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REPORT

Department of National Health and Welfare
for the fiscal year ended March 31 1962

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CANADA

THE DEPARTMENT OF
NATIONAL HEALTH AND WELFARE

ANNUAL REPORT

FOR THE FISCAL YEAR
ENDED MARCH 31

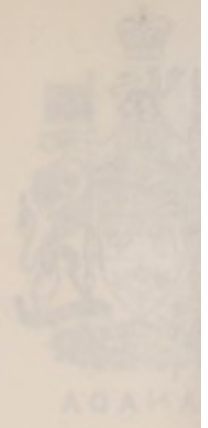
1962

Respectfully submitted,

J. WARD MONTGOMERY,

Minister of National Health and Welfare.

Roger Duhamel, F.R.S.C.
Queen's Printer and Controller of Stationery
Ottawa, 1962



THE DEPARTMENT OF
NATIONAL HEALTH AND WELFARE

ANNUAL REPORT

FOR THE FISCAL YEAR
ENDED MARCH 31

1962

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

SIR:

It is with pleasure that we submit the Annual Report of the Department of National Health and Welfare for the period April 1, 1961 to March 31, 1962.

A number of important amendments to health and welfare legislation were passed during the year, and new legislation introduced.

On February 1, 1962, Old Age Security benefits were increased by \$10 to \$65 a month. The increase affected some 930,000 persons and total expenditure on benefits under the program is expected to reach \$737 million in the 1962-63 fiscal year. Subject to provincial agreement, benefit payments were also raised to provide a maximum allowance of \$65 a month under Old Age Assistance, Disability Allowances and Blindness Allowances. Roughly 150,000 persons were in receipt of these types of assistance in March 1962 and, with all provinces participating at the higher benefit levels, federal outlays are estimated at over \$62 million for 1962-63.

The *Fitness and Amateur Sport Act*, passed on September 25 and proclaimed December 15, 1961 was designed to "encourage, promote and develop fitness and amateur sport in Canada". Under its terms, the federal government may make available \$5 million annually for the purposes of the act and pays the cost of federal administration. The National Advisory Council on Fitness and Amateur Sport, established under the act to advise the Minister of the administration of the program, held its first meeting in February 1962, which was followed by a meeting with provincial ministers appointed by the provinces to act a liaison on the program, to discuss its federal-provincial aspects.

In the Speech from the Throne, the government announced its intention of appointing a National Council of Welfare. It is intended that the council fill a role parallel to that of the Dominion Council of Health in providing a source of expert opinion with respect to many important welfare problems.

Planning was carried out for the establishment of a new welfare grant program. Two grants were announced in April 1962, the General Welfare and Professional Training Grant and the Welfare Research Grant.

Continuing study was carried on in the department, and discussions held with authorities in Canada and other countries, with a view to improvement in existing pensions for older persons.

Following demonstration projects conducted last year and careful consideration by a National Technical Advisory Committee, licences were granted in March 1962 for the production of the new Sabin live poliovirus vaccine in Canada. Canada was among the first countries to license all these strains of this new protective agent. As in the case of the Salk vaccine, production is to be handled by the Connaught Medical Research Laboratories of the University of Toronto and the Institute of Microbiology and Hygiene, University of Montreal. Under

the National Health Grant Program costs of producing the vaccine will be shared with the provinces on a 50/50 basis, with distribution being limited at the outset to community immunization programs.

A report was published on the first thirteen years of the National Health Grant Program. This report, the second on the program, outlines the history of, and accomplishments under, each of the grants. It describes some of the problems that lie ahead and gives figures showing increasing federal and provincial expenditures in public health.

The Royal Commission on Health Services under the chairmanship of Chief Justice E. M. Hall, which was appointed on June 20, 1961, commenced a series of public hearings in centres throughout Canada. Its study of present facilities and future need for health services was continuing at the end of the 1961-62 fiscal year.

Over-all expenditures reflected an increase in the department's work during 1961-62. Expenditures for 1961-62 were \$1,665,383,499, an increase of about 12 per cent over the 1960-61 figure of \$1,479,560,272. The number of permanent employees increased from 4,637 to 4,991.

Construction of the department's new building at Tunney's Pasture began in the summer of 1961.

We wish to commend to you the staff of the department for their loyal and wholehearted co-operation in 1961-62.

Respectfully submitted,

G. D. W. CAMERON,

*Deputy Minister of National Health
and Welfare (Health)*

J. W. WILLARD,

*Deputy Minister of National Health
and Welfare (Welfare)*

Ottawa, Canada

HEALTH BRANCH

FOOD AND DRUG DIRECTORATE

General

Canadian legislation such as the Food and Drugs Act, the Proprietary or Patent Medicine Act and the Narcotics Control Act is designed to protect the consuming public against health hazards, fraud, deceptive labelling and misleading advertising and against abuse of narcotics and other potentially dangerous drugs.

During the year the Food and Drugs Act was amended by Parliament to provide for stricter controls of the sale of drugs containing barbiturates and amphetamines. The type of control established by this amendment and by regulation is similar to that exercised over narcotic drugs. Manufacturers, dealers, importers and exporters are licensed and accurate records of production, purchase and sales must be kept for auditing and for making reports to the department when required. This amendment to the Food and Drugs Act and Regulations is intended to prevent trafficking in *goof balls* which contain barbiturates or amphetamines and which had become widespread in certain parts of Canada. The enforcement of these regulations has been entrusted to the Division of Narcotic Control which has become a division of the Food and Drug Directorate.

New draft legislation was prepared to provide more effective control of the use of chemical additives in foods. This includes a list of all known additives in use in foods manufactured or sold in Canada and specifies where, how and in what quantities they may be used. Additives on this list have undergone extensive tests and are considered safe under approved conditions of use. Use of additives not included in the list will not be permitted in or upon foods. All applications for additions to the list will have to be accompanied by a submission giving full information about the additive, including detailed reports of tests made to establish its safety under the conditions of use recommended.

Program planning under the immediate supervision of the associate director has continued to develop. Work was initiated to compile statistics on the number and type of food and drug industries in Canada to obtain a more adequate evaluation of the work load of the directorate. It is now evident that it will be essential to expand the activities of the regional offices in Ontario and Quebec in order to maintain adequate coverage of the food and drug industries in these provinces. Adding to the work of these regions is the fact that Montreal and Toronto are major importing centres. In this connection it is of interest to note that for all of Canada, about 63 per cent of the time of the staff of the directorate is expended on foods and 37 per cent on drugs.

The controls exercised over the manufacture of drugs are an important factor in establishing the quality and safety of the finished product. In a number of

instances it is difficult or impossible to determine the quality of a drug by analysis of the finished product. In this connection, considerable time has been expended in developing standards for pharmaceutical manufacturing to assist the Inspection Services in evaluating the operations of pharmaceutical manufacturers. In collaboration with the Canadian Government Specifications Board and other departments of the government concerned with the purchase of drugs for hospitals, etc., standards for pharmaceutical manufacturing were drawn up and have been issued by the board.

A number of national and regional surveys and collaborative studies were conducted by headquarters and regional laboratories. These included projects on the chemical determination of promazine and chlorpromazine; the continuation of such projects initiated last year with respect to panthenol and folic acid; investigational work on pesticide residues and the application of a new chemical procedure for the determination of vitamin D; a bread survey to study what constitutes good quality control of weight in bread; work to establish minimum limits for ash content of spices, net content of peanut butter and percentage of chicken meat in canned chicken, and a field screening test for cereal in meat products.

Imports, which must comply with Food and Drug Regulations in the same way as domestic products are examined on arrival at entry ports. Control over Canadian products is exercised by factory inspection and by sampling of commodities at the retail level. During the year 31,000 samples were analyzed or examined and 4,300 inspections of food and drug manufacturing plants were completed.

The Poison Control Program, in its fifth year, has been expanded to include poison control centres in 197 hospitals. Responsibility for the program has been assumed by the Medical Section whose main function is to provide information on the composition of commercial products and suggested treatments to the poison control centres established in hospitals by provincial governments. Information received from the centres is reviewed, tabulated and distributed to the centres with the assistance and co-operation of the Epidemiology, Child and Maternal Health and Research and Statistics Divisions. With respect to this program, the Consumer Relations Section pursued its preventive program and assisted consumer organizations to carry out similar projects of their own.

Administrative Services

A novel system, called the Uniterm System of Co-ordinate Indexing, was adopted on the recommendation of the Management Analysis Division of the Civil Service Commission, to record and retrieve the desired information.

Consumer Relations

The Consumer Relations Section carried out a coast-to-coast survey on food protection, packaging and labelling and the use of chemical additives in foods. The results of this survey indicate that many consumers are deeply concerned with certain labelling and packaging practices. Opinions expressed give the directorate a firm basis for certain labelling and packaging requirements which are now being enforced and provide factual data on which to base future work programs and

activities. The initial analysis was published in a Canadian professional journal and a popular version in booklet form was prepared. The chief of the section attended the second conference of the International Office of Consumer Unions in Brussels. Speaking engagements, attendance at exhibitions, conventions and consumer and educational gatherings and dealing with consumer complaints and enquires rounded out the work of the section.

Medical Services

One hundred and forty-five new drug submissions were received from pharmaceutical manufacturers and 79 submissions were carried over from the previous year. During the period under review, 116 new drugs were cleared while 25 per cent of the submissions completely reviewed were not accepted. Submissions included new single chemical entities, combinations of two or more ingredients, the occasional master file and some veterinary products.

The directorate has always pressed for the early adoption of generic names for new drugs in order to prevent confusion among physicians prescribing them, since these preparations may appear under a number of brand names shortly after their introduction. This vexing problem now appears to be nearing a solution with the help of the World Health Organization, which is actively co-ordinating international efforts to have international non-proprietary—or generic—names available for new chemical entities when they reach the market.

Protection of the Food Supply

One of the enforcement highlights with regard to food protection was the prosecution of a number of Ontario meat dealers charged with selling food for human consumption, meat from dead or diseased animals. This marked the culmination of a lengthy investigation in which food and drug inspectors and scientists, the Royal Canadian Mounted Police and the Consumers' Association of Canada collaborated. Extensive newspaper coverage of the story resulted in a public outcry for stricter controls.

Twenty-six thousand four hundred and fifty food labels were reviewed of which about 28 per cent needed revision. Manufacturers, in general, appear to have accepted the principles of the amended labelling regulations. Twenty-one thousand radio and television continuities were reviewed and there were 200 interviews with representatives of industry.

Protection of the Drug Supply

The major change in legislation has been the addition of a new section to the Food and Drugs Act to deal more effectively with barbiturates and amphetamines, popularly known as *goof balls*. The Drug Unit has also been engaged in a general revision of the regulations on drugs, cosmetics, vitamins and therapeutic devices. A significant advance in drug quality control is expected from recommendations for regulations to permit control over drug manufacturing facilities, personnel and analytical procedures. Plans have been laid for effective methods of inspection,

reporting and enforcement. Training of inspectors has been intensified through courses in the best pharmaceutical manufacturing plants in Canada. The Inspection Manual is being revised.

Special enforcement projects carried out included removal from the market of eye cosmetics containing coal tar dyes.

The unit reviewed 32,000 drug labels, advertisements and trade marks as well as 5,600 radio and television commercials, and some 250 interviews were granted.

The official register of Proprietary or Patent Medicines includes 3,241 preparations. Applications for new products numbered 502 of which 253 were registered and 249 refused. Licences were issued to 970 manufacturers.

Legal Action

One hundred and nineteen prosecutions were instituted, with 70 being completed. Of these, 45 dealt with adulterated food and resulted in fines totalling \$7,435. Four firms were fined a total of \$3,090 for adulterating their butter; five were prosecuted for illegally including horsemeat and/or excessive filler in their bologna and one man was jailed for selling artificially maple-flavoured table syrup as maple syrup.

Unlawful sale of prescription drugs resulted in 25 convictions with fines totalling \$9,355 and jail terms in two cases where the evidence indicated trafficking. The trend was to higher fines in cases involving barbiturates, especially after the amendment to the act concerning controlled drugs was proposed.

Twenty-one seizures of foods valued at about \$3,000 and 42 of drugs valued at more than \$6,000 were made. Some were brought into compliance by reconditioning or relabelling and the rest destroyed voluntarily by their owners under the supervision of food and drug inspectors. These consisted of stocks damaged by fire or that had become unfit for use due to spoilage.

Investigation and Research

The Scientific Services of the directorate consist of the central laboratory in Ottawa and five regional laboratories in Halifax, Montreal, Toronto, Winnipeg and Vancouver. The central laboratory is responsible for carrying out basic research on foods and drugs and the development of analytical procedures for enforcement purposes. The regional laboratories concentrate on the examination for regulatory purposes of all products which come under the act, and also carry out investigational work on methods of analysis. During the past year the work in Scientific Services has resulted in a total of about 60 publications in scientific literature. Three members of the staff contributed chapters to books of a scientific nature.

The central laboratory consists of eleven sections in the biological, chemical and physical sciences, each headed by an expert in his particular field. A number of scientific personnel were invited to participate in the work of international groups including several of the specialized agencies of the United Nations. These projects involved protein evaluation, nutritive properties of fish flour, amino acid studies in rats and humans, relative potencies of carotene and vitamin A in human nutrition, composition of essential oils, and drug addiction and narcotics. One

member of the staff has been working with the World Health Organization on problems relating to food additives and pesticide residues.

The scientific work of the laboratory has attracted national and international attention and many requests are received from scientists who wish to receive training or conduct research in specific areas of work. Three from India, one from Burma, one from Chile and two from Brazil received instruction and training in the Food and Drug laboratory. Two Canadian scientists were given instruction in gas chromatographic techniques for the isolation and identification of fatty acids and barbiturates. Three National Research Council Post-Doctorate Fellows carried out their research in the laboratory, two in pharmacology and the other in the field of nutrition. These training and research programs were financed by the institutions to which the scientists were attached, by national governments, the Colombo Plan, the World Health Organization and the National Research Council.

Animal Colony

A large animal-breeding colony is maintained in clean, air-conditioned quarters to supply experimental animals for investigations on the possible toxicity and other properties of foods, drugs and cosmetics. During the year approximately 33,000 rats and 10,000 mice were used in these investigations, as well as smaller numbers of other animals including guinea pigs, monkeys, rabbits, chickens and pigeons.

Animal Pathology

Studies on anemia and gastric lesions in rabbits, rats, guinea pigs and chickens fed cholesterol and dietary fats were continued. A method for tagging the flesh of diseased and fallen animals by the use of fluorescent tracers was developed. Toxicity studies on food colours were continued. The correlation between cellular changes and the ability of the liver to cope with toxic substances was studied in rats. Factors which influence experimentally induced heart infarcts in the rat were investigated. A comparative study of drugs for the treatment of naturally-occurring tape-worm infestation in the rat was undertaken.

Biophysics

The study of the effect of radiation on biological material and chemical compounds was continued. Radiation damage mechanisms were observed for pentobarbital and glycine. *Strontium 90* determinations have now been made on a limited number of food items found on the Canadian market. Total *beta* radioactivity values were published for 400 Canadian food samples collected over the period 1945-60. The X-ray powder diffraction method was used successfully to analyze or characterize 30 laboratory specimens.

Cosmetics and Food Colours

Natural colours used in foods were the subject of several investigations. Further work was done on the composition of annatto and methods for the total

pigment content of this colour and for the determination of bixin were developed. Paprika colours also were studied for their pigment composition and a method for the determination in meat products of capsanthin, the chief pigment in paprika, was evolved. Gas chromatographic studies were continued on methods for dangerous constituents of hair dyes and on the determination of trace materials in alcoholic beverages. The section participated in a collaborative operation on the development of a new technique for tracing unfit meat from dead and fallen animals.

Food Chemistry

Bioassay and chemical methods for the determination of pesticide residues in foods have been investigated, modified and developed, to allow the analyst to examine simultaneously the extracts from various foods for a number of pesticides. Enzyme inhibition tests have been explored, and one has been developed for the detection of organophosphate pesticides as well as for their degradation products and metabolites. A gas chromatographic method for the detection of horse meat, when mixed with beef or other meats, in cooked as well as uncooked products, is being investigated. Chemical methods for the estimation of the degree of insect infestation of foods are being studied. A method has been developed for the determination in flour of uric acid which is a major constituent of insect excreta. Hams were examined to determine their moisture content.

Microbiology

A sensitive procedure for the isolation of Salmonellae from foods has been developed. Strong evidence has been assembled to implicate specific foods containing egg products as an important factor in a serious increase in human salmonellosis. The serotype *S. thompson*, which during the past two years has increased in frequency of isolation from human sources from 0.05 per cent to 25 per cent of the total, constituted 70 per cent of the isolations from cake mixes.

Studies were continued on the development of resistance strains of bacteria by exposure to *gamma* radiation. Visible light and electron microscopy show changes in nuclear composition and in the structure of the cell wall of mutations produced by this technique.

Surveys of cottage cheese show a substantial proportion to be of poor bacteriological quality. More intensive control is planned.

Organic Chemistry and Narcotics

Paper chromatographic and gas-liquid-partition chromatographic methods were developed to assay the volatile oil in Cannabis (marihuana) and its physiologically-active phenolic fractions. Samples of marihuana from Greece, Morocco, Brazil, Germany, Canada and Yugoslavia were assayed for cannabidiol, cannabinol and tetrahydrocannabinol. Hashish seized in Egypt, India and Canada was also examined. Work to develop more rapid methods for the assay of opium, from which heroin is derived, for international control purposes has progressed, and morphine, codeine and porphyroxine can now be assayed in a reasonable time.

The method can be applied directly to seizures of heroin, since it is necessary during the opium procedure to convert the morphine to heroin for analysis.

Studies on the composition and characterization of essential oils were continued. A monograph on Ylang Ylang oil was published and considered an important step in quality evaluation of these oils. Studies of the genus *mentha* showed that gas chromatographic analyses can prove of value to the botanist in plant classification. Differential infra-red spectrophotometry was also explored for this purpose.

Pharmaceutical Chemistry

Studies were carried out on the analysis of two-component mixtures by partition and spectrophotometric measurements. Other investigations included the analysis of promazine and chlorpromazine, phenobarbital-theobromine combinations, tolbutamide and suxamethonium chloride, and on the effect of excipients in tablets on assay accuracy. Investigations were completed on the identification of certain sulfonamides and derivatives of phenothiazine. Degradation products of various barbiturates were isolated and examined spectrophotometrically. Recommendations were made to modify the existing regulations dealing with, and the official procedure for determining, the disintegration time of tablets. A number of preparations containing phenobarbital were examined for compliance with label claims of slow release of medicament over a period of time.

Pharmacology and Toxicology

Work was continued on the effect of fluoride in sensitizing the central nervous system of rats and monkeys to certain drugs and pesticides. The mode of action of this effect is being investigated. A more sensitive method using rats was devised to detect toxic effects caused by organophosphorus pesticides. Investigations of food colours for cancer-producing properties were continued. Studies were initiated to determine the possibility of establishing a safe level for a known cancer-producing substance. Reserpine which is used as a tranquillizer and for the treatment of high blood pressure was suspected of causing edema in some patients. Alcohol was shown to increase the effect of barbiturates in rats. The susceptibility of very young animals to drugs, pesticides and food additives is being studied. Biological assays and safety tests were carried out on a number of drugs and cosmetics. Two brands of hair shampoos were excessively irritant by the rabbit eye test. As a result the formula was changed in both cases.

Physiology and Hormones

Methods for determining the activity of dried thyroid were studied. The triiodothyronine content of thyroid extracts was found to be a better indicator of biological activity than total iodine. Pork thyroid was shown to contain a greater proportion of triiodothyronine than beef thyroid. This may account for the fact that pork thyroid has been consistently more active in biological assays than beef thyroid. Methods were studied for measuring the strength of certain hormones such as ACTH. Work was continued on the relationship of molecular structure

to the action of hormones on the body. An improved chemical method has been developed for the determination of natural estrogenic substances in pharmaceutical preparations.

Vitamins and Nutrition

New chemical methods were developed for the elimination of substances interfering with the determination of pantothenic acid and vitamin A in complex pharmaceuticals. The application of microbiological assays for amino acids to small samples of blood has made possible the development of a practical method for determining changes in plasma amino acid levels in human volunteers fed normal foods. Studies with chloroform-extracted fish flour indicated that special care must be taken to remove toxic solvent residues before this potentially valuable protein source can be included in human diets.

The nutritional properties of rapeseed oil for rats were shown to be dependent upon the amount of saturated fat in the diet and were improved by the addition of palmitate. Fats containing essential fatty acids provide some protection against the toxicity of relatively high levels of vitamin D. The nutritional effects of modifications in edible oils which may be used for margarine production are being studied. Data on the availability to human subjects of riboflavin, thiamine and niacin in tablets with varying disintegration times confirmed that riboflavin excretion is a good measure of physiological availability. The periodic use of riboflavin and thiamine apart from the diet demonstrated a limit to the amount of both vitamins which the rat can absorb efficiently by mouth. Thiamine was stored more efficiently by rats when injected than when fed.

NARCOTIC CONTROL DIVISION

During the year 1961 this division maintained the responsibility of ensuring that narcotic medication was available in sufficient quantities for medical needs in Canada. Moreover, the required control over distribution of narcotics, bearing in mind the requirements of medical needs, was maintained. In addition, by means of control and education the prevention of addiction was dealt with at every possible opportunity.

Effective September 15th, 1961, the Opium and Narcotic Drug Act was repealed and Chapter 35 of the Canadian Statutes entitled "An Act to Provide for the Control of Narcotic Drugs" came into effect. The act is now cited as the Narcotic Control Act. Part I of the act deals with enforcement from the standpoint of the illicit traffic and Part II of the act, which will not be proclaimed until the necessary arrangements can be made in respect to hospital and custodial facilities, deals with preventive detention and custody of addicts for treatment. Along with the new act came revised regulations, none of which, however, materially affected the conditions governing the availability of narcotics for medical purposes.

With the inception of the Narcotic Control Act, and on the same date, there came into force Part III of the Food and Drugs Act entitled "Controlled Drugs", bringing under control amphetamine and its salts, barbituric acid and its salts

and derivatives, and methamphetamine and its salts. The administration of this new legislation, along with the regulations under Part III of the Food and Drugs Act, was placed under the administrative responsibilities of the Division of Narcotic Control.

Licensed Dealers

During the calendar year 164 pharmaceutical firms were licensed to deal in narcotics. Almost one-half of these acted solely as distributors and the remainder were authorized to manufacture pharmaceutical products containing narcotics. After September 15th and during the balance of the calendar year 1961, 288 firms were licensed to deal in controlled drugs, and again slightly more than one-half of these were authorized to manufacture products containing controlled drugs.

The division's audit staff, pending recruitment of additional pharmacist-inspectors, continued to maintain close scrutiny over narcotic transactions and, at the same time, devoted considerable effort to the explanation of controlled drug regulations to licensed dealers, pharmacists, hospitals and related professions across the country. The administrative staff co-operated in every possible way. However, in common with the inspectorate, they suffered from lack of adequate numbers of personnel.

Our narcotic requirements during the year were met by the issuance of 162 permits to import from various countries of supply, and 81 permits to export were also issued. As a contrast, and in the period between September 15th and December 31st, permits to import controlled drugs were issued in the number of 156 and dealers' applications for permits to export these drugs totalled 114 in the same period.

Supervision Maintained Over Retail Pharmacies

With the advent of pharmacists being required to submit sales reports of certain controlled drug items, there was a very marked increase in the volume of the reports being received. Reports which formerly consisted of 10 pages increased in many instances to 100 or more pages of combined narcotic and controlled drug sales. This has slowed down somewhat our checking-out of this material. In addition, fixed criteria have not yet been established as to the controlled drug items which are most likely to be abused and how much of any of these drugs constitutes abnormal purchasing or prescribing.

A start has been made on this work and many letters of inquiry are going out to pharmacists and physicians. Based on their replies, some standards are being set and an index compiled of cases known to be routinely using abnormal quantities of barbiturates and amphetamines. It is expected considerable time will elapse before the degree of control over these drugs considered desirable will be achieved.

On the whole our inquiries have been very well received by practitioners and many letters have been received indicating the controls imposed last September were not only needed but were rather overdue.

Meanwhile, we have continued our program of endeavouring to keep narcotic drugs from persons not possessed of medical conditions warranting their use.

Addiction

All of our addiction figures have remained rather stable. Medical and professional cases were down slightly from last year with an increase being shown in our criminal addict statistics of 119 for the year. Increases of 59 and 58 respectively were shown for British Columbia and Ontario. Slight increases were noted in Alberta and Saskatchewan with almost corresponding decreases being reported for Manitoba and Nova Scotia. Quebec figures remained the same as last year.

Criminal addicts under 20 years of age dropped from 49 in 1960 to 45, although we did receive some information that there were considerably more teenage persons addicted, notably in British Columbia, than were shown by our figures. We are looking further into this matter to substantiate or refute this claim.

Over-all addiction figures for the past eight years were as follows—

1954 — 3,212	1958 — 3,412
1955 — 3,425	1959 — 3,408
1956 — 3,241	1960 — 3,295
1957 — 3,315	1961 — 3,395

It is obvious that the situation with regard to narcotic addiction remains under reasonable control. No attempt has as yet been made to establish the number of persons addicted to controlled drugs although we are keeping records of all persons coming to our attention who use these drugs routinely. A number of persons known as narcotic addicts have obtained barbiturates and amphetamine drugs on prescriptions issued by physicians. The names of some practitioners have already been placed on our Confidential Restricted List for the indiscriminate prescribing of such drugs and the situation is being watched very closely.

Inspectional Work

At the close of 1961 the division had in the field 10 inspectors. There were 4,934 audits, inspections and special interviews carried out during the year.

Consumption of Drugs

There were no striking variations in the volume of basic narcotics consumed during the year in question as contrasted with those previously. Some fluctuation was experienced in respect to synthetics and developmental work on the part of pharmaceutical manufacturers in connection with new synthetic drugs continued. Details of imports and consumption figures are set forth on subsequent charts.

In view of our limited experience in the field of requirements for controlled drugs and of the fact that we had no basic records on which to establish developments at the end of 1961, no comment can be made in this regard at this time.

Convictions

As has been the case for many years, there was no diversion of narcotic drugs from licit channels and it is unquestionable that supplies of heroin, which of course is the main drug of addiction in Canada, are secured through the medium of illicit import.

In respect to narcotics, and during the period January 1st to September 14th, 1961, inclusive, a total of 402 convictions were registered under the Opium and Narcotic Drug Act. Three hundred and fifty-six of these were for possession, 17 for trafficking, 27 for possession for the purposes of trafficking, one was for securing medication from more than one physician, and one was for illegal use of the mails. Between September 15th and December 31st, and under the Narcotic Control Act, a further 76 convictions were registered, 72 for illegal possession and the remainder for possession for the purpose of trafficking.

In respect to controlled drugs, the only offences under Part III of the Food and Drugs Act are those of trafficking and being in possession for the purpose of trafficking, and eight convictions for offences of this nature had been registered by the end of the calendar year.

Co-operation by Enforcement Agencies

The efficient efforts of the R.C.M. Police and co-operation of other law enforcement agencies are evidenced by the continuing slight decline in the total number of convictions for narcotic offences. No criteria, of course, have been established in respect to offences under Part III of the Food and Drugs Act as yet. Bearing in mind the continuing growth of our population, the fact that convictions of this nature are maintaining a declining level is evidence of the effective work of enforcement and control organizations.

Liaison with Medical, Pharmaceutical and Related Professions

Provincial registrars of the medical, pharmaceutical and related professions across the country continued to offer splendid co-operation to the division in furnishing up-to-date information concerning the identity and location of registered members.

The chief of the division and members of the inspectorate continued to address graduating classes in medical schools and pharmaceutical and nursing faculties at various universities.

International Co-operation

All required reports and information were submitted to interested sections of the United Nations and our liaison with narcotic authorities in other countries proved beneficial and effective.

TABLE 1
CONVICTIONS UNDER THE OPIUM AND NARCOTIC DRUG ACT
DURING THE PERIOD BETWEEN JANUARY 1, 1961 AND SEPTEMBER 14, 1961

Province	NATURE OF OFFENCE						DRUGS INVOLVED						
	Section 10	Section 13 (1)	Illegal Possession	Trafficking	Possession for Purpose of Trafficking	Total	Heroin	Demerol	Morphine	Marihuana	Poppy Heads	Non-Narc. Drug	Total
Newfoundland.....													
Prince Edward Island.....													
Nova Scotia.....													
New Brunswick.....													
Quebec.....			6	10	2	18	11	2	2	3			18
Ontario.....	1		102	9	7	119	111	2	1	4		1	119
Manitoba.....			2			2	2						2
Saskatchewan.....			2		3	5	4				1		5
Alberta.....			13		2	15	13				1		15
British Columbia.....		1	231*		11	243	243						243
Total.....	1	1	356	19	25	402	384	4	3	7	2	2	402

Of the above, there were 6 males and 1 female in British Columbia, 1 female in Alberta, 2 males and 2 females in Ontario, as well as 2 males in Quebec who had 2 convictions. There was also 1 male in Saskatchewan who had 1 conviction in B.C. and 1 male in Ontario who had 1 conviction in Quebec.

*One female was convicted under the O.N.D. Act and the Juvenile Delinquent Act.

Section 10—Obtaining drugs from more than one physician. Section 13 (1)—Illegal use of the mails.

TABLE 2
 CONVICTIONS UNDER THE NARCOTIC CONTROL ACT
 DURING THE PERIOD BETWEEN SEPTEMBER 15, 1961, TO DECEMBER 31, 1961

Province	NATURE OF OFFENCE				DRUGS INVOLVED			
	Section 3(1)	Section 4(1)	Section 4(2)	Total	Heroin	Marihuana	Non-Narc. Drug	Total
Newfoundland.....								
Prince Edward Island.....								
Nova Scotia.....								
New Brunswick.....								
Quebec.....	5			5		5		5
Ontario.....	34		2	36	34	2		36
Manitoba.....								
Saskatchewan.....								
Alberta.....	3		1	4	4			4
British Columbia.....	30		1	31	30		1	31
Total.....	72		4	76	68	7	1	76

Section 3(1)—Illegal Possession of Narcotics. Section 4(1)—Trafficking in Narcotics. Section 4(2)—Possession of Narcotics for the Purposes of Trafficking.

TABLE 3
IMPORTS OF MAIN NARCOTICS FOR PERIOD 1952-1961 INCLUSIVE
Unit of Weight—Kilogramme (Pure)

Year	Raw Opium	Medicinal Opium and Preps.	Morphine	Hydrocodone	Hydromorphone	Ethylmorphine	Codeine	Pholcodine	Cocaine	Alphaprodine	Levorphanol	Methadone	Pethidine
1952.....	1.502	147.420	33.254	6.407	0.425	39.775	1647.078	.....	31.808	.....	.....	9.327	349.924
1953.....	49.442	106.823	78.246	5.018	0.368	31.411	1153.335	0.595	49.612	2.636	0.793	5.897*	323.449*
1954.....	5.897	149.688	60.499	17.775	0.198	39.378	2814.390	17.775	48.308	1.587	0.567	9.185	592.061
1955.....	31.525	149.688	52.192	5.301	0.425	24.182	2396.624	5.698	29.597	6.548	0.567	9.554	430.665
1956.....	17.236	145.350	47.332	13.012	0.471	55.291	1893.242	2.602	32.865	2.464	0.338	3.911	323.104
1957.....	2.000	90.902	30.857	20.013	0.355	19.941	2039.416	3.872	31.536	5.548	0.353	6.489	534.702
1958.....	0.567	108.864	28.342	33.338	0.174	19.978	2445.569	.....	33.474	4.488	0.414	6.788	407.728
1959.....	.....	111.630	35.094	15.282	0.267	21.036	2813.256	3.580	19.482	5.984	0.370	4.063	546.189**
1960.....	0.284	117.596	44.889	18.588	0.053	14.032	3039.153	.....	31.257	3.344	0.302	3.236	636.846
1961.....	.....	141.977	44.356	27.639	0.320	12.907	2995.255	.....	30.462	3.411	0.320	8.950	666.420

*Pure Drug Figure utilized since 1953.

**53.940 Kg. returned to Great Britain, discoloured material.

TABLE 4
ESTIMATED CONSUMPTION OF THE MAIN NARCOTICS FOR THE PERIOD 1952-1961 INCLUSIVE
Unit of Weight—Kilogramme (Pure)

Year	Raw Opium	Medicinal Opium and Preps.	Morphine	Heroin	Hydromorphone	Codeine	Ethylmorphine	Pholcodine	Cocaine	Alphaprodine	Levorphanol	Methadone	Pethidine
1952	57.975	167.974	71.980	22.000	0.567	1795.831	21.971		37.989		0.822	11.000	285.966
1953	21.603	142.771	76.318	23.474	0.595	1508.192	44.850	0.227	40.030	0.822	0.964*	8.845*	298.015*
1954	51.568	158.023	70.024	28.123	0.085	1819.701	16.812	5.670	33.198	3.147	0.368	10.858	335.324
1955	20.950	112.294	49.329	12.616**	0.425	2286.994	31.780	4.649	35.693	4.111	0.624	5.953	372.434
1956	28.306	185.820	50.402	6.158	0.390	1885.903	28.835	6.358	34.507	3.262	0.478	7.530	478.143
1957	21.500	112.519	43.348	5.605	0.319	2407.116	30.284	4.270	31.921	5.945	0.413	5.583	333.078
1958	3.648	140.819	44.645	2.971	0.245	2501.709	27.966	1.788	30.188	3.634	0.355	6.768	406.990
1959	.539	157.120	36.373	0.473	0.270	2571.228	25.825	3.435	31.171	4.977	0.335	5.290	547.115
1960	.114	140.551	41.912	0.144	0.206	2675.452	18.485	1.194	30.514	4.262	0.355	3.487	637.941
1961		109.906	43.743	0.081	0.155	2800.388	17.137	0.470	29.252	3.931	0.437	5.562	472.076

*Pure Drug Figure utilized since 1953.

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

HEALTH SERVICES DIRECTORATE

INTRODUCTION

The responsibilities assigned to the Directorate of Health Services cover an area in which improvement in the quality and availability of health services is of primary importance in preserving and promoting the health of the people of Canada. Officers of the directorate endeavour to carry out their obligations in the various health fields by direct action or by co-operation with other units of the department, with other federal agencies, or with provincial health authorities, as circumstances may indicate. The responsibilities of the directorate also entail co-operation with other countries through such agencies as the World Health Organization, the Food and Agriculture Organization, the International Commission on Radiological Protection, the Colombo Plan, and the International Joint Commission.

During the past year, the Director of Health Services visited Australia, New Zealand, and seven countries of Europe for the purpose of carrying out an extensive survey of the health programs in those countries. Data gathered during these visits are now being compiled in report form.

The Dominion Council of Health advises the Minister on matters relating to the health of the people of Canada. It also plays a co-ordinating role in respect to the health programs of the provinces and between the federal and provincial authorities.

The council met twice during the past fiscal year. Subjects considered during the meetings included the organization of emergency health services; radiation protection, with particular reference to the development of regulations for the protection of the Canadian population against ionizing radiations from all sources, and to the program for the measurement of radioactive fallout; the pollution of inland waterways; paralytic poliomyelitis in Canada, and studies related to the use of oral vaccines; zoonoses reporting; infectious hepatitis in Canada; and the sale and distribution of barbiturates, amphetamines and similar prescription drugs.

ENVIRONMENTAL HEALTH AND SPECIAL PROJECTS

Ionizing radiation and its effects was a major environmental health interest of this unit in 1961-62. During this period the principal medical officer continued to provide general direction to the Radiation Protection Division. With the appointment of a chief to that division in December 1961, it has since become possible for the principal medical officer to relinquish many responsibilities in the radiation protection field. In the past year the P.M.O. also served as Canadian representative to the United Nations Scientific Committee on the Effects of Atomic Radiation, as a member of the main commission of the International Commission on Radiological Protection, as a member of the World Health Organization's Expert Panel on Ionizing Radiation, as the department's representative on the National Research

Council's Associate Committee on Radiation Biology and as chairman of the Interdepartmental Committee on Radioactive Waste Disposal. He was also a member of the Reactor Safety Advisory Committee of the Atomic Energy Control Board.

In response to numerous requests considerable technical information about ionizing radiation and its effects was prepared and made available to interested groups and individuals.

In the other fields of environmental health the P.M.O. maintained close working relationships with the Occupational Health and Public Health Engineering Divisions.

In the interval between the resignation of the chief of Medical Rehabilitation and Disability Advisory Service and the appointment of his successor the P.M.O. assumed responsibility for the direction of that division.

Activities related to special projects during the year involved (a) organization of the writing of a report on the problems of chronic illness in Canada; (b) completion of a study on the health and medical aspects of physical fitness; (c) initiation of a study of accidents in Canada; (d) the orientation of certain professional personnel within the department.

The P.M.O. also served on various committees concerned with general departmental interests.

HEALTH INSURANCE

During the year under review the Health Insurance section continued to carry out administrative responsibilities in relation to the Hospital Insurance and Diagnostic Services program and provided consultative and advisory services to the department and, on request, to the provinces.

This was the first year during which all of the provinces were operating hospital insurance programs throughout the year. At the end of the year there were 1,320 hospitals and other facilities listed in the agreements with the provinces under the Hospital Insurance and Diagnostic Services Act.

During the year under review, a number of amendments were made in provincial legislation and concomitant amendments were made in the agreements under the act where relevant. One amendment was also made in federal regulations. The majority of the amendments to the agreements related to the lists of hospitals participating in the programs.

Other amendments to the agreements made during the year related to the methods selected by the provinces for the extramural training of hospital personnel to ensure that there was no duplication of the use of federal funds made available for this purpose through the national health grants program on the one hand and hospital insurance on the other. Amendments relating to extramural training were made in the agreements to all the provinces.

Some of the amendments made in the agreements towards the end of the year under review related to the extension of out-patient services which were to become effective only in the following fiscal year. To become effective April 1, 1962, both Nova Scotia and Manitoba completed amending agreements in this regard. The Nova Scotia amendment had the effect of extending and clarifying

the minor medical and surgical procedures to be provided as insured out-patient services. The Manitoba amendment will have the effect of providing certain rehabilitation services as insured out-patient services.

The amendments to the agreement with Ontario, however, became effective March 1, 1962, extending out-patient services to include follow-up care in fracture cases and hospital services that ordinarily would be performed for an in-patient in administering certain therapeutic procedures for which the hospital has adequate out-patient facilities that are authorized by the hospital board on the advice of the medical staff. An amendment to the Alberta agreement revised the method of provincial payments for out-of-province benefits.

A revised version of out-of-province benefits was drawn up by Prince Edward Island. A number of minor amendments were made in the agreements which had the effect of clarifying certain technical points.

The amendment which was made in the federal legislation had the effect of providing to the provinces a larger advance payment than had been previously made. By an amendment to the hospital insurance regulations changing the formula for the advance payments from "twenty-two percent of the per capita cost of in-patient services in Canada" to "twenty-three and one-half percent of the per capita cost of in-patient services in Canada", the provinces receive a larger portion of the federal contribution through advance payments, commencing January 1962. This amendment had been approved by all the provinces prior to its enactment in accordance with the provisions of the federal act.

Advance payments to the provinces were maintained on a regular monthly basis in an amount which totalled \$274,066,387.03. Final settlement for 1959 resulted in an additional payment of \$9,816,709.52 during the year under review.

The total payments made by Canada to participating provinces under the Hospital Insurance and Diagnostic Services Act are shown in Table 5.

The Advisory Committee on Hospital Insurance and Diagnostic Services held two meetings during the year under review, the first of these being held April 20 and 21 and the second November 6 and 7, 1961. The subjects discussed at these meetings were broad in range and, in addition to exchanges of information relating to such matters as methods of controlling costs, also included consideration of reports prepared by the three subcommittees and working parties.

The Subcommittee on Quality of Care, Research and Statistics, held its third meeting on September 12 and 13 and made substantial progress towards finalizing the work carried out by one of its working parties relating to uniform definitions for hospital admission and separation forms. The working party dealing with this subject had prepared its third report at a meeting held June 29 and 30, 1961.

Two other working parties of the Subcommittee on Quality of Care, Research Statistics, also held meetings during the year under review. The working party on hospital standards held three meetings in September and November 1961, and February 1962 and made substantial progress in formulating guide hospital standards. The working party on hospital construction standards also met in September 1961.

The Subcommittee on Finance and Accounting held a meeting on September 14 and 15, 1961 which had been preceded in June 1961 by a meeting of an ad hoc working party set up to examine part two of the annual return of hospitals.

TABLE 5
TOTAL PAYMENTS MADE BY CANADA TO PARTICIPATING PROVINCES, UNDER
THE HOSPITAL INSURANCE AND DIAGNOSTIC SERVICES ACT, BY PROVINCE

Province	Fiscal Year				Total Payments from July 1, 1958 to March 31, 1962
	1958-59	1959-60	1960-61	1961-62	
Newfoundland.....	\$ 2,857,886.84	\$ 4,707,692.94	\$ 5,094,934.21	\$ 6,258,287.26	\$ 18,918,801.25
Prince Edward Island.....		447,338.27	1,010,806.54	1,381,894.39	2,840,039.20
Nova Scotia.....	1,572,782.64	8,162,540.78	9,595,387.52	11,872,932.01	31,203,642.95
New Brunswick.....		4,575,374.90	7,914,412.71	9,546,774.26	22,036,561.87
Quebec.....			13,936,740.72	73,022,517.78	86,959,258.50
Ontario.....	13,140,213.12	71,892,833.66	84,484,271.86	104,498,880.55	274,016,199.19
Manitoba.....	7,148,534.97	11,324,466.35	13,048,916.19	15,245,924.23	46,767,841.74
Saskatchewan.....	8,430,441.93	13,378,379.43	14,453,463.99	15,953,810.19	52,216,095.54
Alberta.....	8,774,575.68	15,698,727.86	16,905,597.57	19,730,547.07	61,109,448.18
British Columbia.....	12,784,038.88	20,406,091.56	22,493,438.52	25,697,550.94	81,381,119.90
Yukon.....			168,683.75	296,036.35	464,720.10
Northwest Territories.....			261,849.89	377,941.52	639,791.41
Total.....	\$54,708,474.06	\$150,593,445.75	\$189,368,503.47	\$283,883,096.55	\$678,553,519.83

The Subcommittee on Residence and Uniformity of Benefits held its fourth meeting June 1 and 2, 1961 and discussed the wide variety of problems having interprovincial connotations.

There were a number of staff changes during the year. New appointments were made for the positions of consultant in nursing and assistant to the consultant in hospital accounting. The incumbent of the position of consultant of hospital administration was appointed director of Research and Statistics, and at the end of the year arrangements to fill this important position had not been completed.

INTERNATIONAL HEALTH

Activities in the international health field have continued to expand with increasing rapidity and scope. These involve primarily Canada's membership in the United Nations Specialized Agencies, i.e., the World Health Organization, the health component of multilateral U.N. programs such as the Expanded Program of Technical Assistance and the Children's Fund—UNICEF. Additionally, International Health provides advice to the External Aid Office on requests for technical aid in the health field, including the recruitment of experts, and acts as the assessment and placement agency for Colombo Plan, S.C.A.A.P. and medical trainees under similar programs seeking postgraduate study or advanced training at Canadian medical schools, hospitals and other centres.

With regard to W.H.O., two assemblies having been convened during the previous fiscal year, in Geneva in May 1961, and New Delhi, India, in February 1962, the major activities for the year involved the preparation of a report on Canada's health progress during the period 1956 to 1960 for the Second W.H.O. Report on the World Health Situation for presentation at the 15th World Health Assembly. Through the co-operation of departmental, provincial and voluntary agencies, a comprehensive review was prepared and submitted to W.H.O. covering all aspects of Canada's health progress during the four-year period involved.

Additionally, in co-operation with Information Services Division, a special supplement dealing with W.H.O. was prepared and issued with the March edition of "Canada's Health and Welfare". This covered the generalities of the activities of the organization, highlighting special health activities in the rapidly developing program of that agency. In connection with the world-wide campaign to publicize the malaria eradication activities of W.H.O., a special postage stamp cancellation conveying the slogan "The World United Against Malaria through W.H.O." was utilized throughout Canada in both French and English for approximately one month at the conclusion of the year under consideration.

As heretofore, the principal medical officer, International Health, attended the combined Directing Council/Regional Committee of the Pan American Health Organization/W.H.O. in Washington, D.C., from October 2 to 16, 1961.

An opportunity was presented during the meeting to review recent developments on the Canadian health scene in the hospital insurance and health grants program, radiation protection, poliomyelitis immunization and other special health problems.

Under the bilateral aid programs, a new high was reached for fellowships in the health field; the count for 1961 showed 108 scholars in Canada at the end of the year, an additional 47 had concluded their studies and returned home during the year and some 22 were accepted for future training. It is of interest to note that the largest group of these trainees is in the nursing field with those in various public health disciplines ranking second. There are also some 24 undergraduate medical students included among the total, mainly from countries in which medical schools have not yet been established.

The number of Canadian health experts abroad is limited at the present time, the most noteworthy project for the year being the fielding of the Canadian Medical Team in Malaya, consisting of a general surgeon, an anaesthetist, an operating room nurse and three medical officers. This was organized and provided on the specific request of the Malayan government for service at the Penang Hospital and adjacent regional hospitals.

Anticipating the development of similar types of projects in Africa, a three week survey was carried out by an expert clinician in both Ghana and Nigeria during the fall. At the latter part of the year material results were becoming apparent in terms of recruitment of Canadian medical experts for service in these countries.

The medical text book program for the libraries of the 86 medical schools in the Colombo Plan countries, which commenced in 1960 and totalled over \$200,000 for the two year program, was drawing to a close. Under the plan each school received the equivalent of \$2,500 worth of basic medical text books. Another major item has been the provision of cobalt beam therapy units varying in cost from \$30,000 to over \$100,000 depending upon the size and capacity of the unit. Since the beginning of the program, 10 have been delivered to hospitals in the Colombo Plan area with two additional to be provided.

Of special interest in this regard is the project in Burma where, in 1957, a radiotherapy unit was set up in the Rangoon General Hospital by the provision of a cobalt beam unit. Canadian radiotherapy experts and a radiotherapy technician took on the operation of the unit while their counterpart Burmese personnel were receiving special training in Canada.

Following an on-the-spot study of this project, a second cobalt unit was recommended and has been approved, as well as the construction of a wing to provide additional facilities and beds for the radiotherapy department of the hospital. Two radiotherapy technicians are now being trained in Canada to assume the duties of the Canadian expert at the conclusion of her present assignment, now having been extended to total 5 years.

On request the P.M.O./IH prepared a report on "Four Decades of Public Health Progress in Canada" for inclusion with similar reviews of members of the Pacific Science Congress which was held August 21 to September 6, 1961, in Honolulu, Hawaii. In June 1961, he represented the department at the United States Mexican Border Public Health Meeting reporting upon "Our National Health—Progress Report" as part of the conference theme "Health Across the Borders".

An address on "Canada's Role in International Health" was presented at the inaugural session of the School of Hygiene, University of Toronto, in September. This year 12 Colombo Plan and S.C.A.A.P. scholars are attending the school

in various public health courses. The P.M.O. also represented the department at the 1962 Canadian Health Forum organized by the Health League of Canada. Papers were presented on "Governments in Preventive Medicine" and "Adventures in Health Education", as well as participation in a panel discussion on international health.

NATIONAL HEALTH GRANTS ADMINISTRATION

At the beginning of the fiscal year 1960-61 several major changes were made in the structure of the National Health Grants. No further revisions occurred in 1961-62 although studies are continuing to ensure that the grants still keep abreast of current needs arising from new knowledge and changing conditions.

Developments in Health Services

The largest of the grants is that for hospital construction. In most provinces new building programs have continued at a high level to provide services to areas not previously having their own hospitals, and to assist with the construction of larger accommodation required by existing hospitals to meet population growth, and to provide essential services for the care of the sick. In addition, 85 more projects were approved to assist with the costs of renovations or alterations within existing hospitals so as to improve their facilities and services and, in some instances, to help reduce their costs of operation. Federal payments toward all these construction programs totalled \$19 million in the 1961-62 fiscal year.

Utilization of the other eight grants has continued at a high rate, with a national average of about 85 per cent of the total available funds allotted to specific projects.

In 1961-62 local public health services continued to grow as new health units or health regions were organized in areas not previously so served. Some existing units expanded to take in adjacent territory. Others, within the limits of available staff, tried to enlarge their programs in such fields as mental health, home nursing care and the control of air pollution, or to intensify their existing activities related to environmental hazards and communicable diseases.

Late in the fiscal year an oral vaccine for the control of poliomyelitis was licensed for use in Canada and it was agreed that the National Health Grants would continue to be used to purchase this vaccine on the same basis as had prevailed since the advent of the Salk vaccine, i.e., 50-50 with the provinces.

Continuing assistance was provided toward the control of another major communicable disease, tuberculosis. In allotting grants support, emphasis continued to be placed on case-finding activities and in particular on tuberculin testing.

Similarly, in attacking the problems of mental health, the trend toward prevention and early treatment through community mental health clinics, psychiatric wards in general hospitals or in special "day hospitals" or "night hospitals" continued to receive encouragement and support.

During the year considerable interest was demonstrated in the development of plans for the home care of individuals who might otherwise require treatment

in hospitals. Funds from the Medical Rehabilitation and Crippled Children Grant were utilized to assist with the development of several of these programs in various parts of the Dominion, as well as for the support of a number of special rehabilitation centres. Toward the end of the year interdepartmental discussions were held to define the spheres of activity and to avoid overlapping between the Medical Rehabilitation and Crippled Children Grant and the Vocational Rehabilitation of Disabled Persons Act administered by the Department of Labour.

From a modest beginning in 1948, the demand for grants in support of research has continued to grow. This year was no exception. Funds available under the Public Health Research Grant were 96 per cent allocated and, in addition, substantial amounts were provided from the Mental Health Grant and the Child and Maternal Health Grant for research on specific problems related to mental illnesses and to diseases associated with childhood and maternity.

Support was continued toward provincial programs for the detection, control and treatment of cancer and, with the co-operation of the provinces, for the research and training activities of the National Cancer Institute of Canada.

Through a system of bursaries and the support of institutes, short courses and training schools of various kinds, the Professional Training Grant again contributed to the training of health personnel required to staff a growing health program and to keep those already employed abreast of new developments.

Publications

During the year, with the co-operation of the Information Services Division, news stories concerning new development originating in the grants program were made available to press, radio and television. Both general information and special articles were provided for the department's own publication "Canada's Health and Welfare".

In January 1962, a report outlining the achievements of the grants over their first 13 years of operation was published by the department under the title "National Health Grants, 1948-1961".

Administration and Expenditures

As in past years, consultants in the special divisions of the department continued to provide expert assistance in the assessment of health grant projects. These activities and information on the impact of the grants on their special interests are described in other sections of this report.

Plans for the utilization of health grant funds were discussed with each province at a series of meetings in Ottawa during the year, and from time to time officers of the administration visited most of the provinces for further discussions and to see specific projects in action.

Federal expenditures for the National Health Grants continued to rise and totalled close to \$49 million—an increase of more than \$1 million over 1960-61. Federal payments to the provinces and territories since the program began in 1948 now total more than \$447 million.

TABLE 6
EXPENDITURES UNDER THE NATIONAL HEALTH GRANTS FOR THE FISCAL YEAR 1961-62 BY PROVINCE AND GRANT

Province	GENERAL HEALTH GRANTS										Total Health Grants
	Hospital Construction Grants	Professional Training	Mental Health	Tuberculosis Control	Public Health Research	General Public Health	Cancer Control	Medical Rehabilitation and Crippled Children	Child and Maternal Health	Total	
Newfoundland.....	592,489	77,297	196,530	143,814	.....	360,386	12,782	112,546	32,222	935,577	1,528,066
Prince Edward Island.....	17,583	26,287	95,203	28,702	.....	140,657	14,559	13,089	7,147	325,644	343,227
Nova Scotia.....	1,139,928	75,187	370,252	138,441	56,812	773,072	48,398	34,288	52,671	1,549,121	2,689,049
New Brunswick.....	350,710	59,315	311,516	126,123	.....	479,853	124,399	94,928	39,230	1,235,364	1,586,074
Quebec.....	4,988,422	465,537	2,476,296	1,231,891	650,271	1,640,751	479,731	532,976	548,642	8,026,095	13,014,517
Ontario.....	7,620,395	402,025	2,603,024	729,431	595,024	2,677,166	1,170,499	251,633	393,979	8,822,781	16,443,176
Manitoba.....	1,191,392	77,515	426,479	167,861	95,217	689,087	181,408	129,785	76,572	1,843,924	3,035,316
Saskatchewan.....	761,446	71,382	405,979	159,210	63,455	659,387	183,505	97,647	67,629	1,708,194	2,469,640
Alberta.....	1,328,445	126,004	637,666	215,218	90,093	1,039,130	254,623	113,413	61,134	2,537,281	3,865,726
British Columbia.....	1,009,186	66,618	692,502	274,333	59,215	1,146,620	312,907	233,330	109,217	2,894,742	3,903,928
Northwest Territories.....	.....	290	.....	12,000	7,009	53,614	2,500	1,279	.....	76,692	76,692
Yukon.....	.....	.....	22,000	22,342	.....	.....	.....	.....	.....	44,342	44,342
TOTAL.....	18,999,996	1,447,457	8,237,447	3,249,366	1,617,096	9,659,723	2,785,311	1,614,914	1,388,443	29,999,757	48,999,753

RESEARCH DEVELOPMENT

The Research Development Section has several functions. A major one is the co-ordination of the department's extramural and intramural research programs whose aims are to preserve and to improve still further the health of Canadians. Technical administration and over-all review of research under the National Health Grants Program are also provided. The principal medical officer of the section is an advisor to the department on medical research policies generally. He is also the scientific representative for the department on advisory bodies of other governmental research sponsoring groups, e.g., The Medical Research Council, The Defence Research Board, The Department of Veterans Affairs, and voluntary groups such as the National Cancer Institute.

Total Assistance For Research 1961-62

In the fiscal year 1961-62, excluding indirect support by other governmental departments, the department made available \$5,838,408 or about 32 cents per capita, for its intramural research plus its extramural grants-in-aid of medical research programs.

Intramural Research

Within the department, as indicated in Table 7, research is carried out in the laboratories or clinic services of the Health Branch, while in the Administration Branch studies are conducted in the socio-economic field. From estimates provided by the reporting units, the intramural research budget was placed at a total of \$1,792,000 of which 76 per cent was for the Health Branch; within that branch 58 per cent was for the Health Services Directorate and 32 per cent was for the Food and Drug Directorate.

The percentage distribution of the \$1,792,000, by units, was as follows: Food and Drug Directorate, 24 per cent; Research and Statistics Division, 21 per cent; Laboratory of Hygiene, 17 per cent; Occupational Health Division, 11 per cent; Radiation Protection Division, 10 per cent; with other divisions accounting for smaller percentages.

Extramural Research

The extramural research program consists of grants-in-aid of medical research sponsored by the provinces and conducted in universities, hospitals and other institutions from funds provided under the National Health Grants Program. An aggregate of \$4,046,408 was allocated to assist research under several grants of the program as indicated in Table 8.

Amounts Allocated by Grant. The amounts allocated varied according to the grant. The Public Health Research Grant accounted for 43 per cent of the total allocations, the Mental Health Grant for 21 per cent, the Child and Maternal Health Grant for 14 per cent, and the Cancer Control Grant for 6 per cent. The total sum allocated for 1961-62 represents an increase of \$562,954 over the

total allocated for a similar period in 1960-61 with certain increases being made as follows: \$295,232 for the General Public Health Grant, \$144,420 for the Public Health Research Grant, \$67,140 for the Mental Health Grant, and \$35,058 for the Child and Maternal Health Grant. Such gains are encouraging particularly for the Mental Health and the Child and Maternal Health Grants which are used extensively to assist in improving the health services in the fields designated by the names of these grants.

Cancer Research. The \$235,221 allocated for Cancer Research includes assistance to the Ontario Cancer Treatment and Research Foundation to the extent of \$101,274. In addition, substantial provincial contributions were also made to cancer research in Canada.

Other Assistance. Assistance to universities, hospitals and research institutes continued by purchase of equipment, bursaries and other forms of support as requested by the provinces.

Other Activities

Other activities of the section included: consulting visits by its professional staff to research centres in various provinces; the conduct, with the co-operation of other departmental divisions, of an extensive survey on scientific research and development under the aegis of the department as requested by the Royal Commission on Government Organization, 1961.

TABLE 7
SUMMARY OF INTRAMURAL RESEARCH PROGRAM

Division	Research Budget Forecast: In \$(000's)		
	Operating	Capital	Total
Health Branch:			
Food and Drug Directorate.....	391	40	431
Indian and Northern Health Services Directorate.....	137		137
Medical Advisory Services:			
Civil Aviation Medicine Division.....	3		3
Health Services Directorate:			
Laboratory of Hygiene.....	288	17	305
Occupational Health Division.....	171	28	199
Radiation Protection Division.....	138	46	184
Nutrition Division.....	41		41
Epidemiology Division.....	25		25
Dental Health Services.....	22	1	23
Public Health Engineering Division.....	8		8
Mental Health Division.....	6		6
Blindness Control Division.....	1		1
Total for Health Branch.....	1,231	132	1,363
Administration Branch:			
Research and Statistics Division.....	370		370
Library.....	47	12	59
Total for Administration Branch.....	417	12	429
Total for Departmental Research.....	1,648	144	1,792

TABLE 8
ALLOCATIONS FOR RESEARCH UNDER THE NATIONAL HEALTH GRANTS PROGRAM—1961-62

Province	Mental Health	Tuberculosis	Public Health Research	General Public Health	Crippled Children and Medical Rehabilitation	Child and Maternal Health	Cancer ^a Control Grant	Total
Newfoundland.....							10,000.00	10,000.00
Prince Edward Island.....							2,963.80	2,963.80
Nova Scotia.....	26,143.96		83,126.30	660.00		19,353.90	15,000.00	144,284.16
New Brunswick.....							12,440.00	12,440.00
Quebec.....	341,724.31		650,309.46	193,362.23	16,151.70	203,813.40	36,209.60	1,441,570.70
Ontario.....	260,786.44	71,477.00	645,131.52	253,650.66 ^b	56,933.31	259,729.77	142,258.00	1,689,966.70
Manitoba.....	42,741.70		104,949.01			7,385.00	6,350.00	161,425.71
Saskatchewan.....	116,646.03		78,395.84			22,598.00		217,639.87
Alberta.....			94,252.17		9,200.00	5,000.00		108,452.17
British Columbia.....	76,607.16		67,013.65	49,643.86 ^c		46,300.26	10,000.00	249,564.93
Northwest Territories.....			8,100.00					8,100.00
Total.....	\$864,649.60	\$71,477.00	\$1,731,277.95	\$497,316.75	\$82,285.01	\$564,180.33	\$235,221.40	\$4,046,408.04

^aThe amounts of the Cancer Control Grant used to assist research under the National Cancer Institute are given by provinces. Data for Ontario include: \$101,274.50 for research of the Ontario Cancer Treatment and Research Foundation plus \$40,983.50 for the National Cancer Institute.

^bIncludes \$232,060.66 for the purchase of research equipment.

^cFor the purchase of research equipment.

Note: Amounts allocated as of March 20, 1962.

SPECIAL HEALTH SERVICES

BLINDNESS CONTROL DIVISION

The main activities of the division can be classified under three headings—Blindness Allowances, Treatment Plan and Health Grants.

Blindness Allowances

While the provinces handle the administration of Blindness Allowances, the reports of the eye examinations of applicants are reviewed in the Blindness Control Division, and certificates are issued to the provincial authorities. The Blindness Allowance program is unique in that the rulings on the medical eligibility of applicants in all provinces are made by one reviewing agency. Over 1,750 eye examination reports were reviewed during the year, as well as some 8,000 reports from provincial field workers.

On March 31, 1961 there were 8,642 recipients of Blindness Allowance among the 24,117 blind persons registered with the Canadian National Institute for the Blind. As in the preceding two years, the number of recipients decreased slightly during the year. At the end of March 1962 there were 8,572 recipients.

An analysis of the causes of blindness among the persons granted an allowance during the year showed that cataracts, and congenital and developmental conditions were the two chief categories of disease causing blindness. There are indications that some degree of control of glaucoma as a cause of blindness is being achieved. Surveys carried out in 1946 and 1954, based on the C.N.I.B. register of blind persons, indicated that glaucoma was responsible for 11 to 12 per cent of blindness. Figures from other countries have quoted somewhat higher percentages for some surveys. Among the persons granted a Blindness Allowance during the year, glaucoma was the cause of blindness in 9 per cent of the cases. While further studies will be needed to determine if the incidence of blindness from glaucoma is indeed decreasing, this preliminary figure is encouraging when one considers that the disease occurs in 2 per cent of people over 40 years of age, and the number of cases is increasing, with the rising number of people over 40 in our population.

Treatment Plan

This plan is conducted in co-operation with nine provincial governments as a means of restoring vision to recipients of Blindness Allowance. Treatment of 112 cases was completed during the year. This is the largest number for any year since the plan was started in 1948. There were 90 successful cases, whose vision following treatment was better than 20/200, and who were therefore no longer blind. This is a very high percentage of successful results, especially in view of the fact that the operative prognosis was frequently a guarded one because of the presence of complications, or far advanced disease.

TABLE 9
TREATMENT CASES

Year	Treated	Successful	Unsuccessful
1954-55	53	44 (83%)	9 (17%)
1955-56	83	62 (75%)	21 (25%)
1956-57	54	44 (81%)	10 (19%)
1957-58	94	68 (72%)	26 (28%)
1958-59	88	72 (82%)	16 (18%)
1959-60	105	88 (84%)	17 (16%)
1960-61	105	80 (76%)	25 (24%)
1961-62	112	90 (81%)	22 (19%)

Since the inception of the treatment plan, 943 cases have been treated, 652 (or 78 per cent) successfully. The distribution of treatment cases among the various provinces is shown in the following table.

TABLE 10
DISTRIBUTION OF TREATMENT CASES

	This year	Since 1948
Newfoundland	3	12
Prince Edward Island	—	3
Nova Scotia	5	40
New Brunswick	13	124
Quebec	69	430
Ontario	17	188
Manitoba	2	21
Saskatchewan	3	25
TOTAL	112	943

Health Grants Projects

(a) *Glaucoma Clinics.* The chain of clinics was augmented with the opening of a new glaucoma clinic in Hull, Quebec. Clinics are now operating with Health Grants assistance in Saint John, N.B., Halifax, Quebec City, Montreal (3 clinics), Sherbrooke, Chicoutimi, Hull, Ottawa, Toronto, London, Winnipeg, Saskatoon and Victoria. There are approximately 8,000 cases of glaucoma registered with these glaucoma clinics, and it is felt that the work of the clinics is of outstanding importance in preventing loss of vision due to glaucoma.

(b) *Eye Research.* Basic and clinical research projects in the field of ophthalmology have received Health Grants support during the past year. These projects are directed at some of the chief causes of blindness in Canada including glaucoma, diabetic retinopathy, retinal detachment, corneal diseases and amblyopia.

- (c) Health Grants support has been continued for other projects in the blindness control field, including children's eye clinics, visual screening of school children, a low vision clinic, orthoptic services and training of technical personnel for some of these projects.

Clinical Consulting Service

During the year the chief of the division conducted a weekly eye clinic at the Civil Service Health Division's Medical Centre. The majority of the cases seen were referred by Civil Service Health nursing counsellors, because of visual complaints having some relationship to the employee's work. In addition, the appraisal of Keystone visual tests of Topographic Survey employees of the Department of Mines and Technical Surveys was continued.

Educational Material and Publications

The division co-operated with the Information Services Division in the production of two radio scripts, one "The Gathering Mist" dealing with cataracts, and the other, "The Cloud" dealing with the restoration of vision by corneal transplant surgery.

The leaflet on glaucoma which first appeared in "Canada's Health and Welfare" in 1958 and which has enjoyed wide distribution, was brought up-to-date and is being reprinted. The preparation of this material coincided with the observance of the World Health Organization's World Health Day, April 7th, 1962, dedicated to the preservation of sight.

Glaucoma Conference

The First National Conference on Glaucoma was convened by the Department of National Health and Welfare in Ottawa on March 19th and 20th, 1962. It was attended by 25 leading oculists from across the country including glaucoma clinic directors and eye specialists from medical centres engaged in glaucoma work. One of the chief purposes of the conference was to consider the adoption of standardized recording of clinical data in glaucoma clinics, and a committee was appointed to study this matter. The conference also considered the possibility of collaborative research studies as well as other problems related to glaucoma. This conference was a significant event, in that it was the first time an authoritative group of ophthalmologists has met with a government agency to consider the public health aspects of the glaucoma problem.

CHILD AND MATERNAL HEALTH DIVISION

The division is charged with the responsibility of providing national leadership in the field of maternal and child health. Its goal is optimum health for Canadian families in a rapidly changing society. The program includes the stimulation, development, extension and co-ordination of comprehensive health programs and services for mothers and children, both the well and the handicapped.

Efforts towards these ends are made through co-operation and liaison with provincial health departments, specifically with Maternal and Child Health Divisions and with Divisions of Public Health Nursing, with the Maternal and Child Health Advisory Committee and its three subcommittees, with national health groups and professional organizations.

Our concern is with a large proportion of the country's population. Using the vital statistics for the year 1960, out of a total population of 17,814,000, 5,975,000 were under the age of 15. Also the 478,551 live births are another indication of the number of Canadians in the younger age groups.

Infant Mortality

One of the accepted health indices, the infant mortality rate, has decreased slowly but steadily to the present rate of 27 per 1,000 live births. However, there are 11 countries with comparable standards of living which have lower rates. The five main causes of death in order of importance are immaturity, congenital malformation, asphyxia, pneumonia and injury at birth. To reduce infant mortality, demands improved and extended protective measures against afflictions of the very young; other problems of the growing child and the young adult must be faced. Accidents, for example, are taking a heavy toll of the young population.



Built on love and security, the well adjusted family achieves a balance in meeting its physical, emotional, social and spiritual needs. This mother takes care to arrange for her two young children to listen, observe and express, thereby contributing to their total development.

Maternal Mortality

Another one of the health indices, the maternal mortality rate, is also decreasing. Two hundred and fifteen mothers died in 1960 as compared with 263 in 1959. This is a maternal mortality rate of 45 per 100,000 live births. The main causes are toxæmia, haemorrhage and sepsis.

Morbidity

There is much less precise information available on childhood diseases which are not fatal, but more attention is being given to the early recognition and specialized treatment of conditions causing disabilities: the division endeavours to encourage organizations in the systematic registration of handicapping conditions and in the collection of statistics on illnesses.

Although much of our work is of an indirect nature, involvement in a wide variety of situations and events affecting Canada's younger age groups, comprises an interest of considerable magnitude.

Our program may be considered under the following inter-related functions:

- (1) rendering consultative service,
- (2) assistance in administration of National Health Grants,
- (3) preparation of health education materials,
- (4) study of current programs and problems, chiefly through advisory groups and national organizations.

Consultative Service

Other agencies within the department requested and received advice and assistance, such as lectures at the Civil Defence College, Arnprior; collaboration with the Epidemiology Division and the Food and Drug Directorate in the department's Poison Control Program, consultation with the Hospital Design Division on design of nurseries and pediatric units; collaboration with Indian and Northern Health Services on institutes for their nurses and in the preparation of child health materials. Assistance was given to the Canadian Pediatric Society in its survey of scurvy in Canada.

Visits were made to 7 provincial health departments by the chief of the division and the medical consultant. The nursing consultant visited 4 provinces and conducted 5 institutes of one or two weeks duration. Provincial visits include observation and discussion of provincial health programs and the use of health grant funds for research, service and training.

Health Grants Program

As might be expected, the present pattern of utilization of health grant funds varies widely among provinces, depending on the nature and extent of maternal and child health problems, existing services, and provincial policy on utilization.

The Child and Maternal Health Grant available to provinces is \$1,750,000, with a good proportion of the funds expended yearly (see Table 11). All applications submitted by provinces are reviewed by the division and other consultants concerned.

Grant funds are assisting in the support of a number of provincial maternal and child health consultant services and the professional training of provincial consultants. Training of short term nature is being given in three areas especially—prenatal teaching, care of the newborn, and aseptic techniques. Assistance is given with programs for children with speech, hearing and vision problems, administration of registries for handicapped children, dental care programs for children, treatment of Rh disease in newborn infants, and genetic counselling.

Although our grant is primarily a service one, it does have a research component. Funds are assisting in the expansion of research programs in obstetrics and pediatrics in Canadian centres. Important areas being explored are obstetrical problems, respiratory problems of the newborn, childhood diseases of infectious origin, blood disorders in the mother and baby, problems of chronic disability

through genetic studies, some forms of mental retardation of metabolic origin, surgical problems, eye disorders, and conditions of metabolic and nutrition nature. The solution of these problems should improve maternal and neonatal survival and also contribute to our understanding of the causes and prevention of chronic disability present at birth or originating in early childhood.

Educational Materials

Care is taken to prepare materials considered basic and essential for the promotion of health of Canadian mothers and children. Needs and priorities of new and revised materials are made known to us chiefly through provincial maternal and child health personnel. Through consultation, provincial health authorities also participate in the preparation and revision of publications. Printing orders of "Canadian Mother and Child" continue to be under the jurisdiction of Treasury Board. This book retains its position as our largest and most popular publication, supplies being far below the demand. The rewriting of this book is underway and is at present a major undertaking of the division. A pamphlet and poster entitled "Protect By Immunization" replacing the previous ones were completed and distributed. A copy of the film "The New Baby" has been forwarded to each provincial health department and additional copies in English and French are available from The National Film Board. The "Children's Health Chart" directed to children in Grades 1, 2 and 3 has been completely revised and it will be accompanied by a poster on children's health activities.

Study of Current Programs and Problems

The Maternal and Child Health Advisory Committee met for the fourth consecutive year. Some of the subjects discussed were provincial programs health grants, health educational materials, blood testing for phenylalanine levels, poison control programs, infantile scurvy, iron deficiency anaemia, and height-weight charts in school health services. One of the committee's recommendations was that there be more emphasis in health supervision of the 12-16 year age group of our population with particular reference to anaemia and poor dietary habits.

The main activities of its three subcommittees are as follows:

(1) Subcommittee on Research

Fifty applications submitted under the Child and Maternal Health Grant were reviewed and support recommended at the level of \$475,000. The subcommittee also reviewed 12 projects relating to maternal and child health submitted under the Public Health Research Grant. Due to the increase in number of projects with a biochemical component, a biochemist was added to the subcommittee. Members also assisted Research Development in setting up a comprehensive program of health needs and priorities by forwarding their views on the needs in the field of maternal and child health.

(2) Subcommittee on Standards of Care

As recommended by this group a Survey of Maternal and Newborn Care in Canadian Hospitals was carried out in 195 hospitals through provincial health departments. Most of the preliminary findings have been tabulated and

were discussed in meeting. Tabulations will be completed and tentative plans were discussed for the formulation of a Canadian Standard of Care in this area.

(3) Subcommittee on Statistics

A survey carried out by the division by means of a mailed questionnaire revealed that 11 perinatal mortality studies are being carried out throughout the country. They differ considerably in their objectives, plans of study and methods of operation.

Among the subcommittee's recommendations were definitions of "perinatal period" and "perinatal mortality rate". The working party of this subcommittee set up to study the classification of causes of perinatal morbidity and mortality completed one part of its study. Work is continuing and a report will be made available to Canadian authorities having responsibility for formulating Canadian opinion for the 1965 Revision of the International Statistical Classification of Causes of Death.

TABLE 11
EXPENDITURE OF NATIONAL HEALTH GRANTS
1953-1962

Child and Maternal Health Grant	Funds Available	Funds Expended	Per Cent Expended
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.....	2,000,000	1,700,420	85
1959-60.....	2,000,000	1,842,161	92
1960-61.....	1,750,000	1,423,176	81
1961-62 ^a	1,750,000	1,388,442	79

^aPreliminary figures.

DENTAL HEALTH DIVISION

The work in this division is directed to the improvement of dental health in Canada, through co-operation with provincial departments of health, the Canadian Dental Association and its related professional groups, the dental schools, dental research bodies and all other interested organizations.

It seeks to achieve this purpose by the promotion of health education; by conducting and encouraging research; by the development and use of epidemiological methods for the appraisal of dental disease and abnormalities and for the evaluation of preventive measures; by providing consultative services to the provinces, to other divisions and directorates of the department, to other federal agencies and to dental organizations in and beyond Canada.

Research

The total native continuous-resident population of Ingersoll, Ontario, aged six to fifteen years, was dentally examined (about seven hundred), and their oral conditions recorded. This was done for the purpose of studying the dental effects of life-time consumption of a water supply containing 1.8 parts per million of fluoride. The data obtained are being analyzed.

The division co-operates with the Dental Research Department of the University of Toronto by obtaining and supplying extracted teeth from children born in Brantford since fluoridation began there. Analyses of these teeth are carried out in the university laboratories in order to find out how fluoride affects tooth composition and structure.

Health Education

The division co-operates closely with other divisions of the department who have related health education interests, and also with the dental divisions of the provincial departments of health. It is the chief source in Canada of dental health education materials used in schools and health units.

This year one new poster and three radio scripts were produced.

Consultative Services

Consultative services on dental programs and related matters are provided for the provincial health departments through correspondence and annual visits. The division collaborates with all other units of the department whose work has some bearing on dental matters. It works closely with Medical Services Directorate, Food and Drug Directorate, Research and Statistics, Public Health Engineering, Child and Maternal Health and Emergency Health Services.

Liaison is maintained with the Canadian Dental Association and with the six dental schools.

Other Functions

A newsletter designed for the exchange of information and views among those engaged in dental health and related work is published quarterly, with the co-operation of provincial dental divisions.

An information service is provided on preventive and public health dentistry and on dental matters generally. An extensive correspondence relating to those areas is carried on within Canada and beyond.

Articles are prepared for dental and scientific journals. Two lead articles for the Journal of the Canadian Dental Association were provided this year.

EMERGENCY HEALTH SERVICES DIVISION

The Emergency Health Services Division provides advice and assistance to federal, provincial and municipal authorities, and to other agencies, on health planning for emergencies. The division administers five major programs.

Continuity of Government

With the state of increased international tension in the autumn of 1961, the division accelerated this program, with the creation of an interim emergency organization and assigned emergency roles to selected departmental staff. Essential records and data were collected and duplicated.



Two nursing counsellors of the Civil Service Health Division are seen demonstrating the set-up of one of the operating rooms of an Emergency Hospital. Many of these treatment units are being stockpiled by the Emergency Health Services Division of the Department of National Health and Welfare.

Organizational Program

The division placed increased emphasis on the creation of provincial emergency health planning staffs with considerable success. Three provinces increased their existing staffs. One province established and three provinces took steps to establish a staff. When this action is complete, eight provinces will have a full-time emergency health planning organization.

As a result of a conference with the Council on Hospital Accreditation, hospital disaster planning has been made a requirement for accreditation. Together with this increased stimulus to preparedness for hospitals, the division stressed the need for municipal emergency health planning, preparing organization guidelines for the municipal director when appointed.

The Special Weapons Section completed a study interpreting forecasted fallout data in relation to the siting of health installations.

Information Program

All sections of the division continued to provide consultative advice to the Emergency Measures Organization and other federal and provincial agencies. The requirement for this service was markedly increased over previous years.

A bilingual brochure "Family Health Planning for Disaster" was prepared and 20,000 copies distributed. Displays in both French and English were prepared for public exhibition.

A manual on "Emergency Blood Services" was published. In conjunction with Information Services Division a number of feature articles and news releases were provided to the press.

Educational Program

The division has been accredited as a St. John Ambulance Special Centre for training in first aid and home nursing. During the year 103,000 lay persons were trained in first aid through the St. John Ambulance Association, of whom 4,600 were federal civil servants. Approximately 17,000 lay persons completed courses in home nursing conducted under the auspices of the St. John Ambulance Association and the Red Cross Society. This training was made available to federal civil servants for the first time through co-operation of the Civil Service Health Division. Approximately 140 persons completed the courses which were conducted by nursing counsellors within their health units.

The division conducted health courses at the Canadian Civil Defence College training:

	1961/62	Total (to date)
Physicians	58	558
Dentists	20	120
Hospital administrators	60	120
Nurse educators	131	631
Nurse specialists	84	334
Pharmacists	50	332
Veterinarians	107	207
Casualty simulation instructors	30	200

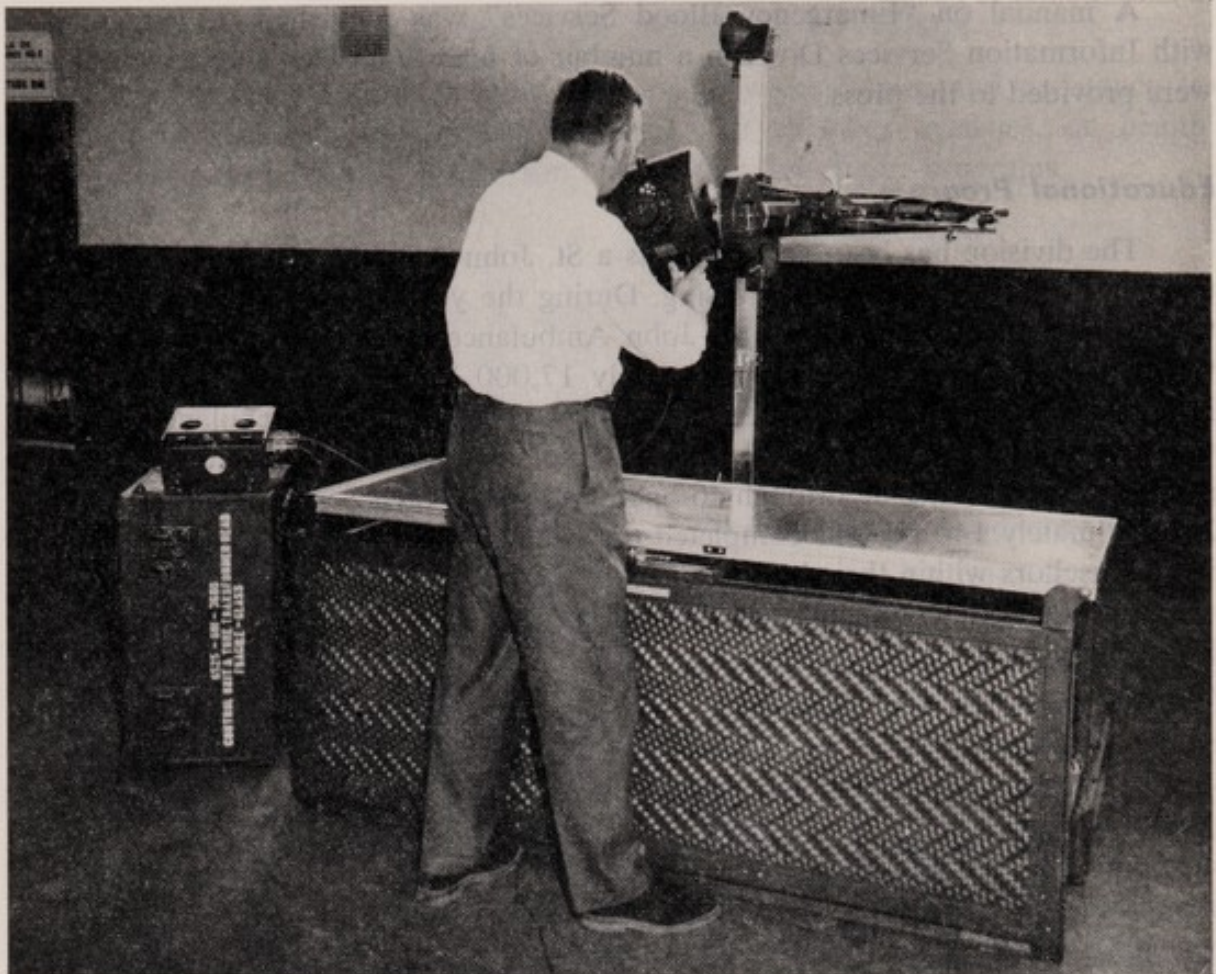
In October 1961, the division conducted a seminar on radiation for the Ontario Public Health Association and in January 1962, conducted a hospital disaster institute in Moncton, New Brunswick, in conjunction with provincial authorities. In March, the division conducted a one-day symposium for the Hamilton Academy of Medicine. In addition, the officers of the division undertook a large number of lecture assignments to undergraduate and postgraduate professional groups.

Health Supplies Program

At the end of the fiscal year, procurement action had been taken on \$14 million of \$18 million authorized. Deliveries totalled over \$11 million with approximately \$6 million packaged and distributed to regional depots.

A temporary regional depot has been established in Nova Scotia and additional storage space provided in Manitoba. Five provinces entered into agreement on pre-positioning hospital disaster kits with 76 approved hospitals receiving supplies during the year.

A resources planning unit has been organized and surveys of manufacturers, wholesalers and retailers were developed.



This is a special field type 15 M.A. X-Ray unit that is complete with table, fluoroscope, control panel and generator. Equipped to use a polaroid film which can be developed in 10 seconds, it will be used in the Emergency Hospital.

Advisory Committees

The Emergency Health Services Advisory Committee met twice during the year to discuss problems relating to the control of health manpower and supplies. The Canadian Medical Association convened a working party to examine the role of the physician and other health workers in an emergency.

Other Activities

In conjunction with the Hospital Design Division, pilot studies on fallout protection in hospitals were carried out.

In conjunction with the Occupational Health Division, a paper on industrial health services in an emergency was developed.

The division conducted a study on the location of medical manpower and hospital beds in relation to potential target areas. This study resulted in recommendations on a pre-emergency assessment of manpower.

EPIDEMIOLOGY DIVISION

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

RESEARCH

Staphylococcal Infections in Hospitals

The division assisted in the work of the National Research Council Associate Committee on Control of Hospital Infections by tabulating and analyzing reports of staphylococcal infections from hospitals which participated in a study in 1959. The report of this study has been released for publication in 1962.

Survey of Mortality in Relation to Residence, Occupation and Smoking Habits

In 1955, the Epidemiology Division and the Research and Statistics Division, together with the Department of Veterans Affairs, undertook a continuing prospective study on the relationship of residence, occupations, and smoking habits to death from lung cancer and other selected causes among recipients of pensions through the Department of Veterans Affairs. A preliminary report was published in the March 1961 issue of the "Canadian Journal of Public Health". The study was also terminated in 1961, and final analysis of the data will be undertaken in 1962.

Survey of Organizations in the Field of Alcoholism in Canada

In 1961, the Epidemiology Division, the Mental Health Division and the Research and Statistics Division undertook a questionnaire survey of organizations in the field of alcoholism during 1960. The survey was designed to identify the type of organizations functioning in the field of alcoholism, the extent of their activities, and the nature and number of people in these organizations. A paper on this survey will be published in the Canadian Medical Association Journal.

Survey of Health Unit Services in Canada

In 1960, a joint questionnaire survey of local health services was undertaken by the Epidemiology Division, the Research and Statistics Division, and the School of Hygiene of the University of Toronto. The survey covered eight provinces excluding Quebec and Newfoundland and the report was published in 1961. A similar survey was subsequently made in Quebec in association with the School of Hygiene, University of Montreal. The results of this latter survey are now being tabulated.

Consultation

The division acted as consultant to other divisions and agencies conducting or developing research projects which contained an epidemiological component.

Oral Poliovirus Vaccines

The Epidemiology Division is represented on the National Technical Advisory Committee on Live Poliovirus Vaccines which was established in October 1959 to advise the Dominion Council of Health on all aspects relating to the introduction of live oral poliovirus vaccines in Canada. A trivalent form of vaccine was licensed for use in Canada in March 1962.

Tuberculosis

During the past year, consultations were held with several provinces to develop case registers in accord with the recommendations of the National Tuberculosis Conference, 1960.

The division continued also to review submissions for the allocation of National Tuberculosis Control Grants.

Accidents

The division is represented on various committees and organizations interested in accident prevention and is also represented on the Joint Committee on Traffic Accidents sponsored by national medical and other associations working in this area.

DISEASE SURVEILLANCE AND TECHNICAL INFORMATION

Communicable Disease

Publication of the "Surveillance Report of Epidemic or Unusual Communicable Disease" was continued, and in January 1962 it was published under the new title of "Epidemiological Bulletin". This change was made to enlarge the scope of the report to include other items of epidemiological interest. The report was distributed each month to medical officers of health and other professional personnel.

Paralytic Poliomyelitis

In 1961, 188 cases of paralytic poliomyelitis were reported to the Epidemiology Division for an attack rate of 1.0 per 100,000 population. This approximates the previously low rate in 1957 when 182 cases were reported for an attack rate of 1.1 per 100,000 population. A system of case reports completed at the local level and forwarded through provincial health departments, supplemented by telegraphic reports, enabled the division to provide current information on poliomyelitis trends.

Venereal Disease

The division continued to publish a semi-annual report of cases reported for the ten provinces and for eighteen of the larger Canadian cities.

In 1961, a total of 587 cases of primary and secondary syphilis were reported. This represents an increase of 28.4 per cent over the previous year. The number of cases of gonorrhoea reported in 1961 was 16,434, 746 more than in 1960. This was the greatest number of reported cases since 1949 when 17,145 cases were reported.

The division assisted provincial health departments in the follow-up of venereal disease contacts when requested.

Medical periodicals and reports of an epidemiological and statistical nature from various countries and the World Health Organization are regularly received by this division. Selected articles are indexed, abstracted and filed for ready reference. This information system serves several purposes including the answering of many enquiries from both medical and lay individuals.

During the past year, two bibliographies previously published by the division were revised for publication in 1962. These were the "Traffic Accidents Medical Bibliography" and the "Selected Canadian Public Health Reference of Epidemiological Interest".

HOSPITAL DESIGN DIVISION

The program of the Hospital Design Division is primarily directed to maintaining a consulting and advisory service related to the planning and construction of hospitals and health facilities. This includes examination of projects for federal Hospital Grants, performance of educational and research functions, and the responsibility for the production of building standards for hospitals and for other institutions related to public health and welfare.

Building Standards for Hospitals and Health Facilities

This was the keynote development in the Hospital Design Division program for the past year. The second draft of Part III was completed, being standards for Long Term Active Treatment Hospitals for the Chronically Ill, including rehabilitation, convalescent and geriatric care hospitals. This part has received priority because no complete manual of building information has been yet published in Canada for this category of hospital.

Target date for completion of the Part III standards is early 1963, at which time it is hoped also to have completed the general sections of the revised federal standards which are considered applicable to all categories of hospital. Progress was also made in the revision and expansion of Part I building standards, relating to general hospitals.

Information and Research

The division continued to collect, assess and make available the latest information on hospital design and equipment; to answer enquiries; to produce reports and to deliver lectures* on hospital planning developments; also to assist, promote and guide research studies in hospital building and equipment design, and in the operational requirements basic to construction standards, codes and design criteria. *(For example, at the request of the American Hospital Association, the keynote address was delivered to the Conference on Hospital Fire Safety, held in Chicago, March 1962.)

Special Architectural Consultation

By appointment, the division has been represented on several committees, such as the National Research Council Committee on the Control of Hospital Infections, the Canadian Standards Association Committee on Safety Code for

Hospital Hazards, and the Armed Forces Hospital Requirements Committee. The chief of the division acts as consultant to Treasury Board officials on all federally controlled hospital building projects, including D.V.A., Canadian Forces, Indian and Northern Health Hospitals. Similarly, the division has responded to requests for consultation, planning studies and written reports, from architects, from hospital boards, and from territorial and provincial hospital authorities. Assistance was also given the Welfare Branch in producing public swimming pool standards, and by making recommendations for facilities related to the Fitness and Amateur Sport Program.

Fallout Protection for Hospitals

A study was completed of the measures recommended for the protection of hospital patients and personnel against the effect of ionizing radiation from fallout, in the possible event of nuclear warfare on this continent. A paper summarizing this work was prepared for publication in the "Journal of the Canadian Hospital Association", and "L'hôpital d'aujourd'hui".

Hospital Construction Grants

The division continued, within the terms of the "General Health Grants and Hospital Construction Grants Rules, 1961" to examine all construction projects presented in application for grant, to calculate and recommend the amount of federal grant assistance in each submission.

TABLE 12

HOSPITAL CONSTRUCTION GRANT—APPROVALS SINCE 1948

	1948-62	1961-62
Grants toward all construction	\$181,817,900	\$30,287,900
Grants toward renovation projects	11,483,900	3,358,800
Patient beds of all types approved for grant purposes	101,322	11,027
Newborn bassinets approved for grant purposes	12,633	977
Nurses' beds (residence) approved for grant purposes	20,495	2,718
Internes' beds (residence) approved for grant purposes	663	121

LABORATORY OF HYGIENE

The Laboratory of Hygiene performs an important function in public health in Canada as the national public health reference laboratory, providing consultative and technical services in the laboratory diagnosis of disease, in the control of special biological drugs, and carrying out research in these and related problems.

Bacteriological Laboratories

Enteric Bacteriology: Enteric disease (typhoid-dysentery-gastroenteritis), despite the improvements in general sanitation and hygiene, continues to be a serious health problem in Canada. Identification of the more than 1,000 different serotypes of the bacteria capable of producing these infections is a difficult and complex procedure. These laboratories serve as the National Reference Centre for the identification of these bacteria and 2,204 specimens were received for identification during the year. This is an increase of 10 per cent more than last year. This centre also prepared and distributed more than 373,000 ml of diagnostic reagents (antigens and antisera) to the provinces to aid in their enteric bacteriological work. Three *Salmonella* serotypes, not previously found in Canada—*S. mikawasima*, *S. takoradi* and *S. livingstone*—were isolated from human cases of infection in Ontario. One of the most significant observations during the year was the spectacular rise of *S. thompson* to predominance among the *Salmonellae* types isolated from humans. This is particularly interesting in view of the finding of this type in a high proportion of egg-containing cake mixes on the Canadian market. Another interesting observation was the marked increase of *Shigella flexneri* 2 dysentery during the year.

Staphylococci: As the National Reference Centre for the Bacteriophage Typing of Staphylococci, this laboratory received 3,213 cultures—twice the number received last year—for identification, and distributed 207 typing phages and 237 standard propagating strains to other laboratories. This laboratory also took part in an international comparative study of typing performance and arranged a national evaluation of performance study in which 6 of the provinces participated. It also acted as one of the referee laboratories in a phage-typing evaluation program conducted in the United States. A long term collaborative study with Queen's University of staphylococcal carriers was completed as was also research on lysogeny in a coagulase-negative staphylococcus, a paper on which has been published.

Other Bacterial Groups: This laboratory continued to provide a national service in the typing of *C. diphtheriae* and of haemolytic streptococci. Over 1,100 cultures of *Strep. pyogenes* and 54 cultures of *C. diphtheriae* were received and typed and 974 ml of diagnostic streptococcal antisera were prepared and distributed to the provinces during the year.

Sanitary Bacteriology: This unit assists the Division of Public Health Engineering and the Department of Fisheries in the control of shellfish-producing areas in the Atlantic Maritime Provinces. A total of 1,676 shellfish extracts were submitted for bioassay of shellfish poison during the year—an increase of 66 per cent over the previous year. A collaborative study of the poison with the Defence Research Board was completed and a new project in collaboration with the Fisheries Research Board was started. A study of pollution in the Rainy River, Manitoba, begun in 1960 under the auspices of the International Joint Commission on Boundary Waters was continued during the summer of 1961 and a comprehensive report was prepared for the commission. Two papers on coliform bacteria, summarizing the research of several years, were published. The senior officer of this unit assisted the director in a survey of sanitary bacteriology facilities and services in the 18 regional and associated laboratories of the Ontario Department of Health.

Biologics Control Laboratories

These laboratories primarily provide consultative and technical services to the Food and Drug Directorate in the control of biological drugs such as vaccines, toxoids, serum preparations and antibiotics. An important aspect of this control is the inspection of establishments for the purpose of granting them a licence or of permitting them to hold a licence to sell such products in Canada. Sixty-six firms now hold a Canadian Biologics Licence and 40 inspections were carried out during the year by officers of this section. Identity, potency, safety, pyrogen and sterility tests are carried out on market samples and samples submitted by the manufacturers. During the year, 893 specimens of "biological" drugs from 101 manufacturers were tested and 14 were rejected as unsatisfactory. Potency tests were performed on 723 specimens of antibiotics, necessitating 3,860 assays. Of these, 48 preparations for human use and 23 lots of sensitivity discs were found unsatisfactory and refused distribution in Canada. Research related to these drugs constitutes an important aspect of the work of this section. New and improved methods of assay are being continuously studied.

Considerable research has been carried out on the development of new vaccines. Field trials of a new vaccine, developed against staphylococcal infections in both man and animals, are presently being conducted by several groups throughout the country. Attempts are being made to arrange a field trial of a new Laboratory of Hygiene typhoid vaccine and attempts to develop new vaccines against whooping cough, streptococcal and meningococcal infections, and tuberculosis are being actively pursued. Studies have also been continued on the chemotherapeutic action of tuberculostatic drugs and the mode of action *in vivo* as well as *in vitro* of antibiotics. Some 10 scientific papers were published by this section. We are pleased to have working with this section a postdoctorate fellow from Japan.

Biochemical Research Laboratories

The research program of this section has proceeded along generally similar lines of investigation to those outlined in previous reports.

Studies on the precise amino acid requirements of normal and malignant cells in tissue cultures have been continued and extended. Previous studies on the carbohydrate metabolism of normal and malignant cultures have been continued. Carbohydrate analogues, such as 2-deoxy-D-glucose and 2-deoxy-2-galactose, have been shown to be toxic to the cultures, and the ability of a wide variety of carbohydrates to reverse this toxicity has been investigated. Cell metabolism studies reported last year have been extended to additional cell strains of malignant origin, with particular reference to glutamine metabolism of these cells.

A new method for the specific determination of histidine in biological materials is under development. Improvements have been made to the high voltage electrophoresis apparatus and new methods are being developed to permit the large scale separation and purification of biological materials by both high voltage electrophoresis and conventional paper chromatography.

Previous studies on the *in vitro* anti tumour activity of fatty acids have been extended to a considerable series of new test compounds—an extensive series of unsaturated fatty acids, various substituted fatty acids and derivatives, lecithins and a series of fatty acid-amino acid compounds.

A new type of subcellular transmissible agent has been isolated from the Ehrlich ascites carcinoma strain carried in this laboratory for the past several years. Cell-free supernatants from the ascites tumour have been found to produce typical ascites tumours when inoculated into mice. This agent does not appear to have been recorded previously and has now been established as a specific tumour line through more than 30 successive transplant generations by cell-free supernatants. The agent has been found to be sensitive to ultra-sonic treatment and to be unable to pass through any of the common types of bacteriological filters. Studies carried out in collaboration with Dr. S. Federoff of the University of Saskatchewan have demonstrated that tumour cells produced by this new agent possess an unusual chromosome complement. Attempts are now being made to passage this new agent in a variety of cell lines in tissue culture.

The presence of a second transmissible agent has been demonstrated in the Ehrlich ascites tumour. This agent can be passed through bacteriological filters and produces a leukemia-like condition in mice. The effect of this agent on the histology of the reticular and lymphatic tissues of mice is under investigation and its serial propagation in both new-born and adult mice is being attempted.

Studies on the effects of staphylococcal toxins on chick embryonic heart tissue cultures have been continued. Each of the individual toxins has been found to produce a characteristic cytopathic effect on the cells. A number of staphylococcal exo-cellular products have been investigated and two products previously unrecognized have been demonstrated. Staphylococcal deoxyribonuclease has been partly purified and a method developed for its determination.

A number of cell cultures, tumour-bearing mice, tissue culture media and specific staphylococcal antitoxic sera were distributed during the year on request to interested investigators.

Five scientific papers by members of the section were published, two have been accepted for publication and another 11 are being prepared for publication. In addition 17 lectures and papers were delivered by section officers during the year.

Clinical Laboratories

Clinical Chemistry: Analytical procedures in clinical chemistry are subjected to comparative study and new equipment, reagents, standards, and diagnostic kits appearing on the market are evaluated. A research program designed primarily to develop methods for the early detection of chronic disease has been initiated, and consultant services in clinical chemistry are offered to hospital and public health laboratories.

Work on the "Manual of Clinical Chemistry for Hospital Laboratories" has been continued and new outlines of procedure prepared. A total of 1,755 copies in English and 266 copies in French have been distributed, mainly to hospital and public health laboratories. The manual is in loose leaf form and an up-to-date mailing list is maintained so that new outlines and revisions may be added from time to time. During the year the following additions were made to the manual: (1) One-stage Prothrombin Time of Plasma and (2) The Photometer or Photoelectric Colorimeter. The following outlines have been completed and will be

distributed shortly: (1) Serum Uric Acid (2) Hemoglobin in Blood and (3) Acid and Alkaline Phosphatases in Serum.

An extensive survey of commercial control serum preparations was initiated. In the past few years, many of these preparations have appeared on the market and are being used extensively in hospital laboratories.

Syphilis Serology: This laboratory serves as the national reference centre for syphilis serology. All provincial public health laboratories use reagents for the serodiagnosis of syphilis which have been prepared and standardized at this laboratory. During the year, 79,162 ml of such carefully standardized diagnostic reagents were distributed.

Serological proficiency surveys are conducted every second year. The tenth such survey in which all ten provinces collaborated was completed during the year.

The Treponema Pallidum Immobilization (TPI) test, a highly technical and specific test for syphilis, is performed as a service to provincial public health laboratories. During the year 1,021 blood samples were examined by this procedure.

Studies on the survival of virulent *T. pallidum* in synthetic media were continued. By determining the nutrient requirements, it is hoped eventually to cultivate this fastidious organism *in vitro*.

The effect of various levels of calcium ion in saline on the hemolytic activity of complement and on the sensitivity of the Kolmer complement fixation test was also investigated.

Three scientific papers have been accepted for publication.

Virus Laboratories

These laboratories provide consultative and technical services to the Food and Drug Directorate in the control of viral vaccines and to provincial health departments, the departments' hospitals, and the hospitals of the Departments of Veterans Affairs and National Defence in the diagnosis of virus diseases.

Control of poliovirus vaccines. Live oral (Sabin). The Canadian reference vaccines prepared at this laboratory from Dr. Sabin's attenuated strains of poliovirus were employed as standards in numerous safety tests on commercially produced oral poliovirus vaccines during the year. These reference vaccines were also compared with the United States reference vaccines. Eleven monovalent lots of Canadian and one lot of a British vaccine were tested. These lots were submitted by the producers as prerequisites for obtaining a Canadian licence. Control procedures at the Virus Laboratories include tissue culture tests for antigenic stability, identity, virus titer, freedom from extraneous viruses and tests in monkeys for strain neurovirulence, and tests in small animals for freedom from B-virus, Coxsackie virus and lymphocytic-choromeningitis virus. Some of the earlier vaccine lots were not acceptable since they were found to contain the vacuolating agent (SV40-Virus). A trivalent poliovirus vaccine, containing types 1, 2 and 3 Sabin strains, produced by the Connaught Laboratories was licensed and several lots of this vaccine were released for use in Canadian communities.

Salk (killed) poliovirus vaccines. Canadian- and American-produced Salk vaccines submitted for governmental release are still tested at this laboratory,

particularly for the presence of live SV40 virus. This virus originates in the monkey kidney tissues used in the production of polio vaccines. It is more resistant to formaldehyde than the polioviruses and may occasionally survive the inactivation process which is designed to render the polioviruses non-infectious. Methods of removing the SV40 virus from Salk vaccines were studied and highly sensitive tests for detecting traces of this virus in the vaccines have been developed and are now in routine use. During the year, 24 lots of Canadian and 4 lots of American Salk vaccines were tested and 2 of these lots were rejected because of the presence of live SV40 virus.

Measles Vaccines. Preparations for the control of measles vaccines were completed and standard reference reagents are now available for testing both the inactivated and the attenuated live vaccines. However, no application for a Canadian licence to market such vaccines has been received to date by the department.

Studies on the differentiation of attenuated and epidemic strains of measles virus in a variety of tissue cultures are in progress and a potency test in roosters is being investigated.

Diagnostic and Reference Services. For the past years requests by the provincial public health departments and other laboratories in Canada for standardized diagnostic reagents, prepared by this laboratory, have been increasing at a yearly rate of about 30 per cent. During the past year, reagents for more than 14,500 serological tests were distributed. The demand for influenza virus and psittacosis diagnostic reagents was particularly heavy. Further progress was made in the improvement of methods for the preparation of diagnostic antigens. Work on the inactivation of such antigens by gamma radiation was successfully extended during the year to the preparation of experimental viral vaccines.

During the year 715 specimens were received for diagnosis, from which 118 positive isolations and 675 positive serological tests were made.

Special studies on the application of tissue culture methods to the isolation and identification of influenza viruses and of mumps viruses were initiated, and a study of the mode of spread of virus particles in tissue cultures is nearing completion.

Six scientific articles were published during the year.

Zoonoses Laboratories

With the collaboration of the provincial public health laboratories, the survey of the incidence of Q fever in cattle has been completed in five provinces. Serologic evidence of the disease has been demonstrated in all provinces except New Brunswick, Nova Scotia and Prince Edward Island. In Newfoundland, a single reactor herd was located. In addition to the milk survey in Quebec, a detailed study of individual bovine sera from the Eastern Townships is being conducted. This area is receiving special attention since it was here, in 1956, that Canada's only recognized epidemic occurred. During the year, 28,634 sera have been obtained and of these 12,758 have been tested, with an average reaction incidence of 2.23 per cent. Investigation of the circumstances surrounding a recent human case of Q fever from that area indicated dairy cattle to have been the source of infection. Continuation of the Peterborough-Oshawa Q fever study resulted in the

isolation of the etiologic agent of Q fever—*Coxiella burneti*—from bovine milk. This, the first such isolation in Canada, confirms the earlier serologic evidence of this disease agent in cattle. Results of a limited number of tests on persons exposed to cattle suggest that inapparent infection may be rather common in that area.

Field collections of 319 wild animals and birds in the Oshawa and Hamilton areas and examination for zoonotic agents resulted in isolation of four *Salmonella* serotypes. The incidence in domestic rats was 11.6 per cent. Rats from dumps near Hamilton were heavily infected with *Leptospira icterohemorrhagiae*, the incidence being 59.8 per cent.

As a result of an *in vitro* study of the sensitivity of *Leptospira* to 14 antimicrobial agents, a selective medium was developed and proved extremely useful in field-tests.

A total of 53 ectoparasites from animals and birds collected in Ontario was obtained and tested for pathogenic organisms of interest. None was found.

Five lots of wood ticks were received from British Columbia. One lot from the Salmo district was found to be positive for a still-unidentified virus.

During the winter, 46 wild rabbits were trapped alive in Richmond, Ontario, for disease studies. Sera were forwarded to the Rocky Mountain Laboratory, Hamilton, Montana for serological tests for certain arthropod-borne viral diseases. A most startling observation of these studies was the finding that 59 per cent of the rabbits were serologically positive for California Encephalitis virus, 20.6 per cent for Colorado Tick Fever virus and 81.4 per cent for Rocky Mountain Spotted Fever virus. These observations demand further work to confirm these findings and a collaborative study is being arranged with Queen's University.

Following the designation of this laboratory by the Dominion Council of Health as the National Zoonoses Centre, a disease-reporting system by provincial public health laboratories was instituted in January 1962. Seven of these laboratories have made reports and the data are being compiled for publication in the department's "Epidemiological Bulletin".

During the year, 2,580 ml of concentrated diagnostic antigens and 130 ml of diagnostic sera were supplied to the provincial public health laboratories.

Six scientific papers were published.

Parasitology

The Institute of Parasitology, Macdonald College, Quebec serves as the Parasitology Section of the Laboratory of Hygiene and provides consultative and technical services to the provincial departments of health.

Diagnosis of parasitic infections. During the past year, 571 stool specimens were received, processed and reports forwarded to those concerned. In addition, 19 specimens of parasites were submitted and identified. Twenty-three complement fixation tests were carried out for Hydatid disease and 248 serum specimens from man were examined by the Ring Test and by the Suessenguth and Kline tests for Trichinosis. Of the total sera examined over the past two years for *Trichina*, 37 per cent were positive, 43 per cent doubtful and 20 per cent negative.

This laboratory continued to supply public health laboratories and hospitals with special parasitological diagnostic antigens, on request. The number of requests for Hydatid antigen for the Casoni test, prepared from Canadian reindeer material,

increases every year. This year 561 ampoules were distributed. (447 last year). This increase in requests is attributed to a growing awareness among those concerned of the possibility of Hydatid infection, rather than to an actual increase in the incidence of hydatidosis. Thirty-one ampoules of trichina antigens were also distributed.

A refresher course for laboratory technicians was put on during the year and offered to all public health laboratories.

Administration

The director of the Laboratory of Hygiene, with the assistance of one of the laboratory's technicians, continued his full-time survey of the total laboratory facilities in the province of Ontario. This survey was initiated in 1960 at the request of the Ontario Department of Health and should be completed in the coming year. The duties of the director were carried out by the acting director.

The administration section continued to provide to the laboratories stenographic and typing services, culture media, clean and sterile glassware and test animals, and to operate a central stores and workshop.

MEDICAL REHABILITATION AND DISABILITY ADVISORY SERVICE

This division provides a national consulting and co-ordinating service in the field of medical rehabilitation and in the evaluation of disability under the Disabled Persons Allowances program.

Advice is provided on medical, social work and technical aspects of medical rehabilitation programs to hospitals, rehabilitation centres, specialized clinics, university teaching schools, voluntary organizations and public health and welfare departments at the various levels of government—local, provincial and federal. Primarily, the aim of the service is to stimulate, encourage and assist provincial health departments in planning and developing balanced programs whereby medical rehabilitation facilities and services will be available to every disabled child and adult in Canada who is able to profit from treatment or retraining.

More than 80 medical rehabilitation facilities have been established in Canada since the inception of the Medical Rehabilitation Grant (now the Medical Rehabilitation and Crippled Children Grant) in 1953.

As in past years the division has continued to provide advice and assistance in the expansion of medical and social services for medical rehabilitation and in the promotion of more effectual and increased training of all members of the rehabilitation team such as physicians, nurses, social workers, physical, occupational and speech therapists, prosthetists and orthotists.

The work of the consultants normally includes advising on expenditures under the grants program, approval of medical expenditures under the Disabled Persons Allowance program, the compilation of detailed statistical and other reference material on rehabilitation facilities and on medical and technical training for presentation to organizations, committees and conferences. Field visits to the various provinces are made to study current developments in medical rehabilitation and the medical aspects of the Disability Allowances program.

During this fiscal year French editions of the career pamphlets on opportunities for physical and occupational therapists were published and their distribution arranged. Work was begun on companion pamphlets dealing with speech therapy and social work. A number of articles was written for publication.

The consultants took part in departmental study and planning committees dealing with such subjects as chronic illness, physical fitness, hospital standards and national welfare grants. They also participated in relevant interdepartmental committees involving the Civilian Rehabilitation Branch of the Department of Labour and took an active part in working out certain aspects of the new Vocational Rehabilitation of Disabled Persons Act. Conferences, workshops and meetings dealing with various aspects of rehabilitation were also attended in various parts of Canada.

As in past years the division has maintained close liaison with international organizations such as the League of Red Cross Societies and the International Society for Rehabilitation of the Disabled. Through this latter organization efforts were continued during the year to develop the World Committee on Social Aspects of Rehabilitation currently operating under the chairmanship of the Consultant in Social Work.

International visitors were received from various countries including Finland, Ceylon, China, Sweden, Turkey and Guatemala.

The Vocational Rehabilitation of Disabled Persons Act passed by Parliament in May 1961, represents an important milestone in the establishment of rehabilitation services in Canada. Administration of the act is under the Department of Labour with the close collaboration of the Department of National Health and Welfare in relation to health services. Among other features the act provides for cost sharing agreements with the provinces to purchase comprehensive rehabilitation services for disabled persons who can become capable of pursuing a substantially gainful occupation. Such agreements may also include various services and processes of restoration, training and employment placement which are designed to enable a disabled person to dispense with the necessity for institutional care or the necessity for the regular home services of an attendant.

The provisions of the act are similar in certain respects to those of the Medical Rehabilitation and Crippled Children Grant. It has therefore become necessary to consider the relationship between these two sources of federal assistance and for the provinces, in submitting projects for grant assistance, to differentiate between the areas of eligibility for assistance under each program. Agreements under the act have been drawn up to take effect in the coming fiscal year. In these circumstances the utilization of the grant may change in some provinces and funds may tend to be redirected quite rapidly into newer areas of development in accordance with the broad aims and provisions of the grant.

As indicated in Table 13 there was a 10 per cent increase in utilization of the Medical Rehabilitation and Crippled Children Grant during the year. This small gain reflects a continued readjustment following the advent of Hospital Insurance in all provinces and a gradual diversion of emphasis to out-patient rehabilitation services, including home care, community based rehabilitation programs and staff training. An increase in the number of research projects should also be noted with further prospects in view which appear to hold greater future

TABLE 13

MEDICAL REHABILITATION AND CRIPPLED CHILDREN GRANT ANALYSES, 1953-1962

	1953-54	1954-55	1955-56	1956-57	1957-58	1958-59	1959-60	1960-61	1961-62*
Amount available.....	\$500,000	1,000,000	979,484	998,984	961,591	964,234	1,020,948	2,568,251	2,579,447
Amount and per cent approved.....	\$ 75,855 15.8%	213,374 21.3%	355,927 36.3%	547,085 54.7%	736,662 76.6%	814,215 84.4%	754,214 73.8%	1,338,469 52.2%	1,612,170 62.5%
Amount and per cent spent.....	\$ 58,222 12.1%	168,679 16.8%	303,419 30.8%	487,724 48.8%	633,397 65.8%	691,612 71.7%	673,399 65.9%	1,159,203 45.2%	1,023,269 39.7%

*For 11 months to March 1, 1962 instead of full fiscal year.

promise in this area. There has been a notable increase as well in the number of prosthetics and bracemaking workshops which are being established in conjunction with rehabilitation centres to improve the efficiency and convenience to patients of this essential service.

As in past years the shortage of suitably trained personnel has continued to hamper the development of rehabilitation services in all provinces. Grant assistance is playing an important part however in the gradual improvement of training facilities. During the year a new training school in physical and occupational therapy was opened at the University of British Columbia, and training bursaries were again provided for postgraduate and undergraduate training in the various disciplines which go to make up the members of a rehabilitation team.

TABLE 14

NUMBERS* AND PERCENTAGE DISTRIBUTION OF CASES GRANTED DISABILITY

Category	1955-56 ^b	1956-57	1957-58	1958-59	1959-60	1960-61	1961-62 ^c
NUMBERS							
Granted.....	27,222	8,866	14,048	11,426	7,131	6,448	4,230
Medically Rejected.....	6,425	5,719	3,810	9,925	7,973	5,098	5,628
Deferred.....	282	171	146	253	280	274	137
Referred for Rehabilitation ^d	542	101					
All Categories.....	34,471	14,857	18,004	21,604	15,384	11,820	9,980
PERCENTAGES							
Granted.....	79.0	59.7	78.0	52.9	46.4	54.6	42.4
Medically Rejected.....	18.6	38.5	21.2	45.9	51.8	43.1	56.2
Deferred.....	0.8	1.2	0.8	1.2	1.8	2.3	1.4
Referred for Rehabilitation ^d	1.6	0.7					
All Categories.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0

*The Province of Ontario reports only on the cases granted an allowance.

^bFifteen months period, viz. from January 1st, 1955 to March 31st, 1956.

^cEleven months only, viz. from April 1st, 1961 to February 28, 1962.

^dIn May 1957, subsection 3 of the Disabled Persons Regulations dealing with a favourable rehabilitation prognosis was revoked.

Toward the end of the year, Dr. B. Primeau, chief and medical consultant resigned in order to assume new responsibilities outside the department. Dr. Primeau's work as head of the division since 1957 constituted an important contribution to the development not only of the department's program but to the whole field of rehabilitation in Canada.

MENTAL HEALTH DIVISION

The division is responsible for providing national leadership in the mental health field. It has three major spheres of activity, namely, the provinces, other

federal departments and other divisions of the Department of National Health and Welfare. With a new chief co-ordinating services, activities at the provincial, national and international levels received fresh impetus.

Health Grants Administration was advised on the provinces' use of the national Mental Health Grant of almost \$9 million. The pattern followed that of recent years; allocations were roughly: 53 per cent for mental institutions, 23 per cent for psychiatric clinics, 13 per cent for training, and 10 per cent for research.

Vital events of the year were as follows:

1. In collaboration with other divisions of this department 2,250 questionnaires were sent to the provinces in a survey of organizations in the field of alcoholism. The

findings of this survey were studied by the Subcommittee on Addiction to Alcohol and Other Drugs and preparation of a final report is underway.

2. Psychological aspects of mass disaster received continued attention. This field gains in importance.

3. Participation by the Consultant in Social Work in a study group sponsored by the World Federation for Mental Health resulted in the publication of papers in "Canadian Hospital" and "The Canadian Nurse" on "Psychological Problems in General Hospitals". A further outcome was the book "People in Hospital".

4. In-patient services for the treatment of emotionally disturbed children were re-surveyed and revised findings presented in the Mental Health Division's



Successful human relations, undistorted by fears, suspicion or prejudice, contribute to mental health, not only in the individual, but in the whole social complex.

report "Residential Treatment Services in Canada for Emotionally Disturbed Children". The revised report describes 18 treatment units.

5. In co-operation with Research and Statistics Division a survey questionnaire on provincial mental health divisions was prepared and sent out. Findings of this were compiled in a final report late last year.

6. Co-operation with mental health organizations continued. An active part was taken in the Canadian Psychiatric Association's Mental Health Services Institute by the chief of division serving on the planning committee and by the newly appointed consultant in psychology who acted as chairman of a plenary session. Divisional officers participated in the Scientific Planning Committee of the Canadian Mental Health Association and a similar advisory committee of the Canadian Association of Retarded Children. The papers "Mental Health—A Federal View" and "Huntington's Chorea: Further Data" were presented at the 3rd World Congress on Psychiatry.

7. The first part of a formal study on the effectiveness of health education pamphlets were completed. This dealt with information and attitudes. The second part will deal with methods of application of pamphlets and behavioural change.

8. The division continued its extensive mental health education program to assist the provinces and to provide information to professionals and laymen. The 45-50 page monthly periodical, "Canada's Mental Health", reached an international circulation of 10,000 English and French copies—an increase of 4,000 over last year. It is designed to inform professionals of current developments in the field. With each issue a 10-20 page supplement is published containing a technical article or report of outstanding significance to mental health professionals. A few pamphlets were revised and over 3 million of the division's wide range of pamphlets were distributed to the provinces. A new pamphlet, "Leisure in the Later Years" was released. Educational displays were sent to the 2nd Canadian Mental Health Services Institute in Ottawa, the 3rd World Congress of Psychiatry in Montreal, the Canadian Psychological Association in Montreal and the Canadian Welfare Council in Ottawa. A general bilingual display interpreting the division's extensive education program was constructed. A film on mental hospital volunteers and their services was completed and a filmstrip on mental retardation begun.

9. International activities included service by the chief of division on the World Health Organization Expert Committee on Mental Health which considered in particular mental health in the context of public health service. He represented the division at the American Orthopsychiatric Association meeting and acted as discussant of the four papers dealing with narcotic addiction. The editor of "CMH", who is also a contributing editor to "Mental Hospitals", Journal of the American Psychiatric Association, participated in a special United States Mental Health Educator's committee held in Omaha, Nebraska.

The year began and ended with meetings of the Department's Advisory Committee on Mental Health. Two of its seven subcommittees held their first meetings during the past year. Greater activity in the field of rehabilitation reflected the far-reaching importance and increasing recognition of mental health in all aspects of life.

CHIEF NURSING CONSULTANT

The functions of the Chief Nursing Consultant are advisory and liaison in nature.

During the past year the services represented by these functions have continued to be available on a request basis to individuals and groups within and without the department, and in areas not presently covered by the specialist nursing consultants in the department.

Specifically, activities have included:

- review and assessment of National Health Grants projects relating to the field of general nursing;
- committee membership (departmental and other);
- arrangement of observation visits to the department of nursing students attending Canadian universities (Ottawa, McGill, Montreal);
- co-operation with the Canadian Nurses' Association in arrangement of programs for international visitors;
- preparation of articles, speeches, etc.

The Departmental Nursing Committee continues to serve a useful function as a clearing-house and forum for senior departmental nursing personnel.

The federal-provincial public health nursing conference held in Ottawa in 1961 appears to have had several significant repercussions. A similar conference is planned for 1963.

With the authorization of a new position on the Chief Nursing Consultant's staff, and the imminent filling of that position (public health nursing consultant), it is anticipated that the program of the Chief Nursing Consultant will accelerate, moving forward into a phase of greater usefulness to the provincial public health nursing directors on a request basis.

NUTRITION DIVISION

Introduction

The program of the Nutrition Division is designed to improve the health of Canadians insofar as this can be accomplished through nutrition. The program includes research to define nutritional status of population groups, preparation of educational materials, assistance with quantity food service problems in small hospitals and other non-profit institutions, and special technical and consultant services. To a large extent, the activities of the division are developed and performed at the request of provincial health departments to support and strengthen provincial nutrition programs. Services are also available to, and used by, other divisions of this department, other federal departments, professional groups, and national and international organizations.

"Canada's Food Guide", approved in its present form by the Canadian Council on Nutrition in September 1961, provides the basis for nutrition education throughout the country. It provided the framework for a series of ten 15-minute television programs undertaken by the Nutrition Division to obtain experience in the use of this medium for educational purposes.

The development and extension of government hospitalization plans has increased the demand for expert advice regarding standards for hospital food service. A dietary consultant, to permit extension of the division's work in this field, has not yet been recruited.

Research

A food habit survey was planned and carried out in Vancouver as a part of a nation-wide survey of nutritional status of older citizens. Individual reports were sent to the participants through the Vancouver Metropolitan Health Committee.

Questionnaires and covering letters requesting reports on nutrition research were sent to research workers across Canada. This was the first step toward country-wide development of the national repository for nutrition research information. The number of abstracts and reprints submitted indicates active interest on the part of universities and research workers. Requests are being received for the use of this service.

Food consumption data for Canadians for the years 1958 and 1959 were calculated in terms of nutrients.

Laboratory Services

Laboratory services were provided for the Vancouver survey during which 207 samples were collected and 772 tests were carried out.

A study of hemoglobin levels of adolescents was started, with groups drawn from five high schools in Vancouver and Victoria. One thousand two hundred and eighty-one hemoglobin determinations were carried out in this initial study.

The clinical nutrition laboratory has continued to provide facilities for laboratory procedures unavailable elsewhere in Canada. The tests made offer a diagnostic aid for determining nutritional deficiency states. They are available to provincial health departments and, through them, to all physicians in Canada. During the past year 143 serum samples and 15 urine samples were submitted under this service and a total of 273 tests were performed. (See Table 15.)

A paper is in preparation on the study of various nutrients in the blood and urine of hospitalized Eskimos; 68 specimens were received and 340 tests were completed. (See Table 15.)

Experimental Kitchen

Recipes were developed for publication in the revised editions of "Institutional Meals for Twenty" and "Good Red Blood" and for the "Just Between Cooks" bulletins. For the continuing publication of the quarterly recipe card service, 24 recipes were developed in 10, 20, 50 and 100 servings. At the request of the Nova Scotia Department of Health, several 100-serving recipes were developed for use in school lunch programs.

Information and Education

Two new posters, in French and English, were produced for distribution by provincial health departments. They were: "My Day's Food" and "Canada's Food

Guide". Two companion leaflets to the food guide poster were also produced in English and French. One was an illustrated leaflet, a replica of the poster, and the other a coloured leaflet, without illustrations.

Several of the booklets and manuals in demand by the provincial health departments were revised and/or reprinted. These included: "Good Red Blood", "How to Plan Meals for Your Family", "Make Every Day Vitamin D Day", and "Nutrient Value of Some Common Foods".

Approximately 777,200 English and 122,500 French copies of informational materials were distributed during the year.

The French edition of the institutional food service manual, "Meals for Serving 50", was printed and is for sale by the Queen's Printer.

In January 1962, the monthly periodical "Canadian Nutrition Notes" was enlarged from 8 to 12 pages. Approximately 5,000 English and 1,700 French copies are distributed each month to professional people who have requested this service.

A questionnaire was sent to provincial health departments asking for suggestions for improvement of the "Reference Reading List", a quarterly publication for use by professional workers in nutrition and allied fields. As a result of the suggestions received, the "Reference Reading List" has been expanded to include annotations of all the references cited. Two supplements, an annotated list of recent books on nutrition and a list of all journals reviewed in the Nutrition Division, were also produced. The circulation of the "Reference Reading List" is now approximately 1,600 English and 275 French copies, an increase of 912 English and 225 French.

Talks and lectures were given to university students and to professional and lay groups by members of the staff.

Consultant and Advisory

Advice and assistance continue to be provided, on request, to other divisions of the department, other federal departments, public agencies and professional groups. Of interest during the past year were: inspections of institutional food service operations (nursing homes, boarding homes, industrial cafeterias), preparation of floor plans for institutional kitchen and serving areas, provision of technical information to members of various professions (doctors, nurses, dietitians), advice on nutrition education methods, comparisons of cooking qualities of a variety of dehydrated foods.

The chief of the division attended the conference of the Food and Agriculture Organization of the United Nations, in Rome, and the meetings of the Food and Nutrition Board of the National Research Council, Washington.

Advisory Committees

The Dominion Provincial Nutrition Committee met in Ottawa in early September. This committee of the Canadian Council on Nutrition is composed of a nutritionist from each province and staff of the Nutrition Division. Meeting annually, it provides an effective means for developing uniformity among provincial programs and indicates the ways in which the federal program can best assist them.

TABLE 15
NUTRITION LABORATORY SERVICES 1961-62
SERA

Origin	Total Specimens	Vitamin A	Carotene	Vitamin C	Total Protein	Albumin Globulin	Cholesterol	Total Lipids	Hemoglobin	Totals
Lab. Services to Physicians and Provincial Health Departments.....	143	127	82	26	2					237
Old Age Survey.....	100	81	81	97	92				100	451
Eskimo (Hospital Survey).....	34	34	34	34	34		34	34		238
Hemoglobin Study.....	1,281								1,281	1,281
Total.....	1,558	242	197	157	128	34	34	34	1,381	2,207

URINE

Origin	Total Specimens	Riboflavin	Thiamine	Niacin	Totals
Lab. Services to Physicians and Provincial Health Departments.....	15	12	12	12	36
Eskimo (Hospital Survey).....	34	34	34	34	102
Old Age Survey (Vancouver).....	107	107	107	107	321
Total.....	156	153	153	153	459

Total Specimens—1,714
Total Tests—2,666

The Canadian Council on Nutrition held a two-day meeting immediately following the Dominion Provincial Nutrition Committee. Topics discussed included:—revision of the "Canadian Dietary Standard"; changes in "Canada's Food Guide"; Food and Drug regulations in relation to the addition of vitamins, minerals, and amino acids to foods; the incidence in Canada of various nutritional disorders such as scurvy, anaemia, and obesity, and nutrition education of the general public and of particular professional groups.

OCCUPATIONAL HEALTH DIVISION

The technical, clinical, and nursing consultant services and the laboratory services of the division were fully extended in meeting the growing demands for assistance from provincial governments, federal departments, municipalities, and private industry in problems concerned with occupational health. These requests emphasized the continuing need for providing highly specialized service for the solution of problems involving occupational diseases and toxicology, air pollution, industrial hygiene, ventilation, illumination, noise, and radiation hazards in mines. Marked progress was made in laboratory research on the health effects resulting from exposure to certain industrial solvents, plastics, and pesticides; methods of sampling and analysis; isolation and identification of polycyclic aromatic hydrocarbons or potent carcinogens; the development of techniques for gas, paper, and column chromatography; refinements in the determination of heavy metals and other toxic substances and in techniques involving the application of X-rays, fluorescence, and spectrography.

Assistance was rendered to provincial governments, hospitals, and private industry in the organization and development of occupational health services. A number of field surveys were carried out in the assessment of hazards to health from dusts, toxic gases, and vapours in mines, working areas, dock terminal facilities, and in the study of air pollution in urban, industrial, and rural areas. Further progress was achieved in the organization and development of a national air sampling network. Training was extended to staff of provincial health departments in the utilization of instruments and techniques for the study of environmental problems.

Environmental Assessment Unit

Air Pollution: The division assisted field groups of the Canadian Department of Agriculture, the Meteorological Branch, the Ontario Air Pollution Control Branch, and the Imperial Tobacco Company to determine the contaminants and other factors responsible for serious economic damage to tobacco leaf. The results of the 1961 studies have confirmed, in general, that the leaf damage is caused by higher than normal concentrations of ozone or oxidant under certain meteorological conditions. The source of contamination has not yet been specifically identified.

It is believed that abnormal concentrations of ozone or oxidants are formed photochemically from reactions to pollutants that occur in the atmosphere in the presence of sunlight. The findings represent the first evidence of the existence in Southern Ontario of photochemical smog, akin to the Los Angeles type, that is accompanied by vegetation damage and accelerated deterioration of rubber.

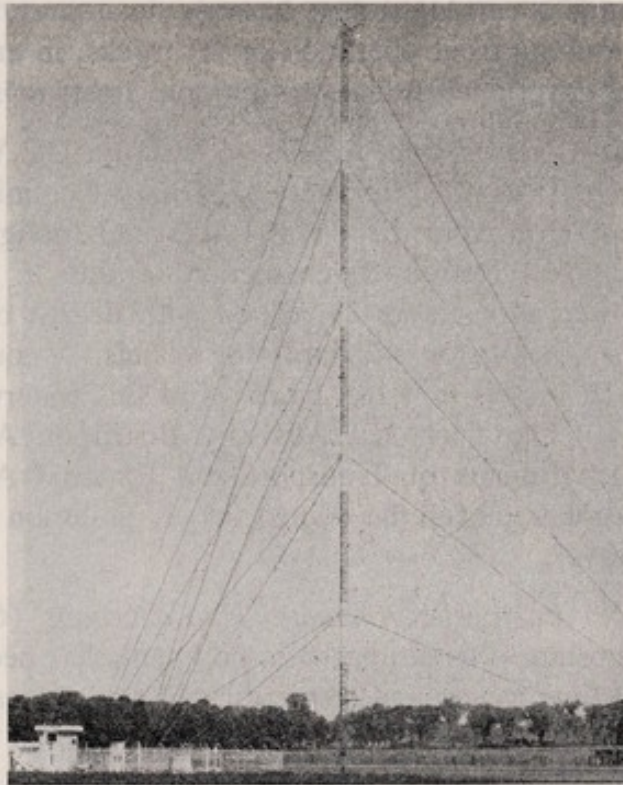
Expansion of the national air sampling network continues, with assistance to provincial health departments under the Federal Health Grants and consultant advisory services. New stations have been located in Saint John, New Brunswick, and in Regina and Saskatoon in Saskatchewan. Sampling stations continue to operate in ten other major centres in Canada. Meteorological air pollution towers have been erected in Ottawa and Montreal, and an additional tower is being established in the City of Hamilton in close consultation with this division. Data from these towers are utilized in the continuing study and control of air pollution problems.

Experimental studies were undertaken during the year to compare the efficiency of dustfall collectors and the filtration and assessment of aerosols by paper tape smoke samplers.

Purity of Divers' Air: An investigation into the purity of divers' air has been undertaken for the Defence Research Board and Royal Canadian Navy to develop suitable or safe specifications for such air supplies. The study will establish permissible levels for oil fog, moisture, carbon monoxide and carbon dioxide, hydrocarbons and particulates in compressed air for ordinary and deep-sea diving.

Yellowknife Arsenic Investigation: Studies of pollution by arsenic in effluents discharged from stacks and in mine tailings from gold mining and smelting in the Yellowknife area were continued during the year at the request of the Department of Northern Affairs and National Resources. Samples of fallout, water, vegetation, and hair from "exposed" and "unexposed" persons were collected and analyzed. With co-operation from mining companies in this area, arsenic contamination has been reduced substantially.

Newfoundland Mines: Radiation levels in the working areas of these mines are in conformity with permissible limits established by the International Commission on Radiological Protection. This division continues to carry out periodic surveys to ensure that these conditions are maintained. Industrial hygiene surveys were also conducted in other mines of this province, at the request of the provincial health department, to assess dust and ventilation conditions.



This micro-meteorological air pollution tower, located on the Central Experimental Farm at Ottawa, has been instrumented to collect data for statistical tabulation in connection with the National Air Sampling Network since December, 1959. The data collected include wind speeds, wind directions and temperatures at different levels. This project is being carried out by the Occupational Health Division in co-operation with the Research Branch of the Department of Agriculture and the Meteorological Branch of the Department of Transport.

Industrial Hygiene Field Surveys: Occupational health hazards were assessed in a large laboratory concerned with weapons development, in a ship-building and repair shop where plastics were creating dermatitis problems, at a large base metal mine to evaluate dust hazards, in a port warehouse to study air contamination resulting from operation of lift trucks, in an electroplating shop, and in a number of government offices to appraise light, noise, ventilation, and odour problems.

International Joint Commission: The Windsor laboratory of this division, on behalf of the International Joint Commission, continued investigation of air pollution from the Great Lakes and foreign vessels in transit through the international Detroit River section of the St. Lawrence Seaway. Data from smoke observations were correlated with degree of compliance or non-compliance with I.J.C. emission standards for vessels. A comprehensive report of observations on 628 vessels in 4,185 passages of this waterway was prepared for the commission.

The Technical Advisory Board on Air Pollution met with officers of the Departments of Transport and External Affairs to prepare drafts of rules and regulations for the control of air pollution from shipping in all Canadian waterways.

Polycyclic Aromatic Hydrocarbons (Carcinogens): The existence of these substances as atmospheric pollutants has been linked with the increasing incidence of lung cancer and respiratory disease. Research on the isolation, identification, and measurement of these toxic compounds in the urban atmosphere and in exhaust gas of internal combustion engines is being continued in relation to size of cities, degree of industrialization, and summer versus winter conditions.

Chemistry: Over 1,500 samples were analyzed in the assessment of health hazards due to environmental contamination by silica, fluorides, arsenic, mercury, lead, copper, iron, uranium, miscellaneous particulate matter, and sulphur compounds. Samples of air, water, vegetation, hair, urine, and lung tissue were submitted for analysis. Research in gas and paper chromatography, ion exchange techniques, and heavy metal analysis was carried on.

Physics: 101 samples were analyzed by X-ray diffractometry and spectrography.

A considerable amount of work was performed on the Newfoundland fluoride problem in connection with fine grinding, elutriation and particle size measurement of calcium fluoride. X-ray fluorescence charts were prepared to determine toxic substances with elements of both low and high atomic numbers. A new method of analysis was developed for X-ray spectrography of elements from atomic number 12 to 100.

Biological Unit

Biochemistry: The transplacental exposure of the fetus to a widely used anaesthetic has been demonstrated in parturient mothers. Work is continuing on the toxic effects, the mechanism of action, and the biotransformation of various environmental agents which constitute present or potential hazards to the general population and to specific occupational groups. In the course of these studies, it

was possible to develop chemical methods which may be applied to assess the degree of exposure of industrial workers.

Toxicology: Studies have continued on the toxicological properties of a variety of irritant and toxic gases of importance in certain industrial situations and in urban air pollution. The hazards presented to man when exposed to thermodecomposition products of selected modern plastics have been evaluated.

Enzymology: Research was carried on with respect to the occupational hazards associated with the use of pesticides. In this connection, seven health hazard evaluation reports were prepared for the Canadian Department of Agriculture. Collaborative research programs are being held at the Pesticide Research Institute in London, Ontario, and Cornell University.

Lung Disease: Investigations continued with respect to the relationship between lung disease, particularly pulmonary cancer, and exposure to fluorspar and radiation.

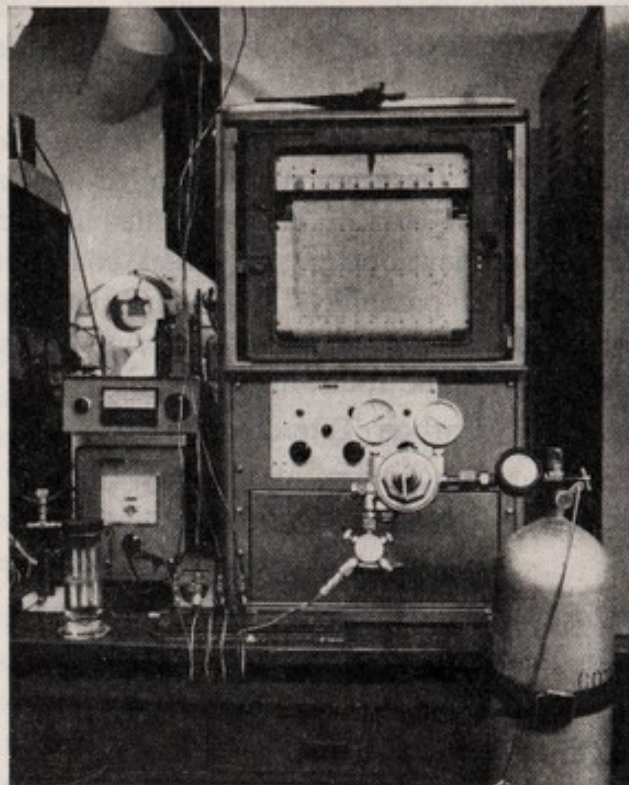
Occupational Health Nursing Consultant: The nursing consultant's program has, as its objective, the interpretation and promotion of occupational health nursing as an integral part of the total health services to Canadians.

Hospital Employee Health Services: An increasing number of Canadian hospitals have developed, or are developing, special health services for their employees. A manual is being prepared to aid in the development of these services.

Occupational Health Nursing Research: A study of the activities of occupational health nurses employed in Ontario and their educational requirements is being carried out by the University of Toronto with financial assistance provided by the Federal Health Grant Program.

Administrative Unit

Extramural Research and Teaching: A pilot appraisal of the needs for research and teaching in occupational health in Canada has been undertaken by the Senior Scientific Consultant following an assessment of existing extramural facilities carried out in the previous year. Incidence of compensated occupational



Shown in the above picture is a "Scuba" divers tank of compressed air, a hydrogen flame detector and recorder. Air from the cylinder is fed into the detector at constant flow rate and hydrocarbons or oil vapour, if present, produce a response on the recorder proportional to the amount present.

injuries and disease over the ten-year period 1950-59 has been examined in relation to the pattern of change in industries, occupations, and level of employment. Initial findings indicate little progress on the average in Canada in reducing the incidence of occupational injuries and disease over the period studied.

During the fiscal year, the Senior Scientific Consultant carried out a similar pilot study for the Government of the Federation of Malaya under the auspices of the International Labour Office and the United Nations Technical Assistance Board.

Educational and Technical Information Services: The division continued to publish the "Occupational Health Review" and the "Occupational Health Bulletin", dealing with current developments in occupational health in Canada and with important developments in other countries. Owing to the increased number of requests for pamphlets and other material previously published by the division, 33 of these publications were reprinted. Six new pamphlets were published during the year on the following subjects:

- Carbon Tetrachloride
- Alcoholism in Industry
- Use and Care of Respirators
- Air Pollution Control by Town Planning
- Human Relations of a Foreman
- Ozone for Odour Control.

Scientific Publications and Committee Activities

Scientific publications of staff members of the division dealt with air pollution, carcinogenic hazards of aromatic polycyclic hydrocarbons, analysis of polycyclic hydrocarbons, determination of urinary fluorides and of arsenic in air, and the toxicology of chemical compounds used in industry and agriculture. A list of titles of scientific publications of the division is available upon request.

Consultants and other scientific officers of the division maintained a national and international representation on special technical and scientific committees of recognized professional associations.

PUBLIC HEALTH ENGINEERING DIVISION

During the past fiscal year the activities of the Public Health Engineering Division continued to reflect the increasing interest and attention given by government departments to environmental health problems. Towards the end of the calendar year the division suffered a great loss in the death of Mr. J. Ross Menzies, who had been chief for over twelve years and had directed the expansion which took place during his period of office.

The administrative organization of the division is made up of a headquarters' office at Ottawa, which is the main co-ordinating centre of the work program. Four regional offices with four district offices and one sub-office are located at convenient points across the country so that fields of activity in all the provinces and the Northwest Territories can be reasonably and adequately dealt with.

Two main laboratories have been set up and are in operation for the benefit of all the offices. One is located at headquarters in Ottawa and the other at Vancouver, B.C. The laboratories supplement the field work and also provide special technical information which may be required for water treatment, sewage and waste disposal or other related projects.

In addition to the two main laboratories, field testing equipment is furnished the regional and district offices. Depending on location and circumstances commensurate with the nature of the work involved, field equipment may include analytical kits, pH meters, portable B.O.D. incubators and membrane filter equipment.

For bacteriological work in the field, especially in isolated areas, the membrane filter technique has proven to be extremely useful.

The division's functions are set forth as follows:

(1) *Statutory*—The administration of certain specific statutory regulations under Section 5 of the National Health and Welfare Act, the Public Works Health Act, the Fisheries Act and the Canada Shipping Act. Other responsibilities are assigned by statutory authority to those phases of the environment, having a bearing on the health of travellers, operating personnel of railways, vessels and aircraft, which are not covered under specific regulations.

(2) *Non-Statutory*—Non-statutory duties of the division are associated largely with consulting and advisory services to other federal departments, provincial governments and related agencies. These include sanitary surveys, review of plans for future development of townsites, national parks, etc., and engineering assistance in the design, preparation of plans and specifications for water and sewage treatment to serve federal projects, water pollution surveys, industrial waste studies and other advisory services associated with sanitation.

Statutory Duties: The administration and performance of duties required under certain statutory acts and regulations still maintain a high priority in the division's field of endeavour.

During the year various aspects of working conditions related to the health of civil servants were investigated along with the operation and control of food dispensing facilities in government buildings. This included examination and approval of plans for new installations and renovations to existing facilities which were being constructed for this purpose. Sanitary conditions in construction camps on federal government projects were examined under the authority of the Public Works Health Act. Under the potable water regulations, continuing examinations were carried out for the control of drinking and culinary water and ice supplies for all common carriers. Plans of the potable water systems for new vessels under construction for Canadian companies were examined for compliance with the regulations.

Advisory and Technical Services: The activities of the division have continued to expand due to major increase in requests received for technical services and consultation with other federal government departments and crown corporations on problems of environmental health.

There are always a number of projects that tend to stand out because of their interesting technical aspects and influence on human welfare. Some of the activities which would fall in this general category are as follows:

Special Projects

1. Efficiency studies were carried out on sewage treatment plants and lagoons at R.C.A.F. stations and army depots. Valuable information regarding design and operational characteristics was obtained. At the army camp at Ipperwash a further study of the lagoon system of sewage disposal was made which verified the advantages gained in changing from series to parallel operation at this point.

The R.C.A.F. activated sludge sewage treatment plant at Clinton, Ontario, was the subject of an evaluation study. Information regarding design, operation, maintenance and control procedures was obtained.

2. A survey of the watershed and water supply source for the future town-site at Frobisher Bay, N.W.T., was carried out.

3. A study was made of coagulation procedures in the treatment of water with low mineral content and high organic color at La Macaza R.C.A.F. Station.

4. Investigation was made of the feed rate of chemicals required to affect precipitation and sedimentation of soluble iron in well water for the R.C.A.F. at Moisie, P.Q.

5. Consulting advice was provided to Canadian Arsenals Limited, Cherrier Plant, on water treatment problems associated with coagulation and scum removal.

6. The water supply system at Yellowknife, N.W.T., was investigated with regard to fire flow capabilities.

7. Visits were made to Distant Early Warning Line sites in regard to matters of sanitation, sewage disposal, water supplies and the adequacy of operational treatment methods employed. The conditions found at these Distant Early Warning sites in respect to the protection of water supplies was for the most part satisfactory. These visits extended over a wide area from Frobisher Bay, in the Eastern Arctic, to Bar 1, in the western section and included a total of 12 sites examined. Sewage collection tanks are generally employed at these sites and the contents are either pumped to disposal areas or hauled. This method of disposal has been found to be quite satisfactory.

8. A study of the sewage disposal system for the agricultural experimental farm at Summerland, B.C., was made and consulting advice provided to the agriculture experimental farms at Normandin and St. Charles de Caplan, P.Q.

Design

While the work of the division deals mainly with consulting and advisory services, a certain amount of design work including the preparation of engineering plans and drawings was done for certain specific areas as follows: preliminary design and cost estimates were prepared for a sewerage system to serve the community of Brocket, as well as for Indian schools at Cluny and Habay, Alta. Design

and preparation of plans for the construction of a sewage lagoon at Radium, B.C., were furnished to National Park authorities. The division co-operated in the design and installation of the sewer-line to the new Greater Vancouver sewerage and drainage board treatment plant from the Capilano Indian Reserve. In addition to the above, plans were prepared for a sewage disposal system to be installed at the Banff, Alberta, Curling Club.

Co-operation With Other Federal Government Agencies

The division has continued to maintain close liaison with other federal departments and other divisions within this department.

Over the past year there was an increase in the volume of work performed in co-operation with Indian and Northern Health Services of this department and the Indian Affairs Branch of the Department of Citizenship and Immigration. The Indian and Northern Health Services were advised in respect to treatment of water supplies at many of their centres throughout the country. Following an outbreak of dysentery in 1961 an extensive survey was made of the Peguis and Fisher River Indian Reserves near Hodgson, Manitoba. The division also assisted in the investigation of a typhoid outbreak at the Saddle Lake Reserve. Other reserves were visited with respect to present water supplies and recommendations were made to augment and improve these sources of water. A survey was made of all the water supplies on Indian reserves at Restigouche, Notre-Dame-du-Nord and Maria in the Province of Quebec. An investigation was made to determine the cause of the unsatisfactory quality of the water produced from the treatment plant, serving the Pointe Bleue Indian Reserve. The authorities concerned were advised as to action required to improve the situation.

The Indian Health Services was advised with respect to treatment of water supplies at several nursing stations and health centres.

Assistance was provided in the treatment and restoration of infiltration wells serving schools at the Saddle Lake and Cold Lake Indian Reserves in Alberta. Technical assistance was provided on a co-operative basis with the Indian Affairs Branch in the development of other water and sewage services, especially during the initial planning stages.

Northern Affairs and National Resources

Assistance was given to the Department of Northern Affairs and National Resources by conducting surveys and recommending specific types of sewerage and waste disposal systems in the Cape Breton Highlands and Prince Edward Island National Parks. The first lagoon method of sewage treatment in the National Parks located in the Maritimes was put in service for a campground at Ingonish in the Cape Breton Highlands National Park. Public Health engineering surveys were conducted and recommendations were made as to the type and location of the necessary water and sewerage systems to be constructed at the national historic site at Louisbourg, N.S.

In Riding Mountain National Park a sanitary survey of camp and picnic areas was made along with inspection of eating establishments within the park and

examination of their many well water sources. A visit to the Eskimo Village at Baker Lake was made where the water supplies, ablution and laundry facilities were examined.

A general examination of the facilities at Prince Albert National Park was carried out and assistance was provided in obtaining a winter water supply well for Waskesiu townsite.

Assistance was provided upon request to the consulting engineers preparing plans for proposed water and sewerage systems at Lake Louise and Upper Lake Louise in Banff National Park.

A study was made of the bacteriological quality of the water at the swimming beach at Elk Island National Park. Laboratory assistance and advice was made available to the water plant operator.

A considerable amount of work was done in the Northwest Territories in the carrying out of examinations of water supplies, sewage disposal, garbage disposal, restaurants and work camps.

Two dairies in the Peace River District were examined with regard to general sanitation in supplying dairy products to the Northwest Territories.

Provincial Co-operation

The division has maintained close touch with all the provincial agencies on mutual problems relating to environmental sanitation.

At the request of the Department of Public Health for the Province of Nova Scotia, the division provided consultation and direct engineering services in carrying out major pollution surveys of the Annapolis and Cornwallis Rivers.

In the absence of a director for the Division of Sanitary Engineering in Prince Edward Island, the Deputy Minister of Health referred proposals for several water supply and sewerage systems to this division. This work involved field surveys, review of plans and specifications with recommendations for several municipalities.

Consultations were held with the New Brunswick Water Authority in regard to the pollution survey of the St. John River. The survey report on "Effects of Pollution—St. John River" was completed and published through the office of the Queen's Printer.

Active co-operation was extended to the Department of Fisheries and the Ministry of Health of the Province of Quebec on matters of mutual interest. Several other studies and investigations involving provincial and municipal interests were carried out in other provinces when assistance was requested.

Department of Fisheries—Shellfish Control and Voluntary Certification Program For Fresh and Frozen Fish Plants

In British Columbia and Quebec, co-operation in the shellfish control program was maintained with the provincial authorities.

A study of the shellfish program in British Columbia was initiated and some of the restricted areas were reopened for commercial clam digging.

The shellfish agreement between the United States and Canada required sanitary surveys of the Musquodoboit and River Phillip areas in Nova Scotia and the

Malpeque area in Prince Edward Island. The shellfish processing plants in the Maritime Region were all kept under routine checks for compliance with the requirements of sanitary control for the shellfish industry.

Several projects involving sea water surveys were carried out at the request of the Department of Fisheries at Riverport, Mulgrave and Lunenburg, N.S. Less extensive surveys were conducted at other points.

The co-operative plant water certification program by the Department of Fisheries and the Department of National Health and Welfare for fresh fish plants under C.G.S.B. Specification 32-GP-141A required field activity at several locations in the provinces and Northwest Territories.

Educational Services

During the past year the division has participated in several training programs. These included the presentation of technical papers at the Fisheries' Officers' Training Courses which were held in Halifax and St. John's, Newfoundland. Talks were given at the annual meeting of the crews from the Nova Scotia scallop draggers and at the district conferences of the Inspection Branch of the Department of Fisheries.

Assistance was given in presenting the second waterworks operators, short course in Vancouver, B.C.

A paper dealing with the sanitation aspects of frozen food was presented at the annual convention of the Alberta Section of the Canadian Public Health Association in Calgary, Alberta. Additional lectures on sanitation were given at the request of clubs and organizations concerned with this phase of the work program. As in other years, lectures were again presented at marine schools on the treatment and distribution of water, and galley sanitation on vessels.

The late J. R. Menzies took an active part in the Resources for Tomorrow Conference and prepared a background paper on "Water Pollution in Canada".

During the year, two members of the staff took advantage of the opportunity to attend the university of their choice, for postgraduate studies. Other staff members attended short courses at the Robert E. Taft Sanitary Engineering Centre, Cincinnati, Ohio, on subjects which had a particular relationship to the work of the division.

International Joint Commission

Continued interest by active membership on the various advisory boards to the International Joint Commission on the control of water pollution was maintained. A member of the division acted as an adviser when the engineering report "Proposals for Stream Improvement St. Croix River 1961" was discussed. The international stretch of the river was reviewed for the purpose of assessing any changes which had taken place in the character of the wastes and the river since 1959. Plans were started for a re-survey of the pollution problems of the St. Croix River during 1962.

The division has also during the past year been involved in the activities of the advisory board of this commission in connection with the Rainy River pollution survey.

Technical personnel also took part in the actual field program. An engineer from the division supervised operations during the first month of the project, when the regular survey director was injured just a few days prior to the starting date. It was also necessary to provide, at different periods, two chemists to alleviate the heavy laboratory work load which resulted from the initiation of a number of special studies.

Northern Research

The northern research program of the division has been restricted in the past year due to the untimely death of one of the engineers who was mainly responsible for this work.

Experimental sewage oxidation ponds were installed for the retention of septic tank sewage effluent. One was located at the Department of Transport Aeradio Station and the other at the Indian and Northern Health Services Nursing Station at Fort Good Hope, N.W.T. Information has been received that these installations resulted in the first trouble free winter operation of sewage disposal units for that area.

Health Grants Services

For the fiscal year 1961-62 an amount in excess of \$400,000 was allotted under the National Health Program for the support of environmental sanitation services. These projects involved, training, research, and necessary assistance required for field operations in carrying out pollution surveys and milk and food sanitation control programs.

TABLE 16
STATISTICAL SUMMARY OF FIELD WORK

	Design and Compilation	Surveys and Exams	Bact. Analy. Water	Chem. Analy. Water	Bact. Analy. Milk	Bact. Analy. Ice	Sewage Effluent Samples
Vessel Sanitation.....		319	1,141		130	11	
Railway Sanitation.....		856	1,821	3	119	84	
Aircraft and Airport Sanitation.....		154	901	5	210	6	
Shellfish Sanitation.....		65	363	2			
Water and Ice Supply Sources for Common Carriers.....		203	547	22		80	
Co-operation with Federal Government Departments.....	12	2,238	2,650	187		2	683
Co-operation with Provincial and Municipal Government Agencies.....		49	436	6			
Grand Total.....	12	3,884	7,859	225	459	183	683

RADIATION PROTECTION DIVISION

General

The radiation protection activities of the department continued to expand during 1961-62. One of the highlights of the year, and a new venture for the division was a week-long meeting of federal and provincial representatives to discuss the broad aspects of radiation protection and the inter-relationships of the various authorities.

Accommodation

During the year renovations to the first and second floors of the Vimy Building were completed and were made available for much needed laboratory and office space.

Plans and specifications were completed and tenders called for a new laboratory building in Confederation Heights. Construction is expected to begin in 1962 with occupancy in about 2 years. At that time the entire division will be consolidated in the one building.

A mobile laboratory was obtained on loan from the Department of National Defence. The unit will be used for special field studies principally around reactor sites.

Staff

Total staff establishment was increased from 46 to 53 persons. The position of chief of the division was filled for the first time and physicists were added for the field survey and total body monitor programs.

Programs

(a) *Isotope and X-Ray Utilization and Safety*

In its continuing role as health adviser to the Atomic Energy Control Board, the division dealt with 1,007 applications for a radioisotope licence. Of these 134 were for medical purposes, 379 for research, 371 for industrial purposes and 123 for miscellaneous use. In addition 298 amendments to existing licences were considered.

Specific advice on safety procedures, industrial installations and design of radioactivity containing devices was given to a large number of organizations. A program for checking on the present status of all long-lived radioactive sources in the country has been started and many hitherto unlicensed radium sources both industrial and medical have been brought under control.

Field inspections were carried out at 294 licensed groups and, when appropriate, recommendations were made to provide more adequate radiation protection. Twenty-four accidents involving radioactive material were reported and investigated. Five persons were suspected of having received external exposure in excess of the recommended maximum permissible limit as a result of these accidents. The degree of the over-exposure was such that it is unlikely that clinical

effects will be observed in any of the persons involved. Special assessment and decontamination procedures were supervised in two incidents in which radioactivity was fairly widespread.

Although there are no federal regulations governing the use of X-rays in Canada, there is increasing awareness by X-ray workers of the need for adequate safeguards. Thirty-seven X-ray units were surveyed by request during the year.

The film monitoring service continued to grow during the year and was extended to about 13,000 workers by the end of the year. The results of this service play an important part in the detection and assessment of many radiation accidents. Considerable progress was made towards the eventual conversion of this service to semi-automatic operation.

(b) *Radioactive Fallout*

Increased emphasis was placed on this program as the result of the resumption of nuclear weapons testing by the U.S.S.R. in September 1961. The main parts of the program (the measurements of radioactivity in air, precipitation, soil, milk, wheat and bone) continued through the co-operation of the various agencies e.g., Meteorological Services Branch, Department of Transport, and Dairy Products Division, Department of Agriculture. Special investigative studies were, however, undertaken to measure short-lived fallout components in selected samples. Results of the air sampling program were released weekly during the immediate testing period. Normally data are released in quarterly and annual reports.

Prior to the resumption of weapons testing the average air levels were about 0.3 disintegrations per minute per cubic meter. The average levels rose to about 40 and then decreased to about 20 by the end of the calendar year. Similarly, the deposition of fallout in precipitation averaged about 5 millicuries per square mile prior to testing, increased to about 280 and then decreased to about 150 by the end of the calendar year.

Due to several factors, including grazing habits and the type of analysis, the results from the milk powder program had not reflected the resumption of testing by the year's end. Strontium-90 levels in milk decreased slightly throughout the year from about 9 micromicrocuries per gram calcium to about 7.

A revised human bone sampling program was introduced. Samples were restricted to a specific type and numbers were allocated by age groups to various regions of the country. A total of 274 bone specimens were collected during 1960 and analyzed for strontium-90 during 1961-62. Values ranged from 0.87 to 1.58 micromicrocuries per gram calcium.

(c) *Safety of Nuclear Reactors and Devices*

A member of the division continued to serve as health representative on the Atomic Energy Control Board's Reactor Safety Advisory Committee.

Monthly milk powder samples and daily air samples were collected in the neighbourhood of the McMaster University reactor and were analyzed for strontium-90 and total beta activity respectively.

Initial steps were taken to set up reactor environment monitoring programs for the Chalk River and NPD reactors. Water samples were collected at four points on the Ottawa River and analyzed for strontium-90, strontium-89 and caesium-137.

(d) *Total Body Monitor*

Calibration studies were initiated and this work is still in progress. The unit will be used for assessment of the radioactivity content of persons who have been exposed to possible internal contamination with radioactive substances and for measuring caesium-137 levels in people as a result of fallout.

MEDICAL SERVICES DIRECTORATE

CIVIL AVIATION MEDICINE DIVISION

The fiscal year 1961-62 completes fifteen years of operation for this division. During this time the division has provided advice to the Department of Transport Air Services, other government departments and associated agencies on the medical problems relating to the health, safety and comfort of aircrew, groundcrew and airline passengers.

During the year it was recognized that there was a need for improved Civil Aviation Medical Services, to the Department of Transport, particularly in the Regional Air Services Offices. To implement this, plans have been made to discontinue part-time regional medical officers' positions and replace them with full-time medical officers from the Department of National Health and Welfare to perform the duties. The plan has already been instituted at the Winnipeg Regional Office and has provided a better service. An additional medical officer has been appointed to the Ottawa headquarters' staff to assist in the development of the new plan.

The prime responsibility for providing advice to the Department of Transport on medical standards for licensed civil aviation personnel has continued and a revision of the current standards was prepared. During the past year approximately 20,000 civil aviation personnel licensed by the Department of Transport required a medical examination at specified intervals. Some 23,600 medical examinations were completed by 420 medical examiners. Contentious cases were reviewed by six regional medical officers with the assistance of the Regional Medical Consultant Boards.

New procedures were instituted in the method of recording and analyzing disabilities in aircrew personnel, and monitoring the medical examination service and electrocardiographic program. These procedures are also related to the work associated with the medical aspects of civil aircraft accident investigations.

Contacts have also been maintained, internationally, with known experts in the field of civil aviation medicine, particularly concerning the task and environment of selected licensed aviation personnel.

The collection and dissemination of information in aviation medicine has continued. Three-day regional conferences for Department of Transport appointed Civil Aviation Medical Examiners were conducted at Department of Transport Air Services Regional Offices. These conferences received the approval of the College of General Practice for Class I Study credits. A two-day Conference on Medical Qualifications for Civil Aviation Personnel was held in Toronto. This represented a sampling of medical opinion from senior Canadian consultants familiar with aviation.

With the advent of subsonic and the early forecast for supersonic jet airliners it was increasingly recognized that more consideration should be given to the study of the medical factors concerned. Although the division is not responsible

for conducting medical research, close liaison is maintained with the National Research Council, the Defence Research Medical Laboratories, the Royal Canadian Air Force Institute of Aviation Medicine, the Department of Transport, and recognized international aviation agencies on all medical subjects related to civil aviation.

A paper was presented at an international meeting summarizing observations, from an audiometric survey, conducted by this division, pertaining to hearing losses in Canadian licensed civil aviation personnel.

Consultant advice was provided to the Department of Transport for the International Civil Aviation Organization at a personnel licensing and aviation medicine meeting held in Montreal. Medical standards and aviation medicine problems of present and future flying were also studied.

The pre-employment and pre-assignment medical examinations for selected non-flying groups in Department of Transport Air Services continued to be reviewed by regional medical officers.

CIVIL SERVICE HEALTH DIVISION

With the close of the past fiscal year the Civil Service Health Division has completed its fifteenth year of operation. No major changes in departmental policies or practices were introduced, although it is significant that this division along with other divisions of the department having similar operational functions, namely, Quarantine, Immigration Medical and Sick Mariners Services, Civil Aviation Medicine, and Indian and Northern Health Services, were amalgamated into one Directorate—the Directorate of Medical Services. This organizational change constitutes a further step in a progressive departmental policy of coordinating divisional responsibilities of diverse nature, particularly in field medical units.

Personnel

No major changes in staff or establishment occurred during the year. The division's complement of 82 personnel comprises six medical officers including a psychiatrist, a psychologist, a consultant in social services (vacant for the past three years), a supervisor and assistant supervisor of nursing counsellors, 48 nursing counsellors and 24 auxiliary personnel. Retirements, resignations, transfers, etc., accounted for a turnover of six nursing counsellors, all of which vacancies have been capably filled by suitably qualified public health nurses.

Administration

The division has continued to provide three broad classes of service from its headquarters in No. 3 Temporary Building. First, through its Medical Centre at headquarters an advisory, diagnostic and emergency medical service is afforded to almost 40,000 federal government employees in the Ottawa area. Secondly, through 25 full-time and 3 part-time health units nursing counsellor service has been provided in whole or in part to some 38,800 employees, all within the

Ottawa area. Thirdly, a basic advisory and consultant service is rendered to all government departments on employee health and welfare matters. Outside Ottawa essential medical services required by statute or requested by departments are arranged, utilizing wherever possible, the facilities of other divisions of the newly formed directorate, the Department of Veterans Affairs or occasionally private physicians on a fee-for-service basis.

Medical Centre Services

The clinical services performed at the Medical Centre during the fiscal year are summarized in Table 17. As in previous years the bulk of the clinical work, apart from the consultant services of the psychiatrist and psychologist, consists of referrals from health units, physical examinations required by statute, periodic voluntary examinations requested by departments for special employee groups and an ever-increasing volume of immunizations required for travel abroad. The special employee groups referred to above include employees and their dependents proceeding to isolated posts or overseas missions; employees assigned to summer field work; employees engaged in hazardous occupations including exposure to radioactive materials; selected groups of senior administrative personnel; pre-employment examinations where an assessment of physical suitability is required; and lastly, special eye examinations on employees whose work demands a high degree of visual acuity. In this latter connection we have been fortunate in having the chief of the Blindness Control Division, a former member of the Medical Centre staff, assume an active role as consultant in ophthalmology to this division.

Each year witnesses a steady increase in the clinical and advisory services undertaken on behalf of foreign service personnel and their dependents of the Departments of External Affairs and Trade and Commerce prior to and on return from posting abroad. Included in this category are medical examinations required by assignees and their dependents proceeding abroad under the auspices of the External Aid Office (formerly Colombo Plan). In performing its medical advisory functions to these departments, the division for the past three years has been ably assisted by the Immigration Medical Officer previously stationed in New Delhi. His initial survey of twelve Asian posts took into account those factors responsible for the different kinds and degrees of hardship experienced by Canadian foreign service personnel serving at these posts and his report contained proposals designed to alleviate or provide appropriate compensatory assistance. During the past fiscal year this medical officer completed two further assignments in which similar hardship conditions were studied at ten posts in Eastern Europe, the Middle East and Africa, and five posts in Latin America. Comprehensive reports on each of the 27 posts inspected during these three assignments together with a Post Rating Form, Rating Guide and Weighting Factors have proven to be extremely valuable not only to the Departments of External Affairs and Trade and Commerce in establishing adequate post differential allowances but as well to this division in providing a wealth of information on factors such as isolation, local conditions, climate, health and medical care facilities.

From Table 17 it will be noted that a total of 5,896 immunizations were administered to some 2,957 individuals at the Medical Centre, a slight increase

over that of the previous year. These immunizations were largely for foreign service personnel and their dependents proceeding abroad or to isolated regions and are, of course, in addition to the large scale poliomyelitis vaccination program referred to under "Special Activities".

The consultant services of both the psychiatrist and psychologist have once again been in increasing demand during the fiscal year. The psychiatrist held 527 consultations, a slight increase over the previous year, and in addition to his consultant functions he has continued to build upon and carry forward the educational phase of the mental health program for federal government employees. In this latter connection he has given lectures and held discussions with thirteen different groups of government personnel comprising nursing counsellors, administrative and personnel officers, and supervisors in training. He continues to give leadership and treatment to the program for combating alcoholism, which emphasizes early recognition, treatment and rehabilitation. Since many government departments now make treatment a condition of employment for problem drinkers, it is worthy of note that there has been a significant increase in the number satisfactorily rehabilitated. The psychologist held 897 psychological assessments and interviews, an increase of 15 per cent over that of the previous year. Much of this increase was in referrals from nursing counsellors and personnel officers and is attributed to the policy of encouraging referral where tension and frustration appear as the major cause of poor job adjustment. A substantial proportion of interviews are held in the health units, particularly those in outlying areas, which enables the psychologist to maintain close liaison with nursing counsellors and reduces employee time loss in visiting the Medical Centre. Almost one-third of the psychologist's interviewing time is required for his work with foreign service personnel. Furthermore, early in the fiscal year, the Civil Service Commission transferred their counselling service to this division. This added commitment has pointed up the division's need for an assistant psychologist if this service is to reach its full potential.

The Certificate Review Section located in No. 1 Temporary Building, functioning as an integral part of the Medical Centre with medical officers giving medical direction to the work of the section on a monthly rotating basis, reviewed and processed some 98,900 certificates of disability for duty and 10,154 physical examination record forms. Additionally, this section arranged for more than 600 medical examinations outside Ottawa utilizing the various resources cited above. The annual statistical report on "Illness in the Civil Service" was compiled by the Public Health Section of the Bureau of Statistics from sick leave certificates furnished by this division. Table 18 summarizes retirements from the service on medical grounds according to disability for the year 1961-62.

Health Unit Services

Table 19 lists the location and total number of personnel supervised by the 25 full-time and 3 part-time health units operating at the end of the fiscal year. In July two new one-nurse units were opened on Riverside Drive, one to serve postal employees in their new building and the second to serve National Research Council employees in the new Communications Building. Until re-occupancy, the health

unit formerly located in the Blackburn Building was temporarily closed. In September 1961 the half-time service in the Daly Building was increased to full-time. It is noteworthy that these additional services are being furnished without increase in nursing counsellor establishment and that at the close of the fiscal year some 38,800 employees are receiving nursing counsellor service in whole or in part in the ratio of approximately one nurse per 750 employees. Although this represents a continuing gradual increase in nurse/employee ratio, it is believed that with careful attention to essentials the quality of nursing service has been maintained.

Table 20 presents a detailed summary of services rendered by the 25 full-time and 3 part-time health units in operation during the fiscal year. Utilization of health unit resources has been customarily measured by estimating the average number of monthly health unit visits per 100 personnel supervised. Although some 38,800 employees may be said to receive health unit supervision, a considerable and growing number owing to migration to the outlying areas, are not sufficiently accessible to health units to receive the full range of service including induction visits, health teaching and counselling, first aid and emergency nursing service. Consequently, in the past few years it has become increasingly difficult to arrive at a true or realistic index of participation. The present index of 53 is based on a force of 32,600 receiving a total service. Approximately 65 per cent of this force belong to departments which require the majority of their employees to make return-to-work visits to the health unit following an absence on account of illness and where such policy is in force the index, of course, is appreciably higher. There remain some 6,000 employees in largely scattered or isolated groups who, because of their location, consult the nursing counsellor as emergencies arise or at best for serious problems only.

Staff Education

Staff conferences were held at regular intervals throughout the year. As a follow-up to visits made the previous year to community agencies in Ottawa and Hull, the nursing counsellors compiled a comprehensive registry of health and welfare agencies in Hull which supplements that provided by The Welfare Council of Ottawa. Nursing counsellors met with the Executive Secretary of the Alcoholism and Drug Addiction Research Foundation early in the fall for the purpose of assisting them to become more proficient in the handling of the problem drinker. Later, discussions were held with the health educator, Information Service Division, with a view to improving the selection and distribution of health education literature in health units.

Special Activities

Apart from its normal functions the division engaged in a number of activities relating to employee health and welfare, several of which deserve special mention.

The large scale vaccination program against poliomyelitis for federal government employees in the Ottawa district, commenced during the previous fiscal year, was completed by early summer. In all a total of 111 clinics were held in 18 different health unit locations, at which some 16,500 employees received either the primary series of three inoculations or completion of a series previously begun.

Additionally, a further 3,500 employees received fourth or booster inoculations. The division has now re-established its former policy of making available poliomyelitis vaccinations at the Medical Centre twice weekly for employees who failed to complete their series during the above program or for new employees requiring primary vaccination.

During the past fiscal year from August to October the Tuberculosis Prevention Division of the Ontario Department of Health conducted a mass chest X-ray survey of federal government employees in the Ottawa area. As in previous surveys in 1949, 1953 and 1957 the division acted in an advisory capacity and co-operated fully with the provincial health authorities in the conduct of this survey and with the local authorities in the follow-up of active cases disclosed. One significant feature of this survey was the inclusion of an initial tuberculin test using the Heaf multiple puncture apparatus. The tests were read after three to seven days. Those X-rayed included all positive reactors in addition to all employees over 40 years of age, regardless of reaction. Since 1949 there has been a significant decline in the incidence of pulmonary tuberculosis with each survey, and since 1957 a reduction from 0.14 per cent to 0.12 per cent. The results from the 1961 survey show a marked reduction in the incidence of active pulmonary disease from 0.074 per cent to 0.035 per cent, i.e., less than half. In the 1957 survey 23 cases of active tuberculosis were discovered compared to only 10 in this recent survey.

At the request of the Emergency Health Service Division of the department, four of our nursing counsellors conducted a series of home nursing classes for female civil servants during the winter of 1961-62. These classes proved quite popular and a second series was begun in March 1962. The course consists of twelve classes held in selected government buildings one afternoon each week.

During the autumn of 1961 the Chief Supervisor of Nursing Counsellors participated in a survey of nursing counsellors for the Division of Quarantine, Immigration Medical and Sick Mariners Services. The nursing service requirements at airports and seaports were studied and a report containing recommendations for standards, utilization of nursing services, supervision and educational programs was submitted to the Departmental Personnel Director.

One final project of special interest has been a study conducted by a member of the Medical Centre staff into the incidence of amoebiasis among Canadian foreign service personnel posted to missions in South East Asia. The medical reports of all foreign service personnel posted to South East Asia for the past five years were reviewed and their experience in respect to amoebic infection examined. The results of this survey indicate that the risk of infection to Canadian personnel proceeding to posts in this area is minimal in Singapore, Hong Kong, Manila and Kuala Lumpur but increases to significant proportions particularly in New Delhi, Karachi, Djakarta, Indo-China and Bombay. The results also confirmed the belief that—the lower the level of health and sanitary conditions the greater the risk of infection. A paper embodying the results of this study is being prepared for early publication.

The chief of the division published an article "Health Hints For Travel" in the April 1961, issue of "Canada's Health and Welfare". He also completed a review of the division's development and progress over the fifteen-year period,

1946-61. This review, similar to that completed after ten years of operation, serves as an instructional guide for indoctrinating new nursing counsellors and provides a useful source of information to government departments and outside industrial organizations interested in the work of this division.

TABLE 17
(Civil Service Health Division)
MEDICAL CENTRE STATISTICS
Fiscal Year 1961-62

Number of Visits		
Total		9,013
First visit	4,090	
Repeat visit	4,923	
Visits by Sex		
Total		9,013
Male	6,462	
Female	2,551	
Analysis of Visits		
Physical Examinations		2,829
Pre-employment, periodic, P.S.S.A.	429	
Foreign service, isolated duty, postings, etc.	769	
Referrals—voluntary, department, health unit, etc.	1,631	
Consultations, interviews, etc.		6,109
Psychological	897	
Psychiatric	527	
Special, eye, X-ray, immunization	4,685	
Accidents		75
Industrial	6	
Non-industrial	69	
Immunizations		
Total number of employees immunized		2,957
Total immunizations		5,896
Smallpox	1,382	
T.A.B.T.	1,462	
T.A.B.	606	
Cholera	515	
Typhus	209	
Yellow Fever	678	
Polio (Salk)	934	
Other	110	
Disposal		
Total		9,013
Returned to work	8,987	
Sent home	26	
Referred to Family Physician		48
Total Laboratory Procedures		4,004
X-ray		
Total		3,330
Chest	2,008	
Chest (photoroentgen unit)	826	
Other	496	

TABLE 18

(Civil Service Health Division)

RETIREMENTS FROM SERVICE—ACCORDING TO DISABILITY

Fiscal Year 1961-62

Male 168 — Female 64 — Total 232

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	1	1	1	3
Neoplasms.....	2	1	4	8	4	19
Allergic, Endocrine Metabolic, Nutritional	0	2	1	3	4	10
Blood and Blood Forming.....	0	0	0	0	0	0
Mental Psychoneurotic Personality.....	5	6	11	12	11	45
Nervous Systems and Sense Organs.....	2	8	2	9	9	30
Circulatory.....	0	5	12	18	32	67
Respiratory.....	0	0	0	1	8	9
Digestive.....	1	2	1	0	3	7
Genito-Urinary.....	0	0	0	4	2	6
Pregnancy, Childbirth.....	0	0	0	0	0	0
Skin and Cellular.....	0	0	0	0	1	1
Bones and Organs of Movement.....	3	1	3	11	11	29
Congenital Malformation.....	0	0	0	0	0	0
Symptoms and Ill-Defined.....	0	0	0	1	3	4
Accidents and Results of Old Injuries.....	0	1	0	0	1	2
Total.....	13	26	35	68	90	232

TABLE 19
(Civil Service Health Division)
HEALTH UNIT LOCATIONS

<i>Health Unit No.</i>	<i>Locations</i>	<i>Total Personnel Supervised by Units</i>
1	No. 2 Temporary Building	3,137
2	Citizenship Building	1,227
3	No. 8 Temporary Building	1,047
4	Trade & Commerce Building	957
5	Metcalf Building	822
6	"C" Building, National Defence	3,500
7	Geological Building, Booth Street	2,022
7A*	Plouffe Park (1 day only)	419
8	Jackson Building Annex	1,736
9	Hunter Building	1,617
10	No. 6 Temporary Building	648
11	D.V.A. Memorial Building	1,343
12	Bureau of Statistics	3,703
13	Victoria Island	665
14	Connaught Building	844
15	Blackburn Building (Temporarily closed) .....	....
16	Daly Building	2,711
17	National Research Council, (Sussex Street)	959
18	National Research Council, (Montreal Road)	1,320
18A*	National Research Council, Radio Building, Montreal Rd. (mornings only)	367
19	Defence Research Board (Shirley's Bay)	667
20	Confederation Building	2,347
21	No. 13 Cottage Row, Building No. 10, Rockcliffe	1,603
22	No. 5 Temporary Building	793
23	75 St. Patrick St. (Old Printing Bureau)	510
24	Sir Charles Tupper Building (Riverside Drive)	909
25	Neatby Memorial Building (Carling Avenue)	1,218
26	Sir Alexander Campbell Building (Riverside Drive)	1,114
27*	National Research Council, Communications Branch, Riverside Drive (mornings only)	583
	TOTAL	38,788

*Part-time.

INDIAN AND NORTHERN HEALTH SERVICES

The federal government, through this department, assumes a moral responsibility for certain groups of the population which, for one reason or another, are unable to make adequate provision for medical care and supervision. Many groups of those races indigenous to Canada still live in remote undeveloped territory where little or no normal medical care is available. Others, though living in close proximity to perfectly adequate medical services, are yet living at such a low economic level they cannot afford the expense of buying these services. In the North, the sparseness of the population makes it difficult for any but a very few well organized communities to provide themselves with adequate medical services. To meet these needs, the department has organized special medical services known respectively as the Indian Health Services and the Northern Health Service.

The Indian Health Services

Organized essentially to ensure that an Indian unable to provide for his own medical care should suffer no undue hardship, this service has a dual function to which a third administrative function now increasingly is being added. Historically the first objective was to provide medical treatment and it is still a prime function of the service to ensure that any essential therapy for which the Indian patient cannot pay, is made available, either by providing the necessary treatment directly by full-time salaried medical, dental or nursing officers or by hiring the services of locally available physicians and specialists on a fee-for-service basis. This is essentially medical social welfare assistance and the fees payable are determined on this basis. The second objective is to try to ensure that Indians are not left, by reason of remoteness or their chosen way of life, in ignorance of modern ideas on how to protect and promote health. This is accomplished mainly by a staff of public health field nurses whose primary function is educational, visiting each house to instruct and demonstrate those health promoting practices and to offer the protection of vaccination against such diseases as smallpox, diphtheria, tetanus and poliomyelitis. A decade or so ago, tuberculosis was extremely prevalent amongst Indians so special emphasis was laid on finding and treating all active cases by mass surveys and isolation in specially built hospitals. This campaign has been markedly successful and tuberculosis, though still calling for constant vigilance, is no longer a major problem amongst Indians. The major problems affecting Indian health now are the excessive mortalities due to diseases of early infancy and accidents (See Tables 23, 24) and to these the major effort is now directed. The third administrative function of the service that is increasingly developing, is to negotiate with provincial health authorities on behalf of Indians for greater integration and extension to them of the same provincial health services as are available to all residents of the province. Many Indian communities are becoming increasingly health conscious and are now organizing health committees, passing sanitary and health by-laws and organizing co-operation with hospital insurance plans. The department strongly encourages this development

TABLE 21
I.N.H.S. FACILITIES BY REGION, ZONE AND PROVINCE

ADMINISTRATIVE AREAS		I.N.H.S. FACILITIES					
Region and Regional Office	Zone and Zone Office	Province	Hospital	Clinic	Nursing Station	Health Centre	
EASTERN (Ottawa)	ATLANTIC (Halifax)	NOVA SCOTIA		Sydney			Eskasoni Shubenacadie
		NEW BRUNSWICK					Chatham Big Cove Kingsclear
	QUEBEC (Quebec City)	QUEBEC (Northeast)		Caughnawaga	Fort Chimo		Romaine Sept Iles Bersimis Point Bleue Schefferville Restigouche Natasquan
	MOOSE FACTORY (Moose Factory)	QUEBEC (Northwest)			Rupert House Fort George Port Harrison Great Whale Povungmituk Paint Hills		
		ONTARIO (Northeast)		Moose Factory	James Bay		Fort Albany
	OTTAWA (Ottawa)	QUEBEC (West)			Amos		Mistassini Obediwan Manowan Rapid Lake Maniwaki Waswanipi St. Regis
		ONTARIO (East)			Deseronto		
	SOUTHERN ONTARIO (Ohsweken)	ONTARIO (South)		Lady Willingdon	Muncey Ohsweken		Peterborough Walpole Island Chippawa Hills Christian Island Orillia
		NORTHERN ONTARIO (North Bay)	ONTARIO (North)		Manitowaning		Chapleau Sturgeon Falls Sault Ste. Marie Temiskaming Parry Sound
		EASTERN NORTHERN (Frobisher)	NORTHWEST TERRITORIES (Franklin District)	Frobisher Bay	Frobisher Bay Pangnirtung	Cape Dorset Fox	

TABLE 21
I.N.H.S. FACILITIES BY REGION, ZONE AND PROVINCE—Concluded

ADMINISTRATIVE AREAS		I.N.H.S. FACILITIES				
Region and Regional Office	Zone and Zone Office	Province	Hospital	Clinic	Nursing Station	Health Centre
CENTRAL (Winnipeg)	SIoux LOOKOUT (Sioux Lookout)	ONTARIO (Northwest)	Sioux Lookout	Sioux Lookout	Lansdowne House Lac Seul Big Trout Lake Sandy Lake Pikangikum	Port Arthur Kenora Fort Frances Pickle Lake Nakina
	SOUTHERN MANITOBA (Winnipeg)	MANITOBA (South)	Fisher River Fort Alexander	Pine Falls Fisher River	Little Saskatchewan Little Grand Rapids	Brandon Portage la Prairie Sandy Bay Dauphin Berens River Elphinstone
	NORWAY HOUSE (Norway House)	MANITOBA (East)	Norway House	Norway House	Garden Hill St. Therese's Point God's Lake Narrows Oxford House Cross Lake	
	THE PAS (The Pas)	MANITOBA (North)	Clearwater Lake	The Pas Churchill	Nelson House Pukatawagan Split Lake Lynn Lake	
	CENTRAL NORTHERN (Winnipeg)	NORTHWEST TERRITORIES (Keewatin District)			Baker Lake Eskimo Point	
SASKATCHEWAN (Regina)	FORT QU'APPELLE (Fort Qu'Appelle)	SASKATCHEWAN (South)	Fort Qu'Appelle	Fort Qu'Appelle		Kamsack Broadview Punnichy White Bear Rose Valley
	NORTH BATTLEFORD (North Battleford)	SASKATCHEWAN (West)	North Battleford	North Battleford		Meadow Lake Onion Lake
	PRINCE ALBERT (Prince Albert)	SASKATCHEWAN (East)		Prince Albert	Fort a la Corne Pelican Narrows	Lac la Ronge Uranium City Shellbrook
FOOTHILLS (Edmonton)	NORTHERN ALBERTA (Edmonton)	ALBERTA (North)	Hobbema	Hobbema	Goodfish Lake Fort Chipewyan Hay Lake	Bonnyville Saddle Lake Dritpile High Prairie Edmonton Wabasca Fort Vermilion

PACIFIC (Vancouver)	SOUTHERN ALBERTA (Calgary)	ALBERTA (South)	Blackfoot Blood Charles Camshell	Gleichen	Cardston Peigan Calgary Stony Rocky Mountain House
	MACKENZIE (Edmonton)	NORTHWEST TERRITORIES (Mackenzie District)	Inuvik	Fort Smith Fort Rae Fort Simpson Inuvik	Fort Resolution Fort Providence Yellowknife
	YUKON (Whitehorse)	YUKON	Whitehorse	Whitehorse	Whitehorse Mayo Dawson Haines Junction Watson Lake
	COQUALEETZA (Sardis)	BRITISH COLUMBIA (South)	Coqualeetza	Vancouver Williams Lake Sardis Alexis Creek	Kamloops Lillooet Mount Currie
	NANAIMO (Nanaimo)	BRITISH COLUMBIA (West)	Nanaimo		Duncan Alert Bay Totino Bella Bella
	MILLER BAY (Prince Rupert)	BRITISH COLUMBIA (North)	Miller Bay	Miller Bay	Vanderhoof Hazelton Port Simpson Massett Aiyansh

and where any Indian band makes any effort at this kind of self help, readily affords any necessary advice or assistance. It may be interesting to note that if the mortality amongst Indians due to accidents, and the infant mortality are reduced to the same rates as those affecting Canada as a whole, then the death rate for Indians from all causes is less than that of Canadians as a whole. It is also noteworthy that in spite of the very high infant mortality, the rate of natural increase of the native Indians of Canada is almost twice that of other Canadians.

The Northern Health Service

By agreement with the territorial administrations, this department, through the Northern Health Service, now functions as the health department of these northern administrations covering all residents and attempting to provide all the normal services of a provincial health department plus medical welfare assistance. Costs of operating the service are shared between the federal government, the territorial administrations and local communities on a ratio determined by the proportion of Indian and Eskimo populations to the white population. Officers of this department have drafted a health plan, public health legislation, and an insurance plan passed and adopted by the administrations. During the year under review plans have been drawn up for a progressive development of medical services and facilities. New hospitals and nursing stations are being built and the recently introduced hospital insurance plan has greatly benefited both the patients and the medical facilities operating under it. The most significant feature of this development is that a major step has been taken towards integration of the population. No longer is the health of the Indian and Eskimo regarded as the special obligation of the federal government while the care of the white population is a territorial matter. The Territorial Department of Health, which happens to be, for the present, the Northern Health Service of the Department of National Health and Welfare, has assumed responsibility for planning for the health of the whole population. Hospital insurance is extended to every resident so far as health matters are concerned, consideration of race has disappeared.

The Eskimos however still present a peculiar and very difficult health problem. The rigours peculiar to their traditional way of life produce an infant mortality rate which still remains disturbingly high. (See Table 24.) This is mainly due to exposure to the extremely severe climatic conditions and little can be done to improve matters until the Eskimos can be provided with better means of protection, and ceases to expose his infants and younger children to the severities of winter travel.

Training Program

The department promotes a regular active program of training for members of the staff. During the year, five doctors completed postgraduate courses in internal medicine, surgery and eye disease, thirteen nurses completed courses in public health, B.Sc. (Nursing) and hospital administration and nursing supervision, and one dentist completed the course for Diploma of Public Health. In addition to this formal professional training, the department has introduced on still an

experimental basis a program for training local health workers, members of a community selected for qualities of character, intelligence and natural leadership who are given basic training in sanitation, home nursing, first aid, etc., and will thereafter be charged with guiding their fellows in respect of these matters and co-operating with the professional officers of the department when they visit the community.

TABLE 22
I. N. H. S. FACILITIES

I.N.H.S. Region	Province	Facilities						Health Centres
		Hospitals			Clinics	Nursing Stations		
		No.	Rated Beds	Capacity Bassinets		No.	Rated Bed Capacity	
Eastern	Nova Scotia.....				1			2
	New Brunswick.....							3
	Quebec.....				2	7	28	14
	Ontario.....	2	180	9	5			11
	N.W.T.....	1	19	2	2	2	8	
	Totals.....	3	199	11	10	9	36	30
Central	Ontario.....	1	70	5	1	5	20	5
	Manitoba.....	4	218	14	5	11	44	6
	N.W.T.....					2	8	
	Totals.....	5	288	19	6	18	72	11
Sask.	Saskatchewan.....	2	154	13	3	2	8	10
Foothills	Alberta.....	4	132	23	2	3	12	12
	Yukon.....	1	120	30	1	1	4	5
	N.W.T.....	1	100	12	4	9	39	3
	Totals.....	6	352	65	7	13	55	20
Pacific	B.C.....	3	527	8	5			12
Grand Total.....		19	1,520	116	31	42	171	83

TABLE 23
 TWENTY-ONE LEADING CAUSES OF INDIAN¹ AND NON-INDIAN MORTALITY
 Calendar Years 1955-1960

CAUSE OF DEATH (I.S.C.—Intermediate List)	RANK ²												NUMBER OF DEATHS ³																																																						
	Indians ⁴						Non-Indians						Indians ⁴						Non-Indians																																																
	55	56	57	58	59	60	55	56	57	58	59	60	55	56	57	58	59	60	55	56	57	58	59	60																																											
A1-A5 A17-A18; A21-A23; A28; A32 A44-A60 A63 A64-A65	6	7	8	9	10	13*	17	18	18	19	18	18	14	14	14	14	14	15	80	65	69	59	53	44	1,302	1,191	1,114	968	906	779	428	408	288	211	369	272	20,586	21,135	21,663	21,994	22,466	23,395	1,709	1,814	1,852	1,861	1,981	2,072	412	431	400	491	431	396													
A70 A71	9	10	9	7	8	7	3	3	3	3	3	3	63	53	59	70	76	66	53	59	70	76	66	14,082	14,394	15,092	15,052	15,574	15,362	249	232	196	210	170	167	148	106	115	76	62	52	36,785	37,886	39,740	40,118	42,272	43,676	5,073	4,985	4,674	4,859	4,763	4,180														
A79 A80-A81 A83-A84	3	4	4	4	4	3	1	1	1	1	1	160	138	147	137	135	16	12	21	13	13	27*	20	22	20	20	2,722	2,961	2,977	2,888	2,979	3,138	347	302	367	327	270	324	5,423	5,757	7,075	5,863	7,156	5,837																							
A85 A87-A92 A98-A107 (Except A104)	1	1	1	1	1	1	6	6	6	6	6	8*	11	14*	11	14*	13	13	11	11	14*	13	22	20	2,722	2,961	2,977	2,888	2,979	3,138	347	302	367	327	270	324	5,423	5,757	7,075	5,863	7,156	5,837																									
A104; A16 A108-A114	7	8	6	5	5	5	15	15	15	15	15	73	64	82	112	121	48	31	39	39	52	48	31	39	39	52	3,730	3,812	3,868	4,024	4,142	4,401	857	831	777	945	859	847	3,626	3,501	3,296	3,194	3,104	2,942																							
A115-A120 Delivery and Complications of Child- birth.....	16	18	18*	13	17	19	19	19	19	18	19	9	8	8*	18	11	18	6	8	8*	18	11	18	6	6	326	270	247	245	263	209	604	609	605	564	580	601	2,574	2,809	2,742	2,789	2,731	2,658	6,949	7,374	7,800	7,382	7,453	6,932	1,685	1,679	1,596	1,460	1,454	1,300	9,896	10,484	10,837	10,396	10,904	10,747	7,410	7,766	7,948	7,994	9,177
A121-A126 Diseases of Skin and Musculo-Skeletal System.....	15	17	15	14	18	15	16	16	16	16	16	13	9	9	14	8	14	11	11	14	14	8	11	11	11	604	609	605	564	580	601	2,574	2,809	2,742	2,789	2,731	2,658	6,949	7,374	7,800	7,382	7,453	6,932	1,685	1,679	1,596	1,460	1,454	1,300	9,896	10,484	10,837	10,396	10,904	10,747	7,410	7,766	7,948	7,994	9,177						
A127-A129 Congenital Malformations.....	5	3	3	3	3	4	5	5	5	5	5	149	180	181	182	167	57	57	57	57	57	57	57	1,685	1,679	1,596	1,460	1,454	1,300	9,896	10,484	10,837	10,396	10,904	10,747	7,410	7,766	7,948	7,994	9,177																										
A130-A135 Diseases of Infancy.....	4	5	5	8	7	8	13	13	13	13	13	183	201	248	235	269	259	259	248	235	269	259	259	9,896	10,484	10,837	10,396	10,904	10,747	7,410	7,766	7,948	7,994	9,177	.....																															
A136-A137 Senility: Ill-Defined Causes.....	2	2	2	2	2	2	4	4	4	4	4	183	201	248	235	269	259	259	248	235	269	259	259	9,896	10,484	10,837	10,396	10,904	10,747	7,410	7,766	7,948	7,994	9,177	.....																															
A138-A150 Accidents.....	2	2	2	2	2	2	4	4	4	4	4	183	201	248	235	269	259	259	248	235	269	259	259	9,896	10,484	10,837	10,396	10,904	10,747	7,410	7,766	7,948	7,994	9,177	.....																															
All Other Causes.....																											
Total Deaths.....	1,578	1,528	1,677	1,617	1,628	1,623	1,578	1,677	1,617	1,628	1,623	1,623	126,576	130,433	134,902	133,584	138,285	129,963																										

¹Registered Indians—(But see 4 below).

²"Rank" refers to the order of magnitude of these 21 selected causes only.

³Source: Vital Statistics Section, Health and Welfare Division, Dominion Bureau of Statistics.

⁴Excluding Newfoundland for all years; excluding Nova Scotia prior to 1958.

*Where an equal number of deaths occurred from two or more causes, these causes were given the same rank in that year.

TABLE 24
BIRTH AND SELECTED MORTALITY STATISTICS
Calendar Year 1960

	LIVE BIRTHS		DEATHS									
			Neonatal (Under 28 Days)		Infant (Under One Year)		Maternal		From T.B.		Totals	
	Number	Rate per 1,000 Est. Pop.	Number	Rate per 1,000 Live Births	Number	Rate per 1,000 Live Births	Number	Rate per 1,000 Live Births	Number	Rate per 100,000 Est. Pop.	Number	Rate per 1,000 Est. Pop.
All Canada ¹	478,551	26.9	8,410	18.0	13,077	27.0	215	0.4	823	4.6	139,693	7.8
Registered Indians ²	7,751	41.9	157	20.0	615	79.0	6	0.8	44	23.8	1,623	8.8
Eskimos ³	628	56.2	45	71.7	115	183.1	.....	.....	5	44.7	209	18.7

¹Source: Vital Statistics, Health and Welfare Division, D.B.S.

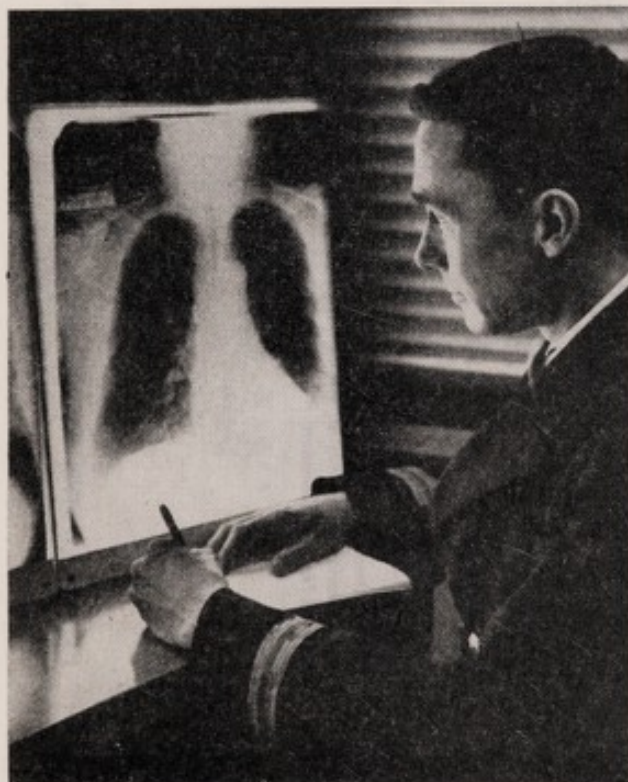
²Registered Indians and Eskimo figures for Newfoundland only in "All Canada" figures.

³Source: Department of Northern Affairs and National Resources.

QUARANTINE SERVICE

The need for protection against the introduction of the major quarantinable diseases was further emphasized in 1961-62 by the occurrence of limited outbreaks of smallpox in England, Wales and Western Europe and of cholera in South East Asia. These diseases were potentially directed toward the east and west coasts of Canada by way of ever-increasing international traffic. The danger of the introduction of smallpox is greatly increased by the rapidity of air transit. A traveller, infected shortly prior to departure from an endemic or locally infected area, may arrive and infect contacts before the disease is accurately diagnosed. Striking proof of the effectiveness of inspection control measures and of maintenance of a high index of immunity amongst the general population through vaccination and periodic revaccination is contained in the fact that no case of major quarantinable disease was introduced into Canada during the period under review.

The administration of measures designed to limit the transmission to Canada of the six major quarantinable diseases—smallpox, cholera, plague, yellow fever, louse-borne typhus, and louse-borne relapsing fever—lies within the purview of the Quarantine Service under the authority of the Quarantine Act and Regulations.



A doctor of the Quarantine, Immigration Medical and Sick Mariners Services staff examines an X-ray of an immigrant.

Canada subscribes without reservation in matters of international quarantine to the International Sanitary Regulations of the World Health Organization. Notification of fresh outbreaks of disease abroad imported from traditional endemic areas is promptly relayed to quarantine medical officers at Canadian ports of arrival. Canadian medical officers, stationed in Great Britain, on the continent of Europe and at Hong Kong, in connection with their immigration medical duties, keep close liaison with departments of health in the various countries and play an important role in early notification of disease outbreaks.

Smallpox

The possibility of introduction of smallpox into Canada is real. Vaccination and periodic revaccination

remain the only effective prophylaxis. Despite the encouraging decline in the world total of reported cases in the past decade there is no room for complacency. The world figures are deficient through incompleteness of reporting, are modified

by changing patterns of mortality and are altered in significance by increase in rapidity of transmission of the disease through air travel.

Localized imported disease was reported during the year from Madrid, Moscow, Great Britain, Switzerland and the Federal Republic of Germany. India and Pakistan remain the great endemic foci of disease imported into Europe.

The quarantine regulations provide that every person arriving in Canada from abroad other than from certain countries considered coastwise shall present valid evidence of immunity against smallpox. During the year under review, 1,079,881 travellers arriving in Canada were medically inspected and were in possession of International Certificates of Vaccination or were vaccinated on arrival. Surveillance orders were issued in 918 cases where close follow-up by medical officers of health across Canada of suspected contacts was deemed necessary.

Cholera

Cholera assumed for the Quarantine Service renewed importance during the year. A serious epidemic occurred in Hong Kong necessitating on our west coast the application of stringent measures against the importation of perishable food-stuffs. An outbreak of cholera-like disease in the Philippines, although not reportable as Asian cholera, resulted there in many deaths and widespread morbidity. Certificates of vaccination against cholera with subsequent surveillance during the period of incubation of the disease were required of persons arriving from Hong Kong and from South East Asia during the epidemics.

Plague

Despite the salutary decline in the reported world incidence of human plague over the past decade introduction of this disease into Canada has always to be regarded as a potential danger. Strict measures to limit rat populations on vessels are also applicable to freighter aircraft. One freight-carrying aircraft required effective fumigation during the year. Rodent autopsy fortunately showed no evidence of infection. Notifications of plague are regrettably incomplete and the wild rodent reservoir in many countries poses a special problem. Table 25, "Control of Rats on Vessels", summarizes the work conducted by the Quarantine Service in connection with rodent inspection and control on ships.

Yellow Fever

Yellow fever vaccination centres are established at designated points across Canada as a service to the travelling public. Owing to the perishable nature of the product and the administrative complexities of internationally acceptable documentation, the World Health Organization regulates the establishment of centres for the inoculation of yellow fever vaccine. During the year, 8,328 inoculations were administered.

Typhus and Relapsing Fever

These diseases are endemic only in Africa, the great reservoir of infection being in Ethiopia. The presence of Canadian personnel in the Congo during the

TABLE 25
CONTROL OF RATS ON VESSELS
1961-62

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 or Related Action	Total Vessels Inspected	Rodents Recovered	
						Rats	Mice
St. John's, Nfld.		24	1		25		
Sydney, N.S.		3			3		
Halifax, N.S.	4	39	57	3	103	25	
Saint John, N.B.		42	1		43		
Baie Comeau, Que.		3			3		
Montreal, Que.	1	123	6	9	139	39	
Port Alfred, Que.		25			25		
Quebec, Que.		23			23		
Seven Islands, Que.		1			1		
Three Rivers, Que.		12			12		
Toronto, Ont.		8		2	10		
Vancouver, B.C.	5	206	9	641	861	89	
Victoria, B.C.		30		144	174		
Total	10	539	74	799	1,422	153	

TABLE 26
INSPECTION OF AIRCRAFT SUBJECT TO QUARANTINE
1961-62

Airport	No. of Aircraft	No. of Crew	No. of Passengers	Total Persons
Ancienne Lorette, Que.	3	26	279	305
Bagotville, Que.	1	9	37	46
Calgary, Alta.	2	19	36	55
Dorval, Que.	3,144	30,808	201,308	232,116
Edmonton, Alta.	191	1,909	11,474	13,383
Fredericton, N.B.	18	134	991	1,125
Frobisher, N.W.T.	19	219	965	1,184
Gander, Nfld.	4,059	30,432	171,000	201,432
Goose Bay, Nfld.	484	3,758	19,735	23,493
Halifax, N.S.	234	2,357	16,758	19,115
London, Ont.	2	13	74	87
Malton, Ont.	1,053	8,111	54,741	62,852
Moncton, N.B.	49	429	1,973	2,402
Ottawa, Ont.	90	825	2,941	3,766
Seven Islands, Que.	1	8	77	85
Stephenville, Nfld.	8	71	463	534
Sydney, N.S.	53	447	3,522	3,969
St. John's, Nfld.	9	85	9	94
Trenton, Ont.	109	1,403	1,237	2,640
Vancouver, B.C.	404	4,030	24,361	28,391
Windsor, Ont.	4	34	310	344
Winnipeg, Man.	357	3,570	25,362	28,932
Total	10,294	88,697	537,653	626,350

past year has redirected attention to this area as a classic focus of endemic infection. Constant vigilance is the price of Canada's enviable record of freedom from the importation of major quarantinable disease during the year past.

Leprosy in Canada

Federal control of all cases of leprosy in Canada was formulated in 1906 by an "Act Concerning Leprosy". Administration of the act is a function of the Quarantine Service.

Leprosy is recorded as having been introduced into Canada between 1815 and 1820. Subsequently the emergence of two groups of afflicted persons becomes apparent; those who contracted the disease in Canada, and those who brought with them the disease contracted elsewhere. Three hundred cases developed in northeastern New Brunswick following the original importation of the disease.

In 1880 leprosarium facilities at Tracadie, New Brunswick, were taken over by the federal government at the request of the province. These buildings were destroyed by fire in 1943. The present accommodation is a modern fire-proof wing of the General Hospital staffed and administered by the religious hospitallers of the Hotel-Dieu de St. Joseph of Tracadie. This order has continued the service of ministering to leper patients since 1868. A departmental medical officer experienced in the diagnosis and treatment of leprosy directs the therapeutic program.

Facilities established on the west coast of Canada at D'Arcy Island in 1892 and at Bentinck Island in 1924 no longer exist. Since 1957, all in-patient treatment has been carried out at Tracadie.

At the end of the fiscal year 1961-62 four patients were receiving active treatment at Tracadie and eighteen persons were out-patients under surveillance of local medical officers of health across Canada. The known cases in Canada total twenty-two. One imported case was repatriated during the year to his country of origin.

TABLE 27
SHIPS BOARDED BY QUARANTINE OFFICERS,
ORGANIZED QUARANTINE STATIONS
1961-62

Station	Vessels Inspected	Personnel Inspected				Port Totals
		Crew	Passengers	Stowaways	Others	
Halifax, N.S.....	709	54,637	48,342	3	3	102,985
Sydney, N.S.....	93	3,647	1			3,648
Saint John, N.B.....	347	15,470	1,965	3	9	17,447
St. John's, Nfld.....	303	16,044	1,129	2	22	17,197
Quebec, Que.....	2,687	147,469	75,654	11	20	223,154
Victoria, B.C.....	972	50,790	15,338	9	4	66,141
Total.....	5,111	288,057	142,429	28	58	430,572

TABLE 28

SHIPS INSPECTED

Unorganized Ports 1961-62

Station	Vessels Inspected	Personnel Inspected			Total Personnel Inspected
		Crew	Passengers	Stowaways	
Argentia, Nfld.	1	41		1	42
Baddeck, N.S.	2	54			54
Bathurst, N.B.	1	27			27
Bay Roberts, Nfld.	1	25			25
Bell Island, Nfld.	110	4,559	63		4,622
Botwood, Nfld.	31	1,226	3		1,229
Bridgewater, N.S.	1	27			27
Campbellton, N.B.	3	118			118
Carbonear, Nfld.	1	12			12
Charlottetown, P.E.I.	2	76			76
Chatham, N.B.	1	36			36
Churchill, Man.	50	1,841	19		1,860
Coley's Point, Nfld.	1	25			25
Cornerbrook, Nfld.	32	1,313	18		1,331
Dalhousie, N.B.	36	1,195	51		1,246
Digby, N.S.	6	162	2		164
Fortune, Nfld.	1	28			28
Gaspé, Que.	2	455	477		932
Grande Valley, Que.	1	29			29
Harbour Buffet, Nfld.	2	49			49
Harbour Grace, Nfld.	46	809	9		818
Hare Bay, Nfld.	12	312			312
Indian Bay, Nfld.	19	538			538
Kitimat, B.C.	30	1,121	4		1,125
Little Narrows, N.S.	1	35			35
Liverpool, N.S.	12	653	8		661
Louisbourg, N.S.	6	227			227
Matane, Que.	1	24			24
Moncton, N.B.	2	68			68
Newcastle, N.B.	3	108			108
Ocean Falls, B.C.	4	156			156
Parrsboro, N.S.	8	199			199
Pictou, N.S.	2	48			48
Port Alberni, B.C.	14	491			491
Port Alice, B.C.	12	471	4		475
Port Hawkesbury, N.S.	10	313			313
Port McNeil, B.C.	12	532			532
Port William, N.S.	2	55			55
Prince Rupert, B.C.	43	1,571	11		1,582
Quatsino, B.C.	21	894	1		895
Richibucto, N.B.	1	35			35
Stephenville, Nfld.	4	167	2		169
Summerside, P.E.I.	4	111			111
St. John's, Nfld.	7	217			217
Tahsis, B.C.	10	304			304
Walton, N.S.	16	418			418
Weymouth, N.S.	6	168			168
Windsor, N.S.	16	513			513
Yarmouth, N.S.	2	42			42
Total	611	21,898	672	1	22,571

IMMIGRATION MEDICAL SERVICE

Under authority of the Department of National Health and Welfare Act and the Immigration Act, the Immigration Medical Service is responsible for the preliminary medical examination of intending immigrants abroad, for the medical inspection or examination of immigrants and non-immigrants on arrival at Canadian ports and airports and for the examination throughout Canada of applicants for permanent residence.

The service has also the responsibility for providing treatment to those who are ill on arrival in Canada and to certain classes of immigrants, who, following arrival, become ill while en route to their destination or while receiving care and maintenance provided by the Department of Citizenship and Immigration pending placement in employment.

As admission to Canada is sought by individuals in all parts of the world, the Immigration Medical Service is divided into a European section, a Canadian section and a Preliminary Medical Screening Section. A Canadian medical officer was posted to Hong Kong during the year under review. The whole operation is administered by a headquarters section which is also responsible for liaison with provincial and local health authorities in medical matters pertaining to immigrants.

Canadian medical officers are stationed in twenty-one cities throughout the British Isles and western Europe. Because of the close association with the Department of Citizenship and Immigration, the establishments of both departments are situated in the same building in each city.

The European operation is administered from London where, in addition to the administrative staff, there is an examining unit and a consultation service in general medicine, chest diseases and psychiatry.

In order that intending immigrants may be spared lengthy journeys, local physicians called roster doctors are appointed to conduct immigration medical examinations in remote areas. Their work is supervised by the physician in charge of the nearest Canadian office. Greatest use is made of roster doctors in Norway, Sweden and Finland.

At each office in Europe, examinations are conducted without cost to the applicant. At all offices in the British Isles, in The Hague and in Paris, chest X-rays are also provided free.

Medical officers-in-charge in most western European capitals serve as attaches to the Canadian embassies. In all centres, medical officers maintain close contact with the local health authorities so that medical information of local or international significance may be passed to the embassy or to the Ottawa headquarters. This information is of particular significance as it pertains to the international quarantinable diseases. In the past year the importance of close contact between our officers and the medical directors of the major shipping companies and airlines was emphasized by the co-operation which the division received from the carriers during the outbreak of smallpox in Europe and of cholera in Hong Kong.

Medical officers are able to assist specific Canadian employers by examining applicants for employment in a particular industry by the standards demanded



Vigilance is the watchword of nurses of the Quarantine, Immigration Medical and Sick Mariners Services. Here one of the nurses points out to two colleagues one of the world's yellow fever receptive areas.

by the industry. They are also able to assist Canadian hospitals and universities by interviewing candidates for appointments, scholarships and postgraduate training.

During the past year, travelling teams of Canadian medical officers carried out examinations at Malta, Cairo and Madrid.

The Canadian section of the Immigration Medical Service is responsible for the final medical examination and for the treatment, if indicated, of all persons subject to immigration authority. Only Canadian citizens, persons having Canadian domicile and the accredited representatives of other governments or international organizations are exempted from medical examination at Canadian ports. The section together with the Ottawa headquarters conduct the periodic examinations and reviews of those who have been admitted to Canada as non-immigrants for treatment purposes.

The preliminary medical screening of persons living in countries in which there are no Canadian medical officers or roster doctors is intended to give reasonable assurance to the applicants that they will be able to meet medical requirements on arrival at a Canadian port. Furthermore, it assists in preventing the introduction of communicable diseases into Canada.

The actual medical examinations in such cases are conducted in the country of origin by reputable physicians selected by resident officers of the Depart-

ment of Citizenship and Immigration, the Department of External Affairs, or by representatives of the British Foreign Office. The medical reports and chest X-rays are then forwarded for review to the Preliminary Medical Screening Section at the Ottawa headquarters of the Immigration Medical Service. The Department of Citizenship and Immigration is then advised as to whether the individual appears capable of meeting Canadian medical standards.

In addition to the review of medical evidence for prospective immigrants, the Preliminary Medical Screening Section deals with medical evidence submitted by non-immigrant students and others from abroad, persons already in Canada, applying for landed immigrant status, or for extension of temporary non-immigrant status. A total of 26,314 medical submissions were reviewed at Ottawa during the past year.

TABLE 29
(Immigration Medical Service)
SUMMARY OF ACTIVITIES
Fiscal Year 1961-62

CANADA:

Immigrants medically examined and/or inspected	71,612
Non-immigrants medically examined and/or inspected	149,137
Certifications as "prohibited" under Sec. 5 (a) (b) and (i) of the Immigration Act	347
Certifications as physically defective under Sec. 5 (c)	3,662

OVERSEAS:

Prospective emigrants medically examined and re-examined	11,696
<i>British Isles—</i>	
Prospective emigrants medically examined	16,803
Prospective emigrants medically re-examined	2,096
<i>Continent of Europe—</i>	
Prospective emigrants medically examined	41,284
Prospective emigrants medically re-examined	9,310
<i>Orient—</i>	
Prospective emigrants medically examined	1,828
Prospective emigrants medically re-examined	375
Certifications as "prohibited" under Sec. 5 (a) (b) (i) and (s) of the Immigration Act	1,958
Certifications as physically defective under Sec. 5 (c)	10,662

ALL OTHER COUNTRIES:

Medically prescreened at Ottawa	26,314
Certifications as "prohibited" under Sec. 5 (a) (b) and (i)	537
Certifications as physically defective under Sec. 5 (c)	4,247

TABLE 30

IMMIGRATION MEDICAL EXAMINATIONS AND INSPECTIONS IN CANADA
1961-62

<i>Location</i>	<i>Immigrants</i>	<i>Non-Immigrants</i>
Gander, Nfld.	447	1,777
St. John's, Nfld.	152	723
Halifax, N.S.	12,336	1,744
Halifax Airport	680	3,172
Sydney, N.S.	19	2
Saint John, N.B.	334	228
Montreal, Que.	2,167	1,958
Quebec, Que.	14,372	18,948
Dorval, Que.	20,188	39,012
Malton, Ont.	3,194	10,899
Toronto, Ont.	1,708	—
Fort Erie and Outports, Ont.	1,675	15,239
Niagara Falls and Outports, Ont.	610	52
Winnipeg, Man.	423	—
Winnipeg Airport, Man.	267	1,312
Vancouver, B.C.	1,387	14,207
Vancouver Airport, B.C.	1,418	10,800
Victoria, B.C.	202	815
Others	10,033	28,249
TOTAL	71,612	149,137

TABLE 31
 DETAILS OF EXAMINATIONS (OVERSEAS)
 1961-62

	Examinations	Re-examinations
By Canadian Medical Officers in British Isles.....	15,773	1,933
By Roster Doctors in British Isles.....	1,030	163
By Canadian Medical Officers on the Continent.....	40,700	9,162
By Roster Doctors on the Continent.....	584	148
By Roster Doctors in the Orient.....	1,828	375
Total 1961-62.....	59,915	11,781
Total 1960-61.....	80,434	16,573
British Isles:		
By Canadian Medical Officers:		
Belfast.....	1,101	113
Bristol.....	874	79
Glasgow.....	2,955	563
Leeds.....	1,424	176
Liverpool.....	1,558	217
London.....	7,861	785
By Roster Doctors:		
Belfast Area.....	5	1
Bristol Area.....	67	15
Dublin Area.....	367	83
Eire Area.....	57	20
Glasgow Area.....	147	6
Leeds Area.....	125	7
Liverpool Area.....	62	8
London Area.....	200	23
Continent:		
By Canadian Medical Officers:		
Athens.....	4,768	995
Berlin.....	825	200
Berne.....	988	82
Brussels.....	967	214
Cologne.....	3,055	644
Copenhagen.....	626	48
The Hague.....	1,802	355
Hamburg.....	1,442	231
Helsinki.....	286	36
Lisbon.....	1,353	603
Munich.....	822	182
Paris (including Quimper, Avignon, Marseille, Bordeaux and Toulouse).....	3,594	751
Rome.....	15,815	4,359
Stuttgart.....	1,578	285
Vienna.....	992	161
Schemes:		
Cairo.....	1,422	
Madrid.....	118	
Malta.....	247	16
By Roster Doctors:		
Finland.....	85	37
France.....		1
Malta.....	109	59
Norway.....	196	35
Sweden.....	194	16
Orient:		
By Roster Doctors:		
Hong Kong.....	739	200
India.....	1,048	161
Pakistan.....	41	14
Total.....	59,915	11,781

TABLE 32
 CASES PRESCREENED AT OTTAWA SHOWING COUNTRY OF ORIGIN
 FISCAL YEAR 1961-62

Country	Total Cases	Examined	Re-examined	Passed	Certifications under Sec. 5				Total Certifications
					"A"	"B"	"C"	"I"	
Algeria.....	238	207	31	172		8	33		41
Argentina.....	272	198	74	217		8	46		54
Australia.....	990	876	114	888	2	3	112		117
Azores.....	2,250	1,627	623	2,048	2	24	155		181
Bermuda.....	52	46	6	42			5		5
Bolivia.....	9	5	4	6					
Brazil.....	151	130	21	103		11	27		38
British Guiana.....	305	278	27	252		4	32		36
British West Indies.....	1,688	1,466	222	1,405	1	42	145		188
Bulgaria.....	9	8	1	5		1	5		6
Burma.....	22	21	1	19					
Canada.....	4,250	3,940	310	3,544	5	22	871		898
Central Africa.....	214	199	15	161		6	27		33
Central America.....	13	11	2	10			2		2
Ceylon.....	22	20	2	19		2	2		4
Chile.....	32	30	2	23		1	8		9
China.....	83	72	11	66		4	14		18
Colombia.....	45	36	9	29		7	12		19
Cyprus.....	17	12	5	14			1		1
Czechoslovakia.....	59	43	16	41		3	17		20
Dutch Guiana.....	2	2		2					
Dutch West Indies.....	3	3		1			1		1
Ecuador.....	29	25	4	19		2	7		9
Egypt.....	203	199	4	173		2	28		30
Ethiopia.....	10	10		8			3		3
Fiji Islands.....	6	4	2	5					
Gibraltar.....	4	4		4					
Hawaii.....	5	5		2			1		1
Hungary.....	684	224	460	405		25	329		354
Iceland.....	3	3		3					
Indo-China.....	55	53	2	50		2	2		4
Indonesia.....	53	51	2	47			5		5
Iran.....	14	14		10			6		6
Israel.....	644	460	184	496		23	171		194
Japan.....	373	346	27	290		16	80		96
Jordan.....	3	3		3					
Korea.....	21	20	1	15		1	2		3
Kuwait.....	1	1		1					
Lebanon.....	316	281	35	244	1	8	56		65
Libya.....	5	5		5					
Madeira.....	78	58	20	75			2		2
Malaya.....	52	49	3	42		1	5		6
Mauritius.....	5	5		5					
Mexico.....	146	138	8	127	2	3	7		12
Morocco.....	323	228	95	242		11	56		67
New Zealand.....	240	232	8	220			20		20
Pakistan.....	79	73	6	69		1	9		10
Paraguay.....	97	78	19	85		3	13		16
Peru.....	59	55	4	56			4		4
Philippines.....	99	93	6	86		1	5		6
Poland.....	2,537	2,112	425	1,898	7	119	631		757
Roumania.....	312	149	163	220		6	118		124
Russia.....	91	62	29	52		5	63		68
Saudi Arabia.....	1	1							
Sierre Leone.....	13	13		11			2		2
South Africa.....	576	530	46	498		13	64		77
Spain.....	485	396	89	426		16	42		58
Thailand.....	19	15	4	18					
Tunisia.....	23	21	2	21		1	6		7
Turkey.....	234	163	71	186		20	25		45
Uruguay.....	48	31	17	44		1	2		3
U.S.A.....	6,252	6,014	238	5,287	18	20	830		868
Venezuela.....	339	290	49	266		24	31		55
West Indies Group.....	144	137	7	109		8	30		38
Yugoslavia.....	907	735	172	782		21	77		98
Total 1961-62.....	26,314	22,616	3,698	21,672	38	499	4,247		4,784
Total 1960-61.....	31,842	28,469	3,373	27,025	63	437	4,380	1	4,881

TABLE 33
 (Immigration Medical Services)
 CERTIFICATIONS UNDER SECTION 5 OF THE IMMIGRATION ACT
 Fiscal Year 1961-62

	Canada		British Isles		Continent of Europe		Orient Examined by Roster Drs.	Canada Prescreened at Ottawa	Total
	I.M.S. Offices	Examined by Can. M.O.'s	Examined by Roster Drs.	Examined by Can. M.O.'s	Examined by Roster Drs.				
SS (a) Mental Diseases and Defects.....	50	52	2	109	1	38	252		
SS (b) Chronic Infectious Diseases.....	293	86	14	1,236	3	499	2,584		
SS (c) Physical Defects.....	3,662	3,105	248	6,965	90	4,247	18,571		
SS (i) Chronic Alcoholism.....	4			1			5		
SS (s) Cases Medically Impaired.....	4,009	3,243	264	8,312	93	4,784	21,413		

SICK MARINERS SERVICES

Part V of the Canada Shipping Act requires that there shall be levied and collected on every ship arriving in any port in the provinces of Quebec, Nova Scotia, New Brunswick, Prince Edward Island, British Columbia, Newfoundland, or in any port on Hudson or James Bays in the provinces of Manitoba or Ontario, a duty of two cents for every ton that such ship measures, register tonnage. The initial payment must not be less than two dollars and the duty is payable each time a ship enters, up to a maximum of three times in a calendar year.

In 1884 an amendment to the original act permitted fishing vessels of Canadian registry to pay the duty but such payment is optional and the initial payment must be made prior to the first fishing voyage in the calendar year.

Free treatment to the extent necessary is provided at designated centres, up to one year, for all crew members employed on board vessels in respect of which sick mariners dues have been currently paid and who apply for treatment in accordance with the provisions of the act.

Part V of the Canada Shipping Act was excluded from the listing of federal statutes under the Dominion-Provincial hospital insurance agreement of 1959, and as a result, hospital charges for seamen are only assumed on behalf of those not covered by a provincial hospital insurance plan.

The cost of providing hospital services during the year under review dropped to \$359,644.52 from \$387,528.17 in the previous year, a decline of approximately seven per cent.

The number of fishing vessels paying dues on a voluntary basis rose to 6,877 compared with 6,810 in 1960-61. Ships paying dues on a compulsory basis increased from 3,066 in 1960-61 to 3,264 in 1961-62. The total number of vessels paying dues rose to 10,141 from 9,876 in the previous year.

An increase of 12 per cent was recorded in total revenue, rising from \$478,962.15 in 1960-61 to \$539,373.36 in the current year. Expenditures during the same period increased from \$846,825.45 to \$933,619.93. Approximately 77.4 per cent of the total deficit recorded is accounted for in the treatment of local fishermen.

Sick Mariners Clinics staffed by departmental medical officers were in operation at Halifax and Sydney, N.S.; Saint John, N.B.; Quebec and Montreal, Que.; Vancouver and Victoria, B.C. At all other ports treatment was provided by physicians on a part-time salary or through a fee-for-service arrangement. The total number of hospitals treating sick mariners during the year was 148 and the number of physicians, consultants and specialists providing treatment was 817.

A total of 36,184 seamen received treatment in 1961-62 compared with 39,075 in the previous year and of this number, 1,648 were admitted to hospital. The total number of crew members eligible for treatment was 144,040.

TABLE 34
SICK MARINERS SERVICE
 Revenue, Expenditure and Deficit Classified
 According to type of Vessel
 CALENDAR YEAR 1961

Classification of Vessel	Revenue	Expenditure	Deficit	Deficit Expressed as Percentage of Revenue
Foreign-going.....	\$522,563.57	\$533,762.80	\$ 11,199.23	2
Coasting.....	2,187.14	10,830.12	8,642.98	395
Fishing.....	14,622.65	319,563.63	304,940.98	2085
Additional expenditure not classified as to type of vessel.....		69,463.38	69,463.38	
Total.....	539,373.36	933,619.93	394,246.57	73
Government (not paying S.M. Dues) Treatment provided under Authority of P.C. 1955-4/483 T.B. 484135.....		\$ 1,311.25		

TABLE 35

Sick Mariners Services

STATEMENT OF DISEASES AND INJURIES TREATED

During the Fiscal Year 1961-62

Tuberculosis of respiratory system	27
Tuberculosis, other forms	4
Syphilis and its sequelae	72
Gonococcal infection	949
Dysentery all forms	19
Other infective diseases commonly arising in intestinal tract	2
Certain diseases common among children:	
Chicken pox	8
Measles	5
Mumps	10
Whooping cough	1
Scarlet fever	1
Malaria	8
Diseases due to helminths	68
All other diseases classified as infective and parasitic	758
Benign neoplasms	261
Malignant neoplasms and others	71
Allergic disorders	765
Thyroid gland	19
Diabetes mellitus	115
Avitaminosis	145
Anaemias	508
Psychoneuroses and psychoses	742
Vascular lesions	39
Diseases of eyes	513
Diseases of ear and mastoid process	1,610
Rheumatic fever	13
Chronic rheumatic heart disease	9
Arteriosclerotic and degenerative heart	749
Hypertensive disease	526
Diseases of veins	1,997
(Acute naso-pharyngitis and tonsillitis	3,218)
(Hypertrophy of tonsils and adenoids)
Influenza	1,018
Pneumonia	425
Bronchitis	1,678
All other respiratory disease	1,664
Diseases of stomach and duodenum	1,705
Appendicitis	200
Hernia of abdominal cavity	309
Diarrhoea and enteritis	402
Diseases of gall bladder and bile ducts	259
Other diseases of digestive system	7,367
Nephritis and nephrosis	68
Diseases of genital organs (male)	2,386
Boils, abscesses, cellulitis and other skin infections	3,064
Other diseases of the skin	1,298
Arthritis and rheumatism	1,306
Diseases of bones and other organs of movement	567
Congenital malformations	33
Other specified and ill-defined diseases	3,335
Occupational accidents and occupational poisonings	735
Accidents and poisonings, not specified as occupational	3,824
	44,875

WELFARE BRANCH

INTRODUCTION

A number of major developments in the work of the Welfare Branch occurred during the year.

Research was carried out leading to the announcement, on 12th April of a national welfare grant program. The establishment of a National Council of Welfare was forecast in the Speech-from-the-Throne.

The pension paid under Old Age Security, and the maximum amount of benefit under Old Age Assistance, Disability Allowances and Blindness Allowance was raised from \$55 to \$65 a month.

The passing of the *Fitness and Amateur Sport Act* on 25th September made possible the establishment of a new federal program of far reaching significance, to supplement and assist the work already being done by the provinces in this field. By the end of the year substantial progress had been made in the planning and implementing of the new program.

An increase in payments to the provinces under the Unemployment Assistance Act arose through greater coverage and higher levels of aid made available through the general assistance programs of several provinces.

International welfare activities were expanded. The department continued its participation in the work of the Social Commission of the United Nations, the Executive Board of the United Nations Children's Fund and the International Labour Organization. Some progress was also made in planning for better utilization of Canada's welfare resources for aid to developing countries.

Departmental studies on old age income security, and other welfare measures were continued and departmental personnel held a number of meetings with their opposite numbers in Great Britain and the United States in connection with this work.

The importance of the Emergency Welfare Services work of the department was emphasized by unsettled international conditions during the year, and steps were taken to strengthen the Emergency Welfare Services Division and expand its program.

The Canadian Civil Defence College continued its programs of instruction in emergency measures matters. Close co-operation was maintained between the College, Emergency Measures Organization and the Emergency Health and Welfare Divisions of the department.

INTERNATIONAL WELFARE

Emphasis was placed on work connected with the United Nations' efforts for closer co-ordination of the social and economic aspects of development. The 1961 United Nations "Report on the World Social Situation" demonstrated the need for concentration on the social aspects of new and developing countries, the seriousness of the situation in such key areas as employment and housing and the urgent and, as yet, largely unmet need for extensive welfare services to cope with social dislocation arising from unprecedented population growths and expansion of urban areas. In the light of this situation the United Nations last year took steps to strengthen its work in the social field and a decision was reached to increase the membership of the Social Commission and to convene it annually instead of every two years.

Canada is a member of the Social Commission from 1961 to 1965; the Deputy Minister of Welfare was elected chairman of the fourteenth session. At its 1961 meeting the commission gave renewed attention to the problem of integrating social and economic development and to questions of housing and urbanization, community development, and organization and administration of social services. Preparatory work for the meeting was done by the International Welfare Division, working in close co-operation with the United Nations Bureau of Social Affairs.

Canada is a member, from 1962 to 1964, of the UNICEF Executive Board. The Deputy Minister of Welfare attended the December 1961 Executive Board meeting as an observer, and was official delegate for the May-June session in 1962, with the alternate representative the director of the Unemployment Assistance Division. The preparatory work for the summer UNICEF meeting was carried out by the International Welfare Division, and a member of the division attended an informal meeting of the Executive Board in April. Studies were carried out by the division prior to an increase in the Canadian government's contribution in 1962 from \$650,000 to \$800,000.

In June 1961 the director of the International Welfare Division served as a government adviser to the forty-fifth session of the International Labour Organization in Geneva, which gave first consideration to the development of a Convention and a Recommendation on Treatment of Nationals and Non-nationals under Social Security Legislation. Preparatory work was done for second and final consideration of this matter at the forty-sixth session.

In January the department became for the first time a member of the International Social Security Association, founded in 1927 at Geneva. The objectives of the association are improvement of the techniques and administration of social security programs, through research and exchange of information among members.

The department continued its co-operation with the External Aid Office in welfare aspects of Canadian bilateral aid programs. The director of the International Welfare Division served on the Scholarship Advisory Panel of the EAO.

In addition to the arrival of more students from Asia and Africa, the year's activity was marked by the first appointment, under Canada's bilateral aid programs, of an adviser on social welfare. This assignment, to the government of Hong Kong, was made on the recommendation of the department. At the end of the year further appointments of advisers abroad were being considered.

WELFARE GRANTS

Studies leading to the establishment of the Welfare Grant Program had been commenced in 1961, at the time that first mention of the possibility of aid to welfare services was made by the Prime Minister, and were carried out throughout the year.

On 12th April 1962 the Minister announced the introduction of a National Welfare Grant Program, under which the federal government would aid the provinces in the development of welfare programs through assistance designed to overcome major deficiencies in existing services. Grants for General Welfare and Professional Training and Research would be provided.

The General Welfare and Professional Training Grant was established to commence at \$450,000 in 1962-63 and increase at the rate of \$450,000 annually for five years, reaching a level of \$2,250,000 by 1966-67, the Welfare Research Grant to commence at \$50,000 in its first year and increase at the rate of \$50,000 annually for five years, reaching \$250,000 by 1966-67. As a part of the federal economy program the amount of the grants was reduced for the fiscal year 1962-63.

In taking this historic initiative the government was anxious to furnish a balance to the emphasis which has long been placed on the provision of cash benefits, and to counteract the loss of their effectiveness which may occur through shortage of trained human resources necessary to administer programs. It was felt that the Welfare Grants, and the new National Council of Welfare, would go a long way toward giving a new and positive impact to these measures. In addition, it was hoped that the provision made for research under the new grants could bring a stronger concentrated and organized study to such human problems as long term dependency and delinquency.

It was intended that the General Welfare and Professional Training Grant would be made available on a matching basis except for the provision of scholarships and fellowships, and the Welfare Research Grant on a non-matching basis.

Neither grant was designed for allocation among the provinces; both will be held in a central fund from which payments will be made on the basis of projects which will be screened by expert panels.

The new grants will cover projects in the field of corrections, as well as in programs in which the Department of National Health and Welfare has a primary interest, through co-operation with the Department of Justice.

FAMILY ALLOWANCES AND OLD AGE SECURITY DIVISION

Family Allowances are payable in respect of every child under the age of sixteen years who has been registered for the allowances, who is resident in Canada, is maintained by a parent or other person and who, if of school age, is in regular attendance at school. Payment is made by cheque each month, normally to the mother, although any person or recognized child-placing agency (not including an institution) by whom the child is maintained may be paid the allowances on his behalf. Allowances are paid at the monthly rate of \$6 for each child under ten years of age and \$8 for each child aged ten or over but under sixteen years of age.

The program is administered by the Family Allowances and Old Age Security Division through regional offices situated in the capital city of each province. In the case of the Yukon and Northwest Territories, the program is administered from Ottawa.

Welfare personnel maintain liaison with public and private agencies and institutions in the child-care field. They also examine reports of misuse of Family Allowances to determine whether an administrator should be appointed. At the end of the year there were 375 cases where allowances were being administered by someone other than the person who would ordinarily be the recipient.

At the end of March 1962, there were 2,649,317 families receiving allowances for 6,562,287 children, i.e., for over one-third of the total population of Canada. Net payments for the fiscal year were \$520,781,193. Overpayments outstanding at the end of the year totalled \$241,804.

Data on the numbers of families according to the number of children in each being paid Family Allowances in March 1962 are shown below. Other detailed statistics, by province, are contained in the accompanying tables.

<i>Families</i>	<i>Children</i>	<i>Families</i>	<i>Children</i>
853,445	1	5,044	10
773,268	2	2,267	11
485,751	3	828	12
264,301	4	231	13
131,302	5	49	14
67,364	6	12	15
35,847	7	2	16
19,450	8	1	17
10,155	9		

Summary of Legislation

Old Age Security pensions are payable to all persons age seventy and over who can meet certain residence requirements. To qualify for pension a person must have resided in Canada for ten years immediately preceding approval of

his application or, if he has not so resided, must have been actually present in Canada prior to that ten-year period for twice as long as he was absent during it and must have resided in Canada at least one year immediately preceding approval of his application.

The Old Age Security Act was amended during the year, by Chapter 5 of the Statutes of Canada, 1962, to increase from \$55 to \$65 the monthly rate of pension. The increase was effective from February 1, 1962.

The program is administered by the Family Allowances and Old Age Security Division through regional offices situated in the capital city of each province. In the case of the Yukon and Northwest Territories, the program is administered from Ottawa.

Pensions payable under the act are paid out of the Consolidated Revenue Fund and are charged to the Old Age Security Fund. The latter is made up of the Old Age Security tax paid by individuals and corporations and sales tax, each being at the rate of 3 per cent. In the year 1961-62, the excess of receipts over disbursements was 18.9 million dollars.

Payment of the pension may be continued for any period of absence from Canada if the pensioner has resided in Canada for at least twenty-five years after attaining the age of twenty-one; if he has not, it may be continued for six months, exclusive of the month of departure from Canada. In March 1962, payment was being made under these provisions, enacted in 1960, to 8,971 persons outside Canada. Amongst this number, there were 8,816 entitled to indefinite payment outside the country, 4,505 of whom had at that time received payment for more than six months. There is no definite indication as to the number of those persons being paid outside of Canada who have left permanently. Of the 8,971 pensioners out of Canada, just over 6,000 were in the United States and nearly 1,500 in Great Britain.

Program Statistics

Old Age Security pensions were paid to 927,590 persons in March 1962. In 17,106 cases, payment was made to a trustee appointed to administer the pension for a pensioner who was incapable of looking after his own affairs.

Detailed statistics, by province, are presented in the accompanying table.

TABLE 36
COMPARATIVE STATEMENT OF FAMILY ALLOWANCES PAYMENTS
BETWEEN MONTH OF MARCH 1961 AND MONTH OF MARCH 1962

Province	Month of March 1961				Month of March 1962				
	Families Receiving		Children Receiving		Families Receiving		Children Receiving		Amount Paid
	Number	Average Allow. per Family	Number	Average Allow. per Child	Number	Average Allow. per Family	Number	Average Allow. per Child	
Newfoundland.....	64,464	\$20.91	201,512	\$6.69	65,705	\$20.87	204,855	\$6.69	\$ 1,371,594
Prince Edward Island.....	13,877	18.92	38,938	6.74	14,190	18.98	39,931	6.74	269,273
Nova Scotia.....	104,972	17.01	266,629	6.70	105,868	17.14	271,036	6.70	1,814,891
New Brunswick.....	82,440	19.25	236,379	6.71	83,014	19.41	239,340	6.73	1,611,760
Quebec.....	722,592	17.99	1,937,918	6.71	739,126	17.96	1,976,677	6.71	13,274,116
Ontario.....	913,025	15.08	2,065,618	6.67	929,461	15.32	2,133,116	6.68	14,243,323
Manitoba.....	130,743	15.71	308,447	6.66	132,338	15.94	315,238	6.69	2,109,858
Saskatchewan.....	131,830	16.46	325,020	6.68	131,975	16.70	329,681	6.69	2,204,326
Alberta.....	199,278	15.89	477,417	6.63	204,698	16.13	496,712	6.65	3,302,917
British Columbia.....	233,801	14.99	523,637	6.69	236,646	15.24	538,934	6.69	3,606,190
Yukon and N.W.T.....	5,908	16.82	15,619	6.36	6,296	17.04	16,767	6.40	107,318
NATIONAL.....	2,602,930	\$16.42	6,397,134	\$6.68	2,649,317	\$16.58	6,562,287	\$6.69	\$43,915,566

TABLE 37
NET FAMILY ALLOWANCES PAYMENTS—COMPARISON BY FISCAL YEARS

Province	1950-51	1951-52	1952-53	1953-54	1954-55	1955-56
Newfoundland.....	\$ 10,224,103	\$ 10,613,908	\$ 11,038,875	\$ 11,497,719	\$ 11,967,775	\$ 12,414,789
Prince Edward Island.....	2,467,257	2,495,987	2,522,830	2,558,097	2,590,704	2,621,722
Nova Scotia.....	15,660,003	15,949,541	16,297,170	16,716,374	17,147,920	17,596,685
New Brunswick.....	13,708,198	13,892,907	14,287,535	14,700,819	15,073,324	15,451,544
Quebec.....	99,558,247	102,883,812	107,084,124	111,441,302	116,057,182	120,389,838
Ontario.....	89,034,871	93,207,144	98,303,868	104,409,819	110,492,480	116,604,314
Manitoba.....	16,235,520	16,703,467	17,283,660	17,979,854	18,705,349	19,418,713
Saskatchewan.....	19,237,071	19,424,562	19,723,352	20,244,540	20,894,790	21,401,114
Alberta.....	20,762,273	21,573,430	22,575,584	23,958,081	25,390,585	26,752,793
British Columbia.....	21,952,569	23,063,643	24,399,859	25,904,496	27,405,872	29,097,077
Yukon and N.W.T.....	625,349	649,273	680,828	702,801	739,983	786,437
NATIONAL.....	\$309,465,461	\$320,457,674	\$334,197,685	\$350,113,902	\$366,465,964	\$382,535,026
	1956-57	1957-58	1958-59	1959-60	1960-61	1961-62
Newfoundland.....	\$ 12,881,415	\$ 14,131,153	\$ 15,162,900	\$ 15,566,372	\$ 15,960,416	\$ 16,336,849
Prince Edward Island.....	2,640,585	2,824,311	2,994,334	3,062,692	3,124,017	3,204,881
Nova Scotia.....	17,973,392	19,400,494	20,560,462	20,932,794	21,241,829	21,623,655
New Brunswick.....	15,779,360	17,074,970	18,201,518	18,588,795	18,877,745	19,222,615
Quebec.....	124,368,344	136,080,634	146,278,435	150,462,531	154,185,288	157,712,911
Ontario.....	122,539,123	136,706,313	150,186,253	156,681,500	162,610,724	168,442,100
Manitoba.....	19,888,717	21,520,779	23,091,594	23,730,765	24,384,595	25,065,334
Saskatchewan.....	21,644,971	23,241,829	24,789,278	25,363,936	25,848,509	26,313,109
Alberta.....	27,953,311	31,029,720	34,122,637	35,765,854	37,365,329	38,928,125
British Columbia.....	31,029,472	34,969,036	38,409,308	39,984,176	41,433,470	42,687,279
Yukon and N.W.T.....	819,150	907,321	990,349	1,074,944	1,159,725	1,244,335
NATIONAL.....	\$397,517,840	\$437,886,560	\$474,787,068	\$491,214,359	\$506,191,647	\$520,781,193

TABLE 38
STATISTICS ON OLD AGE SECURITY

Province	No. of Pensioners in Pay March, 1961	Net Payment for March, 1961 only	No. of Pensioners in Pay March, 1962	Net Payment for March, 1962 only	Total Net Payment for Fiscal Year Ended March 31, 1961	Total Net Payment for Fiscal Year Ended March 31, 1962
Newfoundland.....	17,379	\$ 958,070	17,801	\$ 1,158,017	\$ 11,354,705	\$ 11,947,626
Prince Edward Island.....	7,492	412,452	7,603	494,958	4,944,372	5,151,999
Nova Scotia.....	41,919	2,325,482	42,572	2,780,964	27,610,488	28,895,584
New Brunswick.....	30,732	1,701,675	31,316	2,049,217	20,350,402	21,291,111
Quebec.....	191,136	10,552,710	196,827	12,800,988	124,321,715	131,711,372
Ontario.....	327,304	18,031,912	335,339	21,797,084	214,625,682	226,065,413
Manitoba.....	55,278	3,049,793	56,567	3,679,852	36,088,676	38,085,361
Saskatchewan.....	57,175	3,166,445	58,436	3,818,154	37,572,791	39,621,029
Alberta.....	60,708	3,378,935	62,658	4,104,079	39,688,023	42,276,129
British Columbia.....	115,157	6,369,467	117,815	7,691,051	75,451,417	79,622,315
Yukon and N.W.T.....	626	35,435	656	43,081	405,012	439,865
NATIONAL.....	904,906	\$49,982,376	927,590	\$60,417,445	\$592,413,283	\$625,107,804

OLD AGE ASSISTANCE

The Old Age Assistance Act provides for federal sharing, under agreements, of 50 per cent of the amounts paid to persons age 65 to 69 by the provinces for assistance under the authority of provincial legislation, and the conditions specified in the federal act and regulations. The program is administered federally by the Old Age Assistance, Blind Persons and Disabled Persons Allowances Division.

At March 31, 1962, the number of persons receiving assistance under the Old Age Assistance Act was 98,944. The number has, for the last several years, been about 21 per cent of the population 65 to 69 years of age.

During 1961-62 the act was amended, by Chapter 4 of the Statutes of Canada 1962, with effect from February 1, 1962, to increase from \$55 to \$65 a month the maximum assistance in which the federal government would share and to increase the maximum income allowed by \$180 a year in the case of an unmarried person and \$360 a year in the case of a married person.

Before the amendments to the act could come into operation it was necessary for the agreements with the provinces to be amended. By March 31, 1962, or shortly thereafter, new agreements had been completed with all provinces and the Yukon Territory. All amending agreements provided for a maximum monthly allowance of \$65 and for the maximum incomes allowed as specified in the act as amended. These were \$1,140 a year in the case of an unmarried person, \$1,980 a year in the case of a married person and \$2,340 a year in the case of a married person with a blind spouse. In eight provinces and the Yukon Territory the increase was effective from February 1, 1962. In two provinces the effective date was April 1, 1962.

The administrative arrangements under which the division audits provincial expenditures for old age assistance continued without change throughout 1961-62.

Statistical information for 1961-62 appears in the attached tables.

ALLOWANCES FOR DISABLED PERSONS

The Disabled Persons Act provides for federal sharing, under agreements, of 50 per cent of the amounts paid to disabled persons age 18 and over by the provinces under the authority of provincial legislation and the conditions specified in the federal act and regulations. The program is administered federally by the Old Age Assistance, Blind Persons and Disabled Persons Allowances Division with responsibility for medical decisions centered in the Medical Rehabilitation and Disability Advisory Services.

At March 31, 1962, there were 50,029 recipients of Disabled Persons Allowances, a decrease of 621 as compared with the number at March 31, 1961.

The Disabled Persons Act was amended, by Chapter 3 of the Statutes of Canada, 1962, effective February 1, 1962, to increase from \$55 to \$65 a month the maximum allowance in which the federal government would share and to increase the maximum income allowed by \$180 a year in the case of unmarried persons and by \$360 a year in the case of married persons.

Following the amendments to the act, amending agreements were completed with the provinces and the Yukon Territory. The maximum allowance set forth in the act was provided for in each agreement; so also were the maximum amounts of income allowed: \$1,140 a year in the case of an unmarried person, \$1,980 a year in the case of a married person and \$2,340 a year in the case of a married person with a blind spouse.

Statistical information for 1961-62 appears at the end of this report.

ALLOWANCES FOR BLIND PERSONS

The Blind Persons Act provides the federal sharing, under agreements of 75 per cent of the amounts paid to blind persons 18 years of age and over by the provinces under the authority of provincial legislation and the conditions specified in the federal act and regulations. The program is administered federally by the Old Age Assistance, Blind Persons and Disabled Persons Allowances Division with responsibility for medical decisions being centered on the Medical Rehabilitation and Disability Advisory Services.

At March 31, 1962, there were 8,573 persons receiving assistance under the Blind Persons Act. At age 70 recipients transfer to Old Age Security program. Some blind persons receive financial aid from provincial welfare, federal war pension or war veterans allowance programs.

The Blind Persons Act was amended by Chapter 2 of the Statutes of Canada 1962 with effect from February 1, 1962, to increase from \$55 to \$65 a month the maximum allowance in which the federal government would share and to increase the maximum income allowed by \$180 a year in the case of unmarried persons and \$360 a year in the case of married persons. The limits which are higher than those provided for under the Old Age Assistance and Disabled Persons Allowance programs are now \$1,380 a year in the case of an unmarried person without a dependent child or children and \$1,860 a year where there are dependent children, \$2,340 in the case of a married person and \$2,460 in the case of a married person with a blind spouse.

All provinces amended their agreements with Canada, stipulating in the new agreements the amounts specified in the act. The effective date of the increases was February 1, 1962 in eight provinces and the Yukon Territory. In two others it was April 1, 1962.

Statistical information for 1961-62 appears in the attached tables.

TABLE 39

STATEMENT OF FEDERAL GOVERNMENT PAYMENTS IN CONNECTION WITH ASSISTANCE TO THE AGED, BLIND AND DISABLED FOR THE FISCAL YEAR 1961-62

Province	Contributions to provincial payments					
	Old Age Assistance		Blind persons allowances		Disabled persons allowances	
	Number of recipients March, 1962	Contributions (65 years—Means test) \$	Number of recipients March, 1962	Contributions \$	Number of recipients March, 1962	Contributions \$
Alberta.....	6,494	2,000,955.96	454	222,544.66	1,762	558,533.24
British Columbia.....	7,189	2,283,927.11	563	270,365.01	2,156	685,427.57
Manitoba.....	5,082	1,652,229.47	378	188,334.84	1,447	477,943.16
New Brunswick.....	5,421	1,760,484.31	697	349,236.84	2,000	668,392.05
Newfoundland.....	5,184	1,672,509.98	429	208,816.27	1,292	413,675.87
Nova Scotia.....	5,248	1,569,348.48	771	386,324.97	2,776	908,644.28
Ontario.....	22,868	6,903,030.92	1,846	836,687.45	13,762	4,503,239.31
Prince Edward Island.....	897	248,608.10	80	40,167.53	780	258,995.12
Quebec.....	34,615	10,896,301.71	2,901	1,412,001.61	22,528	7,460,932.57
Saskatchewan.....	5,760	1,761,660.79	406	193,308.08	1,502	489,504.96
Northwest Territories.....	140	46,021.33	45	20,580.00	19	6,562.50
Yukon Territory.....	46	15,507.00	3	1,485.00	5	1,760.00
	98,944	30,810,585.16	8,573	4,129,852.26	50,029	16,433,610.63

UNEMPLOYMENT ASSISTANCE

Under the Unemployment Assistance Act the federal government contributes 50 per cent of payments made by the provinces and their municipalities to recipients of general assistance who are unemployed and in need. The rates of assistance and the conditions under which it may be granted are determined by the province or its municipalities, except that each province has agreed not to make length of residence within the province a condition of assistance when the applicant has come from another province. The federal government shares in assistance paid both to employable and unemployable persons and in payments for those in "homes for special care", such as homes for the aged and nursing homes. It also shares in additional assistance paid to needy recipients of old age security pensions, old age assistance, blind persons allowances, disabled persons allowances and unemployment insurance benefits, where the amount of assistance paid is based on an assessment of the recipient's basic requirements as well as his resources. The act is administered by the Unemployment Assistance Division.

Agreements entered into with the provinces under the act exclude reimbursement for payments to recipients of mother's allowances and expenditures for medical, hospital, nursing, dental, and optical care, drugs and dressings, funeral expenses and costs of administration.

Total expenditures under the program for the fiscal year were \$92,044,244. Of this expenditure, \$17,722,181 covered the federal share of claims for months prior to the fiscal year. A number of claims by the province for expenditures in the latter part of the fiscal year were received after the close of the year and the amounts involved will be noted in the next annual report.

Broader coverage and increased levels of aid available under general assistance programs in several provinces resulted in substantial increases during 1961-62 in payments to the provinces under the unemployment assistance agreements.

Increased costs for 1961-62 also reflect changes made in provincial programs during the year, as well as those that were made earlier, but which were not fully reflected in claims until this year. British Columbia, Alberta and Saskatchewan, for example, submitted claims for payments made as a result of supplementary allowances programs being brought into conformity with the federal act; Alberta adopted a new program of social allowances for persons in need for more than ninety days, including needy mothers; and Saskatchewan began paying aid to dependent families through its general assistance program. Substantial increases in the numbers of persons assisted were evident in all provinces and this trend was particularly pronounced in Quebec where, during the previous year, the province assumed the municipal share of assistance costs and broadened its aid to unemployed employables. In September 1961 Quebec also adopted an extended program of supplementary aid.

Table 40 shows the total payments made by the federal government to the provinces under the agreements during 1961-62 and Table 41 sets out the federal share of assistance and the number of persons assisted during the first month in each quarter of the fiscal year.

TABLE 40

FEDERAL-PROVINCIAL UNEMPLOYMENT ASSISTANCE AGREEMENTS:
FEDERAL PAYMENTS TO PROVINCES, BY PROVINCE, 1961-62

<i>Province</i>	<i>Payment</i>
Newfoundland	\$ 4,416,941
Prince Edward Island	172,694
Nova Scotia	1,743,480
New Brunswick	1,371,210
Quebec	38,222,198
Ontario	16,989,890
Manitoba	4,233,857
Saskatchewan	4,175,595
Alberta	4,217,026
British Columbia	16,424,969
Northwest Territories	38,401
Yukon Territory	37,982
	<hr/>
Canada	92,044,244

Payments in a total of \$17,722,181 relate to claims for assistance paid prior to the fiscal year 1961-62.

TABLE 41

FEDERAL-PROVINCIAL UNEMPLOYMENT ASSISTANCE AGREEMENTS: FEDERAL SHARE OF ASSISTANCE* AND PERSONS** ASSISTED, BY PROVINCE, APRIL, JULY AND OCTOBER 1961 AND JANUARY 1962

Province	April 1961		July 1961		October 1961		January 1962	
	Federal Share Of Assistance \$	Number Of Persons Assisted	Federal Share Of Assistance \$	Number Of Persons Assisted	Federal Share Of Assistance \$	Number Of Persons Assisted	Federal Share Of Assistance \$	Number Of Persons Assisted
Newfoundland.....	333,748	58,780	308,326	56,123	345,991	58,915	347,778	.....
Prince Edward Island.....	15,619	2,200	13,158	1,659	13,849	1,666	16,071	.....
Nova Scotia.....	175,452	24,194	116,855	22,719	122,690	23,262	136,735	.....
New Brunswick.....	169,130	33,768	93,856	25,474	97,092	24,882	144,230	.....
Quebec.....	2,338,592	203,257	2,575,661	205,638	2,627,887	195,414	2,957,876	.....
Ontario.....	1,471,289	110,546	1,458,609	102,477	1,433,275	99,586	.....	.....
Manitoba.....	344,798	26,886	311,975	24,671	360,335	27,018	.....	.....
Saskatchewan.....	247,636	28,608	322,975	32,671	376,429	36,910	.....	.....
Alberta.....	309,253	27,293	289,203	23,608	369,244	28,063	.....	.....
British Columbia.....	1,318,289	87,894	1,284,097	86,749	1,300,064	86,289	.....	.....
Yukon Territory.....	2,960	190	2,804	216	3,039	209	.....	.....
Northwest Territories.....	2,231	230	2,504	251	2,700	251	.....	.....
CANADA.....	6,728,997	603,846	6,780,023	582,256	7,052,594	582,465	.....	.....

*The amounts shown are for the months in which the assistance was granted rather than the months in which the federal share was paid to the provinces.

**Includes dependents.

EMERGENCY WELFARE SERVICES DIVISION

During the year the uncertainty of the international situation led to the strengthening of the Emergency Welfare Services program. With the increasing awareness of the importance of emergency preparedness, governments at all levels accelerated their efforts to improve emergency services.

Closer federal-provincial co-operation was achieved during the year and provincial departments of welfare participated in various ways in emergency welfare services planning. Quebec made commitments for a unified development in that province through La Protection Civile de Quebec. In six provinces positions for emergency welfare planning officers were established with federal assistance. A federal-provincial Emergency Welfare Services Council of senior officers of Departments of Public Welfare and federal and provincial officials of Emergency Welfare Services was established.

The federal government undertook to meet the cost of supplying necessary operational forms and equipment to the provinces. Under the federal financial assistance program the Emergency Welfare Services Division is stockpiling such items as registration and inquiry kits, emergency lodging and clothing and mobile feeding units. For example 64 mobile feeding units have been provided for operational and training use.



A Mobile Feeding Unit in operation during an Emergency Feeding Course at the Civil Defence College, Arnprior. Numbers of these have been distributed to all provinces of Canada. The units are designed to serve isolated groups of up to 200 in disaster conditions.

A lodging survey, designed to assist municipalities in the assessment of their lodging facilities, was conducted in October at Portage La Prairie, Manitoba. Similar surveys are being carried out in other provincial centres.

The aims, scope, and prerequisites of emergency welfare courses conducted at the Canadian Civil Defence College were revised to provide training at the operational level. One hundred and twenty-three candidates attended courses and staff members also participated in courses given in Nova Scotia, Manitoba and Alberta. Lectures on the program were given at Federal Civil Defence and Emergency Measures Organization courses, the Army Staff College, Kingston, and at annual meetings and conferences of professional groups.

Liaison has continued with the university schools of home economics regarding emergency feeding.

New precis were prepared and several were revised to incorporate the changes made in survival policy. The pamphlet "Your Emergency Pack" was given a new format. An "E.W.S. Manual for Civil Defence Workers" was prepared. Cardboard displays "This Family Thinks Ahead" and "Cette Famille est Prevoyante" emphasizing self-help measures, were produced and distributed for exhibit in windows. A display, "Preparez-vous Aujourd'hui pour Survivre Demain" was shown one week in Montreal at the Palais du Commerce. Production of a new filmstrip "Planning, Organization and Operation of Emergency Feeding" was completed. A 15 minute film "Help for the Homeless" was produced and will be available in all provinces for training, public meetings, and T.V. presentations. Staff participated in four T.V. programs and one radio broadcast.

Two articles, "Emergency Feeding" and "Mobile Welfare Teams", were written for the E.M.O. National Digest and items were submitted to professional periodicals. Emergency welfare displays were used by E.M.O. and C.D. groups across Canada and at public exhibitions in Vancouver, Edmonton, Calgary, Regina, Toronto, Sudbury, Guelph and London.

Close liaison in survival planning was maintained with federal departments through E.M.O., committees, exercises, and independent consultation.

An interdepartmental working group was formed under the chairmanship of the director of Emergency Welfare Services, to examine the feasibility of continuing welfare payments in an emergency. Common policies and procedures are being considered by the several departments concerned.

Detailed discussions have continued between the army and the department, to integrate planning and provide services for the care of survivors brought out of damaged and fallout areas. The review of developing plans, policies, and procedures with other government departments, with the Emergency Supply Planning Branch, and with the Emergency Health Services Division, contributed to programming.

Planning for the continuity of government was advanced by Tocsin and Tocsin B Exercises held during 1961. In both exercises the key personnel of the welfare and administration branches of the department, who would be the nucleus in charge of the branches' operations during an emergency, were successfully relocated and exercised, both at the main emergency government and department operational sites.

Conferences were held with certain national voluntary organizations—Canadian Red Cross, Salvation Army and Boy Scouts of Canada—concerning their role in a national emergency.

Close working relationships were continued with United States' Emergency Welfare Service personnel, and assisted the development of common policies and procedures to provide mutual support in an emergency.

CIVIL SERVICE CIVIL DEFENCE

The staff continued to provide guidance and assistance for the carrying out of emergency measures in government-occupied buildings. Courses in first aid and home nursing for federal employees were arranged nationally; 5,900 applications for first aid and 500 applications for home nursing courses were processed during the year. Building evacuation test exercises were carried out in 25 premises in the Ottawa area occupied by the government, in co-operation with the Dominion Fire Commissioner. During the year 24 civil servants qualified as senior St. John Ambulance instructors in first aid and six as rescue instructors. At the end of the year, there were 183 chief building wardens.

FITNESS AND AMATEUR SPORT DIRECTORATE

The Fitness and Amateur Sport Act which was passed on 25th September and proclaimed 15th December, 1961, brought a new focus and impetus to the development of fitness in Canada and to efforts to raise levels of participation and proficiency in both competitive and non-competitive sports.

The new legislation provides for an annual \$5,000,000 allocation "to encourage, promote and develop fitness and amateur sport". The program operates through three main channels. Grants are made to national organizations to assist national and international aspects of the program, and to the provinces to develop and extend community effort. In addition, federal co-ordinating and developmental work is carried on by the department which works in close co-operation with other federal agencies concerned with different aspects of fitness and amateur sport. The act is administered by the Fitness and Amateur Sport Directorate.

To advise the Minister of National Health and Welfare, the act makes provision for a 30-member National Advisory Council on Fitness and Amateur Sport which was appointed during the year. In addition a federal-provincial committee, at the deputy minister level, is concerned with the federal-provincial aspects of the program. Through these two groups the Minister is advised both from the point of view of the private citizens of Canada, and from that of the governments directly concerned with the program. Specialist committees of experts advise on technical aspects of the program.

One of the main tasks to be undertaken under the new program has been seen as the building up of training courses for leaders, coaches and other professional personnel at the community level. The new act bolsters and enlarges the major emphasis already given to this work by programs in operation in a number of the provinces.

The act also provides for aid to research study of such matters as the different aspects of physical performance, on the effects of activity on different age groups and on physical development resulting from different kinds of activity. Surveys of resources, facilities and of personnel may also be assisted.

The urgent need for new and greatly expanded informational material for both the expert and the public has long been recognized. Through the new program instructional material suitable to Canadian needs can be developed with the co-operative efforts of experts from across Canada.

An important provision of the act makes possible the award of scholarships, fellowships and bursaries to assist persons in undertaking professional studies in physical education, recreation and the medical aspects of fitness. The new aid to this work will, it is hoped, do much to overcome acute shortages of trained personnel.

Provision is also made for recognition of achievement in fitness and amateur sport activities through awards or citations.

An important section covers assistance to the promotion and development of participation in national and international sport competitions. Because of the ease with which they could be implemented, the provisions of the act dealing with sports competition could receive earlier attention than other aspects of the program.

Under the act construction of sports and recreational facilities can be assisted but, in view of the high costs involved and the practically unlimited demand for new facilities, it was believed that for the most part this type of assistance will have to be restricted to the construction of national or regional training centres serving wide areas of the population. It was hoped that the major vehicle for federal aid to construction of local sports and recreation facilities could continue to be the municipal winter works program administered by the Department of Labour.

During the fiscal year major emphasis was placed on laying the groundwork for the future. The National Advisory Council was appointed and held its first meeting. Competitions were held for a director and other members of the department's Fitness and Amateur Sport staff.

Aid was given to the Canadian Olympic Association for the hiring of a consultant engineering firm to study applications received and recommend the most suitable from amongst those interested in making an application for the holding of the 1968 Winter Olympic Games and to the application being made by the Calgary Olympic Development Association to the International Olympic Committee for the holding of the games in Banff.

Grants totalling \$223,085 were made on an ad hoc basis to 15 organizations and study of other requests was being carried out at the end of the year.

A scholarship-bursary-fellowship scheme was recommended to the Minister. Particular importance was attached to this part of the program in view of drastic shortages of personnel with graduate and postgraduate training in physical education and recreation and the importance of developing trained leadership for the expansion of the program.

Ways in which the program might lend most encouragement to the development of badly needed fundamental research and surveys also were under study.

In the field of information services a combined general and technical information program was drawn up, and preliminary steps taken toward the production of informational material in a number of fields.

The new program has been generally well received. It provides for a new concept of partnership between governments, the important non-government agencies in both fitness and amateur sport fields and the general public, with a view to the development of a program in which the views of all can be heard and a truly Canadian approach to fitness and amateur matters developed.

CANADIAN CIVIL DEFENCE COLLEGE

During the year 2,933 persons attended 65 courses at the Civil Defence College, an increase of 129 over the previous year. The courses covered staff training, national survival orientation and operations, emergency health, emergency welfare, radiological defence and rescue instruction. In addition, conferences were conducted for mayors and reeves, for war supplies agency personnel and for provincial emergency welfare services directors.

Twenty-four groups, totalling 1,261 persons, an increase of 313 over the previous year, visited the college during the year. The visitors included university schools of nursing, county and municipal councils, women's institutes, meat inspection assistants, industrial emergency groups, girl guides and militia units. The Civil Service Commission used college facilities for a senior administration officers course.

A total of 177,000 Emergency Welfare Services precis and 248,000 Civil Defence College precis were distributed to the provinces.

Administration Branch

The continued growth of departmental interests in new and expanding areas of Canadian health and welfare, resulting as it does in additional responsibilities and in increased establishment, inevitably produces a greater workload for servicing divisions. In each of these areas the volume of work and its growing complexities continued to show their effects during the past year.

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 Minister's 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; (e) acting as Departmental Security Officer; (f) organizing annual Community Chest, Canada Savings Bonds, Poppy Day and other campaigns within the department; (g) carrying out many special projects which were assigned from time to time.

The second group of responsibilities are outlined in the following paragraphs.

The Registry Services continued to be responsible for records management throughout the department. This involved the operation of a central registry and nine 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. The records retirement program was actively 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 Financial Services Section continued to perform a centralized accounting advisory service designed to assist the directors and chiefs of division in the development and budgeting of funds provided for their operational requirements. 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.

During the year under review the Addressograph Section, which services all divisions, addressed nearly 2,000,000 pieces of material from its extensive lists of addressograph plates.

All typing and matrice work required in the preparation of material for reproduction by the Department of Public Printing and Stationery was done by the Secretarial Service Section. A central source of typing assistance was again provided to the entire department in Ottawa by this section.

In addition, the Departmental Secretary's office acted as an information centre for the entire department.

INFORMATION SERVICES DIVISION

Rural Canada was given a bird's-eye view of the Department of National Health and Welfare in 1961-62. The medium was a widely-printed series of articles on the department's work, prepared by officers of Information Services Division. The 10 articles were printed in more than 200 Canadian weekly newspapers with a largely rural circulation. Sample titles were: "Medical Research in Canada", "Family Allowances", "Unemployment Assistance", "Health Grants" and "The Work of the Food and Drug Directorate".

A new approach was taken in disseminating the articles. Editors were queried in advance as to whether they would care to receive the material and in what form they would prefer accompanying illustrations. All who expressed interest in the articles received them over a period of several weeks. A follow-up study showed that all used the material, which was read by an estimated 2,000,000 readers.

The Printed Word

For the first time, a reader survey card was prepared to accompany the 1960-61 departmental annual report. Its purpose was to obtain from readers their opinions on the style and length of the report, as well as any ideas they might have for improvement of the presentation.

New publications produced for other divisions ranged from the leaflet "Welfare Tips for Survival", prepared for Emergency Welfare Services, to a lengthy report on pollution in the Saint John River prepared for the Public Health Engineering Division.

A new bulletin, entitled "Health Education", prepared by the departmental health educator of Information Services Division, was printed. It will be a bi-monthly publication.

Among new items produced were: "Leisure in the Later Years", a pamphlet, the latest in a series designed for those looking ahead to retirement. This series is a project of the Mental Health Division.

"Old Age Security", a pamphlet for the Old Age Security and Family Allowances Division.

"Nuclear Weapons Section" and "Emergency Blood Services", two publications of Emergency Health Services.

Rescue Charts, miniature size, for the Canadian Civil Defence College and a Civil Defence Display Catalogue, for use by the college as well as by Information Services Division.

"Canada's Food Guide", a wholly new production replacing "Canada's Food Rules", printed both as a poster and handbill for the Nutrition Division.

Radiation warning cards, wall charts for use in radioisotope laboratories, flow charts and graphs, all prepared for Radiation Protection Division.

"The Consumer Speaks Up About Food", a presentation based on a survey conducted by the Food and Drug Directorate in six Canadian cities.

Two articles, one dealing with the functions of the department and the other with those of Information Services Division, written at the request of the Canadian Public Health Association.

An organization chart for the Mental Health Division.

In addition to these new items, a substantial reprint program was undertaken. This involved the series of "Child Training" pamphlets of Mental Health Division, articles from the "Occupational Health Bulletin" and the "Occupational Health Review" and a number of other articles and pamphlets from several divisions.

Designs and artwork were supplied for a large number of projects at the request of several divisions in the department.

Displays were prepared for the Mental Health Division, the Nursing Division, Emergency Welfare Services, Emergency Health Services, Occupational Health Division and the Food and Drug Directorate.

During the fiscal year there were 18,500 individual requests for material received. A total of 3,786,740 pieces of literature were distributed, including 3,038,340 English and 748,400 French.

The division produced and distributed 10 issues of "Canada's Health and Welfare" including two supplements, comprising 720,000 copies; 500,000 English and 220,000 French. In addition, the following were distributed: "National Health Radio Notes", 3,660 copies; Press Fillers, 5,100 copies; "Health Column", 5,880 copies; "Medical Services Journal", 2,530 copies; "Dental Health Newsletter", 1,100 copies.

Radio, Television and Films

The division assisted in the production of three new films, "Face of an Addict" for the Mental Health and Narcotic Control Divisions; "The Long Way Back", for the Mental Health Division and "The New Baby", for the Child and Maternal Health Division. In addition, assistance was provided in the complete revision of a film "The Homeless Ones", for the Emergency Welfare Services Division. The new title is "Help for the Hopeless".

In radio, the division continued to produce the 10-minute health dramas known as "Here's Health", the series now being in its 13th year. The playlets are

carried on 118 Canadian radio stations in both English and French, the French version titled "A Votre Santé". In addition, divisional staff acted as liaison on occasions when departmental officials appeared on radio programs.

Television was used as a medium for information and education more in 1961-62 than in any previous year. A number of officials of the department were interviewed on a variety of programs.

The continuing process of procuring, screening and evaluating films continued. Fifteen were added to the National Health Film Library bringing the total number of films in the library to 476. Eight films were added to the National Medical and Biological Film Library making a total of 321 films. One film was added to the National Welfare Film Library making a total of 36 films in this library.

Apparent discrepancies in totals over the years are accounted for by occasional withdrawal of films.

During the fiscal year, 2,159 bookings were made from the National Health Film Library, 1,090 from the National Medical and Biological Film Library and 110 from the National Welfare Film Library.

The Camera at Work

During the year the Biological Photographic Laboratory produced 3,448 negatives, both line and continuous tone; 11,925 black and white prints, 750 lantern slides and 805 color transparencies.

Specific projects included:

A complete photographic coverage of the animal colony laboratory, undertaken for the Food and Drug Directorate. Other work for this directorate included photography of a large number of starch gels on animal tissue homogenates with added organo phosphate pesticides; a photographic study of gastric lesions produced in rabbits by feeding of cholesterol and dietary fats; a photographic study of tumor specimens in rats and the X-ray pattern of bone tumors.

Photographs of the operation of the Total Body Monitor for the Radiation Protection Division.

Photography of chromatograms in color using ultra violet light as the only source of illumination for the Laboratory of Hygiene. Also undertaken for the Laboratory of Hygiene was a photographic coverage of an immunological study of staphylococcus organisms using a particular type of colony formation in soft media containing anti-serum as against normal serum.

Photographs of the recording of the program "Here's Health" both in English and French.

Coverage of an X-ray-television combination in the radiology department of a local hospital.

Public Relations

Several officers of the division represented the department at a number of provincial, national and American conferences during the year.

Perhaps the largest single task of the division in the area of public relations was the organization, with the Fitness and Amateur Sport consultant, of the first meeting of the newly-established Fitness and Amateur Sport Advisory Council in February.

Liaison with press, radio, television and the public was maintained by means of press releases, facilitation of interviews, replies, both written and verbal, to queries, and the supplying of news story leads and background information.

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 opinion, including advice respecting prosecutions arising out of the administration of the Food and Drugs Act, the Narcotic Control Act, the Family Allowances Act and the Old Age Security Act. The services of the division include the preparation of contracts and other legal documents, the interpretation of statutes and regulations and the preparation of memoranda and submissions to the Cabinet, the Governor-General-in-Council and the Treasury Board.

The services of the Legal Division were also required during the year under review in the revision and consolidation of certain of the regulations administered by the department, in the preparation of amendments to the Food and Drugs Act in respect of controlled drugs and the preparation of new narcotic control legislation preparatory to the submission thereof to the Department of Justice. Its services were extended also in assisting with the negotiations leading up to and in the preparation of legislation on the subject of Fitness and Amateur Sport, in the organization of advisory groups thereunder and in the planning of suitable federal-provincial programs of administration.

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.

During the year the Legal Advisor attended, as Canadian representative, the United Nations Inter-American Consultative Group Conference on Narcotics Control and, as Vice-President thereof, acted as chairman of many of the conference sessions.

DEPARTMENTAL LIBRARY

The Departmental Library continued with 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 identification, ordering and cataloguing, answering inquiries and advising about authorities and sources of information were maintained.

Standards and a plan for nursing school libraries were developed for the Hospital Design Division. Attention was given to the requirements of the Royal

Commissions on Government Organization and on Health Services, particularly to the groups concerned with libraries, archives and technical information. The External Aid Office was assisted with advice regarding the selection and procurement of medical books for donations.

In Ottawa, reference and circulation work was carried on from the libraries in the Jackson Building, the Food and Drug Building, the Laboratory of Hygiene and the Environmental Health Building. The scattered arrangement of the library collections and services in six locations in Ottawa was an inconvenience to the library staff.

PERSONNEL SERVICES

As usual, officers of Personnel Services rendered advice and assistance concerning all aspects of personnel administration and organization to the other management groups in the department and conducted the department's business with the various agencies and organizations interested in these affairs, such as the Civil Service Commission, the Department of Finance and the staff associations.

The important highlights of the year's activities follow:

Organization Studies: Two major department-wide studies were in progress during the year. The Civil Service Commission's Organization Division completed



One of the functions of Personnel Services is to arrange training programs for members of the staff. An orientation session for recently appointed officers is depicted above under the leadership of Dr. Ratz, one of the Associate Directors of Medical Services.

a comprehensive survey of the department's organization. The survey report, issued in June 1961, contained a number of recommendations, many of which the department has accepted and already implemented.

The Royal Commission on Government Organization (the Glassco Commission) carried out most of its investigatory work during the period under review. In connection with both of these studies, Personnel Services acted as a co-ordinating and liaison office. Consequently officers of the division have been kept informed during the course of the studies of the thinking of the commission's officers, in so far as propriety permits, and have been able to facilitate the early implementation of the recommendations.

Major Organization Changes: The year was characterized by a number of organizational changes of which the following are perhaps the most noteworthy:

- The joining together of Indian and Northern Health Services and Medical Advisory Services into a single service to be known as "Medical Services".
- The integration of the Narcotic Control Division with Food and Drug Services.
- The creation of a directorate to administer the Fitness and Amateur Sport Act.

Establishment Changes: Because of a number of unexpected developments the Establishment Review Committee found it necessary to issue five supplemental reports raising the establishment from 5,255, which had been the approved establishment at April 1, 1961, to 5,304, which was the approved establishment on March 31, 1962. The regular annual establishment review was held in August and September 1961. During this review 179 additional positions were approved for addition to the establishment with effect from April 1, 1962. Most of the increases are necessitated because of an increase in the volume of work due to such causes as an increase in population serviced or, as in the case of Food and Drug, additional products to be inspected. However, some increases were due to increased emphasis on old programs or to the development of new programs. The most noteworthy of these occurred in the following divisions:

- Emergency Health Services
- Emergency Welfare Services
- Narcotic Control Division (because of new "controlled drug" legislation)
- Fitness and Amateur Sport
- Radiation Protection
- Medical Services (because of the new program to train and employ Indians and Eskimos as local health workers).

Noteworthy decreases occurred in the Immigration Medical Service and the Family Allowances and Old Age Security Regional Offices, the former because of a decrease in immigration and the latter as the result of savings following a work methods study conducted by the Management Analysis Division of the Civil Service Commission.

Classification and Salary Reviews

The Civil Service Commission introduced a number of new concepts relating to classification and salary determination. Standards and specifications for most classes are being rewritten to permit more precision in classifying positions and to enable the Pay Research Bureau to establish valid matches with salary rates paid by other employees. The Civil Service Commission also introduced a new system of reviewing salaries, by major groupings and in cycle, rather than reviewing all classes at the same time. These developments, which will no doubt prove satisfactory in the long run, have placed considerable strain both on management and staff since many new policies and methods have to be learned and applied.

Recruitment and Staffing

There are very few classes employed by this department which are in sufficient supply. Shortages in the medical, dental, social work, nursing and dietetic professions remain chronic. Other shortage groups are laboratory technicians, sanitarians, and physiotherapists. We are also suffering from a chronic shortage of well educated stenographers.

A major problem which the department faces relates to the recruitment and development of personnel for eventual placement in responsible positions requiring skills and knowledge in public administration and in particular the administration of health and welfare programs and the effect of these programs on other aspects of the economy. Tables indicate staff turnover and distribution.

Civil Service Act and Regulations

During the period under review the Civil Service Act (1961) became law and the Civil Service Regulations were written. Much time was spent by officers of Personnel Services in consultation concerning these developments and their impact on the department.

TABLE 42
STAFF SITUATION WITH SPECIAL REFERENCES TO PROFESSIONAL CLASSES

Classifications	Authorized Positions March 31/62	Vacant Positions March 31/62	Appointments During the Fiscal Year	Terminations During the Fiscal Year	Approximate Terminations per 100 Positions	Promotions Including Reclassifications
Physicians.....	308	47	20	37	12.0	26
Dentists.....	31	3	4	5	16.0	2
Registered Nurses.....	770	36	293	204	26.5	17
Chemists.....	112	6	11	11	9.8	20
Bacteriologists.....	37	3	6	6	16.2	3
Biologists.....	4		1			
Librarians.....	6	1		1		1
Pharmacists.....	9	1		1		
Laboratory Technicians.....	25	9	6	3		3
Nutritionists.....	9		3			
Dietitians.....	12	2	3	3		1
X-Ray Operators.....	40	2		1		3
Food and Drug and Narcotic Inspectors.....	84	10	5	2		8
Public Health Engineers.....	30	4	3	3		4
Social Workers.....	29	2		2		
Architects.....	4	1				
Economists.....	21	2	1	2		2
Information Officers.....	10		1	2		
Statisticians.....	10		2			2
All Other Classes.....	3,753	288	751	714	19.0	262
Total.....	5,304	419	1,110	997	18.8	354*

*These figures do not include—Ward Aides, Housemaids, Hospital Attendants.

TABLE 44
ESTABLISHMENT BY DIVISION
MARCH 31, 1962

Division	Established Full-time Positions	Established Part-time and Seasonal Positions	Division	Established Full-time Positions	Established Part-time and Seasonal Positions
Minister's Office.....	16		Medical Rehabilitation.....	5	
Dep. Minister—Health.....	3		Mental Health.....	9	
Dep. Minister—Welfare.....	4		Nutrition.....	21	
Legal Services.....	7		Nursing Consultant.....	1	
Library Services.....	16		Laboratory of Hygiene.....	151	5
Purchasing & Supply Services.....	35		Occupational Health.....	50	1
Information Services.....	34		Public Health Engineering.....	46	
Personnel Services.....	45		Radiation Protection.....	61	
Research & Statistics Services.....	60		Medical Services.....	2,949	73
Departmental Secretary.....	134		Food and Drug.....	384	10
Director Health Services.....	15		Family Allowances and Old Age Security.....	871	
International Health.....	4		Old Age Assistance.....	18	
Research Development.....	4		Unemployment Assistance.....	5	
Environmental Health and Special Projects.....	4		Civil Defence College.....	110	
Health Insurance.....	14		Emergency Health.....	49	
Health Grants.....	13		Emergency Welfare.....	26	
Blindness Control.....	4		Fitness and Amateur Sport.....	11	
Child and Maternal Health.....	7				
Dental Health.....	7		Total.....	5,213	91
Epidemiology.....	13	2			
Hospital Design.....	7				

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 Indian and Northern Health Services, and the overseas offices of the Immigration Medical Services. The increase in volume of work 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 some types of materials and supplies, together with higher transportation costs, has required a closer examination of policy and will probably result in a further delegation of local purchasing authority. During the year under review the field hospitals and health units purchased approximately \$900,000 worth of such products.

Approximately 14,200 requisitions were processed comprising almost all known commodities and involving orders placed in Canada, United States, United Kingdom and Continental Europe. This required the issuance of nearly 15,000 tenders and inquiries to the trade concerning prices and delivery and the processing of more than 25,100 invoices. Included in this work and in the expediting of deliveries was the preparation of 11,350 pieces of correspondence. There were more than 1,200 shipments cleared through Customs during the year.

The over-all expansion of the department both in and outside Ottawa put a serious strain on accommodation facilities and several divisions were required to move to other quarters.

The Departmental Stores handled 1,960 incoming shipments comprising more than 27,100 pieces. Approximately 12,700 pieces were shipped out involving the preparation of more than 5,600 issue vouchers. Inventory value of stock in the stores at the end of the year amounted to approximately \$139,000.

During the year 37 replacement vehicles were purchased and 15 new vehicles added to the departmental fleet; at the end of the fiscal year the department had 281 motor vehicles in operation.

The Forms Control Program, started several years ago, has already shown good results and during the fiscal year a large number of forms, involving a paper consumption running into several million sheets, were revised. A total of 82 forms were discontinued or incorporated into other forms.

The Inventory Section, during the year, received 140 departmental inventory returns for inclusion in the Master Inventory. There were 122 disposals reported to Crown Assets Disposal Corporation; 31 to the Department of Public Works and 70 office machines were disposed of to the Department of Public Printing and Stationery.

RESEARCH AND STATISTICS DIVISION

A new director was appointed to the division in August 1961 to fill the vacancy created in July 1960 by the appointment of the previous director as Deputy Minister of Welfare. Within a week of this appointment, the services of the division were deeply committed to assisting the newly-established research unit of the Royal Commission on Health Services. Another major undertaking introduced later in the year was the planning and documentation leading to the government's announcement in January 1962 of its intention to introduce a program of old age, survivors and disability benefits. Work on the second volume of the "Manitoba Hospital Survey Board Report", dealing with hospital personnel, was nearing completion by the end of the year.

A number of bulletins were published during the year, including "Changes in Child Welfare Legislation in Canada, 1958, 1959, 1960, and 1961", "Legislative Measures Affecting Living Accommodation for Elderly Persons in Canada", "Government Expenditures on Health and Social Welfare, Canada, 1927 to 1959", "Allowances for the Permanently and Totally Disabled—Medical Statistics—April 1, 1957 to March 31, 1960", and "Report of the Survey of Health Unit Services in Eight Provinces of Canada 1960". Material was prepared within the division for inclusion in the "Canada Year Book 1962", the "Canada 1962" handbook, the "Encyclopaedia Britannica", the "Annual Report of the Minister under the Hospital Insurance Act", and the department's brief to the Committee of Inquiry on Unemployment Insurance. Articles were written for publication in the "Labour Gazette", and "Canada's Health and Welfare". Extensive training programs were arranged for a number of foreign students under various technical assistance training schemes, in the fields of rehabilitation medicine, physiotherapy, social welfare administration and casework methods. A senior statistician continued to provide consultant services to the Ministry of Health of Jamaica, under WHO auspices, in the planning and supervision of a study of their public health services.

Royal Commission on Health Services

The division undertook a number of projects for the Royal Commission on Health Services. Another survey of physicians was undertaken, expanding the questions regularly asked to include several more topics of special interest to the Royal Commission; by the end of the year this survey was well under way. The division agreed to prepare an analysis of personal health care expenditures 1953 to 1961, and to revise its publication on "Hospital Care in Canada" to provide additional information on the availability, cost and use of hospital beds of all types. A series of health statistics and other health information on each province in turn was prepared for the use of the Royal Commission in its public hearings, and a number of the briefs it received at the outset, before its research staff was engaged, were reviewed. For one of the independent studies being done for the Commission, the division provided tables on government health expenditures between 1927 and 1959.

The division also agreed to complete publications of interest to the Commission which were already under way, in the fields of voluntary medical care

insurance, medical care for indigents, analysis of physicians' incomes, and administration of public health services in Canada. Officers of the division provided consultative services to doctors conducting special investigations for the Royal Commission.

Hospital and Medical Care Insurance

The division continued to provide research services to the Health Services Directorate on various aspects of the hospital insurance program in Canada, and medical care programs in Canada and other countries. Estimated per capita costs of in-patient services in Canada were prepared as the basis for determining federal advances to the provinces under the hospital insurance program during 1962 as well as final costs for 1960. Members of the division's staff provided consultative services to provincial hospital authorities, participated in provincial hospital institutes, and served on the federal-provincial subcommittees on quality of care, research and statistics, and finance and accounting. The director chaired the working parties on hospital standards and on the use of admission-separation forms, which submitted Part I of the "Guide to Hospital Standards", "The Canadian List of Diagnoses for Hospital Statistics", and lists of surgical operations and paediatric diagnoses for the approval of the Advisory Committee on Hospital Insurance and Diagnostic Services. He also presented papers on financing hospital insurance at a symposium of the American Public Health Association, and on the use of hospital statistics at the Ontario Hospital Association meetings.

Studies continued on different aspects of public and voluntary medical care in Canada. Projects under way include analyses of the experience of the medical care insurance programs and of the health care programs for public assistance recipients. Developments in foreign medical care programs were kept under review. Staff members served on the Interdepartmental Committees dealing with the Group Surgical-Medical Insurance Plan for federal civil servants and with pension plans for hospital employees.

Hospital Services

Three staff members continued to assist the Deputy Minister of Welfare in executing his responsibilities as Chairman of the Manitoba Hospital Survey Board. By the end of the year the second volume of this board's report, analyzing training facilities and personnel requirements for nurses, technicians, therapists and other categories of hospital personnel, was almost completed. During the year work was commenced on a study of hospital facilities in Canada at the request of the Royal Commission on Health Services.

Hospital Statistics

Intensive examination and analysis of hospital insurance statistics enabled the division to provide an assessment of the first two full years of operation of the hospital insurance program. The annual returns of hospitals were edited and analyzed, and a series of indices were computed to assess hospital functions.

Summary tables and commentary were provided for inclusion in the "Annual Report of the Minister under the Hospital Insurance Act", and special compilations of data were made for various committees. The division co-operated with the Dominion Bureau of Statistics in preparing forms and instruction manuals for the Annual Return of Hospitals 1962, incorporating the changes approved by the Advisory Committee on Hospital Insurance. Arrangements were made to process forms and prepare statistical tabulations required for the administration of the Territorial Hospital Insurance Service.

Health Economics

Two major projects were undertaken in the health economics field during the year, both of which will be completed in time for use by the Royal Commission on Health Services. The first is an extensive study of the characteristics of physicians' incomes in Canada over the past few years, based on data supplied by the Department of National Revenue. The second is a thorough analysis of expenditures for personal health care services in Canada from 1953 to 1961; included are expenditures on hospital, medical, dental, and nursing care and on prescribed drugs.

Mental Health

A supplement to "Mental Health Legislation in Canada, 1960" was prepared outlining recent changes in such legislation, and material was prepared on trends in mental hospital population in the United States, Britain and Canada. Studies were undertaken to examine the cost implications of extending hospital insurance to include mental hospitals. Reports were prepared for the Advisory Committee on Mental Health on a proposed new survey of psychiatric services in general hospitals, and tables were prepared containing the information on psychiatric services supplied annually by general hospitals. Analytical comparisons were made of the operations of psychiatric units and mental hospitals, tabulations of mental illness statistics were prepared for departmental use, and work was undertaken for the Survey of Organizations in the Field of Alcoholism.

Rehabilitation and Chronic Disease

For the Social Commission of the United Nations, the division prepared a comprehensive report on Canadian rehabilitation programs in co-operation with the National Co-ordinator of Rehabilitation. Information and advice was supplied to departmental officials and other agencies on: the Vocational Rehabilitation of Disabled Persons Agreements, housing for the handicapped, sheltered workshops, training facilities for the blind, nursing homes for chronic care, rehabilitation centres, mental retardation, and geriatric care. A draft report on the problem of chronic disease was prepared, based on studies by special departmental committees. Further progress was made in assessing data for the Study of Mortality in Relation to Smoking Habits.

Public Health

A "Report of the Survey of Health Unit Services in Eight Provinces of Canada" was completed and published during the year, and work was begun on a similar study for the province of Quebec with the School of Hygiene, Montreal. Work was also begun on a new edition of "The Administration of Public Health in Canada", describing the administration organization, and financing of federal, provincial, local, and voluntary health services. For the World Health Organization the division provided basic statistical data concerning health personnel, hospitals, and health services, and an up-to-date collection of health legislation and regulations.

Child and Maternal Health

Work progressed on the analysis of the questionnaires and evaluation of the data from the Survey of Maternal and Newborn Care in Hospitals in Canada. Preliminary data from the survey were prepared for the Statistical Subcommittee of the Advisory Committee on Child and Maternal Health. A study of the incidence of scurvy in Canada was initiated, analyzing cases reported by the Canadian Paediatric Society. The director chaired a working party which, after many attempts, devised a definition of newborn for hospital morbidity statistics purposes which was acceptable to the Advisory Committee on Hospital Insurance.

Radiation Protection

During the year the division acquired a statistician to work exclusively in the field of radiation statistics, and a geneticist who will be working part time in this field. Consultative services were provided the Radiation Protection Division in planning the mechanization of the Film Monitoring Service. A three-year report on the operations of the Film Monitoring Service was prepared, and a new study was initiated regarding low dose occupational exposure. Studies were made of the significance of Strontium 90 estimates obtained from dried milk and human bone samples, and suggestions were made for a practical sampling plan for bone specimens. The problem of estimating the gonadal dose from diagnostic X-rays in hospitals was studied, and follow-up data on women irradiated during pregnancy were reviewed in the light of other studies. The Principal Research Officer (Biostatistics) attended meetings of the U.N. Scientific Committee on the Effects of Atomic Radiation, and served as a member of the Working Party on Medical and Occupational Exposures.

Other Health Research

Assistance was given the Dental Health Division in the preparation of a report on the latest series of examinations in the Survey of Dental Caries. An analytical report was prepared on the Northwest Territories Medical Care Program. An evaluation report on a battery of physical fitness tests was completed.

An analytical Annual Report of the Poison Control Centres across Canada was prepared for limited distribution, and a statistical evaluation of the poliomyelitis vaccination program was prepared for departmental use. A summary report was prepared on research in hospital administration in Canada. A work sampling study was planned and designed for a Prince Edward Island hospital. Material was prepared for the Royal Commission on Government Organization, for the International Labour Organization and the World Health Organization, and for numerous individual inquiries regarding medical personnel, hospital facilities, costs, and use, specific disease categories, and various public and private health care programs.

Income Security

The program of old age, survivors and disability benefits announced in the Speech from the Throne, January 1962, required the active participation of staff members for a number of months beforehand in discussions to plan the new program. A number of memoranda were prepared and several meetings of the Interdepartmental Committee on Social Security were attended. The Income Security Section Supervisor spent two weeks in Britain reviewing the policy, practice and problems related to the contracting out procedures adopted there. The director spent several days in Baltimore and Washington reviewing details of the Old Age, Survivors, and Disability Insurance program with United States officers. Bulletins on old age pensions in Australia and New Zealand were revised in preparation for publication, and the work of the Ontario committee on portable pensions was followed closely.

A bulletin on the medical statistics relating to disability allowance recipients for the three years 1958 to 1960 was prepared for a meeting of the federal physicians connected with the program, and was later given restricted distribution. Additional disability statistics were prepared for inclusion in the annual report of the Disabled Persons Allowance Program. The division collaborated with the Unemployment Assistance Division in preparing a brief to the Committee of Inquiry on Unemployment Insurance.

Social Security Expenditures

During the year the bulletin "Government Expenditures on Health and Social Welfare, Canada, 1927 to 1959" was published and distributed. It contains a comprehensive analysis of the expenditure of public funds by all three levels of government in the fields of health, welfare, and income maintenance over this period. To meet many requests from within and outside the department, including the International Labour Office and the International Social Security Association, a variety of tables on annual social security expenditures, by type, by location, and by source, were prepared. An analysis was made of the I.L.O. study on "The Cost of Social Security" for departmental use. Memoranda were prepared on the I.L.O. report on the proposed convention for equal treatment for nationals and non-nationals, and on Canada's ability to qualify under the I.L.O. convention on minimum social security standards.

Welfare

The division continued its work on family, child and youth welfare, problems of delinquency, general assistance, services for the aged, and community organization and development. The bulletin "Changes in Child Welfare Legislation in Canada, 1958 to 1961" was completed and distributed. A companion bulletin on changes in other welfare legislation in the same period was completed by the end of the year. "Legislative Measures Affecting Living Accommodation for Elderly Persons in Canada" was published and distributed, and the French edition of this bulletin was prepared for distribution early in the new fiscal year. This bulletin reviews federal and provincial legislation, and discusses financing, cost-sharing, licensing, supervision, maintenance of the needy, and standards in homes for the aged. Material on the socio-economic factors affecting the welfare of the aged, including problems of flexible and mandatory retirement, accommodation, and counselling was reviewed. A research memorandum on the day care of children of working mothers was prepared, and queries were answered on the nature and extent of day care services in Canada.

The division provided consultative services to other divisions and outside agencies either by participation in committees or by the preparation of memoranda. Such services covered the fields of unemployment assistance, welfare program costs, means-test criteria, the implications of child welfare laws, proposed research projects, and current trends in community development.

Staff members participated in a departmental working party on welfare grants, with the Welfare Section performing the duties of a secretariat. About forty research memoranda and a substantial report were prepared for reference, covering training, education for social work, agency staffing problems, the role of advisory committees, and grants programs in other countries. Staff members also served on other committees, including the Interdepartmental Committee on the Older Worker, the Canadian Welfare Council's committees on Aging, Homemaker Services, and the Welfare of Immigrants. The Welfare Section Supervisor served on the Advisory Board of Canadian Welfare, and participated in the YWCA Seminar on Women at Work and the Toronto School of Social Work's Conference on the Chronic Petty Offender. Staff members attended several other conferences on welfare problems.

In the field of technical assistance to underdeveloped countries, the division continued to assist the International Welfare Division, through the preparation of advisory memoranda on questions of community development and technical co-operation services, and through the arrangement of training programs for students from abroad in various welfare and para-medical fields.

DIRECTORY OF DEPARTMENTAL OFFICERS

MINISTER

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

Executive Assistant, C. Keedwell, M.A.

Private Secretary, D. H. Dunsmuir

Deputy Minister of National Health and Welfare (Health)

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

Deputy Minister of National Health and Welfare (Welfare)

J. W. Willard, Ph.D., M.A., M.P.A., A.M.

HEALTH BRANCH

FOOD AND DRUG DIRECTORATE:

Director, C. A. Morrell, M.A., Ph.D., F.R.S.C.

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 & Enforcement Services)

A. Hollett, B.Sc., M.Sc.

Chief, Narcotic Control Division, R. C. Hammond, Phm.B

Regional Directors:

Eastern Region (Halifax), L. B. MacIsaac, B.Sc.

East Central Region (Montreal), P. E. Jean, M.Sc.

Central Region (Toronto), H. E. Woodward, Ph.D.

West Central Region (Winnipeg), H. A. Watson, B.Sc.

Western Region (Vancouver), K. M. Render, B.Sc.

MEDICAL SERVICES DIRECTORATE:

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

Associate Director (Medical), R. G. Ratz, M.D.

Associate Director (Medical), H. A. Procter, D.S.O., M.D., Ph.D.

Associate Director (Administration), W. B. Brittain, D.F.C., B.Sc.

Chief, Civil Aviation Medicine Division, W. A. Prowse, M.D., C.M., D.P.H.

Chief, Civil Service Health Division, E. L. Davey, M.D., D.P.H.

Chief, Northern Health Services, J. S. Willis, M.D., D.P.H.

Chief, Quarantine, Immigration Medical & Sick Mariners Services,

W. H. Frost, M.D., D.P.H.

Regional Superintendents:

Eastern Region (Ottawa), J. H. Wiebe, B.A., M.D., M.P.H.

Central Region (Winnipeg), O. J. Rath, M.D.

Saskatchewan Region (Regina), T. J. Orford, M.D., C.M.

Foothills Region (Edmonton), W. L. Falconer, M.D.

Pacific Region (Vancouver), W. S. Barclay, M.D.

HEALTH SERVICES DIRECTORATE:

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

Assistant Director, E. A. Watkinson, M.D., C.M., D.P.

Principal Executive Officer, J. H. Horowicz, LL.D.

PRINCIPAL MEDICAL OFFICERS:

Health Insurance, E. H. Lossing, M.D., D.P.H.

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

Research Development, L. B. Pett, B.S.A., M.A., Ph.D., M.D., D.P.H.

International Health, B.D.B. Layton, M. D., M.P.H.

SPECIAL HEALTH SERVICES:

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

Dental Health Division, *Dental Consultant*, H. K. Brown, D.D.S., D.D.P.H. LL.D., F.A.C.D., F.I.C.D.

Emergency Health Services Division, *Chief*, A. C. Hardman, M.D.

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, *A/Chief*, E. T. Bynoe, M.Sc., Ph.D.

Medical Rehabilitation, *Chief*, O. Hoffman, M.D.

Mental Health Division, *Chief*, Morgan Martin, M.D., C.M., M.Sc.

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

Nutrition Division, *Chief*, J. E. Monagle, B.Sc., M.D.

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

Public Health Engineering Division, *A/Chief*, W. R. Edmonds, M.A.Sc., B.P. Eng.

Radiation Protection Division, *Chief*, P. M. Bird, M.Sc., Ph.D.

WELFARE BRANCH**FAMILY ALLOWANCES AND OLD AGE SECURITY DIVISION:**

Director, J. Albert Blais

Assistant Director, R. H. Parkinson, B.A.

Chief Supervisor, Welfare Services, W. W. Struthers, B.A., B.S.W.

REGIONAL DIRECTORS:

Newfoundland, St. John's, L. C. Abbott

Prince Edward Island, Charlottetown, J. E. Green

Nova Scotia, Halifax, M. T. Blue

New Brunswick, Fredericton, A. Nicholson

Quebec, Quebec, J. M. L. Lafrance, B.S.A.

Ontario, Toronto, W. F. Hendershot

Manitoba, Winnipeg, W. H. Davis, D.P.A.

Saskatchewan, Regina, R. J. G. Mitchell

Alberta, Edmonton, W. W. Dahl

British Columbia, Victoria, W. R. Bone

Yukon and Northwest Territories, Ottawa, Miss Norma O'Brien, B.A.

OLD AGE ASSISTANCE, BLIND AND DISABLED PERSONS' ALLOWANCES DIVISION:

Director, J. W. MacFarlane

UNEMPLOYMENT ASSISTANCE DIVISION:

Director, R. B. Splane, M.A., D.S.W.

INTERNATIONAL WELFARE DIVISION:

Director, J. A. Macdonald, B.A.

EMERGENCY WELFARE SERVICES:

Director, P. H. Stehelin, LL.B.

CIVIL DEFENCE COLLEGE, ARNPRIOR:

Commandant, Col. C. L. Smith

FITNESS AND AMATEUR SPORT DIRECTORATE:

Director, G. A. Wright, B.S.A.

Assistant Director, Doris W. Plewes, M.A., B. Paed, Ed.D.

ADMINISTRATION BRANCH

Departmental Librarian, Mary D. Morton, B.H.Sc., B.L.S.

Departmental Secretary, Olive J. Waters

Information Services, Director, Harvey W. Adams

Legal Services, Legal Advisor, R. E. Curran, Q.C., B.A., LL.B.

Personnel Services, Director, E. J. Preston, M.A.

Purchasing and Supply Division, Director, J. K. Wilson

Research and Statistics Division, Director, J. E. E. Osborne, M.A., D.H.A.

TRANSLATION

Chief, G. A. Sauv 

TREASURY OFFICE

Chief, H. L. Rock

WELFARE BRANCH

REGIONAL DIRECTORS:

OLD AGE ASSISTANCE, BLIND AND DISABLED PERSONS, ALLOWANCE DIVISION:

UNEMPLOYMENT ASSISTANCE DIVISION:

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
Vimy Building, Sparks 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.	Confederation Building
HALIFAX, N.S.	Ralston Building
FREDERICTON, N.B.	New Federal Building
QUEBEC, P.Q.	51 Boulevard des Capucins
TORONTO, Ont.	25 St. Clair Ave., East, Toronto
WINNIPEG, Man.	Ellice Building
REGINA, Sask.	Federal 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, P.Q.	Room 800, 400 Youville Square
TORONTO, Ont.	55 St. Clair Ave. East
WINNIPEG, Man.	Room 310, Federal Bldg., Main and Water Streets
VANCOUVER, B.C.	Room 504, 325 Granville Street

FOOD AND DRUG OFFICES

OTTAWA, Ont.	Tunney's Pasture
HALIFAX, N.S.	P.O. Box 605, Ralston Bldg., 105 Hollis Street

CHARLOTTETOWN, P.E.I.	P.O. Box 1311, Confederation Bldg.
SAINT JOHN, N.B.	P.O. Box 396, 250 Prince William St.
SYDNEY, N.S.	P.O. Box 324, Federal Bldg.
ST. JOHN'S, Nfld.	P.O. Box 5115, Sir Humphrey Gilbert Bldg.
QUEBEC, P.Q.	P.O. Box 3251 St. Roch de Quebec
THREE RIVERS, P.Q.	P.O. Box 1146, Post Office Bldg.
SHERBROOKE, P.Q.	P.O. Box 1120, 315 King St. W.
MONTREAL, P.Q.	Room 800, 400 Youville Square
TORONTO, Ont.	55 St. Clair Ave. East
BELLEVILLE, Ont.	New Federal Building
HAMILTON, Ont.	National Revenue Building
KITCHENER, Ont.	P.O. Box 33
LONDON, Ont.	Dominion Public Building
WINDSOR, Ont.	137 Ouellette Ave.
SUDBURY, Ont.	New Federal Building
PORT ARTHUR, Ont.	33 Court Street South
WINNIPEG, Man.	Room 310, Federal Bldg.
BRANDON, Man.	Federal Building
SASKATOON, Sask.	307 London Building
REGINA, Sask.	Room 713, Motherwell Bldg.
CALGARY, Alta.	Customs Building
EDMONTON, Alta.	Federal Building
KAMLOOPS, B.C.	345 Victoria Street
VANCOUVER, B.C.	Federal Building
VICTORIA, B.C.	Belmont Building

IMMIGRATION MEDICAL SERVICES OFFICES

Canada

ST. JOHN'S, Nfld.	Federal Building
GANDER, Nfld.	Gander Airport
STEPHENVILLE, Nfld.	Harmon Field Airport
SYDNEY, N.S.	Marine Hospital and Reserve Airport
HALIFAX, N.S.	(1) Pier 21, P.O. Box 129 (2) 619 Ralston Building
LANCASTER, N.B.	P.O. Box 140
MONCTON, N.B.	Moncton Airport
SAINT JOHN, N.B.	Immigration Building, Pier 9
QUEBEC, P.Q.	Champlain Harbour Station, Wolfe's Cove
MONTREAL, P.Q.	(1) 150 St. Paul Street, W. (2) 320 Baldwin Street
DORVAL, P.Q.	Montreal International Airport
OTTAWA, Ont.	Ottawa International Airport

TORONTO, Ont.	175 Bedford Road
MALTON, Ont	Toronto International Airport
WINDSOR, Ont	Windsor Airport
LONDON, Ont.	London Airport
FORT ERIE and NIAGARA FALLS, Ont.	P.O. Box 1001, Fort Erie
WINNIPEG, Man.	Immigration Hall, 83 Maple St., and Winnipeg International Airport
EDMONTON, Alta.	Edmonton Airport
VANCOUVER, B.C.	Immigration Building, foot of Burrard Street and Vancouver International Airport
VICTORIA, B.C.	816 Government Street

Overseas

LONDON, England	38 Grosvenor St., London W.1
BELFAST, Northern Ireland	22 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 2
BRUSSELS, Belgium	230 rue Royale
PARIS, France	38 Avenue de l'Opera
ROME, Italy	Via Acherusio Sud 9
THE HAGUE, Holland	12 Carel Van Bylandtlaan
COPENHAGEN, Denmark	Canadian Embassy, Vestagervej 5
BERLIN, Germany	Berlin-Charlottenburg, 2, Uh- landstr. 20-25 Aufg., g II
COLOGNE, Germany	Canadian Embassy, Visa Section, Buchheimerstrasse 64-66, Weiner Platz, Cologne-Meul- heim
MUNICH, Germany	Josefspitalstrasse 7/4, Muenchen 2
STUTTGART, Germany	Marquardt Gebaeude, Koenig- strasse 20
HAMBURG, Germany	Canadian Consulate, Visa Office, Schillerstr. 47/49, Hamburg- Altona
BERNE, Switzerland	Canadian Embassy, Medical Sec- tion, Neuengasse, Interhaus, 2nd Floor
VIENNA, Austria	Canadian Embassy, Medical Sec- tion, Tuchlauben 8, Vienna 1
ATHENS, Greece	Canadian Embassy, Visa Office, 54A Queen Sofia Street
HELSINKI, Finland	Canadian Embassy, Visa Office, Bulevardi 10A

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, P.Q.	Champlain Harbour Station, Wolfe's Cove
MONTREAL, P.Q.	150 St. Paul Street West
VANCOUVER, B.C.	Immigration Building, foot of Burrard Street
VICTORIA, B.C.	816 Government Street

QUARANTINE STATIONS AND SUB-STATIONS

GANDER, Nfld.	Gander Airport
ST. JOHN'S, Nfld.	Federal Building
SYDNEY, N.S.	Marine Hospital and Airport
HALIFAX, N.S.	Pier 21 & International Airport
LANCASTER, N.B.	P.O. Box 140
SAINT JOHN, N.B.	Pier 9
QUEBEC, P.Q.	Champlain Harbour Station, Wolfe's Cove
MONTREAL, P.Q.	150 St. Paul Street West 320 Baldwin Street
BAIE COMEAU, P.Q.	Sub-Station
SEVEN ISLANDS, P.Q.	Sub-Station
RIMOUSKI, P.Q.	Sub-Station
PORT ALFRED, P.Q.	Sub-Station
THREE RIVERS, P.Q.	Sub-Station
SOREL, P.Q.	Sub-Station
PORT CARTIER, P.Q.	Sub-Station
DORVAL, P.Q.	Montreal International Airport
VICTORIA, B.C.	816 Government Street
VANCOUVER, B.C.	Immigration Building and Van- couver International Airport

INDIAN AND NORTHERN HEALTH SERVICES

EASTERN	Room 1128, Trade and Com- merce Building, Wellington and Lyon Streets, Ottawa
CENTRAL	705 Commercial Building, 169 Pioneer Ave., Winnipeg
SASKATCHEWAN	735 Motherwell Building, Regina
FOOTHILLS	11344, 128 St., Edmonton
PACIFIC	4824 Fraser Street, Vancouver

LABORATORY OF HYGIENE

OTTAWA, Ont.	Tunney's Pasture
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OCCUPATIONAL HEALTH LABORATORIES

OTTAWA, Ontario	45 Spence Street, Ottawa
TRURO, N.S.	P.O. Box 608, Federal Building
MONCTON, N.B.	P.O. Box 86, Federal Building
MONTREAL, P.Q.	150 St. Paul Street, West Wing, Dominion Building
ST. CATHARINES, Ont.	Post Office Building
PORT ARTHUR, Ont.	Post Office Building
ST. BONIFACE, Man.	2nd Post Office, Postal Station B, Main Ave. at Main St.
REGINA, Sask.	Motherwell Building
EDMONTON, Alberta	Room 541, Federal Public Building
VANCOUVER, B.C.	Room 509, Federal Building
RADIATION PROTECTION	
OTTAWA, Ont.	305 Vimy Building
MONTREAL, P.Q.	170 Baldwin Street
BATE COMEAU, P.Q.	Sub-Station
SEVEN ISLANDS, P.Q.	Sub-Station
KIMOUSKI, P.Q.	Sub-Station
PORT ALFRED, P.Q.	Sub-Station
THREE RIVERS, P.Q.	Sub-Station
SOREL, P.Q.	Sub-Station
PORT CARTIER, P.Q.	Sub-Station
DORVAL, P.Q.	Montreal International Airport
VICTORIA, B.C.	414 Government Street
VANCOUVER, B.C.	Immigration Building and Vancouver International Airport

INDIAN AND NORTHERN HEALTH SERVICES

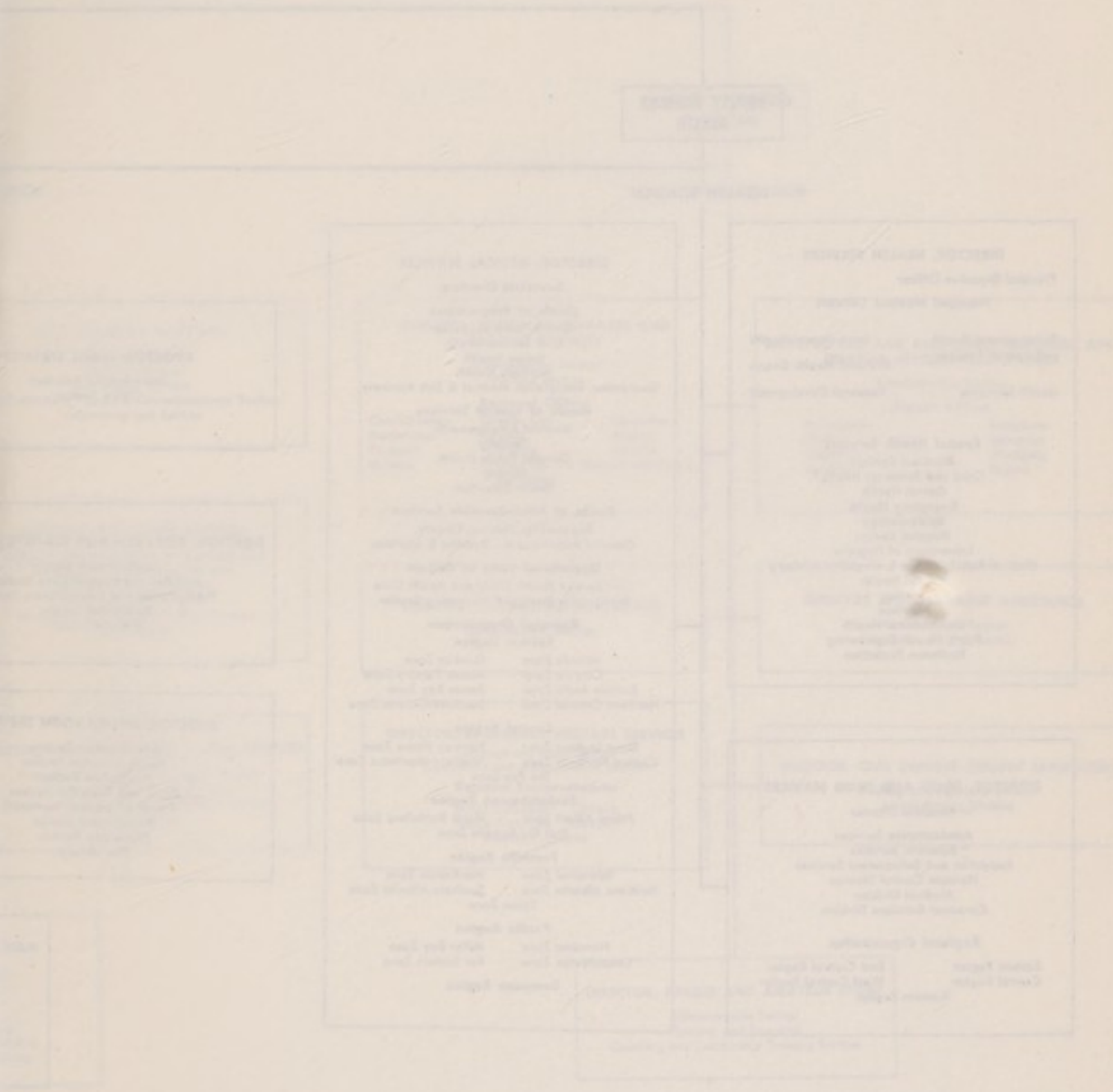
EASTERN	Room 1125, Trade and Commerce Building, Wellington and Lyon Streets, Ottawa
CENTRAL	No. Commercial Building, 169 Prater Ave., Winnipeg
SASKATCHEWAN	115 Motherwell Building, Regina
WESTERN	1134, 128 St., Edmonton
PACIFIC	404 Fraser Street, Vancouver

LABORATORY OF HYGIENE

OTTAWA, Ont.	Taney's Palace
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THE HISTORY OF THE UNIVERSITY

THE HISTORY OF THE UNIVERSITY
OF THE STATE OF TEXAS
FROM 1827 TO 1892



DEPARTMENT OF NATIONAL HEALTH SERVICES

**DEPUTY MINISTER
HEALTH**

HEALTH BRANCH

ADMINISTRATIVE SERVICES

DIRECTOR, HEALTH SERVICES

Principal Executive Officer

Principal Medical Officers

Environmental Health and Special Projects International Health
National Health Grants
Health Insurance Research Development

Special Health Services

Blindness Control
Child and Maternal Health
Dental Health
Emergency Health
Epidemiology
Hospital Design
Laboratory of Hygiene
Medical Rehabilitation & Disability Advisory
Mental Health
Nursing
Nutrition
Occupational Health
Public Health Engineering
Radiation Protection

DIRECTOR, FOOD AND DRUG SERVICES

Associate Director

Administrative Services
Scientific Services
Inspection and Enforcement Services
Narcotic Control Division
Medical Division
Consumer Relations Division

Regional Organization

Eastern Region East Central Region
Central Region West Central Region
Western Region

DIRECTOR, MEDICAL SERVICES

Associate Directors

Chiefs of Programmes

Civil Aviation Medicine
Civil Service Health
Indian Health
Northern Health
Quarantine, Immigration Medical & Sick Mariners

Heads of Special Services

Medical Arrangements
Dentistry
General Public Health
Nursing
Health Education

Heads of Administrative Services

Engineering, Finance, Dietary,
General Administration, Systems & Statistics

Operational Units in Ottawa

Civil Service Health Clinic and Health Units
Immigration Medical Prescreening Section

Regional Organization

Eastern Region

Atlantic Zone Quebec Zone
Ottawa Zone Moose Factory Zone
Eastern Arctic Zone James Bay Zone
Northern Ontario Zone Southern Ontario Zone

Central Region

Sioux Lookout Zone Norway House Zone
Central Northern Zone Southern Manitoba Zone
The Pas Zone

Saskatchewan Region

Prince Albert Zone North Battleford Zone
Part Qu'Appelle Zone

Foothills Region

Edmonton Zone MacKenzie Zone
Northern Alberta Zone Southern Alberta Zone
Yukon Zone

Pacific Region

Nanaimo Zone Miller Bay Zone
Coqualeetza Zone Far Eastern Zone

European Region

DIRECTOR, LEGAL SERVICES

Departmental Solicitors
Office Section

DIRECTOR, RESEARCH AND STATISTICS SERVICES

Administration Section
Hospital and Medical Care Section
Public Health and Rehabilitation Section
Biostatistics Section
Welfare Section

DIRECTOR, INFORMATION SERVICES

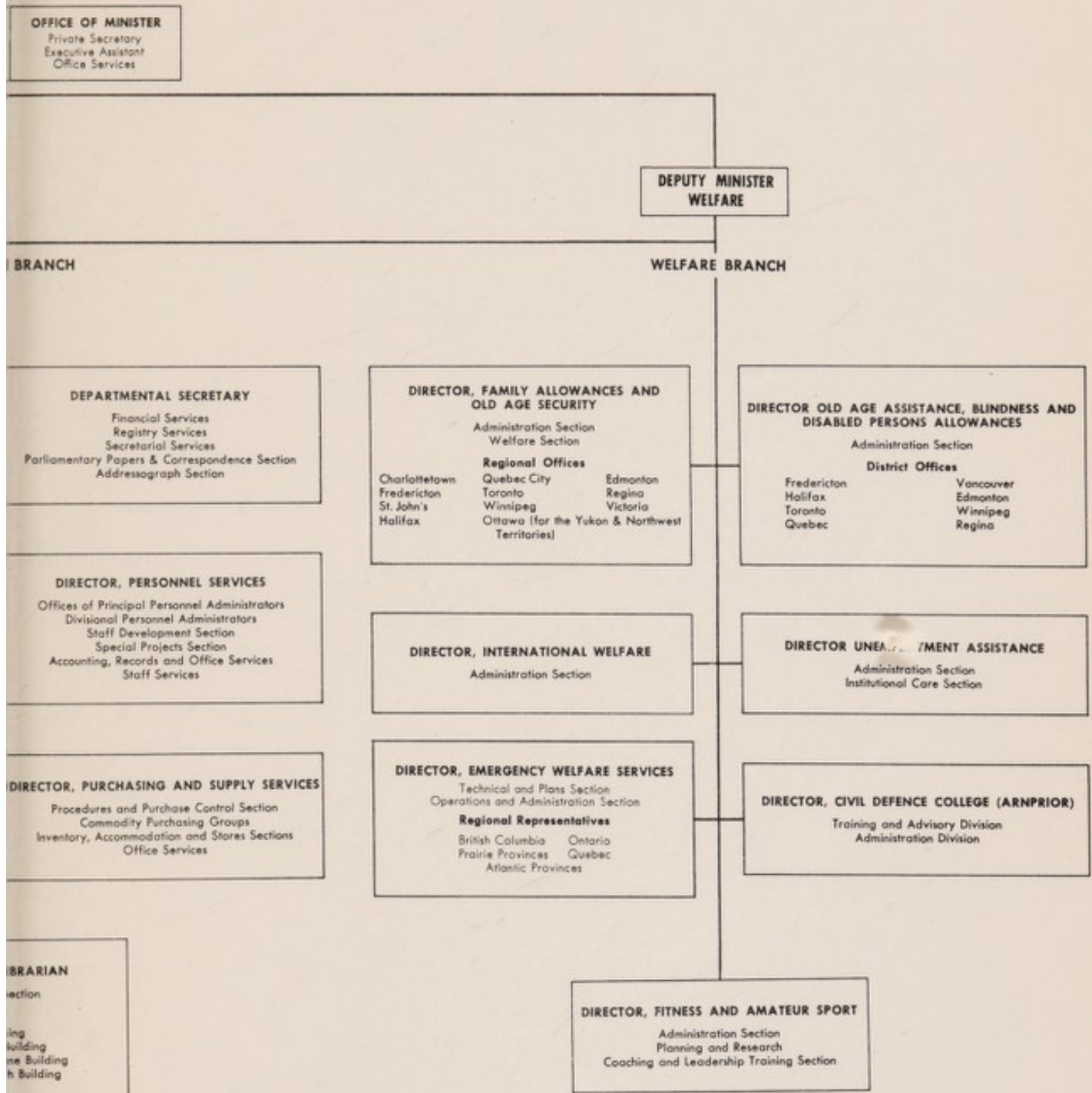
Administration Section
Health Education Section
Publications Section
Radio and Television Section
French Information Services
Photographic Section
Distribution Section
Film Library

DEPARTMENTAL SERVICES

Administrative

Food
Laboratory
Occupational

HEALTH AND WELFARE



March 31, 1962

RESEARCH AND DEVELOPMENT

RESEARCH AND DEVELOPMENT
DEPARTMENT

