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ANNUAL REPORT

DEPARTMENT
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WELFARE

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FOR THE FISCAL YEAR ENDED MARCH 31

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CANADA

THE DEPARTMENT OF
NATIONAL HEALTH AND WELFARE

ANNUAL REPORT

FOR THE FISCAL YEAR
ENDED MARCH 31

1959

Respectfully submitted,

J. WALDO MONTEITH,
Minister of National Health and Welfare.

The Queen's Printer and Controller of Stationery
Ottawa, 1959

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CANADA

THE DEPARTMENT OF
NATIONAL HEALTH AND WELFARE

ANNUAL REPORT

FOR THE FISCAL YEAR
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J. WALDO MONTEITH,
Minister of National Health and Welfare.

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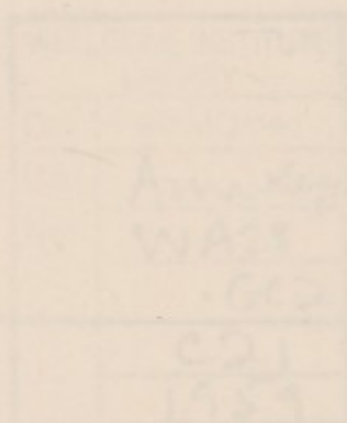
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DEPARTMENT OF NATIONAL HEALTH AND WELFARE

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*To the Honourable J. Waldo Monteith, F.C.A., M.P.,
Minister of National Health and Welfare, Ottawa.*

SIR:

We take pleasure in submitting this report of the Department's activities for the fiscal year 1958-59.

The period under review witnessed important progress in all three areas of departmental responsibility. As in the previous year, the main developments on the health side pertained to implementation of the Hospital Insurance and Diagnostic Services Act. On June 26, 1958, Royal Assent was accorded an amendment to the Act, permitting payment of federal funds as of July 1 to any province having signed an Agreement with the Federal Government and having a plan in operation on that date. Programs were initiated in five provinces on Dominion Day. These were British Columbia, Alberta, Saskatchewan, Manitoba and Newfoundland. Two others—Ontario and Nova Scotia—were in a position to commence operations on January 1, 1959. The orderly manner in which this very complicated measure was brought into being in a large part of the country is a tribute to the excellent co-operation which has been developed over the years among Canadian health authorities.

A second important development in the Department's health activities was the increase in federal assistance under the Hospital Construction Grant. Introduced near the end of the previous fiscal year, this re-enforcement and extension of financial aid to the provinces appears to have been helpful in the provision of adequate hospital facilities throughout Canada. A measure of its effect was evident in the fact that federal approvals under the Grant during 1958-59 increased by more than \$17 million as compared with 1957-58, and covered an all-time high of 12,000 new beds or their equivalents.

Increased federal outlays were also apparent in the major welfare measures administered by the Department. Amounting to over \$100 million, these increases reflected the impact of the first full year of higher levels of benefit initiated during 1957-58 in Old Age Security, Old Age Assistance, Blind Persons Allowances and Disability Allowances, as well as the broader base of federal participation in provincial-municipal Unemployment Assistance payments.

A comprehensive survey of our income maintenance programs for the aged and handicapped, together with a comparison between Canadian programs and corresponding measures in the United States, was completed as the year drew to a close. Prepared by Dr. Robert M. Clark of the University of British Columbia, this survey was tabled in Parliament on March 5, 1959 and referred to departmental and other government officials for study.

On the matter of Civil Defence, a significant realignment of responsibilities was announced by the Prime Minister on March 23, 1959. Affecting both the purely federal structure and the federal-provincial partnership, the proposed new arrangements stemmed from an intensive reappraisal of measures to protect our civilian population against possible nuclear attack. Considered in this regard were recommendations presented by Lt.-Gen. Howard D. Graham, former Chief of Staff of the Canadian Army, who in June 1958 had been assigned the task of surveying "all aspects of Canada's Civil Defence policy and program".

In general terms, the new arrangements will allot to the Federal Government responsibility for certain highly technical and dangerous tasks associated with possible nuclear attack, and to the provinces and municipalities those functions which they normally perform in peacetime and for which they are better equipped by knowledge and experience than the federal authority. This Department will continue to assist the provinces in all matters relating to Civil Defence health and welfare services, while other federal functions will be distributed among the Department of National Defence, the Royal Canadian Mounted Police, and the Emergency Measures Organization in the Privy Council Office, the latter taking over liaison with the provinces as well as co-ordination of the Civil Defence effort. The federal share of approved projects under the Financial Assistance Program will be raised from 50 to 75 per cent of provincial-municipal outlays. On March 26, as the fiscal year under review approached its end, the Prime Minister communicated with provincial premiers, suggesting a joint conference in April to discuss the federal proposals.

In concluding this letter of transmittal, we would draw attention to the contribution made by the staff of the Department. Their loyalty and devotion to duty have played a large part in what has been achieved in the period covered by this report.

Respectfully submitted,

G. D. W. CAMERON,
*Deputy Minister of National Health
and Welfare (Health)*

G. F. DAVIDSON,
*Deputy Minister of National Health
and Welfare (Welfare)*

Ottawa, Canada.

HEALTH BRANCH

INTRODUCTION

From time to time, foreign visitors to the Department of National Health express surprise and some difficulty in understanding the lack of authority of the Department in what seem to be many of the most important fields of the public health, such as control of hospitals, control and licensure of medical practice, medical education or even the provision on the local level of services ordinarily spoken of as "public health" services. How can a Federal Government agency carrying so little authority exercise effective control or maintain standards over a wide range of health activities on a national basis?

The answer, of course, is that there is very little federal control of any kind exercised and then only in those limited areas which must of necessity be considered in a national rather than a provincial or local context. While the Department is therefore charged by statute with the responsibility of administering certain Acts and executive orders, the real authority and responsibility in most fields of health falls to the provinces.

This is not to say, however, that the Department of National Health exercises no effective influence in the broad national sphere of health services and medical care. Indeed, the concept of virtual provincial sovereignty which our friends from abroad find so illogical or even confusing in contrast to their own organization, may free the Federal Department in Canada of many administrative responsibilities and details which, in a country of such vast extent, can be most satisfactorily dealt with on a regional or local level. In other words, the Department's resources can, to a maximum extent, be devoted to promotion, financial and technical assistance and co-ordination of the programs of the various provinces.

This is essentially the part the Department plays in Canadian health and in the pages which follow, the reports on activities of the various directorates and divisions will illustrate this constant trend toward central co-ordination and decentralized executive authority. Those functions which are based on statutory responsibility are clearly indicated. For the remainder, the reader will readily discern the relative emphasis placed on promotion of adequate standards, technical or financial assistance or co-ordination of provincial activities.

An excellent example of the last is presented by the Dominion Council of Health, representative not only of all the provincial health departments but of influential bodies such as organized labour and women's organizations as well, which meets semi-annually under the chairmanship of the Deputy Minister to advise the Minister on health matters of national concern. To the Council's agenda are brought not only matters which demand central planning or executive action but also a host of local problems which, while they may or may not be common to many or all the provinces, can be discussed with benefit and frequently resolved in a uniform manner.

The Canadian Council on Nutrition and Maternal and Child Health Advisory Committee are further examples of the co-ordinating influence of the Department

in providing forums to which may be brought matters of general interest, opportunities for discussion and a valuable source of specialist counsel and recommendations in special fields of health.

The relative uniformity achieved in the Hospital Insurance plans of seven of the provinces which were instituted during the year and the continued successful promotion of the polio immunization program for all provinces demonstrate clearly how central co-ordination can effectively assist local executive action in achieving advances and better standards of national health.

There have been no outstanding new developments in Public Health within the year. The formal acceptance by seven of the provinces of the Federal Government's offer to participate in the costs of Hospital Insurance Plans perhaps marks a noteworthy milestone on the long road to better medical care for more Canadians. On the whole, the plans are being inaugurated with a minimum of confusion and disruption of traditional organization. The benefits of careful and effective preliminary planning are, of course, now apparent and generally the transition is taking place quietly and smoothly.

Appended is a breakdown of the total estimates for the Health Branch for the year under review as well as the preceding year, for purposes of comparison.

As usual over one half of the Department's annual budget is devoted to Health Grants and financial assistance to provincial programs. Nearly a third is devoted to health care for Indians and Eskimos and public health services to unorganized territories—still unable to provide them from local resources. While statutory obligations consumed almost 10 per cent of the total budget the administration of the Branch was accomplished at the modest cost of 0.3 per cent of total estimates.

NATIONAL HEALTH BRANCH ESTIMATES

For 1958-59 and 1957-58

	1958-59	Percentage	1957-58	Percentage
STATUTORY OBLIGATIONS	\$ 7,052,572	8.6	\$ 6,691,572	9.7
Quarantine and Leprosy.				
Immigration Medical Services.				
Sick Mariners Treatment Services.				
Public Health Engineering.				
Civil Service Health.				
Administration of the Food and				
Drugs and the Proprietary or				
Patent Medicine Acts.				
Administration of the Opium and				
Narcotic Drugs Act.				
CO-OPERATION WITH PROVINCES	2,432,871	3.0	2,187,015	3.2
Laboratory of Hygiene.				
Occupational Health.				
Epidemiology.				
Special Technical Services.				
Health Insurance Studies.				
MISCELLANEOUS GRANTS	212,450	0.3	182,450	0.3
GENERAL HEALTH GRANTS	48,000,000	58.8	38,250,000	55.5
INDIAN HEALTH SERVICES	20,723,423	25.3	20,053,723	29.0
NORTHERN HEALTH SERVICES	3,025,444	3.7	1,380,994	2.0
NATIONAL HEALTH BRANCH				
ADMINISTRATION	230,370	0.3	196,602	0.3
	<hr/>		<hr/>	
	\$81,677,130	100.0	\$68,942,356	100.0

FOOD AND DRUG DIRECTORATE

GENERAL

Probably no legislation more intimately affects the lives of every Canadian than the Food and Drugs Act and the Proprietary or Patent Medicine Act. These Acts govern the safety, purity and quality as well as the labelling and advertising of all foods, drugs, cosmetics and medical devices. All drugs, cosmetics and medical devices must be safe to use according to directions and there must not be fraud in their promotion. Foods must be wholesome and nutritious and advertised in a manner which is not misleading as to their true value. The organization which has been established over the years since the initial legislation in 1875, includes the Ottawa headquarters and regional offices located at five principal production and importation centres across Canada. Attached to each regional office is a laboratory and also a number of inspectors located at various points in the territory. At headquarters, in addition to the Research Laboratories, there are the Administrative Services, Inspection and Enforcement Services and the Director's Staff which includes the Medical Section and the Consumer Relations Section. The protection under these Acts costs each Canadian about ten cents per year.

The food and drug field is not static; each year brings a host of new developments. More pesticides are developed which may result in a residue in food supplies. Chemical additives are proposed for improving the keeping qualities, texture and appearance of foods. The research laboratories of the pharmaceutical industry produce a constant flow of new drug products. The whole retailing picture is changing and new types of packaging are developed. Since July, 1954 when the Food and Drugs Act first included clear-cut authority for factory inspection, a steady improvement in the conditions in both industries has become evident. By factory inspection, it is possible to remove constant sources of error and contamination. Although it has been the policy to attempt to obtain compliance with the legislation by educational and voluntary measures, it was again found necessary to proceed with a number of prosecutions. During the period under review, some large seizures were made and all cases were carried to successful conclusion.

The Food and Drugs Act applies to both imported and domestic food and drug products. The domestic products are controlled by factory inspection and analysis of market samples. Imports are checked at the border on entrance to Canada. It has been estimated that 3 per cent of all import shipments are products which come within the jurisdiction of this legislation. The checking of import shipments for compliance with the requirements of the Food and Drugs Act and Regulations is one of the largest and least spectacular of the functions of this Directorate, yet it is one of the most important functions if the health and pocketbooks of the Canadian public are to be guarded. The Directorate takes an active interest in legislation, standards and methods of analysis of foods and drugs in effect in foreign countries or established by international authorities. It is recognized that the Food and Drugs Act is international to the extent that it applies to imports. Wherever possible, unnecessary differences in standards are eliminated.

A newspaper report indicating that a vaccine prepared in a foreign country was useful in the treatment of multiple sclerosis resulted in attempts by a number

of persons suffering from this serious affliction to import this product. It was refused entry because the manufacturer had not filed any information with the Directorate regarding its safety of use and details of manufacturing processes and controls; and information in the medical journals indicated that it had little or no value. This action was supported by the medical advisers of the Multiple Sclerosis Society of Canada.

Continued reports were received during the year regarding abuse by certain individuals of the so-called tranquilizer or ataractic drugs. In general, these drugs are not dangerous *per se* but it does appear that some individuals may develop a dependence on them and some others use them to obtain a thrill and are then not responsible for their actions. Accordingly a Prescription Drug Sub-Committee has been established under the Canadian Drug Advisory Committee to study the situation and make recommendations regarding the control of these drugs. This Sub-Committee held two meetings early in 1959 to consider appropriate action.

It is interesting to note that the annual reports for this Directorate for five years have included comments on the problem of accidental poisonings. The original interest in this subject was to determine whether more rigid control was necessary in the drug field, but it was discovered at the same time that a large proportion of the substances involved were not drugs but household chemicals. No legislation exists to require adequate labelling for these products. In the absence of adequate legislation, the poison control program was inaugurated to provide an immediate partial remedy and to obtain information on the extent of the problem. Indications are that there may be as many as a thousand hospital admittances or emergency treatments of accidental poisonings for each reported death.

There are now 38 Poison Control Centres distributed in the ten provinces. They provide a continuous source of information on the nature of poisons in commercial preparations, and on the treatment of poisoning due to their ingestion. Because all centres are located in hospitals they actually give both information and treatment. The contribution of the Food and Drug Directorate, in addition to setting up the information system and keeping it up to date, is to act as a central clearing-house that summarizes reports, pools information and resources, and passes it on to the centres. Four quarterly reports were mailed to the centres covering some 4,736 cases of poisoning. An Information Manual for Poison Control Centres was published and distributed to those engaged in poison control activities. It contains all the information originally on cards, plus additions on first-aid and therapeutic measures and the name and toxic ingredients of some 5,000 proprietary medicines and common household chemical articles.

In addition to its normal function of telling the public about the objectives of the Food and Drugs Act, considerable effort was devoted by the Consumer Relations Section to educating consumers in the prevention of poisoning accidents in the home. It is felt that the most effective way of curbing the mounting number of poisoning accidents involving household chemicals and affecting, with few exceptions, children in the lower age group, is to impress upon the parents safe methods of handling and storing these products. To this end, talks were given to parent-teacher, consumer and other groups, usually in conjunction with the showing of the film, *One Day's Poison*; a survey was made of household chemicals

in Canadian homes; a booklet, *Keep Your Home Free from Poisonings* was produced; a small portable display was prepared and assistance given to writers and broadcasters in publicizing the project.

Consumer complaints continue to be a valuable aid in directing the attention of the Directorate to violations and all complaints are investigated.

PROTECTION OF THE FOOD SUPPLY

There seems to be a public demand for more and more convenient food—better and more attractive packaging—improved nutrition and greater diversification of products. To meet these demands, scientists in industry must employ a wide variety of substances which were not formerly contained in foods. All of these developments are watched very closely by government scientists and require constant research, investigation and liaison with industry.

During the year, safe tolerances for 22 insecticides on fruits and vegetables were added to the Food and Drug Regulations, bringing the total to 55. Chemical additives to foods continue to receive careful study and may only be used if they are safe and there is a definite need for them in food supplies.

Inspection of food manufacturing establishments plays a major role in protecting the food supply and 4,724 such inspections were completed. Two of these resulted in legal action which is mentioned in this report under Legal Actions.

Every effort was made to insure that commercial shipments of foods were not allowed to enter the country unless they complied with the Canadian requirements. Almost 20,000 shipments of food were examined, of which 2,614 were found to be unsatisfactory on analysis. This heavy load on a limited staff tended to curtail the amount of time allowed for examination of domestic foods which were limited to 9,775. Of this number, 2,175 were found to be unsatisfactory. This number is misleadingly high and is not representative of the market because the samples were selected from suspected sources.

Labelling and advertising problems were discussed with the firms responsible for the sale of foods and all radio and television commercials were reviewed for these products. The Canadian Broadcasting Act requires all commercials for foods, drugs and cosmetics used on Canadian radio or television stations to be approved by the Department of National Health and Welfare and by a representative of the Canadian Broadcasting Commission. All together, 14,208 radio commercials and 4,088 television commercials were reviewed. In addition, over 12,000 food labels and advertisements were scrutinized during the year.

PROTECTION OF THE DRUG SUPPLY

Protection of the drug supply is accomplished under the Food and Drugs Act and the Proprietary or Patent Medicine Act. The Proprietary or Patent Medicine Act is concerned exclusively with secret formulae medicines sold under proprietary or trade names, and its control rests mainly on registration before marketing and renewal of registration by annual licence. In each case, the formula and claims are reviewed with the help of medical officers, pharmacologists and an Advisory Board established under Section 9 of the Act. The official register now includes 3,006 preparations covered by licences issued to 1,090 manufacturers. This year, 131 new products were registered and 58 were refused. Because most of the

nationally advertised medicines are registered, special attention is given to publicity. Newspaper advertisements, radio and television commercials are kept under constant surveillance and corrective action is taken when necessary.

The Food and Drugs Act supplies to all other drugs including veterinary products, as well as cosmetics and therapeutic devices. This legislation contains many specific and special requirements for certain types of drugs. For example, all of the injectable drugs which are usually considered to be "biologics" are required to be manufactured in premises which have been inspected and a Canadian licence issued for their manufacture. There are 54 firms to which Canadian licences have been issued listing a total of 627 drugs. Thirty of these firms are American, 9 are European and 15 are Canadian. Special attention was given during the year to the labelling of these products and 1,900 inserts and labels were reviewed.

During the year, 180 new drug submissions were received from manufacturers in Canada, the United States, Great Britain, France and Germany. During this period, 156 new drugs obtained clearance due to compliance with the new drug regulations. This number represents a 10 per cent increase over the previous three years and reflects the greater activity in the pharmaceutical industry in Canada and throughout the world. Again this year, the amount of clinical investigation of new drugs in Canada has increased.

The prescription drug survey was continued to determine the extent of compliance with the prescription drug regulations. Over 1,200 attempts were made to purchase these drugs from pharmacists without benefit of a physician's prescription. Sixty-seven of these attempts resulted in unauthorized purchases of prescription drugs. Only two of the 127 drug stores where purchases were made last year repeated this offence.

A total of 482 inspections of drug manufacturing establishments were made with special attention being directed towards those firms where the control procedures have been determined, by previous inspection, to be less than the optimum. Excellent compliance with the parenteral drug regulations was observed this year and a potential health hazard in this field is disappearing.

The labelling of drug products is very important for the information of the user and the advertising must be checked to prevent exorbitant claims from being made. The labelling requirements of the Food and Drugs Act are very specific with regard to certain classes of drugs and there is a total prohibition on the advertisement to the general public of drugs for many serious disorders. In this work, over 7,000 individual labels and advertisements were reviewed during the year and all radio and television commercials were reviewed.

With these routine, comprehensive controls on certain types of drugs before they may be sold and inspection at the source, the Directorate is relieved to some extent of the necessity of checking huge quantities of market samples. There were 1,665 import shipments of drugs and vitamins examined. A small percentage of these was found to be unsatisfactory on analysis but an overwhelming proportion of 90 per cent were not labelled in a satisfactory manner. However, many labelling violations were relatively minor. There were 2,155 samples of domestic drugs and vitamin products examined, of which 633 were found to be unsatisfactory on analysis. Again the labelling was not very satisfactory with about 50 per cent being defective in some respect. These samples are not representative of the market since they were selected from suspect sources. In addition, there were 1,621 samples of suspected narcotic drug preparations submitted by the Royal

Canadian Mounted Police, of which 834 were identified as containing a narcotic drug. The usual, smaller numbers of cosmetics and therapeutic devices were examined during the year.

LEGAL ACTIONS

It was necessary to institute legal proceedings in 132 cases and all were carried to a successful conclusion. Of this number, 47 involved foods and 85 involved drugs. Of the 85 drug prosecutions, 67 were for the illegal sale of prescription drugs. The amount of fines levied was \$18,865, with \$9,030 resulting from the food prosecutions, and \$9,835 resulting from the drug prosecutions.

Although the approach to factory inspection continued to be persuasive and educational, gross unsanitary conditions in a number of abattoirs, even after repeated warnings, necessitated prosecution action. A Nova Scotia and an Ontario food manufacturer were each fined \$1,000 for manufacturing and storing meat under unsanitary conditions.

Last year, one firm pleaded guilty to selling an oil as "olive oil" which was not fully obtained from the fruit of the olive tree and was fined \$1,400. All stock of this oil was seized and forfeited to the Crown. There were 84 separate seizures of this stock of olive oil valued at \$31,613 which was finally disposed of this year by reconditioning and relabelling the product in compliance with the regulations.

The total number of seizures was 206 and the value of goods seized totalled \$130,083. These seizures may be classified as resulting from fraud, unsanitary conditions and health hazards and the respective numbers involved in each class are 145, 7 and 54, with product values of \$82,639, \$493 and \$46,951, respectively.

During the year, manufacturers voluntarily disposed of 45 lots of food valued at \$24,416 and 29 lots of drugs valued at \$2,929. In these cases, the violation was so apparent that the manufacturer followed the suggestion that it be removed from the market without the formalities of seizure.

INVESTIGATION AND RESEARCH

The central laboratory is chiefly concerned with research on methods and investigations on foods, drugs, and cosmetics. The examination of these products for enforcement purposes is conducted in the regional laboratories which are located in Halifax, Montreal, Toronto, Winnipeg and Vancouver. These laboratories also take part in collaborative studies on methods and conduct surveys on special groups of products assigned to them.

The central laboratory in Ottawa is divided into 11 sections, each headed by an expert in his particular field. An animal colony to provide a supply of animals for experimental purposes is also attached to the central laboratory. A brief review of the activities of the individual units is given in the following sections.

Animal Pathology

Post-mortem examinations were performed on 868 animals, the majority of which were on specific test and 4,354 sections of animal tissues from 20 separate projects were examined microscopically. Other studies carried out to aid in assessing effects of food additives and drugs on experimental animals included blood, bone marrow, and tissue biopsy examinations, and organ function tests.

Biometrics

The section designed 17 experiments for feeding trials which ranged from the comparison of the nutritive value of specific foods to the long-term effects of certain food additives which might be eaten regularly. Research workers were assisted with the application or interpretation of statistical methods applied to their experimental data. The computations of 32 studies were sufficiently complex that the entire statistical analysis was completed in the section as a service to the research worker. A provisional set of tolerances on the amount of allowable air space in candy bar packages was established.

Biophysics

X-ray data which will be of value in the identification of unknown compounds has been tabulated on approximately 800 substances. The effects of gamma radiation in inhibiting sprouting on two varieties of potatoes were studied and it was found that storage time and temperature were more influential in the variations observed in the reducing sugars, sucrose and starch than any of the selected irradiation treatments.

Cosmetics and Alcoholic Beverages

Activity on cosmetics consisted largely of the investigation of consumer complaints. Of the samples examined, which included various creams and powders, deodorants, a shampoo, a children's cold wave, plastic nails and a lash tint, there were only two cases of improper manufacture. All other cases appeared to involve allergic response. Toothpastes were surveyed with special reference to net contents and delivered contents. Discussions with industry resulted in the drafting of an acceptable definition for Vodka which specifies grain or potato spirit as origin and includes charcoal treatment as a means of purification. A minimum alcoholic content of 23 per cent alcohol by volume was agreed upon for liqueurs.

Food Chemistry

The differential infra-red technique, which was used successfully in the detection of olive oil adulteration, has been adapted for use in determining the presence of foreign fats or oils in butter. In addition, a new technique, that of partition chromatography using a column of silicic acid, has been investigated as a possible method for the detection of the adulteration of fats and oils and the effect of heating on these foods.

A test for the detection of sulphites in meat products has been developed which may be carried out directly by the inspector on the premises where the meat is prepared. A paper chromatographic technique has been developed for the determination of 14 preserving agents which are used in food products. Approximately 500 samples of tea have been examined organoleptically, with only one shipment being refused entry into Canada. Studies on the development of methods for the determination of insecticide residues have been continued and approximately 2,000 samples of fruits and vegetables have been examined. Collaborative studies on maple syrup, vanilla, antioxidants and preservatives have been carried out with other laboratories.

Microbiology

The "Staphylococcus toxin" has been resolved into several specific toxic proteins with distinctive biological and chemical properties. To aid in further study of these toxins, synthetic media optima for the production of specific toxins are being developed. An estimate of the relative safety of cheese under changing conditions of bovine infection has been attained through study of the incidence and multiplication of specific strains of staphylococci in milk and cheese. Studies are in progress to improve tests for the presence of food-poisoning toxins in foods. Possibilities of genetic change among staphylococci in nature are being investigated.

Bacteriological examination of shucked oysters by comparative methods, in collaboration with the United States Public Health Service, has led to adoption of tentative standards based on the preferred value of *E. coli*, type I, as an indication of fecal pollution.

The comparative resistance to gamma irradiation has been determined for a number of bacterial species of public health significance. Exposure to multiple irradiations has led to the emergence of radiation-resistant strains.

Organic Chemistry

A primary problem has been the development of more rapid and effective means of detecting the 84 narcotics now under control in Canada. Methods for enforcement of international control of smuggled opium and marihuana were studied. In the case of smuggled opium, the origins of 40 seizures were determined, by physical-chemical procedures developed in this section at the request of the governments of Australia, India and the United States of America. In collaboration with Crime Detection Laboratories in the United States and Canada, a program for identifying substances found in poison cases was continued. Constituents of essential oils used in perfumery, pharmacy and food flavouring were extensively investigated.

Pharmaceutical Chemistry

Non aqueous titration methods have been developed for the tetracycline antibiotics and most of their pharmaceutical forms, which are more rapid and accurate than the conventional microbiological procedures. In addition, by employing similar principles, improved methods of assay have been developed for tablets, ampoules, suppositories and elixirs of aminophylline and theophylline. Techniques of identification and differentiation have also been devised for certain central nervous system stimulants as well as a group of local anaesthetics.

Pharmacology and Toxicology

It was found that atropine solutions diminish in activity during storage but the ratio of activity to toxicity was not altered. During experimental trials on a problem related to narcotic addiction, it was found that the rate of tolerance development in rats to morphine was not altered by simultaneous treatment with chlorpromazine. The main action of clam toxin was found to be a blockade of the neuromuscular junction of the phrenic nerve and diaphragm but several of the drugs which are known to be effective in relieving neuromuscular blockade possessed no appreciable antidotal effect on the toxin.

The screening of food colours for possible toxic properties continues. During the year, studies on Guinea green, Benzyl violet and Brilliant Blue were completed and tests on Erythrosine, Fast Green and Ponceau 3R were commenced.

Reports that Citral, a constituent of citrus fruits, causes a significant increase in intraocular pressure in rabbits were not confirmed in this laboratory.

Commercial samples of proteolytic enzymes (trypsin, chymotrypsin and thrombin) have been assayed using new synthetic substrates and an improved spectrophotometric procedure which have significantly increased their precision. The activation of trypsin and thrombin by various quaternary ammonium compounds also has been investigated.

Physiology and Hormones

The results of a two-year stability test have indicated that insulin did not lose activity during this period of time when stored at refrigerator temperature. However, at room temperature or above, within one year, the potency fell well below that declared on the label. Studies were continued on the biological activity of recently-developed anti-inflammatory steroids such as dexamethasone and triamcinolone acetonide which are used for the treatment of rheumatoid arthritis, rheumatic fever, inflammatory diseases of the eye, and allergic skin diseases.

Biological assays of toxic shell-fish extracts were carried out in collaboration with the United States Public Health Service. At the request of the National Institutes of Medical Research in London, England, a collaborative assay was undertaken to determine the potency of the proposed International Standard for prolactin, a lactogenic hormone.

Vitamins and Nutrition

Particular emphasis this year has been placed on nutritional problems and on studies of the availability to the human body of vitamins and drugs in oral preparations. Also, as a result of emphasis in food advertising, criteria have been established for the regulation of claims made for the protein content of foods.

The rate of release of vitamins and other drugs in sustained release and other timed disintegrating preparations was studied by giving small doses to human subjects and determining the rate at which the drug was excreted in the urine. These studies have shown that there are marked differences in the sustained release properties and physiological availability of the drugs in various forms of these products presently on the market.

INDIAN AND NORTHERN HEALTH SERVICES DIRECTORATE

Role

The function of this Directorate has been to provide or arrange essential medical care for those Indians and Eskimos who still require assistance in this aspect of their welfare. A vigorous program of public health care has been provided those groups pursuing the native way of life so that they may be abreast of their neighbours in this respect. Activity has been restricted to these aspects of health since general welfare and education of Indians is a function of Indian

Affairs Branch of the Department of Citizenship and Immigration while the Northern Administration Branch of the Department of Northern Affairs and National Resources performs these functions for the Eskimo.

In the Yukon and Northwest Territories, the Directorate has acted as an interim department of health since the governing bodies of these areas have not yet developed such health agencies.

Populations

A census of Indians is taken each five years. The latest was in 1954 and recorded 151,558 persons of Indian status. It was estimated that at the end of 1958 the population on Indian registers would be 174,000. The latest Eskimo census was in 1951 and recorded 9,500. It is estimated that in 1958 the figure would be 11,300 or a total for the two native peoples in 1958 of some 185,300.

The population of the Yukon and Northwest Territories was about 32,600 of which 6,300 would be Indian, 9,300 Eskimo and 17,000 others.

Organization

In addition to the Head Office in Ottawa, the Directorate has regional offices at Vancouver, Edmonton, Regina, Winnipeg and Ottawa. Regions are subdivided into zones following practical geographic, population and communication principles. The total establishment was for 2,311 positions of which 604 were for graduate nurses, 106 for medical officers, 20 for dental officers and 38 for senior administrative officers. There were in operation 17 hospitals each exceeding 20 beds, 41 nursing stations with 4 to 10 beds and 108 health centres wherein professional staff carried out a treatment and health program but no bedside care (Tables 1, 2). These facilities composed a skeleton which rounded out by arrangements with some 2,000 physicians, 200 dentists and 750 hospitals. Close co-operation was maintained with the public health agencies of each province with reciprocal services wherever practical. This organization was further augmented by the provision of suitable supplies close to each native community and an arrangement with some skilled person to dispense these. This honoured the one written agreement which was to provide a chest of medicines at the residence of each agent.

Activities 1958

In addition to extensive improvements to existing facilities, former nursing stations were fully replaced at Onion Lake in Saskatchewan and St. Therese's Point on Island Lake in Manitoba. A new station was completed at Cambridge Bay on Victoria Island in the Western Arctic. Previous case finding activities were maintained through 27 separate surveys covering the out-of-the-way groups. Some 109,000 x-ray films were taken by these teams, including nearly 14,000 on persons other than native status. Through these films, 539 cases of active tuberculosis were detected among Indians and Eskimos and six cases among the others (Table 3). The teams carried out all essential treatment and as much preventive work as circumstances would permit. Among other procedures, some 68,000 inoculations against poliomyelitis were given and 9,300 individuals, mostly infants, were given the Bacillus Calmette-Guérin vaccine to enhance resistance to tuberculosis.

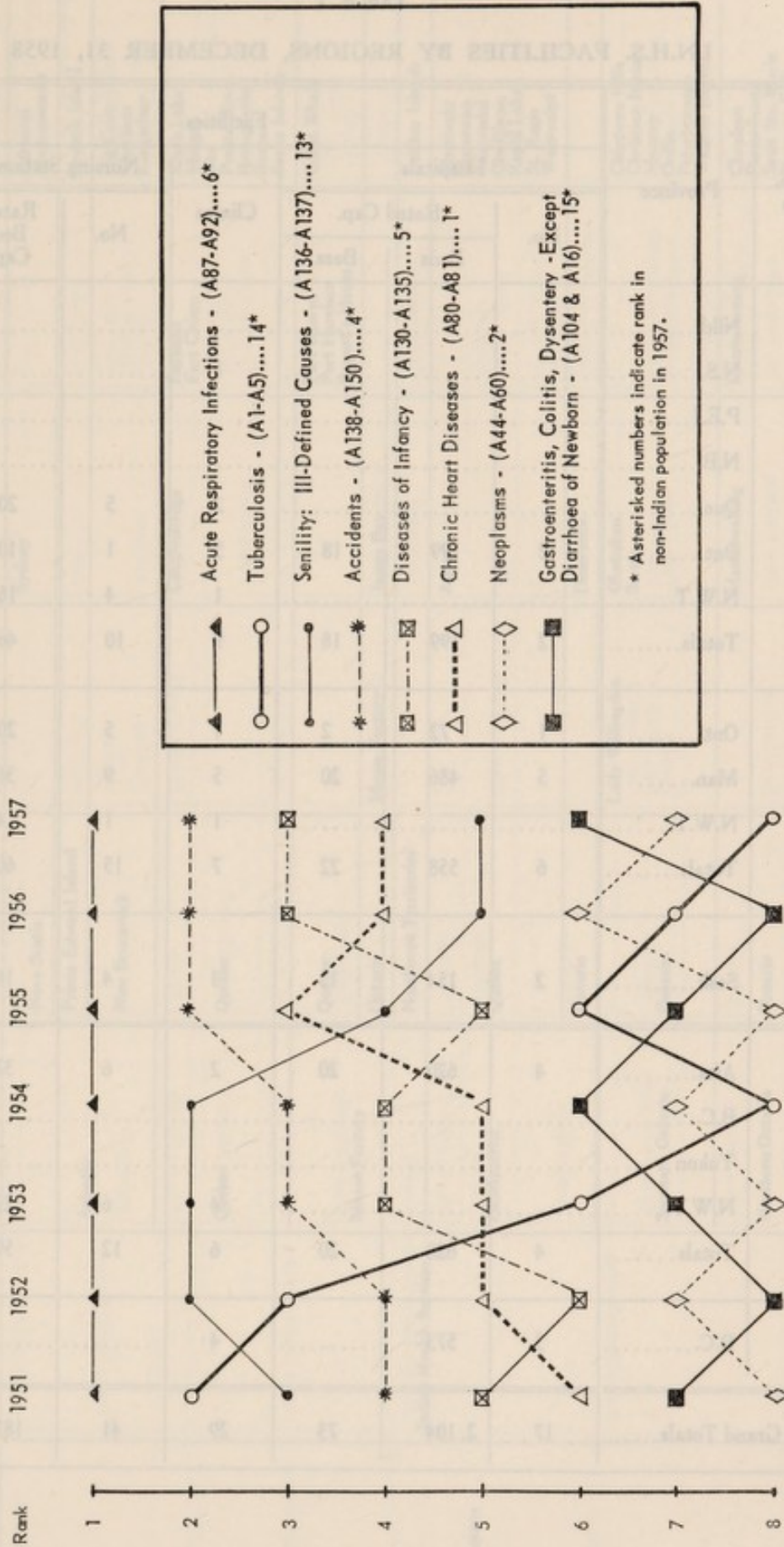
In addition to the disorders discovered and dealt with by the mobile units, an increasing case-finding program was maintained by the departmental treatment centres and the physicians who provide services by arrangement. These activities yielded another 689 cases of active tuberculosis among Indians and Eskimos for a total of 1,228 new cases for the year. This is but a few less than the previous year but the majority are detected a little earlier in the disease.

The latest vital statistics available are for 1957 and showed a death rate of 9.9 as compared to the national rate of 8.2 per thousand of population. There continued to be a regrettably high rate for the very young born in unfavourable environments. The birth rate continued high so that the net increase, allowing for enfranchisements (500 to 1,000 each year), continues to be 3 per cent, which is high for natural increase.

Trends

Available data indicates clearly that the number of Indians and Eskimos under treatment for tuberculosis, which has been the most serious scourge, has declined steadily in the past few years with 4,400 under treatment in all of 1958 as compared with 5,200 in 1957 and 6,800 in 1956 (Table 4). Population trends alone point to increasing numbers under care for general conditions but actually tabulation was distorted from July 1, 1958 when the Indians in Saskatchewan, Manitoba and Newfoundland came under Provincial Hospital Insurance Plans from which data were not available. As each province adopts a general insurance plan, the Indians have been included either by agreement or the payment through the Directorate of premiums where these are in effect. The inclusion of certain groups into prepaid medical care plans was explored and will be pursued. This has been consistent with the general policy to avoid distinctions between the Indian and Eskimo peoples and other citizens.

GRAPH 1: SELECTED CAUSES OF INDIAN MORTALITY BY RANK, 1951-1957



* Asterisked numbers indicate rank in non-Indian population in 1957.

TABLE 1

I.N.H.S. FACILITIES BY REGIONS, DECEMBER 31, 1958

I.N.H.S. Region	Province	Facilities						Health Centres
		Hospitals			Clinics	Nursing Stations		
		No.	Rated Cap.			No.	Rated Bed Cap.	
			Beds	Bass.				
Eastern	Nfld.....							
	N.S.....				1			2
	P.E.I.....							1
	N.B.....							3
	Que.....				2	5	20	15
	Ont.....	2	199	18	5	1	10	11
	N.W.T.....				1	4	16	1
	Totals.....	2	199	18	9	10	46	33
Central	Ont.....	1	72	2	1	5	20	5
	Man.....	5	486	20	5	9	36	4
	N.W.T.....				1	1	4	
	Totals.....	6	558	22	7	15	60	9
Sask.	Sask.....	2	154	13	3	4	16	8
Foothills	Alta.....	4	620	20	2	6	37	7
	B.C.....							
	Yukon.....							3
	N.W.T.....				4	6	22	3
	Totals.....	4	620	20	6	12	59	13
Pacific	B.C.....	3	573		4			16
Grand Totals.....		17	2,104	73	29	41	181	79

TABLE 2
I.N.H.S. FACILITIES BY REGION, ZONE AND PROVINCE

I.N.H.S. Region	GEOGRAPHIC AREAS			I.N.H.S. FACILITIES					
	I.N.H.S. Service	I.N.H.S. Zone	Province	Hospital	Clinic	Nursing Station	Health Centre		
Eastern		Atlantic	Nova Scotia		Sydney		Ekasoni Shubenacadie		
			Prince Edward Island				Lennox Island		
		Quebec	New Brunswick					Big Cove Chatham Kingsclear	
			Quebec			Caughnawaga	Beraimis Fort Chimo	Knob Lake Mingan Oka Pointe Bleue Restigouche Romaine Seven Islands	
	Indian Health Services	Moose Factory	Quebec					Great Whale	
		Headquarter	Ontario		Moose Factory	James Bay			
			Northwest Territories						
			Quebec				Amos		Belcher Islands Maniwaki Manowan Mistassini Obbedjiwan Rapid Lake St. Regis Waswanipi
			Ontario				Deseronto		
			Ontario			Lady Willingdon	Ohaweken Sarnia		Chippewa Hills Christian Island Muncey Orillia Peterborough Walpole Island
Northern Health Services	Northern Ontario	Ontario			Manitowaning	Manitowaning	Chapleau Parry Sound Sault Ste. Marie Sturgeon Falls Temiskaming		
	Eastern	Northwest Territories			Pangnirtung	Cape Dorset Fox Frobisher Bay Lake Harbour			

I.N.H.S. FACILITIES BY REGION, ZONE AND PROVINCE—Concluded

I.N.H.S. Region	GEOGRAPHIC AREAS				I.N.H.S. FACILITIES			
	I.N.H.S. Service	I.N.H.S. Zone	Province	Hospital	Clinic	Nursing Station	Health Centre	
Central	Indian Health Services	Sioux Lookout	Ontario	Sioux Lookout	Sioux Lookout	Big Trout Lake Lac Seul Lansdowne House Pikangikum Sandy Lake	Fort Frances Kenora Nakina Pickle Lake Port Arthur	
		Southern Manitoba	Manitoba	Brandon Fisher River Fort Alexander	Fisher River Pine Falls	Little Grand River Little Saskatchewan	Dauphin Portage la Prairie Sandy Bay	
		Norway House	Manitoba	Norway House	Norway House	Cross Lake God's Lake Narrows Island Lake Oxford House St. Therese's Point		
		The Pas	Manitoba	Clearwater Lake	The Pas	Nelson House Split Lake	Churchill	
		Headquarters	Manitoba		Winnipeg	Baker Lake		
	Northern Health Services	Central	Northwest Territories		Chesterfield			
		Fort Qu'Appelle	Saskatchewan	Fort Qu'Appelle	Fort Qu'Appelle		Broadview Kamsack Punnichy Rose Valley White Bear Lake	
		North Battleford	Saskatchewan	North Battleford	North Battleford	Onion Lake	Meadow Lake	
		Prince Albert	Saskatchewan	Prince Albert	Prince Albert	Fort a la Corne Lac la Ronge Pelican Narrows	Shellbrook Uranium City	
		Charles Camshell	Alberta	Charles Camshell	Edmonton			
Saskatchewan	Indian Health Services	Alberta	Alberta	Blackfoot Blood Hobbema	Hobbema	Driftpile Goodfish Lake Hay Lake Peigan Saddle Lake Stony	Bonnyville Calgary Fort Chipewyan Fort Vermilion High Prairie Rocky Mountain House Wabasca	
		MacKenzie	Northwest Territories	Inuvik	Aklavik Fort Rae Fort Simpson Fort Smith	Cambridge Bay Coppermine Fort Good Hope Fort McPherson Fort Norman Tuktoyaktuk	Fort Resolution Inuvik Providence	
		Yukon	Yukon	Whitehorse			Dawson Mayo Whitehorse	
Foothills	Northern Health Services							

Pacific	Coqualeetza		British Columbia		Coqualeetza		Sardis Vancouver Williams Lake		Alexis Creek Kamloops Lillooet Merritt Mount Currie		
	Indian Health Services	Nanaimo	British Columbia	British Columbia	Nanaimo	Miller Bay	Miller Bay	Miller Bay	Alert Bay Bella Coola Duncan Tofino	Alert Bay Bella Coola Duncan Tofino	Alert Bay Bella Coola Duncan Tofino
	192	30 200	14 200	3 000	15 131	32	0	0	0	0	0
	193	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	194	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	195	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	196	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	197	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	198	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	199	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	200	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	201	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	202	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	203	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	204	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	205	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	206	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	207	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	208	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	209	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	210	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	211	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	212	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	213	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	214	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	215	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	216	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	217	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	218	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	219	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	220	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	221	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	222	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	223	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	224	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	225	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	226	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	227	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	228	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	229	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	230	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	231	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	232	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	233	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	234	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	235	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	236	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	237	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	238	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	239	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	240	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	241	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	242	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	243	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	244	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	245	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	246	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	247	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	248	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	249	30 200	15 000	3 000	16 131	32	0	0	0	0	0
	250	30 200	15 000	3 000	16 131	32	0	0	0	0	0

* Estimated figures.

TABLE 3
ANTI-TUBERCULOSIS ACTIVITIES
Calendar Year 1958

Region	Category of Persons	Population (1)	Number of X-rays Taken			Number of Active Cases Discovered					Number of Cases Discovered by Surveys Hospitalized Before January 1, 1959	Number of B.C.G. Vaccinations (2)
			on Field Surveys	on School Surveys	on All Surveys	By Field and School Surveys		by Other Means	Grand Totals			
						Diagnosed for First Time	Previously known			Totals		
						Active on Last Examination	Re-activated Since Last Examination					
Eastern	Indians	57,800	11,920	711	12,631	10	25	150	91	241	109	1,794
	Eskimos	6,634	4,140	—	4,140	10	6	109	9	118	100	376
	Totals	64,434	16,060	711	16,771	20	31	259	100	359	209	2,170
Central	Indians	34,800	21,239	4,177	25,416	—	36	81	129	210	76	1,463
	Eskimos	1,765	854	—	854	4	—	15	46	61	6	33
	Totals	36,565	22,093	4,177	26,270	4	36	96	175	271	82	1,496
Saskatchewan	Indians	20,700	14,200	2,951	17,151	6	6	47	109	156	47	883
Foothills	Indians	26,400	12,522	4,290	16,812	3	9	26	128	154	26	3,031
	Eskimos	2,931	2,468	—	2,468	—	3	12	40	52	12	
	Totals	29,331	14,990	4,290	19,280	3	12	38	168	206	38	
Pacific	Indians	34,300	13,612	2,154	15,766	5	24	99	137	236	69	1,757
	Indians	174,000	73,493	14,283	87,776	24	100	403	594	997	327	9,337
	Eskimos	11,330	7,462	—	7,462	14	9	136	95	231	118	
Totals	185,330	80,955	14,283	95,238	38	109	539	689	1,228	445		

(1)—Total Registered Indian pop. Dec. 31, 1958; distribution by Regions estimated. Eskimo pop. Dec. 31, 1958; includes an estimated 900 in Labrador.
(2)—Repeats included with first vaccinations. Foothills Regional figures include vaccinations given to "Others".

TABLE 4
REGISTERED INDIAN AND ESKIMO IN-PATIENT MOVEMENT BY CONDITION
AND REGION IN ALL I.N.H.S. AND NON-I.N.H.S. INSTITUTIONS
Calendar Years 1955 to 1957

Region	Condition	Patients Under Care			Patient Days			Average Stay of Separations		
		1955	1956	1957	1955	1956	1957	1955	1956	1957
Eastern	General	10,198	11,571	11,227	154,322	172,789	153,731	14.8	14.3	14.0
	Tuberculosis	1,596	1,625	1,048	221,606	226,818	163,580	235.8	260.6	308.0
	Mental	206	209	194	55,496	57,599	52,151	747.9	1,453.7	860.6
	Totals	12,000	13,405	12,469	431,424	457,206	369,462	37.9	42.1	35.1
Central	General	8,078	8,255	10,700	97,052	94,446	120,327	12.3	11.3	11.6
	Tuberculosis	1,424	1,068	948	193,676	150,825	137,028	247.6	213.0	313.1
	Mental	70	66	63	16,462	16,044	15,195	800.8	593.7	574.8
	Totals	9,572	9,389	11,711	307,190	261,315	272,550	40.1	29.1	28.5
Saskatchewan	General	6,226	7,296	8,493	66,563	79,707	91,619	10.7	11.3	11.1
	Tuberculosis	849	732	538	102,093	95,827	84,050	167.7	184.5	269.6
	Mental	55	69	92	13,005	15,814	20,082	660.7	291.2	369.8
	Totals	7,130	8,097	9,123	181,661	191,348	195,751	25.9	23.7	22.2
Foothills	General	7,230	8,471	9,220	99,430	106,104	113,892	12.4	11.7	12.5
	Tuberculosis	1,000	865	650	200,252	151,864	123,411	438.3	481.9	455.1
	Mental	58	71	55	15,209	17,399	16,217	1,353.5	164.1	1,079.7
	Totals	8,288	9,407	9,925	314,891	275,367	253,520	46.3	39.2	28.3
Pacific	General	256*	10,268	10,801	102,935	117,733	138,894	39.7*	11.4	13.2
	Tuberculosis	1,009	945	699	161,827	145,508	132,519	366.1	247.1	382.4
	Mental	81	80	84	23,174	23,886	23,234	455.2	641.0	885.3
	Totals	1,346*	11,293	11,584	287,936	287,127	294,647	280.5*	25.7	27.4
All Indians	General	31,988*	45,861	50,441	520,302	570,779	618,463	13.0*	12.2	12.5
	Tuberculosis	5,878	5,235	3,883	879,454	770,842	640,588	280.4	270.1	336.0
	Mental	470	495	488	123,346	130,742	126,879	780.9	808.2	696.9
	Totals	38,336*	51,591	54,812	1,523,102	1,472,363	1,385,930	43.8*	32.7	28.6
Eskimo	General	845	1,711	2,017	37,518	46,256	46,305	44.2	30.4	23.7
	Tuberculosis	1,356	1,578	1,287	183,336	231,425	206,551	240.8	236.5	323.3
	Mental	13	27	26	3,888	4,452	4,529	10.0	1,063.4	278.2
	Totals	2,214	3,316	3,330	224,742	282,133	257,385	139.3	107.4	109.1
Indians Plus Eskimo	General	32,833*	47,572	52,458	557,820	617,035	664,768	13.7*	12.8	13.0
	Tuberculosis	7,234	6,815	5,170	1,062,790	1,002,267	847,139	274.2	263.1	332.9
	Mental	483	522	514	127,234	135,194	131,408	774.4	825.1	660.8
	Totals	40,550*	54,907	58,142	1,747,844	1,754,496	1,643,315	47.4*	36.4	32.6

* Excluding B.C.H.I.S.

HEALTH SERVICES DIRECTORATE

INTRODUCTION

The responsibilities of the Health Services Directorate include such matters as relate to the provision of technical and financial assistance to the provinces; statutory duties which are federal in character; co-ordination of extra-mural and intra-mural research activities; the provision of consultant services and certain obligations related to the international health field. Because of their interlocking and frequently interdependent character, these functions have been grouped under the overall supervision of the Director of Health Services. The Directorate consists of four main units, each under the direction of a Principal Medical Officer and a number of consultant divisions covering special health fields. General administrative and clerical assistance is provided by a joint administrative unit under the supervision of a Principal Executive Officer responsible to the Director. Detailed accounts of the activities of each division and unit of the Directorate are presented under the appropriate headings.

ENVIRONMENTAL HEALTH AND SPECIAL PROJECTS

The Principal Medical Officer, Environmental Health and Special Projects, because of his responsibilities with respect to problems of air pollution and water pollution, maintains a close working relationship with the Divisions of Occupational Health, Public Health Engineering and Radiological Protection.

He is the Canadian representative on such committees as the Scientific Committee of the United Nations on the Effects of Atomic Radiation and the International Commission on Radiological Protection. Because of his interest in atomic energy matters, he is also a member of the Reactor Safety Advisory Committee of the Atomic Energy Control Board, and is responsible for the Departmental program concerned with the effects of radio-active fallout. In the latter program, the Department receives advice and assistance from subcommittees on the Genetic and Somatic Effects of Radiation.

HEALTH INSURANCE

During the year under review, seven provinces implemented hospital insurance programs in accordance with agreements made under the Hospital Insurance and Diagnostic Services Act. As mentioned in last year's report, the Province of Ontario had signed an agreement in March, 1958. During the month of June, 1958, agreements were signed on the 9th with Newfoundland, on the 25th with British Columbia, on the 27th with Manitoba and Alberta and on the 30th with Saskatchewan. Later in the year, on October 16th, an agreement was signed with Nova Scotia.

In June, 1958, the Hospital Insurance and Diagnostic Services Act was amended by deleting the original provision that no contribution might be paid under the Act until at least six provinces, containing at least one-half of the population of Canada, had entered into agreements and had provincial laws in

force. The new provision permitted contributions to be paid from July 1, 1958. This facilitated the inauguration of joint federal-provincial programs on that date in British Columbia, Alberta, Saskatchewan, Manitoba and Newfoundland. On January 1, 1959, Ontario and Nova Scotia inaugurated programs in those provinces.

The inauguration of hospital insurance programs in the participating provinces, entailed a considerable amount of preparatory work by Health Insurance and by other divisions of the Department, particularly the Research and Statistics Division and the Legal Division. Close collaboration was maintained with Comptroller of the Treasury, the Dominion Bureau of Statistics, the Department of Finance and the Department of Justice. Health Insurance provided the necessary liaison between the provincial authorities and other departments of the Federal Government having direct concern in certain areas of the provincial programs, including the Department of Veterans Affairs and the Department of Citizenship and Immigration.

In May and October, 1958, federal-provincial technical conferences on hospital insurance were held in Ottawa and were attended by representatives of all the provinces as well as the federal departments concerned. On both occasions, a considerable amount of attention was given to a wide range of technical matters and the drafting of forms intended to provide both the provinces and the Federal Government with requisite statistical and financial information.

By the end of the year under review, more than 11 million residents of Canada were covered by the public hospital insurance programs in the participating provinces. Advance payments to the provinces in accordance with the terms of the Hospital Insurance Regulations, totalled almost \$55 million. These monthly advances are based on payments made by the provinces to hospitals, in accordance with the agreements, and are on account of the federal contribution which is calculated on an annual basis.

At the end of the year under review, two additional provinces, New Brunswick and Prince Edward Island, were planning programs with the intention of commencing operation during 1959.

In addition to maintaining close liaison in the administration of the programs, health insurance has provided consultant services to the provinces. The staff was augmented by a consultant in hospital accounting and the Consultant in Hospital Administration was sent on educational leave to complete a course in hospital administration at the University of Toronto.

NATIONAL HEALTH GRANTS ADMINISTRATION

The 1958-59 fiscal year was one of change and adjustment in the National Health Program. With the start of the Federal Government's financial participation in the costs of hospital insurance in five provinces on July 1, 1958, and two more provinces on January 1, 1959, a detailed review of all projects receiving assistance through the grants program in these seven provinces was carried out, as required by the relevant acts and regulations. This was to eliminate any possible duplication of financial assistance from two sources within the Federal Government. Preliminary meetings were also held with two provinces which may enter the hospital insurance program later in 1959.

New Developments Fostered

As a result of this review, the provinces were enabled to place a desirable emphasis on health services not related to the care of general hospital in-patients. Preliminary planning carried out in 1957-58 enabled the provinces to undertake immediately, a further expansion and strengthening of their health services, particularly in such areas as the training of additional staff, the immunization of large segments of the adult population against poliomyelitis, the strengthening of their specialized consultative services to hospital programs, the broadening of their attack on mental illnesses, a new approach to tuberculosis control through mass tuberculin testing, the encouragement of research into the causes and treatment of diseases of the heart and arteries, and the development of home care programs designed to keep people out of hospitals and to reduce their length of stay there.

These changes in the utilization of the federal health grants, which are expected to be of even wider scope in 1959-60 and subsequent years, again demonstrated the adaptability of the grants in meeting changing circumstances and in providing support for new and desirable developments in provincial health services.

As in previous years, consultants in the various special divisions of the department continued to provide assistance in the review of both new and continuing health grant projects in such fields as blindness control, child and maternal health, nutrition, dental health, medical rehabilitation, mental health, public health engineering, occupational health, laboratory services, health education, radiation protection, epidemiology, nursing services, research and hospital construction. These activities and information on the impact of the grants program on these special fields of interest are described in detail in other sections of this report.

Changes in the Grants

No major changes occurred in the legal or administrative structure of the grants program during the year. Studies were, however, initiated to ascertain what changes, if any, may be needed to enable the grants to make their maximum contribution to the solution of health problems as they exist in Canada.

The more generous scale of assistance under the Hospital Construction Grant, which became effective on January 1, 1958, has resulted in an increase of approximately \$8,778,000 over payments made under this grant in 1957-58. An expansion of the scope of the grant to include assistance toward the building costs of interns' quarters and toward the cost of renovating existing hospital buildings has resulted in the submission and approval of projects for the building of space for 330 interns' beds and for 14 hospital renovations. The total federal contribution to these two classes of projects will be slightly more than \$1,000,000.

During the year, in co-operation with Information Services Division, news items for press, radio and television use were issued regarding new developments under the program. On request, members of the staff addressed university groups, hospital administrators and public gatherings on the aims, administrative procedures and achievements of the program. Meetings were held with provincial staffs both in Ottawa and in the provinces with regard to planning and administration.

Expenditures

Despite the changes occasioned by the development of hospital insurance, the percentage of utilization of each of the 12 grants in the National Health Program continued at a high level. Federal expenditures under the program totalled more than \$45,850,000 during the 1958-59 fiscal year—an increase of about \$11,000,000 over 1957-58. Payments to the provinces and territories in the 11 years since the program began now total more than \$304,786,000. The following table shows the 1958-59 expenditures by grants and by provinces.

In support of research in the health field, other research institutes a total of \$2,255,495.33 was allocated, \$1,563,623 by way of direct grants to the Ontario Cancer Institute, the Ontario Cancer Treatment and Research Foundation, the Ontario Cancer Institute for the Blind, and the Ontario Cancer Institute for the Deaf. Within the Department, \$1,265,300 was allocated for research in the respective divisions as indicated in Table 2. This also includes the research and Statistics Division which has been established in the economic field. Detailed reference to the research and other divisions other than those listed is made in relevant sections of the report.

Allocations for research by grant and by province are presented in Table 2. All grants to the Ontario Cancer Institute and the Ontario Cancer Treatment and Research Foundation are matched with an equal contribution by the provinces. The majority of the programs of fundamental and clinical research sponsored by the Department are carried out in the following manner:

An analysis of data of individual or scientific disciplines involved in the extra-mural research program is presented in Table 3, indicating the number of projects and the percentage of projects in each field. The data in this table are in the research field. It will be appreciated that there may be more disciplines involved in the conduct of some of the projects listed, particularly those listed according to the specialty of the research. The greater participation in the performance of the research is attributed to the fact that many of the projects are of disease entities where several pathological conditions may be involved. There are, of course, a number of projects where the relationship is not clearly defined for lack of

INTERNATIONAL HEALTH

With Canada's leadership in the health field, health is a prominent position and is demanding progressively increasing attention. The International Health Section is responsible for coordination of the interests and activities of the Department in international health affairs, which, in the main, are those arising out of Canadian membership in the specialized agencies, i.e., W.H.O. and other United Nations organs, and the multilateral United Nations technical assistance programs including the Inter-American Commission (I.A.C.T.A.) and the Children's Fund (UNICEF). In addition, the Section administers the Colombo Plan Administration on technical assistance requests in the health field and functions as the assessment and placement agency for the Colombo Plan Fellows undertaking post-graduate studies at Canadian medical schools and post-graduate facilities.

Regarding the activities of the World Health Organization, it was noteworthy that the Joint Commemorative Session was held in Minneapolis, Minnesota, May 26-28, 1958, followed by the regular meeting of the 11th World Health Assembly. The Commemorative Session of the Commemorative Session was

TABLE 5
EXPENDITURES UNDER THE NATIONAL HEALTH GRANTS FOR THE
FISCAL YEAR 1958-59 BY PROVINCE AND GRANT

Province	GRANT											Total	
	Crippled Children	Profess. Training	Hospital Construction	Veneral Disease Control	Mental Health	Tuberculosis Control	Public Health Research	General Public Health	Cancer Control	Laboratory & Radiological Services	Medical Rehabilitation		Child & Maternal Health
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Newfoundland.....	3,650	16,734	66,689	16,234	204,259	115,594	—	259,347	15,183	131,135	15,144	40,870	884,859
Prince Edward Island....	5,999	1,849	141,713	3,084	66,664	47,675	—	77,754	12,580	49,500	14,398	15,207	436,423
Nova Scotia.....	20,428	30,743	320,112	24,193	305,440	187,965	32,707	368,360	152,314	340,338	30,689	95,931	1,909,220
New Brunswick.....	20,253	19,045	448,466	20,253	262,583	165,392	—	272,477	122,588	282,500	40,522	78,336	1,732,415
Quebec.....	91,817	132,483	6,915,013	92,781	2,070,862	1,498,920	190,245	1,658,574	1,026,308	1,379,104	233,579	583,947	15,873,633
Ontario.....	152,304	266,743	4,245,447	144,451	2,003,328	817,472	126,311	2,145,431	1,181,807	62,317	141,709	461,151	11,748,471
Manitoba.....	28,738	31,873	711,865	28,738	335,825	195,596	25,361	489,399	175,055	245,845	56,371	88,504	2,413,170
Saskatchewan.....	24,762	23,157	1,201,370	29,285	402,663	209,688	46,288	436,833	190,717	281,167	48,653	106,934	3,001,517
Alberta.....	37,368	35,867	1,139,342	37,368	540,699	229,506	13,395	616,758	251,686	492,641	29,647	95,539	3,519,816
British Columbia.....	23,693	53,230	1,637,207	46,774	603,148	272,828	23,197	872,040	245,725	249,854	80,901	134,001	4,242,598
Northwest Territories...	4,216	5,701	—	—	—	6,340	7,026	34,695	4,725	—	—	—	62,703
Yukon.....	—	—	—	—	—	34,556	—	—	—	—	—	—	34,556
All Provinces.....	413,228	617,425	16,827,224	443,181	6,795,471	3,781,532	464,530	7,231,668	3,378,688	3,514,401	691,613	1,700,420	45,859,381

RESEARCH DEVELOPMENT AND INTERNATIONAL HEALTH SECTION

RESEARCH DEVELOPMENT

During the fiscal year 1958-59, a total of \$3,441,041.33 was made available for scientific research including the progressively expanding program of extra-mural grants-in-aid of medical research and departmental activities in this general field. In support of health studies in universities, hospitals and other research institutes a total of \$2,258,498.33 was allocated, \$2,105,636.23 by way of direct grants-in-aid, \$92,634.10 to the National Cancer Institute and \$60,228 to the Ontario Cancer Treatment and Research Foundation.

Within the Department, \$1,182,543 was allocated for research in the respective divisions as indicated in Table 1. This also includes the Research and Statistics Division whose activities are concentrated in the socio-economic field. Detailed reference to the work performed in this and the other divisions listed is made in relevant sections of the report.

Allocations for extra-mural grants-in-aid by grant and by province are presented in Table 2. The funds for the National Cancer Institute and the Ontario Cancer Treatment and Research Foundation are matched with an equal contribution by the provinces concerned in support of the programs of fundamental and clinical research sponsored by those agencies.

An analysis of fields of medicine or scientific disciplines involved in the extra-mural research program is presented in Table 3, indicating the numbers of projects and the funds allocated to the specific field. Similarly, the disease entities in the research studies have been reviewed and are listed in Table 4. In the fields of medicine, it will be appreciated that there may be more than one discipline involved in the conduct of many of the studies. However, projects have been listed according to the scientific discipline which has greatest prominence in the performance of the research. This also applies to a lesser extent to those listed under disease entities where several pathological conditions may be involved. There are, of course, a number of studies which cannot be tabulated mainly for lack of relationship to any specific disease condition.

INTERNATIONAL HEALTH

With Canada's expanding role in the international field, health takes a prominent position and is demanding progressively increasing attention. The International Health Section is responsible for co-ordination of the interests and activities of the Department in international health areas which, in the main, are those arising out of Canadian membership in the specialized agencies, i.e., W.H.O. and other United Nations organs, and the multilateral United Nations technical assistance programs including the Expanded Program (UNTA) and the Children's Fund (UNICEF). In addition, the Section advises the Colombo Plan Administration on technical assistance requests in the health field and functions as the assessment and placement agency for the Colombo Plan Fellows undertaking post-graduate studies at Canadian medical schools and post-graduate faculties.

Regarding the activities of the World Health Organization, it was noteworthy that the Tenth Commemorative Session was held in Minneapolis, Minnesota, May 26-28, 1958, followed by the regular meeting of the 11th World Health Assembly. The Canadian Delegation to the Commemorative Session was

led by the Honourable J. Waldo Monteith, Minister of National Health and Welfare. Other members were Dr. G. D. W. Cameron, Deputy Minister of National Health, Dr. G. Brock Chisholm, Victoria, B.C., Dr. Adelard Groulx, Chief Health Officer for the City of Montreal, Dr. B. D. B. Layton, Dr. P. E. Moore and Mr. T. J. Giles of the Department of National Health and Welfare.

At the 11th World Health Assembly, May 28th to June 13th, 1958, the Delegation was led by Dr. G. D. W. Cameron, Deputy Minister of National Health, with Dr. B. D. B. Layton, Principal Medical Officer, International Health Section, acting head from May 30th to the end of the Assembly. Other members were Dr. A. D. Kelly, General Secretary of the Canadian Medical Association, Dr. Jules Gilbert, President of the Canadian Public Health Association, Dr. R. D. Defries, former Director of the Connaught Medical Research Laboratories and School of Hygiene, University of Toronto, Mr. T. J. Giles of the Department of National Health and Welfare, and Mr. R. G. Monk of the Department of Finance. Dr. P. E. Moore, Canada's nominee to the Executive Board of W.H.O. and Chairman for 1958-59, represented the Board with Sir John Charles of the United Kingdom at the Health Assembly.

A program for W.H.O. for 1959 was approved at a budgetary level of \$14,442,740 (U.S.) of which Canada's assessed contribution is \$434,730. In addition the Organization is responsible for the co-ordination and technical direction of health programs financed through the U.N. Expanded Program of Technical Assistance and the United Nations Children's Fund. The total available for health activities from these sources in 1959, with funds for malaria eradication, special contributions in the Region for the Americas under P.A.H.O. and other sources amount to \$48,200,000.

Major emphasis in the program is placed on assistance in strengthening the organization of national health administrations in underdeveloped countries, on the training of additional health personnel and on the program of worldwide eradication of malaria which began in 1956. Other prominent items include an effort to achieve the total eradication of smallpox, an intensified research program for W.H.O. and co-operation with the International Atomic Energy Agency in regard to the health aspects of the peaceful uses of atomic energy.

TABLE 6

SUMMARY OF INTRA-MURAL RESEARCH PROGRAM

Department of National Health and Welfare—1958-59

<i>Division</i>	<i>Research Budget</i>
Civil Aviation Medicine	2,500
Dental Health	18,500
Epidemiology	22,000
Food & Drugs Laboratories	225,000
Laboratory of Hygiene	296,500
Nutrition	41,000
Occupational Health	
Laboratory Services	269,320
Radiation Protection	48,000
Public Health Engineering	300
Research and Statistics	259,423
TOTAL	\$ 1,182,543

TABLE 7
ALLOCATIONS FOR RESEARCH UNDER THE NATIONAL HEALTH PROGRAM
By Health Grant and By Province, 1958-59

Province	Crippled Children		Mental Health		Tuberculosis		Public Health Research		General Public Health		Medical Rehabilitation		Child and Maternal Health		Total	
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.
Nova Scotia.....	—	—	—	—	—	—	41,945 00	—	—	—	—	—	—	—	41,945 00	—
Quebec.....	—	—	246,222 75	—	10,800 00	—	194,245 00	262,263 34	—	—	—	3,050 00	114,702 95	—	831,284 04	—
Ontario.....	39,939 23	—	166,045 15	—	92,088 00	—	149,798 35	293,340 83	—	—	—	—	83,045 17	—	824,256 73	—
Manitoba.....	—	—	24,633 20	—	—	—	29,465 00	18,830 00	—	—	—	—	13,645 00	—	86,573 20	—
Saskatchewan.....	—	—	63,162 00	—	—	—	46,287 72	—	—	—	—	—	11,705 00	—	121,154 72	—
Alberta.....	—	—	—	—	—	—	17,537 30	—	—	—	—	—	31,030 81	—	48,568 11	—
British Columbia.....	—	—	57,389 00	—	4,000 00	—	26,536 90	24,640 95	—	—	—	—	32,262 00	—	144,828 85	—
Northwest Territories.....	—	—	—	—	—	—	7,025 58	—	—	—	—	—	—	—	7,025 58	—
Total.....	39,939 23	—	557,452 10	—	106,888 00	—	512,840 85	599,075 12	—	—	—	3,050 00	286,390 93	—	2,105,636 23	—

Note—Assistance to National Cancer Institute: P.E.I. \$ 825.00 Quebec.....\$36,209.60
Manitoba.....6,500.00 Saskatchewan.....7,250.00
Ontario.....\$41,849.50

Total.....\$92,634.10
—Assistance to Ontario Cancer Treatment and Research Foundation.....\$60,228.00

TABLE 8
RESEARCH ACCORDING TO FIELD OF MEDICINE
National Health Program—1958-59

Field of Medicine	No. of Projects	Amount	Per Cent of Total
Psychology and Psychiatry.....	28	328,699.10	15.6
Cardiology.....	18	316,074.89	15.0
Pharmacology and Therapeutics.....	24	186,898.68	8.9
Biochemistry.....	20	151,044.75	7.2
Bacteriology.....	21	128,304.74	6.1
Neurology.....	10	117,849.60	5.6
Special Senses.....	5	94,737.05	4.4
Virology.....	10	91,536.60	4.4
Pediatrics.....	11	78,298.60	3.7
Tubercle Bacillus and B.C.G.....	13	77,050.00	3.6
Endocrinology.....	6	73,795.83	3.5
Obstetrics and Gynaecology.....	11	71,818.10	3.4
Internal Medicine.....	6	70,944.90	3.4
Hematology.....	8	54,164.92	2.6
Physiology.....	6	51,243.20	2.5
Dentistry.....	2	30,705.04	1.5
Tuberculosis.....	3	26,380.00	1.2
Genetics.....	3	23,354.11	1.1
Pathology.....	3	19,921.90	1.0
Other—Miscellaneous.....	15	112,814.22	5.3
Total.....	223	\$2,105,636.23	100.0

TABLE 9
RESEARCH ACCORDING TO DISEASE ENTITY
National Health Program—1958-59

Disease Entity	No. of Projects	Amount	Per Cent of Total
Psychosis.....	28	322,136.28	15.3
Heart Disease.....	19	301,649.60	14.3
Tuberculosis (Respiratory).....	29	201,929.88	9.6
Infectious Disease.....	26	174,066.46	8.3
Neonatal Period.....	18	165,417.64	7.9
Bones and Organs of Movement.....	14	136,542.42	6.5
Nervous System.....	15	124,545.26	5.9
Eye, Ear and Mastoid.....	6	115,703.09	5.5
Neurosis and Psychoneurosis.....	5	59,210.00	2.8
Digestive Disease.....	8	48,511.67	2.3
Mental Deficiency.....	7	43,078.20	2.1
Mouth and Teeth.....	3	34,405.04	1.6
Arteriosclerosis and Hypertension.....	2	33,100.00	1.6
Anemias.....	4	32,995.00	1.5
Pregnancy.....	8	30,105.00	1.4
Senility.....	1	21,940.00	1.0
Other Respiratory.....	4	21,190.00	1.0
Poisoning, Alcoholism and Drug Addiction.....	2	15,898.55	0.8
Genito-Urinary System and V.D.....	3	14,612.00	0.7
Other—Miscellaneous.....	9	96,458.84	4.6
Unclassifiable*.....	12	112,141.30	5.3
Total.....	223	\$2,105,636.23	100.0

*No specific disease involved.

SPECIAL HEALTH SERVICES (CONSULTANT AND LABORATORY)

BLINDNESS CONTROL DIVISION

The Division continued its educational campaign for the control of blindness and its consultant services to provincial health and welfare officials. Much of the Division's work concerns the issuing of blindness certificates to provincial authorities under the regulations of the Blind Persons' Act. There are more than 23,000 known blind in Canada of whom 8,747 between the ages of 18 and 70 were in receipt of blindness allowance on March 31st, 1959.

Treatment Scheme

A treatment scheme for suitable recipients of blindness allowance was initiated by the Division through an order in council in 1948. The scheme is administered by the Division and those provinces who have agreed to participate. The Department reimburses the provinces for 75 per cent of the cost of approved treatment. During the past year, 88 cases were treated of whom 72 had vision restored.

Summary of Treatment Cases

From 1948 to March 31st, 1959

<i>Provinces</i>	<i>Total</i>	<i>Successful</i>	<i>Unsuccessful</i>
Newfoundland	4	1	3
Prince Edward Island	2	2	0
Nova Scotia	27	17	10
New Brunswick	90	73	17
Quebec	248	190	58
Ontario	123	91	32
Manitoba	14	11	3
Saskatchewan	13	9	4
	<hr style="width: 50%; margin: 0 auto;"/> 521	<hr style="width: 50%; margin: 0 auto;"/> 394	<hr style="width: 50%; margin: 0 auto;"/> 127

Glaucoma

Glaucoma develops in 2 per cent of persons over 40 and in a few younger persons. It is our most serious eye problem. Early treatment can preserve vision. Unfortunately, early symptoms are lacking in the common chronic form of the disease. As a result, glaucoma causes more blindness than any other eye disease. Under the National Health Grants Program, glaucoma clinics have been set up in Saint John, Quebec City, Montreal (3 clinics), Toronto, Ottawa, London, Winnipeg, Saskatoon and Vancouver. Other clinics are planned.

Eye Research

Eye Research under the Health Grants Program has been underway since 1950 mainly in the Department of Ophthalmology of the University of Toronto. Present investigations concern glaucoma, diabetic retinitis, retinal detachment, strabismus, diseases of the cornea and corneal transplantation assisted by an Eye

Research Bank. Donor eyes are in short supply. If a person before death wishes to donate his eyes it is still necessary to obtain the consent of the next of kin immediately after the donor's death. Eyes then must be removed within several hours to be of use.

Research into children's hearing defects and speech therapy is being conducted under a health grant at the Notre Dame Hospital, Montreal. A research project concerning deafness due to noise is underway at Toronto. Other health projects include an eye clinic at the Children's Hospital, Montreal, and projects for screening the vision and hearing of children in various centres.

CHILD AND MATERNAL HEALTH DIVISION

The Child and Maternal Health Division continued its activity in the promotion of comprehensive health programs for mothers and children. In the presence of a relatively high birth rate and significant immigration of young families, the provision of health services for almost one half million mothers per year and a population of almost five million children under 15 years of age offers a real challenge to health authorities everywhere in Canada. Specifically, the Division makes medical and nursing consultation services available to provincial health departments and other health agencies, assists in the administration of national health grants, develops educational materials for lay and professional use, and attempts to stimulate research and study of present health programs and problems.

National Health Grants

The Division continued to assist the Health Grants Administration in appraising projects for the utilization of the Crippled Children and Child and Maternal Health Grants in particular. During the year, there was little modification in the established pattern of utilization of the Crippled Children Grant, which is used mainly to strengthen treatment services for children with locomotor disabilities. The utilization of the Child and Maternal Health Grant reached an unprecedented high level. These funds continued to be used for strengthening Maternal and Child Health consulting services in provincial health departments, and for training of physicians and nurses. New public health programs were assisted, such as poison control centers, a demonstration child health service and a genetic counselling service. Further assistance was given for the extension of dental programs for children and a variety of other measures for the recognition and treatment of long term disabilities. Emphasis continued to be placed on the improvement of hospital facilities for the care of mothers and newborns. Research programs are continuing to expand. Areas receiving particular attention are maternal and newborn problems, congenital disabilities, nutrition and vision defects. The levels of utilization of these grants in recent years are shown in Table 10 which follows.

Field Activities

The usual field visits to provincial health departments and other health agencies were somewhat restricted due to the absence on educational leave of the nursing consultant. However, the divisional personnel was gratified to be able to participate in four refresher courses for physicians and nurses across the country.

Educational Material

Materials already available continued to be in good demand. A revised edition of the manual *Care of the Premature Infant* became available as well as an additional poster of the accident prevention series.

Maternal and Child Health Advisory Committee

This committee which was set up in the previous fiscal year had its initial meeting in April. It was attended by provincial Maternal and Child Health directors or other provincial representatives, as well as specialists in obstetrics, pediatrics and nursing. During the course of the deliberations, recommendations were made to establish three subcommittees on Statistics, Research and Standards of Care. Meetings of these subcommittees made up of additional experts in statistics, medicine and nursing were held. It is anticipated that all of these groups will play an increasingly important role in the future development of the program of the Division and in fostering closer ties between public health, clinical and academic spheres of interest in the maternal and child health field.

Indices of Progress

Maternal and infant mortality rates are widely recognized as valuable reflections of the general level of maternal and child care in any country. Reduction in needless maternal and infant deaths remains a prime objective in all maternal and child health programs.

Maternal Deaths

In 1957 there were 255 deaths of mothers in Canada. This represented a rate of 0.5 deaths per 1,000 live births. In 1947 there were 554 deaths and a rate of 1.5 deaths per 1,000 live births.

Many of these maternal deaths are preventable. This is shown by Maternal Mortality Studies which are being carried out in five provinces. For the second year haemorrhage was the leading cause of death; other important causes were toxemia of pregnancy and sepsis.

Infant Deaths

In 1957, there were 469,093 live births in Canada and 14,517 infants died in their first year. This represented an infant mortality rate of 31 per 1,000 live births. The rate ten years ago was 46. Canada has obviously shared in the world wide improvement in infant mortality. We have cause for concern, however, since many other countries with no higher standards of living save more infant lives. In 1957, 12 countries had lower infant mortality rates.

Deaths in the first month of life make up a significant proportion of the total. In 1957, 9,478 deaths, or 65 per cent occurred in the first month of life. If to 9,478 newborn deaths are added 6,837 stillbirths, the total of 16,315 Canadian infant lives lost before one month of age is formidable. The magnitude of this loss is illustrated by the fact that in 1957, this number of deaths was exceeded only by deaths at all ages from malignant disease and heart disease.

Study of the causes of infant deaths and particularly deaths in the newborn period reveals the fact that premature infants, those who are born too soon, are much more liable to die than infants born at term. This indicates the importance of care of the mother during pregnancy and confinement, and since 90 per cent of infants are now born in hospital the responsibility carried by hospitals is heavy. It is clear, however, that all health workers, in and out of hospitals, must be concerned if further improvements in maternal and child care are to be achieved.

TABLE 10

EXPENDITURE OF NATIONAL HEALTH GRANTS

1953-59

Crippled Children Grant	Funds Available	Funds Expended	Per Cent Expended
Year			
1953-54.....	\$519,898	\$449,214	86
1954-55.....	519,898	427,319	82
1955-56.....	519,898	415,973	80
1956-57.....	519,898	465,751	89
1957-58.....	519,898	473,291	91
1958-59 (a).....	519,898	413,522	79
Child and Maternal Health Grant			
Year			
1953-54.....	500,000	114,341	23
1954-55.....	1,000,000	560,385	56
1955-56.....	2,000,000	1,009,408	50
1956-57.....	2,000,000	993,277	50
1957-58.....	2,000,000	1,165,550	58
1958-59 (a).....	2,000,000	1,700,420	85

(a) Preliminary figures.

DENTAL HEALTH DIVISION

The work of the Dental Health Division is designed to maintain and to improve general health by the prevention and control of tooth decay, malocclusion and periodontal disease. Research, related to preventive measures, which may lend themselves to mass application, particularly for the prevention of caries, is planned, conducted and encouraged. An effort is made to produce more and better health education materials, chiefly for use in schools and to influence the thinking of parents of young children. Technical information and advice, especially in relation to preventive measures and to the development of child dental care

programs, are made available to interested individuals and agencies, including provincial departments of health and other branches of the Federal Department.

The cumulative nature of caries from the time the first teeth appear and its partial but significant responsibility for ensuing malocclusion and periodontal disease, have dictated a policy of concentration upon the dental care of the very young children.

Research

The establishment of the Division was changed this year to include as an addition, a Research Dental Officer position. This position, which was filled this year, requires a graduate degree in basic medical science in addition to a dental degree.

The survey work of the final phase of the Brantford-Sarnia-Stratford Water Fluoridation Caries Study was completed this year. The final data, now undergoing analysis, will show what changes in the prevalence of caries have taken place in Brantford during 14 years of fluoridation.

A study of the effectiveness of a topical application of an 8 per cent solution of stannous fluoride for the prevention of caries, which began two years ago, was continued this year. About seven hundred children are included in this study. A new one, involving some 1,200 children and also using an 8 per cent solution of stannous fluoride, was begun this year.

As this substance holds out good possibilities of effective use in public health programs but will require many years of research, an effort is being made to encourage provincial departments of health to undertake certain modifications of the study patterns followed by this Division.

Health Information

A revised edition of *The Dental Health Manual*, a dental health source book published for the first time in 1951 for the use of public health and teaching personnel "engaged in teaching dental health", was published in both English and French. The demand for all dental health publications produced by this Department continues to increase.

Health Grants

A representative from the Division assists the Health Grants Officials of the Department in discussions with provincial officials concerning grant-aided dental programs. These programs are visited annually by a member of this Division and their operation discussed with the provincial dental consultant. Reports are written on all dental projects for the use of the Principal Medical Officer, Health Grants Administration and his officers.

Liaison Services to Indian and Northern Health Services and to Civil Defence Health Services

These two branches of the Department require much more assistance from this Division than do the others. Therefore one dental officer has been assigned to devote at least half of his time to assisting the Indian and Northern Health Services Directorate. Here, he studies problems connected with providing dental services

for Indians, Eskimos and other residents of northern areas and assisting in technical matters relating to the administration of the Dental Service of that Directorate. The greater part of the remainder of his time has been assigned to liaison work with Civil Defence Health Services. Here, he assists in matters relating to the training of dentists to participate in mass casualty care in the event of an atomic disaster.

Other Activities

Members of the Division participated in the programs of several dental and public health meetings, delivering addresses, taking part in panel presentations or demonstrating the use of health education materials.

Liaison was maintained with the Canadian Dental Association, through its Public Health Committee, Health Insurance Committee, Research Committee and its Council on Dental Education.

Consultant Services

Advice and assistance is made available to any branch of the Department whose work is in any way related to the dental field. During a year, a considerable number and variety of verbal and written requests for information are handled.

EPIDEMIOLOGY DIVISION

The purpose of the Epidemiology Division is to provide an epidemiological service at the national level. The scope of this service is best described by a definition of epidemiology as "the science concerned with factors and conditions which determine the occurrence and distribution of health, disease, defect, disability and death in populations".

The primary functions of the Division are epidemiological research, consultation and technical information.

Lung Cancer Study

A continuing prospective study on the relationship of residence, occupation and smoking habits to death from lung cancer and other selected causes among recipients of veteran's and widow's allowances is being conducted by the Epidemiology Division and the Research and Statistics Division together with the Department of Veterans Affairs. As yet the number of reported deaths from all causes among smokers and non-smokers does not provide any reliable assessment of death rates. Preliminary analysis, however, indicates that death among smokers, as compared to non-smokers, generally exceeded the expected number in all age groups up to age 80.

Leukemia Study

A follow-up study of children born in the years 1939-55 who had been exposed to x-rays before birth was undertaken in co-operation with a large Ontario hospital. Special attention is being given to the possible subsequent development of leukemia or other forms of cancer in these children.

Accidents to Patients in Hospitals

In March, 1959, a study of the causes and types of accidents to patients in five Ontario hospitals was initiated. All accidents to patients will be reported to the Epidemiology Division on special reporting forms for later analysis.

Staphylococcal Infections in Hospitals

The Division is co-operating with the National Research Council Associate Committee on Control of Hospital Infections in analysing reports from approximately 85 hospitals across Canada that have agreed to co-operate in this study. The purpose of this committee is to study the problem and to make recommendations concerning the control of staphylococcal infections in hospitals.

Paralytic Poliomyelitis

During the poliomyelitis season, Provincial Departments of Health sent weekly telegraphic reports of paralytic poliomyelitis cases to the Division from which summaries were prepared and distributed. At the end of the year, further information relating to paralytic cases was obtained and analysed. The high proportion of cases amongst pre-school children and of deaths in young adults emphasized the need for more extensive immunization of these groups, especially the latter whose estimated poliomyelitis immunization status was very low.

Tuberculosis

Visits were made by Division Medical Officers to various sanatoria in Ontario, Quebec and the Western Provinces as part of the Division's function to study and make recommendations concerning the allocation of national tuberculosis control grants. Special attention was given to the improvement of case finding efforts.

Venereal Disease

Two hundred cases of acquired syphilis primary and secondary were reported in Canada in 1958. The average for the preceding three years was 180 cases.

There were 14,836 cases of gonorrhoea reported in 1958. The average for the preceding three years was 14,386 cases.

To assist in the control of these infections, applications for national venereal disease control grants were studied and recommendations made. Notifications of individual contacts were forwarded when received from international or provincial sources.

Semi-annual statistical tables were published and a technical manual for physicians entitled *Syphilis and Gonorrhoea* was revised and printed.

Epidemic or Unusual Communicable Diseases

Medical assessment was made of current national and international epidemiological information. Summary reports were published periodically for the use of Medical Officers of Health and other professional public health personnel.

Literature Research and Collection

Seventy-five journals and 125 reports were monitored monthly and references of interest to the Division were indexed.

Technical Enquiries

In the 12-month period ending March 31, 1959, the Division received 233 professional and 119 lay enquiries originating outside federal agencies.

Scientific Reports

Articles on original work done by the Division are published when appropriate. Illustrating the newer fields of epidemiological interest, a report appeared during the year on accidental home poisonings. This included information about environmental factors, types of poisons, the age of children taking poison, treatment given and the degree of carelessness involved in the poisonings.

Medical Officers of the Division prepared and delivered papers of epidemiological interest at several professional meetings.

HOSPITAL DESIGN DIVISION

This Division is a consulting service to provincial health departments and to those concerned with the planning and operation of hospitals. It co-operates with the provinces in their efforts to promote sound planning for health institutions of all types.

Plans of every hospital requesting assistance under the Hospital Construction Grant in the National Health Grant Program are studied to see that they conform to minimum standards of hospital construction as prepared by this Division. These plans are also studied to determine the amount of federal assistance payable under the terms of the grant.

Consultations

The provinces, as well as a number of architectural firms, forward drawings to this Division during their preliminary stage for criticism and consultation prior to submitting a formal request for federal assistance. The advantage of this procedure is that the plans can be easily altered at an early stage in their development. This Division produces alternate plans which are adopted wholly or in part for hospital projects.

Additional personnel has permitted this Division to undertake research planning in the field of chronic hospitals, geriatrics, and in active treatment hospitals' operating rooms and nurseries. It is expected that some of these research projects will be completed by 1960.

The Chief of the Division is beginning research in the field of chronic and geriatric patients by visiting numerous hospitals in England and on the continent of Europe. A report of these visits will form the basis of the research program, as it is acknowledged that England and the European countries have made great strides in these fields.

Hospital Construction Grant

In the past fiscal year, many amendments were approved for renovation programs that form part of a construction program. These reviews involved the evaluation of the request in relation to the program as a whole to ascertain if minimum standards were being met and if the integration of the services contained in the renovations provided a good hospital service.

Many projects are being submitted for renovation programs which do not involve new construction. This is considered a healthy aspect in the field of hospital construction, as many hospitals are improving their ancillary services as well as their diagnostic, therapeutic and treatment services to bring those services in line with the number of patient beds provided in the hospitals.

Since the inception of the Hospital Construction Grant in 1948, more than \$116,406,016 has been allocated towards the construction of accommodation for more than 77,053 patient beds of all types, 10,012 bassinets for newborn, 15,493 nurses' beds and 330 interns' beds. Grants have also been approved on a floor area basis for community health facilities, which include such areas in hospitals as out-patient departments, emergency, radiology, laboratories, pharmacies and remedial therapy departments. Grants on a similar basis are also approved for training areas for hospital personnel.

Conferences were held on hospital planning and to study problems pertaining to the Hospital Construction Grant with provincial health authorities in British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Quebec and Nova Scotia. Many hospitals throughout the country were visited at their request to assist them with their planning problems, and similarly, many conferences were held in Ottawa with hospital authorities and their architects with regard to possible federal construction grants and constructive criticism of their proposed plans.

Other Activities

During the past year, the Chief of the Division presented papers on various subjects relating to hospital planning to the Western Institute for Hospital Administrators, the Institute on Hospital Insurance in Halifax, the Joint Meeting of the American Hospital Association and the Ontario Hospital Association in Toronto, and to the Rotary Club in Sherbrooke. He also gave a day of lectures on hospital planning to the students of the Hospital Administrators' Course at the University of Toronto. He has continued to act in a consulting capacity for hospital planning for the Armed Forces and is a member of the Hospital Requirements Committee (National Defence) and the Committee on the Control of Infections in Hospitals, as well as acting as chairman of the Canadian Standards Association Committee on Safety Code for Hospital Hazards. Papers were also prepared and given by a member of the Division to a district medical group in Sherbrooke and an article was written for the monthly publication *L'Hôpital d'aujourd'hui*.

LABORATORY OF HYGIENE

As Canada's national reference laboratory in the field of public health, the Laboratory of Hygiene continues to play a leading role in many health conservation activities. It combines in one institution, bacteriological, biologics control, biochemical research, clinical, virus and zoonosis laboratories, with associated

animal breeding and administrative services. It is housed in three buildings—the central Laboratory of Hygiene building located in Tunney's Pasture, the Virus Section which, for reasons of safety, is located in a separate building in Tunney's Pasture, and an Animal Breeding Unit located in Wrightville, P.Q. Plans are being prepared for the establishment of a new animal breeding unit which will also be located in Tunney's Pasture.

Bacteriological Laboratories

The principal function of these laboratories is to act as a national reference centre for the identification of special groups of bacteria and for the preparation of and distribution to the provincial departments of public health of reagents to assist them in the laboratory diagnosis of special pathogenic bacteria.

Enteric Bacteriology

More than 600 'types' of enteric bacterial pathogens, that is, those bacteria which produce typhoid fever, paratyphoid, dysentery, infantile diarrhoea and like diseases in man and enteritis in animals, have been described. It therefore becomes a highly specialized task for a laboratory to identify one of these organisms and this has led to the establishment in many countries of a national centre to which cultures of this kind can be referred for identification. These laboratories serve as a national reference centre and during the year received 1,210 cultures for identification. Six 'types' not previously reported in Canada were identified during this period. In addition, as a means of maintaining a high quality of work throughout the country, 231,700 ml of carefully standardized diagnostic reagents were prepared by these laboratories and distributed to other laboratories during the year.

Staphylococcal Investigations

Staphylococcal infections in hospitals continue to be a serious problem in Canada as in many other countries of the world. 'Typing' by means of bacteriophages, or to put it colloquially, finger-printing, of the strains which cause outbreaks in hospitals is essential to the detection of the way in which these outbreaks arise and spread, and to the measures necessary to control them. These laboratories act as the national centre to which strains can be referred for specific identification. During the year, 3208 cultures were received for phage typing and, in addition, this centre assisted the provincial and other laboratories by preparing and distributing to them standard 'phages' and strains (reagents) for them to do their own typing. Close association was maintained with the International Committee on Typing; a number of talks were given at scientific meetings; a collaborative investigation on 'carriers' is being undertaken with Queen's University.

Other Special Groups

A total of 1,234 cultures of hemolytic streptococci and 26 cultures of *C. diphtheriae* were also received for special study and 592 ml of diagnostic antisera for the streptococci were prepared and distributed.

Sanitary Bacteriology

Through the use of a mobile laboratory, bacteriological surveys of a number of shellfish-producing areas in the eastern Maritime Provinces and in Quebec were carried out. This constitutes part of the Department's responsibilities for controlling the safety of the areas from which shellfish can be harvested for sale. Another part of this control is concerned with the safety of shellfish from "paralytic poison". The laboratory assayed 925 specimens of shellfish for this poison and assisted the Fisheries Department in the successful control of this hazard. Special investigations on a method of cleansing clams and on the sanitization of glasses in beer parlours were also carried out during the year.

BIOCHEMICAL RESEARCH SECTION

The activities of the Biochemical Research Section have gradually expanded to include several distinct areas of research. These include: (a) Studies on cell nutrition (b) Studies on the metabolism of normal and malignant cells (c) Studies on the action of anti-tumor agents, particularly fatty acids (d) Studies on bacteriological chemistry (e) Postdoctorate training and consultation.

Detailed research has been conducted on the amino acid and carbohydrate requirement of normal tissue cultures. In these studies, inhibition of the cultures by specific analogues and the study of their reversal has made it possible to observe individual metabolic pathways within the cells in terms of enzyme systems. Studies on amino acid pathways in both normal and malignant cells have indicated a possible metabolic difference in regard to the utilization of glutamine. The installation of equipment for high voltage paper electrophoresis has allowed considerable expansion of this work.

The collaborative project of the Laboratory of Hygiene, the Department of Apiculture of the Ontario Agricultural College, and the Department of Therapeutics of the University of Toronto has been continued. The anti-tumor activity of royal jelly has been established and the activity shown to reside in the fatty acid portion of this material. Extensive studies on other fatty acids have been carried out.

In bacteriological chemistry, methods for the recovery, concentration and purification of the lysins of staphylococci have been developed. Studies on the protective and sensitizing properties of these purified lysins are in progress.

The facilities of the Section have been extended to provide postdoctorate training to Dr. Dorothy M. Powelson of Purdue University, Dr. Gloria Webster of the Institute of Parasitology of Macdonald College, and Dr. Francisca Turel of the University of Saskatchewan.

BIOLOGICS CONTROL LABORATORIES

The activities of this Section revolve around the Laboratory of Hygiene's function of controlling biological drugs such as vaccines, toxoids, sera and antibiotics under the Canadian Food and Drugs Act, and its role as a national public health laboratory. Most of the work program within the Section is concerned with the control of these drugs. This involves the inspection of establishments licenced for the manufacture of biological products for sale in Canada, the routine control testing of these products and research related to the improvement of control tests

and to the use of these drugs in the field. Our interest in the testing of diagnostic agents has been continued and the number of samples tested markedly increased. A considerable amount of testing of parenteral drugs, other than those mentioned above, i.e., glandular extracts and non-licenced injectables, are also carried out at the request of the Director of the Food and Drug Directorate.

Routine Control

The conditions for granting a Canadian Biologics Licence have remained the same. Products for which a Canadian Licence is requested must meet the Canadian requirements; the manufacturing laboratories must pass an inspection showing that they have proper manufacturing and testing facilities; the personnel must be suitably qualified and trained to perform their functions. Periodic inspections are carried out on every plant possessing a Canadian Licence and control tests on market samples are carried out throughout the year. During the fiscal year, a total of 2,535 specimens were received and tested. The control tests included bacterial sterility, animal safety, potency and purity. Thirty-seven inspections were carried out. This included re-inspection of 32 companies already possessing a Canadian Licence and five new applicants. All companies were found to be satisfactory, although minor changes were requested in a number of instances.

Research and Other Activities

The successful operation of any control program requires an active and effective research program. The greater the knowledge concerning a drug's use and activity, the greater the possibility of producing reasonable and effective drug regulations. For this reason, human field trials on immunization are continuing as well as a number of active studies connected with whooping cough and tuberculosis.

Collaboration with W.H.O. and Other Countries

The Biologics Control Laboratories again participated in collaborative studies with the W.H.O. on problems associated with the assay of antibiotics. A member of this laboratory attended a special meeting on "Smallpox Vaccine", initiated by the W.H.O. in Geneva.

For the second year, a member of the Pakistan Biologics Control Division spent a year in the Section's laboratories studying methods for controlling biological drugs.

CLINICAL LABORATORIES

The Clinical Laboratories Section consists of the clinical chemistry and serology units as well as a more recently formed health grants unit.

Clinical Chemistry

During the year the Department received a recommendation from the National Research Council that standard cyanmethemoglobin solutions be prepared at the Laboratory of Hygiene and be made available to hospital and public health laboratories. These solutions will serve as standards in the determination of hemoglobin. Stocks of the standard solutions have been prepared and final steps are being taken to initiate the program.

Work on the Manual of Clinical Chemistry for Hospital Laboratories has been continued and new outlines of procedures have been prepared. Copies of the Manual are being printed in the French language and will be available for distribution shortly.

Investigations have been conducted on the estimation of cholesterol in the blood.

Syphilis Serology

Efforts have been continued to maintain a satisfactory degree of uniformity in the performance of blood tests for syphilis in Canada. Standard reagents prepared at the Laboratory of Hygiene are used in all provinces. The ninth serological evaluation study (survey) is now in progress and the results indicate that uniformity of testing in the Provincial Laboratories continues to be good.

The Treponema Pallidum Immobilization (TPI) test was performed on 897 specimens received from various parts of Canada. This specific test is technically difficult and it has not been feasible to conduct the procedure in each Provincial Laboratory.

Studies on the preparation of synthetic antigens for the serodiagnosis of syphilis have been continued. It has been possible to prepare a moderately reactive mixture made up of relatively simple, pure compounds. A paper has recently been published which summarizes the findings to date.

Blood Grouping and Typing Sera

A survey of blood grouping and Rh typing sera available commercially in Canada has been conducted in collaboration with the Biologics Control Laboratories.

Health Grants

Consultant services have been given in the consideration of National Health Grant submissions related to laboratory work and in the planning and integration of diagnostic services in the provinces.

VIRUS LABORATORIES

The main routine project of the Virus Laboratories consisted of the safety and potency testing of poliomyelitis vaccines. Thirty-one Canadian and four American vaccines representing over 20 million doses were submitted during the fiscal year. All vaccines were found to be safe and only one did not pass the governmental test for potency.

Over 500 clinical specimens of human origin and about 300 human sera were received for virus isolation and serological identification of viral diseases. Over 5,000 tests were carried out with these specimens. Seventy-seven viral agents, including numerous strains of Poliomyelitis, Coxsackie, Echo, Adeno and Influenza virus were isolated from these specimens.

Diagnostic antigens for over 7,600 tests on viral and rickettsial diseases and antisera for over 30,000 tests were supplied to the Provincial Laboratories of Health during the fiscal year. Standardized antigens and antisera for the Adeno virus group were added to the list of reagents supplied by the Virus Laboratories.

Several laboratory surveys of epidemics of respiratory diseases in various Canadian provinces were carried out and Adeno virus type 3 was found responsible for outbreaks during the months of November and December/1958. Epidemics in February and March/1959 were mainly caused by Influenza virus type B.

Investigative studies on variables influencing the preparation of Influenza vaccines with formaldehyde were completed and the results published.

Methods of producing virus vaccines with the aid of gamma radiation are under investigation.

Research is continuing on the improvement of safety and potency tests for polio vaccines and the establishment of a stabilized standard vaccine. The initiation of control procedures for the newly developed measles and oral polio vaccines is planned.

Further efforts are being made to establish tissue culture lines susceptible to the Coxsackie A viruses.

ZOONOSIS LABORATORIES

The rodent and avian survey for the detection of *Pasteurella* infections, leptospirosis, rat bite fever and other infections was carried out this year in that part of the St. Lawrence Seaway area lying between Cornwall and Kingston, Ontario.

A serological survey of meat handlers at a local meat packing plant for evidence of present or previous infections transmissible from animals was begun.

A beginning was made on a collaborative study with the Ontario Department of Health to conduct a Q fever survey of cows' milk in Ontario.

Also initiated this year was a collaborative survey with the Canada Department of Agriculture to determine the incidence of arthropod-borne encephalitides in mosquitoes of Alberta.

PARASITOLOGY

The Institute of Parasitology of McGill University serves as the Parasitology Section of the Laboratory of Hygiene. In particular, this Section offers services to the provincial departments of health for the diagnosis of parasitic infections, the identifications of parasites of man, and the distribution of hydatid and trichina antigens. A program of evaluation of diagnostic services, provided by the provincial laboratories, is being carried out by the submission of unknown specimens. In addition, refresher courses in advanced parasitological techniques are made available to hospital and public health laboratory technicians.

A major program of research is carried out with special emphasis on the pathology of parasitic infections in humans and the infections of animals liable to be transmitted to man. Current investigations include Amoebiasis, Hydatid, Trichinosis, Ascariasis, etc.

During the past year, a total of approximately 2,400 hours of work were performed on behalf of the Laboratory of Hygiene. This figure does not include the time spent on research of special interest to the Department of National Health & Welfare.

MEDICAL REHABILITATION AND DISABILITY ADVISORY SERVICE

In keeping with the greater emphasis given to the development of programs to assist impaired and disabled individuals at various government levels, the general activities of this advisory service in both functional areas were increased during the year under review.

Medical Rehabilitation

The main provision of consultative services was to the National Health Grants Administration. All provincial projects, submitted under the Medical Rehabilitation Grant, were comprehensively appraised on the basis of their suitability in the overall local provincial program of medical rehabilitation and adequate suggestions and recommendations were made.

Advisory service was also made available to provincial officials responsible for Medical Rehabilitation Programs on the occasion of visits undertaken in all provinces during the year by one or more of the three consultants.

Numerous requests for information and guidance by voluntary organizations and private institutions were received during the year. Appropriate attention was given by the Service through replies to written inquiries, personal interviews or participation at meetings.

Most of the annual meetings of professional bodies, whose members are part of the Medical Rehabilitation Team, were attended by one of the consultants.

Special contributions were offered by consultants during the year on panels organized for a Rehabilitation Conference in Fredericton; for meetings of Provincial Co-ordinators of Rehabilitation, Ottawa and Toronto; for the International Northern Great Plains Conference on Rehabilitation and Special Education in Saskatoon; and for the Second Atlantic Workshop on Rehabilitation at Grand Tracadie, P. E. I.

The Medical Consultant and Chief of the Service attended, as departmental representatives, both the Fall and the Spring meetings of the National Advisory Committee on Rehabilitation of Disabled Persons at Ottawa and Toronto.

Liaison was maintained with other divisions of the department dealing with the subject of medical rehabilitation and with other government departments having responsibilities in the field of rehabilitation.

Disability

On the occasion of the above-mentioned visits to the provinces, discussions were held with all federal medical representatives. In many instances, a regular session of the local Medical Review Board was attended by the visiting consultant.

The number of federal medical representatives has been increased to four in Quebec. Certain modifications of procedures, aiming at a more uniform interpretation of the Disabled Persons Act and Regulations by the provincial medical review boards, have followed an indoctrination meeting held in Ottawa for Quebec medical representatives of the Federal Government on the local Medical Review Board.

Statistical material, prepared on the Disability Allowances Program by the Research and Statistics Division of the Department, has been given necessary

emphasis by the consultants during interviews with medical review board's people with the purpose of trying to integrate, at the local level, both programs of Medical Rehabilitation and of Disability Allowances.

Advisory liaison has been maintained between the Service and the Division of Old Age Assistance, Blind Persons and Disabled Persons Allowances in the Welfare Branch of the Department.

MENTAL HEALTH DIVISION

The broad field of mental health continues to be the largest special medical and hospital problem in Canada. Throughout the past fiscal year, the Mental Health Division has worked in the closest co-operation with the various provincial mental health services in an attempt to understand the many facets of this great challenge to public health. Those developments which appeared most likely to lead to an improvement in treatment services were actively promoted and, at the same time, a study was made of the university departments of psychiatry and psychology. These latter are of extreme importance because upon the nature and quality of training given to all grades of personnel, depends the vigor and strength of the attack upon mental illness.

Mental Health Grant

Total allocations under the Mental Health Grant exceeded \$7,251,000, which was an increase of \$201,571. The following table, showing the distribution of funds, indicates that the trend in allocations has remained essentially the same as in the previous year.

DISTRIBUTION OF FUNDS APPROVED

	1957-58	%	1958-59	%
	\$		\$	
Mental Health Divisions.....	193,515	2.8	213,623	2.9
Mental Hospitals.....	3,767,481	53.4	3,845,568	53.0
Mental Health Clinics.....	869,317	12.3	903,789	12.5
Psychiatric Services in General Hospitals...	922,907	13.1	919,567	12.7
Training Programs.....	220,072	3.1	252,979	3.5
Bursaries.....	542,531	7.7	556,666	7.7
Research.....	534,119	7.6	559,321	7.7
Total.....	<u>7,049,942</u>	<u>100.0</u>	<u>7,251,513</u>	<u>100.0</u>

The continuing shortage of qualified professional personnel is one of the most serious aspects of mental health programs in this country. Further and more vigorous efforts will have to be made in this area.

Consultant Services

The Mental Health Division consists of a small but highly trained professional staff, headed by the Chief of the Division, a qualified psychiatrist, who is assisted by consultants in psychology, social work, statistics and research, and a technical officer.

An important aspect of the work of the Division has been the provision of consultant services to the provinces, to other divisions of the Department, and to other federal government departments. In addition, personnel have been made available to the provinces for discussions on research design, training and personnel, and other related topics. Important contacts with mental health personnel were maintained by the attendance of consultants and the Chief of the Division at meetings of professional associations and visits to many of the mental health facilities throughout Canada.

By personal contact and by correspondence the Chief of the Division has kept in close touch with the progress of mental health in the provincial services and in the various universities. In addition, he visited mental health facilities in Britain to learn at first hand about some of the new developments in that country, with particular emphasis upon the development of psychiatric services in general hospitals—a subject of major concern to mental health authorities in Canada.

Stemming from concern about the lack of sufficient training facilities for psychologists in Canada, the consultant in psychology initiated a review of all university graduate departments of psychology.

The first conference of Chief Social Workers from provincial mental health divisions was convened and chaired by the consultant in social work. At this meeting eight provinces were represented.

Assistance to various investigators conducting research under the Mental Health Grant was given by the consultant in research and statistics. In addition he gave valuable assistance to Verdun Protestant Hospital, Brandon Hospital for Mental Diseases, Brandon, Manitoba, and to the Psychiatric Unit of the Ottawa General Hospital, in their studies of admissions and discharges.

Public Education

The program of public education continued to be an active function of the Division. One pamphlet in the Child Training series and two pamphlets dealing with mental health of older people were prepared during the year. The total distribution of English and French pamphlet material to the provinces increased by 705,000 to a total of 2,155,000.

Canada's Mental Health, a monthly news bulletin, issued by the Division as a complimentary service to professional people in the mental health field, reached a circulation of 4,000 which was an increase of 900 over the previous year.

Mental health displays were exhibited at the annual meeting of the Canadian Psychiatric Association in Halifax and the Canadian Conference on Social Work in Montreal.

Advisory Committee on Mental Health

The tenth meeting of the Advisory Committee on Mental Health was held in Ottawa during January, 1959. This 18-member committee is composed of the ten provincial mental health directors, four professors of psychiatry, one professor of psychology, one professor of social work, as well as a representative of the Canadian Psychiatric Association and the General Director of the Canadian Mental Health Association. Also attending the meeting were representatives of the Department of Veterans' Affairs, Department of Justice, and the Dominion Bureau of Statistics.

Two days were devoted by the Committee to discussions of the problems, as well as new developments, in the field of mental health. Topics included psychiatric units in general hospitals, open mental hospitals, rehabilitation, day hospitals in relation to hospital insurance programs, mental health grants, research, statistics, and alcoholism. Five subcommittees were nominated by the Committee as follows: Research, Addiction to Alcohol and Other Drugs, Statistics, Public Education and Training. These subcommittees are composed of small groups of experts in the various fields and meet several times during the year before reporting to the annual meeting of the Advisory Committee.

NURSING CONSULTANT

Throughout the year, the Chief Nursing Consultant has continued to act in a liaison capacity between the Department and the Canadian Nurses' Association and its constituent parts, the provincial nurses' associations. In addition, certain nursing services of an advisory nature have been provided (*a*) within the Department, (*b*) to other Departments, e.g., Technical Co-operation Service, Trade and Commerce, (*c*) to individuals and groups outside Government Service.

Assistance with evaluation of nursing projects submitted by the provinces under the National Health Grants Program has continued to be a major responsibility.

The Chief Nursing Consultant represents the Department on a number of committees including: the National Advisory Nursing Committees of both St. John Ambulance and Red Cross; the National Committee on Homemaker Services of the Canadian Welfare Council; several special and standing committees of the Canadian Nurses' Association.

During the year, the Chief Nursing Consultant was invited by the Minister of National Defence to serve on the Board of Consultants to the Canadian Forces Medical Council.

In June, 1958, the Canadian Nurses' Association held its 50th Anniversary meeting in Ottawa. Together with other Departmental nursing personnel, assistance was given with various aspects of the program for this meeting.

One of the valued contacts which has been built up over the years has been supplied by the visits to the Department of post graduate nursing students from various universities—the University of Ottawa, the University of Montreal and the School for Graduate Nurses of McGill University. The Chief Nursing Consultant together with other Departmental nursing consultants, and generously assisted by the Departmental Secretary and various Divisional chiefs, has continued to arrange programs for these groups.

Attendance at professional meetings during the year has included the annual meetings of the Registered Nurses' Association of Ontario, the Ontario Public Health Association, the American Public Health Association, and the Biennial Meeting of the Canadian Nurses' Association. Papers were given at several of these meetings, together with addresses to the graduating classes of two hospital schools of nursing.

Field trips in Canada were not extensive this past year, as all provinces were visited in the previous year. There were, however, a number of brief visits on a request basis in Ontario.

In the Autumn of 1958, following attendance at the American Public Health Association Meeting in St. Louis, visits were made to a number of American cities to gather information concerning the medical and nursing aspects of Home Care Plans.

Until recently, the "consultant" part of the Chief Nursing Consultant's function was almost entirely intra-Departmental in nature. With the implementation of the hospital and diagnostic services insurance plans, availability of certain consultative nursing services to the provinces, on a request basis, would appear desirable and timely. Accordingly, authority has been granted for the appointment of an additional nursing consultant, well qualified in the hospital field, who could act in this capacity. With the appointment of such a person, the eventual development of more effective nursing consultant services to the provinces is anticipated.

NUTRITION DIVISION

Introduction

Although sufficient food is available in Canada to provide an adequate diet for everyone, the country is not without nutritional problems. To some extent, these problems are due to inadequate purchasing power but, more frequently, they result from ignorance and indifference.

It is the role of the Nutrition Division to define Canadian nutritional problems, to work towards their solution, and to promote the development and maintenance of high levels of nutrition for the entire population. This role is pursued by an active research program, which includes socio-dietetic food habit surveys and biochemical studies of selected population groups, and by the provision of information and consultation services, chiefly through provincial health departments.

With the extension of government supported hospital insurance programs, increased attention is being given to the development of standards for institutional feeding and the improvement of food service in hospitals.

Research

A study of older people, started in 1957, was extended by the inclusion of population samples from two cities, one in Ontario and one in Manitoba. Information concerning food habits and social conditions was obtained from 208 participants. Blood (103) and urine (201) samples were collected for analysis in the Nutrition Laboratory. Plans are underway to carry out the next phase of the study in Prince Edward Island.

In February, two years after their relocation in Canada, Hungarian forestry students at the University of British Columbia were re-surveyed by a team consisting of a nutritionist, a sociologist, and a laboratory technician. Food and social records, and blood and urine samples, were obtained from 100 students. Results of this second survey indicate that most of the students have adapted to Canadian food practices and are in better nutritional condition than they were a year previously.

Statistical food consumption data, evaluated in terms of nutrients, confirm the continuing overall adequacy of Canadian food supplies. A summary of these data for the years 1939-56 was prepared for publication. Other work included the assessment of Canadian protein consumption in terms of amino acids and the nutrient evaluation of two specific Eskimo diets.

Laboratory Services

The Clinical Nutrition Laboratory employs micro-methods to determine the presence of specific nutrients and other factors in small samples of blood and urine. These analyses, as a part of survey routine, provide objective information about the nutritional status of subjects.

The facilities of the laboratory, unique in Canada, are available to provincial health departments, and through them to physicians, as a useful diagnostic tool. Increasing use is being made of this service as its availability becomes more widely known.

During the past year, current analytical procedures have been reviewed and methods for additional analyses have been developed. Total lipids (in blood) can now be determined routinely and quantitative procedures for B-vitamins in urine will soon be included.

Fewer tests were carried out than during the preceding year, partly because more time consuming procedures (e.g., lipids) are now included. On 834 serum samples, 3,199 tests were done; on 1,216 urine samples, 4,267 tests. (See following table for breakdown of tests.)

The co-operation of the Biostatistics Section of the Research Division on various aspects of the research program is appreciated.

Experimental Kitchen

Development and standardization of recipes for use in cooks' courses and for publication in a food service manual for small institutions was continued although work was carried on under difficulties after the October explosion.

Education and Information

A popular report setting forth the results of the nutrition survey in New Brunswick, 1956 to 1958, was prepared in co-operation with the provincial health department. This report was used in a follow-up program which aroused considerable interest among professional and lay groups.

The English version of a film, *Mystery in the Kitchen*, dealing with the function of food, and a poster, *Time for a Good Noon Meal*, was produced in English (73,500 copies) and French (36,800 copies).

Booklets, manuals and other publications of proven usefulness were reprinted for distribution by provincial health departments and/or sale by the Queen's Printer. *Canadian Nutrition Notes*, an 8-page monthly bulletin, continued to be produced for distribution to a mailing list of approximately 8,000.

At the request of the Prince Edward Island Health Department, assistance was given in planning a short course for cooks in small institutions, and a manual on food preparation in small institutions was prepared and sent for evaluation to provincial nutritionists, with whom the request originated.

Consultation and Advisory Services

Within the Department, the Division provided advice and assistance in the form of lectures and technical service to such divisions as Civil Defence, Civil Service Health, Indian Health Services, the Cafeteria Committee and the Health Grants Directorate.

Among other government departments and outside agencies, similar assistance was rendered to the Department of Citizenship and Immigration, Northern Affairs, Department of Transport, Department of Public Works, various municipal hospitals and the Canadian Boy Scouts Association.

The Chief of the Division served as a member of numerous government, national, and international nutrition committees.

Advisory Committees

The Canadian Council on Nutrition, meeting in June, 1958, reaffirmed an earlier resolution giving emphasis to the need for continuing nutrition education. Other resolutions favoured the holding of a nutrition conference; approved plans for the development of the revision of the Canadian Dietary Standard; reaffirmed the stand against inclusion of vitaminized apple juice in Canada's Food Rules; recommended a downward revision of permitted vitamin D potency in a recommended daily dose; and expressed support for the Food and Drug Directorate's efforts to control claims for mineral elements in foods and in pharmaceutical preparations.

The Council suggested that the Nutrition Division should act as a repository for one copy of the report of any food habit study carried out in Canada.

The Dominion Provincial Nutrition Committee, composed of a nutritionist from each province and Nutrition Division staff, met immediately prior to the Council. Discussions included hospital insurance, federal and provincial activities, and a very useful session on educational materials.

TABLE 11
NUTRITION LABORATORY SERVICES 1958-59
SERA

Origin	Total Specimens	Vitamin A	Carotene	Vitamin C	Total Protein	Cholesterol	Lipids	Hemoglobin
Eskimo (from C. D. Howe).....	202	—	—	—	—	—	159	—
Eskimo (from Univ. of Manitoba).....	244	244	244	244	—	244	244	—
Ottawa (old age).....	17	17	17	17	17	—	—	17
Winnipeg (old age).....	86	86	86	86	86	—	—	86
Hungarians (Sopron).....	100	100	100	100	100	—	—	100
Indian (Old Crow).....	39	39	39	39	39	39	39	—
Laboratory Services to Physicians and Provincial Health Departments.....	144	144	136	137	120	15	1	8
Civil Service Referrals.....	2	2	2	2	2	—	—	2
Totals.....	834	632	624	625	364	298	443	213

URINE

Origin	Total Specimens	Thiamine	Riboflavin	Niacin	Sugar	Ketone	Albumen	Other
Eskimo (Rankin Inlet).....	154	154	154	154	154	154	154	154
Ottawa (old age).....	104	104	104	104	—	—	—	—
Winnipeg (old age).....	97	97	97	97	—	—	—	—
Hungarian (Sopron).....	100	100	100	100	—	—	—	—
Laboratory Services to Physicians and Provincial Health Departments.....	757	757	757	757	—	—	—	—
Civil Service Referrals.....	4	4	4	4	—	—	—	3
Total.....	1,216	1,216	1,216	1,216	154	154	154	157

Total Specimens 2,050
Total Tests 7,466

OCCUPATIONAL HEALTH DIVISION

Throughout the past fiscal year, a growing interest has been exhibited, on the part of provincial governments, municipalities, and private industries, in matters related to air pollution; occupational diseases resulting from use of newer chemicals, such as insecticides or components in manufacturing processes; diseases associated with exposure of workers to the better known toxic substances as well as the organization of occupational health services, particularly nursing services in places of employment. The Division has also been called upon more and more to assist other Federal Government departments with problems encountered in housing their employees and protecting them from certain environmental conditions which constitute potential hazards to their health and well-being.

The work of the Division may be dealt with specifically under five headings as follows:

LABORATORY SERVICES

Two major interests in occupational health are actively investigated within the laboratory.

Biological

Due to the extensive use of chlorinated hydrocarbons such as solvents, refrigerants, cleaning fluids, insecticides, and fire extinguisher fluids, studies of the toxic effects of these materials have been carried out specifically on 1, 2-dichloroethylene, tetrachloroethylene, cyclohexane, and the three isomeric xylenes. These studies are particularly concerned with the biochemical mechanisms underlying the changes in these substances when absorbed in the body. Also in this area of study, the enzyme which hydrolyzes the insecticide paraoxon has been separated and purified to a degree which permits further extension of the study of the toxic effect of this insecticide.

With the growing complexity of the number and types of air pollutants encountered in industrial and municipal areas in Canada, studies are being carried out in the exposure chambers operated by this Division to determine the toxicological and other biological actions of toxic gases such as hydrogen cyanide, sulphur dioxide, and nitrogen dioxide. These toxic substances are being studied in combination with one another, simulating conditions experienced in actual air pollution.

An investigation of the relationship between fatigue and cardiac damage is being carried out for the purpose of clarifying some features of industrial fatigue.

Environmental

Investigations were carried out by the field engineers of the Division in a number of R.C.M.P. indoor firing ranges to determine the potential lead hazard, and recommendations were made for the elimination of this hazard. Similar studies were also carried out in other government establishments at the request of the following: National Film Board, Canadian Arsenal Limited, National Research Council, Printing Bureau, and the Department of National Defence.

A report on developments in the Canadian mining industry, 1955-57, was prepared for the International Labour Office. In reply to requests from private industry, information was given on the control of hazards associated with plastic dusts, welding fumes, and organic mercury.

A considerable amount of work has been undertaken in the development of methods for identifying and analyzing air pollutants since the complex and minute quantities of pollutant material found under these conditions do not lend themselves to easy analysis by presently known methods. Among the techniques being used are gas, paper, and column chromatography. A special investigation is being carried on within this service for the purpose of identifying potential carcinogenic agents which may be included among the air pollutants.

In conjunction with the air pollution program of the Division, work is going forward to establish the nature of background particulates found in air samples secured from remote areas in Canada where contamination would not be expected to occur. This background information is essential for interpreting the findings of the air pollution sampling network program.

CLINICAL SERVICES

Medical and Nursing

Through past experience, it has been recognized that findings of an environmental survey are of little practical use unless given medical interpretation as to their effect on the health of exposed workers. The clinical consultant of the Division has therefore been involved in all the surveys carried out by the field investigators and in all the work carried out under the air pollution program. Greater emphasis has, therefore, been placed on those aspects of environmental survey likely to have the greatest effect on health. In addition, clinical investigations were carried out among government employees experiencing dermatitis through the use of certain types of duplicating equipment; rifle range instructors experiencing lead poisoning; mercury poisoning among employees of a seed processing plant; and a case of poisoning resulting from exposure to an agricultural insecticide. Investigation of pulmonary cancer among certain types of miners is presently under way.

Two Canadian provinces appointed occupational health nursing consultants during the year, and these persons have been assisted by the nursing consultant of the Division in organizing their program.

Several schools of nursing, recognizing the growing interest and need for nurses in industry, have incorporated occupational health subjects into their curriculum. The nursing consultant has been called upon in each instance to assist in setting up the teaching pattern of these subjects and to lecture nursing students concerning the changing needs of industry in the nursing field.

During this year, a meeting was held of all senior occupational health nursing consultants of the various provinces of Canada and senior supervising nurses from major industries in Canada for the purpose of discussing ways and means of meeting industry's requirement for industrial nurses.

EDUCATIONAL AND TECHNICAL INFORMATION SERVICES

This Division provides the media for the dissemination of information on current developments in occupational health in Canada and elsewhere through preparation of articles to be included in the *Occupational Health Review* and the

Occupational Health Bulletin. Pamphlets are prepared on subjects of immediate interest and assistance is given to physicians, nurses, safety supervisors, and representatives of management in private industry and provincial governments for the purpose of protecting the health of workers and promoting the development of sound occupational health programs. Two new pamphlets prepared during the year dealt with dermatitis in industry and ladder safety, both of which have been well received and are in considerable demand. A uniform style of illustration, standardized size of publication, type of print, and the use of colour now identify these pamphlets with the work of this Division. Where there is not an expected continuing demand for a certain type of information, a less expensive reprint is prepared and only a limited stock maintained. Other topics dealt with by these pamphlets are as follows: *Overweight, Fatigue, Artificial Respiration, Hazards of Low Voltage Electricity, Narcotics in Industry, Nickel and Its Compounds, Respiratory Protection, and Hazards of Solvents.*

ATMOSPHERIC POLLUTION SERVICES

Because of the highly complex and technical nature of air pollution, this Division, in co-operation with provincial governments, has taken the leadership in all phases of the study of atmospheric pollution. During the current year, expert advice was given on the design of the stack for dispersion and control of radioactive waste products from the Des Joachims nuclear power reactor. Assistance was given to the City of Sydney in coping with its problems associated with the Dominion Steel Company of Canada blast furnaces. Assistance was rendered to the International Joint Commission in the investigation of air pollution in the Greater Windsor-Detroit area. An air pollution investigation was carried out on a second Canadian railway tunnel. Four provincial government departments of health were assisted in the organization and development of air sampling stations as steps towards the completion of a national air sampling network, which will eventually provide data on a continental basis.

Equipment has now been acquired by the Division for the establishment of a demonstration, staff training, and research station to be located in Ottawa. The prime purpose of establishing this station is to provide facilities for training personnel employed by provinces and municipalities for the operation of sampling stations across Canada.

EXTRA-MURAL RESEARCH AND DEVELOPMENT

It has become increasingly obvious that there is a need for stimulating an interest in research into occupational health problems by Canadian universities and other organizations outside the Federal Government. With this in mind, the Division has approached a number of such agencies during the past year. Contacts have been made with internationally known experts in the field of occupational health research, particularly concerning dust diseases and work physiology and toxicity of insecticides. As a result, a number of research projects are now being undertaken outside the Federal Government, some with financial assistance being provided through Federal Health Grants, others through the procurement of funds made available by other organizations.

PUBLIC HEALTH ENGINEERING DIVISION

Environmental Sanitation has been defined as "the control of all those factors in man's physical environment which exercise or may exercise a deleterious effect on his physical development, health and survival". Only through the concerted effort of many disciplines can a responsibility of such magnitude be successfully fulfilled. As in previous years, the many and varied activities of the Public Health Engineering Division have clearly illustrated that even in those areas of Environmental Sanitation with which it is primarily concerned, there is considerable scope and diversity.

A salient feature of the past year's operation is the continued increase in requests from other government departments for assistance and advice. Though this indication of recognition is certainly gratifying, there is more satisfaction in the knowledge that the Division's engineers have and will be able to prevent many of the problems which arose in the past because of inadequate design, faulty installation and lack of proper operation and maintenance.

As an example of the present day approach, the western region engineers were requested by the Department of Public Works to take part in a 5-year construction program involving establishments of the Indian Affairs Branch, Department of Citizenship and Immigration. This required the engineers to investigate existing water supply and sewage disposal installations, to prepare recommendations and plans for improvement and for future expansion. In all, 30 sites were visited and the necessary information was submitted for review, discussion and incorporation in the overall program.

The administration and performance of duties required under certain statutory acts and regulations still maintains a high priority in the Division's field of endeavour. This is particularly true where the health of travellers and operating personnel of carriers is concerned. In addition to the examinations relating to railway, vessel and airplane sanitation, a continuing survey of milk quality aboard railway diners was maintained. At the request of one of the railways, a report was compiled on the bacteriological quality of milk available from dairies in the City of St. John's, Newfoundland. On the regional level, meetings were held with officials from the Canadian National Railways to discuss the many problems falling within the framework of mutual responsibility.

Special Projects

When the annual program of any agency is reviewed, there are always a number of projects that tend to stand out because of their interesting technical aspects, their influence on human welfare or their general departure from the regular pattern. In this general category the following activities appear to fall:

1. A large scale survey, covering the period April to June, was undertaken to assess water quality in both the Oromocto and St. John Rivers in order to determine which of the two streams would be preferable in the development of a new water supply for the Army's Camp Gagetown in New Brunswick. The study encompassed water availability; capacity potential; and chemical, physical and bacteriological quality analyses.
2. An investigation of sewage lagoon operation at Camp Ipperwash (Army) Ontario, was carried out to evaluate performance under varying loads

and weather conditions and to establish design criteria. With overflowing lagoons in series, the study demonstrated the advisability of providing sufficient area in the first lagoon to handle the total raw load. The placing of a second lagoon in the circuit should assist in reducing coliform counts. Further studies of lagoon operation are being planned.

3. The provision of the Canadian Government Specifications Board's specification 32-GP-141A for fish; fresh, frozen and prepared, include the requirement that clean, safe water be utilized by the processing establishment. Any packing plant that meets the prescribed specifications may designate its product as follows: Fresh Frozen Fish—"Canada Inspected"; Fresh or Processed Fish Unfrozen—"Processed Under Government Supervision".

Toward this end, the Department of Fisheries has requested this Division to survey the water supplies of those plants wishing to use the aforementioned designations. During the winter season, the Maritime engineers conducted investigations of six harbour areas from which sea water is used for fillet washing. In some instances the level of pollution was such that it was necessary to recommend the provision of an alternate supply.

4. At Elk Island National Park, Alberta, the ground water quality is exceptionally poor from a chemical standpoint, while the surface supply is high in taste and colour due to prolific algae growth. Numerous laboratory tests have been carried out in order that an economical treatment procedure can be established for at least one of the supply sources. A small, slow sand filter is now installed so that experimental runs can be initiated in the field.
5. Water supply and sewage disposal requirements for a new townsite necessitated a trip to Frobisher Bay, N.W.T., to conduct a preliminary survey. The water level of the proposed source of supply, Lake Geraldine, intended to serve the new townsite and other interests, must be raised by a dam installation so that there will be water available during the winter months when an eight foot ice cover exists. Calculations of future possible consumption indicate that an auxiliary supply will be necessary and another lake in the area has been suggested for this purpose.

During the visit, water samples were collected from the storage tanks in some of the Eskimo homes. In most cases these showed bacterial contamination and instructions covering disinfection and improved design of the containers (oil barrels) were immediately sent out. An intensive survey of water quality in the Eskimo village is to be carried out during the fiscal year 1959-60.

6. The palatability of the present water supply at Camp Gagetown, N.B. (Army) produced numerous complaints from the consumers. Investigation revealed that the high chloride content (350 p.p.m. avg.) imparted a brackish taste while the manganese level (0.8 p.p.m.) was responsible for chemical taste. Chlorination also aggravated the problem since manganese precipitated as the oxide and frequently a chlorinous odour existed.

Since the bacterial quality of the raw supply (wells) has been very good over the last two years, it was suggested that chlorination be discontinued, but daily sampling for bacteriological analysis be maintained. Such action would

reduce the taste and odour problems due to manganese and chlorine. Treatment for chloride removal would of course be necessary before the brackish taste could be eliminated.

Education—A Two Way Street

The Division's engineers participated in several lecture courses during the past year.

In Quebec and Ontario, personnel from great lake vessels attending the various marine schools, received instruction and information pertaining to water supply treatment, sewage disposal and galley sanitation aboard vessels.

Maritime engineers took part in the deliberations of various district conferences held for the Fishery Inspection Officers. They discussed the many aspects of shellfish plant sanitation, highlighting water supply and sewage disposal problems.

In the west, lectures on environmental sanitation were given to those attending courses for Sanitary Inspectors and for R.C.M.P. personnel. In addition, the Division prepared and conducted courses for restaurant operators located in the two mid-west National Parks for the purpose of raising the standard in eating establishments.

Two papers published in technical journals and two others delivered at Association Conferences helped to round out the overall education program.

Four of the professional engineers took advantage of special courses provided by the U.S. Public Health Service at the Robert A. Taft Sanitary Engineering Centre in Cincinnati while four others attended either the Industrial Waste Conference held at Purdue University or that at Honey Harbour, Ontario.

Let's Look to The North

During September, examinations were made of the facilities serving eight Distant Early Warning Line sites. The demand for safe and adequate water supplies and satisfactory sewage disposal procedures in northern climes continued to require considerable attention. Investigation was made of the problems involved, and recommendations covering remedial measures were reported to the authorities concerned. In addition, a sanitary survey of the Yukon Territory was carried out with all major points being visited.

Because of the rapidly growing interest in the north and the realization that environmental sanitation continues to be a major problem, the Division established a position to permit an engineer to concentrate on investigational and research projects directed to this general area. The position has been filled and the work is expected to proceed during the next fiscal year.

Citizenship and Immigration—Indian Affairs Branch

Aside from the part played in the preliminary phase of the five year construction program, the Division has been involved in numerous projects involving establishments of the Indian Affairs Branch. In both British Columbia and Quebec, surveys and designs for sewage lagoons to serve residential schools at Lejac and Pointe Bleue respectively, merited attention. The staff in Alberta completed surveys, designs, plans and specifications for water supply and sewage disposal installations at Saddle Lake, Hay Lakes, Wabasca, Fort Vermillion and Brocket. They also

exercised casual supervision during the construction period. An examination of water supply and sewage disposal facilities at the Indian Reserve on Walpole Island, Ontario, indicated the need for improvement. Subsequent action based on recommendations submitted has brought about the desired result. A program designed to assess drinking water quality on all Indian reserves in New Brunswick was completed during the year. Plans for the improvement of water supplies at various Nova Scotia reserves were discussed with officers from Indian Affairs.

Northern Affairs and National Resources—National Parks Branch

An upsurge in the activities concerned with environmental sanitation in national parks amply reflected the rapidly increasing use on the part of the public of the many areas across Canada maintained for the camper and other nature enthusiasts. A water quality survey of the main rivers and streams in Jasper was undertaken during the year. Investigations concerning turbidity removal from river water and the cause of a fish kill at a hatchery, all at Jasper, proved of interest. Time was spent on the consultant's proposals for a sewage disposal and water intake system at Riding Mountain, Manitoba; on a survey for sewage disposal at Fundy, New Brunswick; on plans for new construction at Cape Breton and Prince Edward Island; and on the development of the water supply and sewage disposal systems for the new park at Terra Nova, Newfoundland. The Division reviewed a design for the comfort stations which were subsequently erected at many of the parks. The usual examinations covering all phases of environmental sanitation at the various parks across Canada were carried out during the summer season.

Department of Fisheries

To determine the pollution load contributed by a Department of Fisheries hatchery located on the Little River in New Brunswick, a periodic study was conducted over a six month period. In Newfoundland, the plans for a proposed sewage system for the town of Deer Lake were studied to evaluate the resultant pollution effect both on the Humber River system and the local Fishery. Assistance was provided to the Fish Culture Branch of the Department for a survey of the Sackville River, Nova Scotia.

In co-operation with the Department of Fisheries, close control of the shellfish industry on the east coast was maintained. The program involves the sanitation aspects of producing, harvesting and processing shellfish exported to the United States. In all, 68 examinations of processing and packing plants and 16 surveys of shellfish growing areas were accomplished in the Maritimes.

Department of National Defence

The pressing need for improvement in the bacteriological and chemical quality of the Cornwallis Naval Base water supply posed a problem for the engineers in Nova Scotia. The Division's personnel in Quebec made a total of 30 visits to various R.C.A.F. and Army stations and to Mid-Canada and D.E.W. Line sites. At one Mid-Canada site, a serious water supply problem was studied to determine either the most economical method of treating the brackish well water or the advisability of developing an available surface supply. In addition to the lagoon study previously mentioned, 11 examinations of sewage treatment plants serving D.N.D. stations in Ontario, were made.

Department of Public Works

The close liaison that now exists between the Architectural Branch of that Department and the Division is clearly indicated in the work distribution reports received from many of the district offices. Surveys, recommendations of treatment procedures, review of plans, advice on location of new buildings, all formed part of the service extended in a co-operative effort. This program concerned Indian Residential Schools, R.C.M.P. Barracks, Custom and Immigration centres along the border, Post Office and other federal buildings in all parts of Canada.

Provincial Co-Operation

On request, technical assistance was given to the Provincial Department of Health for Prince Edward Island. Plans for sewage systems for various municipalities in the Province and the development of sewage lagoons were items of chief concern referred to the staff for review, discussion and advice.

In British Columbia and Quebec, co-operation in the shellfish control program was maintained with the provincial authorities. For the purpose of certification of producing areas, the Division conducted a number of sanitary surveys and reviewed others initiated by the provincial regulatory agencies.

Personnel from the Manitoba Department of Health and the Division participated in a joint investigation of pollution of Lake Winnipeg. At the request of the Ontario Department of Health, a survey of the water supply for Orient Bay was made.

International Joint Commission

Meetings of the International Joint Commission's advisory boards concerned with the control of water and air pollution reviewed the data accumulated from current field studies and evaluated the present status of the continuing program. A summary of accomplishments and developments during the year was submitted in progress reports to the Commission. Assistance was also rendered in the assembling of data to be presented in a brochure which will record the progress in pollution abatement in the past ten years.

During the year, a public hearing was held by the Commission at St. Croix, Maine, to which representatives from municipalities, industries and official agencies presented statements covering their interests in the St. Croix River reference. This hearing was of particular interest to the Division in view of its major contribution to the survey work and the preparation of the pollution section of the Engineering Board's report.

Laboratory Services

An increase in the staff of the Ottawa Laboratory has enabled this service to meet the ever increasing demands directed to it. Studies were initiated to establish economical water treatment for colour and turbidity removal and for corrosion control. The operating efficiency of various sewage treatment plants was evaluated through analyses of composite samples submitted to the laboratory. The required determinations were run on the numerous samples collected by the Division's personnel conducting water quality and pollution surveys of the Oromocto, St. John and Little River in New Brunswick.

These various laboratory projects were carried out at the request of the Department of Fisheries, National Defence and Transport. Chemical analysis of water samples submitted by the Atlantic and Eastern Regions and other government departments formed a large portion of the work load.

The laboratory service in Vancouver continued to meet the requirements for chemical and special analyses in the Prairie and Pacific Regions.

Field Work Summary

In all, 1,251 sanitary surveys of water supplies, ice supplies, (natural and artificial) and shellfish growing areas were conducted. A total of 7,165 water samples and 154 ice samples, were taken for analysis. Some 1,055 examinations were made of railway property including stations, restaurants, dining cars, bunk-houses, mobile work camps, coachyards, yard offices and switchmen's shanties.

A total of 210 examinations were made of sewage and waste treatment plants to check their operation.

Sewage disposal systems were designed and plans prepared by the Division with assistance in the supervision of construction.

During the year, 245 vessels' water systems were examined for compliance with the statutory regulations, including eight new vessels under construction for which plans were submitted to this Division for review.

RADIATION PROTECTION DIVISION

Because of growing public concern with the problem of fallout, the Division, during the past year, increased its activities in preparing reports and other forms of information on this subject. In particular, efforts were made to assess the present situation in terms of the maximum permissible concentration of Strontium 90 in the diet. Additions to the fallout program include an increase in the number of milk sampling stations and the setting up of a new network of stations for sampling air, rainfall and soil. The collection of samples of human bone has continued although no report has yet been published.

The Report of the United Nations Scientific Committee on the Effects of Radiation was published, bringing together in concise form, current knowledge of the effects of radiation. Members and consultants of the Department assisted in the preparation of the report.

Draft Health and Safety Regulations covering atomic energy workers, including users of radio-active isotopes, have been prepared and circulated to the various agencies concerned. These regulations are expected to be ready for enactment by the Atomic Energy Control Board early in the new fiscal year.

The development of experimental and power reactors in this country demands appraisal and control of public health problems associated with such reactors. Additional professional staff has been acquired in the Division for this specific purpose.

With the rapid expansion of present activities in the various aspects of radiation protection and the frequent addition of new activities, extensive planning of establishment and facilities were carried out in the past year. This included preliminary submissions of plans and requirements for a new building to house the various activities and operations of the Division.

Administration of health and medical approval of radioisotope uses including field surveys has continued to increase. The film monitoring service, which introduced a new and improved film holder, acquired an additional 3,000 users during the year. This represents an increase of 50 per cent and brings the total number of individuals using the film service to 9,000.

MEDICAL ADVISORY SERVICE

CIVIL AVIATION MEDICINE DIVISION

The Division which was established in 1946 has continued to function, with increasing responsibilities, as medical adviser to the Government and associated agencies on medical problems related to the health, safety and comfort of aircrew, groundcrew and airline passengers. The changing requirements in air transportation and the rapid expansion of civil aviation have necessitated continued studies in the establishment and application of medical requirements for aviation personnel licensed by the Department of Transport.

The medical aspects of aircraft accident investigation have received more consideration with the establishment of an Aircraft Accident Investigation Division in the Department of Transport.

The medical assessment of aviation personnel licensed by the Department of Transport is an important function of the Division. Approximately 24,000 medical examinations and 2,000 electrocardiograms were completed by 387 appointed examiners. Although the majority were essentially normal, borderline and contentious cases were reviewed by the Regional Medical Consultant Boards.

The need for more research in the field of Civil Aviation Medicine, with the advent of large jet passenger-carrying aircraft became more evident during the year. Although the Division is not responsible for conducting research, close liaison was maintained with the National Research Council, Defence Research Medical Laboratories, the Royal Canadian Air Force Institute of Aviation Medicine and the Department of Transport in reviewing these subjects.

The responsibility for the assessment and taxation of the pre-employment medical examinations for the Department of Transport, Air Services was transferred to the Division. This includes applicants for employment in Air Traffic Control, Telecommunications and Meteorology.

CIVIL SERVICE HEALTH DIVISION

The fiscal year 1958-59, completes 12 years of operation during which the Division has afforded a comprehensive occupational health program to federal government employees. Although no major changes in policy or administrative practices have occurred, the Division has, to an even greater degree, allied itself with and participated in the integration and further development of effective community resources. Especially has this been so in the fields of aging, alcoholism, rehabilitation and mental health. In each of these fields, appropriate members of the divisional staff have given constructive community leadership.

Administration

Within the Ottawa area, the Health Centre continues to administer advisory, diagnostic and emergency service to some 36,000 government employees; 23

full-time units and three part-time units provide nursing counsellor service to more than 30,000 employees. The unfortunate explosion last October in the Jackson Building area, Ottawa, necessitated the closing of the health unit in this location. Plans are underway for re-establishing health unit services upon re-occupancy of this building.

Outside Ottawa, the Division has continued to provide an advisory service to departments on health and welfare problems and, where feasible, upon request arranges for essential medical examinations and consultations utilizing the facilities of other divisions of the Department, Department of Veterans' Affairs, or on occasion, private physicians.

Early in the fiscal year, the Division was unfortunate in losing the services of its Consultant in Social Services. A capable replacement is being sought by open competition.

Health Centre Services

Table 12 presents a consolidated summary of clinical services performed at the Health Centre. Referrals for investigation and/or examination from the health units receive top priority followed by the conduct of obligatory medical examinations required by statute. The volume of examinations required by statute continues to increase, particularly those undertaken on behalf of foreign service personnel and their dependents prior to and on returning from posting abroad. Also included in this category are examinations for Colombo Plan assignees. The clinical advisory services afforded the Departments of Trade and Commerce and External Affairs increase yearly and this past year, the Department has been fortunate in having available the services of an Immigration Officer posted temporarily to New Delhi, India. Regular reports from this officer, including recommendations and helpful suggestions, have been received concerning the health of personnel and sanitary conditions prevailing in overseas missions in this region, all of which have been extremely valuable to the clinical staff of this Division.

Periodic health examinations for special employee groups at the request of departments constitute the third type of clinical service conducted at the Health Centre. These groups include employees proceeding to isolated areas on summer field work; employees handling radio-active materials; selected groups of senior administrative personnel; personnel engaged in hazardous occupations together with new employees in cases where an estimate of physical fitness for the job is required; and finally, special eye examinations for employees whose work demands a high standard of visual efficiency.

It will be noted that 3,603 immunizations of various types were administered at the Health Centre during the fiscal year, mainly to foreign service personnel and their dependents proceeding abroad or to employees posted to isolated regions.

The consultant services of the psychiatrist and psychologist have been utilized to the full throughout the year. Referrals to the psychiatrist from health units, departmental personnel officers, and the Civil Service Commission numbered 440, an increase of 25 per cent over the previous year. The psychologist interviewed 720 employees, the majority being referred from the health units, the clinical staff of the Health Centre, or from departmental personnel officers. The psychologist has continued to conduct a substantial portion of his interviews in the health units. These health unit visits are useful both in maintaining rapport with the nursing counsellors and in saving the time of civil servants.

Every effort is being made to encourage departments to refer problem cases to the psychologist prior to their being returned to the Civil Service Commission. By so doing, placement may often be found within the department. Where this is not possible, guidance may be furnished to the Civil Service Commission with respect to more suitable reassignments. Both the psychologist and psychiatrist have played key roles in advising the Departments of Trade and Commerce and External Affairs on the fitness or otherwise of foreign service personnel for overseas posting. Both have also made a significant contribution to the inter-departmental committee on personnel counselling, one of the primary purposes of which is to advise personnel officers on the early detection of aberrant behaviour among civil servants. Such early detection with proper referral will frequently prevent the onset of major emotional disturbances.

The Certificate Review Section has continued to function as an integral part of the Health Centre. Medical officers on a monthly rotating basis continue to give necessary medical direction to this phase of the work. During the year, 89,164 certificates of disability for duty and 9,422 physical examination record forms were reviewed and processed. Arrangements were made for some 515 medical examinations outside Ottawa utilizing the previously cited resources. In the main, medical examinations were arranged for Colombo Plan assignees, extension of employment beyond the age of 65, confirmatory examinations in connection with retirement from the service on medical grounds, or examination for assessment of physical fitness for job suitability at departmental request. This year, the Unemployment Insurance Commission instituted a program whereby all senior executive personnel were offered voluntary medical examinations on a biennial basis. Many of these examinations were for personnel in district offices outside Ottawa. The annual statistical report on *Illness in the Civil Service*, compiled from sick leave certificates by the Public Health Section of the Bureau of Statistics, is being published for the first time on a calendar rather than a fiscal year basis and sickness absenteeism is calculated for both calendar and working days.

Table 13 presents a summary of retirements from the service on medical grounds according to disability for the year 1958-59.

Health Unit Services

Table 14 summarizes by months the activities of the 23 full-time and three part-time health units in operation during the fiscal year. Early in the year, amalgamation of the three units serving the Department of National Defence employees at Cartier Square was completed and one large unit located in "C" Building now covers this entire force. With this change it was found expedient to operate the health unit in the Metcalfe Building on a full-time basis. Later in the year, a new unit was opened with the occupancy of the new Trade and Commerce Building. Plans are projected for the early opening of two additional units—a two-nurse unit to serve the new group of buildings being completed for the Department of Mines and Technical Surveys on Booth Street, and a one-nurse unit for the Neatby Memorial (Science Survey) Building at the Experimental Farm. By careful planning, it is proposed to staff these new units from our existing establishment. Plans have been submitted for health units to be located in the new buildings being constructed for the Departments of Agriculture, Post Office and Public Works.

Health teaching, counselling and first aid have been provided to almost 31,000 civil servants by the above health unit facilities. No increase in nursing-counsellor staff has occurred in spite of the continuing trend towards decentralization of government buildings into outlying areas. Several of the newer health units have not yet been developed to their full capacity and the total force covered also includes a number of isolated groups receiving only emergency nursing service. The difficulty in obtaining a true index of health unit participation is complicated by the fact that many employee groups are in a state of flux and will remain so for a number of years until new construction is completed and permanently occupied on a departmental basis. Thus the present participation index figure of approximately 50 monthly visits per 100 personnel supervised is a "blanket" figure including groups ranging from those receiving nursing-counsellor service to the fullest extent, to those considerable numbers receiving only emergency services.

One minor change with respect to the qualifications for all new nursing-counsellor personnel is noteworthy. Experience has shown that personally suitable nurses with postgraduate training and experience in public health nursing are best equipped to meet the opportunities for service in this setting. Accordingly, the Civil Service Commission approved a recommendation making a university certificate in public health nursing a requirement for all nursing-counsellor grades.

Staff Education

In-service training and staff conferences this year took the form of a research project, or time study, under the joint direction of the Chief Supervisor of Nursing Counsellors and one of the Senior Nursing Counsellors from this Division together with consultant staff of the departmental division of Research and Statistics. The basic purpose of this study was to evaluate the function of the nursing-counsellor service. It was felt that after 12 years, such a study with all nursing counsellors participating might well provide answers to such questions as—What nurse/employee ratio is the optimum?—Are we making good use of nursing time in all locations?—Have some procedures outlived their usefulness?—What new approaches, if any, should be adopted?

The survey took the form of a "Work Sampling Study" carried out by each nurse for 15 one-half hour periods over a 2-week span. Planning and conducting the survey has necessitated regular staff education conferences and has stimulated much interest and enthusiasm among the nurses. The direction and assistance received from the consultant staff of the Research and Statistics Division has been invaluable in the conduct of this survey.

Special Activities

Under the direction of the psychiatrist, the Division pursued with vigour, a further development of the program to combat alcoholism in the federal civil service. Key representatives from all departments conferred in February to report on the progress of this program and it was gratifying to note the interest and increasing awareness on the part of all concerned toward this serious problem.

Throughout the development of this service, the nursing counsellor's function as a health teacher and health counsellor has been stressed. As counselling services receive increased attention, both in the Civil Service Commission and in various government departments, the role of the nursing counsellor as a professional ally in this field is brought more sharply into focus. During the past year, several of our senior nursing personnel have participated in conferences planned for key government personnel on employee relations, counselling and alcoholism.

The Division has continued to lend its facilities for field training to undergraduate medical students from the University of Ottawa and to postgraduate students from the Schools of Nursing at the University of Ottawa and McGill.

The nursing-counsellor staff during the year have given freely of their time to professional meetings and activities. Executive positions in the local Nursing Chapter, the local Welfare Council, the Professional Institute and the Canadian Nurses' Association are all held by responsible members of our staff. In addition, several carried heavy responsibility in the arrangements and organization of the Golden Anniversary Meeting of the Canadian Nurses' Association held in Ottawa in June, 1958. One member of the supervisory staff is currently a member of the Association's Executive Committee. While such professional contacts enrich the nursing-counsellor service in many ways, they also indicate the respect in which this service is held by the nursing profession and related groups.

Planning for the extension of this Division's services and activities to government employees outside Ottawa has been continued. This year, a special study of the basic health service needs for large employee groups in major cities across Canada was undertaken in the event that the Division should be called upon to provide such additional services.

TABLE 12

(Civil Service Health Division)
HEALTH CENTRE STATISTICS

Fiscal Year 1958-59

Number of Visits		
Total		7,413
First visit	3,172	
Repeat visit	4,241	
Visits by Sex		
Total		7,413
Male	4,858	
Female	2,555	
Analysis of Visits		
Physical examinations		2,664
Pre-employment, periodic, P.S.S.A.	454	
Foreign service, isolated duty, postings, etc.	532	
Referrals—voluntary, department, health unit, etc.	1,678	
Consultations, interviews, etc.		4,600
Psychological	720	
Psychiatric	437	
Special, eye, x-ray, immunization	3,443	
Accidents		149
Industrial	27	
Non-industrial	122	
Immunizations		
Total number of employees immunized		846
Total immunization		3,603
Smallpox	925	
T.A.B.T.	1,060	
T.A.B.	467	
Cholera	319	
Typhus	123	
Yellow fever	496	
Other	213	
Disposal		
Total		7,413
Returned to work	7,348	
Sent home	65	
Referred to Family Physicians		116
Total Laboratory Procedures		3,823
X-ray		
Total		4,029
Chest	2,021	
Chest (photoröntgen unit)	1,571	
Other	437	

TABLE 13

(Civil Service Health Division)

RETIREMENTS FROM SERVICE—ACCORDING TO DISABILITY

Fiscal Year 1958-59

Male—146, Female—44, Total—190

Cause of Disability	Age Groups					Total
	Under 40	40 to 44	45 to 49	50 to 54	55 to 59	
Infective and parasitic	0	0	0	0	2	2
Neoplasms	0	0	4	4	10	18
Allergic, endocrine metabolic, nutritional.	3	1	2	4	2	12
Blood and blood forming	0	0	1	0	1	2
Mental psychoneurotic personality	2	6	2	4	14	28
Nervous systems and sense organs	3	4	3	3	13	26
Circulatory	3	1	6	8	33	51
Respiratory	0	1	3	3	7	14
Digestive	0	0	3	2	2	7
Genito-urinary	0	0	1	0	2	3
Pregnancy, childbirth	0	0	0	0	0	0
Skin and cellular	0	0	0	0	1	1
Bones and organs of movement	3	1	1	3	7	15
Congenital malformation	0	0	0	0	0	0
Symptoms and ill defined	1	0	2	2	4	9
Accidents and results of old injuries	1	0	1	0	0	2
Total	16	14	29	33	98	190

QUARANTINE, IMMIGRATION MEDICAL AND SICK MARINERS SERVICES

Introduction

Under Quarantine, Immigration Medical and Sick Mariners Services are grouped a number of services dealing with international traffic. This group administers the Quarantine Act and Regulations, the Leprosy Act, Part V of the Canada Shipping Act and, by the authority of certain other statutes and orders in council, has responsibility for the medical examination and treatment of immigrants and the periodic medical examination of seafarers. Medical facilities are maintained at major sea and air ports in Canada and at 21 centres overseas. Medical arrangements are in effect at many other centres in Canada and in most foreign countries.

The facilities across Canada provide for this and other departments a wide variety of medical and public health services including the medical examination of harbour and river pilots, the medical examination and immunization of government employees appointed to serve in remote areas, and the medical examination of civil servants on request.

Quarantine Service

The Quarantine Service administers the Quarantine Act and Regulations and the Leprosy Act. The inspection, immunization and vector control measures applied under the authority of the Quarantine Regulations are in accordance with international standards established by the World Health Organization's International Sanitary Regulations. The measures are designed to reduce the hazard of major infectious diseases being introduced from abroad. The major quarantinable diseases are: smallpox, plague, cholera, typhus, louse-borne relapsing fever and yellow fever.

Smallpox

Immunity acquired as a result of vaccination is Canada's only defence against the introduction of smallpox. All persons entering from abroad are required to show evidence of having been vaccinated within three years. This requirement does not apply to persons coming from the United States including Alaska, Greenland, Iceland, St. Pierre, Miquelon, Bermuda, Cuba, Jamaica, The Bahamas, The Virgin Islands, Puerto Rico, Panama Canal Zone, or the Hawaiian Islands. During the year, approximately 1,300,000 persons with valid vaccination certificates entered Canada. Three hundred and five persons (.0234 per cent) refused vaccination and were placed under the surveillance of local medical officers of health during the incubation period of the disease. During the year, there were serious outbreaks of smallpox in parts of Asia and epidemics in many other countries from which travellers arrived in Canada. There were several minor outbreaks in Europe, the most serious being centred around Heidelberg. Epidemiological information is received daily from the World Health Organization and from Canadian medical officers stationed abroad.

Plague

Preventive measures against the introduction of plague are directed toward the vectors of this disease. These vectors are rats and rat fleas and every vessel arriving from a foreign port subject to quarantine is inspected routinely for rodents and unless found rat-free, must undergo fumigation. Special measures are applied to vessels on arrival from plague infected ports. Rat proofing of new vessels is encouraged and in recent years, this has done much to reduce the number of fumigations. When a vessel is found on inspection to be free from rats, it is given an exemption certificate which is valid for six months. Such certificates are recognized by all countries which are members of the World Health Organization.

Typhus and Relapsing Fever

All passengers coming from areas where typhus or relapsing fever exists are carefully checked for lice, which are the vectors of these diseases. Equipment for the rapid delousing of persons exposed or under suspicion is available at the major sea and air ports.

Cholera

The chlorination of water, pasteurization of milk, safe disposal of sewage and the hygienic handling of foodstuffs have reduced the hazard of cholera in Canada to the point where special preventive measures are no longer necessary except the vaccination of persons entering an infected area. Cholera vaccine is available in Canada and inoculation may be obtained from most medical practitioners.

Yellow Fever

Canada is not a yellow fever receptive area and climatic conditions are unsuitable for the propagation of the mosquito vectors of this disease, except during the summer. Only one outbreak of the disease has occurred in Canada. For the protection of persons planning to enter infected areas, active immunization against yellow fever is available at 13 centres located strategically across Canada. All of these centres have facilities for storing and administering yellow fever vaccine according to World Health Organization standards and all have authority to issue valid international certificates of inoculation. An additional centre is maintained in Europe at No. 1 Air Division. During the year, 5,093 inoculations were carried out. Due to the difficulties encountered in preserving yellow fever vaccine in a viable condition, the vaccine cannot be released to medical practitioners and the World Health Organization will only recognize inoculations performed at the established centres.

During the year, 3,772 vessels and 17,003 aircraft, carrying a total of 1,302,003 persons, were inspected at organized quarantine stations and airports. Of this number, 931,974 were passengers, 369,964 were crew members and 65 were stowaways and other miscellaneous persons.

At unorganized ports, local Customs Officers, acting in the capacity of Quarantine Officers, reported the entry of an additional 702 vessels. Tables relating to inspections carried out during the year follow.

TABLE 15
(Quarantine Service)
SHIPS BOARDED BY QUARANTINE OFFICERS, 1958-59

The following table indicates the number of ships boarded during the fiscal year, also total personnel on board, divided into their respective groups.

Station	Vessels Inspected	Personnel Inspected				Port Totals
		Crews	Passengers	Stowaways	Others	
Halifax, N.S.....	716	68,751	65,609	3	3	134,366
Saint John, N.B.....	318	14,218	1,973	4	6	16,201
Quebec, Que.....	2,151	126,531	105,006	31	11	231,579
William Head, B.C.....	587	29,969	9,304	2	5	39,280
Totals.....	3,772	239,469	181,892	40	25	421,426

TABLE 16
(Quarantine Service)

INSPECTION OF AIRCRAFT SUBJECT TO QUARANTINE
Fiscal Year 1958-59

Airport	Number of Aircraft	Number of Crew	Number of Passengers	Total Persons
Dorval, Que.....	3,231	27,492	139,160*	166,652
Edmonton, Alta.....	95	924	5,616	6,540
Frobisher, N. W.T.....	85	692	3,615	4,307
Gander, Nfld.....	8,849	70,324	398,197	468,521
Goose Bay, Nfld.....	1,102	8,831	49,425	58,256
Halifax, N.S.....	4	27	264	291
London, Ont.....	3	23	173	196
Malton, Ont.....	614	3,626	26,365	29,991
Moncton, N.B.....	70	609	3,724	4,333
Ottawa, Ont.....	10	103	213	316
Quebec, Que.....	4	26	125	151
Sea Island, B.C.....	2,239	11,317	92,783	104,100
Stephenville, Nfld.....	34	281	1,322	1,603
Sydney, N.S.....	227	1,983	11,431	13,414
Winnipeg, Man.....	436	4,237	17,669	21,906
Totals.....	17,003	130,495	750,082	880,577

* This figure includes 2,133 landed immigrants via Domestic.

TABLE 17
(Quarantine Service)
CONTROL OF RATS ON VESSELS
1958-59

Port	Vessels inspected, fumigated and deratting certificates issued	Vessels inspected and exemption certificates issued	Vessels inspected and remanded or time extended	Vessels inspected and certificates endorsed	Total vessels inspected	Rodents recovered	
						Rats	Mice
Charlottetown, P.E.I.....	1				1		
Halifax, N.S.....	3	38	75		116		
Sydney, N.S.....		8			8		
Saint John, N.B.....	2	25	4		31		
Baie Comeau, P.Q.....		2			2		
Montreal, P.Q.....	2	80	9		91	2	
Port Alfred, P.Q.....		35			35		
Quebec, P.Q.....		10			10		
Seven Islands, P.Q.....		3			3		
Three Rivers, P.Q.....		1			1		
Port Alberni, B.C.....	1	1			2	4	
Vancouver, B.C.....	9	65	21	220	315	24	10
Victoria, B.C.....		49	3	251	303		
Totals.....	18	317	112	471	918	30	10

Leprosy

The first case of leprosy recorded in Canada was in the year 1815 and the theory generally accepted is that it was introduced by an early settler arriving from a leprosy area.

The first treatment facilities, located at Sheldrake Island, New Brunswick, were provided by the Government of New Brunswick in 1844. In 1849, there were 20 cases and these were transferred to Tracadie and housed in buildings especially erected for their care. In 1869, new improved quarters were erected and in 1880, the Federal Government took over these facilities. The building was burned in 1943 and the Sisterhood of L'Hotel Dieu de St. Joseph replaced it with a modern, fireproof hospital to which was attached a special wing for the treatment of lepers. The Federal Government contributed to the cost of this wing and paid for the maintenance of leprosy patients on a per diem basis. The accommodation consists of 12 well furnished private rooms, comfortable living room facilities and a woodworking shop.

At the end of the fiscal year, eight persons were under active treatment at Tracadie and 13 were under the care of their family physicians who administer treatment under the surveillance of the local medical officers of health. Statistics for 1958-59 follow.

TABLE 18

ANNUAL CENSUS—LEPER PATIENTS

1958-59

(Tracadie, N.B.)

Inpatients:

Inpatients as of April 1st, 1958	7
Admitted during the year	4
Died during the year	0
Discharged during the year	3
Remaining in hospital as of March 31st, 1959	8

Outpatients:

Continuing treatment at home under medical supervision	13
Total known cases in Canada	21

Immigration Medical Service

The Immigration Medical Service carries out or directs the preliminary medical examination of immigrants abroad, the final medical examination of immigrants, visitors and persons in transit following arrival in Canada. In addition, it conducts the observation, clinical investigation and treatment of those who are found to be ill on arrival and the treatment of indigent immigrants who take ill following arrival while enroute to destination in Canada or while being accommodated by the Department of Citizenship and Immigration awaiting placement in employment. In certain circumstances, the Division undertakes the treatment of others considered the responsibility of the Department of Citizenship and Immigration. Medical, diagnostic and treatment facilities are also provided for all persons accommodated or detained in Immigration Halls across Canada.

To carry out this responsibility, the Immigration Medical Service is divided into four main sections;

A Headquarters Section which is responsible for the overall operation of the Immigration Medical Service and for liaison with and the transmission of advice to Provincial Departments of Health concerning persons requiring special supervision and treatment to protect the public health.

An Overseas Section which is responsible for the preliminary medical and x-ray examination, assessment and classification of proposed emigrants in the British Isles and Europe.

A Canadian Section which is responsible for the final examination, investigation and treatment at Canadian seaports and airports and for all treatment arrangements in Canada during the early months of residence.

A Prescreening Section which is responsible for preliminary examinations performed by selected physicians located in South America, Asia, Africa, Australia and other foreign countries in North America.

The Head Office of the European Section is located in London, England. Offices for the examination of migrants to Canada are located at London, Liverpool, Glasgow, Bristol, Leeds, Belfast, Dublin, Athens, Brussels, Copenhagen, Vienna, Paris, Rome, The Hague, Cologne, Stuttgart, Berlin, Hamburg, Munich, Helsinki and Berne, the latter being opened during the year. All these offices are staffed by Canadian medical officers with the exception of Dublin. Examinations are conducted free of charge and x-rays are also provided free at London, Liverpool, Leeds, Glasgow, Belfast, Bristol, Dublin, Paris and The Hague. At other centres, the migrant is required to pay an approved fee to the clinic appointed. Examinations at other smaller centres are carried out by specially appointed physicians called roster doctors and are located at various centres in the British Isles, Malta, Switzerland, Portugal, Norway, Sweden, Finland and France. Roster doctors charge a fee for each examination and their work is closely supervised by one of the full-time officers which has jurisdiction over the region. Roster doctors are also employed in Asia at Hong Kong, New Delhi, Bombay, Calcutta and Karachi. During the year, a Canadian medical officer was posted to New Delhi for the purpose of supervising and training roster doctors.

Total new examinations in the United Kingdom during the year was 24,217, a decrease of 50,312 from the 1957-58 total. Re-examinations numbered 5,786, a decrease of 4,610 from the previous year. On the Continent of Europe, initial examinations numbered 77,996, a decrease of 55,491 from 1957-58, while the total re-examinations was 16,550, a decrease of 3,708 from last year.

The overall total of new examinations was 102,213, a decrease of 105,803 from 208,016 in 1957-58 while total re-examinations were down to 22,336 from the 1957-58 figure of 31,470. Part of the decrease on the Continent of Europe is due to the fall-off in the number of Hungarian refugee examinations. However, the pattern shows that in Northern Europe, the decrease was approximately 50 per cent whereas in Greece, the decrease was 25 per cent. Italy showed an increase of approximately 12 per cent. The number of prospective migrants medically prescreened at Headquarters, however, continued to increase and during the year reached an all-time high of 30,151.

During the year, a new office was opened in Berne, Switzerland, and new office premises occupied in Belfast and Athens. Older x-ray units, displaced by more modern equipment in London and Glasgow, were installed in the Bristol and Belfast offices and now afford x-ray facilities there.

Travelling teams of Canadian medical officers worked outside their regular offices at various times during the year and carried out examinations in Spain, Metz, Malta and Trieste. At the close of the fiscal year, 56 medical officers were employed in offices in the United Kingdom and continental Europe, as well as a locally engaged clerical staff numbering 96.

Medical facilities for the examination and treatment of passengers arriving by sea are available at St. John's, Nfld., Sydney and Halifax, N.S., Saint John, N.B., Port Alfred, Rimouski, Montreal and Quebec, P.Q., and Vancouver and Victoria, B.C. Medical facilities for the examination and treatment of passengers arriving by air are located at airports at Gander and Stephenville, Nfld., Sydney, N.S., Moncton, N.B., Dorval, P.Q., Ottawa, Toronto, London and Windsor, Ont., Winnipeg, Man., Edmonton, Alta., and Vancouver, B.C. Sick bays for the treatment of immigrants are located in Immigration Buildings at Halifax, N.S., Saint John, N.B., and Quebec, P.Q.

Statistics for this Service follow.

TABLE 19
(Immigration Medical Service)

SUMMARY OF ACTIVITIES

Fiscal Year 1958-59

CANADA:

Immigrants medically inspected on arrival at ocean and air-ports	120,563
Non-immigrants medically inspected on arrival at ocean and air ports	46,988
Certified as "prohibited" under Immigration Act, Sec. 5, (a) (b) and (i)	390
Certified as physically defective, sec. 5 (c)	3,218
OVERSEAS—(British Isles, Continent of Europe and Orient):	
Prospective emigrants medically examined	106,587
Certified as "prohibited" under Immigration Act, Sec. 5, (a) (b) and (j)	2,418
Certified as physically defective, Sec. 5 (c)	9,490
Re-examinations	23,121
<i>British Isles:</i>	
Prospective emigrants medically examined	24,217
<i>Continent of Europe:</i>	
Prospective emigrants medically examined	77,996
<i>Orient:</i>	
Prospective emigrants medically examined	4,374

ALL OTHER COUNTRIES:

Medically prescreened at Ottawa	30,151
Certified as "prohibited" under Immigration Act, Sec. 5, (a) and (b)	412
Certified as physically defective, Sec. 5 (c)	4,753
Re-examinations	1,470

TABLE 20

IMMIGRATION MEDICAL EXAMINATIONS IN CANADA

1958-59

Location	Immigrants	Non-Immigrants
Gander, Nfld.....	450	832
St. John's, Nfld.....	320	266
Halifax, N.S.....	30,429	1,128
Sydney, N.S.....	36	11
Saint John, N.B.....	688	199
Montreal, P.Q.....	2,137	724
Quebec, P.Q.....	35,121	15,757
Dorval, P.Q.....	25,441	15,970
Malton Airport, Ont.....	4,729	4,111
Toronto, Ont.....	1,686	2
Fort Erie and Out-ports, Ont.....	2,018	780
Niagara Falls and Out-ports, Ont.....	1,332	557
Vancouver, B.C.....	2,296	532
Vancouver Airport, B.C.....	3,101	3,761
Victoria, B.C.....	197	113
Others.....	10,582	2,245
Totals.....	120,563	46,988

TABLE 21
 DETAILS OF EXAMINATIONS

Examinations Overseas

	Examinations	Re-examinations
By Canadian Medical Officers in British Isles.....	21,710	5,092
By Roster Doctors in British Isles.....	2,507	694
By Canadian Medical Officers on the Continent.....	74,937	15,590
By Roster Doctors on the Continent.....	3,059	960
By Roster Doctors in the Orient.....	4,374	785
Total—1958-59.....	106,587	23,121
Total—1957-58.....	211,982	31,623
BRITISH ISLES:		
<i>By Canadian Medical Officers</i>		
Belfast.....	1,089	432
Bristol.....	1,136	202
Glasgow.....	4,136	1,137
Leeds.....	1,972	527
Liverpool.....	2,854	813
London.....	10,523	1,981
<i>By Roster Doctors</i>		
Belfast Area.....	14	5
Bristol Area.....	204	38
Dublin Area.....	691	274
Eire.....	139	39
Glasgow Area.....	492	148
Leeds Area.....	321	42
Liverpool Area.....	141	44
London Area.....	505	104
CONTINENT:		
<i>By Canadian Medical Officers</i>		
Athens.....	5,464	743
Berlin.....	1,871	475
Berne.....	393	28
Brussels.....	2,018	922
Cologne.....	6,721	1,892
Copenhagen.....	1,598	381
Hamburg.....	2,853	833
Helsinki.....	1,115	287
Malta.....	312	.....
Munich.....	1,500	474
Paris.....	3,215	887
Rome.....	34,460	5,339
Spain.....	1	34
Stuttgart.....	2,934	861
The Hague.....	6,320	993
Vienna.....	4,162	1,441
<i>By Roster Doctors</i>		
Finland.....	.....	133
France.....	13	.....
Malta.....	264	156
Norway.....	494	114
Portugal.....	1,287	385
Sweden.....	471	81
Switzerland.....	530	91
ORIENT:		
<i>By Roster Doctors</i>		
Hong Kong.....	3,702	662
India.....	544	123
Pakistan.....	128	.....
Total.....	106,587	23,121

TABLE 22
 CASES PRE-SCREENED AT OTTAWA SHOWING COUNTRY OF ORIGIN
 Fiscal Year 1958-59

Country	Examined	Passed	Furthered	Certified—Section 5			Total Certified
				(a)	(b)	(c)	
Aden.....	2	2					
Algeria.....	77	71	1			5	5
Argentina.....	602	474	17		17	94	111
Australia.....	1,248	1,036	41	3	2	166	171
Azores.....	2,253	2,077	24	2	9	141	152
Bahrein Island.....	2	2					
Bermuda.....	34	28	1			5	5
Bolivia.....	3	2				1	1
Brazil.....	341	275	17		9	40	49
British Guiana.....	156	116	19		4	17	21
British West Indies.....	1,570	1,350	86	4	6	124	134
Bulgaria.....	16	10				6	6
Burma.....	37	29	5			3	3
Canada.....	7,856	5,911	635	15	79	1,216	1,310
Central Africa.....	95	82	4			9	9
Central America.....	28	24	2			2	2
Ceylon.....	40	38	1			1	1
Chile.....	75	68				7	7
China.....	14	5			4	5	9
Colombia.....	32	29				3	3
Cyprus.....	41	29			1	11	12
Czechoslovakia.....	59	43	2	1	2	11	14
Dutch Guiana.....	1	1					
Dutch West Indies.....	65	56	2			7	7
Ecuador.....	20	14	4			2	2
Egypt.....	65	53	1			11	11
Fiji Islands.....	14	10				4	4
Hawaii.....	3	3					
Hungary.....	1,239	773	37		23	406	429
Iceland.....	31	21	5			5	5
Indo-China.....	41	30	8		1	2	3
Indonesia.....	61	41	9		3	8	11
Iran.....	6	5			1		1
Israel.....	617	491	13	3	8	102	113
Japan.....	345	268	8	1	8	60	69
Jordan.....	1	1					
Korea.....	10	5				5	5
Kuwait.....	5	5					
Lebanon.....	397	342	2		8	45	53
Libya.....	2	2					
Madeira.....	118	108	1		2	7	9
Malaya.....	64	57				7	7
Malta.....	1	1					
Mauritius.....	2	2					
Mexico.....	54	46	1			7	7
Morocco.....	291	257	5		2	27	29
New Zealand.....	359	300	5	2	1	51	54
Paraguay.....	363	295	13		6	49	55
Peru.....	30	28				2	2
Philippines.....	37	28	2		1	6	7
Poland.....	4,206	3,013	129	8	86	970	1,064
Roumania.....	293	183	9		1	100	101
Russia.....	307	147	23	1	7	129	137
Society Islands.....	1	1					
South Africa.....	251	226	1		1	23	24
Spain.....	334	261	15		15	43	58
Tunisia.....	118	98	5		1	14	15
Turkey.....	282	251	8		4	19	23
Uruguay.....	52	37	4		2	9	11
United States.....	3,916	3,062	244	15	14	581	610
Venezuela.....	466	399	25		9	33	42
West Indies Group.....	80	69	1			10	10
Yugoslavia.....	1,022	825	35		20	142	162
Total.....	30,151	23,516	1,470	55	357	4,753	5,165

TABLE 23
 (Immigration Medical Service)
CERTIFICATIONS UNDER SECTION 5 OF THE IMMIGRATION ACT
 Fiscal Year 1958-59

	Canada		British Isles		Continent of Europe		Orient Examined by Roster Drs.	Canada Pre-screened at Ottawa	Total
	Ocean and Air ports	Examined by Can. M.O.'s.	Examined by Roster Drs.	Examined by Can. M.O.'s.	Examined by Roster Drs.				
Certified under:									
SS (a) Mental Diseases and Defects.....	46	91	5	227	1	5	55	430	
SS (b) Chronic Infectious Diseases.....	343	205	43	1,220	40	580	357	2,788	
SS (c) Physical Defects.....	3,218	2,700	384	5,688	289	429	4,753	17,461	
SS (i) Chronic Alcoholism.....	1							1	
SS (j) Drug Addiction.....						1		1	
Total.....	3,608	2,996	432	7,135	330	1,015	5,165	20,681	

SICK MARINERS SERVICE

The Sick Mariners Service has the distinction of being Canada's first prepaid medical surgical hospital treatment plan. The Federal Government, by agreement with the provinces, took over responsibility for operating such a service at the time of Confederation. The plan operated provincially prior to this, having been devised to prevent foreign seamen arriving at Canadian ports from becoming public charges when in need of medical or surgical treatment.

The Service operates under the authority of Part V of the Canada Shipping Act and provides, for a period of up to one year, free medical, surgical and hospital services for all conditions with the exception of permanent insanity. These benefits are available to all crew members of vessels for which sick mariners dues have been paid for the current calendar year.

Sick mariners dues are collected on the basis of registered tonnage and are payable to the Collector of Customs at ports in Newfoundland, Nova Scotia, New Brunswick, Prince Edward Island, Quebec, British Columbia, and those ports in Ontario and Manitoba bordering on James Bay and Hudson Bay.

It is not compulsory for vessels used exclusively in fishing operations to pay sick mariners dues but the dues may be paid providing the vessel is registered in Canada and the first payment is made prior to the first fishing voyage of the calendar year.

Sick Mariners Clinics staffed by medical officers of the Department are in operation at Halifax and Sydney, N.S., Saint John, N.B., Quebec and Montreal, P.Q., and Vancouver, B.C. At Sydney, Indians of the various reserves of the Eskasoni Indian Agency are also treated by the staff of the Sick Mariners Service.

Port physicians on a part-time salary basis provide treatment at St. John's, Nfld., Digby, Liverpool, Lunenburg, North Sydney and Pictou, N.S., Shippegan and Tracadie, N.B., Gaspé and Port Alfred, P.Q., and Port Alberni and Powell River, B.C. At various other ports, treatment is provided by designated physicians on a fee-for-service basis.

Effective January 1st, 1959, hospitalization of crew members, resident in any of the provinces which have completed hospital insurance agreements with the Federal Government, became the responsibility of the Provincial Hospital Insurance Authority concerned. Hospitalization of foreign seamen and seamen resident in provinces without an insurance plan continue to be covered in the same manner as before.

The total number of hospitals in Canada authorized or appointed to treat sick mariners during the year was 157 and the number of port physicians, consultants and specialists providing treatment service was 751.

Total dues collected during the calendar year 1958 amounted to \$357,132.09 and the total cost of providing treatment for crews of vessels paying these dues and to the crews of vessels exempt from the payment of dues under Order in Council 1955-4/483, amounted to \$1,020,212.60. A total of 31,943 seamen received treatment for 53,238 diseases or injuries. Of this number, 2,462 seamen were admitted to hospitals. The total number of crew members on vessels paying sick mariners dues was 125,976. Pulmonary tuberculosis cases discovered and treated amounted to 25 for an unadjusted rate of 20 per 100,000 persons. Tables relating to this Service follow.

TABLE 24
(Sick Mariners Service)

STATEMENT OF DISEASES AND INJURIES TREATED

During the Fiscal Year 1958-59

	<i>Cases Treated</i>
Tuberculosis of respiratory system	25
Syphilis and its sequelae	162
Gonococcal infection	3,486
Other infective diseases commonly arising in intestinal tract	121
Certain diseases common among children	3
Scarlet fever	30
Measles	35
Mumps	190
All other diseases classified as infective and parasitic	91
Malignant neoplasm, including neoplasms of lymphatic and haematopoietic tissues	448
Benign neoplasms and neoplasms of unspecified nature	1,091
Allergic disorders	458
Diseases of thyroid gland	169
Diabetes mellitus	95
Avitaminosis and other deficiency states	2,992
Anaemias	1,509
Psychoneuroses and psychoses	179
Vascular lesions affecting central nervous system	795
Diseases of the eye	1,058
Diseases of the ear and mastoid process	98
Rheumatic fever	100
Chronic rheumatic heart disease	701
Arteriosclerotic and degenerative heart disease	898
Hypertensive disease	2,101
Diseases of veins	5,318
Acute nasopharyngitis (Common cold)	1,107
Acute pharyngitis and tonsillitis and hypertrophy of tonsils and adenoids	5,381
Influenza	610
Pneumonia	2,153
Bronchitis	2,101
All other respiratory diseases	2,972
Diseases of stomach and duodenum, except cancer	310
Appendicitis	995
Hernia of abdominal cavity	605
Diarrhoea and enteritis	515
Diseases of gallbladder and bile ducts	4,221
Other diseases of digestive system	498
Nephritis and nephrosis	1,110
Diseases of genital organs (male)	5
Diseases of genital organs (female)	1,471
Boil, abscess, cellulitis and other skin infections	1,200
Other diseases of the skin	877
Arthritis and rheumatism, except rheumatic fever	79
Diseases of bones and other organs of movement	121
Other specified and ill-defined diseases	952
Accidents, poisonings, and violence (external cause)	3,350
Occupational accidents and occupational poisonings	452
Accidents and poisoning not specified as occupational	53,238

TABLE 25
(Sick Mariners Service)

REVENUE, EXPENDITURE AND DEFICIT CLASSIFIED ACCORDING
TO TYPE OF VESSEL
Calendar Year 1958

Classification of Vessel	Revenue	Expenditure	Deficit	Deficit Expressed as Percentage of Revenue
Foreign-going.....	341,289.17	437,233.87	95,944.70	28
Coasting.....	2,774.18	22,422.25	19,648.07	708
Fishing.....	13,068.74	554,950.81	541,882.07	4,146
Additional expenditure not classified as to type of vessel.....		5,605.67	5,605.67	.....
Total.....	\$357,132.09	\$1,020,212.60	\$663,080.51	185%

Government
(not paying S.M. Dues)
Treatment provided under
authority of P.C. 1955-4/483
T.B. 484135.....\$90,323.62

NARCOTIC CONTROL DIVISION

GENERAL

As has been the Division's experience in recent years, the maintenance of narcotic supplies in Canada for medical needs presented no problem. Licensed dealers kept the Division advised of their requirements, and splendid co-operation by international authorities and suppliers in other countries made the supply situation a matter of routine.

DOMESTIC TRADE

During the calendar year, 152 firms were licensed to deal in narcotics. Of these, 62 acted as distributors while 90 firms were licensed to manufacture and distribute specific narcotic products. All firms so licensed were carefully investigated in respect to both their pharmaceutical and business standards to ensure that narcotic stocks held by them were properly handled and safeguarded.

In the same period, 147 licences to import and 53 export licences were issued, the former covering Canadian narcotic requirements for the year and the latter being largely concerned with innocuous narcotic products shipped mainly to the West Indies.

A slight increase in narcotic consumption has been noted. This is offset by population growth and local conditions. Moreover, the Division is currently faced with requests for new synthetic narcotics which are being developed. It is expected that some of these drugs will, to a noticeable degree, replace related Opium derivatives. Information in respect to importation and estimated consumption of narcotics may be found on pages 95 and 96.

Seven pharmacist-auditors employed by the Division visited 4,248 retail drug stores, hospitals and narcotic dealers' premises to ensure that narcotic regulations were being observed.

SUPERVISION MAINTAINED OVER RETAIL PHARMACIES

Considerable correspondence was carried on with pharmacists regarding discrepancies in their narcotic stock and records, as uncovered by our inspecting auditors.

Slightly over 1,000 reports of narcotic sales were received monthly from retail pharmacies. These were subjected to close scrutiny in order to detect any irregularities which might indicate misuse or abuse of narcotic medication. A particularly close watch was maintained over some of the newer synthetic narcotic drugs which have appeared on the market in order to prevent any such material gaining favour with the criminal addict population.

ADDICTION

The annual count of narcotic addicts indicates that in the year 1958, Canada's addict population was 3,412 or about one addict per each 5,000 persons. These addicts, for statistical purposes, were divided into three classes: criminal,

2,958; medical, 320; and professional, 134. There has been no marked trend, either toward increase or decrease, in the overall number of addicts in Canada over the past five years, the figures being:

1954	3,212	1957	3,315
1955	3,425	1958	3,412
1956	3,241		

LIAISON WITH MEDICAL, PHARMACEUTICAL AND NURSING PROFESSIONS

The Division continued to maintain close liaison, by correspondence and through personal visits, with provincial registrars of the medical, pharmaceutical and nursing colleges and associations. The assistance provided by provincial registrars of the medical and pharmaceutical associations was of particular value in maintaining up-to-date records concerning the registration status of the various members who number approximately 22,000.

One of the more important phases of narcotic education is the lecturing to graduating classes in medicine and pharmacy at universities across Canada. This program was continued in the past year with the addition potentialities of new drugs being stressed. Talks were also given to custodial officers from penitentiaries, municipal police and other interested organizations at The Calderwood Staff Training College at Kingston.

Groups of pharmacists and members of the nursing profession were given first-hand information on the subject of narcotic records during conducted tours through the Division at Tunney's Pasture.

CONVICTIONS

Illicitly imported supplies continue to be available to addicts. As a result, and because of increased enforcement activity, a total of 522 convictions were registered under the Opium and Narcotic Drug Act during the calendar year. This figure represents 494 persons of whom 336 were male and 158 female. The differential between totals is due to certain individuals across the country being convicted on more than one occasion.

It is interesting to note that only nine males and six females under the age of 20 were so convicted and that the largest age group is from 25 to 50. Heroin was the drug involved in 477 of the 522 cases, or 91 per cent of the total. Three convictions were registered against professional people, two being engaged in the nursing field and one who claimed to be an osteopath in the United States.

INTERNATIONAL CO-OPERATION

Appropriate United Nations units were supplied with all routine reports by Canadian narcotic authorities as well as reports covering major seizures.

TABLE 26
SHOWING IMPORTS OF MAIN NARCOTICS FOR PERIOD
1949-58 INCLUSIVE

Unit of Weight—Kilogramme (Pure)

Year	Raw Opium	Medic- inal Opium and Preps.	Papa- verine	Mor- phine	Hydro- codone	Hydro- mor- phone	Ethyl- mor- phine	Codeine	Phol- codeine	Cocaine	Alpha- prodi- ne	Levor- phanol	Metha- done	Pethi- dine
1949.....	48.722	90.776	26.734	89.813	3.161	0.312	40.625	1,070.240	.....	18.881	.....	.....	30.278	116.405
1950.....	45.615	113.400	36.628	66.254	4.649	0.595	34.218	2,644.176	.....	38.102	.....	.....	2.608	155.358
1951.....	54.658	125.392	47.401	87.104	8.675	0.482	31.128	1,056.718	.....	29.852	.....	.....	2.069	260.508
1952.....	1.502	147.420	43.035	33.254	6.407	0.425	39.775	1,647.078	.....	31.808	.....	.....	9.327	349.924
1953.....	49.442	106.823	43.659	78.246	5.018	0.368	31.411	1,153.335	0.595	49.612	2.636	0.793	5.897*	323.449*
1954.....	5.897	149.688	84.936	60.499	17.775	0.198	39.378	2,814.390	17.775	48.308	1.587	0.567	9.185	592.061
1955.....	31.525	149.688	86.836	52.192	5.301	0.425	24.182	2,396.624	5.698	29.597	6.548	0.567	9.554	430.665
1956.....	17.236	145.350	87.448	47.332	13.012	0.471	55.291	1,893.242	2.602	32.865	2.464	0.338	3.911	323.104
1957.....	2.000	90.902	93.770	30.857	20.013	0.355	19.941	2,039.416	3.872	31.536	5.548	0.353	6.489	534.702
1958.....	0.567	108.864	83.109	28.342	33.338	0.174	19.978	2,445.569	.....	33.474	4.488	0.414	6.788	407.728

*Pure Drug figure utilized since 1953.

TABLE 27
SHOWING ESTIMATED CONSUMPTION OF THE MAIN NARCOTICS FOR
THE PERIOD 1949-58 INCLUSIVE

Year	Raw Opium	Medicinal Opium and Preps.	Papaverine	Morphine	Heroin	Hydromorphone	Codeine	Ethylmorphine	Pholcodeine	Cocaine	Alphaprodine	Levorphanol	Methadone	Pethidine
1949.....	56.983	102.230	38.528	77.055	25.458	0.454	1,259.959	26.904	.....	33.935	.....	.....	10.915	194.254
1950.....	66.055	152.380	46.267	74.079	28.350	0.454	1,292.250	31.270	.....	39.888	.....	.....	11.255	206.104
1951.....	57.267	161.397	38.613	71.584	26.309	0.425	1,598.486	44.254	.....	36.004	.....	.....	12.871	252.769
1952.....	57.975	167.974	57.984	71.980	22.000	0.567	1,795.831	21.971	.....	37.989	.....	0.822	11.000	285.966
1953.....	21.603	142.771	47.940	76.318	23.474	0.595	1,508.192	44.850	0.227	40.030	0.822	0.964*	8.845*	298.015*
1954.....	51.568	158.023	73.937	70.024	28.123	0.085	1,819.701	16.812	5.670	33.198	3.147	0.368	10.858	335.324
1955.....	20.950	112.294	71.754	49.329	12.616**	0.425	2,286.994	31.780	4.649	35.693	4.111	0.624	5.953	372.434
1956.....	28.306	185.820	97.995	50.402	6.158	0.390	1,885.903	28.835	6.358	34.507	3.262	0.478	7.530	478.143
1957.....	21.500	112.519	90.158	43.348	5.605	0.319	2,407.116	30.284	4.270	31.921	5.945	0.413	5.583	333.078
1958.....	3.648	140.819	73.469	44.645	2.971	0.245	2,501.709	27.966	1.788	30.188	3.634	0.355	6.768	406.990

*Pure Drug figure utilized since 1953.

**Imports of Heroin banned as of 1st January, 1955.

TABLE 28
CONVICTIONS UNDER THE OPIUM AND NARCOTIC DRUG ACT
DURING THE CALENDAR YEAR 1958

Province	NATURE OF OFFENCE						DRUGS INVOLVED						
	Section 10	Section 4(F)	Illegal Possession	Trafficking	Possession for the Purpose of Trafficking	Total	Heroin	Morphine	Marihuana	Methadone	Demerol	Opium	Total
Newfoundland.....													
Prince Edward Island.....													
Nova Scotia.....	1		3	1		5		3			2		5
New Brunswick.....													
Quebec.....	1	1	10	7	4	23	3	6	11		3		23
Ontario.....	1		114	24	17	156	145		6	2	2	1	156
Manitoba.....			10			10	9		1				10
Saskatchewan.....			1			1					1		1
Alberta.....			13	1		14	10	1		2	1		14
British Columbia.....			302	1	10	313	310	1	1	1			313
Total.....	3	1	453	34	31	522	477	11	19	5	9	1	522

Of the above there was 1 male in Quebec, 1 male in Nova Scotia, 2 males and 4 females in Ontario, 2 males in Alberta, 8 males and 6 females in B.C., who had two convictions, as well as 1 male and 1 female who had three convictions in Ontario.

WELFARE BRANCH

INTRODUCTION

The most important development affecting the activities of the Branch during the year was in the area of Civil Defence, for which the Department has been largely responsible since 1951.

In June, 1958 the Government of Canada appointed Lieutenant General Howard Graham to prepare a report on Civil Defence measures. Following the receipt of his report at the end of December, the whole problem of Civil Defence was given intense consideration in the context of the larger problems relating to the development of plans for the survival of the population and the continuity of government in the event of a nuclear war. On March 23rd, 1959, the Prime Minister made a statement of policy on the re-allocation of Civil Defence functions. The co-ordination and overall direction of Civil Defence planning was assigned to the Office of the Privy Council, working through the Emergency Measures Organization. The Department of National Defence was made responsible for warning the civil population, for rescue activities, for decontamination of areas affected by radio-active fallout and for all other activities related in any way to the "re-entry" operation. Assistance to the provincial and local Civil Defence authorities in the maintenance of law and order and the control of traffic was placed under the charge of the Royal Canadian Mounted Police. The Department of National Health and Welfare was given continued responsibility for assistance to the provincial and municipal governments in providing medical, nursing, hospital and public health services and for emergency housing, feeding and welfare assistance. The maintenance and operation of the Civil Defence School at Arnprior also continues to be the responsibility of the Department. Subsequent to the close of the fiscal year an Order in Council provided that this allocation of functions should take effect in September, 1959.

Economic Security for the Aged

Toward the end of the last fiscal year, the Government of Canada appointed Dr. Robert M. Clark of the University of British Columbia to report on economic security programs for aged persons in the United States and to consider the applicability of such programs for Canada. At the request of Dr. Clark, a member of the Research and Statistics Division was assigned to him to assist in the study. Dr. Clark's report was tabled in Parliament on March 5, 1959, and at the end of the year was under study in the Department.

Fitness and Recreation Services

The Departmental Consultant on Fitness and Recreation continued to provide, on request, information relative to fitness, recreation, community centres and related subjects. Consultant Services were provided to several provinces, universities and national organizations. The Canadian Physical Efficiency Tests,

developed to provide a practical means whereby individual basic physical efficiency could be assessed with due regard to age, sex, and physique, were conducted in two provinces. Testing was established in one province on a routine sampling basis. Following the British Empire and Commonwealth Conference on Fitness and Recreation held in Cardiff, Wales, in July, 1958, testing projects based on the Canadian tests were organized in Australia, New Zealand and South Africa. The Progressive Power Exercise Program, designed on a graded basis, is being used in several centres across Canada.

Sales Tax Refunds for Welfare Institutions

The Excise Tax Act was amended during the year to extend the range of one of the provisions in the Act under which refunds of the sales tax are made to public institutions certified by the Minister of National Health and Welfare as providing shelter and care for children or aged, infirm or incapacitated persons living in the institution. Under the amended Act, it is no longer necessary that the shelter and care provided be on a permanent or semi-permanent basis. In the case of institutions in the course of construction, the amendment also makes possible refunds of sales tax on goods purchased within two years prior to the effective date of certification of the institution under the Act. As the result of this amendment, it was possible to certify 18 institutions which were previously ineligible. In addition, 63 new institutions were certified during the year and five institutions re-certified; 19 applications were rejected and nine certifications were cancelled. This brings the total of institutions certified for sales tax refunds to 524.

Incorporation Under the Federal Companies Act

Applications from welfare, recreation and sports organizations for incorporation under the Federal Companies Act were examined by the Welfare Branch at the request of the Secretary of State.

Other Activities

The Deputy Minister of Welfare was elected President of the Economic and Social Council of the United Nations in April, 1958, and presided at meetings of the Council in New York in April and Geneva in July. As President of the International Conference of Social Work, he also presided at the Ninth Conference held in Tokyo, November to December 6, 1958.

The main Welfare Branch expenditures were:

	Administration	Net Federal Payments
Welfare Branch	\$ 70,993	
Unemployment Assistance		\$ 23,933,535
Family Allowances	2,944,807	474,787,068
Old Age Security		559,279,858
Old Age Assistance		30,205,289
Blind Persons Allowance	109,017	4,236,212
Disabled Persons Allowance		15,330,814

Details as to the programs whose expenditures are shown in the foregoing statement are set out in the following pages.

FITNESS AND RECREATION SERVICES

Interest in physical efficiency and conditioning exercise continued to increase, with some national organizations undertaking specific programs in physical efficiency. The Canadian Physical Efficiency Tests, developed to provide a practical means whereby individual basic physical efficiency could be assessed with due regard to age, sex, and physique, were conducted in two provinces. Testing was established in one province on a routine sampling basis. Following the British Empire and Commonwealth Conference on Fitness and Recreation held in Cardiff, Wales, in July, 1958, interested authorities in Austria, New Zealand and South Africa have organized testing projects based on the Canadian tests.

The Progressive Power Exercise Program, designed on a graded basis, is being used in several centres. The lack of printed information has limited its use to groups able to provide their own multigraphing services.

Personnel in the fitness and recreation fields, especially persons qualified in research, continued to be difficult to recruit largely because graduate study in these fields is not available in Canada, and few Canadians investing in post graduate study in other countries, return.

Information relative to fitness, recreation, community centres, and related subjects continued to be made available. Long-term planning appeared to be replacing the single project approach.

Consultant services were provided for several provinces, universities and national organizations at their request.

FAMILY ALLOWANCES AND OLD AGE SECURITY DIVISION

The year ending March 31, 1959, was not remarkable for any outstanding occurrences in connection with the administration of Family Allowances and Old Age Security pensions, inasmuch as substantial legislative changes had taken place in the previous fiscal year. It was rather one of continued growth in the scope of both programs. While this growth naturally resulted in an increased work-load, without any corresponding increase in staff, it was possible to achieve some progress in the review and consolidation of procedures.

Active Family Allowances accounts maintained in regional offices at the end of the year numbered 2,504,189,* an increase of 85,279 over the number maintained at the end of the previous year, which was 2,418,910. Again last year, the increase was considerably greater than that reported at the end of the year 1957-58. There were 863,540* active Old Age Security accounts in regional offices at the year-end, as compared with 836,048 at the end of the previous year, an increase of 27,492. Unlike the increase in Family Allowances accounts, that in Old Age Security was not as large as that reported at the end of the year 1957-58. The total increase for the past year in active accounts, both Family Allowances and Old Age Security, was approximately 3.5 per cent.

*It will be noted that in the case of both Family Allowances and Old Age Security, the number of active accounts maintained is greater than the number of accounts in pay, as shown later in this report and in the following tables. The difference results from the fact that at all times there are some accounts where payment has been suspended for various reasons.

Staff and Accommodation

During the year just ended, there were again some changes in senior personnel of this Division. Mr. R. B. Curry, who had been seconded for duty with the Privy Council June 1, 1957, terminated his appointment as Director of this Division. He was succeeded by J. Albert Blais who had served as Assistant Director of the Division since 1946. As the result of a promotional competition, Mr. R. J. G. Mitchell was appointed to the position of Regional Director for Saskatchewan, replacing the former Regional Director who had transferred to another department. The unfortunate death of Mr. C. B. Howden, Regional Director for Manitoba, caused a vacancy which was also filled by promotional competition. The successful candidate was Mr. W. F. Hendershot, at present Executive Assistant to the Deputy Minister of Welfare. Mr. Hendershot will take up his new duties on June 1, 1959. Following the resignation of Mr. A. S. Tait, Regional Director for Prince Edward Island, another competition was held in order to secure a replacement. Mr. J. E. Green was successful in this competition and is now Regional Director for that province. Mr. Green was formerly Supervisor of Welfare Services in the Prince Edward Island regional office.

The number of employees on the staff of the Division as of March 31, 1959, was 848, the same number as at the end of the previous year. Staff turn-over varied from regional office to regional office. Generally speaking, it was perhaps slightly lower than in previous years.

The only regional office which was re-located during the past year was the Nova Scotia Regional Office in Halifax. That office was moved to the Ralston Building in that city. The long-held hope of new accommodation for the Ontario Regional Office in Toronto now appears to be close to becoming a reality. It is expected that new quarters in a federal building will be ready for occupancy some time in 1960. It is anticipated also that the Quebec Regional Office will be provided eventually with space in a new federal building in Quebec City.

Costs of Administration

The following is a comparison between the costs of administering the Family Allowances and Old Age Security programs in the fiscal years 1957-58 and 1958-59:

	Dept. of National Health & Welfare	Dept. of Finance (Treasury)	Dept. of Public Works	Total
1957-58	\$2,898,891.29	\$4,082,834.18	\$348,008.84	\$7,329,734.31
1958-59	2,944,807.35	4,045,369.81	221,254.06	7,211,431.22

The total cost of administering the two programs in the past year was, as shown, considerably less than in the year before, and amounted to only 69 per cent of the total expenditures of Family Allowances and Old Age Security.

It should be noted that of \$4,045,369.81 Finance Treasury costs, \$1,915,928.45 were expended for postage on cheques. This amounted to 47 per cent of the total Treasury costs.

Welfare Services

The nature of the work carried on in the Welfare Sections of regional offices remained much the same as in the past. The volume of work did, however, increase by about 10 per cent. It was possible to handle this increased volume because of an improved staff situation. Fortunately, only one social worker position became vacant during the year and the person who had occupied it was not lost to the Division. This change, which took place in Prince Edward Island, involved the advancement of Mr. J. E. Green to the post of Regional Director and was referred to earlier in this report.

The improved staff situation also permitted better liaison with child placing agencies and child caring institutions right across Canada. It is considered that liaison is one of the most important aspects of the work of the professional staff.

This Division continues to act as a referral agency in regard to social problems which come to its attention in the course of paying out Family Allowances and Old Age Security. Last year almost 1,000 recipients were referred to other agencies for their services.

There was a slight increase in the past year in the number of cases reported where misuse of Family Allowances was indicated. As in the past, about 65 per cent of these situations proved to be not quite as they appeared from the reports. In only 223 cases was it found necessary to pay Family Allowances to a third party.

The reviewing of trusteeships continues to be the main job of the Welfare Sections in the Old Age Security field. Some 11,500 cases involving trusteeship were dealt with during the year.

FAMILY ALLOWANCES

Payments

Total net payments for the year 1958-59 were \$474,787,067, an increase of \$36,900,508 over those for the previous year. Tables 29 and 30 appended hereto give additional details regarding payments of allowances.

As anticipated, the numbers of families and children receiving Family Allowances and the expenditures made in March, 1959, were substantially greater than those in March, 1958. The increases are shown in the following table:

	No. of Families	No. of Children	Expenditures
March, 1959	2,492,581	6,035,256	40,262,527
March, 1958	2,406,734	5,796,380	38,697,160
Increase	85,847	238,876	\$ 1,565,367

In March, 1959, as in March, 1958, the province having the largest number of families and children receiving Family Allowances, and in which the largest expenditure was made, was Ontario.

Overpayments

At the end of the year 1958-59, the total amount of Family Allowances outstanding as overpaid was \$206,337.44, as compared with \$185,596.76 at the end of 1957-58. This increase was small, considering that during the past year, a gross amount of more than \$475,000,000 was paid in Family Allowances.

It should be noted that the total amount listed as outstanding at any time is the balance of all overpayments which occurred since Family Allowances were first paid in 1945, less the collections which have been made and lesser amounts deleted from the accounts as uncollectable by authority of the Treasury Board. Table 31 appended hereto shows a breakdown, by category, of the overpayments outstanding at March 31, 1959.

School Attendance and Employment

Fewer children lost Family Allowances for one month or more during 1958-59, as a result of non-attendance at school, than did so in 1957-58. The number was 7,515 for the past year, as compared with 8,769 in the previous year, the difference being 1,254. It should be noted, also, that allowances were reinstated on resumption of attendance at school in the case of 4,901 children during the past year. All information received in the course of the year supports the inference which may be drawn from the figures quoted, that is, that the Family Allowances program continues to have an important influence on school attendance in Canada.

Again during the year ended March 31, 1959, fewer children lost Family Allowances because of employment for wages than was the case in the preceding year. The number dropped from 19,898 in 1957-58 to 16,478 in the last year. Also during the last year, allowances were reinstated for 1,574 children who ceased to work.

OLD AGE SECURITY

Payments

The number of persons who received pensions in March, 1959, was 854,284 as compared with 827,560 in March, 1958, an increase of 26,724. The increase in total net payments for March, 1959, over those for March, 1958, was \$1,456,260. The total net payments for the year 1958-59 were \$559,279,858. Table 32 appended hereto gives further details regarding payment of Old Age Security pensions.

Overpayments

Each year, certain payments made to pensioners must be considered as having been improperly paid, usually because of the pensioners having been absent from Canada and ineligible for pension for some months. These amounts are added to outstanding overpayments made in earlier years. At the same time, collections are being made continuously. At the end of March, 1959, the total amount of outstanding overpayments of Old Age Security, out of all the payments made since January, 1952, amounting to several billions of dollars, was \$40,706. The amount outstanding at March 31, 1958, was \$37,993.

Proof of Age

Generally speaking, there is an increase each year in the percentage of applicants for pension whose date of birth is verified by means of a birth or baptismal certificate, which is considered the best type of evidence. This applies to a greater extent, perhaps, to Canadian-born applicants, though many persons born outside of Canada have in their possession, or can obtain, such a

certificate. In a large number of cases, satisfactory evidence of age consisting of documents other than birth or baptismal certificates can be obtained, both by Canadian-born and foreign-born applicants. In those cases where the date of birth cannot be established by documentary evidence, recourse is had to a tribunal, as provided for under the Old Age Security Regulations, in order to determine the date of birth for Old Age Security purposes. In the past year, tribunals were convened in 538 cases, as compared with 453 in the preceding year. Decisions of tribunal members were favourable to the applicant in 381 cases and unfavourable in 157 cases.

Absences from Canada

Under the Old Age Security Act, as amended, pension may be paid for six months of absence from Canada in any calendar year, exclusive of the months of departure and return, provided the pensioner returns to this country, after an absence, within six months from the last day of the month in which he left. In the year 1958-59, 13,157 pensioners returned to Canada after being out of the country and had their pensions reinstated for the full period they were away, with absolutely no loss. During the same period, 241 pensioners returned to Canada after an absence, and had their pensions reinstated, but with a loss of payment for one or more months. Of those who lost payment, the majority, 186, lost more than six months. Also in the past year, 365 pensioners were reported as having left Canada permanently.

TABLE 29

DEPARTMENT OF NATIONAL HEALTH AND WELFARE COMPARATIVE STATEMENT OF FAMILY ALLOWANCES PAYMENTS
BETWEEN MONTH OF MARCH 1958 AND MONTH OF MARCH 1959

Province	Month of March 1958				Month of March 1959			
	Families Receiving		Children Receiving		Families Receiving		Children Receiving	
	Number	Average Allow. per Family	Number	Average Allow. per Child	Number	Average Allow. per Family	Number	Average Allow. per Child
Newfoundland.....	60,961	20.40	187,035	6.65	62,203	20.57	192,030	6.66
Prince Edward Island.....	13,240	18.61	36,839	6.69	13,443	18.72	37,426	6.72
Nova Scotia.....	101,509	16.71	253,713	6.68	103,105	16.79	258,684	6.69
New Brunswick.....	79,237	18.89	224,047	6.68	80,857	19.00	229,505	6.69
Quebec.....	664,852	18.02	1,786,800	6.70	686,872	18.01	1,848,138	6.69
Ontario.....	833,495	14.59	1,825,274	6.66	870,582	14.69	1,922,653	6.65
Manitoba.....	124,257	15.22	283,863	6.66	126,989	15.34	292,697	6.66
Saskatchewan.....	127,904	15.89	306,045	6.64	130,210	16.03	313,926	6.65
Alberta.....	179,273	15.36	414,550	6.64	187,561	15.51	437,883	6.64
British Columbia.....	217,009	14.35	466,169	6.68	225,492	14.49	488,891	6.68
Northwest Territories & Yukon.....	5,033	15.87	12,045	6.63	5,267	17.21	13,423	6.75
NATIONAL.....	2,406,734	\$16.08	5,796,380	\$6.68	2,492,581	\$16.15	6,035,256	\$6.67
								\$40,262,527

TABLE 30
DEPARTMENT OF NATIONAL HEALTH AND WELFARE NET FAMILY
ALLOWANCES PAYMENTS—COMPARISON BY FISCAL YEARS

Province	1947-48	1948-49	1949-50	1950-51	1951-52	1952-53
Newfoundland.....	2,256,477.00	2,295,286.00	9,747,030.00	10,224,103.00	10,613,908.00	11,038,874.49
Prince Edward Island.....	14,207,957.82	14,515,131.00	2,411,291.00	2,467,257.00	2,495,987.00	2,522,830.00
Nova Scotia.....	12,086,891.93	12,462,093.00	15,291,614.07	15,660,003.27	15,949,540.73	16,297,169.95
New Brunswick.....	87,157,243.46	89,304,108.45	13,375,434.33	13,708,198.00	13,892,907.00	14,287,535.05
Quebec.....	77,328,534.50	80,151,249.69	95,901,763.15	99,558,247.04	102,883,811.56	107,084,124.36
Ontario.....	14,798,436.82	15,016,277.72	84,940,808.63	89,034,870.53	93,207,144.30	98,303,868.20
Manitoba.....	18,561,329.55	18,527,408.22	15,668,695.50	16,235,519.56	16,703,466.69	17,283,659.61
Saskatchewan.....	18,181,662.50	18,695,325.00	18,953,599.79	19,237,070.80	19,424,561.76	19,723,352.42
Alberta.....	18,012,188.75	19,347,836.58	19,822,386.97	20,762,273.29	21,573,429.99	22,575,583.60
British Columbia.....	574,470.00	595,063.00	20,813,661.00	21,952,569.36	23,063,642.85	24,399,858.81
Yukon & Northwest Territories.....			587,749.50	625,348.67	649,273.15	680,828.30
NATIONAL.....	\$263,165,192.33	\$270,909,778.66	\$297,514,033.94	\$309,465,460.52	\$320,457,673.03	\$334,197,684.79
Province	1953-54	1954-55	1955-56	1956-57	1957-58	1958-59
Newfoundland.....	11,497,719.33	11,967,775.00	12,414,789.00	12,881,415.00	14,131,153.26	15,162,900.03
Prince Edward Island.....	2,558,097.00	2,590,704.00	2,621,722.00	2,640,585.00	2,824,310.34	2,994,334.00
Nova Scotia.....	16,716,374.00	17,147,920.00	17,596,684.40	17,973,392.00	19,400,493.32	20,560,461.88
New Brunswick.....	14,700,819.00	15,073,324.00	15,451,544.00	15,779,360.00	17,074,970.00	18,201,518.00
Quebec.....	111,441,301.49	116,057,182.00	120,389,837.92	124,368,344.00	136,080,634.08	146,278,434.72
Ontario.....	104,409,819.41	110,492,480.00	116,604,314.27	122,539,123.00	136,706,313.83	150,186,253.35
Manitoba.....	17,979,853.88	18,705,349.00	19,418,713.24	19,888,717.00	21,520,778.50	23,091,594.01
Saskatchewan.....	20,244,540.00	20,894,790.00	21,401,114.00	21,644,971.00	23,241,829.00	24,789,277.50
Alberta.....	23,958,080.50	25,390,585.00	26,752,793.00	27,953,311.00	31,029,720.19	34,122,637.00
British Columbia.....	25,904,496.28	27,405,872.00	29,097,077.14	31,029,472.00	34,969,036.05	38,409,308.36
Yukon & Northwest Territories.....	702,801.30	739,983.00	786,437.15	819,150.00	907,321.25	990,349.00
NATIONAL.....	\$350,113,902.19	\$366,465,964.00	\$382,535,026.12	\$397,517,840.00	\$437,886,559.82	\$474,787,067.85

TABLE 31
DEPARTMENT OF NATIONAL HEALTH AND WELFARE OVERPAYMENTS OF FAMILY ALLOWANCES
March, 1959
(The overpayments may have occurred at any time between July 1, 1945 and
March 31, 1959)

Province	Overpayments Recoverable by Deduction		Overpayments Recoverable by Collection		Overpayments Considered Uncollectable		Total Overpayments Outstanding	
	Number of Accounts	Amount \$ cts.	Number of Accounts	Amount \$ cts.	Number of Accounts	Amount \$ cts.	Number of Accounts	Amount \$ cts.
Newfoundland.....	41	1,127 00	33	1,055 95	42	786 50	116	2,969 45
Prince Edward Island.....	21	395 00	3	164 00	6	147 50	30	706 50
Nova Scotia.....	42	1,045 00	119	1,997 00	103	3,256 25	264	6,298 25
New Brunswick.....	23	1,396 00	53	1,040 00	118	4,661 00	194	7,097 00
Quebec.....	359	20,098 05	570	33,237 18	841	48,016 65	1,770	101,351 88
Ontario.....	216	9,240 42	658	17,734 57	755	17,741 36	1,629	44,716 35
Manitoba.....	28	1,121 00	50	817 00	79	2,676 00	157	4,614 00
Saskatchewan.....	61	1,647 00	80	4,683 00	80	4,449 00	221	10,779 00
Alberta.....	57	1,619 00	82	2,648 00	133	4,585 69	272	8,852 69
British Columbia.....	87	3,587 00	97	3,748 00	136	4,231 32	320	11,566 32
Yukon & Northwest Territories.....	56	3,217 00	99	3,730 00	8	439 00	163	7,386 00
NATIONAL.....	991	44,492 47	1,844	70,854 70	2,301	90,990 27	5,136	206,337 44*

* In addition to this amount outstanding, there has been deleted as uncollectable by Treasury Board authority between July, 1945 and March 31, 1959, a net amount of \$145,577.71.

TABLE 32
DEPARTMENT OF NATIONAL HEALTH AND WELFARE STATISTICS ON OLD AGE SECURITY

Province	No. of Pensioners in Pay March, 1958	Net Payment for March, 1958 only	No. of Pensioners in Pay March, 1959	Net Payment for March, 1959 only	Total Net Payment for Fiscal Year Ended March 31, 1958	Total Net Payment for Fiscal Year Ended March 31, 1959
Newfoundland.....	16,557	911,047	16,782	925,258	9,490,737	11,012,906
Prince Edward Island.....	7,100	394,079	7,153	395,509	4,139,668	4,809,942
Nova Scotia.....	39,694	2,215,298	40,395	2,249,021	23,008,418	26,780,353
New Brunswick.....	28,956	1,616,906	29,509	1,641,694	16,747,674	19,583,702
Quebec.....	174,476	9,655,806	179,829	9,945,313	99,490,164	116,993,184
Ontario.....	301,183	16,589,519	310,094	17,086,362	172,804,152	203,257,138
Manitoba.....	50,079	2,771,744	52,066	2,884,688	28,562,399	34,029,850
Saskatchewan.....	51,300	2,850,365	53,469	2,962,386	29,420,360	35,099,989
Alberta.....	53,319	2,971,982	55,968	3,124,708	30,443,217	36,534,769
British Columbia.....	104,297	5,808,570	108,396	6,023,573	59,408,009	70,769,169
Yukon & Northwest Territories.....	599	33,095	623	36,159	344,305	408,856
NATIONAL.....	827,560	\$45,818,411	854,284	\$47,274,671	\$473,859,103	\$559,279,858

OLD AGE ASSISTANCE

ALLOWANCES FOR BLIND PERSONS AND ALLOWANCES FOR DISABLED PERSONS

Old Age Assistance

Old age assistance is provided under a federal-provincial plan with the cost being shared equally by the provinces and the Government of Canada. The main requirements are in connection with age, residence and income. The receipt of old age security, blindness allowance, disability allowance or war veterans allowance disqualifies an applicant. Old age assistance is administered and paid by the provinces under provincial law with reimbursement by the Federal Government where the decisions are in accordance with the provisions of the Old Age Assistance Act and the Old Age Assistance Regulations.

There were no amendments to the Act or regulations during the fiscal year 1958-59. Under agreements between Canada and the provinces as amended in 1957 and 1958, the provinces paid assistance at the maximum amount of \$55 a month. In all provinces the maximum amounts of income allowed, including assistance, were the amounts specified in the Act: \$960 a year in the case of an unmarried person, \$1,620 in the case of a married person and \$1,980 where the spouse was blind. The age requirement was 65 years and the residence requirement ten years in Canada.

There was a considerable increase in the number of recipients during the fiscal year, the number as at March 31, 1959, being 97,836 as compared with 92,484 as at March 31, 1958. Recipients represent about 21 per cent of the estimated total population 65 to 69 years of age. Federal payments to the provinces for 1958-59 totalled \$30,207,284.36 as compared with \$24,961,383.23 for 1957-58. The substantial increase is explained partly by the fact that the maximum payment was \$55 a month throughout the whole of the fiscal year 1958-59. In 1957-58 the maximum amount payable was increased from \$40 to \$46 a month from July 1, 1957 and from \$46 to \$55 a month from November 1, 1957.

The application of a means test naturally results in payments of varying amounts. However, the great majority of recipients receive the maximum old age assistance payable. As at March 31, 1959, there were 76,208 recipients receiving the maximum payment or 77.89 per cent. Of the remainder, 11,427 or 11.68 per cent received assistance payments in amounts over \$40 a month.

Recipients of old age assistance on reaching 70 are granted old age security. The substitution of an old age pension for old age assistance can mean a higher payment for some but for the majority the amount received monthly is the same. In the last few fiscal years, the number of recipients transferred to old age security has varied little, being about 22,000. In 1956-57, the 24,423 new cases approved were not greatly in excess of the number transferred which was 22,616. The difference was more marked in the last two fiscal years. In 1957-58, there were 22,256 recipients transferred to old age security and 28,638 new applications approved. In 1958-59, 22,424 were transferred and 32,291 were approved. Since the inception of the Act, 142,436 recipients have been transferred. About 60 per cent of applicants whose applications are approved are 65 years of age.

It is difficult to form any reliable conclusion from an increase or decrease in the number of recipients. Higher income ceilings extend the coverage and certainly any increase in the amount that can be paid stimulates interest among persons who might be able to establish eligibility. In 1956-57, there were 29,060 applications; in 1957-58, there were 33,118; and in 1958-59, there was a further increase to 37,255. The higher figures are probably explained by the amendments to the Act in 1957 and the general economic and employment conditions during the last few years.

Additional statistical information appears at the end of the report on this Division.

Allowances for Blind Persons

Blind persons allowances are provided under a federal-provincial plan, 75 per cent of the cost of which are payable by the Government of Canada and the remaining 25 per cent by the provinces. In addition to a medical test, an applicant must fulfil age, residence and income requirements. The receipt of old age assistance, old age security, disability allowance, war veterans allowance or a pension in respect of blindness under the Pension Act disqualifies an applicant. The allowances are administered and paid by the provinces under provincial law with reimbursement by the Federal Government where the decisions are in accordance with the provisions of the Blind Persons Act and the Blind Persons Regulations.

The Act was not altered during the fiscal year 1958-59 nor were there any amendments to the regulations under the Act. The maximum allowance paid in all parts of Canada was \$55 a month. The maximum amounts of income allowed, including the allowance, were the amounts specified in the Act, namely: \$1,200 a year in the case of an unmarried person; \$1,680 where there was a dependent child; \$1,980 a year in the case of a married person; and \$2,100 where there was a blind spouse. The age requirement was 18 years and the residence requirement, ten years in Canada.

The number of recipients increased from 8,400 as at March 31, 1958 to 8,747 as at March 31, 1959. There was a substantial increase in federal expenditure due partly to the fact that allowances were paid at the maximum rate of \$55 throughout the whole of the fiscal year 1958-59. In 1957-58 the maximum allowance was increased from \$40 to \$46 a month from July 1, 1957 and to \$55 a month from November 1, 1957. Total federal payments for 1958-59 were \$4,235,131.48 as compared with \$3,575,724.04 for 1957-58.

At the close of the fiscal year 7,936 or 90.73 per cent of recipients were receiving the maximum allowance. Of the remainder, 355 or 4.06 per cent, received allowances of \$40 or more.

On reaching 70, recipients of blind persons allowances become eligible to receive pensions under the Old Age Security Act paid entirely by the Government of Canada. In each of the last several years between three and four hundred have been granted old age pensions. In 1958-59 the number was 326. Since the inception of the Act, 2,636 recipients of blindness allowances have been transferred to old age security. Although the age at which blindness allowances may be granted is 18 years, transfers can be relatively high in view of the numbers of blind recipients in the older age groups. Of the 1,037 applications approved in 1958-59, 538 applicants were over 50.

The number of recipients at the end of the fiscal year was the highest since the Act came into operation, due no doubt, to the amendments to the Act in 1957 increasing both the maximum allowance payable and the maximum income allowed.

Statistics on blindness allowances appear at the end of the report on this Division.

Allowances for Disabled Persons

Disabled persons allowances are paid under a federal-provincial plan, the cost being shared equally by the provinces and the Government of Canada. In addition to a medical test, an applicant must fulfil specific requirements regarding age, residence and income. The allowances are not payable to persons in tuberculosis sanatoria or mental institutions. Persons in other institutions may receive allowances if the greater part of the cost of their maintenance is paid out of their own resources or by private individuals. The period in a hospital is restricted. The receipt of old age security, old age assistance, blindness allowance, war veterans allowance or mothers allowance disqualifies an applicant. Disability allowances are administered and paid by the provinces under provincial law. Where their decisions are made in accordance with the provisions of the Disabled Persons Act and Regulations, they may claim reimbursement by the Federal Government.

There were no amendments to the Act or regulations during the fiscal year 1958-59. The maximum allowance paid in all parts of Canada during the year was \$55 a month. All agreements stipulate, as the maximum amounts of income allowed, the amounts shown in the Act which are: \$960 a year in the case of an unmarried person; \$1,620 a year in the case of a married person; and \$1,980 a year in the case of a married person with a blind spouse. The age requirement is 18 years and the residence requirement ten years in Canada.

The number of recipients as at March 31, 1959, was 48,040 as compared with 41,840 as at March 31, 1958. The federal expenditure increased from \$11,091,664.45 in 1957-58 to \$15,330,368.16 in 1958-59. Part of the increase was due to the fact that allowances were paid throughout 1958-59 at the maximum rate of \$55 a month. Amendments to the Act in 1957 increased the maximum allowance from \$40 to \$46 a month as from July 1, 1957, and from \$46 to \$55 a month as from November 1, 1957.

At the close of the fiscal year, 91.46 per cent of recipients received the maximum allowance of \$55 a month. The actual number was 43,936. Of the remainder, 2,761 received allowances of more than \$40 a month. These represented 5.75 per cent of the total number of recipients.

The Old Age Security Act has so far had little effect on the number of recipients of disabled persons allowances. There were only 31 recipients transferred during 1958-59. Since the inception of the Act, the total number has been 153. One reason for the small number is that several provinces encourage recipients of disability allowances to apply for old age assistance when they reach the age of 65. It follows that where this is done, the transfers to old age security are from old age assistance.

There has been considerable variation in the number of applications approved in the different fiscal years, the numbers for 1955-56, 1956-57 and 1957-58 being 21,097, 8,925 and 14,068 respectively. In addition to amendments to the Act in 1957 increasing the maximum allowance and the maximum

amounts of income allowed and relaxing restrictions on the payment of allowances to persons in institutions, the regulation defining the expression "totally and permanently disabled" was amended. The marked increase in the number of cases approved in 1957-58 over the number approved in 1956-57 was in part due to the broader definition. The number of cases approved in 1958-59 was 11,476.

Further statistical information may be found at the end of the report on this Division.

TABLE 33
(Old Age Assistance)

NUMBER OF RECIPIENTS, AVERAGE MONTHLY ASSISTANCE AND TOTAL FEDERAL PAYMENTS, UNDER THE OLD AGE ASSISTANCE ACT, BY PROVINCES
For the Fiscal Year 1958-59

Province	Number of Recipients	Average Monthly Assistance	Federal Payments
	Mar. 31, 1959	Mar. 31, 1959	
Alberta	6,096	\$50.62	\$1,877,243.00
British Columbia.....	7,276	51.96	2,291,661.85
Manitoba.....	4,836	51.98	1,572,889.81
New Brunswick.....	5,795	51.62	1,829,265.76
Newfoundland.....	5,378	53.20	1,715,386.07
Nova Scotia.....	5,485	49.40	1,611,693.19
Ontario.....	22,381	48.96	6,707,318.27
Prince Edward Island.....	756	44.45	191,758.72
Quebec.....	34,134	51.88	10,593,250.32
Saskatchewan.....	5,537	51.35	1,763,548.80
Northwest Territories.....	124	51.02	39,989.07
Yukon Territory.....	38	55.00	13,279.50
Total.....	97,836		30,207,284.36

TABLE 34
(Blind Persons Allowances)

NUMBER OF RECIPIENTS, AVERAGE MONTHLY ALLOWANCE AND TOTAL
FEDERAL PAYMENTS, UNDER THE BLIND PERSONS ACT, BY PROVINCES

For the Fiscal Year 1958-59

Province	Number of Recipients	Average Monthly Allowance	Federal Payments
	Mar. 31, 1959	Mar. 31, 1959	
Alberta.....	464	\$53.22	\$ 223,720.72
British Columbia.....	530	53.61	248,774.22
Manitoba.....	409	53.51	198,648.89
New Brunswick.....	724	53.90	357,742.06
Newfoundland.....	407	54.41	199,974.98
Nova Scotia.....	787	53.40	376,544.49
Ontario.....	1,833	50.75	867,246.99
Prince Edward Island.....	87	53.48	43,337.70
Quebec.....	3,056	54.06	1,500,856.38
Saskatchewan.....	417	53.01	203,033.80
Northwest Territories.....	28	51.96	12,745.50
Yukon Territory.....	5	55.00	2,505.75
Total.....	8,747		4,235,131.48

TABLE 35

(Disabled Persons Allowances)

NUMBER OF RECIPIENTS, AVERAGE MONTHLY ALLOWANCE AND TOTAL FEDERAL PAYMENTS, UNDER THE DISABLED PERSONS ACT, BY PROVINCES

For the Fiscal Year 1958-59

Province	Number of Recipients	Average Monthly Allowance	Federal Payments
	Mar. 31, 1959	Mar. 31, 1959	
Alberta.....	1,648	\$53.09	\$515,931.60
British Columbia.....	1,585	53.98	490,156.46
Manitoba.....	1,230	54.14	381,004.23
New Brunswick.....	1,734	54.24	552,337.78
Newfoundland.....	980	54.69	302,223.98
Nova Scotia.....	2,184	52.65	662,727.30
Ontario.....	11,469	53.88	3,485,924.05
Prince Edward Island.....	596	51.28	169,016.03
Quebec.....	25,352	53.94	8,362,518.04
Saskatchewan.....	1,248	54.15	405,443.19
Northwest Territories.....	12	54.58	2,893.00
Yukon Territory.....	2	55.00	192.50
Total.....	48,040		15,330,368.16

UNEMPLOYMENT ASSISTANCE

The Unemployment Assistance Act of 1956, as amended in 1957, provides for a federal contribution of 50 per cent of the costs of unemployment assistance incurred by a province or by a municipality within the province. An agreement for the sharing of these costs has been signed with all of the provinces (except Quebec) and with the Northwest Territories.

The rates of assistance and the conditions under which assistance may be granted are determined by the province or municipality. Expenditures for both employable and unemployable persons who are unemployed and in need may be included and the costs of maintaining persons in "homes for special care", such as nursing homes or homes for the aged, are shareable under the agreement. Travelling expenses may be included for certain defined purposes.

The agreement provides for the exclusion of payments made in respect of medical, hospital, nursing, dental and optical care, drugs and dressings, funeral expenses, and the cost of administration.

The total federal expenditure for unemployment assistance during the year 1958-59 was \$23,933,534. Part of this expenditure (\$4,293,480) covered the federal share of claims that related to a period prior to the fiscal year 1958-59. On the other hand, because the provinces may submit claims up to six months after the month in which the assistance was given there are still some claims for expenditures made by the provinces and municipalities during 1958-59 that were not received by the close of the fiscal year. Complete information in regard to federal reimbursement of provincial and municipal expenditures for 1958-59 will be shown in the next annual report.

Details concerning the monthly amounts paid to each province and the number of persons assisted are shown in Tables 36 and 39.

* Expenditure figures are subject to increase or adjustment after receipt of statements from states that administered the unemployment insurance program for 1958-59.

Month	1958-59	1957-58	1956-57	1955-56	1954-55	1953-54	1952-53	1951-52	1950-51	1949-50
January	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000
February	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000
March	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000
April	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000
May	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000
June	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000
July	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000
August	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000
September	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000
October	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000
November	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000
December	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000
Total	\$23,933,534	\$23,933,534	\$23,933,534	\$23,933,534	\$23,933,534	\$23,933,534	\$23,933,534	\$23,933,534	\$23,933,534	\$23,933,534

Table prepared April 30, 1959.

TABLE 36
(Federal-Provincial Unemployment Assistance Agreements)

FEDERAL SHARE, BY MONTH AND PROVINCE, FISCAL YEAR 1958-59

Month	Newfoundland		Prince Edward Island		Nova Scotia		New Brunswick		Ontario		Manitoba		Saskatchewan		Alberta		British Columbia		Total	
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.
April 1958.....	224,915	77	8,250	95	25,389	80	19,531	61	721,557	41	153,469	13	113,340	42	135,221	18	383,941	86	1,785,618	13
May 1958.....	215,952	94	7,036	69	29,253	36	18,534	96	682,610	76	150,827	11	106,711	24	128,838	89	393,726	91	1,733,492	86
June 1958.....	185,297	56	5,274	49	26,237	95	15,958	11	696,450	27	144,353	13	97,256	24	128,865	48	391,773	32	1,691,466	55
July 1958.....	181,567	24	6,570	70	28,103	02	17,181	34	724,714	38	150,676	20	94,376	94	115,581	33	412,363	13	1,731,134	28
August 1958.....	218,463	47	6,527	45	29,622	27	16,996	82	796,703	31	154,148	52	101,142	62	133,154	53	452,282	27	1,909,041	26
September 1958.....	281,476	24	5,788	03	32,029	41	17,535	72	792,965	83	160,450	86	103,598	92	140,133	16	480,407	44	2,014,385	61
October 1958.....	288,164	20	6,332	07	17,772	41	.....	.....	856,656	56	.....	.....	122,087	44	147,366	61	497,508	29	1,935,887	58
November 1958.....	303,773	16	2,361	00*	17,174	78	.....	.....	921,516	26	.....	.....	129,242	68	152,519	02	540,904	16	2,067,491	06
December 1958.....	262,196	11	3,795	53*	19,538	10	.....	.....	957,674	66	.....	.....	136,187	82	147,729	85	608,936	76	2,136,058	83
January 1959.....	275,190	07	7,957	16	23,109	63	.....	.....	.....	.....	.....	.....	11,819	04	106,981	39	599,299	19	1,024,356	48
February 1959.....	266,042	45	7,832	39	.....	.....	.....	.....	.....	.....	.....	.....	2,226	98	111,798	09	607,753	98	995,653	89
March 1959.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	615,467	35	615,467	35
Total.....	2,703,039	21	67,726	46	248,230	73	105,738	56	7,150,849	44	913,924	95	1,017,990	34	1,448,189	53	5,984,364	66	19,640,053	88

Table prepared April 30, 1959.

* Federal share was reduced because of adjustments that relate to previous months.

TABLE 37

(Federal-Provincial Unemployment Assistance Agreements)
 FEDERAL SHARE, BY MONTH AND PROVINCE, FISCAL YEAR 1957-1958

Month	Newfoundland		Prince Edward Island		Nova Scotia		New Brunswick		Ontario		Manitoba		Saskatchewan		Alberta		British Columbia		Total	
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.
April 1957	140,831	73	7,560	09			4,713	89	172,443	36	74,531	61	56,216	78			207,545	50	663,842	96
May 1957	132,459	47	5,961	44			4,489	68	168,783	27	73,271	06	53,055	54			201,786	92	639,807	38
June 1957	114,474	18	5,091	83			2,161	27	163,624	74	59,642	00	39,666	65			194,521	80	579,182	47
July 1957	81,888	59	4,235	26			1,679	30	140,232	02	62,422	96	39,170	59			178,650	09	508,278	81
August 1957	79,123	78	4,673	41			1,782	65	143,836	44	62,345	98	42,360	24			177,041	52	511,164	02
September 1957	101,113	22	5,141	60			1,941	06	150,650	91	62,497	95	40,051	06			178,166	55	539,562	35
October 1957	132,309	72	4,938	74			2,691	04	169,066	31	72,537	27	51,910	44			187,661	93	621,115	45
November 1957	159,510	02	5,240	87			5,916	96	185,366	48	82,593	44	64,754	19			209,720	68	713,102	64
December 1957	163,514	64	5,620	40			8,998	55	246,179	55	98,918	07	87,695	70			242,270	46	853,197	37
January 1958	235,486	43	7,505	87	25,772	53	19,609	76	674,014	74	146,226	00	111,356	22	136,837	08	343,884	05	1,700,692	68
February 1958	228,770	40	8,639	49	24,385	82	19,041	37	697,735	24	139,857	52	113,969	53	132,804	50	349,581	40	1,714,792	27
March 1958	218,137	23	8,401	10	26,115	01	21,191	14	732,846	15	150,161	92	112,872	72	140,801	29	357,737	59	1,767,264	15
Total	1,787,626	41	73,010	10	76,273	36	94,216	67	3,644,779	21	1,085,005	78	813,079	66	410,442	87	2,828,568	49	10,813,002	55

Table prepared April 30, 1959.

TABLE 38

(Federal-Provincial Unemployment Assistance Agreements)

PERSONS ASSISTED, BY MONTH AND PROVINCE, FISCAL YEAR 1958-59

Month	Newfoundland	Prince Edward Island	Nova Scotia	New Brunswick	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Total
April 1958.....	47,840	1,507	5,120	5,872	57,316	12,874	12,734	11,463	24,341	179,067
May 1958.....	46,149	1,148	5,345	5,122	54,371	12,317	11,157	10,855	24,341	170,805
June 1958.....	41,518	1,075	4,758	4,199	53,156	11,423	11,166	10,585	24,664	162,544
July 1958.....	40,785	1,020	5,319	4,474	57,368	11,753	10,725	9,364	26,449	167,257
August 1958.....	47,024	1,018	5,516	4,656	59,512	11,683	10,762	10,823	28,699	179,693
September 1958.....	58,474	1,043	6,055	4,649	60,047	11,787	11,243	10,572	29,863	193,733
October 1958.....	57,689	1,069	2,966	.....	64,490	.....	12,098	11,500	31,388	181,200
November 1958.....	59,592	1,032	2,784	.....	69,769	.....	12,306	10,839	34,075	190,397
December 1958.....	52,519	1,335	3,241	.....	76,617	.....	12,035	10,057	37,252	193,056
January 1959.....	55,372	1,406	4,128	.....	.....	.....	1,898	5,986	37,719	106,509
February 1959.....	53,367	1,366	.....	.....	.....	.....	805	6,655	38,854	101,047
March 1959.....	.....	.....	.....	.....	.....	.....	.....	.....	38,812	38,812
Total.....	560,329	13,019	45,232	28,972	552,646	71,837	106,929	108,699	376,457	1,864,120
Average.....	50,939	1,183	4,523	4,824	61,405	11,973	9,721	9,882	31,371	155,343

Table prepared April 30, 1959.

TABLE 39
(Federal-Provincial Unemployment Assistance Agreements)
PERSONS ASSISTED, BY MONTH AND PROVINCE, FISCAL YEAR 1957-58

Month	Newfoundland	Prince Edward Island	Nova Scotia	New Brunswick	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Total
April 1957.....	39,009	2,019	.....	3,604	37,476	10,204	10,591	.....	20,324	123,227
May 1957.....	37,241	1,483	.....	3,547	37,239	9,627	9,756	.....	20,076	118,969
June 1957.....	33,199	1,312	.....	3,005	36,567	8,508	8,754	.....	19,104	110,449
July 1957.....	30,520	1,068	.....	2,883	36,110	8,526	8,727	.....	19,009	106,843
August 1957.....	29,690	1,135	.....	2,894	35,847	8,580	8,722	.....	19,035	105,903
September 1957.....	34,093	1,299	.....	2,960	36,493	8,651	8,480	.....	18,831	110,807
October 1957.....	39,112	1,269	.....	3,113	37,715	9,190	9,451	.....	19,646	119,496
November 1957.....	44,914	1,363	.....	3,949	38,862	10,214	10,390	.....	21,521	131,213
December 1957.....	47,367	1,548	.....	4,974	45,145	11,398	12,198	.....	22,911	145,541
January 1958.....	49,280	1,585	5,111	5,082	53,515	12,088	12,265	11,017	23,523	173,466
February 1958.....	47,953	1,671	4,971	4,979	57,875	12,577	12,169	11,779	24,049	178,023
March 1958.....	45,799	1,724	5,083	5,800	61,623	12,785	12,873	11,845	24,522	182,054
Total.....	478,177	17,476	15,165	46,790	514,467	122,348	124,376	34,641	252,551	1,605,991
Average.....	39,848	1,456	5,055	3,899	42,872	10,196	10,365	11,547	21,046	133,833

Table prepared April 30, 1959.

CIVIL DEFENCE

Introduction

The two most important developments in Civil Defence during the year were: (1) the appointment of Lt.-Gen. Howard D. Graham, former Chief of General Staff of the Canadian Army, to undertake, on behalf of the Government of Canada, a comprehensive survey of all aspects of this country's Civil Defence policy and program; and (2) the decision of the Federal Government to reorganize and re-allocate funds in Civil Defence following the receipt of the Graham Report.

General Graham's survey, which began in June, 1958, concerned itself primarily with questions relating to Civil Defence policy for the future rather than an examination of Civil Defence as it was carried out at that time. It was completed and submitted to the Cabinet before the end of the 1958 calendar year.

On March 23, 1959, the Prime Minister, the Right Honourable John G. Diefenbaker, stated in the House of Commons that the Government had reviewed the arrangement of responsibility for Civil Defence tasks in the light of the Graham Report and further studies by military and civilian officers.

The Prime Minister explained that the Army would undertake primary and direct responsibility for the warning of attack, the location and monitoring of explosions and radio-active fallout, the assessment of damaged areas, decontamination and clearing of such areas, and rescue of the injured.

The health and welfare aspects of Civil Defence are to remain the responsibility of the Department of National Health and Welfare but with increased financial and technical assistance to provincial authorities.

The Federal Government also offered increased support for special expenditures incurred by provincial and local authorities in making preparation for wartime traffic control and the preservation of law and order, this to be administered by the RCMP, who will also provide whatever technical and general advice may be necessary.

Henceforth, provincial and local costs of approved civil defence projects will receive financial assistance to the extent of 75 per cent instead of the previous 50 per cent, this division applying to projects in the fields of National Health and Welfare, the RCMP, and to other provincial and local projects.

The Emergency Measures Organization, attached to the Privy Council Office, will co-ordinate the work of other agencies in the field of civil defence measures and planning as it already does in respect of other civilian measures to prepare for war. Federal responsibilities not allocated to other departments or services will be assumed by this organization. Liaison with provincial governments on particular functions will be the responsibility of those dealing with such functions, but EMO will be charged with general responsibility for contact with the provincial authorities.

The Prime Minister emphasized that the Federal Government believed that civil measures to prepare for the possibility of nuclear war must be taken as seriously as are military measures.

General

The function of Civil Defence is to minimize the effects of a nuclear attack by peacetime plans and procedures that would prepare the population to protect

itself in event of a national emergency; to take the necessary survival measures following an attack by providing medical, welfare and other assistance to the civilian population.

For practical reasons, these functions, at the operating level, must be carried out by the provincial and municipal authorities where the detailed knowledge of local conditions and the general responsibility for the welfare of its citizens rests. The Federal Government's role is that of guiding, advising and coordinating, at the provincial and local levels, so that planning is uniform and conforms with the generally accepted appreciation of the attack potential; that supplies of material and equipment are available at provincial and municipal centres; and that instructors and key personnel are trained in the various specialized fields.

During 1958-59, Civil Defence authorities continued their efforts to increase the scope and efficiency of all services. Continued assistance at the federal level was given to provinces and communities to develop organizational, functional and operational plans essential in the event of a national emergency.

In early October, 1958, a meeting of the Federal/Provincial Advisory Committee was held at which ministers, or their representatives, from the ten provinces were present. This committee is established on a continuing basis and is concerned with proposed Civil Defence policy between the federal and provincial authorities.

Civil Defence authorities continued close liaison with their United States counterparts. A "U.S.—Canada Civil Defence Standing Planning Group" was formed and the first meeting was held at the Office of Civil and Defence Mobilization headquarters in Battle Creek, Mich., in March, 1959, providing an opportunity for a joint meeting of all interested Civil Defence technical services. A system of direct liaison between representatives of technical services at FCDHQ and corresponding services in OCDM was established and maintained during the year.

Compensation Agreements

To enrolled Civil Defence workers, all provinces, with the exception of Quebec and Prince Edward Island, have executed compensation agreements with the Federal Government, permitting compensation to be made on a 50-50 sharing basis for death or injury while in training. On January 9, 1959, authority was granted to extend these agreements to cover enrolled Civil Defence workers while engaged in operations arising out of a natural disaster.

Financial Assistance Program

This program is the means whereby provinces and/or municipalities may become eligible to receive financial assistance from the Federal Government for the purpose of improving and strengthening Civil Defence. Their requirements take the form of projects and may include provision related to or providing for:

- (i) organization, administration and training expenditures, including training exercises;
- (ii) equipment and clothing, including uniforms, required for administration, training and operations for which there is normally no peacetime use other than for Civil Defence;
- (iii) construction and alterations for Civil Defence purposes;
- (iv) operational equipment having a peacetime use.

The federal contribution towards approved projects is 50 per cent of actual expenditures with the exception of operational equipment coming under Classification (iv) above. In this instance, the Federal Government matches the provincial contribution. As a result of an announcement made by the Prime Minister in the House of Commons on March 23, 1959, the Federal Government will henceforth accept 75 per cent of approved project expenditures instead of 50 per cent as before.

As of March 31, 1959, all provinces, with the exception of Quebec, were participating with the Federal Government in the Financial Assistance Program. Of the \$2 million provided, projects were approved to the total value of \$2,759,167, with the federal commitment being \$1,279,609. Actual federal expenditures for this period were \$1,050,342. This corresponded favourably with federal expenditures in the fiscal years 1956-57 and 1957-58 when they were \$813,686 and \$967,896 respectively.

While the Province of Quebec did not participate financially in this program, it did encourage several municipalities in the Province to submit projects to the value of \$47,535. Effective April 1, 1958, the federal commitment was increased from 25 to 50 per cent irrespective of provincial participation and the projects submitted by Montreal, Pointe Claire, Sillery and the Saguenay Civil Defence Board (30 municipalities including Chicoutimi and Arvida) qualified for recovery of 50 per cent of their approved actual expenditures or approximately \$19,000.

Provincial quotas, participation of municipalities, provinces and the Federal Government are tabulated below, together with the total of projects approved and payments made in connection therewith:

PROJECTS APPROVED

Province	Federal Quota	Municipal	Provincial	Federal	Total	Actual Federal Expenditure
Newfoundland.....	\$ 45,658	\$.....	\$ 33,745.00	\$ 33,745.00	\$ 67,875.68	\$ 24,875.68
Prince Edward Island.	10,921	.....	815.82	815.82	1,631.64	815.82
Nova Scotia.....	91,197	14,404.66	51,731.42	64,795.57	130,931.65	49,260.81
New Brunswick.....	68,749	17,413.25	43,333.25	60,746.50	121,493.00	38,084.81
Quebec.....	682,886	23,767.50	.....	23,767.50	47,535.00	5,517.70
Ontario.....	798,716	223,546.18	385,456.18	580,252.33	1,189,254.69	449,231.77
Manitoba.....	130,325	16,537.85	60,774.65	77,312.50	154,625.00	60,636.44
Saskatchewan.....	96,873	16,469.51	51,431.25	67,067.59	134,968.35	50,812.64
Alberta (a).....	146,133	56,390.51	174,280.62	146,133.13	376,804.26	146,133.12
British Columbia (b)..	224,973	160,227.90	149,232.46	224,972.80	534,433.16	224,972.79
Totals.....	.....	528,757.36	950,800.65	1,279,608.74	2,759,166.75	1,050,341.58

Note: (a), (b), combined municipal and provincial expenditures exceed the Federal quotas.

Siren Installation, Line Rental and Maintenance

Prior to November 28, 1957, costs respecting siren installation, line rental and maintenance were shared with the various provinces and municipalities concerned. In order to ensure maximum economy and adequate efficiency and control, the Minister was authorized (PC 1957/17/1575 of November 28, 1957) to assume full financial responsibility on a reimbursement basis for the future costs of siren installation, line rental and maintenance. For the fiscal year ending March 31, 1959, federal expenditures amounted to \$43,180, \$29,717 and \$4,935 for siren installation, line rental and maintenance respectively.

Supplies and Equipment

During the eight year period ending March 31, 1959, supplies and equipment costing \$1,762,183, were provided from federal funds to the provinces for training purposes or for use in exercises as detailed below:

PROVINCES	<i>COST</i>	<i>COST</i>	<i>COST</i>
	<i>April 1, 1951</i> <i>March 31, 1958</i>	<i>April 1, 1958</i> <i>March 31, 1959</i>	<i>April 1, 1951</i> <i>March 31, 1959</i>
B.C.	\$ 261,727	\$ 57,129	\$ 318,856
Alta.	169,131	4,348	173,479
Sask.	74,340	1,801	76,141
Man.	150,650	27,301	177,952
Ont.	453,491	81,570	535,062
Que.	249,547	7,119	256,666
N.B.	60,304	1,125	61,429
N.S.	112,076	1,178	113,254
P.E.I.	5,258	33	5,291
Nfld.	44,044	3	44,047
GRAND TOTAL	1,580,573	181,610	1,762,183

Items of issue included a limited number of fire pumpers, rescue vehicles and equipment and radiological detection instruments for training purposes as well as warning sirens.

Information Services Division

For the second consecutive year, National Civil Defence Day, held on September 19, was the highlight of the public information activities in Civil Defence during the fiscal year. This year's campaign was similar in programming to that in 1957. English and French promotional aids, a newsletter series and a special Civil Defence Day promotional guide were produced and distributed by the Division as an aid to Civil Defence Directors participating in the nation-wide observance.

Increased public service support by national and local news media, television advertisers and federal and provincial government departments indicated more than ever that Civil Defence Day was accomplishing its purpose of acquainting Canadians with the work and application of the CD program in their own communities.

A total of 3,700,675 pieces of Civil Defence informational literature was distributed by the Division during the year. In addition to the ten Civil Defence

Day promotional items, there were nine new printing projects completed and another 11 undertaken. Fourteen Civil Defence pamphlets and manuals were re-printed and 30 miscellaneous printing projects completed.

The filmstrip *Warden Services* was completed during the year and delivery received. Preliminary draft for the filmstrip commentary has been completed. A special Civil Defence Day newsclip on Civil Defence in emergency was produced and made available to all provincial co-ordinators and first and second run theatres in Canada. The shooting script for a 20-minute documentary film on *Civil Defence in Canada* has been completed.

Twenty-seven Civil Defence displays are now available to provincial and municipal co-ordinators, plus a series of small window displays. With duplication of the more popular uni-pak units, plus the 20 in the window display series, displays available now number 47. Six new displays were constructed during the year.

The services of the Division were again available for the provision of training aids to the Canadian Civil Defence College and the Headquarters Training and Education Section. Technical photographs, slides and photo stories were made available to all headquarters services as required.

Twelve 10-minute recorded radio programs on Civil Defence were again included on the Department's regular dramatic series *Here's Health*. Two special programs on rural and urban Civil Defence training were also produced for Civil Defence Day with 180 recordings being made available to provincial co-ordinators for redistribution to radio stations within their provinces.

For the seventh consecutive year, the Federal Civil Defence Bulletin was produced and its 16,000 copies circulated among Civil Defence volunteers across Canada. A new digest version of the Bulletin was introduced this year and has been well received. The photographic services of the Division were used extensively for publicity purposes with numerous prints being produced for Canadian news media, independent publishing houses and Civil Defence headquarters as required. During the year the Division was responsible for the publicity promotion of ten major conferences held at the Canadian Civil Defence College.

Plans and Operations

The Planning Section, in collaboration with other services, continued to review plans and procedures in all fields of Civil Defence. In particular, during the past year, the organization and principles governing the operation of military mobile support columns and Civil Defence task groups was studied, and an exercise carried out with representatives from the provinces and Armed Services. As a result of these and other studies, a system of command, control and communication, in regard to re-entry operations, was evolved and issued to provinces for guidance.

Civil Defence evacuation route signs were standardized and are included in the *Manual on Uniform Traffic Control Devices for Canada*, a joint project of the Canadian Good Roads Association and the Canadian section of the Institute of Traffic Engineers. These signs will be installed by provincial and municipal traffic authorities as time and circumstance permit.

Plans are being developed for the organization, and employment during a war emergency, of a Civil Defence Air Service. An advisory committee composed of representatives of interested government departments and members of National

Air Associations was formed. This service will operate in the same manner as other Civil Defence services, conforming to the practices of the Civil Defence organization within each province.

Studies were continued with respect to remedial evacuation from high intensity "fallout" areas, radiation reporting, bomb location, large area monitoring and fuel supply. Civil Defence operational zoning within the boundaries of each province was also initiated.

Communications

A part-time teletype circuit from Federal Civil Defence Headquarters in Ottawa, to Quebec, New Brunswick, Nova Scotia, Prince Edward Island and Newfoundland, commenced operation in May, 1958. This supplements and completes the circuit, installed in previous years, to link Ottawa with Ontario and the four western provinces.

High power sirens have been distributed and installation is progressing as follows:

	<i>Issued</i>	<i>Installation</i>
Victoria	7	Contract being negotiated
Vancouver	18	Contract being negotiated
Edmonton	1	Tests completed
Winnipeg	11	Contract being negotiated
Windsor	9	Contract has been placed
Toronto	48	25 installed. Contract for 23 being negotiated
Saint John, N.B.	1	Contract being negotiated
Halifax	7	Installation nearly complete

Ninety-eight high power sirens are in stock for remaining target areas. An additional 100 are on order and due for delivery by May, 1959, for possible expansion of the warning system in target areas and for issue to non-target areas having a population of 30,000 or more. The latter requirement being primarily for fallout warning.

The field trials of the transportable broadcasting stations were completed in May, 1958, and these are housed at the Civil Defence College, Arnprior.

Warning

As the fiscal year came to an end, a new National Attack Warning System became operational. This system permits the reporting of hostile aircraft or submarine plots from Air Defence Command Headquarters, St. Hubert, direct to all provincial and target area Civil Defence headquarters throughout Canada as well as to federal Civil Defence headquarters and the Canadian Civil Defence College, Arnprior. Some zone headquarters are also included on the system. For reasons of economy the system is maintained on an "engineered" rather than a fully active basis, but tests have proved the system can be activated within an hour. The system also allows for direct communication between the five RCAF Air Defence Control Centres and the Provincial Civil Defence headquarters lying within their areas. Operational procedures have been established and ten practice exercises have been held resulting in preliminary training being given to Civil Defence operations personnel at all terminals.

Agreement was reached in principle during the year, on the establishment of a large area monitoring system for Canada. Posts for reporting nuclear detonations and radio-active intensities manned by Ground Observer Corps personnel and the RCMP have been established and training of personnel begun. Provision of training instruments by federal headquarters has kept pace with the training of personnel and the selection of operational instruments is well advanced.

A new system of Civil Defence alert signals, replacing the old air raid warnings of red, yellow and white, was adopted and standard public instructions established and agreed by federal Civil Defence headquarters, the Department of National Defence and the United States Civil Defence authorities. There now exists no substantial difference between alert signals in force in the United States and Canada, i.e.,—the alert, a steady note for three to five minutes on CD sirens, which is the signal to turn on the radio for "official" Civil Defence instructions; and the Take Cover, a rising and falling siren note, which means that an attack is imminent and to take cover immediately.

Welfare

The Welfare Planning Group continued to concentrate on developing emergency operational procedures.

Surveys and reception plans were carried out at federal expense in Nova Scotia and Ontario, continuing the policy adopted in 1957. This work has engendered a considerable amount of activity in the lodging field in these two provinces.

Considerable progress was made in the organization of the Welfare Services in the provinces. At the end of the year, five provinces, namely Nova Scotia, Ontario, Manitoba, Saskatchewan and British Columbia had directors of Welfare Services. New Brunswick had a part-time director and the remaining four provinces were actively seeking means of organizing the Service. As a result of this progress, for the first time it was possible to hold a joint Federal/Provincial Welfare Conference which provided the basis for inaugurating closer joint planning and training.

In the field of Emergency Feeding, emphasis was placed on educating the public to prepare to survive on their own food resources for the first seven days of an emergency. The pamphlet *Your Evacuation Pack (Your Emergency Pack)* was especially well received.

The Provinces of Nova Scotia and British Columbia have now distributed sufficient Registration and Inquiry Kits to operate this service in an emergency.

A successful Personal Services Institute for Social Workers was held in Vancouver as a result of which organization in the entire province has progressed materially. Eight specialist welfare courses were given at the College. Precise training aids and operational forms were made available to the provinces.

Health Service

Federal Civil Defence Health Service received, correlated and disseminated information on the health aspects of Civil Defence. The revision of the health service manual was continued. Manuals on *Primary Treatment Services*, *Hospital Disaster Planning* and *Laboratory and Blood Techniques for Pharmacists in Civil Defence* were published. Other manuals are completed and awaiting publication or final revision.

Some time ago, seven hospital disaster institutes were held across Canada for the purpose of studying hospital disaster planning and stimulating hospitals to prepare plans. These institutes were attended by senior officials of some 238

public general hospitals. One area in which an institute was not held was that of the Provinces of Manitoba and Saskatchewan. Arrangements have been made to hold the eighth disaster institute in Saskatoon on the 28th and 29th May, 1959.

Replies received from 477 public general hospitals to a questionnaire indicated that more than two-thirds of these had prepared or were preparing disaster plans.

A most successful conference was held under the joint chairmanship of the Order of St. John of Jerusalem and Civil Defence Health Service on the role of the first aid worker in Civil Defence and first aid instruction. The conference was attended by senior instructors of the St. John Ambulance Association.

Attention continued to be directed to health problems associated with mass movements of population and their settlement in reception areas.

Progress was made in having included in the courses of study of schools of medicine, instruction in Disaster Medicine. Schools of pharmacy continued to give active support to Civil Defence by training their students in their role in Civil Defence. Continuing support was also received from all provincial nurses associations, instruction in disaster nursing being included in the basic curriculum for student nurses. Members of the Health Service, on invitation, lectured to students at the Ontario Veterinary College on the role of the veterinarian in disaster.

Courses were provided at the Civil Defence College for physicians and dentists, nurse educators and nurse specialists, pharmacists and casualty simulation instructors. During the year, the first course for veterinarians was held.

The integration of the Civil Defence aspects of home nursing with the home nursing programs of the Canadian Red Cross Society and the St. John Ambulance Association increased the number of people receiving this training.

During the period under review, the Special Weapons Section of the Health Service made considerable progress. In collaboration with the Civil Defence Radiological Defence group, they have completed a number of directives for the control of radiation hazards. They have also been active in attending and participating in the work of Defence Research Board panels and the writing of a manual on biological warfare was undertaken.

During the year, authority was received to spend \$625,000 for the purchase of the initial supply of transportable 200 bed improvised hospitals. Orders were placed for as much of these supplies as possible. Progress continued with the procurement of items for the stockpile of essential health supplies. Eleven million dollars has been authorized for this program and the value of supplies received to date is approximately \$6,000,000.

With the co-operation of the Department of National Defence, the health services began a program of functionally packaging health supplies for long term storage.

Engineering

The functions of engineering, hitherto part of the Plans and Operations Section, were transferred to a new Engineering Section established on December 1, 1958. Since its inception, this Section has been mainly involved in preparing the background, format and basic requirements for two projects currently under consideration:

- (a) The design of a range of refuges for incorporation in all types of building, and,
- (b) The engineering portion of a shelter/evacuation study.

Another successful Engineers Forum was held during March and a separate report for this issued.

Training and Education

The federal Civil Defence training program in Canada commenced in 1951 and as of March 31, 1959, over 17,500 men and women have been trained in various Civil Defence subjects at courses under federal auspices.

During the past year, 3,249 persons received Civil Defence training at the Canadian Civil Defence College and, in addition, a small number of key personnel took Civil Defence training sponsored by the Federal Government at the Civil Defence Staff Colleges in the United Kingdom and the United States.

The types of courses conducted during 1958-59 were:

- Staff Courses (including all phases of Civil Defence Orientation, Planning and Operations)
- Indoctrination Courses in Civil Defence for Doctors, Dentists and Nurses
- Welfare Courses in Organization, Emergency Feeding, Emergency Lodging, Personal Services and Registration and Enquiry
- Indoctrination Conference of Mayors and Reeves
- Forums in Communication and Engineering
- Radiological Defence Courses
- Techniques of Instruction Courses
- Rescue Instructors Courses

Special courses in Civil Defence Indoctrination and Rescue were again conducted for the training of personnel of the Armed Services. The Department of National Defence has also taken advantage of the regular types of courses to train a large number of officers and warrant officers in Civil Defence procedures.

The training of radiological defence personnel was emphasized this year by the provision of radiological training kits to provinces and municipalities for the training of radiation monitoring personnel. In addition, special courses were conducted for fire and police instructor personnel to acquaint them with peace-time hazards of radiation as well as radiological procedures in time of war.

The Civil Defence strength reported by the provinces as of January 1, 1959, is as follows:

<i>Provinces</i>	<i>A</i> <i>Full-time</i>	<i>B</i> <i>Volunteers</i>	<i>Trained to date</i>	<i>A-B</i> <i>Total</i>
British Columbia	18,670	42,375	64,445	61,045
Alberta	16,407	12,699	23,289	29,106
Saskatchewan	17,197	21,573	30,877	38,770
Manitoba	6,645	9,342	7,720	15,163
Ontario	35,370	46,173	89,370	81,543
Quebec	20,283	11,124	20,641	31,407
New Brunswick	1,486	4,997	3,186	6,483
Nova Scotia	2,135	8,777	7,732	10,912
Prince Edward Island	87	486	573	573
Newfoundland	7	310	1,017	317
	<hr/>	<hr/>	<hr/>	<hr/>
	118,287	157,856	248,850	275,319
Civil Service				
Civil Defence	5	3,804	3,000	3,809
Federal H.Q. and College	192	.....	192	192
	<hr/>	<hr/>	<hr/>	<hr/>
	118,484	161,660	252,042	279,320

The numbers trained include not only Civil Defence trainees at all levels, but also full-time personnel whose work causes them to be part of their local Civil Defence effort and who require a minimum of Civil Defence instruction. Many

volunteers, after taking Civil Defence training, retire from active participation and, in consequence, the total active strength is often less than the number actually trained.

Exercise Co-operation II

The national test exercise "Co-operation II" was held on May 3, 4, and 9. All provinces participated to train Control Centre personnel and to assist in the development of operational procedures. OICDM assisted in this exercise by activating their Control Centre.

Canadian Civil Defence College

The Canadian Civil Defence College was established in Arnprior during 1953. The function of the College is to train key Civil Defence personnel at federal, provincial and local levels and to train instructors in the various aspects of Civil Defence in order that provincial and local training programs may be conducted by personnel qualified in the most up-to-date aspects of Civil Defence procedures.

During the year, 3,249 Civil Defence personnel received instruction at the College. A provincial breakdown is as follows:

British Columbia	288
Alberta	215
Saskatchewan	146
Manitoba	193
Ontario	537
Quebec	116
New Brunswick	87
Nova Scotia	106
Prince Edward Island	11
Newfoundland	48
Armed Forces	641
Civil Service Civil Defence	5
Federal Employees	110
RCMP	9
Others	5
Group Visits	732
	<hr/>
Total	3,249
	<hr/>

Sixty-one courses and seven conferences were held at the College plus special visits by 20 groups who were given a brief indoctrination in Civil Defence planning and progress. Members of the College staff assisted Atomic Energy of Canada in decontamination work as was required at the Chalk River Plant.

Civil Service Civil Defence

The Civil Service Civil Defence organization continued its efforts throughout the year with emphasis on building evacuation plans. Exercises in the nature of fire drills were carried out in many of the governmental buildings in order to test these plans.

Members of CSCD assisted in exercise Co-operation II by supplying certain personnel to man the Federal Control Centre at Arnprior.

ADMINISTRATION BRANCH

The third branch of the Department—the Administration Branch—is composed of the Departmental Secretary's Division, Information Services Division, Legal Division, Departmental Library, Personnel Division, Purchasing and Supply Division, and the Research and Statistics Division. As all these Divisions serve the entire Department across Canada and overseas, the development of activities in a number of fields during the past year made increasing demands upon them.

The explosion in October which did such extensive damage to the Jackson Building, in which the headquarters of the Department was located, and which necessitated the relocation of many divisions of the Department in emergency quarters, created serious problems and much additional work for this Branch.

DEPARTMENTAL SECRETARY'S DIVISION

The activities of the Departmental Secretary's Division continued to fall into two broad classes—those which the Departmental Secretary carried out personally and those which were undertaken largely by the staff of the Division.

Included among the first group were (a) assisting the Minister and the Deputy Ministers in the long and complicated procedure related to the preparation and approval of the departmental estimates from the time they were first drafted until they were approved by Parliament; (b) acting as financial adviser to the Department in respect of many aspects of its work; (c) acting as the Deputy Ministers' substitute with respect to the approval of accounts payable, travel claims, requests for encumbrances, requests for transfer between allotments, submissions to Council and to Treasury Board, and other financial documents; (d) preparing material for tabling in Parliament; and (e) carrying out many special projects which were assigned from time to time.

The second group of responsibilities was borne by the various sections of the Division as follows:

The Registry Services continued to be responsible for records management throughout the Department. This involved the operation of a central registry and seven sub-registries in Ottawa, and the provision of advice, assistance and a certain degree of supervision in respect of records in many departmental establishments across Canada. During the year it was necessary to establish an additional sub-registry to serve some of those Divisions which were moved to new locations following the explosion. The records retirement program continued to be aggressively pursued, resulting in considerable savings in space, equipment and staff time. Mail, messenger and truck services at Head Office continued to be provided by this Section.

The Accounts and Estimates Section continued to assist in providing financial advisory assistance to the Department and in relieving Directors and Chiefs of the burden of maintaining accounting records and of routine administrative duties related to financial matters. This Section also carried out much of the detail involved in the preparation of departmental estimates and continued to act as liaison between the Department and the Treasury Office serving it.

The work of the Parliamentary Papers and Correspondence Section consisted largely of preparing replies to the many thousands of letters and enquiries which were received on a wide range of health and welfare subjects. This Section was also responsible for processing, distributing, and recording all submissions, Orders in Council, Treasury Board Minutes, supplementary lists, Treasury Board circular letters, and other documents, and for the daily reading of all parliamentary papers and the excerpting, distributing, and indexing of items of interest to this Department.

In the Duplicating Section almost 16 million duplicating impressions were produced, with the many related operations representing a correspondingly heavy workload. Particular attention was given in the past year to the maintenance of the Department's addressograph lists which totalled about 200,000 names.

A central source of typing assistance was again provided to the entire Department in Ottawa by the Secretarial Services. As well, all typing and matrice work required in the preparation of material for reproduction in the Duplicating Section was done by the Secretarial Services. Varsity facilities continued to be available.

In addition, the Departmental Secretary's office acted as an information centre for the entire Department and carried out numerous special projects which normally fall to the lot of the secretariat of a large organization.

INFORMATION SERVICES DIVISION

During the year, the Information Services Division continued to carry out its assigned functions in the fields of health education, public information and public relations.

Health Education

In October, 1958, the seventh federal-provincial health educators' conference was held, at which the newly-appointed health educator for Nova Scotia was present, marking for the first time the presence of a health educator in every province. There were two or more representatives from three provinces, an indication of the importance attached to the conference by the delegates.

Preliminary planning was done on a project for the scientific evaluation of health education materials and discussions held in the Department.

Each year a larger proportion of the funds available for health publications must be spent on reprints. Necessary stocks were replenished and new publications were put into production. *Keep Your Home Free From Poisonings* and *Fraud* were completed for the Food and Drug Directorate and at the year's end, *A Candid Look at Cosmetics* and *Did You Get Your Vitamins Today?* were being evaluated. Five recruitment posters for the Mental Health Division were produced, as were a child safety poster dealing with poison, and a poster depicting a good noon meal. Two new posters on dental health were ready for printing. The texts for new booklets *Protect Your Vision* and *Ten Steps to Dental Health* were out for evaluation. The revised version of the *Dental Health Manual* was published in French. Other revisions included *Care of the Premature Infant* and the child training folders, *Fear and Obedience*. Considerable work was done on the booklet *Everyday Exercise*.

An Eskimo calendar, to be distributed by the medical team on the C. D. Howe, was prepared, and a leaflet on the wise buying of food for Indians and Eskimos was prepared for distribution by Indian agents.

Publicity materials, such as dodgers, stuffers, book-marks, stickers, shopping bags, place mats and posters, were produced for Civil Defence Day.

In all, 207 separate printing jobs were handled, of which 189 were completed by the end of the fiscal year.

A new film on nutrition, *Mystery in the Kitchen*, was produced in English.

Two new three-panel displays on child safety and dental health were developed at the request of the provincial health educators and were out for evaluation. Exhibits were produced on poison control, the work of the Food and Drug Directorate, the Department's nursing services, Indian and Northern Health Services dental officers, home accidents, maternal and new born care in Canada, the assistance to general practitioners of health grants and hospital insurance, and Canada's health and welfare services.

During the year, 23,000 requests for material were received, in spite of the fact that distribution is mainly in bulk to provincial health departments. Over 9,900,000 health publications were distributed: 7,354,000 in English and 2,554,000 in French. The increase over the previous year was more than one and one half million pieces.

Public Information

Produced and distributed were ten issues of *Canada's Health and Welfare*, comprising 720,000 copies, 84,650 copies of the *Civil Defence Bulletin*, 3,190 copies of the *National Health Radio Notes*, 5,340 copies of *Press Fillers*, and 6,240 copies of *Canada's Health Column*.

Other periodicals produced include *Occupational Health Bulletin*, *Occupational Health Review*, *Canada's Mental Health*, *Nutrition Notes*, *Food and Drug News*, *Indian Health Newsletter*, and the *Dental Health Newsletter*.

The *Here's Health* series of radio dramas completed ten years of uninterrupted broadcasting by 108 radio stations from coast to coast.

A continuing process of procuring, screening and evaluating films was carried out. Fifteen were added to the National Health Film Library, three to the National Medical and Biological Film Library and one to the National Welfare Film Library. During the year, 1,654 films were booked from the National Health Film Library, 511 from the National Medical and Biological Film Library, and 80 from the National Welfare Film Library.

In the Biological Photographic Laboratory, 11,200 photographic prints, 2,650 negatives and 1,000 lantern slides were made.

Colour printing was introduced with a number of prints being produced for Civil Defence. Dental posters were also made. Large colour transparencies showing food and drug protection were produced for display purposes.

The Laboratory of Hygiene required a number of sensitivity plates showing zones and inhibitions to be photographed. Photographs of chromatograms under reflected light and ultra violet light in both black and white and colour were produced for that Laboratory and for the Food and Drug Directorate. A number of photomicrographs for a tissue culture study was taken for the Virus Laboratory.

Also produced, in addition to a full program of scientific work for the departmental laboratories, were many slides and photoprints for use on television, theatre screens and various types of publication.

Public Relations

Liaison with the press, radio and television was carried out by means of press releases, the answering of enquiries from the press, the facilitation of interviews for radio and TV, and the supplying of background information.

Assistance was given to a number of people visiting Canada under the Technical Assistance program of the Colombo Plan, UNESCO and other sponsorship, and lectures on the work of the Department were given to various groups. Many enquiries from other government departments and from the public were answered.

Members of the Division represented the Department at the Canadian Public Health Association, the American Public Health Association, the Canadian Conference on Social Work, the Canadian Dental Association, the International Congress of Paediatricians, the Conference of the College of General Practice, the National Conference on Social Work, and the Association des médecins de langue française. An exhibit was sent to the International Conference on Social Work in Tokyo.

LEGAL DIVISION

The Legal Division provides legal services to the Department in matters within departmental responsibility and concern. These services cover the furnishing of legal advice and opinions, including advice respecting prosecutions under the Food and Drugs Act, the Opium and Narcotic Drug Act, the Family Allowances Act and the Old Age Security Act, and the instructing of counsel in connection therewith. The services of the Division include also the preparation of contracts and other legal documents, the interpretation of statutes and regulations and the preparation of submissions to the Governor General in Council and to the Treasury Board. Performance of these services entails the maintenance of liaison with other departments and agencies of government including the Department of Justice and, in matters relative to the Opium and Narcotic Drug Act and the Food and Drugs Act, the Royal Canadian Mounted Police.

Assistance was provided by the Division during the year in the development of material and preliminary drafts required in preparing legislation, including certain amendments and revisions required to give full effect to the Hospital Insurance and Diagnostic Services Act and Regulations. Officers of the Division participated in numerous conferences with hospital insurance and other authorities of many of the provinces with a view to assisting in the development of corresponding hospital insurance legislation at the provincial level, the completion of cost-sharing agreements, and the establishment of technical procedures for their implementation.

The services of the Legal Division were also required in the revision and consolidation of certain of the regulations administered by the Department, preparatory to their submission to the Department of Justice, in the collection of overpayments made under the Family Allowances Act and the Old Age Security Act, and in the recovery of compensation for the loss of our damage to Crown property.

The Legal Division provided consultative legal services to a number of voluntary health agencies and organizations, and the officers of the Division represented the Department on various boards concerned with policy and administrative matters in which the Department has some interest or responsibility.

At the request of the World Health Organization, the Legal Adviser provided further consultative services to the Government of Trinidad in the revision of public health legislation in that country.

LIBRARY

The Departmental Library continued the selection, acquisition and organization of reference and technical books, serials, pamphlets and government documents on all subjects related to the Department's work for collections in Ottawa and in field establishments. The usual services of centralized ordering and cataloguing, answering reference questions and advising about authorities and sources of information were maintained.

The explosion of October 25, 1958, did little lasting damage to the material in the Jackson Building Library, but some books and journals on loan in less protected quarters were lost. The problem of immediately finding several thousand feet of shelves for the Jackson Building collection was solved by the Dominion Archivist who very kindly placed a stockroom in the Public Records Building at the disposal of the Library as well as facilities for the removal of glass fragments from books, journals, and other material. Subsequently, small collections were made up and placed in various divisions until such time as most of the collection can return to the Jackson Building. Further material is withdrawn and loaned as required. The library staff moved into the Food and Drug Library where space was created by dismantling a stockroom and placing that collection in the Public Records Building. The usual work has continued but with a great increase in the number of telephone calls.

During the year, considerable time and thought were given to aspects of the organization of the Columbo Plan Medical Book Scheme whereby 76 libraries of medical schools in Southeast Asia may each request medical books to the value of \$2,500 for two years. Valuable assistance was given by Canadian firms representing medical publishers with respect to procurement, packing and shipping. A classified list of 600 books for medical school libraries was compiled, part of this work being done in various university and hospital libraries in Montreal, Toronto, Kingston and London.

PERSONNEL DIVISION

The Personnel Division continued to provide guidance in matters of personnel management and organization to the various directorates and divisions. It represented the Department in all personnel matters, carrying on a continuous day-to-day relationship with the Civil Service Commission, the Treasury Board staff, the Comptroller of the Treasury, other government agencies and employee associations.

A slight increase in the number of positions in the Department was due primarily to an increase in the general level of departmental activity.

Despite improvement in the recruiting situation, shortages still existed in the more specialized fields of science. This reflected a non-competitive salary structure for scientific and engineering positions, particularly those which required post-graduate training and some years of experience. It was also difficult to recruit people experienced in public administration.

The scope of the Division's work is indicated by the following tables showing geographical distribution of staff and changes involving professional, technical and other staff.

TABLE 40
(Personnel Division)
STAFF CHANGES WITH SPECIAL REFERENCE TO PROFESSIONAL CLASSES

Classification	Authorized positions March 31/59	Vacant positions March 31/59	Appointments during the fiscal year	Terminations during the fiscal year	Approximate terminations per 100 positions
Physicians.....	331	24	28	37	11
Dentists.....	22	6	4	4	.....
Registered Nurses.....	705	75	198	213	30
Chemists.....	113	7	13	13	11
Bacteriologists.....	37	4	9	3	.....
Pharmacists.....	7	1	2	.....	.....
Laboratory Technicians.....	19	1	7	2	.....
Nutritionists.....	18	6	5	6	.....
X-ray Operators.....	35	3	3	3	.....
Food and Drug Inspectors.....	67	2	4	2	.....
Public Health Engineers.....	28	5	3	.....	.....
Social Workers.....	26	2	1	2	.....
Information Officers.....	9	1	3	2	.....
All Other Classes.....	3,499	350	765	708	20
Total.....	4,916	487	1,045	995	20

TABLE 41
 (Personnel Division)
 GEOGRAPHICAL DISTRIBUTION OF ESTABLISHED FULL-TIME
 POSITIONS—MARCH 31, 1959

Location	Welfare Branch (including Civil Defence)	Health Branch		Administration Branch	Total
		Indian and Northern Health Services	Other		
Ottawa.....	112	65	619	354	1,150
Yukon and Northwest Territories.....		142			142
British Columbia.....	68	521	60		649
Alberta.....	59	527	8		594
Saskatchewan.....	56	208	6		270
Manitoba.....	49	180	26		255
Ontario.....	375	394	51		820
Quebec.....	221	33	234		488
New Brunswick.....	42	2	14		58
Nova Scotia.....	53	5	72		130
Prince Edward Island.....	11		1		12
Newfoundland.....	31		12		43
United States.....			4		4
Overseas.....			169		169
Total.....	1,077	2,077	1,276	354	4,784

PURCHASING AND SUPPLY DIVISION

The Purchasing and Supply Division continued to carry out its responsibility for procuring materials and equipment, entering into contracts, and arranging services of all types for the various directorates, divisions, laboratories, hospitals, far-flung Arctic posts of the Indian and Northern Health Services, and the overseas offices of the Immigration Medical Service. The increase in volume of work and responsibility continued during the past year as reflected in the reports of the other branches of the Department.

The amount of technical and scientific equipment purchased for the various laboratories in Ottawa increased, particularly that developed to meet new advances in the electrical, electronic and nuclear radiation fields of instrumentation.

The high cost of food and food products, and of transportation required more stringent supervision of purchasing in these areas.

The Civil Defence Division continued to have exceptional requirements, a large number of special projects being initiated and completed by this Division during the year. One hundred large Civil Defence sirens were purchased and several large contracts were entered into for radiation instruments.

Approximately 13,750 requisitions were processed, comprising almost every commodity and involving orders placed with manufacturers and suppliers in Canada, the United States, the United Kingdom, and continental Europe. The Departmental Stores Section in Ottawa, carrying inventory and stationery requirements, handled 7,000 shipments totalling 246,434 lbs. for delivery to and from Ottawa. The Division also secured from the major oil companies 518 credit cards for the use of those driving departmental vehicles. Over 400 parking permits were secured for employees at Ottawa.

Planning and refinement of inventory procedures were carried out during the year. Inventory officers visited a number of regional headquarters and other field establishments, assisting in the implementation of methods and procedures. The information available from inventory records has become increasingly valuable to the various directors requiring cost analysis and reporting.

RESEARCH AND STATISTICS DIVISION

The program of the Division was considerably broadened during the year. While the major emphasis remained on research connected with development of hospital insurance, a number of comprehensive studies were carried out in a variety of fields and there was a pronounced increase in the advisory and technical services provided to other divisions of the Department. The Division's work in the field of technical assistance to under-developed countries was considerably expanded. Annual reports on health and welfare services for the *Canada Year Book* and for the United Nations and other agencies continued to be prepared as required.

Hospital Insurance

The Division continued to work closely with the Health Insurance Division in hospital insurance program development. National and provincial cost estimates for hospital insurance were completed for 1958 and 1959 to provide a basis for calculation of federal advance contributions to the provinces under the Hospital Insurance and Diagnostic Services Act. Field trips were made to all provinces to

obtain detailed statistical information, and hospital insurance legislation proposed by all provinces participating in the plan was reviewed prior to the preparation of federal-provincial agreements. Consultant services were supplied to a number of provinces.

In collaboration with the Dominion Bureau of Statistics, schedules and instructions were prepared for reporting of hospital data concerning beds, utilization, special services, personnel and training facilities. A continuing analysis of cost estimates as compared to claims was established.

Material was prepared for the federal-provincial technical conferences on hospital insurance held in October, 1958, and April, 1959. Members of the Division participated in institutes on hospital insurance statistical and accounting processes held in the Atlantic provinces. The Division also worked with the Canadian Hospital Association in the development of a new *Canadian Hospital Accounting Manual*. A special study was made of the financial operation of Canadian hospitals.

The Director presented a paper on "The Effect of Socio-Economic Trends on the Practice of Medicine" at the annual meeting of the Canadian Medical Association.

Two new bulletins on voluntary hospital and medical care, *Voluntary Medical Insurance in Canada, 1957, Summary Data* and *Voluntary Hospital and Medical Insurance in Canada, 1956* were prepared, as well as a supplement to *Health Services for Public Assistance Recipients in Canada*. A study, *Hospital Care in Transition*, largely completed during the year, was designed to summarize the principal characteristics of Canadian hospital services, including their financing, at the commencement of the federal-provincial hospital insurance program.

Radiation

A plan was prepared for the investigation of variability of radio-active strontium estimates from dried milk samples. Studies were made of the reliability of estimates of radio-active strontium in terms of counter variation and other experimental factors, of data from hospital diagnostic X-ray examinations and of the records of the film monitoring service. Various sources of radiation exposure were reviewed. Assistance was given to the Occupational Health Division in planning a study of the health of uranium miners.

The Principal Research Officer (Biostatistics) acted as advisor to the Canadian delegation at the fifth meeting in April, 1958, and the sixth meeting in March, 1959, of the U.N. Scientific Committee on the Effects of Atomic Radiation. The Division was represented at the tenth International Congress on Genetics at McGill University in August, 1958, and the fourth International Biometric Conference and Symposium on Biometrical Genetics at Ottawa in August-September, 1958. Members also participated in meetings in April, 1958 and August, 1958 of the Departmental Technical Committee on the Biological Effects of Ionizing Radiation.

Epidemiological Studies

A number of studies were carried out or continued in co-operation with the Epidemiology Division. The long-term study of mortality of D.V.A. pensioners in relation to smoking habits and occupational and residence history was continued. A follow-up study of pelvimetry examinations at an Ottawa hospital was commenced to determine possible relationships to leukemia in offspring. Preliminary discussions were held with respect to a proposed survey and evaluation of local health services.

Mental Health

The results of the national survey of psychiatric services in general hospitals, carried out at the request of the Mental Health Division, were published in the *Canadian Medical Association Journal* of May 15, 1958. Comparisons of discharge rates at the Verdun and Brandon mental hospitals were carried out in co-operation with the Mental Health Division to determine trends and possible influence of new treatment methods. Some work was done on a study of discharges from an Ottawa psychiatric clinic and on a psychiatric experiment being carried out at the Allan Memorial Institute. A comprehensive new study of mental health services in Canada was commenced.

Chronic Illness

Research on chronic disease carried out for departmental use, included a survey of existing provisions for the chronically ill and gaps in services for the Health Grant Administration and three studies on home care services in Canada and other countries for a Departmental Committee on Home Care.

Indian and Northern Health

Continuing analysis was commenced of medical care records of Indian and Northern Health Services physicians and nursing personnel. Data were coded and prepared for statistical analysis covering demographic character of the population, disease entities and the types of medical care involved. Analysis was made of the cost of medical care.

Civil Defence Health

The Division advised on the planning of a follow-up survey of the results of indoctrination of doctors and dentists in Civil Defence and a questionnaire was drafted for the survey. Work was done on both the preparation of schedules for and analyses of results of surveys regarding preparedness and disaster planning of hospitals.

Dental Health

Further analyses were compiled for the Dental Health Division in connection with the Sarnia-Brantford-Stratford water fluoridation studies and a Division statistician carried out field work in Stratford for this survey. An analysis was made of the results of a stannous fluoride experiment carried out by the Dental Health Division and plans made for new study of this topical application. The Principal Research Officer (Biostatistics) presented a paper to the Canadian Public Health Association meeting in Vancouver in May, 1958, on the statistical aspects of the appraisal of the British Columbia dental health surveys.

Other Health Studies

The bulletin, *The Administration of Public Health in Canada*, compiled from the health survey reports prepared by the provinces under the Health Survey Grant of the National Health Program, and additional research carried on in the Division, was published. As part of a continuing study of health legislation, a summary was prepared of 1958 legislation related to public health administration, environmental health, hospitals, nursing homes, mental health and tuberculosis services, and health services personnel. A history of the Canadian Sickness Survey

was prepared. At the request of the Pan-American Sanitary Bureau and with the co-operation of provincial health departments, information was compiled on health conditions and services in Canada, to be used in the Four Year Report on Health Conditions published by the World Health Organization. The Occupational Health Division was assisted in the planning of a study of the health of fluorspar miners and regarding statistical analyses of particle size analyses in other occupational health research. The Nutrition Division was aided in work on Eskimo health surveys and in a survey of the nutrition of older persons. Assistance was given to the Physical Fitness Consultant in planning an analysis of an extensive series of fitness tests results. The Principal Research Officer (Biostatistics) served as a consultant to the Department of Veterans Affairs in a review of hospital statistics, with particular reference to morbidity data.

Health Personnel

Memoranda were prepared on medical school enrolment and graduates in relation to physician supply, on the capacity and location of medical schools and on the population physician ratio in relation to physicians in private practice. The Division continued to assist the Montreal Notre Dame Hospital in its study of activities of nursing personnel and the Civil Service Health Division in its survey of the activities of nursing councillors. Preparations were made, in co-operation with the Canadian Medical Association and l'Association des médecins de langue française du Canada, for a survey of physicians to be held across Canada in 1959.

Rehabilitation of Disabled Persons

The bulletin, *Rehabilitation Services in Canada—Part II, Provincial and Local Programs*, was published for distribution to voluntary and governmental agencies serving disabled persons and to the National Advisory Committee on the Rehabilitation of Disabled Persons. The bulletin described programs and services in each province and their historical development. A second volume, *Part I, General Review*, a survey of major national, public and voluntary medical and vocational rehabilitation programs, and programs for special groups and specific disabilities, was well advanced by the end of the year. Progress in rehabilitation in Canada and other countries was kept under review and progress noted in developments in the United States and other countries.

Income Security

The Supervisor of the Income Security Section was seconded for the greater part of the year to work with Dr. R. M. Clark of the University of British Columbia on the report, *Economic Security for the Aged in the United States and Canada*, a comprehensive report on old age security systems in both countries.

The Director who, for a number of years, has served as a member of the Committee of Social Security Experts of the International Labour Organization, acted as Rapporteur at the 1958 meeting of the Committee.

Bulletins on old age security in Australia and New Zealand were revised and a study begun of the basic changes contemplated in retirement pensions in the United Kingdom with a view to republication of the bulletin on old age security in that country. The Division continued to be represented on the Interdepartmental Committee on Pension Plan Statistics. Basic information maintained in the Division on social security expenditures at different levels of government in Canada and other English speaking countries was kept up-to-date.

Reports on disability allowances in Canada were issued for the years 1956 to 1958 and the Division continued to assemble program statistics on unemployment assistance.

Welfare

At the request of the United Nations, a paper was prepared for the *Human Rights Year Book* on provisions in Canada which recognize the rights of mothers and children to special care and assistance, and the equal right to social protection of children born out of wedlock. This was published in Canada in the special issue on human rights of the *Labour Gazette*, November, 1958.

The bulletin, *Deserted Wives' and Children's Maintenance Legislation in Canada*, examined the problems and nature of desertion and statutory federal and provincial provisions for the protection of wives and children when the services of the bread-winner are lost. An appendix, on the factors involved in estimating the extent of desertion, included a review of the types of public aid available to deserted families. A second bulletin, *Child Welfare in Canada*, outlined the structure and scope of programs for the protection and care of children, and discussed other provisions contributing to a comprehensive service. Draft chapters of *Adoption Legislation in Canada* were forwarded to the provinces for approval and work was carried forward on the third edition of the *Mothers' Allowances* bulletin and on a comprehensive study of federal and provincial measures affecting living accommodation for the elderly. A preliminary draft was prepared of a bulletin on social assistance in Canada.

Study of child welfare reporting was continued, in co-operation with a committee of the Canadian Welfare Council and provincial directors of child welfare, with particular attention during the year to reaching a common terminology for reporting on adoption.

Advisory services were also provided to different agencies on such questions as problems related to national statistics on desertion, homemakers' services, proposed fee schedules for family agencies and selection of welfare material for films and radio.

Estimates were supplied of demand for personnel for social services in certain areas of social work. The Supervisor of the Welfare Section served on the National Committee on Personnel of the Canadian Welfare Council.

Memoranda on various aspects of family and child welfare and social aid were prepared for departmental purposes, for other agencies and for foreign and international organizations. These subjects included: courts of jurisdiction in desertion cases, responsibility in law of parent for child, questions regarding children of divorced families and of widowed heads of families, changes in the concept of orphanhood as reflected in statistical and other data, methods of financing homes for the aged, community development programs, training of social welfare personnel, and standards in homes for the aged.

The Director served on the Committee of Social Science Research of the International Association on Gerontology; the National Agency Committee of Community Funds and Councils of Canada; and, with the Supervisor of the Welfare Section, on the Interdepartmental Committee on Older Workers and the Executive of the National Committee on Aging of the Canadian Welfare Council. The Supervisor of the Welfare Section acted as departmental observer on the National Committee on the Welfare of Immigrants and was a member of the Editorial Board of Canadian Welfare, the departmental Film Review Committee, and participated

in the work of an ad hoc committee on the functions, organization, relationships and finance of the Canadian Conference on Social Work. Other research officers served on the departmental Committee on Home Care, the National Committee on Desertion, the French Commission of the Canadian Welfare Council and on the Editorial Board of the *Bien-être Social Canadien*. Material was provided for the Planning Committee of the First Manitoba Conference on Aging and the responsible officer attended the Conference, held in Winnipeg in 1958.

Technical Assistance

The Director completed his assignment as research consultant and co-ordinator for the Pan-American Sanitary Bureau survey team which conducted an evaluation of public health services in Costa Rica. He also acted as a consultant for the Pan-American Sanitary Bureau in a study of hospital services in Jamaica. The Division continued to arrange training programs for persons coming to Canada for study in the field of social welfare under the auspices of the Colombo Plan, the United Nations and other agencies. Considerable time was devoted to the planning of ways in which technical assistance in the welfare field might be strengthened. In this work and in the arrangement of training programs for persons coming to Canada, the Division received the usual generous co-operation of agencies connected with welfare in Canada.

DEPARTMENT OF NATIONAL HEALTH AND WELFARE
DIRECTORY OF DEPARTMENTAL OFFICERS

MINISTER

HONOURABLE J. WALDO MONTEITH, P.C., M.P., F.C.A.

Executive Assistant, C. Keedwell

Private Secretary, D. H. Dunsmuir

Deputy Minister of National Health and Welfare (Health)

G. D. W. Cameron, M.D., C.M., D.P.H., LL.D., F.R.C.P.

Deputy Minister of National Health and Welfare (Welfare)

G. F. Davidson, B.A., M.A., PH.D., LL.D.

HEALTH BRANCH

FOOD AND DRUG DIRECTORATE:

FOOD AND DRUG DIRECTORATE—*Director, C. A. Morrell, M.A., PH.D., F.R.C.S.*

Associate Director, L. I. Pugsley, B.A., M.Sc., PH.D.

Assistant Director (Scientific Services), R. A. Chapman, B.S.A., M.Sc., PH.D.

Assistant Director (Inspection and Enforcement Services), A. Hollett, M.Sc.

Chief, Proprietary or Patent Medicines Division, P. Soucy, Phm.B.

INDIAN AND NORTHERN HEALTH SERVICES DIRECTORATE:

Directorate, P. E. Moore, M.D., D.P.H.

Associate Director, H. A. Procter, D.S.O., M.D., PH.D.

Assistant Director, W. B. Brittain, B.Sc.

HEALTH SERVICES DIRECTORATE:

Director, K. C. Charron, M.D., C.M.

Principal Medical Officer, Environmental Health and Special Projects, E. A. Watkinson, M.D., C.M., D.P.

Principal Medical Officer, Health Insurance, E. H. Lossing, M.D., M.P.H.

Principal Medical Officer, National Health Grants, G. W. Wride, M.D., D.P.H.

Principal Medical Officer, Research Development and International Health, B. D. B. Layton, M.D., M.P.H.

SPECIAL HEALTH SERVICES:

Blindness Control Division, *Chief, J. H. Grove, M.D.*

Child and Maternal Health Division, *Chief, J. F. Webb, B.Sc., M.D., D.P.H.*

Dental Health Division, *Consultant, H. K. Brown, D.D.S., D.D.P.H.*

Epidemiology Division, *Chief, E. W. R. Best, M.D.*

Hospital Design Division, *Chief, H. E. Hughes, B. Arch., A.R.I.B.A., M.R.A.I.C.*

Laboratory of Hygiene, *Director, J. Gibbard, B.S.A., S.M., F.R.S.C.*

Medical Rehabilitation and Disability Advisory Service, *Consultant, B. Primeau, M.D.*

Mental Health Division, *Chief, J. E. Gilbert, M.B., B.S., M.R.C.S., L.R.C.P.*

Chief Nursing Consultant, D. M. Percy, R.R.C., R.N.

Nutrition Division, *Chief, L. P. Pett, B.S.A., M.A., Ph.D., M.D., C.P.H.*

Occupational Health Division, *Chief, T. H. Patterson, M.D., D.P.H., M.P.H.*

Public Health Engineering Division, *Chief, J. R. Menzies, B.A.Sc., C.L.S.C.E.*

Radiation Protection Division, *Clinical Consultant, W. J. D. Cooke, M.D.*

MEDICAL ADVISORY SERVICES:

Principal Medical Officer, R. G. Ratz, M.B.
 Civil Aviation Medicine Division, *Chief*, W. A. Prowse, M.D., C.M., D.P.H.
 Civil Service Health Division, *Chief*, E. L. Davey, M.D., D.P.H.
 Quarantine, Immigration Medical and Sick Mariners Services, *Chief*, W. H. Frost,
 M.D., D.P.H.

NARCOTIC CONTROL DIVISION:

Chief, R. C. Hammon, Phm.B.
 Narcotic Drugs, *Canadian Representative to UN Commission*, K. C. Hossick.

WELFARE BRANCH

Executive Assistant, Welfare, Mrs. D. B. Sinclair, O.B.E., B.A., M.A., LL.D., D.Sc.
 Soc., L.H.D. (on leave).
Consultant, Fitness and Recreation, Doris W. Plewes, M.A., B. Paed., Ed.D.

FAMILY ALLOWANCES AND OLD AGE SECURITY DIVISION:

National Director, J. Albert Blais

Regional Directors—

Newfoundland, L. C. Abbott, St. John's
 Prince Edward Island, J. E. Green, Charlottetown
 Nova Scotia, J. G. Parsons, Halifax
 New Brunswick, A. Nicholson, Fredericton
 Quebec, J. M. L. Lafrance, Quebec
 Ontario, F. C. Jackson, Toronto
 Manitoba, W. F. Hendershot, Winnipeg
 Saskatchewan, R. J. G. Mitchell, Regina
 Alberta, H. C. L. Gillman, Edmonton
 British Columbia, W. R. Bone, Victoria
 Yukon and Northwest Territories, Miss Norma O'Brien, Ottawa

OLD AGE ASSISTANCE, ALLOWANCES FOR BLIND PERSONS, AND ALLOWANCES FOR DISABLED PERSONS:

Director, J. W. MacFarlane.

CIVIL DEFENCE

Deputy Co-ordinator, G. S. Hatton, C.B., D.S.O., O.B.E.
Chief Administrative Officer, M. P. Cawdron, M.A., B.Sc.

ADMINISTRATION BRANCH

Secretary's Division, *Departmental Secretary*, Olive J. Waters
 Information Services Division, *Director*, Harvey W. Adams
 Legal Division, *Legal Advisor*, R. E. Curran, Q.C., B.A., LL.B.
 Library, *Departmental Librarian*, Miss M. D. Morton, B.H.Sc., B.L.S.
 Personnel Division, *Chief*, E. J. Preston, B.A., M.A.
 Purchasing and Supply Division, *Chief*, J. A. Hickson
 Research and Statistics Division, *Chief*, J. W. Willard, Ph.D., M.A., M.P.A., A.M.

TRANSLATION OFFICE

Chief, G. A. Sauve

TREASURY OFFICE

Chief, T. F. Phillips

DIRECTORY OF DEPARTMENTAL ESTABLISHMENTS**ADMINISTRATIVE OFFICES****OTTAWA**

Jackson Building, Bank Street
 Birks Building, Sparks Street
 Booth Building, Sparks Street
 Garland Building, Queen Street
 No. 1 Temporary Building, Wellington Street
 No. 3 Temporary Building, Wellington Street
 Trafalgar Building, Queen Street
 Daly Building, Mackenzie Avenue
 Copeland Building, Albert Street

CIVIL DEFENCE COLLEGE

ARNPRIOR, Ont.—P.O. Box 2050

FAMILY ALLOWANCES AND OLD AGE SECURITY

ST. JOHN'S, Nfld.	29 Buckmasters' Field
CHARLOTTETOWN, P.E.I.	Dominion Building
HALIFAX, N.S.	Ralston Building
FREDERICTON, N.B.	Federal Building
QUEBEC, Que.	51 Boulevard des Capucins
TORONTO, Ont.	122 Front Street West
WINNIPEG, Man.	138 Portage Ave., East
REGINA, Sask.	Dominion Government Building
EDMONTON, Alta.	Federal Building
VICTORIA, B.C.	Federal Building

FOOD AND DRUG LABORATORIES

OTTAWA, Ont.	Tunney's Pasture
HALIFAX, N.S.	Ralston Building
MONTREAL, Que.	379 Common Street
TORONTO, Ont.	27-39 St. Clair Ave., East
WINNIPEG, Man.	Aragon Building
VANCOUVER, B.C.	Federal Building

FOOD AND DRUG OFFICES

OTTAWA, Ont.	Tunney's Pasture
HALIFAX, N.S.	Ralston Building
CHARLOTTETOWN, P.E.I.	Confederation Building
SAINT JOHN, N.B.	250 Prince William Street
SYDNEY, N.S.	Federal Building
ST. JOHN'S, Nfld.	T. A. & B. Society Building
QUEBEC, Que.	375 Dorchester Street
THREE RIVERS, Que.	Post Office Building
SHERBROOKE, Que.	315 King Street West
MONTREAL, Que.	379 Common Street
TORONTO, Ont.	27 St. Clair Ave., East

BELLEVILLE, Ont.	12 Bridge Street East
HAMILTON, Ont.	National Revenue Building
KITCHENER, Ont.	Dominion Public Building
LONDON, Ont.	Dominion Public Building
WINDSOR, Ont.	Dominion Public Building
SUDBURY, Ont.	Federal Building
PORT ARTHUR, Ont.	33 Court Street South
WINNIPEG, Man.	Aragon Building
SASKATOON, Sask.	307 London Building
REGINA, Sask.	713 Motherwell Building
CALGARY, Alta.	Customs Building
EDMONTON, Alta.	Federal Public Building
KAMLOOPS, B.C.	345 Victoria Street
VANCOUVER, B.C.	Federal Building
VICTORIA, B.C.	805 Government Street

IMMIGRATION MEDICAL SERVICE OFFICES

Canada

GANDER, Nfld.	Gander Airport
STEPHENVILLE, Nfld.	Harmon Field Airport
SYDNEY, N.S.	Marine Hospital and Reserve Airport
HALIFAX, N.S.	Immigration Building, Pier 21
MONCTON, N.B.	Moncton Airport
SAINT JOHN, N.B.	Immigration Building, Pier 9
QUEBEC, Que.	Champlain Harbour Station, Wolf's Cove and Immigration Hospital, Quebec- West
MONTREAL, Que.	150 St. Paul Street, West
DORVAL, Que.	Dorval Airport
TORONTO, Ont.	175 Bedford Road and Malton Airport
WINDSOR, Ont.	Windsor Airport
LONDON, Ont.	London Airport
WINNIPEG, Man.	Immigration Hall, 83 Naple St., and Winnipeg Airport
EDMONTON, Alta.	Edmonton Airport
VANCOUVER, B.C.	Immigration Building, foot of Burrard Street, and Sea Island Airport

Overseas

LONDON, England	61 Green Street, Mayfair, W.1
BELFAST, Northern Ireland	12-20 North Street
BRISTOL, England	5-18 Wine Street
GLASGOW, Scotland	18 Woodlands Terrace, C.3
LEEDS, England	5-7 New York Road
LIVERPOOL, England	34 Moorfields, Liverpool 1
BRUSSELS, Belgium	230 rue Royale
PARIS, France	38 Avenue de l'Opera
ROME, Italy	Via Nimorense, 90
THE HAGUE, Holland	12 Carelvan Bijlandtlaan
COPENHAGEN, Denmark	Canadian Legation, Vestagervej 5

BERLIN, Germany	Canadian Government Immigration Mission, Berlin-Zehlendorf, Berliner Str. 25
COLOGNE, Germany	Canadian Embassy, Visa Section, Buchheimerstrasse, 64-66 Winer Platz, Cologne-Muelheim
MUNICH, Germany	Am lillienberg, 1-2, Munich 8
STUTT GART, Germany	Marquart Building, 20 Koenigstrasse
HAMBURG, Germany	Canadian Government Immigration Mission, Admiralitaetstrasse, 46
BERNE, Switzerland	43 Neuengasse, Interhaus, 2nd Floor
VIENNA, Austria	Canadian Embassy, Medical Section, Tuchlauben 8, Vienna
ATHENS, Greece	Canadian Embassy, Visa Office, 54A Queen Sofia Avenue
HELSINKI, Finland	Canadian Legation, Medical Department, Bulevardi 10
NEW DELHI, India	c/o High Commissioner for Canada, 32 Nizamuddin E., New Delhi

SICK MARINERS CLINICS AND HOSPITALS

HALIFAX, N.S.	Immigration Building, Pier 21
SYDNEY, N.S.	Marine Hospital
SAINT JOHN, N.B.	Immigration Building, Pier 9
QUEBEC, Que.	Champlain Harbour Station, Wolfe's Cove
MONTREAL, Que.	150 St. Paul Street West
VANCOUVER, B.C.	Immigration Building, Foot Burrard Street

QUARANTINE STATIONS AND SUB-STATIONS

GANDER, Nfld.	Gander Airport
ST. JOHN'S, Nfld.	Marshall Building
HALIFAX, N.S.	Pier 21
SAINT JOHN, N.B.	Pier 9 and Quarantine Hospital, Lancaster
QUEBEC, Que.	Champlain Harbour Station, Wolfe's Cove, and Quarantine Hospital, Quebec-West
MONTREAL, Que.	150 St. Paul Street West and 320 Baldwin Street
DORVAL, Que.	Dorval Airport
BAIE COMEAU, Que.	Sub-Station
SEVEN ISLANDS, Que.	Sub-Station
RIMOUSKI, Que.	Sub-Station
PORT ALFRED, Que.	Sub-Station
THREE RIVERS, Que.	Sub-Station
SOREL, Que.	Sub-Station
VICTORIA, B.C.	Sub-Station
VANCOUVER, B.C.	Immigration Building and Sea Island Airport William Head, B.C.

INDIAN AND NORTHERN HEALTH SERVICES

EASTERN	4th Floor Booth Building, Ottawa
CENTRAL	803-9 Confederation Building, Winnipeg
SASKATCHEWAN	735 Motherwell Building, Regina
ALBERTA	Charles Camsell Indian Hospital, Edmonton
BRITISH COLUMBIA	4824 Fraser Street, Vancouver

LABORATORY OF HYGIENE

OTTAWA, Ont.	Tunney's Pasture
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OCCUPATIONAL HEALTH LABORATORIES

OTTAWA, Ont.	45 Spencer Street
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PUBLIC HEALTH ENGINEERING DISTRICT OFFICES

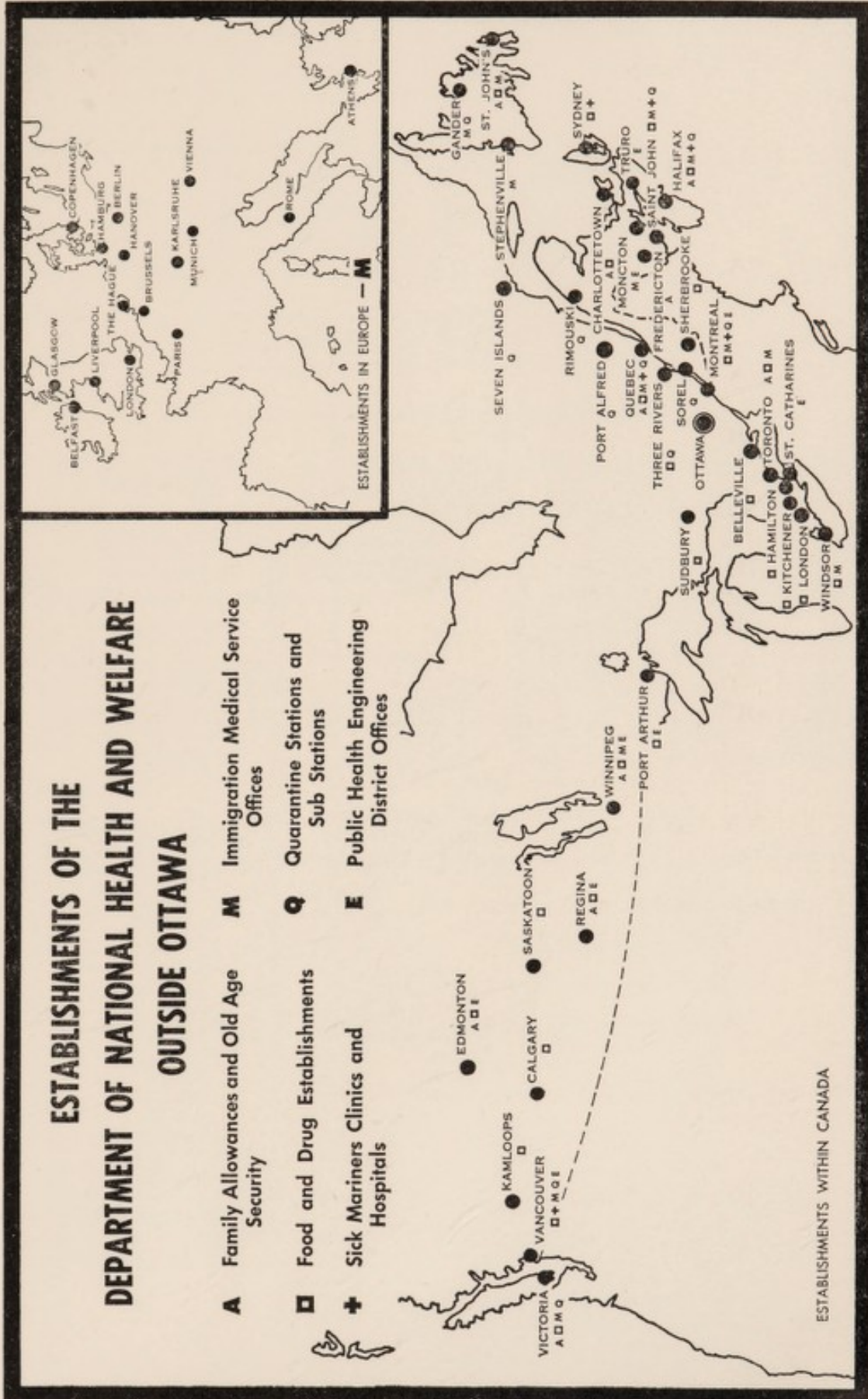
TRURO, N.S.	P.O. Box 608, Federal Building
MONCTON, N.B.	Post Office Building
MONTREAL, Que.	150 St. Paul Street West
ST. CATHARINES, Ont.	Dominion Building
PORT ARTHUR, Ont.	Post Office Building
ST. BONIFACE, Man.	Post Office Building
REGINA, Sask.	Motherwell Building
EDMONTON, Alta.	Federal Building
VANCOUVER, B.C.	Begg Building, 1110 West Georgia Street

RADIATION PROTECTION

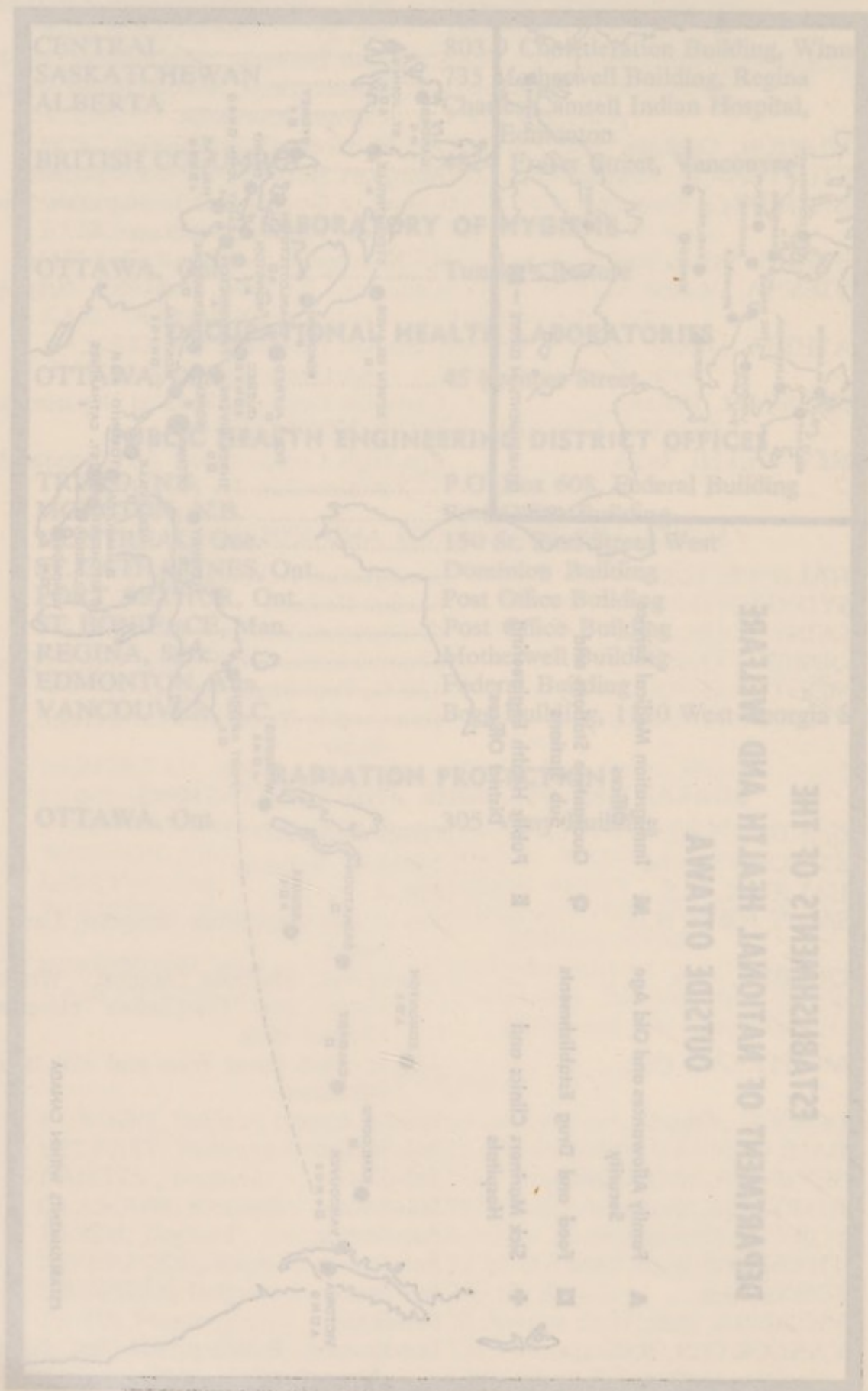
OTTAWA, Ont.	305 Vimy Building
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ESTABLISHMENTS OF THE DEPARTMENT OF NATIONAL HEALTH AND WELFARE OUTSIDE OTTAWA

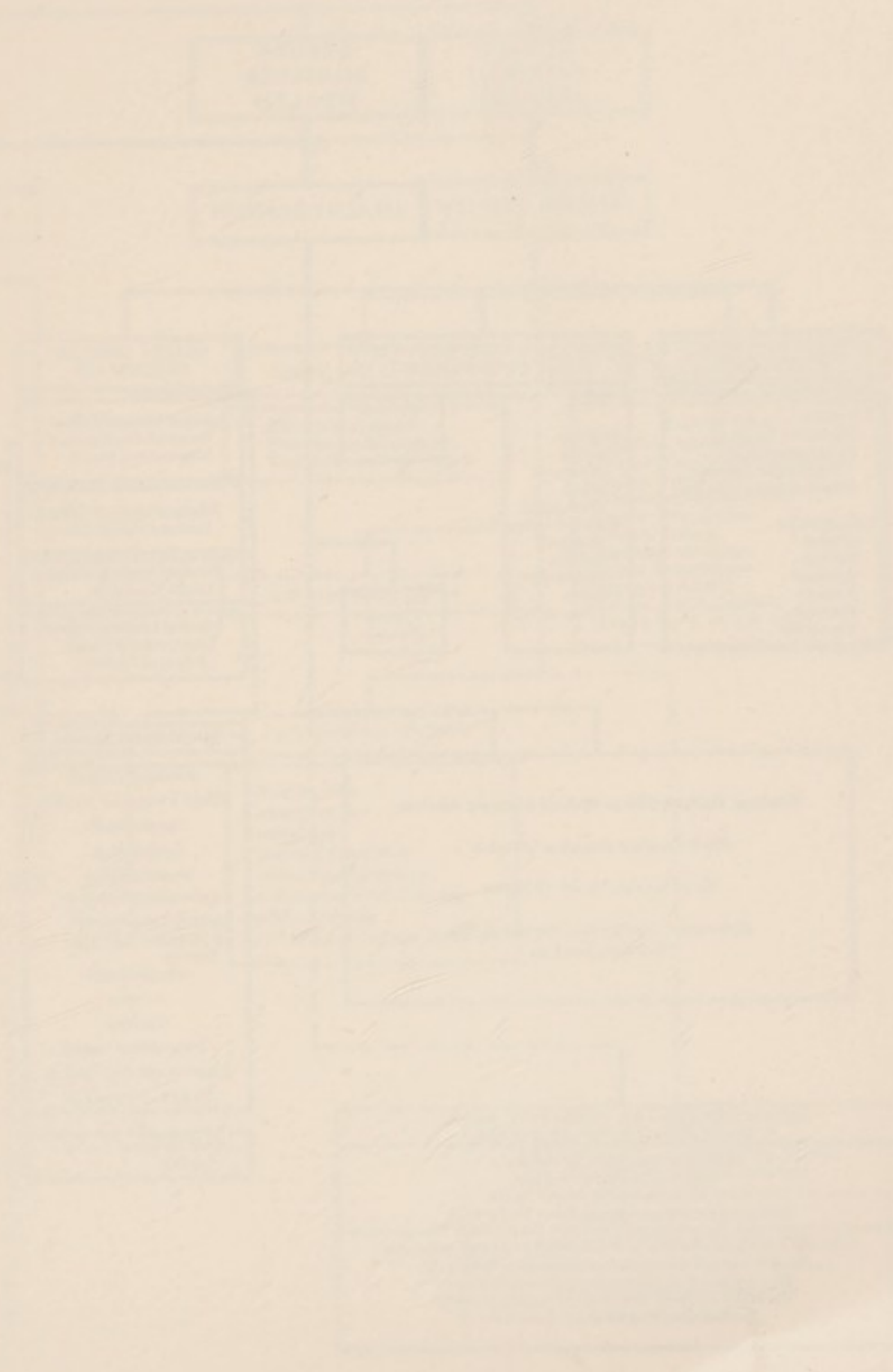
- A** Family Allowances and Old Age Security
- Food and Drug Establishments
- +** Sick Mariners Clinics and Hospitals
- M** Immigration Medical Service Offices
- Q** Quarantine Stations and Sub Stations
- E** Public Health Engineering District Offices



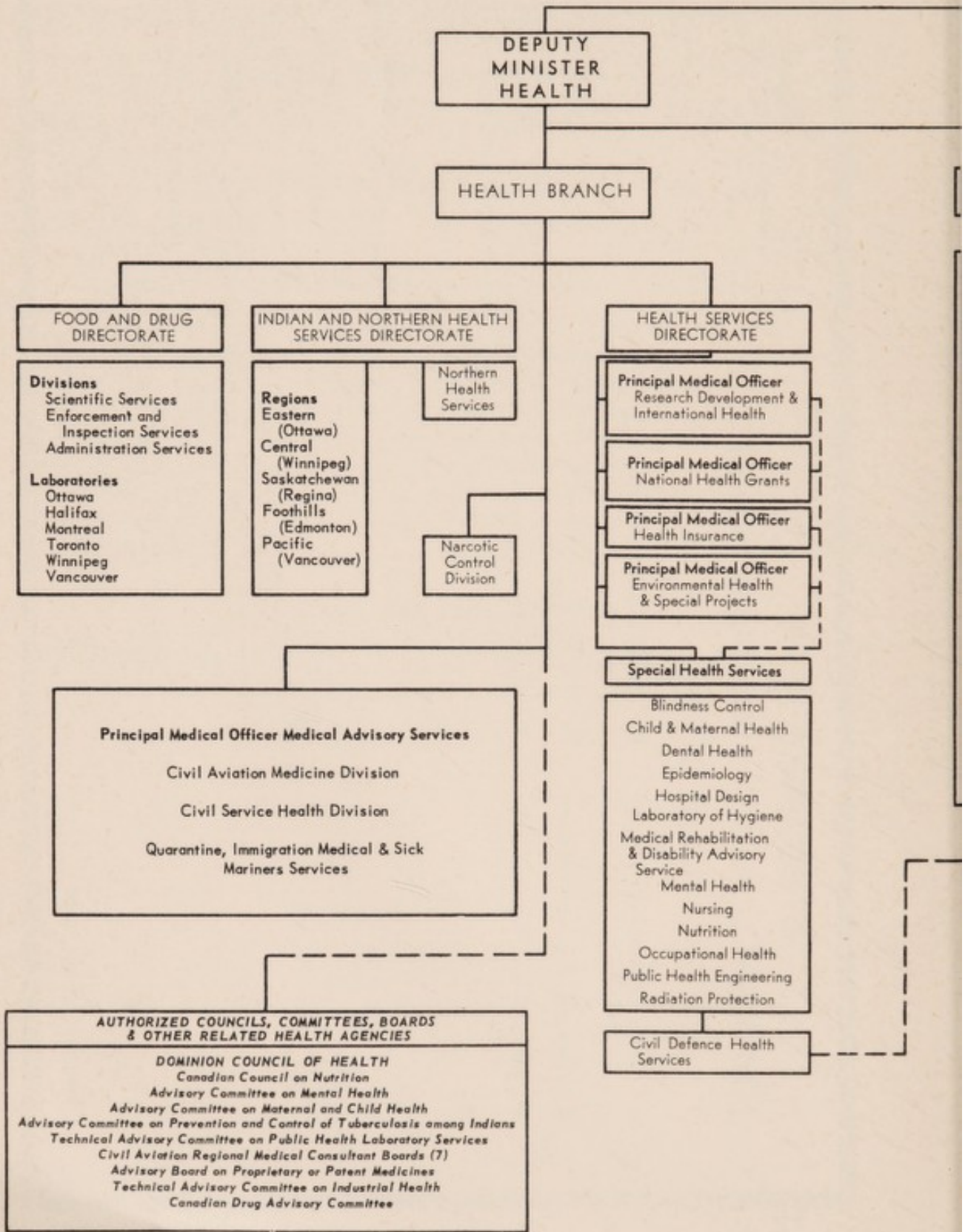
INDIAN AND NORTHERN HEALTH SERVICES



ADMINISTRATIVE REPORT



DEPARTMENT OF NATIONAL HEALTH



DEPUTY MINISTER HEALTH

HEALTH BRANCH

FOOD AND DRUG DIRECTORATE

Divisions
 Scientific Services
 Enforcement and Inspection Services
 Administration Services

Laboratories
 Ottawa
 Halifax
 Montreal
 Toronto
 Winnipeg
 Vancouver

INDIAN AND NORTHERN HEALTH SERVICES DIRECTORATE

Regions
 Eastern (Ottawa)
 Central (Winnipeg)
 Saskatchewan (Regina)
 Foothills (Edmonton)
 Pacific (Vancouver)

Northern Health Services

Narcotic Control Division

HEALTH SERVICES DIRECTORATE

Principal Medical Officer
 Research Development & International Health

Principal Medical Officer
 National Health Grants

Principal Medical Officer
 Health Insurance

Principal Medical Officer
 Environmental Health & Special Projects

Special Health Services

Blindness Control
 Child & Maternal Health
 Dental Health
 Epidemiology
 Hospital Design
 Laboratory of Hygiene
 Medical Rehabilitation & Disability Advisory Service
 Mental Health
 Nursing
 Nutrition
 Occupational Health
 Public Health Engineering
 Radiation Protection

Principal Medical Officer Medical Advisory Services

Civil Aviation Medicine Division

Civil Service Health Division

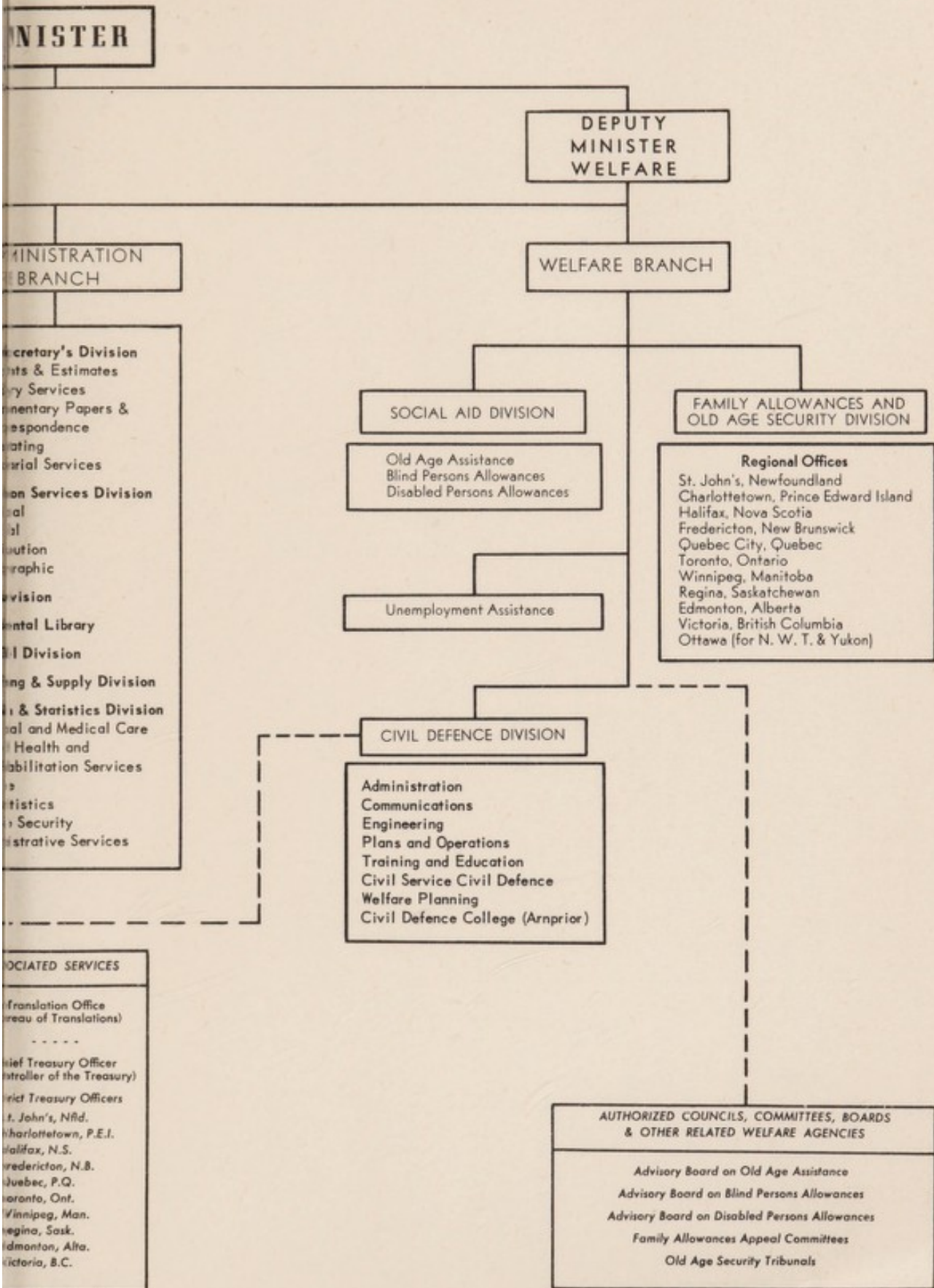
Quarantine, Immigration Medical & Sick Mariners Services

AUTHORIZED COUNCILS, COMMITTEES, BOARDS & OTHER RELATED HEALTH AGENCIES

DOMINION COUNCIL OF HEALTH
 Canadian Council on Nutrition
 Advisory Committee on Mental Health
 Advisory Committee on Maternal and Child Health
 Advisory Committee on Prevention and Control of Tuberculosis among Indians
 Technical Advisory Committee on Public Health Laboratory Services
 Civil Aviation Regional Medical Consultant Boards (7)
 Advisory Board on Proprietary or Patent Medicines
 Technical Advisory Committee on Industrial Health
 Canadian Drug Advisory Committee

Civil Defence Health Services

ALL HEALTH & WELFARE



MINISTRY OF HEALTH

DEPUTY MINISTER

