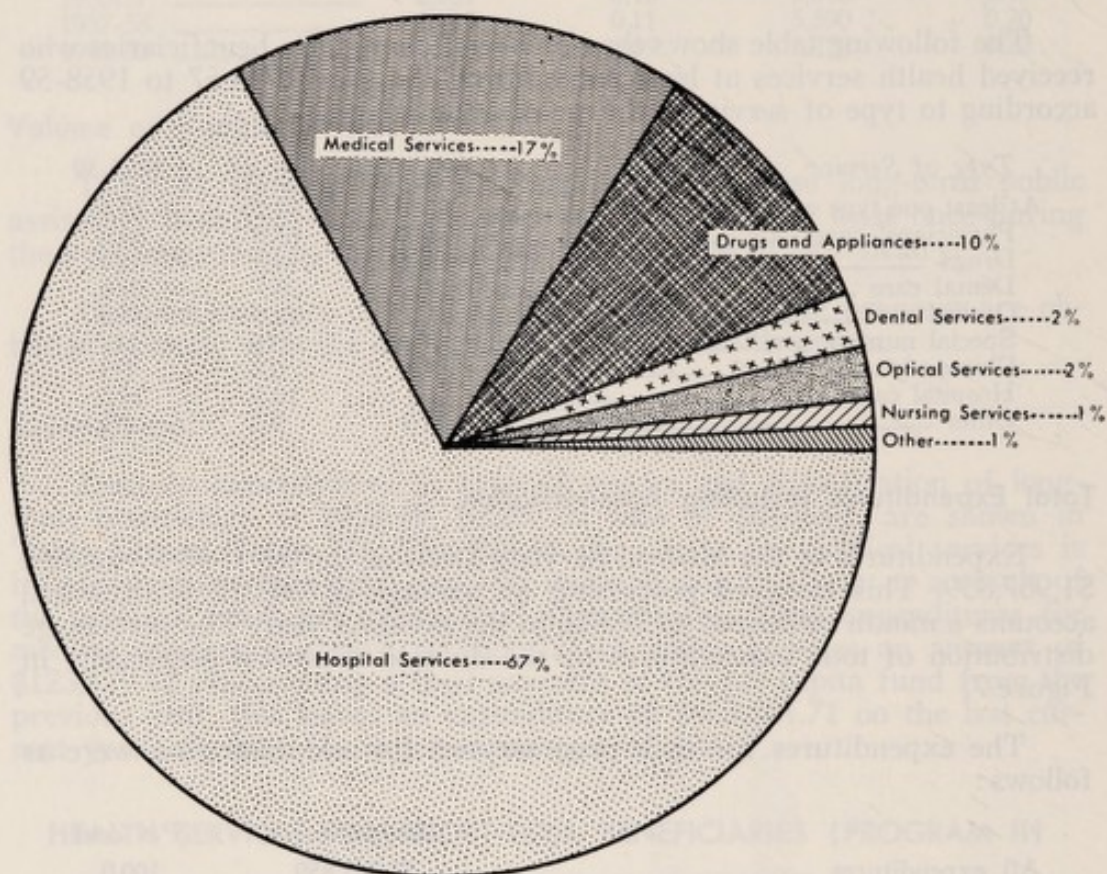


TABLE 40. UTILIZATION AND COST OF PHYSICIANS' SERVICES BY TYPE OF SERVICE FOR LONG-TERM PUBLIC ASSISTANCE BENEFICIARIES (PROGRAM 1), SASKATCHEWAN, 1957-58

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.....	301,542	10,621.4	\$990,636	100.0	\$ 34.89	\$18.00
Physicians' calls.....	271,585	9,566.2	613,972	62.0	21.63	11.16
Office.....	80,065	2,820.2	183,726	18.5	6.47	3.34
Home.....	24,347	857.6	87,939	8.9	3.10	1.60
Hospital†.....	167,173	5,888.4	342,307	34.6	12.06	6.22
Surgical operations.....	5,676	199.9	214,807	21.7	7.56	3.90
Major.....	2,023	71.2	181,487	18.3	6.39	3.30
Minor.....	3,653	128.7	33,320	3.4	1.17	0.60
Confinements.....	102	3.6	6,160	0.6	0.22	0.11
Diagnostic and other procedures.....	18,903	665.8	76,977	7.8	2.71	1.40
Diagnostic procedures.....	12,487	439.8	53,731	5.4	1.89	0.98
Laboratory.....	7,195	253.4	7,251	0.7	0.25	0.13
X-ray.....	2,280	80.3	17,029	1.7	0.60	0.31
Other†.....	3,012	106.1	29,451	3.0	1.04	0.54
Other procedures.....	6,416	226.0	23,246	2.4	0.82	0.42
Special treatment**.....	2,505	88.2	3,703	0.4	0.13	0.07
Physical examination.....	2,983	105.1	16,220	1.7	0.57	0.29
Other††.....	928	32.7	3,323	0.3	0.12	0.06
Special services.....	5,276	185.9	60,514	6.1	2.13	1.10
Surgical assistant.....	545	19.2	9,785	1.0	0.35	0.18
Anaesthetist.....	1,699	59.9	31,623	3.2	1.11	0.58
X-ray interpretation.....	1,825	64.3	6,262	0.6	0.22	0.11
Consultant.....	1,207	42.5	12,844	1.3	0.45	0.23
Other services‡.....	.....	.....	11,086	1.1	0.39	0.20
Mileage.....	.....	.....	7,120	0.7	0.25	0.13

*These are derived figures based on a total per capita payment of \$18.00 (52.47 per cent of the total assessed cost).

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

‡Includes basal metabolism rate, electrocardiogram, refractions, and gastric analysis.

**Includes inoculations, vaccinations and physiotherapy treatments.

††Complete examinations, etc.

‡‡Includes strapping of sprain or other injury, and all unstated procedures.

TABLE 41. RATE AND PER CAPITA COST OF PHYSICIANS' SERVICES FOR LONG-TERM PUBLIC ASSISTANCE BENEFICIARIES (PROGRAM 1), SASKATCHEWAN, 1955-56 TO 1957-58

Type of service	Rate of services per 1,000 beneficiaries			Assessed cost per capita		
	1955-56	1956-57	1957-58	1955-56	1956-57	1957-58
All physicians' services.....	9,849.3	10,497.7	10,621.4	\$30.00	\$32.60	\$34.89
Physicians' calls.....	8,895.4	9,505.1	9,566.2	18.27	19.61	21.63
Office.....	2,429.9	2,713.4	2,820.2	5.23	5.79	6.47
Home.....	844.7	856.6	857.6	3.06	3.13	3.10
Hospital*.....	5,710.8	5,935.1	5,888.4	9.98	10.69	12.06
Surgical operations.....	179.9	197.9	199.9	6.94	7.64	7.56
Major.....	64.6	70.1	71.2	5.84	6.42	6.39
Minor.....	115.3	127.8	128.7	1.10	1.22	1.17
Confinements.....	3.7	3.7	3.6	0.23	0.21	0.22
Diagnostic and other procedures.....	532.5	617.4	665.8	2.14	2.47	2.71
Diagnostic procedures.....	394.4	440.6	439.8	1.65	1.85	1.89
Laboratory.....	224.7	253.2	253.4	0.29	0.32	0.25
X-ray.....	71.6	80.2	80.3	0.57	0.62	0.60
Other†.....	98.1	107.2	106.1	0.79	0.91	1.04
Other procedures.....	138.1	176.8	226.0	0.49	0.62	0.82
Special treatment‡.....	70.8	92.9	88.2	0.11	0.15	0.13
Physical examination.....	48.4	65.5	105.1	0.29	0.37	0.57
Other**.....	18.9	18.4	32.7	0.09	0.10	0.12
Special services.....	147.8	173.6	185.9	1.87	2.11	2.13
Surgical assistant.....	19.0	18.7	19.2	0.43	0.42	0.35
Anaesthetist.....	52.9	59.9	59.9	0.93	1.06	1.11
X-ray interpretation.....	44.2	56.4	64.3	0.19	0.23	0.22
Consultant.....	31.7	38.6	42.5	0.32	0.40	0.45
Other services††.....	.....	.....	.....	‡‡	0.01	0.39
Mileage.....	.....	.....	.....	0.55	0.55	0.25

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

†Includes basal metabolism rate, electrocardiogram, refractions, and gastric analysis.

‡Includes inoculation, vaccinations and physiotherapy treatments.

**Complete examinations, etc.

††Includes strapping of sprain or other injury, and all unstated procedures.

‡‡Less than 1 cent per capita.

TABLE 42. PHYSICIANS PROVIDING CARE, AND PAYMENTS TO PHYSICIANS FOR LONG-TERM PUBLIC ASSISTANCE BENEFICIARIES (PROGRAM 1), SASKATCHEWAN, 1952-53 TO 1958-59

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
1952-53.....	29,908	18,404	61.5	660	27.9	\$685.48	64.5	\$24.58
1953-54.....	29,036	19,067	65.7	673	28.3	654.21	52.6	23.12
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

* Average number of beneficiaries during the fiscal year.

† This represents both in- and out-of-province payments. During 1958-59, 740 Saskatchewan physicians received an average payment of \$778.31 while 69 out-of-province physicians averaged \$45.29.

TABLE 43. EXPENDITURES FOR DRUGS AND APPLIANCES* AND NUMBER OF PRESCRIPTIONS PER CAPITA WITH AVERAGE PRESCRIPTION COST, FOR LONG-TERM PUBLIC ASSISTANCE BENEFICIARIES (PROGRAM 1), SASKATCHEWAN, 1950-51 TO 1957-58

Fiscal year	Per capita expenditure†	Number prescriptions per capita	Average prescription cost‡		Year	Average prescription prices (general population)		
			At 80%	At 100%		Saskatchewan**	Canada**	U.S.A.††
1950-51.....	\$5.34	3.8	\$1.38	\$1.66	1950	\$ 1.64	\$1.72	\$1.77
1951-52.....	6.47	4.2	1.51	1.81	1951	1.66	1.68	1.90
1952-53.....	7.72	4.6	1.61	1.93	1952	2.05	1.82	2.08
1953-54.....	8.27	4.9	1.70	2.09	1953	2.01	2.07	2.19
1954-55.....	9.68	5.3	1.82	2.19	1954	2.18	2.28	2.27
1955-56.....	11.58	5.8	2.00	2.41	1955	2.25	2.26	2.46
1956-57.....	12.64	6.1	2.07	2.49	1956	2.38	2.49	2.62
1957-58.....	14.59	6.8	2.13	2.57	1957		2.61	2.85

NOTE: With the exception of 1953-54 and 1954-55, which are based on the date of service, these figures are derived from the date of payment. * Provided through drugstores only (excludes hospitals).

† On December 1, 1948, patients became responsible for 20 per cent of the prescription price; 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 five-year period 1950-51 to 1954-55 represents 83 per cent of the full assessed value. The figures for 1955-56, 1956-57 and 1957-58 have been calculated on this basis.

** Canadian Pharmaceutical Journal.

†† Lilly Digest.

‡‡ Data not available.

TABLE 44. UTILIZATION AND COST OF BROAD CATEGORY OF DRUGS* BY LONG-TERM PUBLIC ASSISTANCE BENEFICIARIES (PROGRAM 1), SASKATCHEWAN, 1957-58

Broad drug category	Prescriptions		Amount paid†		
	Number	Rate per beneficiary	Total	Average cost per beneficiary	Average cost per prescription
All prescriptions.....	194,259	6.8	\$414,118	\$14.59	\$2.13
Drugs used against acute infections and parasitic diseases.....	14,548	0.5	67,957	2.39	4.67
Drugs used in the palliation and therapy of neoplasms.....	18	‡	27	**	1.50
Drugs of endocrine origin and synthetic substitutes.....	3,194	0.1	5,198	0.18	1.63
Drugs affecting allergic, metabolic and nutritional deficiency conditions.....	25,210	0.9	63,917	2.25	2.54
Drugs used against diseases of the blood and blood forming organs....	1,744	0.1	3,111	0.11	1.78
Drugs affecting the nervous system and mental diseases including psychoneurotic and personality disorders.....	45,748	1.6	75,685	2.67	1.65
Drugs affecting the sense organs (eye and ear).....	3,384	0.1	3,084	0.11	0.91
Cardiovascular drugs (drugs affecting diseases of the circulatory system).....	29,834	1.1	56,985	2.01	1.91
Drugs affecting diseases of the respiratory system (including the nose and throat).....	16,792	0.6	29,767	1.05	1.77
Drugs affecting diseases and conditions of the gastro-intestinal tract.....	23,795	0.8	40,362	1.42	1.70
Drugs affecting the genito-urinary system.....	8,063	0.3	21,471	0.76	2.66
Drugs affecting the skin and cellular tissue.....	13,315	0.5	17,627	0.62	1.32
Drugs used against diseases of the bone and organs of movement.....	4,568	0.2	14,414	0.51	3.16
Dental and oral preparations.....	306	‡	227	0.01	0.74
Biologicals, vaccines, serums, diagnostic agents and non-specific parenteral solutions.....	1,094	‡	1,606	0.06	1.47
Miscellaneous, poorly defined drug preparations.....	90	‡	256	0.01	2.84
Drugs and dressings used in accidents, poisoning and violence.....	1,418	‡	2,516	0.08	1.77
Surgical appliances and prosthetics..	1,138	‡	9,908	0.35	8.71

*Includes appliances.

†"Amount paid" means (1) the amount paid for prescriptions dispensed by drugstores and physicians which is equivalent to 80 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 assessed price.

‡Less than 0.05 prescriptions per beneficiary.

**Less than 1 cent.

TABLE 45. TYPE AND COST OF SELECTED PRESCRIPTIONS* WITH HIGHEST TOTAL COST FOR LONG-TERM PUBLIC ASSISTANCE BENEFICIARIES (PROGRAM 1), SASKATCHEWAN, 1957-58

Type of prescription	Number of prescriptions	Total cost	Average cost per prescription
Multivitamins and vitamins and minerals.....	13,954	\$ 42,459	\$3.04
Barbiturate derivatives.....	18,286	20,515	1.12
Tetracycline.....	2,672	18,374	5.71
Ataractics.....	2,614	17,890	4.07
Rauwolfia compounds.....	6,124	16,444	2.69
Diuretics and anti-diuretics.....	5,300	16,422	3.13
Opiates†.....	11,062	15,270	1.38
Chloramphenicol.....	1,519	13,799	6.27
Antiasthmatics and respiratory antispasmodics.....	4,826	12,371	2.53
Antihypertensive agents in combination with other drugs.....	3,138	11,423	3.64

Note: Based on date of prescription.

*Dispensed by drugstores and by hospitals (exclusive of in-patient drug benefits under S.H.S.P.); cost includes the amount paid which is equivalent to approximately 80 per cent of the full assessed price for prescriptions dispensed by drugstores and physicians and 60-70 per cent of the full assessed price for prescriptions dispensed by hospitals.

†Including Aspirin Phenacetin Codeine, with codeine gr $\frac{1}{4}$ or more.

TABLE 46. RATE OF DENTAL SERVICES PER 1,000 BENEFICIARIES BY TYPE OF SERVICE FOR BOTH LONG-TERM AND SHORT-TERM PUBLIC ASSISTANCE BENEFICIARIES (PROGRAMS 1 AND 11), SASKATCHEWAN, 1953-54 TO 1957-58

Type of service	1953-54	1954-55	1955-56	1956-57	1957-58
All services.....	491.6	548.8	535.0	646.2	575.3
Fillings.....	174.5	202.0	198.9	260.8	222.2
Extractions.....	254.2	285.3	274.6	317.6	285.9
Dentures.....	62.9	61.5	61.5	67.8	67.2
Complete dentures*	37.9	34.4	32.2	34.1	36.4
Repairs.....	21.5	21.4	23.4	25.7	23.7
Relines.....	2.2	3.8	4.0	5.5	5.1
Partial dentures.....	1.3	1.9	1.9	2.5	2.0
Other.....	....	....	....	....	....

*Upper or lower denture.

TABLE 47. 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, 1957-58

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.....	19,167	575.3	100.0	\$90,221	\$2.71	\$4.71	100.0
Examination and report.....	.....	.....	.....	492	0.02	.....	0.5
Fillings.....	7,403	222.2	38.6	26,057	0.78	3.52	28.9
Extractions.....	9,527	285.9	49.7	17,792	0.53	1.87	19.7
Dentures.....	2,237	67.2	11.7	41,499	1.25	18.55	46.0
Complete dentures†.....	1,214	36.4	6.3	33,044	0.99	27.22	36.6
Repairs.....	789	23.7	4.1	4,431	0.13	5.62	4.9
Relines.....	168	5.1	0.9	2,206	0.07	13.13	2.5
Partial dentures.....	66	2.0	0.4	1,818	0.06	27.55	2.0
Other.....	.....	.....	.....	4,381	0.13	.....	4.9

*Grant of \$55 paid for complete dentures.

†Upper or lower denture.

TABLE 48. PER CAPITA EXPENDITURE FOR DENTAL SERVICES BY SELECTED CLASSES OF BENEFICIARY FOR BOTH LONG-TERM AND SHORT-TERM PUBLIC ASSISTANCE BENEFICIARIES (PROGRAMS I AND II) SASKATCHEWAN, 1952-53 TO 1957-58

Fiscal year	All beneficiaries	Selected classes of beneficiary		
		Old age security (S.A.)	Mothers' allowance	Blind persons' allowance
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

TABLE 49. 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, 1957-58

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.....	13,044	391.5	100.0	\$76,052	\$2.28	\$5.83	100.0
Services.....	5,953	178.7	45.6	27,298	0.82	4.59	35.9
Simple examination.....	94	2.8	0.7	188	0.01	2.00	0.3
Refraction without fitting fee.....	670	20.1	5.1	2,667	0.08	3.98	3.5
Refraction with fitting fee.....	3,614	108.5	27.7	21,623	0.65	5.98	28.4
Fitting fee only.....	1,575	47.3	12.1	2,820	0.08	1.79	3.7
Materials.....	7,091	212.8	54.4	48,754	1.46	6.88	64.1
Glasses.....	5,851	175.6	44.9	45,025	1.35	7.70	59.2
Repairs.....	77	2.3	0.6	128	*	1.66	0.2
Replacements.....	1,150	34.5	8.8	3,328	0.10	2.89	4.4
Other.....	13	0.4	0.1	273	0.01	21.00	0.3

*Less than 1 cent.

TABLE 50. COST OF OPTICAL SERVICES BY TYPE OF SERVICE AND CLASS OF BENEFICIARY FOR BOTH LONG-TERM AND SHORT-TERM PUBLIC ASSISTANCE BENEFICIARIES (PROGRAMS 1 AND 11), SASKATCHEWAN, 1957-58

Type of service	All beneficiaries	Class of beneficiary			
		Old age security (SA)	Mothers' allowance	Blind persons' allowance	Short-term beneficiaries
	Cost of services				
Total.....	\$76,052	\$45,557	\$17,622	\$780	\$12,093
Services.....	27,298	15,242	6,697	214	5,145
Simple examination.....	188	128	46	4	10
Refraction without fitting fee.....	2,667	701	482	28	1,456
Refraction with fitting fee.....	21,623	12,897	5,484	144	3,098
Fitting fee only.....	2,820	1,516	685	38	581
Materials.....	48,754	30,315	10,925	566	6,948
Glasses.....	45,025	28,677	9,869	400	6,079
Repairs.....	128	81	23	1	23
Replacements.....	3,328	1,401	1,014	67	846
Other.....	273	156	19	98	....
	Cost per capita				
Total.....	\$2.28	\$2.36	\$2.06	\$1.45	\$2.45
Services.....	0.82	0.79	0.78	0.40	1.04
Simple examination.....	0.01	0.01	*	0.01	*
Refraction without fitting fee.....	0.08	0.03	0.06	0.05	0.29
Refraction with fitting fee.....	0.65	0.67	0.64	0.27	0.63
Fitting fee only.....	0.08	0.08	0.08	0.07	0.12
Materials.....	1.46	1.57	1.28	1.05	1.41
Glasses.....	1.35	1.49	1.16	0.74	1.24
Repairs.....	*	*	*	*	*
Replacements.....	0.10	0.07	0.12	0.13	0.17
Other.....	0.01	0.01	*	0.18	....

*Less than 1 cent.

TABLE 51. 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 1), SASKATCHEWAN, 1953-54 TO 1958-59

Type of service	1953-54	1954-55	1955-56	1956-57	1957-58	1958-59
All beneficiaries						
At least one type of health service.....	81.6	82.9	82.4	85.3	87.0	87.8
Physicians' care.....	65.7	64.0	65.8	67.3	69.3	64.3
Drugs.....	60.1	58.6	60.7	61.8	64.7	62.9
Dental care.....	12.8	13.5	13.3	13.9	13.4	13.5
Optical care.....	15.8	17.6	16.4	18.1	19.0	19.5
Special nursing care.....	0.4	0.3	0.2	0.2	0.3	0.4
Chiropody.....	1.4	1.5	1.3	1.4	1.6	1.5
Hospital care*.....	7.5	7.8	7.7	8.2	9.2	9.1
Other.....	1.3	1.2	1.3	1.3	1.7	1.4
Old age security (supplemental allowance) group						
At least one type of health service.....	80.6	82.3	83.5	86.8	86.4	88.0
Physicians' care.....	68.4	65.7	68.6	70.5	70.4	67.8
Drugs.....	64.5	63.1	66.4	68.2	68.8	68.4
Dental care.....	7.6	7.4	7.3	7.4	7.7	7.9
Optical care.....	15.7	17.3	16.6	17.9	19.0	19.3
Special nursing care.....	0.5	0.3	0.3	0.2	0.5	0.5
Chiropody.....	2.0	2.0	1.9	2.0	2.2	2.0
Hospital care*.....	7.7	7.6	7.8	8.3	9.2	9.1
Other.....	1.7	1.6	1.7	1.6	2.3	1.8
Other beneficiaries						
At least one type of health service.....	83.7	84.1	80.2	82.5	88.1	87.4
Physicians' care.....	59.6	60.2	60.3	61.1	67.0	56.2
Drugs.....	48.4	48.8	49.4	49.3	56.0	50.6
Dental care.....	24.0	26.6	25.1	26.6	25.4	26.2
Optical care.....	15.9	18.3	16.1	18.3	18.9	19.9
Special nursing care.....	0.1	0.1	0.1	0.1	0.1	0.1
Chiropody.....	0.3	0.3	0.2	0.3	0.3	0.4
Hospital care*.....	6.9	8.0	7.4	8.0	9.3	9.2
Other.....	0.5	0.3	0.5	0.8	0.3	0.3

*Does not include hospitalization under S.H.S.P.

TABLE 52. EXPENDITURE BY TYPE OF SERVICE AND CLASSIFICATION OF BENEFICIARY FOR LONG-TERM PUBLIC ASSISTANCE BENEFICIARIES (PROGRAM 1), SASKATCHEWAN, 1958-59*

Type of service	Total	Total per capita cost	O.A.S. (S.A.)	O.A.S. (S.A.) per capita cost	M.A.	M.A. per capita cost	B.P.A.	B.P.A. per capita cost
All services.....	\$ 1,346,491.32	\$ 48.00	\$ 1,086,676.48	\$ 55.79	\$ 236,422.23	\$ 29.45	\$23,392.61	\$ 42.38
Medical.....	686,721.13	24.48	560,064.53	28.76	114,629.41	14.28	12,027.19	21.79
Dental.....	74,836.90	2.67	35,097.25	1.80	37,919.75	4.72	1,819.90	3.30
Optical.....	72,818.79	2.60	52,069.32	2.67	19,729.54	2.46	1,019.93	1.85
Nursing.....	28,358.00	1.01	26,881.50	1.38	839.75	.10	636.75	1.15
Physiotherapy.....	2,429.10	.09	1,819.60	.09	449.50	.06	160.00	.29
Hospital†.....	13,272.58	.47	9,630.79	.49	3,232.91	.40	408.88	.74
Drugs.....	451,543.84	16.09	388,671.11	19.96	56,052.26	6.98	6,820.47	12.36
Appliances.....	10,288.18	.37	6,586.18	.34	3,281.01	.41	420.99	.76
Chiroprody.....	6,222.80	.22	5,856.20	.30	288.10	.04	78.50	.14

* Includes old age security and blind persons' supplemental allowance cases, and mothers' allowance recipients, including their spouses and children under 16 years.

† Excludes in-patient hospital services received under S.H.S.P.

TABLE 53. EXPENDITURES FOR LONG-TERM PUBLIC ASSISTANCE BENEFICIARIES (PROGRAM 1), INCLUDING EXPENDITURES UNDER THE SASKATCHEWAN HOSPITAL SERVICES PLAN, SASKATCHEWAN, 1958-59

Classification	Total expenditure	Per capita expenditure
All health services.....	\$4,281,944.64	\$152.63
Total S.H.S.P.....	2,935,453.32	104.64
O.A.S. (S.A.).....(S.H.S.P.).....	2,619,109.26	134.48
M.A., C.W. and G.....(S.H.S.P.).....	271,087.73	33.78
B.P.A.....(S.H.S.P.).....	45,256.33	81.99
Total medical care and related services.....	1,346,491.32	48.00

TABLE 54. EXPENDITURE BY TYPE OF SERVICE AND CLASSIFICATION OF BENEFICIARY FOR SHORT-TERM PUBLIC ASSISTANCE BENEFICIARIES (PROGRAM II), SASKATCHEWAN, 1958-59

Type of service	Class of beneficiary								
	Total M.S.D. and S.H.S.P.	All M.S.D. beneficiaries	Social aid	Social aid in L.I.D.'s	Wards	Boys' school	Provincial jail	Re- habilitation cases	Indigent immigrant cases
Total expenditures*									
All services.....	\$ 613,058.23	\$ 303,230.68	\$ 152,135.02	\$ 54,664.58	\$ 65,664.87	\$ 2,441.75	\$ 14,350.15	\$ 11,007.16	\$ 2,967.15
Medical.....	158,440.67	158,440.67	73,856.14	32,772.70	42,545.78	865.80	2,195.16	5,705.93	499.16
Dental.....	21,927.63	21,927.63	7,296.25	2,911.50	6,186.65	1,131.00	3,531.73	859.00	11.50
Optical.....	9,274.98	9,274.98	3,385.89	2,375.52	2,284.38	129.06	895.40	204.73	.....
Nursing.....	361.50	361.50	246.00	.....	111.00	.....	4.50	.....	.....
Physiotherapy.....	409.25	409.25	375.50	.....	16.25	.....	.....	17.50	.....
Hospital.....	359,021.22	49,193.67	35,362.19	2,266.84	1,532.59	137.40	5,958.16	1,496.65	2,439.84
Drugs.....	57,851.82	57,851.82	29,770.70	14,198.87	10,943.06	177.99	1,739.45	1,005.10	16.65
Appliances.....	5,679.56	5,679.56	1,754.95	139.15	2,043.96	.50	25.75	1,715.25	.....
Chiropody.....	91.60	91.60	87.40	.....	1.20	.....	.....	3.00	.....
Per capita expenditures									
All services.....	†	\$ 47.77	\$ 53.68	\$ 40.22	\$ 39.94	\$ 65.99	\$ 38.68	\$ 146.76	\$ 105.97
Medical.....	.....	24.96	26.06	24.12	25.88	23.40	5.92	76.08	17.83
Dental.....	.....	3.45	2.57	2.14	3.76	30.57	9.52	11.45	.41
Optical.....	.....	1.46	1.20	1.75	1.39	3.49	2.41	2.73	.....
Nursing.....	.....	.06	.09	.....	.07	.....	.01	.....	.....
Physiotherapy.....	.....	.06	.13	.....	.01	.....	.....	.23	.....
Hospital.....	.....	7.75	12.48	1.66	.93	3.71	16.06	19.96	87.14
Drugs.....	.....	9.12	10.50	10.45	6.66	4.81	4.69	13.40	.59
Appliances.....	.....	.90	.62	.10	1.24	.01	.07	22.87	.....
Chiropody.....	.....	.01	.03	.....	†	.....	.....	.04	.....

*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: relief to destitutes (municipal), \$579.73; mothers' allowance (husbands) examinations, \$3,663.35; eligibility examinations for admission to geriatric centres, \$2,102.00; miscellaneous health services, \$26,701.87; reciprocal agreement with British Columbia, \$27,100.00; disabled persons allowance, \$3,993.30; prevention of blindness, \$7,175.52; relief to destitutes (Northern Administration District), \$123,903.38. The total expenditure for these items was \$195,219.15.

†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 expenditures. Actual expenditure was \$309,827.55 for hospitals and blood transfusions.

‡Less than one cent.

MUNICIPAL MEDICAL CARE PROGRAMS

Saskatchewan's municipal medical care programs continue to serve the needs of many thousand rural people. These plans, commonly known as municipal doctor plans, provide medical care on a pre-payment basis and assure the location of a physician in rural communities. The plans originated in those areas of the province of low income and scattered population where it was impossible to induce a physician to engage in private practice. A contract between a physician and a municipality which guaranteed a satisfactory income to the physician appeared to be one solution to the problem. As the advantages of the plan became known other municipalities adopted similar plans of prepaid medical care.

These plans are organized and administered by local governing bodies which enter into contracts with physicians for providing specified services to the population of the municipality. Where a plan is confined to a single municipality, the municipal council acts as the administrative body. 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.

Until 1939 all municipal medical care programs were financed through taxation on property. In that year the Municipal Medical and Hospital Services Act was passed, permitting a municipality to provide services by levying either a land tax or a personal tax or a combination of the two. The personal tax could not exceed \$50 per family annually. The tax most widely used is the property tax although the personal tax has become increasingly popular during the past few years. A few municipalities levy both land and personal tax.

Municipal medical care plans offer many different kinds of service. Some provide basic medical care such as office, home and hospital visits. Others, in addition to basic care, finance complete or limited surgical and diagnostic care. The number and type of services that may be provided usually depend on the number of physicians in contract with the municipality and the facilities available to these physicians. These plans provide coverage for all residents and differ in this respect from voluntary prepaid programs which typically cover only a percentage of the resident population. The municipal programs have virtually no exclusions in the form of waiting periods, exclusion of pre-existing conditions, and termination after a certain length of illness.

Financial aid is provided by the Department of Public Health. The purpose of these grants is to assist those areas of least wealth (low per capita assessment) and to strengthen the services which it considers should be improved and expanded. The grants are paid to those municipalities which accept certain responsibilities for raising their health services up to a minimum standard. The supervisor of the division offers services for the development, revision, interpretation and fulfillment of medical care contracts and municipal bylaws.

Two new plans were organized and began operation in the fiscal year 1958-59. During the year medical care programs were in operation in 82 rural municipalities, one local improvement district, 13 towns and 40 villages. Of the 136 plans providing physicians' services 79 provided both

medical and surgical services and 57 general medical services. About 100 of these plans have been approved and are entitled to medical care grants.

In most of the plans providing medical services only, the beneficiaries were restricted to the services of a single physician and salary is the commonest method of remuneration to the physician. Where two or more physicians provided services a fee-for-service or capitation system of payment often is used. A number of municipalities also pay a portion or the total cost of referrals made to specialists.

The cost of operating medical care plans showed a marked increase during the year. A number of municipalities were required to pass new health services bylaws to provide additional funds for the operation of their programs. Some municipalities whose councils feel they have reached the limit in providing funds for health care have excluded certain benefits from the plan in order to reduce costs.

The actual amounts paid out in grants is shown in Table 55 and totalled \$69,307.69.

TABLE 55. MEDICAL CARE GRANTS TO MUNICIPALITIES, SASKATCHEWAN, DURING THE FISCAL YEAR 1958-59

<i>Rural Municipalities</i>	
Surprise Valley No. 9.....	\$ 168.25
Lomond No. 37.....	207.75
The Gap No. 39.....	90.30
Tecumseh No. 65.....	212.00
Norton No. 69.....	201.25
Stonehenge No. 73.....	207.00
Maryfield No. 91.....	209.50
Walpole No. 92.....	149.75
Wawken No. 93.....	141.37
Elmsthorpe No. 100.....	117.38
Montmartre No. 126.....	384.00
Coulee No. 136.....	406.50
Saltcoats No. 213.....	1,255.50
Canan No. 214.....	1,443.75
Stanley No. 215.....	1,979.25
Tullymet No. 216.....	182.25
Lipton No. 217.....	354.00
Longlaketon No. 219.....	1,501.50
McKillop No. 220.....	249.25
Sarnia No. 221.....	241.75
Craik No. 222.....	181.00
Ituna Bon Accord No. 246.....	2,826.45
Kellross No. 247.....	1,692.60
Touchwood No. 248.....	754.65
Royal Canadian No. 261.....	87.00
Emerald No. 277.....	2,425.50
Kutawa No. 278.....	840.00
Milton No. 292.....	108.25
Buchanan No. 304.....	2,080.13
Elfros No. 307.....	353.00
Antelope Park No. 322.....	\$ 16.50
Preeceville No. 334.....	4,626.60
Hazel Dell No. 335.....	3,662.10
Sasman No. 336.....	614.75
Lakeview No. 337.....	439.00
Lakeside No. 338.....	280.25
Leroy No. 339.....	454.25
Wolverine No. 340.....	1,125.00
Viscount No. 341.....	329.74
Colonsay No. 342.....	189.75
Perdue No. 346.....	208.25
Kelvington No. 366.....	1,981.35
Ponass Lake No. 367.....	1,629.00
Spalding No. 368.....	429.00
St. Peter No. 369.....	623.50
Porcupine No. 395.....	3,893.40
Barrier Valley No. 397.....	907.50
Pleasantdale No. 398.....	1,337.25
Bjorkdale No. 426.....	5,040.75
Tisdale No. 427.....	578.25
Star City No. 428.....	501.00
Hillsdale No. 440.....	280.50
Manitou Lake No. 442.....	272.50
Arborfield No. 456.....	312.50
Willow Creek No. 458.....	613.50
Kinistino No. 459.....	601.50
Birch Hills No. 460.....	603.00
Moose Range No. 486.....	2,051.25
Nipawin No. 487.....	507.25

Local Improvement Districts

Local improvement district No. 983.....	\$4,761.00
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Villages

Archerwill.....	\$ 478.50	Leney.....	\$ 12.50
Aylsham.....	39.37	Leroy.....	124.50
Birch Hills.....	202.75	Lipton.....	101.25
Avonlea.....	42.75	Loon Lake.....	596.25
Bulyea.....	43.00	Marengo.....	16.25
Ceylon.....	36.20	Margo.....	32.13
Earl Grey.....	193.50	Marsden.....	22.00
Flaxcombe.....	36.75	Maryfield.....	113.00
Hubbard.....	140.25	Neilburg.....	63.75
Ituna.....	985.05	Perdue.....	103.25
Jasmin.....	28.87	Quill Lake.....	113.25
Kelliher.....	477.75	Rose Valley.....	395.25
Kinley.....	29.00	Silton.....	66.75
		Wishart.....	248.85

Towns

Arborfield.....	\$ 137.25	Star City.....	\$ 151.00
Carrot River.....	591.75	Saltcoats.....	373.50
Craik.....	150.75	Strasbourg.....	143.75
Eatonia.....	141.25	Sturgis.....	1,202.85
Kelvington.....	835.80	Wadena.....	280.00
Kindersley.....	636.00		

Summary

Total.....	\$ 69,307.69
Rural municipalities.....	55,160.07
Towns.....	4,643.90
Local improvement districts.....	4,761.00
Villages.....	4,742.72

HEALTH SERVICES ASSOCIATIONS

The Saskatoon Mutual, Medical and Hospital Benefits Association Ltd. continued to be the only association in operation incorporated under the Mutual and Medical Benefit Association Act. Their membership has shown a slight increase as indicated in the table below.

Medical Services Incorporated with head office in Saskatoon has shown the greatest increase in membership and this organization now offers an individual plan, a community plan and group Plans A and B. Group Medical Services of Regina also showed some increase in their membership in 1958. These three plans provided insurance for the cost of physicians' services to approximately 28 per cent of the provincial population in 1958.

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 Benefits Association Limited
1956	185,000	135,535	45,000	4,465
1957	217,312	150,968 ¹	61,730	4,614
1958	245,572	177,849 ¹	62,822	4,901

¹ Does not include Canadian National Railway employees covered by Welfare Benefit Plan (approximately 14,000).

OCCUPATIONAL HEALTH BRANCH

The 1958-59 fiscal year marked the second stage in the development of an effective occupational health service in Saskatchewan. The previous year had been largely taken up with surveying the needs for future programs, and recruiting staff. The year under review has seen the planning and also in some instances the early development of programs deemed necessary as a result of the original survey. Because the achievement of occupational health demands a team effort the implementation of the various programs has necessitated close consultation with many agencies, governmental and private. Of fundamental importance has been the work and subsequent report of the committee, set up at the request of Cabinet, to advise on the delineation of the functions and responsibilities of the different government departments with an interest in occupational health and safety. The functions and responsibilities of the Branch of Occupational Health have been defined by this committee as: (1) responsibility for the medical supervision of workers in potentially hazardous trades (2) act in an advisory capacity to other departments on matters relating to health and occupation (3) responsibility for the consultative and training program for occupational health nurses.

An important recommendation of this committee was that a standing interdepartmental committee, with members representing the Workmen's Compensation Board and the Departments of Labour, Mineral Resources and Public Health be set up. The committee is to meet at regular intervals to co-ordinate the programs of the respective departments, to exchange information and thereby prevent overlapping, and to plan the establishment of joint programs in the health and safety fields.

If the services of this branch are to be fully and properly utilized, it is essential that industry, unions and the medical and nursing professions are acquainted with its functions. To this end, talks both formal and informal, have been given to industrial safety meetings, nurses groups, civil defence courses and medical meetings. Consultations have been held with a few physicians concerning cases or suspected cases of occupational disease. These have been followed, when indicated, by industrial hygiene surveys.

Preliminary plans have been made and discussions held to implement some of the programs proposed following the initial occupational health survey. These include a medical supervision program for miners, an annual industrial team first aid competition, a long-term follow-up survey of the mortality of uranium miners, and a research project to ascertain the excretion pattern of radiation decay products in uranium miners.

The director was invited to read a paper at the 1958 Canadian Public Health Association Conference; the subject chosen was "Some Newer Hazards in Industry" based on hazards uncovered during the preliminary survey of working conditions in Saskatchewan.

Radiological Health

The Occupational Health Branch has responsibility for all aspects of radiological health other than man-made radioactive isotopes which is a Federal Government responsibility. At the request of the Minister of

Public Health a committee, the chairman of which is the director of occupational health, has been established to assess the radiation hazard associated with exposure to x-rays, and gamma rays from radium, and to recommend any measures considered necessary for its control. The members of the committee include a radiotherapist, a radiologist, a physicist and a radiographer. A start has been made on a radiation survey of a representative sample of x-ray equipment in Saskatchewan.

Occupational Health Nursing

The nursing program is largely an educational one designed to maintain and in some cases promote a high standard of occupational health nursing.

Consultant service was made available to nurses and management, and the advice of this branch has been sought on a diversity of subjects including: (1) accommodation for and equipping of health centres (2) record keeping and reports to management (3) home visits (4) eye care.

Planned study days have been held for occupational health nurses and talks have been given to public health nursing students and hospital nursing students.

Mimeographed articles and literature of interest have been submitted to nurses and a bulletin is now published by the branch to serve as a further educational vehicle.

It was found necessary to produce written Standing Orders for nurses working without medical guidance.

Industrial Hygiene

The occupational hygienist took up his appointment in September, 1958. Arrangements were made for him to spend a few weeks with other established occupational health laboratories in Canada and the United States in order that the department should have the benefit of their experience before ordering laboratory and field equipment, and also so that he could gain some practical experience in this relatively new and highly specialized scientific field. He attended two formal courses, one on radioactive pollutants in air and another on industrial ventilation, as part of his continued training.

The basic equipment for laboratory and field use has been obtained and much of this has already been used in some preliminary surveys of the working environment which have been made. These include: dust surveys in mines and industry; atmospheric lead contamination in a printing shop where a case of lead encephalopathy had occurred; noise levels in mines and electricity generating stations; diesel and gasoline exhaust fume contamination in a workshop and tractor cabs; the efficiency of fume cupboard exhaust ventilation and general ventilation in laboratories where a case of toxic jaundice had occurred; and repeated urinary analyses for a farmer suspected of organic mercury poisoning from exposure to seed dressing vapour.

Road Ambulances

The director has been made responsible for the administration of the Road Ambulance Regulations. These were revised in October 1958 (O.C. 1782/58) and required road ambulance attendants to take, not less frequently than once every three years, a special course in advanced first

aid; this is in addition to the requirement that they shall possess a St. John Ambulance Association certificate in first aid.

The first course was held in Regina in March 1959 and was attended by eleven ambulance attendants. Six Regina specialists were kind enough to give the lectures on their respective subjects as applied to first aid and the transport of the sick and injured.

A major problem, which will one day have to be faced, concerning ambulance services is that they do not pay their way. Some of the large cities subsidize a local privately operated service. Funeral homes make up the loss in ambulance operation by profits from the other side of their business. And some services are operated by individuals as a service to the local community; even if there is no actual financial loss their receipts would certainly not cover their labour costs.

The early experience of this branch more than confirms the wisdom of the decision taken in 1956 to establish it. The growing industrialization in the province and what might be called the industrialization of agriculture bring in their train many problems of health in relation to occupation which need to be evaluated and, where indicated, preventive measures instituted. While emphasis has so far been given to the more immediate health problems, sight has not been lost of the value of health services provided by employers, from both the preventive and health promotion aspects. An employer must be convinced of the benefits of such services, both to the employee and the industry, if, when initiated, they are to have a chance of success. Opportunity has been taken to discuss with employers the benefits which would arise from the establishment of their own employee health services. Because of the relatively small size of industries in Saskatchewan the possibility of organizing employee health services on a group basis will have to be explored.

HEALTH EDUCATION SERVICES

In its 14th year, the Health Education Division increasingly exemplified the changed philosophy of public health from the days when departments were largely regulatory and authoritarian to the present time when agencies must function in a literate, democratic society. If government today is with the consent of the governed, it follows that public health endeavour needs the consent and informed participation of the public.

The division's role is to further a close relationship with the public by every possible means, to bring about knowledge and understanding of desirable health goals, and to motivate everyone concerned to take as individuals and in groups steps which will lead toward higher standards of health. The objective is more than prevention; it is the highest attainable level of health for everyone.

In the year reviewed, the Health Education Division gave many varied services toward these ends. It also functioned as a program division in the prevention of accidental death and injury. Dedicated to the conservation of life and the prevention of illness and disability, the Department of Public Health has left behind it the old narrow approach which was limited largely to the control of infectious diseases.

The changing functional role of the division became more evident during the year with the establishment of still another health region (Melfort-Tisdale) for which it did the interpretative and educational work. This leaves only two areas in the province (Humboldt-Wadena and Saskatoon Rural) which have not yet been organized for full-time modern public health service. The division has already done considerable educational work in these areas to develop an appreciation of the need and value of public health service.

The division has worked directly with the public in such unorganized areas. It works in support of the regional health officers in established regions, functioning in a consultative and advisory capacity. When the entire province has been organized into health regions, its direct work with the public at home and community levels will cease.

The division has responsibility to assist in planning, indicating procedures, guiding evaluations, and helping with provision of tools of health education which include literature, posters, displays, films, filmstrips, slides. It often assists in use of radio, television, and press to reach rural publics and helps to develop harmonious relations with other agencies, official and voluntary. This was demonstrated, for example, in encouraging a partnership of regional sanitarians and district agricultural representatives in community fly control measures.

Regional medical health officers were assisted during the year in the preparation and use of annual reports. They were helped with food hygiene institutes for food service personnel and special emphasis was given to education of amateur local caterers. The division was consulted regarding poliomyelitis vaccination promotion and surveys.

"The Careless Caterers," a 20-minute comedy for the stage on amateur catering written by a headquarters health educator, was produced

during the year by the division at a number of "Safe Food Fairs" throughout the province. The discussion period is part of the play and is conducted in a novel way by the actresses and director.

Best example of assistance in staff education were the public speaking and radio workshops conducted by divisional personnel. The regional staffs could make greater use of the division's facilities: this depends upon recognition of opportunities and their determination to exploit them. There are gaps in utilization of health education services which can be filled.

Since 1953, a Creative Speaking Workshop has been conducted annually at the School of Nursing, University of Saskatchewan, by a headquarters health educator. This workshop was supplemented in 1958 by training in group work, panel discussions, and symposia.

The Health Education Division serves as a consultant to departmental branches and divisions in the furtherance of their programs. It conducted a number of province-wide activities related to general department objectives, and continued to use its opportunities for recruitment of health personnel, working particularly through high schools, universities, and groups such as Home and School Associations. The department also could make greater use of the division's skills and resources.

Provincially, the division has been making an important contribution in its close working relationships with a variety of provincial organizations, voluntary, commercial, and official. The value of these liaisons is limited by the extent to which regional personnel follow through with the local branches or representatives of these provincial federations. These local groups and individuals cannot be served or worked with as effectively from departmental headquarters as from regional and local public health agencies.

The division used or supplied close to one million pieces of literature during the year, excluding the Saskatchewan Health Newsletter published monthly by the division and sent regularly to more than 9,000 addresses in the province. Considerable interest in this bulletin has been shown by people outside Saskatchewan and frequent requests have been received from distant places. Extensive use was made of the 500 titles in the department's film library. New films were added as they became available and their usefulness was evident. Increased use was made of slides.

With the acquisition of two additional tape recorders under the national health grant, two kinds of recording will be possible. By employing a single track recorder brief messages on current health matters can be prepared for the use of radio stations, while a portable recorder will be available for interviews in attitude surveys and evaluations.

"Focus," a five-minute daily radio program on health matters of interest to women, written and produced by a headquarter's health educator, has been running continuously since February, 1957, on radio station CHAB, Moose Jaw. This is a public service feature and, according to CHAB officials, was partly instrumental in obtaining for their station the John J. Gillin Jr. Memorial Award for 1958 given annually to the most outstanding public service radio station in Canada.

The division is obliged to the Department of National Health and Welfare and to various Canadian and American insurance companies for much of the literature it uses. The Metropolitan Life Insurance Company has been most co-operative. Various manufacturing companies have also been helpful. With its composition and layout facilities, it is now possible

for the division to produce offset material with great economy of funds and time. A folder on acne produced in the division has replaced a booklet which formerly was purchased at 15 cents each from a source in the United States.

The Saskatchewan Health Newsletter is composed and laid out in the division's offices and printed by a firm of lithographers. This process effects considerable saving. Production of the Newsletter is financed from the national health grants.

Accident Prevention Program

This program is conducted by the Health Education Division. In its seventh year, it was still the only program of this kind conducted by a Canadian health department. While responsibility is accepted for the prevention of all kinds of accidents, emphasis has been given to prevention of home and farm accidents, with special focus on children. The division supports official, voluntary, and industrial agencies engaged in other aspects of accident prevention and has maintained a harmonious working relationship with them. Virtually all interested agencies are convinced that there is need in Saskatchewan (and in Canada) for voluntary organizations devoted to the prevention of all accidents and not confined to only traffic safety. Local "safety councils," working in different parts of Saskatchewan, seldom cover all aspects of the accident problem but concentrate on highway and traffic safety, which constitutes only a fraction of the overall problem.

In the summer of 1958, the division initiated the organization of a Saskatchewan Farm Safety Committee on which it is represented. The committee has among its members representatives of all official, voluntary, and industrial organizations interested in the prevention of accidents among the farming population. With the assistance of the Government of Saskatchewan, and the staff of the Health Education Division, the committee was host to delegates attending the Second Western Canada Farm Safety Conference held at Fort Qu'Appelle in January, with an attendance of more than 100 persons. Among the questions raised was the operation of farm power equipment by young children, which is the subject of legislation in the United Kingdom. It was decided to learn the attitudes of farm organizations on this aspect of farm safety.

With accidents responsible for the loss of more than 400 lives in Saskatchewan each year and the hospitalization of an estimated 35,000 or more residents, the provincial safety program deserves greater attention. In recent years, accidents have been the leading cause of death in the age group 1-35 years, the second most important cause of hospital admissions, and have imposed a heavy financial burden on the people of Saskatchewan. Better evaluation methods are needed to measure the progress, if any, being made in the prevention of this tragedy, and there is need of personnel trained in behavior sciences to do these evaluations.

The division promoted Saskatchewan's fifth annual Farm Safety Week and the fourth annual Child Safety Day. These events, so useful in focusing public attention and inducing individual and group action, have all the facets of intense national undertakings. The division's skills in "social engineering" have been employed in encouraging national and provincial official and voluntary activities. The Saskatoon Junior Chamber of Commerce sponsored Child Safety Day in its city in the spring of 1958, not only because of its interest in the prevention of accidents to local children but as a pilot program for concerted action by similar organizations in Saskatchewan and throughout Canada.

It became evident during the year under review that national observances of Farm Safety Week would be repeated in 1959 and of Child Safety Day a year later.

The director attended the 43rd National Safety Congress in Chicago. Advice on safety education has been asked from the division by agencies as distant as the Government of Tasmania.

The division's progress in safety education has been greatly aided by the co-operation of the Saskatchewan Hospital Services Plan in supplying the statistical data, and by the Research and Statistics Branch in the interpretation of data. One of the chief goals, as the year ended, was the greater involvement of public health personnel throughout the province. To achieve this, an examination of the relative importance of some old established routines and the newer challenges may be advisable. It also seems necessary to consider the strengthening of division personnel and budget if the accident prevention program is to be prosecuted vigorously while maintaining a good balance of other health education services.

RESEARCH AND STATISTICAL SERVICES

As a result of the reorganization of the Department of Public Health on April 1, 1950, the existing Division of Research and Statistics was reconstituted as a staff agency branch to serve the entire department. Its sphere of activity was enhanced by including the administrative supervision of the Public Health Library. On April 1, 1951, the Division of Vital Statistics was also grouped under the branch.

The branch is primarily responsible for planning and conducting studies to serve as guides in establishing new programs to meet new problems. It accumulates statistical data on the operations of the comprehensive medical care programs established in the province, and it is also responsible for organizing, tabulating and analyzing data on vital events as accumulated from the operations of the Division of Vital Statistics.

The branch is financed from two sources, a national health grant, and the provincial revenue funds.

Continuing Studies

Projects this year included the accumulation and analysis of statistics from the operations of the Swift Current Health Region Medical Care program, the province's hospital care insurance program, the provincial government programs of medical care for pensioners and other persons receiving social assistance.

In addition to the above projects, the branch continues to compile monthly statistics of birth and infant deaths in Saskatchewan based on preliminary data available in the department.

Special Studies

Cancer

Continuing technical and consultative service assistance was given the Saskatchewan Cancer Commission in recording the extensive data available in the province from the operations of its cancer program.

Statistical data were also provided to agencies, interested in the cancer studies.

Costs of Public Medical Care Services

Special studies initiated during the past year on volume and distribution of services by each participating physician in the operation of the health department's program of complete health care for pensioners and other persons receiving long-term public assistance were continued in 1959. The purpose of these studies was to determine whether there is needless medical services for certain classes of beneficiaries or for certain kinds of illness. The department is seeking to isolate instances of over-utilization.

Causes of Maternal Deaths

A study on the incidence of toxæmia of pregnancy as an index of quality of prenatal care, undertaken in association with the Division of Child Health in 1957-58 was continued in 1958-59. The long-term objective of this project is to reduce the number of maternal and infant deaths in the province.

Rheumatic Fever Case Registry

From records of the Saskatchewan Hospital Services Plan a complete register of rheumatic fever cases is being compiled. These data are being collected on a continuing annual basis, analyzed by health statistical areas for occurrence and by age group and sex.

Population Statistics

Since studies dealing with public health problems and the planning of medical facilities must be related to a population base (with denominators specific for age, sex and geographic location), it is necessary to carry out continuing analyses of population trends. The branch has been conducting studies to estimate population shifts within the province of Saskatchewan. By the completion of these studies, it will be possible for the first time to obtain inter-censal estimates by places and health statistical areas.

Rehabilitation Study

Various techniques have been developed for improving the collection of records under the physical restoration program and some preliminary steps were taken to organize a study of applicants for disabled persons allowances in order to build up a register of potential rehabilitative cases.

Maps and Charts Project

As a service to the department as a whole and in order to relate various types of information in a meaningful way the Research and Statistics Branch continues in the preparation of large maps and charts showing the major facilities and health areas in the province.

Home and Farm Accidents

In collaboration with the Division of Health Education the branch compiled numerous sets of statistical data on fatal accidents occurring in homes and on farms. The figures on accidents are collected from various sources including the R.C.M.P., death certificates, hospitalization records and the Dominion Bureau of Statistics.

Municipal Health Care

A survey designed to bring out information on the amount of health care provided to municipal indigents and the cost of this care, started by the branch in 1957, was continued in 1958-59.

Cohort Analysis for Specified Mortality Rates

In order to determine and study the changes in the death rate and the causes of deaths during the last forty years, a five-year cohort analytical study was undertaken by the branch in 1959. The years selected for the study were 1921, 1931, 1941, and 1951 corresponding to the census years. The specific diseases, forming the causes of deaths taken into consideration were pulmonary tuberculosis, malignant neoplasm of lung (primary), malignant neoplasm of stomach, malignant neoplasm of breast (female only), congenital defects, vascular lesions affecting central nervous system and diabetes mellitus. All other diseases causing death were lumped together. Data have been collected from the individual death registers for the four years mentioned above and the tabulation is being processed.

1957 Hospitalization Experience

A study analyzing the cases hospitalized and the number of days spent in hospital by different diagnoses was initiated during 1959. A special tabulation was made for this project by the Saskatchewan Hospital Services Plan showing details of the cases hospitalized in 1957, by sex, age group and disease. The study when completed will be published in booklet form for the benefit of the professional people and the general public.

Information Services

During the past year, the branch continued to extend services to the various divisions and agencies of the department, in conducting statistical and cost studies in addition to the regular studies and in preparing write-ups for publications. The branch also supplied statistical and economic information concerning the medical field and other fields to departments and agencies outside the department of health.

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 extended to departmental personnel, 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's activities are fourfold.

Acquisition of Material

Since the main function of a library is to provide material which will be needed by its users, acquisition of material is a basic function upon which all other services depend. The broadening horizons of public health and preventive medicine have created a need for a parallel broadening of the library's acquisition program. Over a period of years, this has meant an increase in the number of books, pamphlets and periodicals acquired by purchase, gift, and interlibrary loan.

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.¹

A large number of reports, pamphlets and reprints are secured free from governmental agencies, societies, commercial firms, scientific institutes, and individuals who supply reprints of research studies. In addition, 80 periodicals are received through the courtesy of co-operating agencies.

The library resources include approximately 3,200 books, 5,000 pamphlets, 483 volumes of permanently bound periodicals, and 180 current periodical subscriptions.

Since it is not possible for a library to have on its shelves every item needed, the resources of the library are augmented by borrowing books, periodicals and reports from universities and scientific institutions. During the fiscal year 1958-59 interlibrary loans numbered 172.²

Organization of Material

In order to have publications readily accessible, 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.

¹ Except the Saskatchewan Training School, the Saskatchewan Hospital North Battleford, and the Saskatchewan Hospital Weyburn.

² From the universities of Alberta, British Columbia, Manitoba, McGill, Montreal, Ottawa, Quebec, Saskatchewan, Toronto, Regina College Library, Department of Labour Library (Ottawa), Geological Survey Library (Ottawa), Legislative Library of Saskatchewan (Regina), National Library of Canada (Ottawa), National Research Council Library (Ottawa), Prairie Regional Laboratories Library (Saskatoon), Provincial Library of British Columbia (Victoria), Public Information Library of Saskatchewan (Regina), Hamilton Public Library, Regina Public Library, Vancouver Public Library, Victoria Public Library.

Library of Congress catalogue cards are also added to the library card catalogue for publications ordered for other branches, divisions and services. These cards carry a "location" note indicating where each book is housed. While some of the books in the unit libraries are in constant use and are therefore not available for loan, others may be borrowed for periods varying from 2 days to 4 weeks, by requesting them through the Public Health Library.¹

Reference Services

Reference questions are given priority over other work. Questions are many and varied, ranging from a simple request for an address to a request for up-to-date medical information which is traced through the use of the Quarterly Cumulative Index Medicus, the Current List of Medical Literature, or the Hospital Periodical Literature Index.

Loan Services

The number of books circulated on loan has grown from 250 in 1948 to 1,419 in the fiscal year 1958-59. Pamphlets and periodicals loaned on special request totalled 1,271 compared with 302 in 1948. In addition, 1,300 issues of 109 periodicals were circulated on the library circulation lists. These lists included the names of 93 officials of the department.

"Publications of the Week," continued to be issued. One hundred and seven names appeared upon the distribution list for this listing of newly received books, pamphlets and reports. Due to a heavy demand for some of the publications, it was not always possible to forward all publications promptly in response to requests. A reserve system ensures, however, that the desired publication will go forward to the borrower as soon as possible.

¹ Interdepartmental loans numbered 143.

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 1958 was 37,310. A comparison of the number of registrations for 1956, 1957 and 1958 follows

<i>Processed registrations</i>	<i>1956</i>	<i>1957</i>	<i>1958</i>
Total	37,590	37,524	37,310
Births	24,218	23,939	24,011
Stillbirths	310	309	278
Deaths	6,645	6,769	6,557
Marriages	6,417	6,507	6,464

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 1956, 1957 and 1958 were as follows:

<i>Type of investigation</i>	<i>1956</i>	<i>1957</i>	<i>1958</i>
Delayed registration	1,472	1,476	1,663
Correction of original registration	2,372	2,467	2,177
Registration of illegitimate child in name of father	29	38	27
Legitimation of birth	100	79	100
Alteration of vital statistics registration resulting from change of name certificate	418	469	470
Alteration of given name	421	429	414
Adoption notation	429	515	483

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 and is in charge of the national index of births. 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 1954 to 1958 inclusive was as follows:

	1954	1955	1956	1957	1958
Total	\$77,242	\$76,859	\$85,319	\$87,384	\$86,700
Vital statistics fees ..	51,551	52,864	61,465	63,142	62,110
Marriage licence fees ..	19,739	18,626	18,193	18,779	18,628
Revenue from microfilm	4,270	3,869	3,886	3,757	3,766
Revenue from change of name	1,682	1,500	1,775	1,706	2,196

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 1958 there were 223 change of name applications accepted for registration compared to 170 in 1957.

Vital Data

According to data published by the Dominion Bureau of Statistics, in 1958 the population of Saskatchewan was 888,000. This represents an increase of 9,000 over 1957 or approximately, 1.02 per cent (Table 56).

Live births registered during 1958 totalled 23,843 and deaths 6,483 resulting in a natural increase of 17,360 (Table 57). The rate of natural increase per 1,000 population remained the same as in 1957.

In 1958 the birth rate per 1,000 population was 26.9. That is to say 0.3 less than the year before. At the same time the death rate decreased to 7.3 per 1,000 population, from 7.7 for 1957.

During the year under review, the number of stillbirths recorded in Saskatchewan was 270. This is 10 fewer than in 1957. The corresponding rate per 1,000 live births was 11.3. Compared with that for 1957 this rate shows a decline of 0.4 of a point (Table 58).

As regards infant mortality, the year 1958 showed an increase over the preceding year. The number of infants dying in their first year of life was 616 as against 609 in 1957. As a result, the infant mortality rate in 1958 increased to 25.8 per 1,000 live births compared with 25.5 in 1957. The 1957 figure represents an all time low record.

Among the leading causes of death, heart disease and malignant neoplasms (cancer) retained the first and the second places, respectively. Together they accounted for about one-half of all deaths in the province in 1958 (Table 59). 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, suicide and self-inflicted injury in that order. As in 1957 these 10 causes accounted for four out of every five deaths occurring in Saskatchewan. In this connection, it is worth recalling that tuberculosis disappeared from among the 10 leading causes of death five years ago, in 1954.

Accidents caused a slightly smaller number of deaths in 1958 than was the case in 1957 (Table 60). The number of accidental deaths was 426, against 448 in 1957. Deaths due to suicide and self-inflicted injury were on the increase. The number of deaths due to these causes was 83 as against 75 in 1957. A comparison of accidental deaths by categories for the years 1956-1958 will be found in Table 60.

From 6,510 in 1957, the number of marriages decreased to 6,464 in 1958, and the marriage rate decreased from 7.4 to 7.3 per 1,000 population. The rate of divorces and annulments per 1,000 population increased from 0.28 in 1957 to 0.32 in 1958. In 1958 the ratio of divorces and annulments to marriages was 1:22 as against 1:26 in 1957 (Table 61). These figures do not include separations on which no statistical data are being compiled.

Vital data show significant differences from one area of the province to another. The infant mortality rate, for instance, was 17.7 per 1,000 live births in Regina city, 31.7 in the area around Prince Albert, and 53.9 in the Northern Saskatchewan Administration District. More detailed vital data on health statistical areas will be found in the Annual Report on Saskatchewan Vital Statistics for 1958.

Year		Deaths	Live Births	Total	Rate per 1,000 population	Natural increase*
1951-1952	1952-1953					
1951-1952 average	14,504	6,300	20,784	35,288	14,504	14,504
1952-1953 average	12,888	5,843	21,241	34,129	12,888	12,888
1953-1954 average	12,045	6,350	20,308	32,353	12,045	12,045
1954-1955 average	14,388	6,037	20,328	34,666	14,388	14,388
1955-1956 average	14,504	6,300	20,784	35,288	14,504	14,504
1956-1957 average	13,868	5,942	20,572	34,440	13,868	13,868
1957-1958 average	13,726	5,871	20,966	34,692	13,726	13,726
1958-1959 average	12,466	5,540	20,418	32,964	12,466	12,466
1959-1960 average	13,436	5,982	20,388	33,824	13,436	13,436
1960-1961 average	14,446	6,420	20,606	35,052	14,446	14,446
1961-1962 average	13,868	5,942	20,572	34,440	13,868	13,868
1962-1963 average	13,726	5,871	20,966	34,692	13,726	13,726
1963-1964 average	12,466	5,540	20,418	32,964	12,466	12,466
1964-1965 average	13,436	5,982	20,388	33,824	13,436	13,436
1965-1966 average	14,446	6,420	20,606	35,052	14,446	14,446
1966-1967 average	13,868	5,942	20,572	34,440	13,868	13,868
1967-1968 average	13,726	5,871	20,966	34,692	13,726	13,726
1968-1969 average	12,466	5,540	20,418	32,964	12,466	12,466
1969-1970 average	13,436	5,982	20,388	33,824	13,436	13,436
1970-1971 average	14,446	6,420	20,606	35,052	14,446	14,446
1971-1972 average	13,868	5,942	20,572	34,440	13,868	13,868
1972-1973 average	13,726	5,871	20,966	34,692	13,726	13,726
1973-1974 average	12,466	5,540	20,418	32,964	12,466	12,466
1974-1975 average	13,436	5,982	20,388	33,824	13,436	13,436
1975-1976 average	14,446	6,420	20,606	35,052	14,446	14,446
1976-1977 average	13,868	5,942	20,572	34,440	13,868	13,868
1977-1978 average	13,726	5,871	20,966	34,692	13,726	13,726
1978-1979 average	12,466	5,540	20,418	32,964	12,466	12,466
1979-1980 average	13,436	5,982	20,388	33,824	13,436	13,436
1980-1981 average	14,446	6,420	20,606	35,052	14,446	14,446
1981-1982 average	13,868	5,942	20,572	34,440	13,868	13,868
1982-1983 average	13,726	5,871	20,966	34,692	13,726	13,726
1983-1984 average	12,466	5,540	20,418	32,964	12,466	12,466
1984-1985 average	13,436	5,982	20,388	33,824	13,436	13,436
1985-1986 average	14,446	6,420	20,606	35,052	14,446	14,446
1986-1987 average	13,868	5,942	20,572	34,440	13,868	13,868
1987-1988 average	13,726	5,871	20,966	34,692	13,726	13,726
1988-1989 average	12,466	5,540	20,418	32,964	12,466	12,466
1989-1990 average	13,436	5,982	20,388	33,824	13,436	13,436
1990-1991 average	14,446	6,420	20,606	35,052	14,446	14,446
1991-1992 average	13,868	5,942	20,572	34,440	13,868	13,868
1992-1993 average	13,726	5,871	20,966	34,692	13,726	13,726
1993-1994 average	12,466	5,540	20,418	32,964	12,466	12,466
1994-1995 average	13,436	5,982	20,388	33,824	13,436	13,436
1995-1996 average	14,446	6,420	20,606	35,052	14,446	14,446
1996-1997 average	13,868	5,942	20,572	34,440	13,868	13,868
1997-1998 average	13,726	5,871	20,966	34,692	13,726	13,726
1998-1999 average	12,466	5,540	20,418	32,964	12,466	12,466
1999-2000 average	13,436	5,982	20,388	33,824	13,436	13,436
2000-2001 average	14,446	6,420	20,606	35,052	14,446	14,446
2001-2002 average	13,868	5,942	20,572	34,440	13,868	13,868
2002-2003 average	13,726	5,871	20,966	34,692	13,726	13,726
2003-2004 average	12,466	5,540	20,418	32,964	12,466	12,466
2004-2005 average	13,436	5,982	20,388	33,824	13,436	13,436
2005-2006 average	14,446	6,420	20,606	35,052	14,446	14,446
2006-2007 average	13,868	5,942	20,572	34,440	13,868	13,868
2007-2008 average	13,726	5,871	20,966	34,692	13,726	13,726
2008-2009 average	12,466	5,540	20,418	32,964	12,466	12,466
2009-2010 average	13,436	5,982	20,388	33,824	13,436	13,436
2010-2011 average	14,446	6,420	20,606	35,052	14,446	14,446
2011-2012 average	13,868	5,942	20,572	34,440	13,868	13,868
2012-2013 average	13,726	5,871	20,966	34,692	13,726	13,726
2013-2014 average	12,466	5,540	20,418	32,964	12,466	12,466
2014-2015 average	13,436	5,982	20,388	33,824	13,436	13,436
2015-2016 average	14,446	6,420	20,606	35,052	14,446	14,446
2016-2017 average	13,868	5,942	20,572	34,440	13,868	13,868
2017-2018 average	13,726	5,871	20,966	34,692	13,726	13,726
2018-2019 average	12,466	5,540	20,418	32,964	12,466	12,466
2019-2020 average	13,436	5,982	20,388	33,824	13,436	13,436
2020-2021 average	14,446	6,420	20,606	35,052	14,446	14,446
2021-2022 average	13,868	5,942	20,572	34,440	13,868	13,868
2022-2023 average	13,726	5,871	20,966	34,692	13,726	13,726
2023-2024 average	12,466	5,540	20,418	32,964	12,466	12,466
2024-2025 average	13,436	5,982	20,388	33,824	13,436	13,436
2025-2026 average	14,446	6,420	20,606	35,052	14,446	14,446
2026-2027 average	13,868	5,942	20,572	34,440	13,868	13,868
2027-2028 average	13,726	5,871	20,966	34,692	13,726	13,726
2028-2029 average	12,466	5,540	20,418	32,964	12,466	12,466
2029-2030 average	13,436	5,982	20,388	33,824	13,436	13,436
2030-2031 average	14,446	6,420	20,606	35,052	14,446	14,446
2031-2032 average	13,868	5,942	20,572	34,440	13,868	13,868
2032-2033 average	13,726	5,871	20,966	34,692	13,726	13,726
2033-2034 average	12,466	5,540	20,418	32,964	12,466	12,466
2034-2035 average	13,436	5,982	20,388	33,824	13,436	13,436
2035-2036 average	14,446	6,420	20,606	35,052	14,446	14,446
2036-2037 average	13,868	5,942	20,572	34,440	13,868	13,868
2037-2038 average	13,726	5,871	20,966	34,692	13,726	13,726
2038-2039 average	12,466	5,540	20,418	32,964	12,466	12,466
2039-2040 average	13,436	5,982	20,388	33,824	13,436	13,436
2040-2041 average	14,446	6,420	20,606	35,052	14,446	14,446
2041-2042 average	13,868	5,942	20,572	34,440	13,868	13,868
2042-2043 average	13,726	5,871	20,966	34,692	13,726	13,726
2043-2044 average	12,466	5,540	20,418	32,964	12,466	12,466
2044-2045 average	13,436	5,982	20,388	33,824	13,436	13,436
2045-2046 average	14,446	6,420	20,606	35,052	14,446	14,446
2046-2047 average	13,868	5,942	20,572	34,440	13,868	13,868
2047-2048 average	13,726	5,871	20,966	34,692	13,726	13,726
2048-2049 average	12,466	5,540	20,418	32,964	12,466	12,466
2049-2050 average	13,436	5,982	20,388	33,824	13,436	13,436
2050-2051 average	14,446	6,420	20,606	35,052	14,446	14,446
2051-2052 average	13,868	5,942	20,572	34,440	13,868	13,868
2052-2053 average	13,726	5,871	20,966	34,692	13,726	13,726
2053-2054 average	12,466	5,540	20,418	32,964	12,466	12,466
2054-2055 average	13,436	5,982	20,388	33,824	13,436	13,436
2055-2056 average	14,446	6,420	20,606	35,052	14,446	14,446
2056-2057 average	13,868	5,942	20,572	34,440	13,868	13,868
2057-2058 average	13,726	5,871	20,966	34,692	13,726	13,726
2058-2059 average	12,466	5,540	20,418	32,964	12,466	12,466
2059-2060 average	13,436	5,982	20,388	33,824	13,436	13,436
2060-2061 average	14,446	6,420	20,606	35,052	14,446	14,446
2061-2062 average	13,868	5,942	20,572	34,440	13,868	13,868
2062-2063 average	13,726	5,871	20,966	34,692	13,726	13,726
2063-2064 average	12,466	5,540	20,418	32,964	12,466	12,466
2064-2065 average	13,436	5,982	20,388	33,824	13,436	13,436
2065-2066 average	14,446	6,420	20,606	35,052	14,446	14,446
2066-2067 average	13,868	5,942	20,572	34,440	13,868	13,868
2067-2068 average	13,726	5,871	20,966	34,692	13,726	13,726
2068-2069 average	12,466	5,540	20,418	32,964	12,466	12,466
2069-2070 average	13,436	5,982	20,388	33,824	13,436	13,436
2070-2071 average	14,446	6,420	20,606	35,052	14,446	14,446
2071-2072 average	13,868	5,942	20,572	34,440	13,868	13,868
2072-2073 average	13,726	5,871	20,966	34,692	13,726	13,726
2073-2074 average	12,466	5,540	20,418	32,964	12,466	12,466
2074-2075 average	13,436	5,982	20,388	33,824	13,436	13,436
2075-2076 average	14,446	6,420	20,606	35,052	14,446	14,446
2076-2077 average	13,868	5,942	20,572	34,440	13,868	13,868
2077-2078 average	13,726	5,871	20,966	34,692	13,726	13,726
2078-2079 average	12,466	5,540	20,418	32,964	12,466	12,466
2079-2080 average	13,436	5,982	20,388	33,824	13,436	13,436
2080-2081 average	14,446	6,420	20,606	35,052	14,446	14,446
2081-2082 average	13,868	5,942	20,572	34,440	13,868	13,868
2082-2083 average	13,726	5,871	20,966	34,692	13,726	13,726
2083-2084 average	12,466	5,540	20,418	32,964	12,466	12,466
2084-2085 average	13,436	5,982	20,388	33,824	13,436	13,436
2085-2086 average	14,446	6,420	20,606	35,052	14,446	14,446
2086-2087 average	13,868	5,942	20,572	34,440	13,868	13,868
2087-2088 average	13,726	5,871	20,966	34,692	13,726	13,726
2088-2089 average	12,466	5,540	20,418	32,964	12,466	12,466
2089-2090 average	13,436	5,982	20,388	33,824	13,436	13,436
2090-2091 average	14,446	6,420	20,606	35,052	14,446	14,446
2091-2092 average	13,868	5,942	20,572	34,440	13,868	13,868
2092-2093 average	13,726	5,871	20,966	34,692	13,726	13,726
2093-2094 average	12,466	5,540	20,41			

TABLE 56. POPULATION TREND FOR SASKATCHEWAN, CENSUS YEARS 1901 TO 1951 AND 1956, AND ESTIMATES FOR 1952, 1953, 1954, 1955, 1957, AND 1958

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	91,279	....
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
1952.....	14,459,000*	843,000	5.83*	11,272	1.32
1953.....	14,845,000*	861,000	5.80*	18,000	2.13
1954.....	15,287,000*	873,000*	5.71*	12,000*	1.39*
1955.....	15,698,000*	878,000*	5.59*	5,000*	0.57*
1956.....	16,080,791	880,665	5.48	2,665	0.30
1957.....	16,589,000	879,000	5.30	-1,665	-0.19
1958.....	17,048,000	888,000	5.21	9,000	1.02

*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 on Saskatchewan Vital Statistics for the years 1952, 1953, 1954, and 1955.

TABLE 57. NATURAL INCREASE IN POPULATION, SASKATCHEWAN, 1916-1958

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.....	21,433	6,422	15,011	18.0
1947.....	23,334	6,610	16,724	20.0
1948.....	21,562	6,496	15,066	18.0
1949.....	21,662	6,596	15,066	18.1
1950.....	21,546	6,243	15,303	18.4
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

*The natural increase is the excess of live births over deaths.

†Note that 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 and 1955.

TABLE 58. NUMBER OF STILLBIRTHS, INFANT DEATHS, AND MATERNAL DEATHS, WITH ANNUAL RATES PER 1,000 LIVE BIRTHS, SASKATCHEWAN, 1926-1958

Year	Live births	Stillbirths		Infant deaths*		Maternal deaths	
		Number	Rate	Number	Rate	Number	Rate
1926-1930.....	21,298	551	25.9	1,560	73.2	126	5.9
1931-1935.....	20,325	488	24.0	1,260	62.0	91	4.5
1936-1940.....	18,675	393	21.0	1,025	54.9	68	3.6
1941-1945.....	18,444	348	18.9	858	46.5	52	2.8
1946.....	21,433	372	17.3	1,004	46.8	36	1.7
1947.....	23,334	362	15.5	1,018	43.6	38	1.6
1948.....	21,562	347	16.1	867	40.2	22	1.0
1949.....	21,662	325	15.0	834	38.5	27	1.2
1950.....	21,546	346	16.1	690	32.0	21	1.0
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

*Deaths of children under one year of age.

TABLE 59. TEN LEADING CAUSES OF DEATH WITH PERCENTAGES AND RATES PER 100,000 POPULATION, SASKATCHEWAN, 1957 AND 1958

Cause of death*	Number		Per cent		Rate per 100,000 population	
	1957	1958	1957	1958	1957†	1958†
All causes.....	6,743	6,483	100.0	100.0	767.1	730.1
Ten leading causes.....	5,621	5,463	83.3	84.3	639.4	615.2
Heart diseases (410-443).....	2,191	2,175	32.5	33.6	249.3	244.9
Malignant neoplasms (140-205).....	1,092	1,076	16.2	16.6	124.2	121.2
Vascular lesions affecting central nervous system (330-334).....	791	739	11.7	11.4	90.0	83.2
Accidents (800-962).....	448	426	6.6	6.6	51.0	48.0
Diseases peculiar to early infancy (760-776).....	340	349	5.1	5.4	38.7	39.3
Pneumonia (490-493).....	294	234	4.3	3.6	33.4	26.4
Diseases of arteries (450-456).....	170	163	2.5	2.5	19.3	18.4
Congenital malformations (750-759).....	120	119	1.8	1.8	13.6	13.4
Diabetes mellitus (260).....	100	99	1.5	1.5	11.4	11.1
Suicide and self-inflicted injury (970-979).....	75	83	1.1	1.3	8.5	9.3
Other.....	1,122	1,020	16.7	15.7	127.7	114.9

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

†1957 and 1958 rates are based upon population estimates for the year.

TABLE 60. ACCIDENTAL DEATHS BY CAUSE OF DEATH, SASKATCHEWAN, 1956-1958

Accidental deaths*	Number			Rate per 100,000 population		
	1956	1957	1958	1956	1957	1958
Total.....	449	448	426	51.0	51.0	48.0
Motor vehicle accidents.....	154	157	147	17.5	17.9	16.5
Other transport accidents.....	23	29	22	2.6	3.3	2.5
Accidental poisoning.....	16	8	20	1.8	0.9	2.3
Accidental falls.....	79	86	68	9.0	9.8	7.7
Accident caused by machinery.....	31	25	17	3.5	2.8	1.9
Accident caused by fire and explosion of combustible material.....	23	34	39	2.6	3.9	4.4
Accident caused by hot substance, corrosive liquid, steam and radiation..	3	2	....	0.4	0.2	....
Accident caused by firearms.....	13	12	6	1.5	1.4	0.7
Accidental drowning and submersion.....	32	29	36	3.6	3.3	4.0
All other accidental causes.....	75	66	71	8.5	7.5	8.0

*Causes according to the *International Statistical Classification of Diseases, Injuries and Causes of Death, 1955*, Volume 1, pp. 375-380.

TABLE 61. DIVORCES AND ANNULMENTS, RATIO TO MARRIAGE AND RATES PER 1,000 POPULATION, SASKATCHEWAN, 1952-1958

Item	1952	1953	1954*	1955*	1956	1957	1958
Number of divorces and annulments.....	230	223	255	242	226	246	286
Number of marriages.....	6,944	7,186	6,953	6,494	6,403	6,510	6,464
Ratio of divorces and annulments to marriages.....	1:30	1:32	1:27	1:27	1:28	1:26	1:22
Rate of divorces and annulments per 1,000 population.....	0.28	0.26	0.29	0.27	0.26	0.28	0.32
Rate of marriages per 1,000 population.....	8.2	8.3	8.0	7.4	7.3	7.4	7.3

*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 1954 and 1955.

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. Both were staffed by full-time medical, nursing and office personnel.

Care and Treatment

The services of the cancer clinics for both diagnosis and treatment, as well as those diagnostic procedures and medical and surgical care, authorized by the clinics and provided by doctors in private practice, are furnished at the expense of the commission to those patients who were residents of Saskatchewan for at least six months immediately prior to admission to a cancer clinic. On January 1, 1959, this period was reduced to three months.

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.

Payment of hospitalization of cancer patients is a responsibility of the Saskatchewan Hospital Services Plan in cases where the annual tax levied for that purpose has been paid by patients. However, this expense is assumed by the commission when the tax has not been paid and the patient is otherwise entitled to free care and treatment. The commission also pays for drugs listed as non-benefits of the Plan provided to in-patients. The patient is solely responsible for payment of out-patient drugs.

Except for authorized home visits of the Victorian Order of Nurses in terminal cases, special nursing services are not paid for by the commission.

Free services are not extended to patients for whom the Federal Government is responsible, nor, of course, to those who are not residents of Saskatchewan. Such patients are accepted by the clinics on a fee-for-service basis.

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.

Specialist Services

Each clinic has a roster of surgeons in private practice for the purpose of consultation and for referral of patients for surgery when patients have no particular choice of surgeon. Medical specialists are consulted, as well, when occasion demands.

Medical and Surgical Fees

Authorized medical and surgical services rendered to clinic patients by doctors in private practice are paid by the commission on a fee-for-service basis in accordance with the current schedule of fees of the College of Physicians and Surgeons of Saskatchewan.

Social Worker

The Saskatchewan division of the Canadian Cancer Society provides funds for a 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 a responsibility of the Canadian Cancer Society in co-operation with the Division of Health Education of the Department of Public Health.

Technical Staff

Besides full-time medical, nursing and clerical staffs, each clinic has 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 the supervision of the consulting physicist, the commission assuming payment of a technician's salary.

Cost of Services

The total cost of operating the commission and the two clinics in 1958-59 was \$1,265,686, a national health grant contributing \$190,717 of the amount. Not included in this total expenditure was the cost of hospitalization of cancer patients who were beneficiaries of the Saskatchewan Hospital Services Plan. This was borne by the Plan.

Medical and surgical fees were \$530,687, staff salaries \$363,840 and payments to clinic hospitals \$187,744 for diagnostic, laboratory and x-ray facilities, as well as for various other services provided to the clinics.

TABLE 62. SUMMARY OF ALL PATIENTS SEEN AT THE CANCER CLINICS, SASKATCHEWAN, 1958

Cases	Both clinics	Regina clinic	Saskatoon clinic
All cases.....	20,568	9,888	10,680
Number of patients admitted to the clinics for the first time in 1958 for the diagnosis and treatment of cancer.....	3,891	1,703	2,188
Number of patients discharged from the clinics previous to 1958 with benign conditions, who returned to the clinics in 1958 with cancer.....	163	87	76
Number of patients seen in 1958 but not admitted to the clinics, as superficial examination appeared to exclude cancer.	274	172	102
Number of patients admitted to the clinics in 1958 solely for the diagnosis or treatment of non-malignant conditions*.....	572	102	470
Number of review examinations of all patients seen in 1958†.....	15,668	7,824	7,844

*Diagnosis refers to various radioactive isotope uptake studies.

†The above figures do not include attendance of patients for treatment only.

TABLE 63. NUMBER OF NEW PATIENTS ADMITTED TO CANCER CLINICS FOR DIAGNOSIS AND TREATMENT OF CANCER, SASKATCHEWAN, 1932-1958

Year	All cases	Cancer	Pre-cancer	Not cancer	Not diagnosed
Both clinics					
All 27 years.....	62,907	27,877	3,819	29,614	1,597
1932.....	500	343	35	105	17
1933.....	579	338	20	199	22
1934.....	646	402	13	215	16
1935.....	692	415	12	243	22
1936.....	712	401	30	249	32
1937.....	801	428	25	323	25
1938.....	909	473	32	352	52
1939.....	1,094	520	60	364	150
1940.....	1,193	528	80	466	119
1941.....	1,245	598	77	508	62
1942.....	1,468	653	192	568	55
1943.....	1,698	756	275	601	66
1944.....	2,103	871	327	741	164
1945.....	2,613	1,042	273	1,043	255
1946.....	3,161	1,193	176	1,708	84
1947.....	3,632	1,362	207	1,998	65
1948.....	3,820	1,420	231	2,147	22
1949.....	3,366	1,312	190	1,842	22
1950.....	3,269	1,430	225	1,582	32
1951.....	3,378	1,502	230	1,606	40
1952.....	3,547	1,597	220	1,678	52
1953.....	3,502	1,594	192	1,680	36
1954.....	3,516	1,605	138	1,745	28
1955.....	3,679	1,662	146	1,846	25
1956.....	3,984	1,778	148	2,006	52
1957.....	3,909	1,824	135	1,929	21
1958.....	3,891	1,830	130	1,870	61

Cost of Services

The total cost of operating the commission and the two clinics in 1958-59 was \$1,265,885, a national health grant contributing \$190,717 of the amount. Not included in this total expenditure was the cost of hospitalization of cancer patients who were beneficiaries of the Saskatchewan Hospital Services Plan. This was borne by the Plan.

Medical and surgical fees were \$530,687, staff salaries \$363,840 and payments to clinic hospitals \$187,744 for diagnostic, laboratory and x-ray facilities, as well as for various other services provided to the clinics.

TABLE 63—(Concluded)

Year	All cases	Cancer	Pre-cancer	Not cancer	Not diagnosed
Regina clinic					
All 27 years.....	32,707	15,501	2,578	13,838	790
1932.....	301	207	21	63	10
1933.....	368	204	11	138	15
1934.....	389	250	4	125	10
1935.....	430	277	7	137	9
1936.....	440	255	19	144	22
1937.....	528	265	19	223	21
1938.....	570	279	24	234	33
1939.....	723	321	51	233	118
1940.....	829	352	72	325	80
1941.....	877	371	75	377	54
1942.....	1,072	444	183	409	36
1943.....	1,306	542	267	457	40
1944.....	1,445	544	304	526	71
1945.....	1,499	591	240	589	79
1946.....	1,837	707	141	963	26
1947.....	1,979	722	146	1,087	24
1948.....	1,991	784	131	1,060	16
1949.....	1,607	687	95	809	16
1950.....	1,489	774	93	604	18
1951.....	1,568	834	144	571	19
1952.....	1,574	824	122	611	17
1953.....	1,583	823	95	661	4
1954.....	1,588	866	73	637	12
1955.....	1,569	854	63	641	11
1956.....	1,721	912	66	720	23
1957.....	1,721	893	60	765	3
1958.....	1,703	919	52	729	3
Saskatoon clinic					
All 27 years.....	30,200	12,376	1,241	15,776	807
1932.....	199	136	14	42	7
1933.....	211	134	9	61	7
1934.....	257	152	9	90	6
1935.....	262	138	5	106	13
1936.....	272	146	11	105	10
1937.....	273	163	6	100	4
1938.....	339	194	8	118	19
1939.....	371	199	9	131	32
1940.....	364	176	8	141	39
1941.....	368	227	2	131	8
1942.....	396	209	9	159	19
1943.....	392	214	8	144	26
1944.....	658	327	23	215	93
1945.....	1,114	451	33	454	176
1946.....	1,324	486	35	745	58
1947.....	1,653	640	61	911	41
1948.....	1,829	636	100	1,087	6
1949.....	1,759	625	95	1,033	6
1950.....	1,780	656	132	978	14
1951.....	1,810	668	86	1,035	21
1952.....	1,973	773	98	1,067	35
1953.....	1,919	771	97	1,019	32
1954.....	1,928	739	65	1,108	16
1955.....	2,110	808	83	1,205	14
1956.....	2,263	866	82	1,286	29
1957.....	2,188	931	75	1,164	18
1958.....	2,188	911	78	1,141	58

UNIVERSITY MEDICAL CENTRE

THE UNIVERSITY HOSPITAL

The report for the University Hospital touches on significant developments throughout the organization, and highlights the work and development of educational activities within the hospital. In so doing, it is intended to observe the Golden Jubilee of the University of Saskatchewan. Although the hospital year under review does not coincide exactly with the Fiftieth Anniversary of the University, this report is published during the year when the university celebrations are taking place. Thus the hospital, as one of the newest affiliated organizations to the university, takes pride in saluting the University of Saskatchewan.

Most persons think of the hospital as a place where the sick and injured receive treatment for the care or alleviation of their ills. A hospital is more than this. Every hospital has three basic objectives (1) service to patients in the form of the best possible care that can be provided; (2) education of many types of health worker and (3) research, which forms the basis of better teaching and, subsequently, of better patient care. Obviously, smaller hospitals will lay less emphasis upon teaching and research than will larger centres, but all hospitals, at least to some degree, participate in all three objectives.

Actually, the three objectives of the hospital are all directed toward one goal—better care of the sick and injured. In essence, the reason for the existence of hospitals is to care for the sick through preventive and curative practices. By carrying out sound educational programs for various types of hospital staff and for the public, the hospital promotes higher standards of patient care and health care generally. By means of all forms of research, varying from relatively simple clinical observations and investigation by doctors, nurses and others in the course of their duties, to formal projects employing full-time staffs and costly equipment; the fund of health knowledge is increased and, thereby, the calibre of patient care.

To borrow an analogy which has been used previously, a hospital may be likened to a motor car. The complete framework of the vehicle is needed to provide the desired function of transportation to better patient care. Education may be compared to the engine which provides the motive power, while the fuel for the educational engine of the hospital is research.

The year in review was the fourth year of hospital operation, beginning January 26, 1955, and the second year of full operation with all beds and facilities available for use. There has been a large increase in all activities year by year as the hospital was gradually opened. This marks the first opportunity to compare activity between two years of full operation—1957 and 1958.

As expected, there was a considerable increase in the amount of service rendered by the hospital. While this was gratifying in that it presumably represented full acceptance by the people of this province, it was, at the same time, a source of some concern. Large portions of the building that were unused during the first years of its operation were fully occupied in 1958. If the requests for care by the citizens are to be met, it would

appear that immediate plans should be made to augment existing facilities at the hospital. It may be noted, at this juncture, that two-thirds of the patients treated at the University Hospital come from all parts of the province outside the city of Saskatoon and that the University Hospital is functioning as a provincial referral centre.

Previous forecasts for the long-range establishment and development of this centre indicated that the full opening of the hospital would require approximately five years. During the first three years all facilities were to be placed in operation and in the last two years consolidation of the organization and preparation for further development was to take place. The years 1955 to 1957 inclusive saw the accomplishment of objectives as proposed for the first phase of the opening process. The remaining two years 1958 and 1959—should see the consolidation of the hospital organization in preparation for expansion which must inevitably occur if progress is to be maintained. Planning for desirable and highly necessary improvements and additions to the hospital, in keeping with the splendid progress that continues in the health fields, was begun in earnest during 1958. It is suggested that this planning must be strongly encouraged during the coming year, so that implementation of some stages of an overall plan for the University Medical Centre may be commenced in 1960.

Activity Highlights in 1958

There was a pronounced increase in the tempo of activity in all parts of the hospital. Some comparative figures for 1957 and 1958 may be of interest.

	1957	1958	Per cent increase
Patients discharged from hospital	9,802	10,406	6.2
Surgical operations	4,556	4,950	8.6
Births	1,020	1,069	4.8
Laundry (tons)	986	1,052	6.7
Drug requisitions	111,340	131,876	18.4
Oxygen consumption (cu. ft.)	1,474,825	1,876,564	27.2
Meals to patients	457,122	475,452	4.0
Cafeteria meals	373,196	391,479	4.9
Percentage occupancy of hospital	78.8	81.6	3.6

Several improvements to facilities and additional services were provided during the year. As mentioned above, practically all usable space within the building has now been committed. Future development will necessarily be at a slower pace until a start can be made on a major expansion program. Some of the year's construction was as follows:

The electrical power supply to the operating rooms, laboratories and x-ray department was nearly doubled to meet requirements of modern equipment.

Extensive alterations were made within the Department of Pathology and the Department of Bacteriology to provide more efficient utilization of available space.

A start was made on heating and ventilation problems within the building by double glazing all windows of one ward to lessen the effects of extreme cold in winter and heat in summer.

A fourth large autoclave was added to the central supply area to meet the increasing requirements for sterile supplies throughout the hospital.

Structural alterations were made to partially alleviate overcrowded conditions in several offices; e.g., nursing, dietary, anaesthesia, surgery, nursing education.

The cardiopulmonary laboratories were doubled in size using space generously relinquished by the Red Cross Blood Transfusion Depot.

A chaplains' office was built using a large portion of the space of the doctors' cloak room.

Installation of a new 150 K.V.A. emergency power plant was completed to replace the former 25 K.V.A. emergency system. This installation will materially improve emergency lighting and power within the hospital during the time required to place the large university power plant in operation following a power failure.

An electronic workshop was created to provide necessary maintenance and repair facilities for the increasing amount of electronic equipment installed in the hospital.

Many items of equipment were added during the year. Some of the larger of these were:

(1) An "X-Omat" automatic x-ray film processing machine, one of the first installed in this country. This machine reduced the total x-ray film processing time from approximately 50 minutes to 6 minutes—a great improvement in service to patients.

(2) Two image intensifiers—one in the cardiopulmonary laboratories and one in the x-ray department. These devices, by magnifying the light produced, enable doctors to view a fluoroscopic screen without the need for darkening the room. This is a great convenience to patients and staff and, at the same time, exposes the patient to a much smaller amount of radiation than standard methods of fluoroscopy.

(3) Several specialized pieces of laboratory equipment, including an automatic glassware washer.

(4) Several articles for use in religious services. These were donated during the year by the University Hospital Women's Auxiliary and by other friends of the hospital.

In May the second class of doctors came to Convocation and were granted degrees.

In August the second class of diploma and degree nursing students completed their hospital experience and attended graduation ceremonies held in the University gymnasium.

The first class of five dietary internes completed their hospital training in May. A second class, also five in number, began their training and by year's end a third class was being enrolled.

Several postgraduate courses for doctors, pharmacists and other groups were held at the hospital during the year.

Activities conducted by the University Hospital Women's Auxiliary continued to grow and flourish. Toward year's end, active planning for additional projects was in progress. The University Hospital Board and the hospital staff were extremely grateful to this devoted group of women who have served so well.

Revenue and Expenditure

Revenue for 1958 totalled \$4,019,111.90 and expenditures totalled \$4,074,758.54, resulting in a deficit of \$55,646.64.

The bulk of the revenue, \$3,667,616.69, was realized from service to patients. The balance came from a variety of sources, one of the largest amounts being \$192,728.23, received in the cafeteria and snack bar. However, most, if not all of this latter amount is balanced on the expense side of the ledger by the costs of operating these services. Of the total expenditures, \$2,661,468.62 or 65.3 per cent was disbursed as salaries, wages and perquisites to employees. Other large expenditures included \$259,724.87 on food and other dietary costs and \$148,429.76 on steam, electricity and other items connected with the operation of the physical plant. Depreciation on buildings and equipment has been included as an expense amounting to \$337,570.29 in 1958.

In an effort to keep the hospital up to date, \$175,868.05 was spent on new equipment and improvements to the building during the course of the year. A portion of the new equipment was financed through national health grants.

The hospital wishes to express its profound thanks to President Thompson who will be leaving the University Hospital Board during 1959 after ten years of valued service. Fortunately the loss of Dr. Thompson's wise leadership is softened by the knowledge that he is to be succeeded as President of the University and ex officio member of the University Hospital Board by Dean J. W. T. Spinks.

Acknowledgement should also be made to the splendid spirit of co-operation and helpfulness that was shown throughout the year by every member of the hospital and medical staffs. Likewise, the interest and support shown by officers of the University of Saskatchewan and by the University Hospital Board was greatly appreciated.

THE UNIVERSITY COLLEGE OF MEDICINE

Medical student enrolment during the year 1958-59 was as follows:

	<i>Total</i>	<i>First-year</i>	<i>Second-year</i>	<i>Third-year</i>	<i>Fourth-year</i>
All students	126	33	30	31	32
Men	111	27	29	27	28
Women	15	6	1	4	4

This is the lowest enrolment in the three years that the full four-year course has been presented. The totals in 1956-57 and 1957-58 have been 141 and 135 respectively as compared with 126 in 1958-59. Not only have fewer students been admitted in successive years (41, 36, 34, and 33, from 1955-56 to 1958-59), but the loss from academic failure has been great.

Examination results were as follows:

Fourth-year — Thirty graduated in May, two with great distinction and three with distinction; two others eligible for the degree in the fall on passing supplemental examinations.

Third-year — Twenty-nine were promoted; one was required to discontinue and one to repeat the year. The former had failed twice previously in the University of Manitoba and was permitted transfer for special reasons. The second student was a bright person with a Master's degree, a family and scanty financial resources. Illness in the family aggravated the financial problem and a valiant effort to earn money on the side impaired the student's academic effort. Adequate loan funds or a substantial bursary would have saved this student.

Second-year — Twenty-four were promoted; three were required to take supplemental examinations. One is required to repeat the year and two to discontinue. The latter two had both repeated first-year; one had grave family responsibilities and the other had been admitted with an academic record generally regarded as unacceptable.

First-year — Twenty-eight were promoted, including one partial student; one was permitted supplemental examination for credit, three were required to repeat the year (one after lapse of a year) and one was required to discontinue.

The above data reflect the results of accepting substandard applicants, particularly in the years 1955 and 1956. There is no doubt that the Freshman Class of the year just ended, included a higher proportion of better students than in other years; there were relatively fewer failures and six students achieved Division I standing.

For 1959-60, it is interesting to note that a full class of 40 students has been registered.

Scholarships

During the year under review two new important awards were received. One bequest of \$10,000 made by the late Mrs. Sarah Ann Logan of Yorkton and the other Harry D. Elliot and Emily Robertson Elliot Scholarship Fund. The first will be used as the Logan Memorial Scholarship of \$1,500 annually to be awarded to an undergraduate or graduate medical student preparing for B. Sc. (Med.), and the second will provide two entrance scholarships of \$250 each to be awarded on the basis of academic competence and financial need.

Internship

Members of the graduating class selected for internship in the following cities are:

<i>Canada</i>	22
Vancouver (two hospitals)	4
Calgary	2
Saskatoon (two hospitals)	10
Winnipeg	1
Toronto	1
Montreal (two hospitals)	4
<i>United States</i>	10
Flint, Michigan (two hospitals)	4
Detroit, Michigan	4
Honolulu, Hawaii	2

From the experience of past years, it is known that medical students exhibit wide swings in respect to hospitals favoured for internship. The trends prevailing in the last three years indicate that students prefer a major teaching or university hospital for internship, as compared to other hospitals.

Several trends prevailed in the past three years showing an increase in the proportion favouring major teaching or university hospitals, in 1957—20 per cent, in 1958—45 per cent, in 1959—50 per cent; an increase in the proportion wishing to explore American institutions (all non-teaching)—21, 11 and 31 per cent respectively; and a decrease in the group remaining in Saskatchewan, in 1957—59 per cent of the class in 4 hospitals in Saskatoon and Regina, in 1958—53 per cent of the class

in 5 hospitals in Saskatoon and Regina, and in 1959—31 per cent of the class in 2 hospitals in Saskatoon only.

The desire to study medicine in far-away centres is an understandable one. Many students going to eastern Canada and to the United States plan to return to Saskatchewan, and take further training in provincial hospitals. Nevertheless, it is clear that some have not chosen wisely; graduates vary greatly in respect to the rate at which responsibility can be borne and some should have closer supervision than others.

At present the only influence a faculty can exert on a senior student in selecting internship is by way of persuasion. In 1956-57 efforts were made to negotiate with the College of Physicians and Surgeons of Saskatchewan, arrangements whereby the university would participate with the College of Physicians and Surgeons in determining hospitals approved for Saskatchewan graduates and their performances in those hospitals.

Preceptorships

All graduates in 1959 had experience of two weeks or more with a family doctor under an arrangement approved by the Faculty. Administration of this scheme has been taken over by Professor Robertson of Social and Preventive Medicine. Contacts made in this manner with practitioners in all provincial regions are proving helpful for future extension activities. The importance of acquainting our students with well selected practitioners, working effectively and contentedly in congenial communities is obvious. This summer two graduates of 1958 are back in Saskatchewan taking over at vacation time the practices of their preceptors of two years ago. This year for the first time, with support from the Milbank Memorial Fund of New York, a third-year student will have a two-months' preceptorship in public health. He will work closely with the Regional Medical Health Officer and his staff in the Yorkton-Melville Health Region. These developments, along with the emphasis of the newly founded Department of Social and Preventive Medicine on the study of the health needs of Saskatchewan, must result in an increasing interest on the part of our graduates in the welfare of different types of community in western Canada, and foster a desire to serve them.

Students in Research

Reports received from various departments indicate the expansion of research facilities in several fields. Plans have also been made for enrolment of graduate students in three departments for the first time—Bacteriology, Pathology and Psychiatry. The ratio of teachers to students is now adequate in most of the departments. There is, however, still a shortage of senior demonstrators in some of the medical science departments. Because of the shortage of office and bench space further expansion of the graduate program will be difficult for a number of departments. In some instances it may be difficult to keep the existing staff if research and graduate training programs do not expand. Lack of space is now the most serious problem facing the College of Medicine.

The reports also show the widening activities of members of the faculty in national and international scientific and professional fields. Evidence of interest abroad in our teaching and research work is reflected by the number of visitors who came to the university on their own initiative. It would be fortunate if we could devise arrangements for the exchange of teachers and graduate students.

New Activities

Of all the new activities there are three items which need special mention.

1. The impact of the new Department of Cancer Research in its first year with full staff has exceeded expectations. Its basic philosophy, practically by definition, postulates the value of co-ordinated interdisciplinary research. That this view is a deep conviction is suggested by the way in which Dr. Beggs and his staff co-operated with other university departments. The first full-time research unit of the National Cancer Institute is now practically a part of the university.

2. The glaucoma clinic sponsored in the University Hospital by the Department of Ophthalmology and the provincial government, through a national health grant has been described recently as the best of its kind in Canada. In addition to clinical investigation of the most serious causes of blindness in the older age group, Dr. Murray and Dr. Drance have begun basic studies in the pathophysiology of the eye.

3. The third development of 1958-59 worth mentioning is the establishment of the Department of Social and Preventive Medicine under Dr. Alexander Robertson, with Dr. Robert Steele as assistant professor. Other part-time teachers associated with the department are Dr. Matthew Dantow, Medical Officer of Health of the city of Saskatoon, to whom great credit is due for the successful coaching of our students for the examinations in this subject; Dr. A. L. Swanson, Executive Director of the University Hospital; Mrs. Hester Kernan, Associate Professor of Public Health Nursing, and Miss Edna Osborne, Director of Medical Social Work at the University Hospital.

In addition to fitting a successful teaching program into an already tight students' timetable and taking over the preceptorship program, the Social and Preventive Medicine Department, in its first year of operation has established good working relationships with other departments of the University, the Government, and other professional bodies such as the College of General Practice of Canada and several major Foundations. One recruit for the field of social medicine, a former general practitioner of Saskatchewan is now a graduate student in New York on a Rockefeller Fellowship. The Commonwealth Fund of New York has made a grant to support for two years a sociologist trained in medical and health studies. In collaboration with the Department of Public Health, it is expected that in the course of time this department will contribute towards better understanding of the social factors influencing the state of health and disease of our communities and determine the success or failure of public health and medical care practices.

TABLE 64. ANALYSIS OF CARE BY DEPARTMENTS, UNIVERSITY HOSPITAL, SASKATCHEWAN, 1958

Department	Discharges	Percentage involving autopsies	Percentage involving consultations	Average stay
Departments				
Medicine.....	2,192	76.3	38.5	19.2
Neurosurgery.....	287	100.0	49.1	24.1
Obstetrics and Gynaecology.....	2,324	100.0	37.4	8.4
Gynaecology.....	839	....	....	....
Obstetrics (delivered).....	1,080	....	....	....
Obstetrics (other).....	405	....	....	....
Ophthalmology.....	362	....	11.9	11.9
Paediatrics.....	1,174	97.0	21.2	15.7
Psychiatry.....	459	100.0	26.6	26.4
Rehabilitation medicine.....	133	....	74.4	62.2
Surgery.....	2,399	79.7	30.4	18.7
Patients				
All patients.....	10,406	82.1	30.0	....
Adults and children.....	9,330	81.7	33.2	16.8
Newborn.....	1,076	85.3	2.2	7.2

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.

A glance through each annual report of the last ten years indicates that this has been a decade of change. One sees the death rate from tuberculosis declining; the discovery of fewer and fewer active cases of tuberculosis despite an expanding case-finding program. These changes are the result of advances made in medical technology, and the adaptation of these improvements to our treatment and preventive program. To be abreast of these improvements requires constant vigilance and planning. This, in turn, requires that we maintain a close liaison with other allied organizations in the field of tuberculosis—public health, administration, and the other areas which combine to make a hospital a functioning unit.

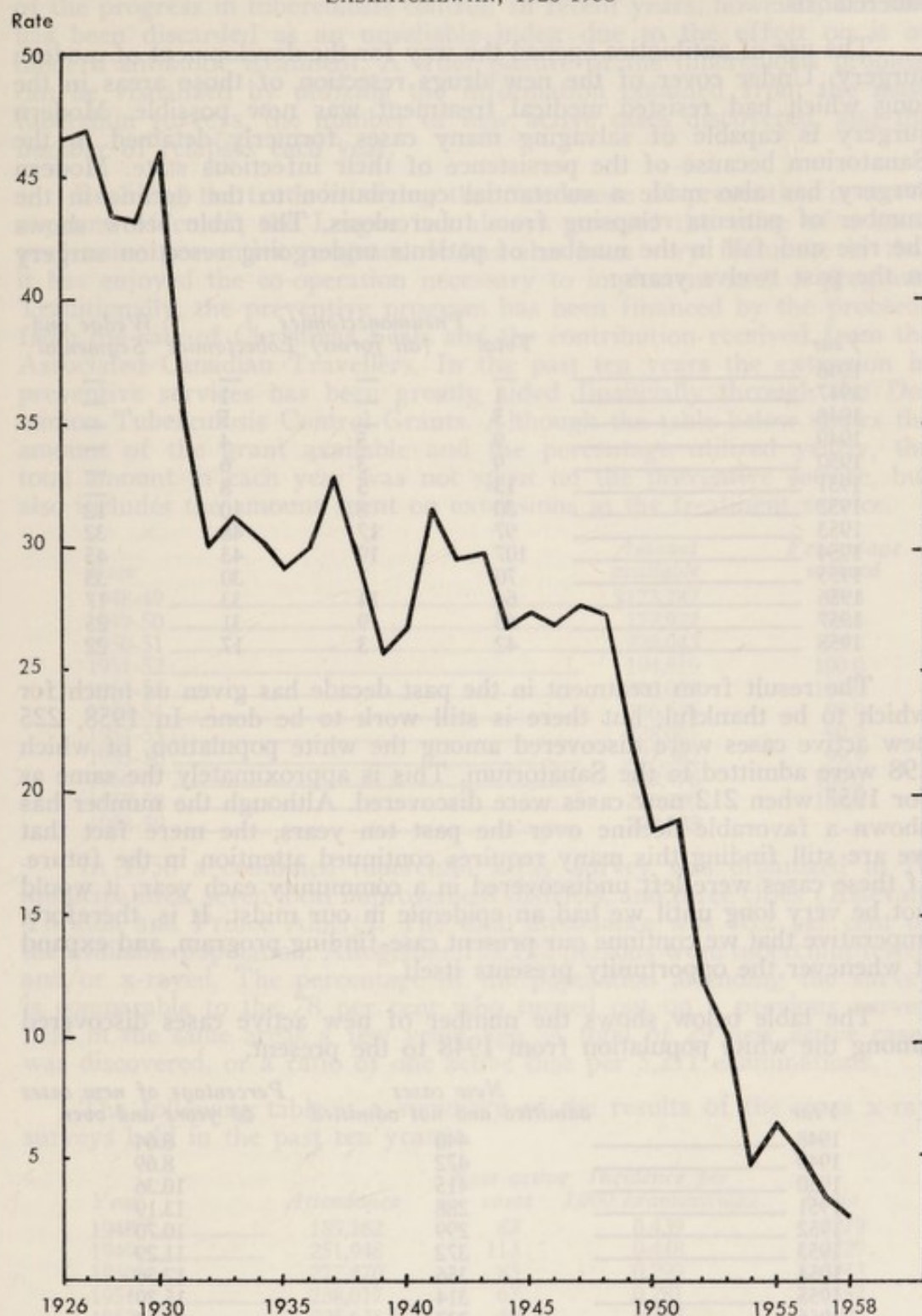
Deaths from tuberculosis in 1958 totalled 23; this consists of 15 white deaths, and eight Indian deaths. On reviewing the deaths for 1958 one is again struck by the age distribution. There were no white deaths under the age of 35; and nine of the 15 were age 60 and over. Among the eight Indian deaths, there was one, age 3, due to meningitis; three were over the age of 60, and the other four scattered between ages 16 and 56. The average age at death among the Indians was 43.5—the youngest 3 and the oldest 71. Among the 15 white deaths, the average age was 59.7—the youngest 35 and the oldest 90. It will be recalled that in 1957 there were four deaths below the age of 36 among the white population; and three below the age of 9 among the Indian population. The trend, therefore, continues to be favorable in both white and Indian population. The over-all death rate for 1958 is 2.6 per 100,000 population, compared to 3.5 per 100,000 in 1957. The following table illustrates the decline during the past ten years.

Year	Number of white deaths	Number of Indian deaths	Total deaths	Rate per 100,000 population
1948	153	73	226	26.5
1949	111	74	185	21.5
1950	90	63	153	17.5
1951	83	73	156	18.7
1952	54	50	104	12.3
1953	47	40	87	10.1
1954	30	12	42	4.8
1955	39	16	55	6.3
1956	35	11	46	5.2
1957	26	5	31	3.5
1958	15	8	23	2.6

The results are even more dramatic if the death rate is shown in graphic form from 1926 to 1958 as in Figure 8.

From this graph it will be seen that the introduction of free treatment in 1929 resulted in a precipitous drop in 1931, due in all probability to the admission of cases more amenable to treatment. Following this decline, the rate oscillated back and forth during the 1930's and the 1940's. Beginning in 1949 one sees another dramatic change. This latter change

FIGURE 8. TUBERCULOSIS DEATH RATE PER 100,000 POPULATION,
SASKATCHEWAN, 1926-1958



coincides with the introduction of modern antibiotics in the treatment of tuberculosis.

The use of antibiotics opened the way for the development of modern surgery. Under cover of the new drugs resection of those areas in the lung which had resisted medical treatment was now possible. Modern surgery is capable of salvaging many cases formerly detained in the Sanatorium because of the persistence of their infectious state. Modern surgery has also made a substantial contribution to the decline in the number of patients relapsing from tuberculosis. The table below shows the rise and fall in the number of patients undergoing resection surgery in the past twelve years:

Year	<i>Pneumonectomies</i>			<i>Wedge and Segmental</i>
	<i>Total</i>	<i>(all forms)</i>	<i>Lobectomies</i>	
1946	—	—	—	—
1947	1	—	1	—
1948	5	—	5	—
1949	9	5	4	—
1950	9	3	6	—
1951	13	5	8	—
1952	30	8	10	12
1953	97	17	48	32
1954	107	19	43	45
1955	70	7	30	33
1956	64	14	33	17
1957	65	9	31	25
1958	42	3	17	22

The result from treatment in the past decade has given us much for which to be thankful, but there is still work to be done. In 1958, 225 new active cases were discovered among the white population, of which 198 were admitted to the Sanatorium. This is approximately the same as for 1957 when 212 new cases were discovered. Although the number has shown a favorable decline over the past ten years, the mere fact that we are still finding this many requires continued attention in the future. If these cases were left undiscovered in a community each year, it would not be very long until we had an epidemic in our midst. It is, therefore, imperative that we continue our present case-finding program, and expand it whenever the opportunity presents itself.

The table below shows the number of new active cases discovered among the white population from 1948 to the present.

Year	<i>New cases</i>	<i>Percentage of new cases</i>
	<i>admitted and not admitted</i>	<i>60 years and over</i>
1948	440	8.64
1949	472	8.69
1950	415	10.36
1951	288	13.19
1952	299	10.70
1953	372	11.29
1954	356	12.36
1955	314	15.29
1956	227	21.14
1957	212	22.64
1958	225	32.00

The last column in the above table is of special interest as it shows the percentage of new active cases 60 years and over. It used to be said that tuberculosis was a disease of the young adult. However, it becomes apparent that during the past decade there has been an increase in the number of patients in the older age groups. This has become apparent on the wards in the Sanatoria and has resulted in changes in ward routines and patient accommodation.

For years it was the practice to quote the death rate as an indication of the progress in tuberculosis control. In recent years, however, the rate has been discarded as an unreliable index due to the effect on it of modern antibiotic treatment. A truer picture of the tuberculosis problem can be visualized by utilizing the information obtained from the mass tuberculin surveys, the number of new active cases discovered, and the number of relapses each year.

Realizing the truth in saying that "an ounce of prevention is worth a pound of cure", the League has always stressed the value of a comprehensive preventive program. It has also been very fortunate in that it has enjoyed the co-operation necessary to implement such a program. Traditionally, the preventive program has been financed by the proceeds from the sale of Christmas Seals and the contribution received from the Associated Canadian Travellers. In the past ten years the extension in preventive services has been greatly aided financially through the Dominion Tuberculosis Control Grants. Although the table below shows the amount of the grant available and the percentage utilized yearly, the total amount in each year was not spent on the preventive service, but also includes the amount spent on extensions in the treatment service.

<i>Year</i>	<i>Amount available</i>	<i>Percentage utilized</i>
1948-49	\$173,787	98.4
1949-50	172,922	95.8
1950-51	228,043	79.8
1951-52	194,819	100.0
1952-53	216,002	100.0
1953-54	236,535	99.9
1954-55	228,065	99.9
1955-56	227,582	99.9
1956-57	222,476	100.0
1957-58	220,290	100.0
1958-59	209,688	—

In 1958 a combined tuberculin x-ray survey was organized in 76 municipalities, seven local improvement districts, and three cities (Estevan, Yorkton and Prince Albert). The total attendance was 76.2 per cent of the available population. Altogether 151,122 persons were tuberculin tested and/or x-rayed. The percentage of the population attending the survey is comparable to the 78 per cent who turned out on a previous survey held in the same areas a few years ago. A total of 29 new active cases was discovered, or a ratio of one active case per 5,211 examinations.

The following table is a summary of the results of the mass x-ray surveys held in the past ten years:

<i>Year</i>	<i>Attendance</i>	<i>New active cases</i>	<i>Incidence per 1,000 examinations</i>	<i>Ratio</i>
1948	189,162	83	0.439	1:2279
1949	251,948	113	0.448	1:2229
1950	277,470	83	0.299	1:3343
1951	238,017	67	0.281	1:3552
1952	225,631	49	0.217	1:4605
1953	205,383	64	0.312	1:3209
1954	193,927	58	0.299	1:3343
1955	230,375	42	0.182	1:5485
1956	206,177	30	0.145	1:6873
1957	219,127	39	0.178	1:5619
1958	151,122	29	0.191	1:5211

Although the incidence of new active cases per 1,000 examinations has been declining since the surveys were started in 1942, it should be noted that for the past three years it has had a tendency to stabilize. This does not imply that it will remain here indefinitely because a similar

trend can be seen for the period 1950-1954. It is just another plateau in the downward path to the final goal of complete eradication of tuberculosis. The duration of each plateau is unknown, but the trend is clear. There is no alternative but to continue the screening process of the well population.

The staff members of the League have always been conscious of the value in the tuberculin test as a diagnostic aid in tuberculosis. This test has also been used on many occasions in the past to obtain statistical information on the amount of infection in a community. However, in 1954 the League embarked on the ambitious program to tuberculin test the entire population of the province. Since that time mass tuberculin testing has been carried out in conjunction with the mass x-ray surveys. To date we have records on well over half of the population, and we expect to complete this task in the near future. These records will constitute a tuberculin registry of the province from which we hope to obtain important information. The data is being used already in the follow-up work of contacts, and in the detection of recent tuberculin conversions. It is expected that in the future we will be able to determine the answer to many questions which at present are purely speculative. We hope to determine whether our new active cases are arising from persons recently infected, or from persons with a previously known positive tuberculin test. We expect the answer will be found in four or five years.

Tables 65 and 66 summarize the results of the tuberculin tests read during the survey in 1958. It should be mentioned that the figures in Table 66 are not included in Table 65. In addition, there are 3,589 positive tuberculin tests recorded for individuals known to have been vaccinated with B.C.G. that are not included in the tables. Altogether 128,984 tuberculin tests were recorded during the survey; 103,045 persons were x-rayed and 48,077 did not require an x-ray. This latter group consists of children under the age of 15 with a negative tuberculin test and who, therefore, were not x-rayed.

Some mention has been made of the use of a tuberculin registry. This past summer a special x-ray survey was carried out on known positive tuberculin reactors. The survey covered 68 municipalities which had been tuberculin tested in previous years. Each individual, on whom we had a record of a positive tuberculin test, was sent a special notification to attend the survey at a specified time and place. The notice created some confusion, due to misinterpretation, but on the whole it seemed to stimulate the people to ask more questions regarding surveys, tuberculosis, etc. Altogether 30,074 notices were sent out, but 3,744 were returned for one reason or another. From the 26,330 who apparently received their notice, 83 per cent or 21,675 attended the survey and were x-rayed. Four new active cases were discovered, or an incidence of 0.184 and a ratio of 1:5419, which is very similar to that found in the regular surveys. It is interesting to note that an additional 6,785 x-rays were taken on individuals who attended on their own initiative, and on whom we had no tuberculin record. Four more active cases were discovered among the latter group. It is felt that the results are inconclusive, and that further experience is needed in this type of program.

In special surveys, using miniature films, 7,583 x-rays were taken compared to 9,776 in 1957. In this group, no new active cases were discovered compared to four in 1957.

A special survey, using the equipment from one of the vans, has been conducted each year, for the past three summers, in Uranium City and the surrounding district. The results are interesting in that they show

the effect of our surveys in eliminating tuberculosis from an isolated community. In 1956 we discovered six active cases; in 1957, three; and in 1958, none.

The guests and staff of all provincial nursing homes were examined again in 1958. A total of 2,550 x-rays were taken and two active cases discovered, compared to one in 1957. Since the incidence of tuberculosis in the older age group is increasing, it is only reasonable that we should continue this type of special survey.

The hospital admission x-ray program, started in the spring of 1948, has been greatly expanded in the past ten years. This program has proven to be a fruitful source of new active cases of tuberculosis, as indicated in the table below:

<i>Year</i>	<i>Number of x-rays</i>	<i>New active cases</i>	<i>Rate per 1,000 examinations</i>	<i>Ratio of new active cases to examinations</i>
1948-49	46,924	Unknown	—	—
1950	53,555	74	1.382	1:724
1951	58,847	62	1.053	1:949
1952	58,668	70	1.193	1:838
1953	66,175	91	1.375	1:727
1954	65,324	86	1.316	1:759
1955	70,192	45	0.641	1:1560
1956	73,243	44	0.601	1:1665
1957	74,959	46	0.614	1:1629
1958	64,214	47	0.732	1:1366

It can be seen that, as a case-finding project, this program is very rewarding, although the incidence is decreasing the same as with the mass surveys. Nevertheless, the results are such that we are justified in continuing it.

During the year 299,600 persons had medical advice at the expense of the League. Of this total, 260,239 were examined by the medical staff of the League.

During 1958, 17,412 Indians were examined in co-operation with the Department of National Health and Welfare. Of this number, 16,278 films were taken by the department and the remainder of 1,134 by the League. In addition to the above, 351 out-patient Indian films were taken at the Fort Qu'Appelle Sanatorium.

A feature of the last ten years has been the development of vacant beds in the sanatoria, except for the years 1949, 1950, 1952 and 1954, when there was an increase in the number of patients treated. In 1957 the patient accommodation at the three sanatoria was revised. The new revision listed Fort San as 300 beds, Saskatoon as 143, and Prince Albert as 219—for a total of 662 beds, compared to the previous listing of 803. The revision in accommodation made it possible to set aside some of the unused rooms for patient recreation, staff service rooms, and to convert some of the double rooms into single rooms for elderly patients.

At the Fort Qu'Appelle Sanatorium the following pavilions were closed on the dates shown:

- Pavilion 33 — closed May 1955.
- Pavilion 28 — closed October 1956.
- Pavilion 29 — closed March 1957.
- Pavilion 32 — closed January 1958.
- Pavilion 31 — closed December 1958.

At the Saskatoon Sanatorium, the top floor was closed in January 1958, and the first floor in March 1958. The second floor was closed for a short period, but was re-opened again when the patient census increased from 60 to 90. The fluctuation in patient census should be kept in mind whenever we are tempted to close off accommodation, especially if we ever contemplate closing one of the institutions. This latter step is irreversible, and, therefore, it should be done only after careful consideration. During the past year considerable thought has been given to the problem of vacant beds. It has been presented to the Provincial Government, and they have advised us that the problem is being studied by the Department of Public Health and the Department of Social Welfare and Rehabilitation.

On December 31, 1958, the patient census at each of the three sanatoria was as follows:

	1957	1958	Rated capacity
Total	536	473	662
Fort Qu'Appelle	160	149	300
Saskatoon	132	92	143
Prince Albert	244	232	219

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 altogether comprise a total of 299,600 persons who had medical advice during the year. Of this number, 260,239 were examined by the medical staff of the League; 1,021 persons were examined by family physicians at the request of the League; 17,763 Indians were examined in association with the federal Indian Health Services; and 20,577 admission x-rays for city hospitals and clinics were examined by outside radiologists. There was a decrease of 34,509 examinations carried out by the medical staff of the League—260,239 in 1958 compared to 294,748 in 1957.

Miniature X-Ray Surveys

During the year 1958, 103,045 persons were examined in miniature x-ray community surveys. The frequency of new active cases among this group of 103,045 was 0.281 per 1,000 persons examined, or one new active case in every 3,553 examinations.

When, in addition to the foregoing, consideration is given to the 48,077 persons who had a negative tuberculin test and on whom, therefore, no x-ray film was taken, the true incidence of new active cases in the communities examined is one in every 5,211 examinations.

Class of New Patients Discovered

The proportion of early cases among the new cases of active pulmonary tuberculosis discovered in 1958 was as follows:

Year	Minimal	Moderately advanced	Far advanced
1957	44.89%	32.38%	22.73%
1958	48.11%	36.76%	15.13%

The proportion of adult pulmonary cases under treatment in the sanatoria on December 31, 1958, 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	316
Adult pulmonary cases with positive sputa	197 or 62.34%

New active cases admitted during the year numbered 198; the number of readmissions (and this includes a small number of first admissions among previously known cases) was 108. Thus new cases admitted constituted 64.71 per cent of all admissions; and readmissions 35.29 per cent. This compared with 63.4 per cent and 36.6 per cent respectively in the previous year.

There were 225 new cases of active tuberculosis discovered in 1958, both pulmonary and non-pulmonary—13 more than in 1957.

Of the new cases of active tuberculosis discovered in 1958, 27 or 12 per cent of the 225 new active cases discovered were treated or observed outside the sanatoria.

The proportion of non-pulmonary new cases discovered during the past year was 17.78 per cent compared with 16.98 per cent in 1957.

Consultation Service

During the past year 172 persons were examined by the consultation service compared with 113 in 1957. There were no new active cases found among the 28 first examinations.

Stationary Clinics

The following table shows the total number of examinations made at the clinics for the past two years. There was a decrease of 632 in the total number examined.

In 1958, 30 new active cases were discovered among 1,215 first examinations—a percentage of 2.5 per cent. This compares with 22 new active cases discovered in 1957 among 1,357 first examinations—a percentage of 1.6 per cent.

There were in addition in 1958, 11 new active cases found among patients previously examined. This compares with 15 new cases found in 1957 among patients previously examined.

	1957	1958
Total	5,850	5,218
Regina	2,876	2,709
Moose Jaw	689	709
Swift Current	398	407
Yorkton	634	465
Canora	491	293
North Battleford	324	282
Tisdale	86	72
Melfort	85	98
Meadow Lake	229	161
Wadena	38	22

Review of Ex-patients

During the year, 3,871 review examinations of ex-patients were carried out by the various services of the League, and 108 were readmitted for treatment.

Contacts

During 1958 a total of 4,892 contact examinations were made compared with 4,705 in 1957. The incidence of new active disease found among the entire group of 4,892 contacts examined was 1.16 per cent.

	<i>New cases</i>		<i>Review cases</i>		<i>Total</i>	
	1957	1958	1957	1958	1957	1958
Total	1,382	1,664	3,323	3,228	4,705	4,892
Family physicians	341	515	489	506	830	1,021
Consultants	10	26	43	120	53	146
Clinics	495	609	1,761	1,723	2,256	2,332
Sanatoria	536	514	1,030	879	1,566	1,393

Summary of Preventive Work

Preventive services carried out during 1958 may be summarized as follows:

Total	224,248
Examinations made at the three sanatoria clinics	4,060
Persons seen at the other stationary clinics	5,218
Persons seen by the consultation service	172
Persons x-rayed in miniature x-ray surveys ¹	103,045
Children under age 15 with negative tuberculin tests, and not x-rayed	48,077
Persons examined in positive tuberculin x-ray surveys	28,460
Persons examined at Saskatchewan Teachers' College, Moose Jaw	334
Persons examined at Saskatchewan Teachers' College, Saskatoon	486
Persons examined at the University Summer School, Saskatoon	316
Persons examined in nursing homes	2,550
Persons examined in school surveys	736
Persons examined in miscellaneous surveys	8,787
Nurses examined in hospitals	1,948
Contacts examined by family physicians	1,021
Indians examined on reserves and in residential schools	17,412
Non-treaty persons examined	1,372
Staff of Indian schools, reserves and hospitals examined	254

This is a decrease of 27,821 examinations from 1957. This service cost \$166,118.69.

Length of Treatment

The period of treatment of the tuberculosis cases discharged in 1958 was 13.60 months.

Examination of Indians

During 1958 the Indian children in the Gordon, Lebret, Marieval, Muscowequan, St. Phillips, Beauval, Duck Lake, Onion Lake and Prince Albert Residential Schools were examined—a total of 2,704. Among these 2,704 children examined, one or 0.04 per cent were found to have tuberculosis requiring treatment in hospitals or sanatoria.

A total of 14,708 Indians (adults, pre-school and day school children) were examined from the following reserves: Carry - the - Kettle, Cote, Cowessess, Day Star, Fishing Lake, Gordon, Kahkawistahaw, Keesekeoose, Key, Kinistino, Little Black Bear, Maple Creek, Moose Woods, Muscowequan, Muscowpetung, Nut Lake, Ochapowace, Okanese, Pasqua, Peepeekisis, Piapot, Poorman, Sakimay, Standing Buffalo, Star Blanket, Whitebear, Wood Mountain, Barren Lands, Beady's, Beauval, Big River, Canoe Lake, Clear Lake, Co-Op Point, Cree Lake, Cumberland House, Denare Beach, Deschambault, Dillon, Fond du Lac, Garson Lake, Island Lake, James Smith, John Smith, Joseph Bighead, Lac la Ronge, Little Pine, Little Red River, Loon Lake, Meadow Lake, Mistawasis, Montreal

¹ In addition to these miniature x-rays, 128,984 tuberculin tests were given.

Lake, Moosomin, Mosquito, Muskeg Lake, One Arrows, Onion Lake, Patuanak, Pelican Lake, Pelican Narrows, Portage la Loche, Poundmaker, Red Earth, Red Pheasant, Sandy Lake, Saulteaux, Shoal Lake, South End Reindeer, Stanley, Stony Lake, Stony Rapids, Sturgeon Lake, Sturgeon Landing, Sweet Grass, Thunderchild, Uranium City, Wahpaton Sioux, Waterhen, Witchekan and Wollaston Lake.

Among this group of 14,708, there were 31 who required treatment, or 0.21 per cent.

The usual fine co-operation of the Indian Health Services was obtained throughout the year.

Admission X-Rays in Saskatchewan General Hospitals

The following table gives the number of admission x-rays taken by various hospitals during the year 1958. 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 (47 including 14 Indians) —	64,214	Langenburg (1) —	733
Arboretfield (0) —	158	Lashburn (0) —	89
Assiniboia (0) —	672	Leader (0) —	318
Balcarres (0) —	545	Leoville (3) —	106
Beechy (0) —	161	Lestock (0) —	865
Bengough (0) —	129	Lloydminster (0) —	39
Bienfait (0) —	248	Loon Lake (1) —	340
Biggar (1) —	680	Lucky Lake (1) —	221
Broadview (1) —	253	Macklin (0) —	760
Buffalo Narrows (0) —	3	Maidstone (0) —	281
Cabri (0) —	243	Mankota (0) —	68
Canora (0) —	1,470	Maple Creek (0) —	1,129
Carrot River (1) —	296	Meadow Lake (2) —	413
Central Butte (0) —	486	Melfort (1) —	1,231
Climax (0) —	70	Melville (1) —	1,147
Coronach (0) —	288	Midale (0) —	24
Cudworth (0) —	477	Montmartre (0) —	350
Cumberland House (1) —	36	Moose Jaw Providence (0) —	1,624
Delisle (0) —	111	Moose Jaw Union (0) —	842
Dinsmore (0) —	147	Moosomin (0) —	280
Doddsland (1) —	59	Neilburg (0) —	137
Eastend (0) —	237	Nipawin (0) —	1,083
Edam (0) —	93	Nokomis (0) —	167
Elrose (0) —	159	Norquay (0) —	256
Esterhazy (2) —	596	North Battleford Saskatchewan	
Estevan (0) —	1,138	Hospital (0) —	1,834
Eston (0) —	348	North Battleford (1) —	2,756
Fillmore (0) —	305	Outlook (1) —	321
Foam Lake (0) —	495	Oxbow (0) —	326
Frontier (0) —	115	Pangman (0) —	51
Goodsoil (4) —	281	Pelican Narrows (0) —	3
Gravelbourg (0) —	689	Ponteix (0) —	84
Grenfell (0) —	353	Porcupine Plains (1) —	809
Gull Lake (0) —	159	Portage la Loche (2) —	164
Hafford (0) —	357	Preeceville (0) —	459
Herbert (0) —	508	Prelate (0) —	90
Humboldt (2) —	1,353	Prince Albert Holy Family (1) —	2,587
Ile a la Crosse (11) —	605	Prince Albert Victoria (2) —	1,962
Imperial (0) —	263	Qu'Appelle (0) —	250
Indian Head (0) —	409	Quill Lake (1) —	266
Invermay (0) —	139	Rabbit Lake (0) —	94
Kamsack (0) —	600	Radville (0) —	805
Kelvington (0) —	106	Redvers (0) —	285
Kerrobert (0) —	68	Regina General (0) —	4,980
Kincaid (0) —	15	Regina Grey Nuns' (0) —	4,089
Kindersley (0) —	474	Rockglen (0) —	100
Kipling (0) —	691	Rosetown (0) —	336
Kyle (0) —	111	Rose Valley (0) —	304
Lampman (0) —	182	Rosthern (0) —	478

<i>Hospital</i>	<i>No. of x-rays</i>	<i>Hospital</i>	<i>No. of x-rays</i>
Saltcoats (0)	66	Val Marie (0)	149
Sandy Bay (0)	13	Vanguard (0)	388
Saskatoon University (0)	1,498	Wadena (0)	291
Shaunavon (0)	526	Wakaw (0)	395
Shellbrook (0)	512	Waldheim (0)	124
Smeaton (0)	205	Watrous (1)	634
Spiritwood (0)	36	Watson (0)	262
Swift Current (0)	1,211	Wawota (0)	251
St. Walburg (0)	117	Weyburn (0)	147
Stony Rapids (0)	5	Wilkie (0)	810
Theodore (0)	1	Willowbunch (1)	135
Tisdale (0)	507	Wolseley (0)	506
Turtleford (2)	324	Wynyard (0)	333
Unity (0)	478	Yorkton (0)	765
Uranium City (0)	76	Zenon Park (0)	132

It will be seen from the above that the incidence of new active cases is one in every 1,366 hospital admission films taken.

In addition, 1,784 admission x-rays were taken at the Medical Arts Clinic; no new cases of active tuberculosis were discovered.

Examination of Students in Teachers' Colleges

During the year 1958, the students at the teachers' colleges at Moose Jaw and Saskatoon were examined.

In the Moose Jaw group of 328 who were tuberculin tested, 29 had a positive tuberculin reaction on account of previously having had B.C.G. vaccine. Of the remainder, 8.36 per cent were positive tuberculin reactors.

In the Saskatoon group, 486 students were tuberculin tested. Twenty-three had a positive tuberculin reaction on account of previously having had B.C.G. vaccine. Of the remainder, 12.31 per cent were positive tuberculin reactors.

There was one new active case discovered in the Saskatoon group of students.

The arrangement made through the co-operation of the Department of Education and the teachers, for the examination for tuberculosis of all the teachers in the schools of Saskatchewan in the clinics of the League, is progressing satisfactorily. It is important that both the teachers and pupils be protected against the spread of the disease.

Medical Students

Thirty-six medical students from the University of Saskatchewan attended lectures and clinics at the Saskatoon Sanatorium during the year.

Affiliation Course in Tuberculosis Nursing

The primary intention of this course is to give the student nurse experience in tuberculosis nursing, treatment, control and prevention. The course is open to all student nurses from the hospital training schools in the province. The course was started first at Fort San in 1945, and a similar one at Saskatoon in 1953. Since its inception, 1,726 students have been received at the Fort Qu'Appelle Sanatorium, and 867 at the Saskatoon Sanatorium.

In 1958 the course was revised to the mutual satisfaction of the League and the home nursing schools. Fewer students are admitted to each class, but the course has been shortened from six weeks to four weeks, so that the total number of students per year remains the same. At the Fort Qu'Appelle Sanatorium the average number of students admitted to each class is now 16 compared to 19 in the six-weeks course. At Saskatoon the present number is nine, compared to 14 prior to the change.

B.C.G. Vaccination

The total number of vaccinations done by the League in 1958 was 1,428. This compares with 1,218 done in 1957.

The number of B.C.G. vaccinations reported to the League in 1958 by the Saskatchewan hospitals at Weyburn and North Battleford, and the Saskatchewan Training School, Moose Jaw, total 400. The number of B.C.G. vaccinations carried out by the Indian Health Services in 1958 was 843.

Financial

During the year 1958, 187,620 days treatment were given in sanatoria and hospitals, compared to 216,551 days during the preceding year—a decrease of 28,931 days.

The per diem cost of treatment advanced to \$10.323 in 1958, from \$9.195 in 1957—an increase of \$1.128 per patient day.

The net cost of treatment was \$1,936,837.01 in 1958, compared with \$1,991,215.46 in 1957—a decrease of \$54,378.45.

Municipal Levies

The total levy collections during the year were \$911,410.60. Levies outstanding as at December 31, 1958 were \$2,268.87.

Borrowings

Borrowings of the League as at December 31, 1958 were \$50,000—a figure identical with that of the borrowings as at December 31, 1957.

TABLE 65. SASKATCHEWAN TUBERCULIN SURVEY, 1958*

Age	All tuberculin tests	Tuberculin negative	Tuberculin positive	Percentage negative	Percentage positive
All ages.....	119,217	92,003	27,214	77.2	22.8
Male.....	61,814	46,088	15,726	74.6	25.4
Female.....	57,403	45,915	11,488	80.0	20.0
Under 1 year.....	2,059	2,058	1	99.9	0.1
Male.....	1,068	1,068	.....	100.0	.....
Female.....	991	990	1	99.9	0.1
1 year.....	2,854	2,848	6	99.8	0.2
Male.....	1,460	1,457	3	99.8	0.2
Female.....	1,394	1,391	3	99.8	0.2
2 years.....	3,381	3,362	19	99.4	0.6
Male.....	1,752	1,743	9	99.5	0.5
Female.....	1,629	1,619	10	99.4	0.6
3 years.....	3,519	3,497	22	99.4	0.6
Male.....	1,833	1,821	12	99.3	0.7
Female.....	1,686	1,676	10	99.4	0.6
4 years.....	3,522	3,486	36	99.0	1.0
Male.....	1,821	1,807	14	99.2	0.8
Female.....	1,701	1,678	22	98.7	1.3
5-9.....	15,907	15,613	294	98.1	1.9
Male.....	8,176	8,013	163	98.0	2.0
Female.....	7,731	7,600	131	98.3	1.7
10-14.....	14,024	13,367	657	95.3	4.7
Male.....	7,136	6,806	330	95.4	4.6
Female.....	6,888	6,561	327	95.2	4.8
15-19.....	9,626	8,626	1,000	89.6	10.4
Male.....	5,009	4,423	586	88.3	11.7
Female.....	4,617	4,203	414	91.0	9.0
20-24.....	5,965	5,008	957	84.0	16.0
Male.....	3,045	2,525	520	82.9	17.1
Female.....	2,920	2,483	437	85.0	15.0
25-29.....	6,815	5,479	1,336	80.4	19.6
Male.....	3,451	2,742	709	79.5	20.5
Female.....	3,364	2,737	627	81.4	18.6
30-34.....	7,515	5,545	1,970	73.8	26.2
Male.....	3,693	2,642	1,051	71.5	28.5
Female.....	3,822	2,903	919	76.0	24.0

TABLE 65. SASKATCHEWAN TUBERCULIN SURVEY, 1958*—(Concluded)

Age	All tuberculin tests	Tuberculin negative	Tuberculin positive	Percentage negative	Percentage positive
35-39.....	7,951	5,375	2,576	67.6	32.4
Male.....	3,843	2,409	1,434	62.7	37.3
Female.....	4,108	2,966	1,142	72.2	27.8
40-44.....	7,750	4,967	2,783	64.1	35.9
Male.....	3,858	2,298	1,560	59.6	40.4
Female.....	3,892	2,669	1,223	68.6	31.4
45-49.....	6,850	3,852	2,998	56.2	43.8
Male.....	3,512	1,870	1,642	53.2	46.8
Female.....	3,338	1,982	1,356	59.4	40.6
50-54.....	5,630	2,649	2,981	47.0	53.0
Male.....	3,023	1,318	1,705	43.6	56.4
Female.....	2,607	1,331	1,276	51.1	48.9
55-59.....	4,423	1,737	2,686	39.3	60.7
Male.....	2,453	829	1,624	33.8	66.2
Female.....	1,970	908	1,062	46.1	53.9
60-64.....	3,533	1,325	2,208	37.5	62.5
Male.....	1,959	586	1,373	29.9	70.1
Female.....	1,574	739	835	46.9	53.1
65-69.....	3,249	1,217	2,032	37.5	62.5
Male.....	1,885	611	1,274	32.4	67.6
Female.....	1,364	606	758	44.4	55.6
70 and over.....	4,601	1,964	2,637	42.7	57.3
Male.....	2,820	1,109	1,711	39.3	60.7
Female.....	1,781	855	926	48.0	52.0
Not stated.....	43	28	15	65.1	34.9
Male.....	17	11	6	64.7	35.3
Female.....	26	17	9	65.4	34.6

*The figures shown in this table exclude those shown in Table 66.

TABLE 66. TUBERCULIN SURVEY, PRINCE ALBERT PRE-SCHOOL CHILDREN AND STUDENTS SASKATCHEWAN, 1958

Age	All tuberculin tests	Tuberculin negative	Tuberculin positive	Percentage negative	Percentage positive
All ages.....	6,178	5,785	393	93.6	6.4
Male.....	3,085	2,884	201	93.5	6.5
Female.....	3,093	2,901	192	93.8	6.2
Under 1 year.....	196	195	1	99.5	0.5
Male.....	96	95	1	99.0	1.0
Female.....	100	100	....	100.0	....
1 year.....	255	254	1	99.6	0.4
Male.....	131	131	....	100.0	....
Female.....	124	123	1	99.2	0.8
2 years.....	323	319	4	98.8	1.2
Male.....	157	155	2	98.7	1.3
Female.....	166	164	2	98.8	1.2
3 years.....	309	309	....	100.0	....
Male.....	163	163	....	100.0	....
Female.....	146	146	....	100.0	....
4 years.....	332	327	5	98.5	1.5
Male.....	167	166	1	99.4	0.6
Female.....	165	161	4	97.6	2.4
5-9.....	1,993	1,931	62	96.9	3.1
Male.....	982	957	25	97.5	2.5
Female.....	1,011	974	37	96.3	3.7
10-14.....	1,763	1,604	159	91.0	9.0
Male.....	868	777	91	89.5	10.5
Female.....	895	827	68	92.4	7.6
15-19.....	844	707	137	83.8	16.2
Male.....	439	369	70	84.1	15.9
Female.....	405	338	67	83.5	16.5
20 and over.....	83	63	20	75.9	24.1
Male.....	35	25	10	71.4	28.6
Female.....	48	38	10	79.2	20.8
Not stated.....	80	76	4	95.0	5.0
Male.....	47	46	1	97.9	2.1
Female.....	33	30	3	90.9	9.1

TABLE 67. STAFF OF THE TUBERCULOSIS SANATORIA, SASKATCHEWAN, DECEMBER 31 1958

Staff	Total	Sanatoria		
		Fort San	Saskatoon	Prince Albert
Total.....	465	193	101	171
Administrative and clerical.....	32	18	8	6
Salaried doctors (full-time).....	15	7	3	5
Graduate nurses.....	51	16	20	15
Nurses' assistants.....	105	38	13	54
Graduate dietitians.....	1	1	....	....
Orderlies and cleaners.....	55	22	14	19
Instructors.....	6	3	....	3
Academic.....	4	2	....	2
Vocational.....	2	1	....	1
Technicians.....	14	6	4	4
X-ray.....	6	2	2	2
Laboratory.....	8	4	2	2
All other employees.....	186	82	39	65

TABLE 68. SURGICAL, RADIOLOGICAL AND LABORATORY SERVICES RENDERED TO PATIENTS IN THE TUBERCULOSIS SANATORIA, SASKATCHEWAN, 1958

Type of service	Total	Sanatoria		
		Fort San	Saskatoon	Prince Albert
Surgical operations.....	540	213	204	123
Major.....	80	15	63	2
Minor.....	460	198	141	121
Pneumoperitoneum treatments.....	81	79	2	....
Pneumothorax treatments.....	5	5	....	....
Laboratory examinations.....	29,770	12,314	7,646	9,810
X-ray examinations in sanatoria.....	13,702	4,685	5,985	3,032
Mass miniature x-ray surveys*.....	103,045	51,351	17,968	33,726
Special miniature x-ray surveys†.....	28,460	....	....	....
Miniature x-ray special survey films.....	7,583	4,100	712	2,771
Special x-ray surveys—large films.....	4,990	1,640	1,527	1,823
Kahn tests.....	1,028	512	143	373
Wassermann tests.....	13	13	....	....
Autopsies performed.....	5	1	2	2

*In addition 128,984 tuberculin tests were done.

†Tuberculin positive survey.

TABLE 69. PREVENTIVE SERVICES PROVIDED AT THE TUBERCULOSIS SANATORIA, SASKATCHEWAN, 1958

Type and place of preventive services	Total	Sanatoria		
		Fort San	Saskatoon	Prince Albert
Clinics conducted within sanatoria				
Cases diagnosed.....	1,155	260	610	285
Cases reviewed.....	2,902	938	1,079	885
Pneumothorax, pneumoperitoneum and special treatments.....	23	6	17	....
Clinics in outside hospitals				
Cases diagnosed and reviewed.....	5,218	4,583	22	613
X-ray examinations.....	4,550	3,920	22	608
Travelling consultant services				
Persons examined.....	172	....	172	....
X-ray examinations.....	174	....	174	....
Photofluorographic surveys				
Persons examined (mass surveys).....	103,045	51,351	17,968	33,726
Persons examined (tuberculin positive surveys).....	28,460	....	....	....
Persons examined (special surveys)*..	7,583	4,100	712	2,771
Special surveys using large films				
Persons examined.....	4,990	1,640	1,527	1,823

*In addition 128,984 tuberculin tests were made.

TABLE 70. NUMBER OF PERSONS SEEN WITH ACTIVE TUBERCULOSIS BY TYPE OF CASE AND TYPE OF TUBERCULOSIS, SASKATCHEWAN, 1958

Type of case	Total	Type of tuberculosis	
		Pulmonary	Non-pulmonary
All active tuberculosis cases.....	333	270	63
New cases.....	225	185	40
Admitted to sanatoria.....	198	165	33
Not admitted to sanatoria.....	27	20	7
Old cases.....	108	85	23
Readmissions.....	93	70	23
First admissions (previously diagnosed)	15	15	....

TABLE 71. BED COMPLEMENT AND MOVEMENT OF PATIENTS OF TUBERCULOSIS SANATORIA, SASKATCHEWAN, 1958

Item	Total*	Sanatoria		
		Fort San	Saskatoon	Prince Albert
Bed complement.....	662	300	143	219
Infirmiry beds.....	536	174	143	219
Pavilion beds.....	126	126	....	....
Movement of patients				
Total patients under care during the year†.....	1,209	416	323	470
Patients in sanatoria, January 1, 1958.....	536	160	132	244
Admissions during year.....	565	213	142	210
Transfers from other sanatoria.....	108	43	49	16
Discharges, deaths and transfers.....	736	267	231	238
Discharges.....	606	228	185	193
Deaths.....	22	9	6	7
Transfers to other sanatoria.....	108	30	40	38
Patients in sanatoria, December 31, 1958.....	473	149	92	232
Total patient days.....	187,620	64,964	36,646	86,010
Average daily census.....	514.03	177.99	100.40	235.64

*The average length of treatment for active tuberculosis cases discharged in 1958 was 13.60 months.

†This includes tuberculosis patients cared for in general hospitals at the expense of the Saskatchewan Anti-Tuberculosis League.

TABLE 72. INCOME AND EXPENDITURE, TUBERCULOSIS SANATORIA, SASKATCHEWAN, 1958

Balance, 1957 surplus.....	\$ 35,000.00
Income, 1958.....	1,888,228.26
Municipal levy.....	913,679.47
Rural.....	451,960.36
Urban.....	436,719.11
Northern Saskatchewan Administration District.....	25,000.00
Patients' fees.....	599,308.79
Provincial government grants.....	375,240.00
Net expenditure for year.....	1,936,837.01
Excess expenditure carried to balance sheet.....	13,608.75

TABLE 73. DETAILS OF OPERATING COSTS OF THE TUBERCULOSIS SANITORIA, SASKATCHEWAN, 1958

Item	Total	Sanatoria		
		Fort San	Saskatoon	Prince Albert
Administration.....	\$ 90,219.54	\$ 32,459.24	\$ 16,851.68	\$ 40,908.62
Interest and discounts.....	12,576.84	4,306.22	2,287.03	5,983.59
Hospital.....	789,949.90	296,526.40	208,365.45	285,058.05
Dispensary.....	14,753.32	6,090.70	6,159.63	2,502.99
Laboratory.....	26,503.94	11,137.96	9,333.37	6,032.61
X-ray.....	22,876.04	8,071.53	8,057.48	6,747.03
Kitchen.....	411,340.86	166,785.40	101,024.77	143,530.69
Stewards.....	19,662.70	7,862.54	5,383.07	6,417.09
Housing.....	76,543.87	35,619.38	16,544.33	24,380.16
Maintenance of buildings.....	39,959.51	24,199.53	8,515.47	7,244.51
Power house.....	222,968.32	97,512.79	54,016.24	71,439.29
Laundry.....	62,736.72	18,610.42	18,540.18	25,586.12
Grounds.....	26,216.86	10,258.33	5,633.45	10,325.08
Garage.....	8,462.67	4,462.19	565.46	3,435.02
Stable.....	4,486.35	4,486.35	.....	.....
Red Cross Lodge.....	4,325.47	4,325.47	.....	.....
School grants.....	400.00	400.00	.....	.....
Staff Insurance.....	15,000.00	5,278.50	2,733.00	6,988.50
Replacements (under Sec. 12 Sanatoria Act).....	10,000.00	3,519.00	1,822.00	4,659.00
League patients in other hospitals.....	29,287.86	11,085.78	10,310.07	7,892.01
Superannuation fund.....	136,314.27	47,969.00	24,836.46	63,508.81
Workmen's compensation fund.....	3,000.00	1,055.70	546.60	1,397.70
Compensation claims.....	2,007.32	663.45	337.02	1,006.85
Liability insurance.....	2,500.00	879.75	455.50	1,164.75
	\$ 2,032,092.36	\$ 803,565.63	\$ 502,318.26	\$ 726,208.47
Less				
Accounts charged to health grants.....	68,165.15	32,266.75	20,342.77	15,555.63
Accounts charged to preventive fund.....	5,064.74	3,633.53	757.60	673.61
Canteen and postal revenue.....	428.18	428.18	.....	.....
S.H.S.P. (re patients' fees).....	6,649.54	5,143.04	588.46	918.04
Unexpended balance of 1957 estimated wages payable.....	14,772.39	3,862.46	5,909.68	5,000.25
Miscellaneous and service charges.....	175.35	109.35	20.00	46.00
	\$ 95,255.35	\$ 45,443.31	\$ 27,618.51	\$ 22,193.53
Total net expenditure.....	\$ 1,936,837.01	\$ 758,122.32	\$ 474,699.75	\$ 704,014.94
Number of patient days.....	187,620	64,964	36,646	86,010
Cost per patient day.....	\$ 10.32	\$ 11.67	\$ 12.95	\$ 8.18

TABLE 74. PATIENTS' FEES AND GOVERNMENT GRANTS, TUBERCULOSIS SANATORIA, SASKATCHEWAN, 1958

Source of revenue	Total	Sanatoria		
		Fort San	Saskatoon	Prince Albert
Total grants and fees.....	\$ 974,548.79	\$ 265,348.50	\$ 141,813.57	\$ 567,386.72
Provincial government grants.....	375,240.00	129,928.00	73,292.00	172,020.00
Patients' fees.....	599,308.79	135,420.50	68,521.57	395,366.72
Federal government.....	583,233.31	119,345.02	68,521.57	395,366.72
Indian Affairs.....	513,018.65	79,642.08	54,410.69	378,965.88
Veterans' Affairs.....	64,219.52	35,808.94	12,009.74	16,400.84
Re immigrants.....	5,995.14	3,894.00	2,101.14	.....
Yukon Territory.....	16,075.48	16,075.48	.....	.....

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 Hygiene 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 National Health Program was announced on May 14, 1948. This program made federal grants available to the provinces, under certain conditions, to strengthen and extend public health services.

Excluding the Public Health Research Grant, the total expenditure under national health grants in the 1958-59 fiscal year was \$2,901,361.

Crippled Children's Grant

The amount of \$24,762 was spent under this grant, or 84.6 per cent of the total amount available. The expenditures were made under one project which provided for the payment of staff members' salaries. The specialist in physical medicine, whose salary was approved for payment under this grant, resigned and a replacement was not available. The services of four practicing physicians were contracted for on a sessional basis to enable the work to be carried on without the filling of this position.

The unexpended balance of the grant was a result of the difficulty in recruiting qualified personnel for employment.

Professional Training Grant

The university training of public health nurses accounted for \$14,758 out of the \$23,157 expended under this grant during the 1958-59 fiscal year. The balance of the expenditures were made for smaller projects and can be summarized briefly as follows: training of a hospital administrator, the completion of a one-year course for a dietitian, post-graduate seminars in children's dentistry, short courses for hospital administrators and medical records staff and a short training course in occupational hygiene for a public health department staff member.

The percentage of the expenditure to the amount available under this grant was 79.1 per cent. Additional funds were made available for training from other grants.

Hospital Construction Grant

Good progress continued during the year in respect to meeting the needs of the province in terms of hospital beds. Federal grants of \$1,147,491 were paid toward the cost of 36 projects, involving the construction of 326 public general hospital beds (including labor and recovery beds), 393 beds for the care of the chronic sick, 120 beds for the mentally ill and 284 staff beds.

New public general hospitals were completed at Cupar, Dinsmore, Hudson Bay and Rabbit Lake, to replace non-acceptable units. Extensions to existing hospitals were completed at Arcola, Battleford, Central Butte, Kamsack, Leóville, Moose Jaw (Providence and Union hospitals), Neilburg, Paradise Hill and Swift Current.

Staff accommodation was completed at Coronach, Kamsack, Leader, Lloydminster, Swift Current, Watson and Weyburn (Saskatchewan Hospital).

Quite a number of projects were still under construction at the end of the fiscal year under review.

The emphasis, in respect to the immediate future is likely to be on the replacement of non-acceptable beds for the acutely ill, with some communities tackling the problem of staff accommodation.

Venereal Disease Control Grant

One hundred per cent of the amount allotted to Saskatchewan was fully utilized as this is a matching grant and provincial expenditures were more than the amount required to claim the full allotment.

Mental Health Grant

Saskatchewan's portion of the Mental Health Grant for 1958-59 consisted of \$416,932. Of this amount, 96.6 per cent or \$402,663 was expended. A total of \$54,235 went toward training, \$63,500 toward research and \$284,927 toward the clinical programs. Much of the training was financed through the utilization of funds accruing when approved positions were vacant, thus permitting maximal use of the funds provided under the grant.

The policy behind the expenditure of mental health grant funds remained unchanged except as noted in the following paragraph.

The first criterion for their use was the improvement, quantitatively or qualitatively, of the existing program. The strong emphasis on providing postgraduate training to physicians, psychologists, social workers, nurses, occupational therapists and technical staff is reflected in a steadily growing body of highly competent people. The needs of the research group also received a high priority since it is only through research that dramatic improvements in treatment methods for the psychiatrically ill will ever be developed. Therefore, for both humane and economic reasons the money allotted toward this purpose must be steadily increased. The personnel provided through the grants for the clinical programs have been carefully selected to provide help where it is needed most as programs change from year to year. The flexibility permitted in the use of the funds has been utilized to the advantage of the psychiatric program as a whole.

Funds in this grant had been utilized for several years to defray a considerable portion of the cost of operating the Munroe Wing in the Regina General Hospital and the psychiatric ward in the Union Hospital Moose Jaw. However, on July 1, 1958, when the province entered into an agreement with the federal government under the Hospital Insurance Act (Canada) financial assistance from this grant toward the operation of these units was discontinued. Most of the costs of operating the units in question are now shared between the federal government and the province under the same formula as is utilized in sharing costs of general hospital care under the Hospital Insurance Act (Canada) and the relevant regulations.

Tuberculosis Control Grant

This grant was fully committed and utilized. Expenditures were made for additional staff at the sanatoria, mass x-ray surveys, payments to hospitals and clinics for x-rays taken on all admissions, drugs for treatment of tuberculosis, B.C.G. vaccinations, extension of surgical services and training of staff members and general hospital nursing students.

Public Health Research Grant

Each submission under this grant is considered on its merits in the public health research field as there is no specific allotment to each province. Saskatchewan was awarded a grant of \$46,288 of which 100 per cent was utilized. The amount of \$28,500 was spent under psychiatric research and the balance was for public health research with the University of Saskatchewan as the sponsoring agency.

General Public Health Grant

Assistance from this grant is given to public health department branches to help extend and create new services, to agencies outside the department, and to train persons to fill positions that would otherwise be vacant due to lack of qualified personnel. Long-term and short-term training courses are also given to selected staff members in order to improve public health services. The amount of \$42,600 was paid out for Salk poliomyelitis vaccine along with \$25,000 from the child and maternal health grant.

Saskatchewan's allotment under this grant was \$439,500 and an additional \$50,000 was transferred here from the laboratory and radiological services grant. Of the total of these two amounts, 89.2 per cent was expended.

Cancer Control Grant

This is a matching grant and 100 per cent was utilized by claiming contractual medical and surgical services only.

Laboratory and Radiological Services Grant

The amounts of \$22,000 and \$50,000 were transferred during the year to the mental health grant and the general public health grant respectively which left \$367,500 available for use under this grant. Of this, \$153,054 was spent to better equip the provincial laboratory and to purchase equipment to improve laboratory service in hospitals throughout the province. Effective July 1, 1958, it was necessary to discontinue the practice of purchasing equipment for hospitals due to the implementation of the agreement between the province and the federal government under the Hospital Insurance Act (Canada) as such costs were considered to be shareable under the Act. The training of persons to do laboratory work in Saskatchewan hospitals was an objective under this grant and the amount of \$153,045 was used for this purpose. Up to July 1, 1958, facilities at the provincial laboratories and tissue services were supported; however, the federal hospital insurance scheme incorporated these items in their payments after that date. The payment of salaries and travel for hospital counsellors were also a charge against this grant.

The total laboratory and radiological services grant expenditures for the 1958-59 fiscal year were \$281,168.

Medical Rehabilitation Grant

Of \$57,485 allotted in the Medical Rehabilitation Grant, 84.6 per cent was expended. These funds were utilized to increase the staff at the two physical restoration centres and to provide bursary training for physical and occupational therapists. Two short training courses were also charged against the medical rehabilitation grant funds.

Child and Maternal Health Grant

Funds from this grant provided assistance for training, research work, Salk poliomyelitis vaccine, children's dental programs, paediatric and obstetric equipment for various hospitals and for the services of the assistants to the director of Child and Maternal Health Services. Assistance to the city of Regina to do child health work and a demonstration nutrition project at Pine House were another two projects which were included in the 1958-59 expenditure. Funds from this grant for the purchase of hospital equipment also became unavailable after the coming into force of the agreement covering hospital insurance on July 1, 1958.

Of an allotment of \$111,398, the amount of \$106,934 was expended.

TABLE 75. GRANTS ALLOCATED AND AMOUNTS EXPENDED UNDER THE NATIONAL HEALTH GRANTS PROGRAM, SASKATCHEWAN, 1949-50 TO 1959-60—(Continued)

Name of grant	1949-50	1950-51	1951-52	1952-53	1953-54	1954-55	1955-56	1956-57	1957-58	1958-59	1959-60
	Per cent of grants expended										
Total.....	65.1	67.3	70.7	84.1	51.3	83.5	76.8	58.3	67.7	71.0	.....
Crippled children.....	88.1	83.2	96.1	98.0	76.0	82.3	72.4	96.4	95.7	84.6	.....
Professional training.....	88.4	92.0	84.7	85.9	71.3	91.9	81.4	79.0	69.1	79.1	.....
Hospital construction.....	41.2	41.5	35.2	36.8	24.1	72.9	57.7	16.3(q)	24.7	53.2	.....
Veneral disease control.....	81.9	95.5	97.1	90.0	96.1	100.0	100.0	100.0	100.0	100.0	.....
Mental health.....	67.9	80.7	95.3	89.2	90.9	91.8	93.4	94.2	96.3	96.6	.....
Tuberculosis control.....	95.8	79.8	100.0	100.0	99.9	99.9	99.9	100.0	100.0	100.0	.....
Public health research.....	70.3(r)	91.5(r)	92.8(r)	99.9(r)	.....	.....	.....	.....	.....	.....	.....
Health survey.....	67.9	72.9	81.7	73.0	85.6	86.7	88.5	85.1	95.1	89.2	.....
General public health.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	.....
Cancer control.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Laboratory and radio-logical services.....	.....	.....	.....	.....	61.0	92.8	95.9	89.2	93.5	76.5	.....
Medical rehabilitation.....	.....	.....	.....	.....	12.1	66.8	93.8	95.0	89.5	84.6	.....
Child and maternal health.....	.....	.....	.....	.....	93.7	56.4	97.3	96.1	93.0	96.0	.....

SOURCES: Unless otherwise noted, statements on operation of the health grants program for Saskatchewan were prepared by the Directorate of Health Insurance Studies, Department of National Health and Welfare.

(a) The hospital construction grant was cumulative. The amount not utilized during the year in which it was allocated could accumulate from year to year.

(b) The figure for the fiscal year 1952-53 includes an allotment for that year plus unexpended portions of previous allotments for the years 1948-49 to 1949-50.

(c) The hospital construction allotment for 1953-54 is composed of: Allocation for new projects.....\$ 389,772
Revote.....\$ 1,676,750

(d) This total is made up as follows:

Allocation for new projects.....	\$ 2,066,522
Revote.....	\$ 388,643
	\$ 831,563
	\$ 1,220,206

(e) 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.

(f) Amount available for hospital construction for 1956-57:

Allocation for new projects.....	\$ 380,229
Revote.....	\$ 720,789
	\$ 1,101,018

Ottawa's final statement for 1956-57 shows the amount of Hospital Construction Grant available as \$1,587,085.

(g) This total is made up as follows:

New projects	
Annual allocation.....	\$ 374,794
Revote.....	\$ 747,204
Revote.....	\$ 1,121,998
	\$ 173,777

\$ 1,295,775

(h) This total is made up as follows:

New projects	
Annual allocation.....	\$ 919,123
Revote.....	\$ 1,212,865
Revote.....	\$ 2,131,988
	\$ 25,000

\$ 2,156,988

(i) This table is made up as follows:

New projects	
Annual allocation.....	\$ 903,581
Revote.....	\$ 756,782
Revote (first five year program).....	\$ 1,660,363
	\$ 25,000

\$ 1,685,363

(j) Includes transfer of \$50,000 and \$22,000 from Laboratory and Radiological Services Grant to General Public Health Grant and Mental Health Grant respectively.
(k) Includes transfer of \$105,000 from the Laboratory and Radiological Services Grant to the Mental Health and General Public Health Grants in the amounts of \$30,000 and \$75,000 respectively.

(l) Various amounts for public health research were made available nationally each year and were apportioned among the provinces on the basis of projects submitted and approved.
(m) One allocation of \$43,506 was made in 1948-49 to conduct a health survey. The allocation was spent over a 5-year period.

(n) A transfer of \$45,000 from Laboratory and Radiological Services Grant to the General Public Health Grant is considered in figures shown for these two grants.

(o) Includes transfer of \$80,000 from Laboratory and Radiological Services Grant to General Public Health Grant. (Transfer not included in the 1956-57 annual report table.)

(p) Amount excluded from total.

(q) Percentage figured on amount available shown on Ottawa's final statement for the 1956-57 fiscal year.

(r) Cumulative percentages of original allocation of \$43,506

