PROVINCE OF BRITISH COLUMBIA

Ministry of Health

ANNUAL REPORT

1977

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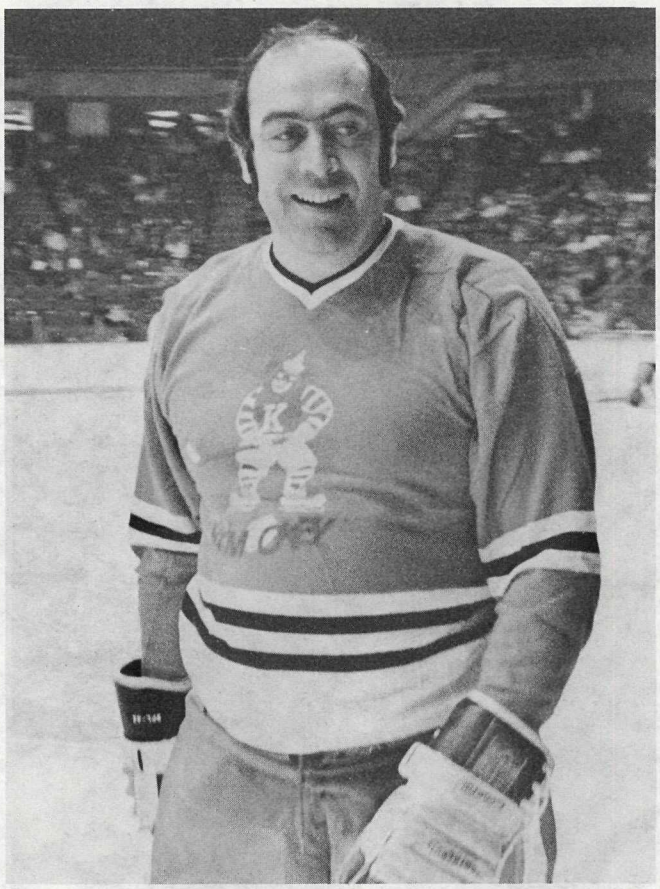
1978



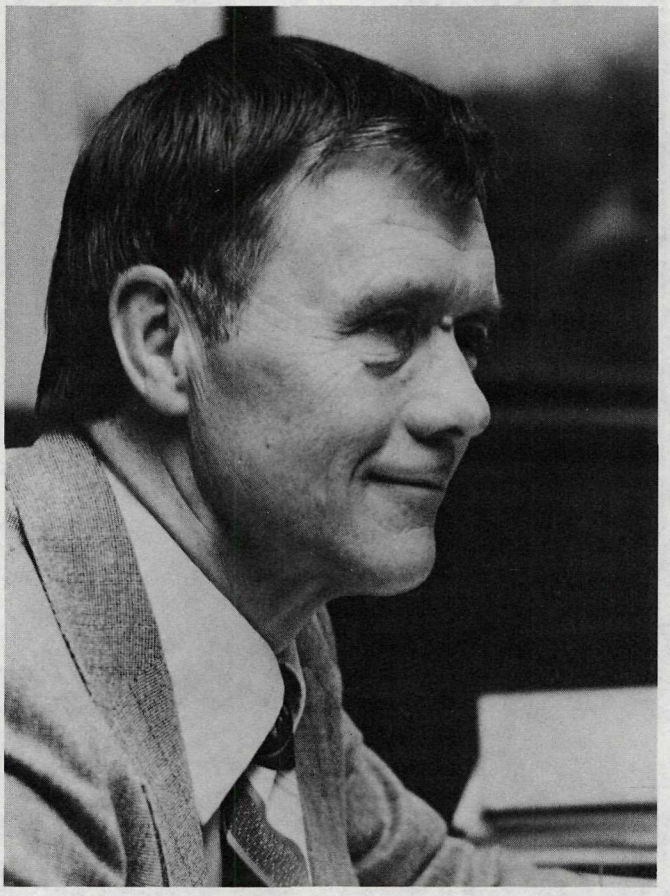
To Colonel the Honourable WALTER S. OWEN, Q.C., LL.D.,
Lieutenant-Governor of the Province of British Columbia.

MAY IT PLEASE YOUR HONOUR:

The undersigned respectfully submits the Annual Report of the Ministry of Health for the year 1977.

R. H. McCLELLAND
Minister of Health

Office of the Minister of Health,
Victoria, B.C., April 15, 1978.



MINISTRY OF HEALTH, VICTORIA, B.C., April 15, 1978

The Honourable R. H. McClelland,
Minister of Health, Victoria, B.C.

SIR: I have the honour to submit the Annual Report of the Ministry of Health for 1977.

J. W. MAINGUY
Deputy Minister of Health

MINISTRY OF HEALTH

THE HONOURABLE R. H. MCCLELLAND, *Minister of Health*

J. W. MAINGUY, *Deputy Minister of Health*

C. KEY,[1] *Executive Director, Health Programs*

J. BAINBRIDGE,[2] *Associate Deputy Minister, Planning and Support Services*

PLANNING AND SUPPORT SERVICES

W. DIETIKER
Director of Data Processing

W. F. LOCKER
Director of Personnel

M. L. CHAZOTTES
Director of Health Education and Information

F. G. TUCKER
Consultant in Mental Health

J. S. BLAND
Consultant in Geriatrics

*COMMUNITY HEALTH PROGRAMS

*G. R. F. ELLIOT[3]
Deputy Minister, Community Health Programs

J. H. DOUGHTY
Director of Administration

W. D. BURROWES
Director, Division of Vital Statistics

H. J. PRICE
Comptroller

PUBLIC HEALTH PROGRAMS

K. I. G. BENSON
Associate Deputy Minister and Provincial Health Officer

W. BAILEY
Director, Division of Environmental Engineering

L. M. CRANE
Director, Division of Public Health Nursing

A. A. LARSEN
Director, Division of Epidemiology

F. MCCOMBIE
Director, Division of Dental Health Services

R. G. SCOTT
Director, Division of Public Health Inspection

P. WOLCZUK
Director, Division of Community Nutrition

G. D. ZINK
Director, Division of Speech and Hearing

SPECIAL HEALTH SERVICES

J. H. SMITH
Director, Bureau of Special Health Services

W. J. BOWMER
Director, Division of Laboratories

C. E. BRADBURY
Director, Division for Aid to Handicapped

H. K. KENNEDY
Director, Division of Venereal Disease Control

L. D. KORNDER
Director, Division of Occupational Health

F. D. MACKENZIE
Director, Division of Tuberculosis Control

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[1] Appointment effective November 1, 1977.
[2] Appointment effective September 1, 1977.
[3] On retirement leave effective January 31, 1977.

Mental Health Programs

A. Porteous
Associate Deputy Minister

M. M. Lonergan
Consultant in Nursing

Mrs. F. Ireland
Co-ordinator, Boarding-home Program

J. B. Farry
Consultant in Social Work

D. Fernandez
Planning and Research Officer

R. S. McInnes
Co-ordinator of Mental Health Centres

A. G. Devries
Consultant in Psychology

British Columbia Youth Development Centre
P. H. Adilman, *Director, Residential and Day Unit*
D. C. Shalman, *Director, Psychological Education Clinic*

Greater Vancouver Mental Health Services
J. D. Kyle,[6] *Executive Director*
J. Seager,[7] *Executive Director*

Burnaby Mental Health Services
W. C. Holt, *Director*

Integrated Services for Child and Family Development (Victoria)
A. Kerr, *Acting Director*
J. Ricks,[8] *Director*

---

[4] Appointment Associate Deputy Minister, Planning and Support Services, September 1, 1977.
[5] Appointment effective November 7, 1977.
[6] Resigned effective June 16, 1977.
[7] Appointment effective October 20, 1977.
[8] Appointment effective September 1, 1977.

*MEDICAL AND HOSPITAL PROGRAMS

*W. J. LYLE[9]
Deputy Minister, Medical and Hospital Programs

HOSPITAL PROGRAMS

J. G. GLENWRIGHT
Associate Deputy Minister

P. M. BREEL
Senior Director

C. F. BALLAM
Senior Medical Consultant

A. C. LAUGHARNE
Director, Hospital Finance Division

J. D. HERBERT
Director, Administrative Services

H. R. MCGANN
Director, Hospital Consultation and Inspection Division

R. H. GOODACRE
Director, Research Division

G. F. FISHER
Director, Hospital Construction and Planning Division

[9] On retirement leave effective October 12, 1977.

* NOTE—Changes in the senior administrative echelons of the Ministry coincided with the retirements of Dr. G. R. F. Elliot, Deputy Minister of Community Health Programs, and W. J. Lyle, Deputy Minister of Medical and Hospital Programs. The previous branches of Medical and Hospital Programs, and Community Health Programs, were brought under the administration of an Executive Director, Health Programs. In addition, the Ministry Planning and Support Services were placed under the direction of an Associate Deputy Minister.

MEDICAL SERVICES

D. H. WEIR
Chairman

R. B. H. RALFS
Director, Salaried and Sessional Programs

D. M. BOLTON
Senior Medical Consultant

A. W. BROWN
Director, Plan Administration

R. A. MUNRO
Director of Financial Services

COMMISSIONS, ETC.

H. F. HOSKIN
Chairman, Alcohol and Drug Commission of British Columbia

D. H. WEIR
Chairman, Emergency Health Services Commission

P. RANSFORD
Executive Director, Emergency Health Services Commission

F. G. TUCKER
Chairman, Forensic Psychiatric Services Commission

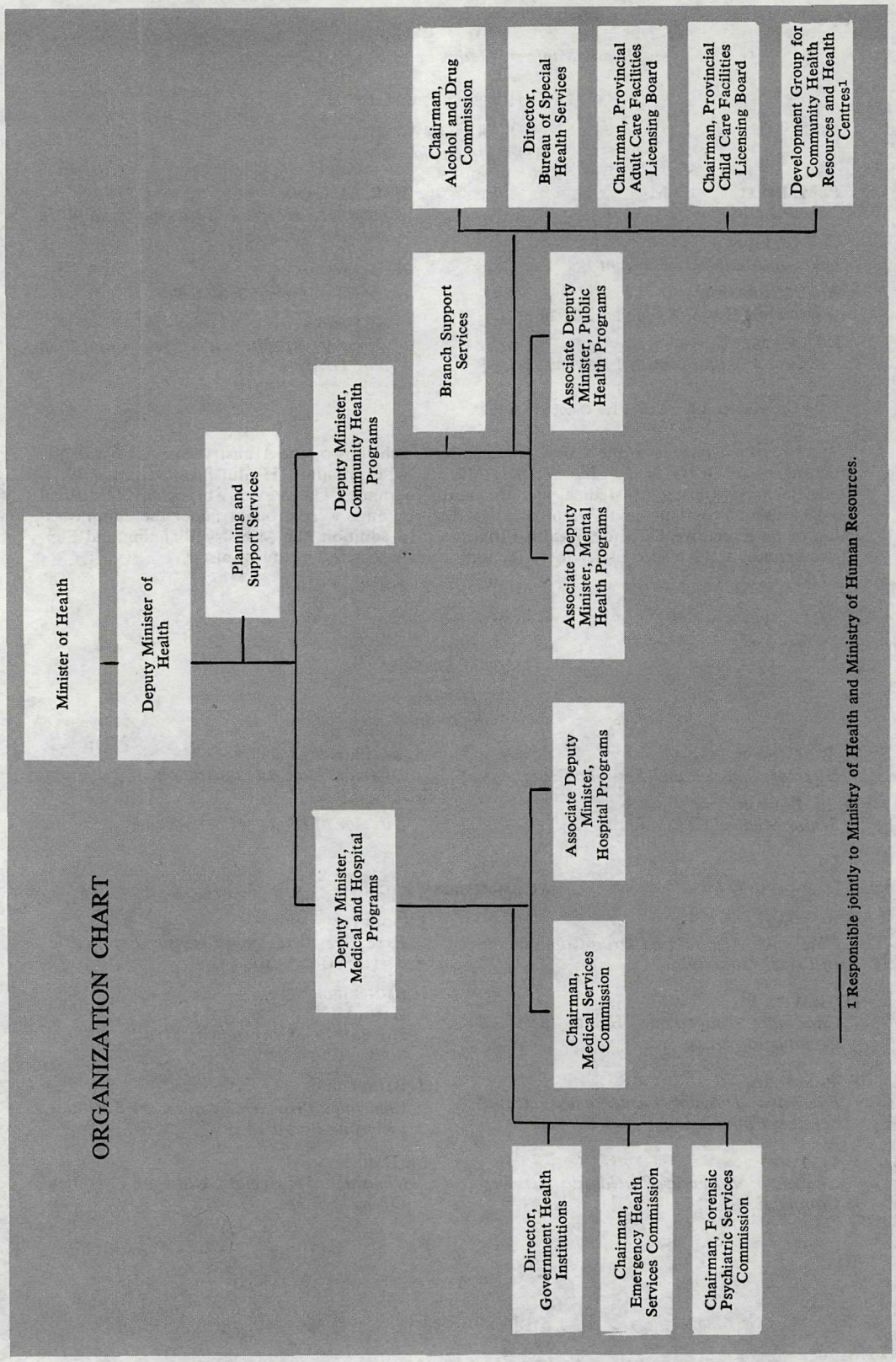
J. DUFFY
Executive Director, Forensic Psychiatric Services Commission

J. BAINBRIDGE[4]
I. MANNING[5]
Director of Government Health Institutions

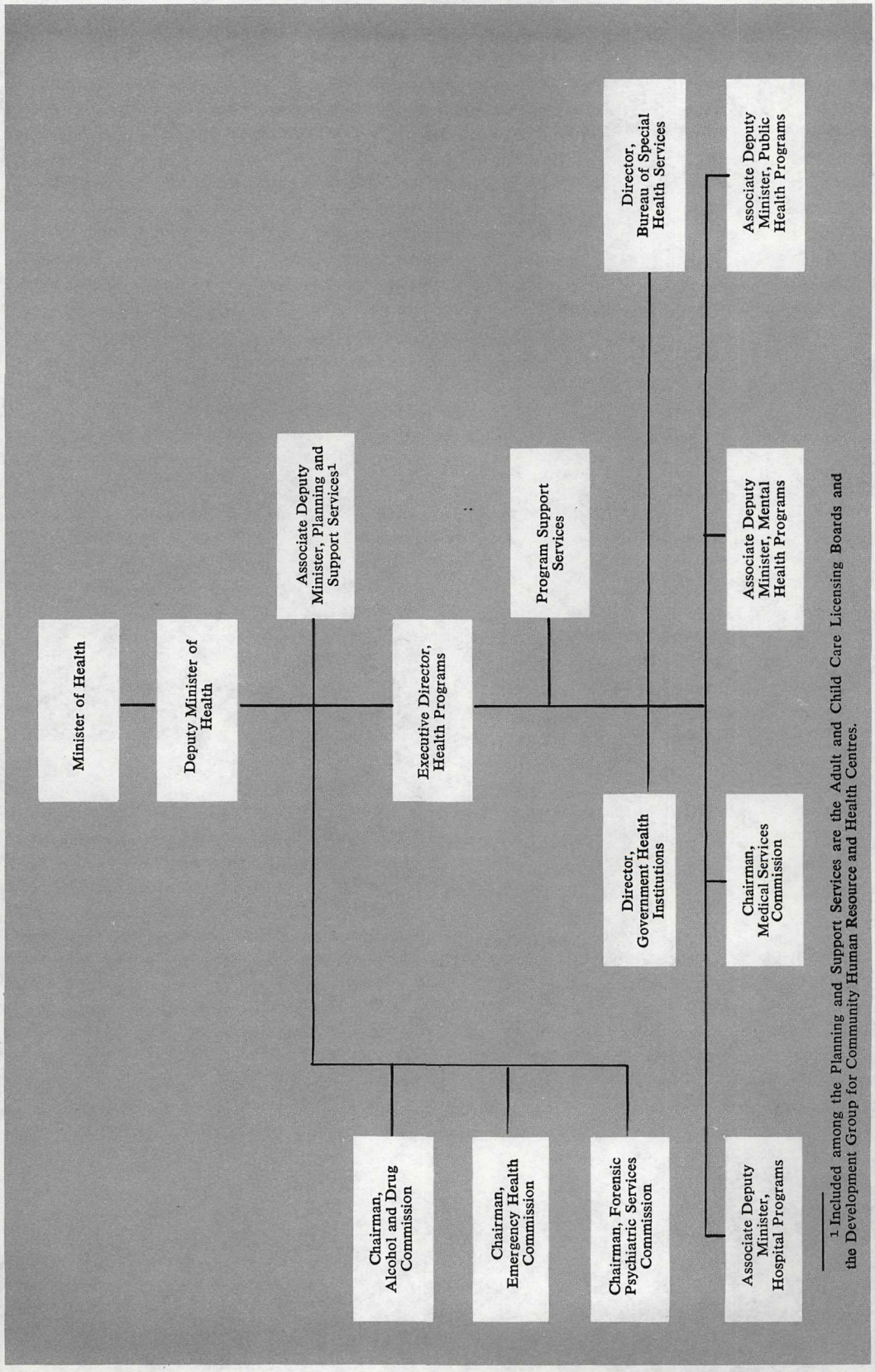
J. BAINBRIDGE
Chairman, Provincial Adult Care Facilities Licensing Board

M. DAHL
Chairman, Provincial Child Care Facilities Licensing Board

MINISTRY OF HEALTH (January 1, 1977, to October 31, 1977)



MINISTRY OF HEALTH (as from November 1, 1977)



1 Included among the Planning and Support Services are the Adult and Child Care Licensing Boards and the Development Group for Community Human Resource and Health Centres.

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YEAR IN REVIEW

In 1977, there were significant developments in the health programs of the Ministry. New arrangements in health matters were worked out between the Province and the Federal Government. There were some further organizational changes in the Ministry.

In April, the Premier announced the introduction of a new long-term care program to commence on January 1, 1978. This comprehensive program would provide coverage for intermediate and personal care levels, as well as extensive benefits for care in the home. It was estimated that as many as 17,000 people would be entitled to receive coverage in care facilities at a cost to them of $6.50 per day for ward accommodation. The charges to patients for services in the home would be scaled on the basis of income. For the more than 5,000 extended-care beds, which are already part of the hospital system, the co-insurance charge was to be raised to $6.50 per day, effective January 1, 1978.

The program places emphasis on maintaining infirm people in their own homes. A major role in this type of service is played by the 70 societies throughout the Province which provide homemaker services and who have assisted in recruiting and orienting a reserve of homemakers.

During the year an executive director for the program was appointed together with long-term care administrators in the 17 health units throughout the Province and necessary nurses and other staff. Similar arrangements were set up in metropolitan Vancouver and in the Capital Region.

The assessment of residents already in care facilities was well under way at the year-end.

The introduction of programs such as the one for long-term care were assisted by an agreement between the Province and the Federal Government in 1977. Consistent with the Federal Government's general trend to move from shared-cost programs to block funding, the Federal Government would provide block payments for certain low-cost alternatives to high-cost care. Services such as personal care, intermediate care, health aspects of home care, and some ambulatory services were considered appropriate uses for these funds. The sum was set at $20 *per capita* per year. Allocation of the funds is left to the decision of the Province.

Agreement was reached between Provincial ministries and the Department of National Health and Welfare on a new Federal-Provincial committee structure to reflect new priorities and new funding arrangements. It would also reduce the number of Federal-Provincial committees.

The Government announced a $113.4 million long-range program for hospital development in Greater Vancouver.

The $113.4 million was in addition to a number of projects, which were under way, such as the additions being made to Burnaby General, Royal Columbian, Lions Gate, and St. Vincent's Hospitals. Neither did it include the large extended-care facility in Queen's Park Hospital, New Westminster; the new Health Sciences Hospital under way at The University of British Columbia, and the allocation of $45.5 million for the redevelopment of the Vancouver General Hospital. All involved hospitals in Greater Vancouver were advised what they could expect in terms of development to meet 1981 needs. The emphasis of the program was in redistributing facilities and services to meet changes in population distribution and patterns of care and to upgrade facilities. In setting the target for beds to population, attention was given to the expected effect of improving and increasing other services which are appropriate, and less-expensive alternatives

to in-patient care in acute hospitals. These include ambulatory programs, as well as the new long-term care program.

Major alterations were made to the Province's emergency health services to improve the program, and be of particular benefit to residents of outlying communities and those living in remote areas of British Columbia. The changes included improved air ambulance service, restored patient escort service, and an extended ambulance crew training program. A revised fee schedule reduced charges to patients requiring transport by road or air ambulance, from remote areas to major treatment centres. Under the revised schedule the maximum that any patient in British Columbia will pay for long-distance ambulance service approved by the Emergency Health Services Commission will be $100. Under the previous schedule, fees were as high as $500 for air ambulance transport. The basic charge for an ambulance call is $15 for distances up to 40 kilometres (25 miles). For distances over 25 miles the charge is 13 cents per kilometre (20 cents per mile) to a maximum of $100.

Transfers of patients from one institution to another, which were formerly done without charge, are now subject to the basic fee of $15 for distances up to 40 kilometres (25 miles) with the extra charge beyond.

A Provincial dispatch office was established at Victoria to co-ordinate and arrange all long-distance patient moves within the Province, whether by air or road ambulance. Decisions as to the most suitable means of transport are made by the patient's physician, in consultation with the Provincial dispatch centre. They operate in co-operation with the existing Rescue Co-ordination Centre, which will continue to be involved in emergency mercy flights.

In June the Government established an Interministerial Youth Committee composed of senior representatives of the Ministries of the Attorney-General, Education, Human Resources, and Health, to deal with the complex issues involved in the care and treatment of emotionally disturbed youths and children with special needs. This Committee reports through the Deputy Ministers' Children's Committee to the Social Services Committee of the Cabinet, and maintains contact at the local community level through formally appointed inter-ministerial regional committees.

Initially the program is focusing on "Children in Crisis" so that all available resources can be brought to bear on the more difficult individual case, and special program needs can be identified. However, the committee was moving into a number of areas of mutual concern and there was every indication that it would prove an effective instrument in co-ordinating and developing special programs for children.

Major improvements have been introduced in the administration of the Province's drug and poison information program, which is jointly operated by the Ministry of Health and The University of British Columbia.

The changes involve the formalizing of an agreement, and the appointment of a Management Committee, which will improve the treatment aspects of the drug and poison information program, and to place greater emphasis on the preventive aspects.

The purpose of the program is to develop, sponsor, and promote programs designed to reduce the number of cases of accidental poisonings in the Province, and assist health professionals in the use of drugs. Hospital emergency departments will be informed, on an ongoing basis, about the composition and toxicity of products which may cause illness if they are ingested, and the recommended treatment in such cases.

In August the Government outlined a proposed compulsory treatment plan for heroin users designed to start late in 1978 or early in 1979. The proposal called for three years of treatment for each user committed to the program. The

treatment plan for the user would be set out by a five-member evaluation panel which would include two medical practitioners. A variety of facilities and services would be provided. These would include a 150-bed treatment centre, therapeutic communities, community clinics and community support services. Most users would be living in the community and dealt with on an out-patient basis. Some would spend time in the secure unit but a progression through the types of service would be expected. Such persons might spend six months in the treatment centre, a year attending a community clinic, followed by a program of community supervision for the remainder of the three years.

During the year a new treatment centre for alcoholics was opened, offering a 28-day treatment program for 32 patients, with emphasis on behaviour and lifestyle. In December the Maple Cottage Detoxification Centre was opened and provides 20 beds for an average stay of three days. Both facilities are located in New Westminster.

New out-patient counselling services were funded in Terrace, Chilliwack, and Nelson.

Quality classroom and home auditory training equipment is now being provided to hearing-impaired children in British Columbia, though an interdepartmental program. The new program is a co-operative effort of the Ministries of Education and Health, and is presently under way in Victoria, Kelowna, Surrey, Prince George, and Kamloops.

Historically, there has been wide variability in the quality of auditory training equipment provided to hearing impaired children in British Columbia. Additionally, some school districts have had extensive problems obtaining quick, reliable servicing of auditory equipment. As a result, many children were wearing improper or non-functional equipment. These problems are being resolved through the new program.

During the year the Ministry initiated the first major revision of British Columbia's *Health Act* in 30 years. By tradition, the *Health Act* has been the cornerstone of Government public health policy.

The Government announced that a portion of the funds from the Western Express Lottery would be assigned for health research. Policies and procedures for the allocation of funds to different types of health research were expected to be completed by the middle of 1978.

In the spring, many of the Victoria offices of the Ministry moved to the new Richard Blanshard Building. This consolidation reduced from 14 to 6 the number of separate locations occupied in Victoria and increases the potential for co-ordination and efficiency of programs.

Changes in the senior administrative echelons of the Ministry coincided with the retirements of Dr. G. R. F. Elliot, Deputy Minister of Community Health Programs, and W. J. Lyle, Deputy Minister of Medical and Hospital Programs. Under this change, the previous branches of Medical and Hospital Programs, and Community Health Programs, were brought together under the administration of an Executive Director, Health Programs. In addition, the Ministry Planning and Support Services were placed under the direction of an Associate Deputy Minister. In August, the Minister announced the appointments of Dr. Chapin Key as Executive Director and Jack Bainbridge as Associate Deputy Minister, Planning and Support Services. In his announcement, the Minister paid tribute to the outstanding contributions to the health services of the Province made over many years by Dr. Elliot and Mr. Lyle. He referred also to the admirable way in which they had assisted toward the melding of the Health Ministry, which not long ago was virtually four separate organizations.

DEMOGRAPHIC FEATURES

It was noted in the 1976 Department of Health annual report that the preliminary census population count of 2,406,212 for British Columbia, recorded at the mid-year, was subject to an upward revision. The final population count was, in fact, some 2½ per cent higher than the preliminary figure, being 2,466,608. The rates of the various vital events for 1975 calculated on the corrected population figures were consequently lower and these are used in the discussion which follows.

The preliminary birthrate in 1977 was 14.7 per 1,000 population, slightly above the final 1976 rate of 14.5, which was the lowest recorded for 40 years.

The marriage rate was 8.4 per 1,000 population in 1977, somewhat below the 1976 figure of 8.7, thus continuing the downward trend in the rate which commenced in 1972.

After a period of relatively stable death rates from 1970 to 1975, there was a decline in the rate to 7.6 in 1976 and a further decline in 1977 to a record low of 7.5 per 1,000 population.

Heart disease, the leading cause of death in the Province, showed a mortality rate of 248 per 100,000 population in 1977. While this was a slight increase over the 1976 rate of 246, it remained almost 20 per cent below the figure at the end of the 1960's.

The mortality from cancer was also higher in 1977, a rate of 164 per 100,000 population having been established compared to 160 in 1976. Thus the rates in the last three years continued to exceed the level of about 155 which had been maintained for the previous six years.

Cerebrovascular lesions of the central nervous system evidenced a decline in mortality this year, the second year in succession. The rate per 100,000 population was 74, compared to 78 last year and 83 in 1975.

The sharp decline in accident mortality which occurred in 1976 was not sustained in 1977, although the rate of 64 per 100,000 population was still well below the rate of 83 recorded in 1974. There was an increase in motor-vehicle accident fatalities in 1977, but they represented only 43 per cent of all accident deaths, compared to 46 per cent in 1976. Mortality from falls as a proportion of all accident mortality was also down slightly this year to 18 per cent, compared to 20 per cent in 1976. On the other hand, deaths from poisoning represented 9 per cent of accident deaths this year, but only 7 per cent in 1976. Drownings made up about 9 per cent of accident deaths in both years.

The rate of suicides in 1977 was 18 per 100,000 population, and thus continued at the same high level as in 1976.

The infant mortality rate continued the decline noted in the last four years and in 1977 reached a record low of 13.0 per 1,000 live births, compared to 14.3 in 1976 and a rate of 21.4 for 10 years ago. The decline this year was a result of lower rates for younger infants, mortality among those more than a month old having increased somewhat.

PLANNING AND SUPPORT SERVICES

During 1977 these services came under the direction of Jack Bainbridge on his appointment as Associate Deputy Minister.

The specialist functions throughout the Ministry, such as personnel, data processing, finance, management engineering, health education and information, as well as policy and program development, will be brought together to assist the established programs and to develop new policies and programs where indicated. At the year-end these arrangements were under development, and in the meantime the functional advisers within this group continued to provide both specialist advice and specific services to the Ministry generally.

PROGRAM DEVELOPMENT GROUP

In 1977 the Program Development Group experienced some significant events and underwent considerable transformation. Earlier in the year, this Group was known as the Development Group for Community Human Resources and Health Centres, and it maintained over-all planning, program and monitoring responsibility for the four pilot centres in Houston, Granisle, Queen Charlotte Islands, and James Bay (Victoria).

The 1977 highlights for this program include:

- Completion of the Audit Committee's report on the Human Resources and Health Centres. This committee, with representation from the Registered Nurses Association of B.C., the British Columbia Medical Association, the British Columbia Association of Social Workers, the Faculty of Commerce at UBC, Ministry of Health, and Ministry of Human Resources, visited each of the centres (twice) and reviewed all available financial and statistical data pertaining to the centres. In summary, the committee concluded that the centres were making significant progress toward their stated objectives; that the centres provided significant improvements in service to the communities concerned; and that the centres appeared to be cost-effective. The report recommended that the centres be continued for at least three more years and that the Government give serious consideration to expanding this concept to other suitable communities. These recommendations of the Audit Committee were accepted by the Minister of Health and the Minister of Human Resources.
- With the evaluation report behind them, the centres were concentrating more on program and organizational development at the year-end.
- The first terms of the original Board of Directors of the four centres expired in November 1977 and new boards were elected in November.

In the summer of 1977 the Development Group for Community Human Resources and Health Centres commenced its involvement in the planning and development of the Province's new Long-term Care Program.

In October of 1977 the Group was transformed into the Program Development Group, responsible to J. Bainbridge, Associate Deputy Minister, Planning and Support Services. While still maintaining responsibility for the Human Resource and Health Centres, the Group has been assigned responsibilities in planning, policy development, and initiation of major programs within the Ministry of Health.

In relation to the Long-term Care Program, the Program Development Group, in conjunction with other branches of Health and the Ministry of Human

Resources, played an integral role in the following areas, working with the staff of Public Health, Mental Health, and Hospital Programs:

(*a*) General planning and organizing of the new program.
(*b*) Co-ordination of policy development.
(*c*) Determining and negotiating resource requirements for the program.
(*d*) Recruitment and appointment of key staff positions involved in the administration of the program.
(*e*) Orientation of new field and administrative staff in the program.

HEALTH EDUCATION AND INFORMATION

The Division of Health Education and Information continued to develop its role of a centralized consultative and service operation for the Ministry of Health and its associated commissions.

During the year the division added two professional writer/researchers to the staff. Creative art services were provided on a continuing basis for the first time, and the centralized Ministry of Health library continued its task of sorting and cataloguing books brought in under the new system.

HEALTH EDUCATION

Since health education centres on improving communications about health matters and motivating people to participate in activities to improve life-styles, the programs within the community are being directed to this end.

Use of mass media for increasing public awareness of health-related issues and services at the community level is the most economic and feasible approach. With this in mind, community TV and radio programs and printed materials were produced in response to local needs. Subjects included alcohol use, teenage pregnancy, venereal disease, and parenting. Shopping-centre mall displays focusing on immunization, safety and stress, nutrition, and heart disease resulted in a good deal of public attention and increased the awareness of available services.

During the past year there were also several workshops, seminars, group discussions, lectures, and public meetings to deal with life-style problems. Presentations concerning the problems of life-style were utilized by professional groups, school districts, church and community groups.

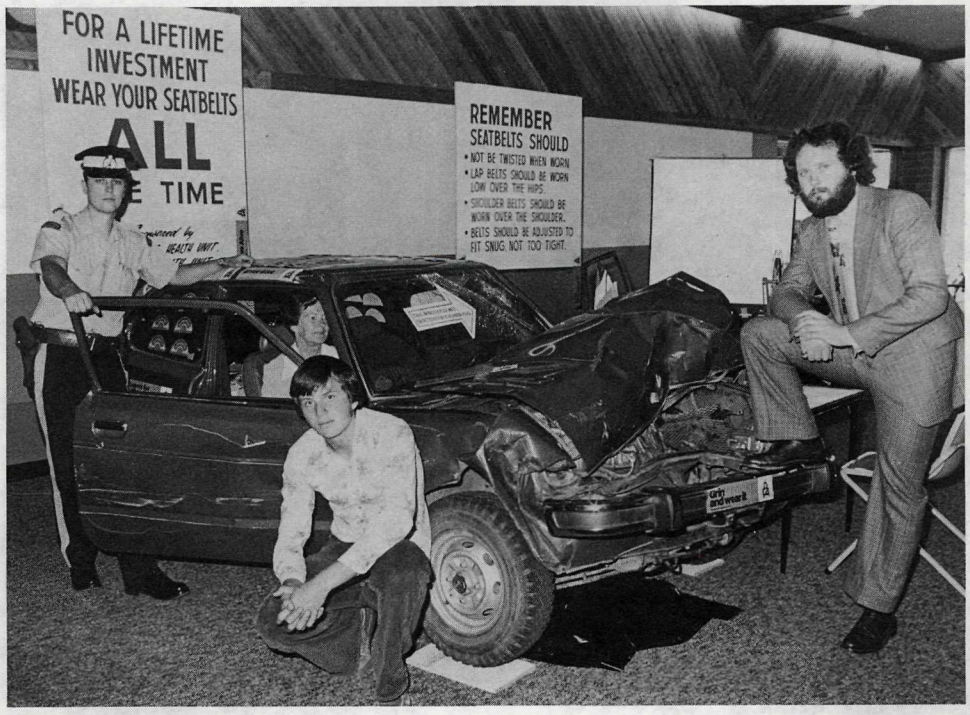
A major event was the development and completion of the seat-belt demonstration project in Duncan, Nanaimo, and Courtenay. With the 1977 summer student program, a health education clown troupe was active during the summer months providing tips on safety, nutrition, cigarette smoking, and fitness to various toddlers and elementary school groups.

Communication was kept open with both Simon Fraser University (Department of Kinesiology) and University of Victoria (Department of Education) with regard to education and health, lectures being presented in both centres.

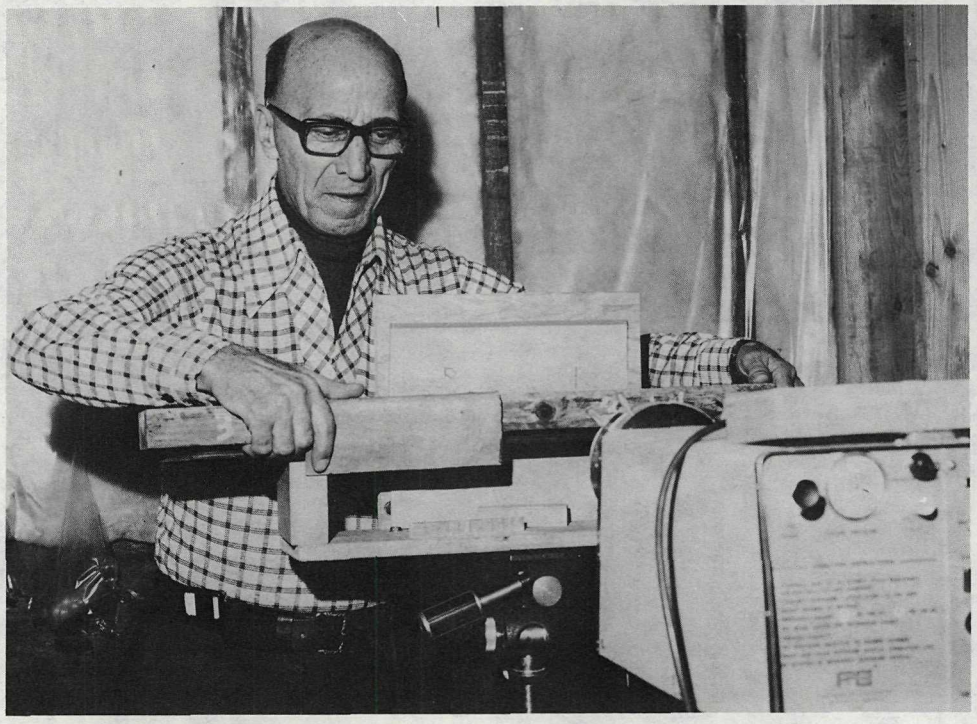
In keeping with the provision of health services for all ages, Health Education co-operated in a Task of Aging series offered from Parksville to Black Creek. Demands from more remote areas led to school programs in Sayward and a dental program on Read Island, both assisted by a volunteer physician and dentist.

The division's health educator attached to the Division of Venereal Disease Control took an active part in initiating two series of radio commercials alerting the public to the spread of gonorrhœa. This campaign, and the telephone information service accompanying it, are described in greater detail in the Special Health Services section of this annual report.

Richard Blanshard Building in Victoria now houses many departments of the Ministry of Health. B.C. Hydro Building at right will also accommodate various ministry operations.



Upper Island Health Unit of Public Health Programs organized and co-ordinated display which dramatically demonstrated need for seat belts.



Radiation Protection Service of the Ministry of Health has been co-operating with the Canadian Forestry Service to X-ray wood samples to measure ability of nails to withstand corrosion where wood has been specially treated with chemicals.

Audiometric aide observes ability of hearing-impaired child to respond to instructions to place coloured pegs in appropriate holes.

INFORMATION SERVICES

This section is responsible for the preparation of speeches, press releases, television and film scripts; editing texts for leaflets, brochures, handbooks, and instructional manuals; developing exhibits, displays; posters; and involvement in printed material required by the Ministry.

The section prepared 64 press releases in 1977 and researched and wrote more than 35 speeches for the Minister and senior staff. The staff were also involved in special projects which included promotion of the Long-term Care Program and preparation of mental health careers material for school counsellors. Production of the Ministry's consolidated annual report was also a responsibility of Information Services.

The pamphlet *Cigarettes and Your Health* proved to be a popular preventive health measure. More than 150,000 copies were in circulation by the year-end. Other pamphlet subjects included retirement planning, speech pathology and audiology as careers, the need for immunization at all ages, the identification and control of diabetes, medical and hospital benefits for travellers, and several nutrition publications.

It was expected that there would be a substantial increase in the section's work load when the videotape production centre comes into operation in 1978. A ministerial bimonthly staff publication was also under consideration at the year-end.

AUDIOVISUAL SERVICES

The division's Audiovisual Section continued to give service to ministry staff in the field and at head office. Divisional audiovisual staff were involved in the detailed planning of the new audiovisual production centre, which will function as a Government production centre and will be accessible to all ministries. Production of high-quality videotapes will be possible and these will cover a wide variety of subjects. In-service training and public information material will be video-taped for use as required in the Province.

The photographic service provided by the division experienced a busy year and received assistance from the summer student employment program. This service produced a number of slide-tape shows for use by head office staff. Staff photographers visited many field offices to prepare audiovisual support material.

A major effort by the Audiovisual Section was the production, in co-operation with the Division of Community Nutrition, of 13 new television shows in "The Senior Chef" series. By the end of the current year the series was being shown on television outlets in Vancouver, the Lower Mainland generally, and Vancouver Island. Plans for expansion of the service to other parts of the Province in the spring of 1978 were well in hand. In conjunction with the series a cookbook was produced for distribution to the public.

The acquisition of more sophisticated audiovisual equipment in the field has necessitated a formalized approach to the training of field staff in its use. A Province-wide instructional tour was launched during the early summer and was concluded in the fall. The reaction of staff was encouraging and consideration was being given to continuance of the workshops on a regular basis.

In general, the Audiovisual Section acted as consultants to the Purchasing Commission in the specification and acquisition of audiovisual equipment, and assisted in the implementation of the policy of standardization for this equipment throughout Government.

The Film Library was renamed the Audiovisual Library and continued to provide a film lending, repair, and maintenance service. During the year it was officially transferred to the Audiovisual Section from the Ministry's stockroom operation.

DATA PROCESSING

The Ministry's major objectives in the appointment of a Director in Data Processing were:

(1) to control equipment acquisition and optimize its utilization;
(2) to centralize expertise;
(3) to set standards;
(4) to build and maintain a health data base.

However, the formation of the B.C. Systems Corporation during 1977 necessitated a delay in some of the initial planning of the Data Processing support service, and the role of the Director became that of liaison between the Ministry and the new corporation.

During the transition year the Director initiated a project to establish system development standards and upgrade the skills of the programmers and analysts on the staff of the Medical Services Plan. He also introduced a project management system to control computer projects throughout the Ministry. The B.C. Systems Corporation planned to adapt a modified version of this system for use throughout Government.

With the completion of the training of the MSP computer staff, the project management system was used to undertake a complete redesign of the Medical Services Plan's computer systems, to provide better management control and effect a reduction in operational costs.

At the year-end, plans were under way to transfer the subscriber inquiry system of the Medical Services Commission from the IBM computer to the new Honeywell computer, which is being used on the recommendation of the Treasury Board's computer consultant.

Consultative assistance was also provided during the year to Hospital Programs, which provided funds to 12 major hospitals in the Province for the provision of a computer system to improve the efficiency of their administrative operations. By the year-end, computer systems had been installed in six of the hospitals and several of the subsystems were in operation.

A study was also undertaken to review the laboratory computer systems in one private laboratory and three general hospitals, with the objective of selecting a standard laboratory computer system for use in hospitals over the next three to four years.

During the year the Director continued to serve as Chairman of the Data Base Task Group.

PERSONNEL

The reorganization of the Ministry under a single Deputy Minister had a direct effect upon the personnel structure as established since January 1976.

The former dual headquarters personnel divisions, each reporting to a Deputy Minister, were being combined under the Director of Personnel, who in turn is a member of the Planning and Support Group, and reports to Jack Bainbridge, Associate Deputy Minister.

Bargaining fee-schedules with fee-for-service, sessional and salaried physicians represented by the British Columbia Medical Association, and with dentists, and other health care professional groups, was a major ministerial personnel activity.

The newly developed Government Employee Relations Bureau, and Treasury Board Staff Organization, brought a new and continuing need for close co-operation and co-ordination between these bodies and the Ministry, and the year saw Personnel become the ongoing link with these agencies in many areas of contact.

The Director of Personnel serves on an Advisory Committee to the Government Employee Relations Bureau, allowing input from the Ministry of Health in Provincial personnel matters.

COMMUNITY CARE FACILITIES LICENSING BOARD

PROVINCIAL CHILD CARE FACILITIES LICENSING BOARD

This was a very active year for the Provincial Child Care Facilities Licensing Board and staff. There was a 34.5-per-cent over-all increase in capacity in licensed child care facilities in the last two years. A marked increase of 250 was recorded in new applications for licences.

At the year-end a final draft of the new Child Care Regulations was with the Ministry of the Attorney-General for legal approval before submission to the Executive Council for passage.

Amendments to the Summer Camp Regulations were also being processed. There has been an increase of 12.5 per cent in camp capacities over the last two years. The Board held two successful meetings in 1977 outside Victoria, in Prince George and Burnaby.

PROVINCIAL ADULT CARE FACILITIES LICENSING BOARD

There has been an increase of 12.7 per cent in the total capacity of all adult care facilities from 1975 to 1977.

The new Adult Care Regulations under the *Community Care Facilities Licensing Act* were gazetted in May 1977 and are in good use in the service.

The Board was commissioned to launch the new Long-term Care Program by January 1, 1978.

Long-term Care Administrators were appointed to each Health Unit area in the Province so as to supervise assessments and placements of those requiring care. Divisions of other ministries were assisting in reviewing and approving new adult care facilities which eventually will be part of the long-term care system.

The Board held its March meeting in the City of Vancouver Health Department office.

Public Health Programs

Public health legislation in British Columbia dates back to 1869 when statutory authorization was given for a Provincial Board of Health. However, active administration of public health services in the Province by the Board did not get under way until the last decade of the 19th century. By 1946 the services had developed to the point where full departmental rank was warranted and in that year the Department of Health and Welfare was established.

Public Health Programs is now one of the two major administrative subdivisions of Community Health Programs (the other being Mental Health Programs) and is charged with providing a wide range of preventive, treatment, and environmental control services and with promoting positive health. These services are made available to the public through certain centralized facilities and a network of 17 local health units covering the non-metropolitan areas of the Province. Greater Vancouver and the Capital Regional District have their own health organizations, which are not under the jurisdiction of the Provincial Health Department, but which receive certain consultative and specialized services together with financial assistance from the Provincial Government. These two administrations collaborate very closely with the Provincial Health Department in disease prevention and control, and in program implementation.

Statutory support for the operation of Public Health Programs comes mainly via the *Health Act,* and pursuant regulations, and the *Public Schools Act.* These statutes confer powers on the Minister of Health, the local Medical Health Officer, and the local board of health for dealing with matters of public health. The local board of health may be either a municipal council (covering municipal areas which may also draw up additional public health by-laws), or a union of municipalities and school districts, to administer relevant sections of the *Health Act* or pursuant regulations in areas outside municipalities.

A review of the activities of Public Health Programs is presented on the following pages:

PUBLIC HEALTH PROGRAMS HIGHLIGHTS

- The largest dental extern program ever undertaken in the Province was initiated in July with 12 dentists and their staff providing treatment services to approximately 40 communities without resident dentists.
- Dental staff in health units provided elementary-school children with preventive dental health educational and motivational lessons and demonstrations. These students also participated in utilizing the self-applied fluoride paste and rinse on a twice-a-year basis. Dental inspections were performed on these students and telephone follow-ups were made to parents wherever dental problems existed.
- Through the health unit Birthday Card Program, 3-year-old children in 46 school districts received free dental examinations and counselling from their family dentists.
- Considerable work has been done over the past 12 months on developing Canadian Drinking Water Quality Standards in co-operation with the other provinces and Federal Government. Regulations have been drafted under the *Health Act* relating to drinking-water quality.
- There was a substantial increase in the number and capacity of licensed child care facilities.
- Technical improvements in kidney dialysis equipment have made it possible to increase the number of patients able to undergo peritoneal dialysis at home.
- An organ donor program is being developed in co-operation with the Motor Vehicle Branch. The purpose of this is to encourage more people to record their wish to donate their organs in the event of sudden death so as to meet the increasing need for human organs for transplant.
- The continued presence of carriers of diphtheria in the Province's population continues to give rise to concern as many of them are capable of passing on the germ to other people. Maintenance of a satisfactory immunization level in the population therefore continues to be of importance.
- There was a substantial increase in number of legal changes of name under the *Change of Name Act,* due in part to the broadening of the provisions of that Act. There was also a 10-per-cent increase in Wills Notices accepted, continuing the long-term upward trend.
- There was a sharp increase in the number of laboratory tests carried out in the area of environmental biology resulting from increased concern with water quality on the part of the Division of Environmental Engineering.
- Speech therapy services to schools were expanded as a result of a co-operative agreement between the Ministries of Health and Education.
- There was increased demand on Public Health Nursing services for group learning sessions from the public, particularly in the areas of prenatal and parenting classes.
- A special study was conducted in the Nanaimo area to consider alternate methods of delivering health services to schools and to examine the needs for such services.
- The final report and recommendations of the Vision Care Task Force were presented to the Minister of Health in November and are under review.

COMMUNICABLE AND REPORTABLE DISEASE

This year saw another sharp increase in the number of cases of malaria diagnosed, a recurrence of diphtheria after a few years' respite, and very little reported influenza.

The increase in malaria is mainly a reflection of the massive recurrence of this disease in India, and most of the 300 people who had an attack of malaria in British Columbia this year were originally infected in India. It is possible for malaria to spread in British Columbia, but this is most unlikely for many reasons. The major problem appears to be a failure of travellers to take prophylactic medication while visiting an endemic area.

While only seven cases of clinical diphtheria were reported this year, 148 healthy carriers were identified, all of whom were capable of giving diphtheria to any unimmunized contact. As long as these sporadic outbreaks of diphtheria continue, the importance of immunization in infancy and throughout childhood cannot be over-stressed.

The outbreak of swine influenza in humans predicted by American health authorities failed to materialize anywhere in the world. Indeed, there were probably fewer cases of influenza of any type in North America than usual last winter.

In British Columbia about 237,000 doses of swine influenza vaccine were purchased and stockpiled as insurance. About 187,000 doses of combined A/Victoria and A/New Jersey (swine) influenza vaccine were also obtained and offered to persons of all ages with a chronic illness and to persons over age 65. About 9,000 doses of this vaccine were used. The unused vaccine of both types is still in good condition and is being stored in Vancouver ready for use, should an outbreak of swine influenza occur in 1978.

The crash program to produce tremendous quantities of swine influenza vaccine in both the United States and Canada might appear at first glance to have been a costly failure. However, it was the consensus of experts on this continent that the outcome of an epidemic, should one develop, would be so severe that exceptional preparatory measures were warranted. Furthermore, there were a number of plus factors. We know now that it is possible to carry out a continent-wide influenza immunization program should an epidemic similar to the one that took place after the World War I ever threaten us in the future. The organizational and production problems have been faced and overcome, and we can anticipate fewer problems in the future. There is good reason to believe that the occasional temporary paralysis (Guillain-Barre syndrome) that followed influenza immunization is not unique to this vaccine, but would likely occur with equal frequency following any mass vaccination program.

Although smallpox is still prevalent in two countries in Africa (Ethiopia and Somalia), the likelihood of this disease being imported into Canada has decreased to the point where smallpox vaccination is now recommended only for a few high-risk personnel in diagnostic laboratories and specialized isolation facilities. Very few countries now require Canadians to be immunized as a condition of entry.

Two major trends in communicable disease control, which could soon become serious problems, were brought into sharp focus this year. The first, is the decreasing number of manufacturers producing immunizing agents. Special arrangements may become necessary in order to maintain a source of some life-saving low-volume products and the increasing cost of the agents.

Secondly, immunizing agents had previously been relatively inexpensive, but in the last few years prices have been rising steadily and the Ministry has been advised to expect another increase of 125 per cent in 1978. Public Health staff are being called upon to attempt to further reduce wastage, to avoid over-immunization, and to modify programs where this can be done safely.

RHEUMATIC FEVER PROPHYLAXIS PROGRAM

Five hundred and seventy young people who have had an attack of rheumatic fever are receiving prophylactic antibiotics, provided by the Ministry to prevent a recurrent attack of this disease. The prophylaxis may be either an injectable antibiotic, which is given once a month, or tablets taken twice daily.

HYPOGAMMAGLOBULINÆMIA PROPHYLAXIS PROGRAM

Eighteen children and young adults who were born without the ability to produce sufficient antibodies to ward off infections are receiving prophylactic immune serum globulin provided by the Ministry. This program is operated in conjunction with the Faculty of Medicine, UBC, who assist with diagnostic and consultative advice.

POISON CONTROL PROGRAM

This year more than 7,000 poisoning incidents were reported by hospitals to the B.C. Poison Control Centre in Vancouver, and there is no doubt that many more cases were not reported. When this program was started 15 years ago, most reported poisonings were truly accidental and nearly always involved pre-school children. By contrast this year, only 30 per cent of reported cases were young children, while another 30 per cent represented attempted suicides. There was also an increase in drug abuse cases.

The Poison Control Centre which provides medical consultation to physicians and hospitals is now operative from 9 in the morning to 10 at night and plans are under way to provide this service on a 24-hour basis.

A formal agreement has been drawn up between the Ministry of Health and The University of British Columbia whereby this program will be operated jointly by these two agencies under the direction of a joint management committee.

ORGAN DONOR PROGRAM

Because the need for human organs for transplant is constantly increasing, the Ministry of Health, with the help of the Motor Vehicle Branch, have embarked on a program to encourage more people to consent to donate their organs in the event of their sudden death.

A folder explaining the need will be sent out with every new and renewal driver licence by the Motor Vehicle Branch. Along with the folder will be a wallet-sized consent card, and a distinctive sticker for the prospective donor to place on his driver's licence. The consent forms and sticker are also available at all Public Health and Motor Vehicle Branch offices throughout the Province.

TUBERCULOSIS CONTROL

The number of new active cases continues to decline slowly year by year and the incidence of tuberculosis in British Columbia is very close to the national average. An important reason why it is not lower is the large immigrant popula-

tion in this Province. Many immigrants come from areas where tuberculosis is common and have already been infected. They have a high risk of this infection later developing into active disease.

The major efforts of the division continue to be directed at providing the best possible treatment of known cases, investigation of contacts of infectious cases, and preventive treatment for potential cases in well-recognized high-risk groups. A nurse co-ordinator has been appointed to provide closer liaison between divisional headquarters and the health units.

Extensive use is being made of the new anti-tuberculous drugs. The increased drug cost is partially offset by the resultant shortened total treatment time, including briefer hospital stays for those requiring admission. A constant problem has been the unco-operative recalcitrant patient and, here, the new drugs are very helpful, since the necessary treatment period may be reduced by as much as 50 per cent. As many cases as possible are treated on an ambulatory basis, with as little disturbance of their usual daily routine as is consistent with good treatment and control of spread of the disease.

VENEREAL DISEASE CONTROL

Infections that are transmitted by sexual contact have traditionally been referred to as venereal diseases. This term has become too limited in light of the increasing number of diseases now known to be commonly spread by sexual contact. Consequently, a new term encompassing some 15 infections at the present time has come into use, namely, sexually transmitted diseases, or STD.

These infections manifest themselves in the patients either by producing a discharge with accompanying pain or itching, or by showing as a skin lesion. Although the infections themselves may be only irritating, the complications in the untreated may lead to serious infections, sterility, or other widespread infections throughout the body. It is, therefore, necessary to institute control measures ensuring that adequate diagnostic and treatment facilities are available, that laboratory facilities for diagnosis are available, and that facilities for interviewing for contact information and for bringing contacts to treatment are provided throughout the Province.

A central agency is maintained to transmit contact information throughout the Province and to other control centres throughout the world. There appears to be changing attitudes among young, single adults (the group mostly involved), who have developed a greater concern for their own personal health, and that of their friends. They more frequently bring their own contacts in for treatment, so that investigative, contact-tracing measures are less required. Although most physicians and laboratories do report their cases, these diseases still carry a strong social stigma and many infections are treated in a rather clandestine way in an attempt to protect the identity of those involved. It is therefore extremely difficult to carry out effective control measures because only part of the problem is known.

Of all the sexually transmitted diseases, non-gonococcal urethritis, or NGU, is by far the most prevalent. This disease entity which has an incubation period of one to four weeks is caused by at least two infectious agents which are large viruses. They are also thought to be the cause of some erosive lesions in the female, and eye and lung infections in babies. Because of the difficulty in culturing these viruses, a co-operative study is being undertaken with the Department of Medicine at The University of British Columbia to study these viruses and the diseases they produce.

Gonorrhœa, the next commonest sexually transmitted disease in the male, has increased in incidence since 1969, but the upward trend was halted, at least temporarily, in 1977, the incidence being approximately the same as in the previous year. There has been a world-wide epidemic of gonorrhœa thought to have been caused by the change in sexual attitudes of single adults. With a more responsible attitude developing in this group of the population, the disease may now be coming under control. The problems in control are first, that most females who harbour the infection are asymptomatic, and, second, it is considered by many males to be a minor inconvenience only and with the strong desire to suppress any knowledge of having acquired this infection, it is grossly under-reported. Hence, the control program reaches only a proportion of those infected. However, without the control program in place the incidence and cost of this infection would be much higher.

The commonest infection causing a discharge in females is moniliasis. It is a disease caused by an organism which is partly yeast and partly fungus. In the male it causes ringworm-like lesions.

Trichomonas is a parasitic infection of the female causing a discharge and marked irritation. There is only one specific treatment and there is now concern that this may be a potential cancer-causing agent. It is, therefore, necessary to prove the infection and monitor the dosage in order to use the smallest dose possible.

Syphilis continues to be a disease which spreads through the male homosexual population. It seems impossible, even with effective treatment and good control measures, to eradicate this infection. It is, however, well controlled in the heterosexual population.

Herpes simplex or cold sores not only occur on the lips but a separate strain commonly occurs on the genitalia. This is a painful lesion that can spread in moist locations in the body and tends to recur at regular intervals. There is no known treatment that is effective for this infection and the concern is that it could recur in a woman at childbirth and infect the baby.

In order to inform the population at risk, especially young adults, about the signs and symptoms of these infections and to encourage them to seek treatment, an educational program has been launched. The health educator for the division, along with members of the Division of Health Education and Information, have produced a series of radio advertisements and have participated in radio and television shows. To support this program a series of pamphlets and posters has been produced suitable for use in the schools, health units, and physicians' offices. The nurses in the Pine Clinic in Vancouver continue to provide educational support in the Vancouver schools.

The division operates the main venereal disease clinic in the Vancouver Provincial Health Building, which is also open Friday and Monday evenings until 7.30 and Saturday mornings from 10 a.m. to 1 p.m. In addition, support is provided for other clinics at New Westminster, Victoria, Kamloops, Prince George, Prince Rupert, Dawson Creek, and Fort St. John which are operated by the local health units, and through the Alternate Clinic Program clinics are operated at Kelowna, Quesnel, Williams Lake, Vernon, Salmon Arm, South Vancouver, and Richmond. As well, a grant is provided to the City of Vancouver to operate the Pine Clinic, which is a storefront clinic providing service for young adults.

THE PUBLIC HEALTH NURSE AND DISEASE CONTROL

The need for attention to communicable and non-communicable disease control continues.

- The number of immunizations and tests given rose slightly to 433,000 in 1976; however, a high level of immunity must be maintained if the threat of new outbreaks of communicable disease is to be minimized.
- Despite an increase in publicity during 1976, the need for protection against communicable diseases continues and further efforts are required to motivate the public into action.
- A more permanent "Immunization Record" form for individuals is being considered and responsibility for its care and maintenance would rest with each individual.
- Identification of venereal disease cases, contact tracing, treatment, and education continue to use considerable nursing time. Contact interviewing must motivate the individual not only to have treatment himself but to get others under care as well.
- Cancer and diseases of the heart and circulatory system were again the major diagnoses for patients on the Home Care Program.

HEALTH AND OUR ENVIRONMENT

ENVIRONMENTAL ENGINEERING

General

For the purpose of administering the program of the Division of Environmental Engineering, the Province is divided into nine areas consisting of groups of two to four health units geographically grouped, where possible, and served by one centrally located Regional Engineer. Most of the Regional Engineers are located in the field and are thus readily accessible to Medical Health Officers and others.

The staff carries out the technical functions of the Division assigned under the *Health Act* and offers technical and consultative support to Medical Health Officers, Government agencies, municipalities, and individuals on matters relating to water supplies, swimming-pools, sewage disposal, solid-waste management, sanitation, and training of water and wastewater personnel.

Description of Functions

Waterworks—The division reviews, for approval, all plans for waterworks systems, including municipalities, regional districts, improvement districts, utilities, and private systems.

Sewage works—The division reviews, for approval, all plans for public sewage works where the flows are less than 5,000 gallons per day with ultimate disposal to the ground.

Swimming-pools—The division reviews, for approval, plans and specifications for all swimming-pools except private backyard pools, with emphasis placed on physical safety and sanitation standards.

Sanitation—The division offered many more hours of technical support than usual this year to the Division of Public Health Inspection, primarily as a result of new technology being continually introduced in connection with private sewage-disposal systems and package sewage-treatment plants.

Pollution control permits—The division, on behalf of the Minister, receives copies of pollution control applications from the Pollution Control Branch. Comments are obtained from the local health authorities by the engineers who formulate an assessment of each application.

Operation

Waterworks systems, and in particular water quality, have been designated the number one priority item for the division. This policy has evolved in the light of the greater number of recognized health hazards associated with water supplies, the recent *Safe Drinking Water Act* in the United States, and the gradual but continual encroachment into watershed areas used for drinking-water supplies.

The division has prepared a brochure entitled *Waterworks Systems Guidelines* which provides the very basic information concerning minimum design standards and requirements for approval of plans submitted.

In addition, Waterworks System Regulations have been drafted which will provide in more detail the minimum requirements for water systems and water quality necessary for the protection of public health.

The introduction of the Guidelines and Regulations will provide a high degree of consistency within the Ministry of Health relating to plan review and public health requirements for drinking-water quality control.

The data processing system greatly assisted the Division with data storage and retrieval of information as part of a surveillance and control program for drinking-water supplies in the Province. The division continued a comprehensive sampling program to obtain new data on all drinking-water supplies.

With the high priority being given to waterworks systems and associated problems, the engineering staff devoted more time on watershed surveys, advising water system operators, discussing water development with municipalities, improvement districts, and others.

It was recognized that there was some duplication of plan review for certain types of systems that also came under review of the Water Rights Branch. A series of meetings began with the Ministry of Environment in an attempt to co-ordinate our respective procedures. The final results should provide a uniform Governmental approach to the approvals for all waterworks systems in the Province.

Participation in Related Activities

In addition to their normal duties during the year, the Environmental Engineering staff offered direct assistance to other Government agencies, municipalities, regional districts, and other specialized groups.

Statistical Information

In the prime activity area, the division processed 771 certificates of approval for 1,033 known water systems. This compares to 688 certificates in 1974, 639 in 1975, and 710 in 1976.

There were only three certificates issued for sewerage systems since small collection systems are usually not economically practical.

During the year the division processed 85 certificates for swimming-pool approvals. This compares to 115 in 1974, 81 in 1975, and 83 in 1976.

Once again, one-day swimming-pool operator courses were offered at seven centres in British Columbia this year. The manual for pool operators prepared by the division was given to each of the 308 persons who attended the courses. This was an opportunity when the Regional Engineer and the health unit staff worked together to provide a useful service to the public. The enthusiastic assistance offered by the local health unit staff was very much appreciated.

PUBLIC HEALTH INSPECTION

The public's increasing concern for protection of the environment has placed a heavy demand on the Public Health Inspectors of this Province.

Land Use

In order to determine the significance of the Land Use Control Program, a time study was carried out during the months of March and April 1977. The time study included six health units and involved 31 Public Health Inspectors, approximately one third of the total number of inspectors within the Ministry of Health. The information obtained from the study is being used to estimate the time and money spent on land use control in various health units and it has been found that the average time spent by a Public Health Inspector on land use activities is 30 per cent of his total working-time.

Referring to the table on Public Health Inspectors' activities, on page 62, it is noted that the number of private sewage disposal inspections has increased by over 33 per cent. Also, significant to note is that there has been a steady increase in the number of subdivision inspections and this year there was a 14-per-cent increase over 1976.

Water Quality

A Water Quality Information System has been established so that the Ministry may be better informed of the quality of drinking-water provided by water purveyors. A computer system has been adopted for the collection and analysis of data related to the chemical and micro-biological quality of water. The number of inspections of public water supplies has increased by over 25 per cent from the previous year and the number of water samples taken from these sources has shown an increase of over 29 per cent as shown in Table 6.

Food Safety

A committee of Public Health Inspectors has been given the job of reviewing the Food Premises Regulations and has submitted their recommendations with proposed amendments to the Ministry for its consideration.

The Director of the division met with the representatives of the Provincial and Federal Ministries of Health and the Canadian Restaurant and Foodservices Association in Ottawa to review changes to the National Sanitation Program for food-service workers.

Training Programs

In co-operation with the British Columbia Institute of Technology and the Public Service Commission, the division sponsored an in-service training seminar on Public Health Law and Administration for 25 Chief Public Health Inspectors, in Victoria, last February.

Several Public Health Inspectors attended the annual meeting of the Canadian Public Health Association in Vancouver, where a number of important resolutions were passed, one, in particular, relating to the approval of food-vending and dish-washing equipment by a national organization.

The Director of the Division of Public Health Inspection, as a corresponding member of the Board of Certification of Public Health Inspectors for the Canadian Public Health Association, directed two examination boards in British Columbia. In all, 22 Public Health Inspectors obtained their certificates. The Provincial and Municipal Health Departments have co-operated in providing the necessary six months' field training, provided in the form of on-the-job experience. Special studies undertaken by the students have proven valuable to local communities.

Twenty-eight students from the Public Health Inspectors course at BCIT were employed by the Ministry for the summer months and seconded to Provincial health units for training.

This division continues to maintain a very close liaison with Federal, Provincial, and municipal agencies in order to co-ordinate its varied activities in environmental health.

DIVISION OF OCCUPATIONAL HEALTH

The Division of Occupational Health provides health services to Provincial Government employees throughout the Province and acts in an advisory capacity to both Government and non-Government organizations. Efforts of the division continue to be directed toward ensuring a safe, healthy work environment and to facilitate the placement of individuals in work compatible with their physical and mental abilities. Emphasis is placed on primary prevention of illness. Areas of expertise within the division include medical, nursing, radiation protection, alcoholism rehabilitation, and employee physical fitness.

A continued increase in demand for occupational health services was evident in 1977. The relatively high rate of musculoskeletal injuries found in Provincial Government hospitals at Essondale and Woodlands received special attention with the institution of pre-placement assessments for high-risk personnel. More efficient and more effective utilization of occupational health services in these locations has been achieved through increased liaison with union and management groups.

This year saw the introduction of greatly expanded Workers' Compensation Board Industrial Hygiene Regulations which will require far more effort in monitoring the work environment for a number of different hazards. In this respect, a continued liaison with Government Safety Officers has become even more necessary in assessing and dealing with problem areas. A hearing conservation program for noise-exposed employees has been greatly expanded to comply with the more stringent regulations. In addition, a toxic chemicals control program has been initiated to monitor the large numbers of chemicals in daily use by many Provincial Government employees.

Physician participation on various advisory and Governmental committees continued throughout the year. Problems of major concern included insecticides, polychlorinated biphenyls, water and air-borne asbestos, and fluoride pollution from the production of aluminum.

The replacement of the existing sick leave policy with a new short and long-term sickness insurance scheme will, for the first time, present a feasible opportunity for epidemiological research into the incidence and prevalence of illness in the tremendous variety of occupational categories found in the Provincial Government. Extremely valuable information should be available within a few years from this source.

The Radiation Protection Service continues to monitor sources of ionizing radiation within the Province. Participation in a mammography quality assurance program in collaboration with the U.S. Bureau of Radiological Health is now taking place with the objective of optimising radiation dose and diagnostic quality.

Since uranium mining is being considered in several places in British Columbia, the Radiation Protection Service is acting in an advisory capacity as regards radiation health hazards. This involvement will increase considerably should uranium mining and processing become operational.

A special survey of 384 microwave ovens used in commercial eating establishments in the Province revealed considerable microwave radiation leakage,

particularly with older models. Detailed results of this survey were presented to the Canadian Public Health Association meeting in June of this year.

Several radiation exposures and suspected over-exposures were investigated during the year. None proved serious.

The activities of the Radiation Protection Service during 1977 are summarized as follows:

	1977	1976
Radiation surveys (X-ray, radioisotopes, and microwaves)	1,261	1,018
Consultations and visits	305	388
Talks and lectures	27	25
Radioisotopes leak tests	350	511
Analysed water samples	183	95
Air samples (fallout)	52	------

The Employee Development Service continued its work as a diagnostic and motivational counselling program, working closely with medical services of Occupational Health. Its purpose is to provide counselling support for Government employees who are in difficulty on the job due to what are usually considered their more personal problems. These employees and their families are ordinarily referred to either the Alcohol and Drug Commission system of care or some other appropriate community treatment resource.

Training and counselling for Government management, personnel officers, supervisors, and shop stewards in the art of early identification (through job performance), thorough documentation, and appropriate referral procedures is also a major part of the program.

The program was initiated three years ago and since then approximately 4,500 supervisors and shop stewards from most Government ministries have attended almost 300 training seminars. Close to 8,000 employees have attended shorter educational sessions. Credibility for the program would appear to be on the increase as evidenced by an increase in the number of employees referring themselves to the service. An informal evaluation study indicates that, to date, 71 per cent of the 250 employees referred have returned to satisfactory job performance. By far the greatest number of employees referred to the program are suffering from alcoholism or alcoholism combined with the abuse of prescription drugs. Of these, 63 per cent continue to maintain their sobriety.

The dollar costs of this program are returned many fold in terms of improved work performance. Over the past three years we estimate that this program alone has generated a minimum dollar return to the Provincial Government of $500,000.

Employee Development Services is frequently consulted by other Government bodies (Federally and Provincially), as well as by private business on the implementation of occupational alcoholism programming. The training manual is being used increasingly as a model and a resource in many areas here in Canada and the United States where troubled employees are being assisted by other concerned employers.

April 1977 saw the opening of a second small fitness centre in the Richard Blanshard Building, headquarters for the Ministry of Health in Victoria. Facilities include a basement exercise area in addition to covered bicycle parking in the garage, and showers, change area, and lockers on the first floor adjacent to the Occupational Health Unit. These facilities provided an opportunity for the building occupants to cycle or run to work, or exercise over the lunch hour. (A July survey indicated 4 per cent of the building's occupants cycle-commuting to work

on a regular basis.) Some 15 per cent of the employees in the building were attracted into the programs at the spring opening-time.

The Physical Activity Centre continued to offer formal and informal individual programs and two group classes to employees in the Legislative Precinct area. One hundred and fifty employees are involved in programs at this location.

Many activities cater to a further 125 employees. Activities include yoga and running, exercise and run, recreational fitness, strength training, aquatic fitness, and ladies exercise to music. Classes were conducted in office locations and in rented public facilities.

A Fitness Education project was offered to employee groups on request. This included physical activity counselling on a group basis, following a fitness appraisal which measured personal levels of strength, suppleness, and stamina. Employee groups tested include the Ministries of Recreation and Conservation (110); Highways, Vernon (40); Education Correspondence and Special Services (40); Pollution Control Branch (30); Tillicum Lodge (25); and Human Resources, Field Offices (20). The same service was provided on an individual basis to a further 250 employees.

Additional services include a bimonthly newsletter, health library, handout material, film series, and educational seminars.

Nutrition counselling was available on group or individual basis. This service was provided at both the Physical Activity Centre and the Blanshard Building. Counselling was arranged on request or by referral from the occupational health nurse or physician. An extensive Behaviour Modification of Obesity Program was instituted offering a 10-week series aimed at weight loss. Thirty employees graduated from this program, which was also available on a group or individual basis.

SPECIALIZED COMMUNITY HEALTH PROGRAMS

MEDICAL SUPPLY SERVICE

In 1968 a service was opened to provide home dialysis for patients having renal failure. Equipment was obtained and a warehouse opened to provide the necessary supplies. With the opening of this warehouse, the name of the organization was changed from the Kidney Dialysis Service to the Medical Supply Service. On July 1, 1977, the warehouse operation was transferred to the Central Supply Service at Essondale, B.C., and is now called the Central Supply Service, Medical. The remaining organization has had to revert to its original name in order to avoid confusion and is again called the Kidney Dialysis Service.

The number of patents in end-stage renal failure in the Province continues to increase each year, resulting in pressure on all of the facilities to accept more patients. There are now 80 patients at home receiving hæmodialysis. This number remains fairly constant as there are patients coming off this program because they have received a kidney transplant or because their home situation has become unsuitable and they have had to return to hospital.

The number of patients on home peritoneal dialysis has increased from 15 to 23. This has resulted from a technical improvement with the introduction of a piece of equipment called a "cycler." With this equipment it is necessary to dialyse eight hours, five days a week with this method, and whereas formerly dialysis was accomplished manually by hanging bags, warming the solutions, and staying awake to run the solutions which require changing every 20 minutes, a long, tedious procedure, the introduction of the cycler which automatically warms the solution and cycles it through its processes allows the patient to sleep during this procedure.

The Willow renal unit started functioning in January 1977. It is designed as a limited care unit. That is, although it overcomes the necessity of having an assistant and adequate accommodation in the home, it still requires the patient to carry out his own dialysis to the extent that he is capable. Patients who have been trained to do dialysis at home are very capable and require little assistance at the renal unit. Those who are from the hospital centres have had little training and require more assistance. This experience is showing that there are really two levels of care and that with an increasing patient load it may be necessary to separate these patients. There are now eight patients being dialysed in this centre.

The Kidney Dialysis Service has two technicians to service the 80 home patients' machines and the Willow Dialysis unit equipment. As this Province is located far from the suppliers of this equipment, these technicians must have mechanical and electronic training and experience.

Nutritional supplements were started in order to provide additional calories for children on dialysis so that they would attain a relatively normal stature. These high-calorie supplements must be low in protein, potassium, and sodium. There are now 10 children receiving these supplements. However, the greatest need for these supplements is to prevent patients from going on to kidney dialysis, as it is possible to delay dialysis for a period of months through this special diet. There are now 41 pre-dialysis patients receiving the diet supplement and thus staying off dialysis. In addition, there are now 10 dialysis patients on this diet in an attempt to improve their health status.

Through the leadership of the Hemophilia Society, a home treatment program for hæmophiliacs was established in this Province in 1972. The Kinsmen Rehabilitation Foundation has supported a Hæmophilia Assessment Clinic. The Red Cross provides the blood fractions to prevent bleeding and the Medical Supply Service has provided the necessary administration supplies. The Assessment Clinic has been strengthened by adding a half-time nurse-co-ordinator and a part-time physiotherapist. The clinic provides consultations by hæmatologists, orthopædic surgeons, pædiatricians, and dentists. There are now 38 patients with Factor 8 deficiency and five patients with Factor 9 deficiency on this home treatment program. Not only do these patients receive more individual care to prevent bleeding but the need for hospitalization is reduced.

Crohn's disease is non-specific inflammation of the small intestine in which the patient cannot absorb sufficient food during periods of flare up of this disease. It is necessary for patients to be fed intravenously during these periods. There are now five patients being fed intravenously and there are an additional two patients receiving special dietary supplements. This is an extensive procedure costing up to $1,500 a month during the periods of total intravenous feeding. By training these patients to perform this procedure at home they are able to carry it out at their own convenience and continue leading a relatively normal life. Otherwise, hospitalization would be required. This home program is therefore of marked benefit to the patient and an economical method of providing service.

MERCY FLIGHTS

The Ministry again arranged for "mercy flights" to transport seriously ill or injured persons by air to a hospital or other treatment centre. When such flights become necessary, available aircraft from a variety of sources may be called upon, including the Provincial Government, the Canadian Armed Forces, and the Canadian Coast Guard. Emergency Health Services Commission now have a dispatcher on duty 24 hours each day and that person is assuming more of the

functions previously carried out by the Rescue Co-ordinating Centre. When a rescue flight is requested, a medical assessment of the need is made by a medical officer of Special Health Programs who also acts in a co-ordinating capacity between the patient's physician, the providers of the aircraft, and the receiving hospital.

At this point, it might be appropriate to thank the personnel who have manned the Rescue Co-ordinating Centre over many years for their contribution to health care in this Province.

SPEECH THERAPY

Ministry of Health Speech Pathology services focused on comprehensive treatment programs for individuals with communication disorders, thereby preventing further consequences of the speech and language problems. These services were provided to clients in all age categories throughout the Province from local Health Unit Speech and Hearing Clinics. Expansion of services to school populations this year resulted from a co-operative agreement with the Ministry of Education. The Program for Communication Disorders was extended on a contract for service agreement to seven school districts within five local health unit geographic areas. Additional school districts will be served following evaluation of those initial pilot projects.

All program services were provided to communicatively handicapped populations within a framework of standardized guidelines. These policies have resulted in increased effectiveness and consistency of client services throughout the Province. Twenty-two speech pathologists provided services from 17 local health unit clinics. Additionally, 14 speech pathologists initiated the school services pilot projects in September/October 1977.

Program staff in health unit clinics reported an average of 115 clients per month were referred (throughout the Province) for speech pathology services. Following individual assessments, 66 per cent of these clients were recommended for treatment programs. A monthly case-load average of 375 communicatively handicapped individuals received weekly/biweekly treatment programs throughout the Division of Speech and Hearing; 15 per cent of all treatment cases were dismissed each month; 74 per cent of staff time was devoted to direct client treatment; and 13,600 individual therapy sessions were conducted last year. This is a significant increase in direct remediation of communication disorders.

Local staff are utilizing advanced techniques and procedures in a variety of program areas which have improved the quality and effectiveness of service to speech and language handicapped individuals throughout British Columbia, and 50 per cent of all treated cases were reported to have achieved their therapy goals upon dismissal.

HEARING CONSERVATION PROGRAM

The Division of Speech and Hearing continues to provide a comprehensive community Hearing Conservation Program in selected areas of the Province.

Adherence to scientifically supported conditions for service delivery, as well as constant professional consultation and co-ordination with local Medical Advisory Committees, insures effective and efficient audiological services to these communities.

Audiologists in regional centres have developed and administer a wide range of audiological services, maintaining rigid standards in service delivery. They have at their disposal the necessary support for the development and maintenance of high quality service, as follows:

(1) A Central Research, Development, and Repair Laboratory is available for immediate repairs to equipment, for solving all technical problems as they arise, and for co-operative research and development.

(2) Professional consultative staff guide the audiologist in the development of a complete range of services and are available to answer all professional queries.
(3) A stock supply and inventory system facilitates the control and ordering of equipment and materials.

Audiological services include
(1) the High Risk Hearing Register for identifying neonates with hearing impairment;
(2) the school hearing screening program which provides for assessment, follow-up, referral, and rehabilitation;
(3) assessment of all hearing parameters for pre-school children and adults and necessary remedial services;
(4) hearing-aid evaluation, selection, fitting, follow-up counselling, and repairs and provision of accessories and batteries;
(5) noise analysis, control, and delivery of hearing conservation services;
(6) school auditory training equipment evaluation, selection, installation, instruction, and maintenance.

The school Auditory Training Equipment Program is a co-operative effort between the Ministries of Education and Health. This is an example of how co-operation between Government ministries and agencies can result in more effective and efficient delivery of services to the hearing impaired.

The Division of Speech and Hearing also has co-operative agreements with
(1) Ministry of Human Resources;
(2) Division for Aid to the Handicapped, Hospital Programs, and other Ministry of Health agencies;
(3) Department of Veterans Affairs (Federal);
(4) Department of National Health and Welfare (Federal).

Cost/benefit accountability, contributions from charitable organizations, and adherence to strict standards for programming and service delivery continue to insure both an effective and efficient Hearing Conservation Program for selected communities.

In summary, the addition of programs such as Clinical Audiological Services, Clinical Speech Pathology Services, and Contractual Speech Pathology Services to Public Schools; the addition of corresponding staff for the above programs; and renovation or construction of clinical facilities are *major* developments. During the calendar year 1977, such major program developments have occurred, or are in progress, in 75 per cent of the local Health Unit programs (Health Units 1, 3, 4, 5, 7, 8, 10, 11, 13, 14, 16, 17, 18).

VISION SERVICES

During the year, consultative services were provided by the Provincial Orthoptist to over 200 public health nurses, aides, and summer students. Visits were made to 11 main health unit offices and 12 branch offices.

Priority for screening continues to be placed on the pre-school-aged child. Discussions with related eye care professionals and results of special pre-school vision programs confirm that 5 per cent of pre-school children have some eye problem. The best time for visual care is early in the pre-school years when eye defects can still be corrected with best results. Defects such as crossed eyes and amblyopia can lead to permanent loss of vision in the affected eye, if not detected and treated preferably by age 6.

As of September 1977, almost every branch office had been provided with a "learning module" for vision screening. The module contains an overview of the Vision Screening Program, information and procedural guidelines for both stereopsis and visual acuity, as well as samples of resources available for education of children, teachers, parents, etc.

An interesting study was undertaken in the summer to establish the outcome of referrals from the kindergarten vision screening program. The number of children reported on was 22,913, of which 21,570 (94.1 per cent) were screened. There were 1,294 (5.6 per cent) suspected vision defects, of which 520 (40.2 per cent) were previously known, while 765 were newly suspected problems. The follow-up results are being evaluated and a final analysis will be completed shortly.

The establishment of a Vision Care Task Force in April 1976 was a significant event in the field of eye care. The task force was established to undertake the study of the present vision care provided to the people of British Columbia, and to make recommendations for its modification and improvement, where such improvement could be seen. The final report and recommendations of the task force were presented to the Minister in November 1977 for his consideration.

COMMUNITY PUBLIC HEALTH NURSING SERVICES

Traditionally the health of the family and its individual members is the primary concern of the community health nurse. This focus on the family and the insights and understanding gained from interacting with its members can form the basis for sound, comprehensive nursing and effective public health intervention.

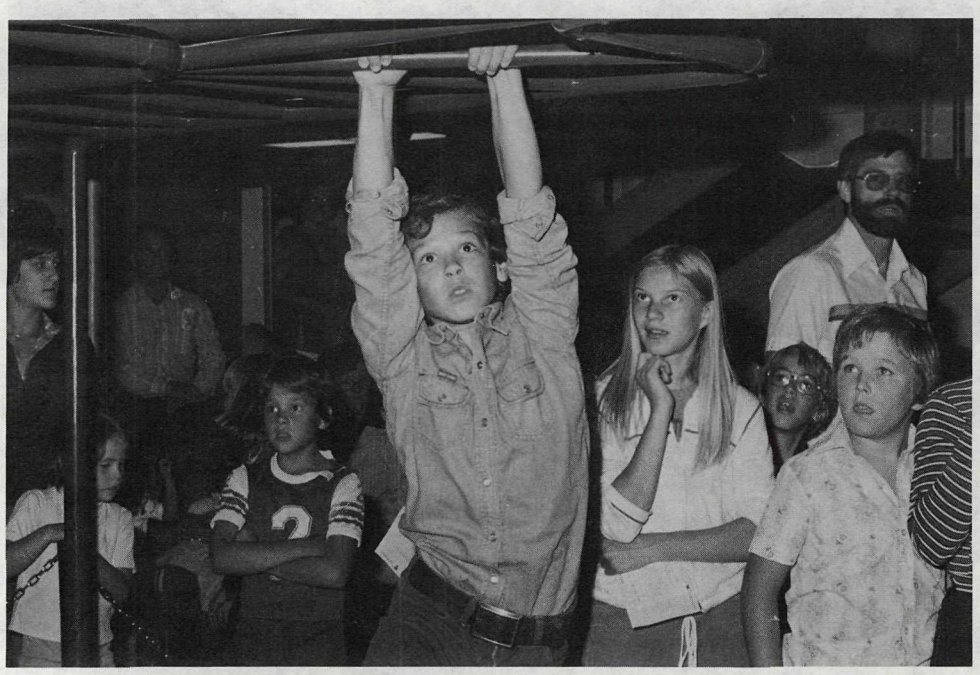
Community health nurses combine professional nursing skills with the knowledge of public health practice. Their contacts with the people in British Columbia begin with the newborn and continue with a variety of services throughout the lifecycle of the residents. In a great range of activities the community health nurse uses the basic principles of prevention, case finding, positive health teaching, promotion of patient and family self-motivation and direction, continuity of care, concern for total family, and collaboration with a multidisciplinary health team. As she builds nursing care on the family's own strengths and abilities and supplements their actions only when the problem is too much for them to handle alone, the nurse is constantly aware of the opportunity to reinforce family strengths and to better equip the family to deal with future problems of health care and family management.

The almost limitless opportunities offered the community health nurse to affect the health of the community make it immediately clear that all useful services cannot be provided. It is necessary to establish a priority system based on the likely impact of nursing service in a given situation, the realities of the nurse supply and demand, and the availability of other community resources. Requests and demands for services from an increasingly large population and a public more health-conscious than previously have placed considerable pressure on the field staff of public health units. In order to maintain a high quality of service and to build up and maintain optimum level of health for the expectant mother, the new baby, the infant, and the pre-school child during the times which are critical in their development, it has been necessary in some areas to reduce services in schools where other resources are more readily available. The reductions in services have been made reluctantly and only after consideration of total area needs and priorities. Modifications have also been made in other programs to make their delivery more

Young child is tested to determine whether both eyes are used together.
Early detection of defects can prevent permanent damage.

Physiotherapist (standing) tests fine motor development in child during special "circus" for children at Simon Fraser Health Unit.

Travelling nutrition exhibit, one of many displays now being organized, drew lively attention for children, teenagers, and adults in 1977.



One of the most popular participation exhibits at the 1977 Pacific National Exhibition was Action B.C.'s obstacle course for children.

efficient without loss of quality; services which were less productive of results have been discontinued and wide use has been made of volunteers to supplement nursing-time.

MATERNAL AND CHILD HEALTH

PERINATAL

A positive approach is fundamental to maternal health, but special attention must be given to the needs of the expectant mother, her family, and the specific health hazards of pregnancy. Making services available to expectant parents in all areas of the Province has been a primary consideration of the community health nurses, but the proper use and evaluation of these services has been equally important in determining the effectiveness of the communities' perinatal programs.

- The majority of expectant parents in British Columbia attend Expectant Parent Classes prior to the birth of their first baby.
- Approximately 16,500 expectant mothers and fathers in areas outside Greater Vancouver and the Capital Region attended a series of four to eight classes each.
- Both parents attended classes in about 70 per cent of all series given.
- Special classes were given where appropriate for single parents, adopting parents, and other groups with particular needs.
- Emphasis in classes was on positive maternal and family health, growth and development of the baby, physical and emotional changes during pregnancy, coping with the normal stresses of pregnancy, the role of nutrition in good health, and preparing for the new family and birth of the baby.
- Classes provided an opportunity for the community health nurse to monitor the condition of the expectant mother and her family throughout the pregnancy and to identify the need for additional support or care.
- A public health nursing consultant from the Ministry of Health is working with representatives of Vancouver and Capital Region Community Health Services and the B.C. Medical Association to prepare a *Manual for Expectant Parents.*

INFANT AND PRE-SCHOOL

The infant and pre-school years are recognized as a critical time in the growth and development of the child, and progress is dependent in a large measure upon the quality of nurturing the family is able to provide. High priority is therefore given to the program by community health nurses.

- The nurse is a health counsellor to a family and as such is able to establish a relationship with the family which is conducive to effective health education and the provision of support where needed.
- Community health nurses visit over 95 per cent of newborns and their mothers in their homes shortly after hospital discharge.
- Length of hospital stay has been reduced for many new babies and their mothers as they are being discharged early to Home Care Programs for close follow-up care. Family separation and disruption is thereby kept to a minimum.
- Requests for attendance at Child Health Conferences have placed heavy demands on the time of health unit nurses and in some areas there is a four-week wait for appointments.

- Infants and pre-schoolers were seen on approximately 130,000 visits to Child Health Conferences outside the Greater Vancouver and Capital Regional areas.
- Home visits were made by nurses to 93,000 infants and pre-schoolers for the purpose of health assessment, disease prevention, identification, and follow-up of defects and disorders, monitoring of "at risk" situations, family support, and health and safety education.
- Over 22,500 children between the ages of 1 and 5 years received special assessments, e.g., Denver Developmental Screening for growth and development, etc.
- Health assessments, supervision, and education were provided to pre-school children in nursery schools, day care centres, and kindergartens.

School

Less community health nursing-time was spent in schools owing to continuing monetary restraints with the resulting reduction in the amount of nursing-time available. It is recognized that preventive services are most effective in the infant and pre-school years, so that services provided to this group should benefit future school populations.

School health services were modified so that available time could be spent in those activities considered to be most productive.

- To achieve this, a subjective review of the present program was made by collecting data on the use of available nursing-time and the extent to which services provided meet existing needs.
- High priority was given to the following services: Immunization, vision and hearing screening in Kindergarten and Grade I; identification and follow-up of defects detected through screening programs or student-nurse contact; health counselling of individual students and school-home liaison. To maintain these services it was necessary to reduce routine screening of pupils beyond Grade I. In some areas routine visits by the nurse to specific schools were replaced by visits on request only.
- A study to measure the effectiveness of present vision screening methods and ascertain the outcome for students identified for further investigation and referral was initiated and is continuing.
- A review of the use of nursing-time in a senior secondary school was undertaken in the Nanaimo School District where the services of a full-time public health nurse were provided through school district funds. It was observed that the senior high school can be an excellent setting for appropriate and timely health education programs. It was less clear by whom the most efficient and economic health services can be provided in this setting.
- A committee, including representatives from the Ministries of Education and Health, was formed and is at present exploring means of improving the delivery of health services in schools to meet current need.

FAMILY, ADULT, AND GERIATRIC SERVICES

A family focus is the emphasis in the work of the community health nurses, as inter-relationships between family members have a great influence on family health.

- Young and middle-aged adults are generally more able to cope with problems as they arise; however, nursing activities included preventive health teaching to enable the family to maintain its health, anticipating guidance and coun-

selling, crisis intervention at times of individual or family stress, and care for those with specific illnesses or disabilities.

- Adults with special conditions, e.g., diabetes, cardiac, or kidney ailments, etc., received the attention of both the public health and home care nurses.
- Educational projects and discussion groups dealt with the problems of obesity, stress, fitness and exercise, smoking, accident prevention, and nutrition.
- Special attention and priority were given to families and individuals under emotional or mental stress, e.g., attempted suicide, child abuse, catastrophic illness, family disorganization, etc.
- Increased attention was given to the special needs of the elderly, with emphasis on the maintenance of their independent and contributing role in the family and community.
- Counsel, health supervision and assessment, physical care, and assistance in the use of community resources were provided in greater quantity to older persons.
- The elderly and their families were given assistance in adjusting to and choosing alternate methods or special facilities for care when required.
- Assessments gave attention to the physical, emotional, and social needs of elderly people.
- Licensing and supervision of all community care facilities, e.g., nursing-homes, boarding-homes, day care centres, etc., was carried out by public health staff and consultation was provided to operators and staff.

HOME CARE PROGRAMS

The Ministry's Home Care Program is available to all residents of the Province who are within reasonable access to a public health office. The program is administered by a Home Care Co-ordinator from the local public health unit who works closely with private physicians and all local health and social services.

- The program has two parts:
  - (*a*) *Hospital replacement*—for persons who, without home care, would require admission to an acute hospital.
  - (*b*) *Non-hospital replacement*—for persons who do not require acute hospital care but need nursing and other services in order to remain in the home with adequate care.
- Patients are admitted to the program on referral by their private physicians.
- Patients on "hospital replacement" receive all necessary services, e.g., nursing, physiotherapy, homemaker, social work, meals-on-wheels, medication, equipment, etc., at no cost to themselves. These services are arranged for, co-ordinated, and paid for by the Home Care Program. Service is available seven days a week from 8.30 a.m. to 11 p.m.
- Although "hospital replacement" services are available to approximately 80 per cent of the population, it is urgently required in the remaining areas of the Province in order that patients may be cared for in the home when it is the appropriate setting and that acute hospital beds may be made available to those who need them.

- "Non-hospital replacement" services are available throughout the Province and provide nursing care and supervision to the patient and a limited amount of physiotherapy. There is no cost to the patient for these; however, where other services, e.g., homemaker, medication, etc., are required, payment is the responsibility of the patient. Services are available seven days a week.
- The same Home Care Program staff members provide care to both "hospital replacement" and "non-hospital replacement" patients and work closely with the family to promote support of patient's care regimen, rehabilitation, and safety, reduction of patient and family stress, and a co-ordination of community and family care efforts.
- At the requests of patients and families, many more terminally ill patients are remaining in their homes on the Home Care Program instead of being transferred to acute facilities. Nurses have been able to help the families deal with the problems of terminal illness and the feelings of loss and grief surrounding the death of the patient.
- Statistics for 1977 are not yet available, but in 1976 there were 39,704 patients admitted to the Home Care Program throughout the Province. This volume has tripled since 1972.
- Included in the services provided by the Home Care Program in 1976 and paid in full by the Ministry through Public Health Programs were

Nursing	(visits)	596,413
Physiotherapy	(visits)	4,417
Homemaker	(hours)	29,770
Meals-on-wheels	(meals)	2,130
Medication for	(patients)	6,859
Equipment and medical supplies for	(patients)	6,996

- Full computerization of the Home Care Program data began on May 1, 1977, thereby facilitating a more complete review and evaluation of the program.

COMMUNITY PHYSIOTHERAPY SERVICES

Physiotherapy service was available during 1977 in 10 Provincial health units through 14 offices. This service was provided by the equivalent of 12 full-time physiotherapists and included both preventive and treatment services.

The community physiotherapy services are being developed in the health units to provide a full range of physiotherapy and associated services relative to the needs of the area. The program has four major features:

(1) *Treatment service*—Provided under the Home Care Program to patients in their home setting.

(2) *Consultative/advisory service*—For patients, families, physicians, community health nurses, and the community at large. Under this aspect of the program, service is offered in the form of general assistance and referral in such matters as diagnosis and treatment, provision of equipment, and establishment of community health programs.

(3) *Preventive services*—Where the physiotherapist participates in community programs such as scoliosis screening, homemaker training programs, and physical fitness in schools.

(4) *Maintenance and follow-up*—Provides an ongoing audit of the patient's level of independence and function within the community.

During 1977, a total of 18,126 direct physiotherapy treatment services were given under the Home Care Program. Some 8,106 of the treatments were rendered under the comprehensive hospital replacement day home care program, which covers a full range of support and professional services to the patient.

DENTAL HEALTH SERVICES

The staff of the Division of Dental Health Services comprises six dental officers, 13 dental hygienists, and 23 dental assistants. It is recognized that this staff cannot provide effective dental health programs in all school districts served by the Provincial health units. Therefore, it is the current policy to carry out effective programs in selected school districts or parts of them, rather than to have ineffective programs with a larger geographical coverage. To recruit and train competent staff to provide total coverage is expected to take several more years.

THREE-YEAR-OLD BIRTHDAY CARD PROGRAM

The 3-year-old birthday card dental program continued to operate in 46 of the 66 school districts served by the Provincial health units. By this program some 9,000 young children received from their family dentists an examination and counselling at no direct cost to the parents. These children represented 56 per cent of all those to whom cards were mailed by the local health unit. Acceptance was highest in the Okanagan Region at 84 per cent, where there is a good ratio of dentists to population and experienced staff to carry out telephone follow-up for non-responders. The lowest in acceptance rate was in the Kootenays at 45 per cent, where neither of these conditions pertained. An intensive follow-up procedure has been initiated in some regions in order that participation rates may be improved in the next year.

SCHOOL DENTAL PROGRAM

Dental hygienists and dental assistants provided dental hygiene instruction, education, and motivation to almost 72,000 elementary school-children. Of these, some 62,000 took part in using the self-applied fluoride paste and rinse provided on a twice-a-year basis. In addition, 38,250 of the 62,000 students in the school program received a dental inspection, with 10,623 telephone follow-ups made to parents in order to encourage them to take their children to the family dentist.

The health units of Greater Vancouver and of the Capital Regional District continue to operate effective school dental health programs, assisted by grants-in-aid from this Ministry. In addition, during these past three years, the Ministry has funded a summer dental clinic at the Dental School of The University of British Columbia. Patients are pupils of Greater Vancouver and the Lower Mainland requiring much needed and extensive dental care. Treatment and counselling is provided by senior dental students and dental hygiene students under the supervision of members of the Faculty of Dentistry. This summer, 919 children benefited from this clinic. The value of the services provided is conservatively estimated as more than twice that of the grant provided.

DENTAL EXTERN PROGRAM

The largest program of this type was initiated in July of this year with 12 externs and their dental hygienists, and assistants working out of six mobile vans, one trailer, three sets of portable equipment packages, and in a permanent facility in Prince Rupert. Last year, dentists staffing these mobile clinics visited 30 communities without resident dentists and completed treatment for over 5,400 patients on a fee-for-service basis. Under this program these figures are expected to be much higher when the extended program is completed in June.

In order to provide treatment services to other underserviced areas, the College of Dental Surgeons of British Columbia has also provided and equipped a dental clinic at Kaslo. This is in addition to the facilities they continue to operate at Masset, Queen Charlotte City, and Mackenzie, the latter now having the services of two dentists.

CHILDREN'S HOSPITAL

An orthodontic treatment centre has been built at the site of the Children's Hospital in Vancouver. Its purpose is to provide ongoing treatment and consultative services to the Cleft Lip-Palate Program for those 20 years of age and under. Recruitment of a recognized specialist in this field is under way to direct the operations of this clinic.

OTHER ACTIVITIES

The oral cytology program has operated since 1969 with the co-operation of the British Columbia Cancer Institute and the College of Dental Surgeons of British Columbia, who issue cancer diagnostic kits to each dentist newly registering in this Province. In the period 1969–75, a total of 1,896 smears was submitted to the institute for diagnosis. No less than 34 of these specimens, a ratio of 1:56, were confirmed as having been derived from early cancerous lesions.

To evaluate the dental health status of the children of British Columbia, Province-wide dental surveys have been conducted in the years 1958–74 and have demonstrated a steady improvement in the dental health of those children. This past year a new, more sophisticated and computerized methodology has been developed in co-operation with the Research Section of the Division of Vital Statistics. It is planned that in 1980 this methodology will be carried out Province-wide on a random sample of all children of specific age-groups and in sufficient number to provide statistically significant results. Consideration of a similar survey of the adult population will also be made.

A one-week in-service training program for all staff dental hygienists was held in September. Topics presented were Provincial policies, programs, and standards and classroom teaching skills (through lectures, practical demonstrations, and videotaping of these classroom presentations). Hygienists representing each regional team presented many innovative visual aids, ideas, and suggestions useful for school dental programs.

Recent surveys indicated that the dentist population ratio for British Columbia is 1:1779. In addition, approximately 47 per cent of British Columbians are now covered by group dental insurance plans or are provided with dental services through welfare, armed services, or in the case of native Indians, through Medical Services.

NUTRITION SERVICES

Major thrust in the areas of maternal and infant nutrition, education of young children, and public awareness of the role of nutrition in cardiovascular disease gathered momentum during 1977.

Individual prenatal counselling for nutritionally at-risk pregnant women was initiated in the six health units with nutritionists. Women in these areas were screened initially when they entered early prenatal classes. Only 11 per cent of the women had adequate diets; the other 89 per cent of the women required some follow-up due to dietary inadequacies observed in screening. Eighteen per cent were referred for intensive counselling by a nutritionist. Over 80 high-risk mothers have received nutritionist services in these first months of operation. The data indicated a widespread and serious risk in a most vulnerable portion of our population. The need for a formalized prenatal nutrition counselling service was once again illustrated.

The *Infant Nutrition Guide for Professionals* has been distributed widely to dietitians, nutritionists, general practitioners, family physicians, and pædiatricians in British Columbia. Several thousand additional requests have been received from health professionals across Canada and in the United States and England. This publication deals with several new issues in community nutrition such as discouraging the use of skim milk for infants and encouraging the delayed introduction of solid foods. Two new publications designed for parents were made available on infant nutrition. Two slide series on infant feeding were developed for use by community health nurses in teaching infant nutrition concepts to new mothers. A Perinatal Nutrition Conference was sponsored for over 100 health professionals in Penticton by the nutritionist and staff of South Okanagan Health Unit.

A pilot survey on breast feeding was conducted in three health units to determine the extent of programs offered, the attitudes of public health personnel, and the knowledge and attitudes of mothers. The study report suggests that public health personnel become more involved in the promotion of breast feeding as few such programs are available, that physicians should actively encourage mothers to breast feed, and that many mothers would welcome the supportive influence of their peers at breast-feeding classes.

The national *Food Consumption Patterns Report* released in 1977 revealed that the decline in sound eating habits begins at school-entry age. As a result, nutrition education efforts for preschool and young children were intensified. Several workshops for day care workers and supervisors were conducted throughout the Province. Publications on nutrition in family day care were distributed to day care mothers. The nutritionist in Simon Fraser Health Unit has developed a series of "Active Health Nutrition Units" which have been introduced to 62 per cent of the schools in that area. Planning for a pilot project in selected Prince George elementary schools is currently under way to demonstrate the effect of a nutrition education program on the food habits of elementary school-children. A weight-control program for adolescents was conducted in July and August by the nutritionist in the Boundary Health Unit.

A heightened interest by schools in nutrition programs was noticed in 1977. Many schools, in health units where nutritionists are located, sought professional advice on food policies. This is considered to be an exciting and important change in attitude that undoubtedly will have great impact in the long term.

As it was found that elevated serum cholesterols occurred in twice as many British Columbia men aged 20–39 than on the national average, the Ministry of

Health has elected to take an aggressive leadership role in this matter. During the year, the Division was responsible for a ministerial statement on diet and cardiovascular disease. The statement recommends specific dietary goals for British Columbians which, if practised, will assist in the reduction of cardiovascular disease risk.

Major public information programs included Nutrition Week, Nutrition Buylines, and the Senior Chef. Nutrition Week, scheduled for October 17–22, featured public seminars, displays, and nutrition events in schools and hospitals. The week proved to be a success with all health units experiencing increased requests for nutrition education materials and information. The *Nutrition Buyline,* a weekly newspaper column produced by the Division, continued to expand its coverage to more than 1,300 media outlets in the Province. The *Senior Chef,* a unique series of 13 half-hour colour television programs designed for senior citizens, received considerable attention this year with over 100 broadcasts taking place and over 30,000 cookbooks distributed in the past six months. Requests for copying rights for the series have been received from Saskatchewan, New York, and California.

Service to the public through work with other Governmental ministeries remains a major part of the divisional activities. For example, nutritionists provide special diet counselling for those who cannot obtain this service through hospital programs. In-service education is provided for home care nurses and for homemakers in the Long-term Care Program. Nutrition sections are taught in Manpower job readiness and upgrading programs. A manual was developed on nutritional standards for operators of adult residential facilities in the community care facilities and Long-term Care Programs. Nutrition education became a regular component of the Crossroads Treatment Program for alcoholics in South Okanagan Health Unit, with both the nutritionist and counsellors advising on the role of nutrition in rehabilitation and practical food money management.

Within the new *Community Care Facilities Licensing Act,* provision was made for nutritional standards. This new responsibility will require that an inspectional and consultative service for these institutions be established in the Nutrition Division.

The health unit program continued to be the major focus for in-service education of the public health staff. Local contacts with community colleges, the media schools, recreation centres, weight-reduction groups, and medical practitioners are strengthened at this level. The general public continues to use the health unit nutritionist as a source of reliable nutrition information in their communities. Six health units have nutritionists: South Okanagan Health Unit (Kelowna), South Central Health Unit (Kamloops), Central Fraser Valley Health Unit (Maple Ridge), Boundary Health Unit (Surrey), Simon Fraser Health Unit (Port Coquitlam), and Cariboo Health Unit (Williams Lake).

A seventh position in Central Vancouver Island Health Unit remains vacant at this time.

VITAL STATISTICS

The Division of Vital Statistics administers the *Vital Statistics Act,* the *Marriage Act,* the *Change of Name Act,* and the *Wills Act* (Part II), and provides a centralized biostatistical service to various community health programs within the Ministry and to certain voluntary agencies. The division issues a statutory annual report of vital statistics.

REGISTRATION SERVICES

The total number of registrations accepted under the specified Acts remained substantially unchanged in 1977. Death and marriage registrations decreased slightly, while registrations of wills' notices maintained the continuous upward trend of the past 30 years.

There was a substantial increase in the number of name changes effected under the *Change of Name Act.* An amendment to this Act which became effective on March 25 made provision whereby a married woman may retain or revert to her previous surname by statutory procedure.

The numbers of registrations of vital events, and the number of certificates and other documents issued therefrom under the Acts administered by the division, for the years 1976 and 1977, are shown in Table 7.

BIOSTATISTICAL SERVICES

The task of computerizing the division's complex data processing operation, previously based on IBM unit record equipment, was virtually complete by the end of the year. The final stages of the conversion program, commenced in 1974 by the Computing and Consulting Services Branch, have been taken over by the newly established B.C. Systems Corporation, which commenced operations on November 1, 1977.

In addition to the dedicated work done by the Systems and Programming staff, the division's research staff have become increasingly involved as the conversion program nears completion. They have had to work closely with the systems analysts in the development of the new specifications, to become conversant with computer techniques and capabilities, and to familiarize themselves with various program packages available, so as to save programming time and cost in producing needed tabulations.

The Health Surveillance Registry, located in Vancouver, comprises a general register of handicapped conditions among children and adults, as well as a distinct cancer register and a register of congenital anomalies and genetic defects. An annual report is issued on the operations of the registry as a whole, as well as a separate statistical report on cancer. The registry is served by four consultants, in genetics, pædiatrics, cancer, and record linkage respectively.

Substantial progress was made during the year in expanding the registry case load and extending the sources of ongoing ascertainment of new cases. About 2,500 new cases of chronic disabilities were completed from reports submitted by the Health Division of the Ministry of Human Resources, a source which was tapped for the first time in 1975. A procedure for continuous registration of cases through the Canadian National Institute of the Blind was established, and over 1,500 new cases were registered from this source. A similar arrangement is being worked out with Childrens' Diagnostic Centre and the Vancouver Childrens' Hospital, and has resulted in another 1,400 new registrations. Discussions were held with the Pacific Region Medical Services Division of Health and Welfare Canada with a view to increasing the ascertainment of registerable conditions among the native Indian population.

The Cancer Register, which is a specialized unit of the Health Surveillance Registry, receives notifications of live cases of malignant neoplasms from hospital pathology laboratories, from private physicians, and from the Cancer Control Agency of B.C. Information on neoplasms ascertained at death is derived mainly from the Vital Statistics registration system.

During the year a committee, including representatives of the Ministry of Health and of the Cancer Control Agency of B.C., made recommendations for closer association between the Cancer Register and the Cancer Control Agency with a view to developing a unified data system which could contribute more effectively to cancer treatment and research in the Province.

Data were supplied to a number of registering agencies, and a wide variety of departmental and other inquiries for registry statistics were dealt with. Research officers also provided statistical information and advice to physicians and other research workers in connection with research projects on specific conditions. Several research papers utilizing registry data were accepted for publication during the year.

The registry was host to a number of visitors from other provinces, and from the United Kingdom, Australia, Japan, and Cuba.

Two research officers, one from each of the Vancouver and Victoria research office staff, continued to serve as members of the executive committee of the Perinatal Program of British Columbia which, during the year, became a subcommittee of the Medical Advisory Committee to the Ministry of Health. Both officers were active in providing statistical data and advice and assisted in the development of a package of perinatal records designed for use in British Columbia hospitals.

Substantial progress was made in the division's computerized record linkage project, in which the Medical Genetics Department of The University of British Columbia collaborates. This work was interrupted in November by the sad and untimely death of Dr. Ben Trimble, consultant in record linkage, who had directed the work since its inception in 1974.

The Victoria research office serves as the division's agent in the dissemination and analysis of demographic data derived from the Vital Statistics registration system, and also provides biostatistical services to other agencies within and outside the Ministry.

In the field of mental health statistics, the division relinquished the processing of statistics relating to mental health institutions administered by the Director of Government Health Institutions, and those administered by the Ministry of Human Resources, but continued to assist in the processing of statistics relating to the operation of mental health centres.

Statistical advice and data processing services were provided to the Division of Dental Health Services. Further progress was made in the development of a new dental survey methodology. The results of the Port Alberni mouth rinse study conducted in local schools were analysed and confirmed the beneficial effects of the program in reducing the incidence of dental caries among students. Results from a mouth rinse study in the Lower Fraser Valley were also analysed and a paper co-authored by a member of the Research Section was accepted for publication in the Journal of Community Dentistry and Oral Epidemiology.

Assistance was given to the Division of Aid to the Handicapped in the design and execution of a house-to-house survey of handicapping conditions in the New Westminster area, and in the analysis of the results.

The division's statistical services to the Division of Tuberculosis Control were maintained, including the preparation of tables for the annual report on tuberculosis.

Evaluation of an anti-smoking education program for elementary schoolchildren in the South Okanagan Health Unit was completed during the year. Data from a sample of over 300 children indicated an increase in knowledge of the effects of smoking in relation to lung function, and the increased resolve to avoid smoking

in later years. Further progress was made in the evaluation of the community asthma program initiated in the same health unit in 1976. Results to date confirm the effectiveness of this program, particularly in the form of decreased absences from school.

The division collaborated in a study of trichinosis among wild life in the Kootenay area, and in the preparation of a paper on the results, which was accepted for publication.

The Victoria research office also provided data processing services and statistical consultation to the Divisions of Epidemiology, Venereal Disease Control, Environmental Engineering, Public Health Inspection, the G. F. Strong Rehabilitation Centre, and to several Health Unit Directors; and dealt with a wide variety of ministerial and other inquiries for statistical data.

AID TO HANDICAPPED

This year has been one of re-evaluation for the Division of Aid to the Handicapped. One outcome has been a decision to introduce greater decentralization in the division's program.

Thus, effective December 1, 1977, Regional Consultants and local Aid to Handicapped Committees will make the final decision in terms of selection and training of clients for their particular regions on a trial basis and full decentralization will follow on April 1, 1978, if the experiment works satisfactorily.

In the future, Aid to Handicapped hopes to localize programs further and to develop community-based rehabilitation through the use of information obtained from summer survey projects in every region. A pilot survey was carried out in New Westminster this past summer.

FIELD OPERATIONS

The total number of local Aid to Handicapped Committees that have been established throughout the Province by the division declined over the past year from a peak number of 53 to a low of 39.

The Skeena area has been closed since August 1976 and Northern Interior since July 1977. In Victoria, the Rehabilitation Counsellor resigned in March 1977 and a replacement has just been recently appointed.

On the brighter side, the vacant position at Trail serving both the East and West Kootenays was filled in May. The Richmond area has been reopened to an active status and Burnaby has been given more attention in 1977 by this division.

To enhance the effectiveness of field operations and the success of rehabilitation programs, Aid to Handicapped maintenance allowances were increased and relocation allowances made available to those individuals required to move in order to attend rehabilitation programs. Pre-referral interviews have been implemented by some field staff. At these sessions, the prospects of vocational rehabilitation are discussed with the client prior to a referral being made in writing. At present, this is being done in Vancouver, Burnaby, New Westminster, Port Coquitlam, Mission, and Maple Ridge.

In New Westminster the division has worked closely with Ministry of Human Resources, Public Health, and Mental Health personnel to establish the Howard Chadwick Residence at the New Westminster YW/YMCA. The Howard Chadwick Residence has been licensed under the Boarding-home Program and is authorized to allow 20 physically or mentally handicapped adults to partake in a

social and life skills program. The intended result is to allow each individual to gain sufficient skills or support to undertake independent living in a community. The program is unique to the division in that clients may now be referred to the Lower Mainland area from other parts of the Province for specialized programs. The ongoing programs at the "Y" and individual counselling by special "Y" staff have added to the rehabilitation alternatives available to the Aid to Handicapped Committees and their clients.

Community Programs supported by the Division for Aid to Handicapped include

(1) Canadian National Institute for the Blind—salary subsidy for two Vocational and Employment Counsellors;
(2) Western Institute for the Deaf—financial support provided for operations in the Vancouver area;
(3) Vocational Orientation Program for patients at the Vancouver General Hospital—extension for one year;
(4) Goodwill Enterprises for the Handicapped—salary subsidy for professional rehabilitation staff and fees for Aid to Handicapped clients continued;
(5) Opportunity Rehabilitation Workshop—through new management, has changed its function to primarily a vocational assessment centre with financial support for professional staff and a fee for service to cover the cost of daily operations continued;
(6) advances have been made to Community Colleges to assist with the creation and running of community-based programs for the disabled.

NEW WESTMINSTER SURVEY

During the months of June, July, and August the division conducted a survey in the city of New Westminster to establish the health, education, and work needs among individuals between the ages of 14–60.

The survey was funded by the Province of British Columbia Working in Government Program. Expert assistance on research techniques and principles was provided by the Division of Vital Statistics. Twenty summer students were employed and supervised by two Aid to Handicapped Consultants.

Final results of the survey are not available at this time; however, over 10,000 questionnaires were completed and 1,493 of the individuals involved were identified as having at least one disability.

For those people who requested follow up by an Aid to Handicapped Consultant, referrals were taken and interviews conducted. Vocational rehabilitation is now in the planning or active stage in these instances.

It is hoped that the final results of the survey will allow the division to respond more directly to the needs of New Westminster. Similar surveys in other communities are being planned for the future.

LABORATORY SERVICES

The Provincial Laboratories provide public health laboratory services for the diagnosis, investigation, and control of communicable diseases and for amelioration of the environment. These services include laboratory tests for bacteriology, mycology, parasitology, virology, environmental microbiology, and related immunology, and serology, which are performed by physicians, hospitals, and agencies at all three levels of government.

The work load of the Division of Laboratories increased 4 per cent between 1976 and 1977. In Table 9 the numbers of tests performed in 1977 at the Main Laboratories and the Branch Laboratories in Nelson and in Victoria are compared with the corresponding numbers for 1976. Increases in work performed occurred in examinations for intestinal parasites (5 per cent), miscellaneous bacteriology (6 per cent), and water bacteriology (24 per cent). Decrease occurred in serology (4 per cent).

During 1977, tests for the diagnosis of infections with *Bordetella pertussis* and Streptococcus (Group A) by immunofluorescent techniques were added to the procedures performed at the Provincial Laboratories.

BACTERIOLOGY

Corynebacterium Diphtheriæ

The number of laboratory-confirmed cases and carriers of diphtheria decreased from 83 in 1976 to 72 in 1977.

Hæmophilus Influenzæ H. Parainfluenzæ

The number of patients with *H. influenzæ* infection increased from 15 in 1976 to 32 in 1977. *H. parainfluenzæ* isolates increased from three in 1976 to 13 in 1977.

Neisseria Gonorrhœæ

In 1977 the number of gonorrhœa cultures yielding *N. gonorrhœæ* was 4,000. This was a decrease of 10 per cent compared with the number of cultures positive in 1976.

In 1977, a total of 5,709 genital smears sent for microscopic examination showed gonococci—an increase of 3 per cent compared with 1976, when 5,541 smears showed gonococci.

Neisseria Meningitidis

The number of isolates of *N. meningitidis* rose from 128 in 1976 to 168 in 1977. Of these 168 strains, 141 were from sputum and 27 from other sources including blood, cerebrospinal fluid, and genito-urinary tract. The serogroups of 75 strains were A (3), B (8), C (12), X (5), Y (9), Z (11), 29E (19), and 135 (8).

Opportunistic Pathogens

The number of opportunistic pathogens identified increased more than 20 per cent from 1,775 in 1976 to 2,239 in 1977. The three most common organisms were *Acinetobacter calcoaceticus, Escherichia coli,* and *Acinetobacter lwoffi.*

Anærobic Bacteria

Of the 320 strains of anærobes identified, the three most common were *Clostridium perfringens, Peptococcus asacchurolyticus,* and *Peptostreptococcus anærobius.*

Enteric Bacteria

The number of specimens submitted for culture for *Salmonella, Shigella,* and enteropathogenic *Escherchia coli* (EEC) increased by 1 per cent. First isolates from 798 persons included *Salmonella* (346), *Shigella* (170), and EEC (282). The 346 *Salmonella* isolates belonged to 49 types. Included were 15 strains of *S. typhi.* The most common Salmonellæ from human sources were *S. typhimurium* and *S. typhimurium* var. Copenhagen (112), *S. enteritidis* (51), *S. heidelberg* (18), *S. san diego* (18), *S. infantis* (28), and *S. muenchen* (9). *S. inganda* was isolated

for the first time in Canada; *S. coleypark* and *S. pensacola* for the first time in British Columbia. Non-human sources yielded 343 *Salmonella* isolates from chickens, turkeys, cattle, cats, pigeons, horses, prawns, pigs, shrimp, sheep, gila, fish meal, environmental swabs, and potato salad. Of the 23 types identified, the most common were *S. typhimurium* and *S. typhimurium* var. Copenhagen (89), *S. infantis* (130), *S. saint paul* (13), *S. newington* (26), *S. thompson* (12), and *S. agona* (14), and *S. newport* (29).

The 170 *Shigella* strains included *Sh. sonnei* (110), *Sh. flexneri* (56), *Sh. boydii* (3), and *Sh. dysenteriæ*. The most common enterpathogenic *Esch. coli* (EEC) were 026 (51), 0128 (50), 018 (26), 0126 (31), 0111 (28), 0127 (15), and 055 (18).

Mycobacterium Tuberculosis

The number of specimens cultured for *Mycobacterium tuberculosis* decreased by 4 per cent from 32,058 in 1976 to 30,834 in 1977, but the number of microscopic examinations increased by 11 per cent from 25,373 in 1976 to 28,066 in 1977. *M. zulgai* was isolated for the first time in British Columbia from a joint aspirate.

Requests for antimicrobial drug susceptibility tests decreased from 1,010 in 1976 to 974 in 1977.

Bacterial Serology

Bacterial antibodies were demonstrated at Reference Laboratories in 31 serum specimens: *Neisseria gonorrhœa* (21), *Bordetella pertussis* (5), *Listeria monocytogenes* (2), *Brucella, Francisella,* and *Yersinia.*

Serological tests for the diagnosis and control of febrile illnesses decreased by 5 per cent from 11,600 in 1976 to 11,000 in 1977.

Screening tests for syphilis decreased by 3 per cent from 180,000 in 1976 to 175,000 in 1977. The demand for the Microhæmagglutination-Treponema pallidum (MHA-TP) decreased 19 per cent from 6,800 in 1976 to 5,500 in 1977, and the Fluorescent Treponemal Antibody-Absorption (FTA-ABS) test decreased 14 per cent from 6,700 in 1976 to 5,700 in 1977.

During 1977, exudates from 328 patients were examined by darkfield microscopy and by the Direct Fluorescent Antibody-Treponema pallidum (DFA-TP) technique. In 19 patients (6 per cent) the examinations were positive.

PARASITOLOGY

The number of specimens submitted for examination for parasites increased by 19 per cent from 22,001 in 1976 to 26,225 in 1977. Parasites were found in 4,993 specimens, or 19 per cent of those examined.

Intestinal Parasites

The numbers of fæces specimens showing protozoal parasites in 1977 were

Usually considered pathogenic—*Giardia lamblia* (1,275) and *Entamœba histolytica* (166).

Generally considered nonpathogenic—*Entamœba coli* (1,116), *Endolimax nana* (978), *Iodamœba butschlii* (149), *Chilomastix mesnili* (69).

Pathogenicity uncertain—*Entamœba hartmanni* (107), *unidentified Entamœba* cysts (66), and damaged cysts (83).

The number of fæces specimens showing helminth eggs in 1977 were *Trichuris trichiura* (872), *hookworms* (600), *Clonorchis sinensis* (394), *Ascaris lumbricoides* (217), *Hymenolepis nana* (93), *Enterobium vermicularis* (93), *Tricho-*

strongylus spp. (23), *Schistosoma mansoni* (21), *Diphyllobothrium latum* (4), *Tænia* spp. (4), *Metagonimus* spp. (3), *Schistosoma hæmotobium* (3), *Fasciola hepatica* (2).

Hookworm larvæ (61) and larvæ resembling *Strongyloides stercoralis* (55) were also seen.

The following mature helminths were identified: *Ascaris lumbricoides* (36), *Enterobius vermicularis* (6), proglottids of *Tænia saginata* (5), and unidentified (2), *Diphyllobothrium latum* (4), *Strongyloides stercoralis* (2).

The larva of *Dermatobia hominis* was obtained by skin biopsy of a man returning from Guatemala.

The number of anal swabs examined for *Enterobium vermicularis* (pinworm) was 1,150, which was similar to the number in 1976.

Six ectoparasites were identified: *Phthirus pubis* (1), ticks (3), and nits (2), *Dermacentor andersoni* (2), and *Ixodes pacificus*.

Blood Parasites

The number of blood films examined for malaria parasites increased by 59 per cent from 440 in 1976 to 701 in 1977. The number of patients investigated rose by more than 200 per cent from 177 in 1976 to 394 in 1977.

Serology

Parasite antibodies were demonstrated at the Institute of Parasitology (or other reference laboratories) in 90 serum specimens: Helminth—*Ascaris* (2), visceral larva migrans (18), *Trichinella* (5), *Filaria* (14), *Paragonimus, Schistosoma* (14), *Fasciola, Echinococcus* (4); Protozoa—*Entamœba histolytica* (9), *Leishmania* (2), *Trypanosoma, Plasmodium, Toxoplasma* (17).

Requests for recently introduced Indirect Hæmagglutination (IHA) and Indirect Fluorescent Antibody (IFA) tests for *Toxoplasma* increased from 467 in 1976 to 806 in 1977.

MYCOLOGY

Dermatophytes

The number of specimens yielding dermatophytes increased by 9 per cent from 461 in 1976 to 509 in 1977. The dermatophytes most frequently isolated were *Trichophyton rubrum, Trichophyton mentagrophytes,* and *Microsporum canis*.

Systemic Fungi

Coccidioides immitis was isolated from lung biopsy of two patients. *Cryptococcus neoformans* was grown from cerebrospinal fluid of one patient.

Fungal Serology

Fungus antibodies were demonstrated at reference laboratories in 24 serum specimens: *Histoplasma* (18), *Coccidioides* (2), *Cryptococcus* (2), and *Aspergillus* (2).

ENVIRONMENTAL MICROBIOLOGY

The number of water samples examined by the coliform test increased by 22 per cent from 32,178 in 1976 to 39,366 in 1977. Of these samples, 3,480 were also examined by the completed coliform test; an increase of 17 per cent from the previous year (2,963 in 1976). There was an increase of 33 per cent in the number of 5/5 confirmed test results for drinking-water samples from 394 in 1976 to 524 in 1977. The fæcal coliform test was done on 9,716 samples (6,809 in 1976).

This increase of 43 per cent was due in part to an 83-per-cent increase in the number of bathing-beach samples, submitted and examined by the fæcal coliform test (3,307 in 1977 compared with 1,805 in 1976). The Standard Plate Count was done on 3,249 samples. This was an increase of 5 per cent from 3,108 in 1976. The number of samples examined and reported for algæ identification was one (four in 1976).

In the spring of 1976 the Department of Lands, Forests, and Water Resources and the Department of Health implemented a new water analysis service, namely, Public Analyses, for the residents of this Province. This service is provided at a subsidized cost of $5 for chemical and bacteriological analysis of private water supplies, only to determine its suitability for domestic purposes. From May 1, 1976, to September 30, 1976, 211 samples were submitted to the Division of Laboratories for the coliform test. During this same period in 1977, 256 samples were submitted (a 21-per-cent increase), for a total number of 652 samples from October 1, 1976, to September 30, 1977.

During this past year the new computerized laboratory/requisition report form was introduced and is being used by only two health units of the Ministry of Health, and by two branches of the Ministry of the Environment for results to be entered into the computer system.

With the introduction of a Province-wide courier system for shipment of samples to the laboratory, a marked reduction in transit time (compared with the mail system) has been noted. This system has proved to be of benefit in the water microbiology section in the shipping of large numbers of those samples requiring refrigeration during transit.

VIROLOGY SERVICE

The 516 viruses isolated or identified serologically were influenza, parainfluenza, and respiratory syncytial viruses (121), adenoviruses (22), mumps and measles viruses (33), rubella virus (12), enteroviruses (52), herpesvirus (251), mycoplasma (15), cytomegalovirus (7), rotavirus (1), varicella-zoster (1), LGV (1).

Influenza Viruses

The influenza season began in late January 1977, when Influenza A/Victoria was isolated and seroconversions to influenza A were demonstrated. In March the first Canadian isolate of the new strain of influenza A/Texas/77 was made from a patient in Surrey. During the first week of August 1977 a group of Australian soldiers arrived at Canadian Forces Base Esquimalt with symptoms of influenza. There was a total of 91 primary cases (Australians) in an 18-day period. Among Canadian Forces personnel there were 20 secondary and five tertiary cases. Influenza A/Texas/77 has been isolated from five of these soldiers, with an additional 98 showing antibodies to the A/Texas strain.

Rapid Diagnosis of Viral Infections

With the use of instruments such as the ultracentrifuge and the electron microscope the Virology Service can now diagnose many viral diseases in a matter of minutes or hours where previously days or weeks may have been required. Virus infections during pregnancy which are capable of causing congenital defects in the developing fœtus, e.g., rubella, cytomegalovirus, and herpes simplex are now diagnosed using these techniques.

EVENTS IN 1977

Branch Laboratories

The Nelson Branch Laboratory was reopened on December 7, 1976, with Mrs. Alvina Malone, technologist-in-charge, and service was provided to the Selkirk (No. 2), West Kootenay (No. 3), and East Kootenay (No. 1) Health Units during 1977 with the help of a second technologist.

The Victoria Branch Laboratory at Royal Jubilee Hospital continued to provide on contract good service to the Capital Regional District.

Visits

At the request of the Health Officers' Council, the Director and Associate Director of the Laboratories continued their visits to health units in 1977 to discuss with attending and laboratory physicians the services and role of the Public Health Laboratories in the control of communicable disease.

ACTION B.C.

For Action B.C., 1977 has been the busiest year ever. It continued to promote and create opportunities for life-style change through increased physical activity, sound nutrition, and positive living habits. With the mobile unit, the small core team covered the Province from Vancouver to Fort St. John, the Queen Charlottes to the Kootenays. The main areas of emphasis have remained schools, industry, and the community.

During the year, with the help of Action B.C., nine school districts, namely, Prince George, Dawson Creek, Abbotsford, Nanaimo, Langley, West Vancouver, Revelstoke/Golden, and Coquitlam were involved in a daily physical education program for their students and many staff. By the year's end several more districts had expressed the intention to become involved in this movement toward the twin emphasis of "a healthy mind and a healthy body." Combined with the activity program, Action B.C. introduced (following the 1976 PNE Pilot Project) a computerized 24-hour nutritional evaluation which provides an analysis of the daily intake of any individual's food. This proved immensely popular, both in schools and the community, where over 15,000 printouts were processed. By 1978 a seven-day analysis will be available for all those who want a more in-depth study of their food habits. Throughout the Province some thousands of teachers and parents were involved in learning and assisting with the fitness testing procedures which took place in the schools. The materials, in-service training, and regular help provided by Action B.C. to the schools ensures that the program has a long-term effect. Many of the benefits are apparent in lessening of delinquency, lowering of absenteeism, and in all cases a general sense of well-being which increases with a healthy, active environment.

Industry is an area which is gradually awakening to many of these benefits. The realization that there is a decided advantage (both socially and economically) to having a healthy staff was providing Action B.C. with an increasingly large number of requests from firms and agencies, both large and small.

Action B.C. provides on-site fitness testing, health hazard appraisals, nutrition analysis, and a counselling session. Employees are encouraged to go on group or individual programs, and Action B.C. trains the leaders and provides a retest after an appropriate time has elapsed. Industry has shown they have other

needs which Action B.C. can fulfil. These fall in the areas of stress reduction, relaxation, and pre-retirement counselling. Aerobic dancing has also proved popular with the men and women of all ages.

In the community at large, the mobile unit proved invaluable in providing services throughout the Province. Fitness Festivals, which give a wide public exposure to a variety of healthy life-styles, will continue to be a major focus in community work. Action B.C.s attendance at conferences in the roles of testers, meal planners, and activity organizers is always popular.

In the Ministry of Health's display at the PNE during the year, 20,000 people participated directly in the fitness testing, nutrition analysis, and children's obstacle course.

The Action B.C. Perinatal Nutrition Program, which is operated from the Burrard Health Unit in Vancouver, made a highly successful contribution to the health of mothers and babies.

Health units continued to play an important part in helping Action B.C. make contact with the communities and learn their specific problems.

In 1978, Action B.C. hopes to expand its teen-age smoking cessation program, the seven-day nutrition printout, and add more school districts on daily physical activity programs.

COUNCIL OF PRACTICAL NURSES

The British Columbia Council of Practical Nurses, under the authority of the *Practical Nurses Act,* has completed 13 years of its mandate under this Act. The 10 members of the Council are appointed by Order of the Lieutenant-Governor in Council on the basis of nominations by the

- Minister of Health (two members);
- College of Physicians and Surgeons of B.C. (one member);
- Registered Nurses' Association of B.C. (two members);
- Minister of Education (one member);
- British Columbia Health Association (one member);
- Licensed Practical Nurses' Association of B.C. (three members).

During council meetings over the years, 14,541 applications for licensure were received; the disposition of these is given in Table 10. Consideration was given to graduates of college and hospital programs in the Province and to a large number of applicants from outside British Columbia and Canada. Of these, licences were issued to 374 British Columbia graduates and to 244 applicants trained outside the Province.

VOLUNTARY HEALTH AGENCIES

The Ministry of Health continued to give financial support to a wide range of voluntary health agencies. The majority of these agencies provide service to persons suffering from chronic debilitating conditions who have special needs beyond the scope of health services routinely available, and to certain disadvantaged socio-economic groups in the population. Over $2.7 million in grants was awarded to these agencies for the 1977/78 fiscal year.

Table 1—Reported Communicable Diseases, British Columbia, 1973–77

(Rate per 100,000 population)

Disease	1973		1974		1975		1976		1977	
	Number of Cases	Rate	Number of Cases	Rate	Number of Cases	Rate	Number of Cases	Rate	Number of Cases	Rate
Amœbiasis	------	------	2	0.1	1	0.1	1	0.1	1	0.1
Brucellosis	------	------	------	------	1	0.1	------	------	2	0.1
Diarrhœa of the newborn (*E. coli*)	29	1.3	52	2.2	49	2.0	52	2.1	57	2.3
Diphtheria	51	2.2	69	2.9	22	0.9	11	0.5	7	0.3
Dysentery, type unspecified	34	1.5	91	3.8	97	3.9	93	3.8	70	2.8
Food infection—										
Salmonellosis	320	13.9	302	12.6	456	18.6	321	13.2	307	12.3
Unspecified	36	1.6	7	0.3	33	1.3	3	0.1	------	------
Food intoxication—										
Staphylococcal	25	1.1	------	------	------	------	------	------	------	------
Botulism	------	------	2	0.1	------	------	------	------	1	0.1
Hepatitis—										
Infectious	1,755	75.8	1,381	57.7	962	39.2	745	30.7	884	35.4
Serum	25	1.1	11	0.5	10	0.4	12	0.5	15	0.6
Leprosy	1	0.1	------	------	1	0.1	------	------	------	------
Meningitis—										
Bacterial	47	2.0	43	1.8	33	1.3	47	1.9	40	1.6
Viral	20	0.9	12	0.5	16	0.7	11	0.5	14	0.6
Pertussis	102	4.4	66	2.8	49	2.0	77	3.2	45	1.8
Poliomyelitis	1	0.1	------	------	------	------	------	------	1	0.1
Rubella	77	3.3	342	14.3	476	19.4	69	2.8	78	3.1
Rubeola	158	6.8	573	23.9	1,149	46.8	181	7.4	310	12.4
Shigellosis	212	9.2	203	8.5	184	7.5	120	4.9	101	4.0
Streptococcal throat infection and scarlet fever	836	36.1	789	32.9	739	30.1	698	28.7	539	21.6
Tetanus	------	------	------	------	------	------	2	0.1	1	0.1
Trichinosis	1	0.1	------	------	------	------	------	------	------	------
Tularæmia	1	0.1	------	------	------	------	------	------	------	------
Typhoid and paratyphoid fever	3	0.1	6	0.3	8	0.3	7	0.3	9	0.4
Totals	3,734	161.3	3,951	165.0	4,286	174.4	2,450	100.8	2,482	99.4

Table 2—Reported Infectious Syphilis and Gonorrhœa, British Columbia, 1946, 1951, 1956, 1961, 1966, and 1971–77

Year	Infectious Syphilis		Gonorrhœa	
	Number	Rate[1]	Number	Rate[1]
1946	834	83.0	4,618	460.4
1951	36	3.1	3,336	286.4
1956	11	0.8	3,425	244.9
1961	64	3.9	3,670	225.3
1966	71	3.8	5,415	290.8
1971	73	3.4	7,116	325.7
1972	98	4.4	7,921	352.5
1973	101	4.4	8,955	386.6
1974	146	6.1	9,284	387.6
1975	174	7.1	9,793	398.6
1976[1]	106	4.3	9,728	394.4
1977[2]	70	2.8	9,800	392.4

[1] Rate per 100,000 population. [2] Preliminary.

Table 3—Selected Activities of Provincial Public Health Nurses, September 1, 1976, to August 31, 1977[1]

A. Maternal and child health—	
Expectant parent classes, series enrolment—	
Mothers	9,773
Fathers	6,697
Total class attendance	48,043
Prenatals—number of home visits	4,825
Postnatals and new infants—number of home visits	22,574
Infants—	
Number of visits to Child Health Conferences	57,978
Number of home visits	42,770
Pre-school—	
Number of visits to Child Health Conferences	69,360
Number of home visits	27,337
Special assessments—infant and pre-school	22,530
School—	
Screening tests	190,544
Follow up	24,033
Conferences with students	24,533
Conferences with staff	68,781
Home visits	30,762
B. Family, adult, and geriatric (excluding Home Care Program)—	
Adult (ages 19–64 years)—number of visits	119,929
Adult (ages 65 and over)—number of visits	121,461
Geriatric clinic attendance	271
Family planning clinic attendance	752
Community care facilities—number of visits	5,794
Mental retardation—number of home visits	1,499
Mental health (preventive counselling)—number of home visits	5,345
Mental illness—number of home visits	4,578
Family problems—number of home visits	7,951
C. Disease control—	
Immunizations—number given	406,512
Tests (tuberculosis, diphtheria, and other)	26,781
Venereal disease—number of visits	6,896
Tuberculosis—number of visits	5,591
Infectious hepatitis—number of visits	1,755
Chronic disease—number of visits	12,812
D. Total—	
Home visits by public health nurses	233,125
Professional services by telephone	257,422

[1] Statistics provided are for activities of Provincial public health nurses only and do not include activities of public health nurses employed in Greater Vancouver, New Westminster, and Capital Regional District areas.

Table 4—Patients Admitted to Home Care Programs and Nursing Visits Carried Out, 1976

Area or Program	Number of Patients	Number of Nursing Visits
Provincial health units	9,859	184,562
Capital Regional District	5,381	79,782
New Westminster	429	6,027
Vancouver, Burnaby, Richmond, North Shore	11,128	201,865
Hospital Replacement Program (British Columbia)	12,907	124,177
Totals	39,704	596,413

Table 5—Number of Patients and Number of Nursing Visits, Home Care Programs, 1972–76

Year	Number of Patients	Increase		Number of Nursing Visits	Increase	
		Number	Per Cent		Number	Per Cent
1972	13,711	.....	.....	218,038	.....	.....
1973	18,925	5,214	38.0	274,978	56,940	26.1
1974	24,153	5,228	27.6	342,813	67,835	24.7
1975	34,621	10,468	43.3	496,198	153,385	44.7
1976	39,704	5,083	14.7	596,413	100,215	20.2

Table 6—Selected Activities of Provincial Public Health Inspection, 1973–77

Type of Inspection or Activity	1973	1974	1975	1976	1977
Inspection—					
Food premises—					
Eating and drinking places	9,668	10,051	11,107	10,525	13,713
Food stores	1,962	2,553	2,392	2,366	3,434
Other	1,064	1,512	2,045	1,972	2,028
Factories	437	561	343	156	117
Industrial camps	280	305	317	348	278
Community care[1]	2,442	3,139	3,013	2,464	2,437
Schools	546	1,013	544	587	771
Summer camps	274	300	266	312	286
Housing	1,603	1,672	1,653	1,308	1,516
Mobile-home park	1,946	2,199	2,015	1,355	860
Camp-sites	1,567	1,344	1,249	1,138	977
Other housing	418	600	666	474	504
Hairdressing places	365	370	396	396	628
Farms	387	400	367	309	253
Parks and beaches	318	352	388	300	505
Water and waste investigation—					
Swimming-pools—					
Inspection	1,801	2,094	2,613	2,126	2,770
Samples (pools and beaches)	1,516	1,153	1,791	1,626	2,307
Surveys (sanitary and other)	518	430	445	425	544
Waste disposal	917	890	720	616	597
Public water supplies—					
Inspection	1,516	1,496	1,915	1,861	2,343
Samples	5,716	5,370	6,663	7,790	10,050
Private water supplies—					
Inspection	2,431	2,665	2,953	3,221	3,350
Samples	2,692	3,717	3,179	3,273	3,616
Pollution and survey samples	1,543	563	722	512	742
Private sewage disposal	22,585	26,251	24,367	26,608	34,797
Municipal outfalls and plants	528	430	384	320	232
Other sewage control	772	686	1,518	4,726	4,579
Land use investigation—					
Subdivisions	5,395	6,140	5,259	6,255	7,119
Site inspections	11,719	14,786	14,208	13,749	12,650
Nuisance investigation—					
Sewage	3,440	3,361	3,350	3,370	3,468
Garbage and refuse	1,370	2,107	1,769	1,373	1,755
Other (pest, etc.)	2,740	2,776	2,763	2,345	3,258
Disease investigation	314	541	813	609	827
Educational activities	1,535	1,479	1,284	1,255	1,583
Meetings	3,225	3,330	3,226	2,819	3,145

[1] Includes boarding-homes, youth hostels, day care centres, hospitals, and other institutions.

Table 7—Registrations, Certificates, and Other Documents Processed by Division of Vital Statistics, 1976 and 1977

	1976	1977
Registrations accepted under *Vital Statistics Act*—		
Birth registrations	36,806	36,930[1]
Death registrations	19,137	18,740[1]
Marriage registrations	22,080	20,990[1]
Stillbirth registrations	372	330
Adoption orders	1,794	2,240[1]
Divorce orders	9,036	7,980[1]
Delayed registrations of birth	289	293
Registration of wills notices accepted under *Wills Act*	40,877	45,607
Total registrations accepted	130,391	133,110
Legitimations of birth effected under *Vital Statistics Act*	298	279
Alterations of given name effected under *Vital Statistics Act*	275	283
Change of name applications granted under *Change of Name Act*	2,054	3,050[1]
Materials issued by the Central Office—		
Birth certificates	89,120	95,243
Death certificates	9,527	9,866
Marriage certificates	10,141	10,887
Baptismal certificates	7	21
Change of name certificates	2,095	3,131
Divorce certificates	319	331
Photographic copies	12,007	12,608
Wills notice certification	12,663	12,334
Total items issued	135,879	144,421
Nonrevenue searches for Government ministries by the Central Office	15,531	14,905
Total revenue	$539,472	$594,750[1]

[1] Preliminary.

Table 8—Case Load of Division for Aid to Handicapped, 1977

Cases under assessment or receiving services, January 1, 1977			1,243
New cases—			
Referred to Aid to Handicapped Committees in Vancouver Metropolitan Region and North Fraser Region (11 committees)	527		
Referred to Aid to Handicapped Committee outside Vancouver Metropolitan Region (37 committees)	481		
Referred from other sources	-----		
Cases reopened (all regions)	214		
Total new referrals considered for services (including reopened)		1,222	
Total cases provided with service in 1977			2,465

Cases Closed During 1977

Rehabilitated—			
Employment placement made by—			
Canada Manpower	54		
Aid to Handicapped	7		
Self	160		
Other	104		
Total placed in employment		325	
Job placements not feasible, restorative services completed		341	
Not rehabilitated—			
Severity of disability	120		
Unable to locate clients	133		
Other	360		
Total not rehabilitated		613	
Other reason—			
No disability	2		
No vocational handicap	14		
Deceased	6		
Total other reasons		22	
Total cases closed in 1977			1,301
Cases remaining in assessment or receiving services, December 31, 1977			1,164

Table 9—Tests Performed by Division of Laboratories, 1976 and 1977

Item	1976			1977		
	Main	Nelson[1]	Victoria[2]	Main	Nelson	Victoria
Bacteriology Service						
Enteric Section—						
Cultures—						
Salmonella/Shigella	13,022	167	4,785	12,933	137	5,374
Enteropathogenic *E. coli*	3,236	.....	1,333	3,536	.....	1,063
Food poisoning	242	.....	34	271	.....	30
Miscellaneous Section—						
Cultures—						
C. diphtheriæ	2,938	15	3,025	1,879	33	2,416
Hæmolytic Staph./Strep.	4,018	87	129	4,444	413	159
Miscellaneous	20,158	53	12	28,077	37	7
Fungus	3,661	.....	.....	3,957	.....	.....
N. gonorrhœæ	28,201	157	8,320	25,192	302	8,212
Smears—*N. gonorrhœæ*	96,893	2,174	1,782	100,127	1,030	688
Immunofluorescence—*N. gonorrhœæ*	4,526	.....	.....	5,802	.....	.....
Animal virulence	178	.....	.....	146	.....	.....
Tuberculosis Section—						
Cultures—*M. tuberculosis*	35,058	.....	1,894	30,834	.....	2,128
Smears—*M. tuberculosis*	25,373	.....	1,575	28,066	.....	1,898
Sensitivity tests	1,010	.....	.....	974	.....	.....
Atypical mycobacteria	326	.....	.....	312	.....	.....
Animal inoculation	618	.....	.....	597	.....	.....
Parasites—						
Fæces	22,001	.....	2,907	26,225	.....	2
Pinworm swabs	1,138	29	.....	1,150	18	3,330
Malaria blood film	440	.....	.....	701	.....	.....
Water Microbiology Section—						
Presumptive/Confirmed coliform test	32,178	2,212	4,170	39,366	2,807	5,973
Completed coliform test	2,963	304	891	3,480	405	325
Fæcal coliform test	6,809	.....	414	9,716	.....	1,305
Fæcal streptococcal test	8	.....	.....	.....	.....	.....
Standard plate count	3,113	.....	.....	3,249	.....	.....
Other tests (algæ, shellfish)	4	.....	.....	1	.....	.....
Serology Section—						
Syphilis—						
Screening	186,246	.....	4,349[2]	180,564	.....	.....
Confirmatory	13,890	.....	.....	5,646	.....	.....
ASTO	7,284	.....	893	6,977	.....	.....
Widal, Brucella, Heterophile-antibody	4,398	.....	951	4,082	.....	618
Immunofluorescence	2,266	.....	.....	8,378	.....	1,027
Toxoplasmosis	467	.....	.....	806	.....	.....
Virology Service						
Virus isolation—						
Tissue culture	3,531	.....	.....	5,016	.....	.....
Rubella	243	.....	.....	158	.....	.....
Embryonated egg	1,271	.....	.....	414	.....	.....
Mouse	325	.....	.....	134	.....	.....
Serological identification—						
Hæmagglutination inhibition—						
Rubella	51,707	.....	.....	54,368	.....	.....
Other viruses	4,553	.....	.....	7,825	.....	.....
Complement fixation	7,866	.....	.....	11,468	.....	.....
Neutralization	3,796	.....	.....	8,167	.....	.....
Electron microscopy	184	.....	.....	420	.....	.....
Totals	596,139	5,198[1]	37,464	625,457	5,182	34,555
Combined totals	638,801			665,194		

[1] Nelson Branch Laboratory was closed for two months.
[2] Victoria Branch Laboratory transferred syphilis serology to Main Laboratory.

Table 10—Licensing of Practical Nurses

(Disposition of applications received since inception of program in 1965 to December 6, 1977)

Received				14,541
Approved—				
On the basis of formal training		8,799		
On the basis of experience only—				
Full licence	396			
Partial licence	876			
		1,272		
			10,071	
Rejected			1,968	
Deferred pending further training, etc.			1,955	
Deferred pending receipt of further information from applicants			455	
Awaiting assessment at December 6, 1977			92	
				14,541
Number of licences issued to December 6, 1977				9,392
Number of practical nurses holding currently valid licences at December 6, 1977				6,580

Table 11—Number of Cases Referred for Hearing Assessment, by Source, Division of Speech and Hearing, 1977

Item	Referral Source			Total
	Physician	Public Health Nurse	Other[1]	
Number of referrals	4,636	714	451	5,801

[1] High-risk hearing register, public health clinics, etc.

Table 12—Number of Cases Referred for Hearing Assessment, by Type of Evaluation, Division of Speech and Hearing, 1977

Item	Type of Evaluation				
	Initial Assessment	Reassessment	Hearing-aid Evaluation and Rehabilitative Audiology	Other	Total
Number of cases	3,078	1,190	1,440	93	5,801

Table 13—Hearing-impaired Cases, by Degree and Type of Impairment, Division of Speech and Hearing, 1977

Type of Impairment	Degree of Impairment				Total of Each Type
	Mild	Moderate	Severe	Profound	
Conductive	803	159	4	----	966
Sensorineural	1,067	1,050	666	228	3,011
Mixed	71	163	122	18	374
Totals of each degree	1,941	1,372	792	246	4,351

Number of hearing-impaired	4,351
Number of normals assessed	1,450
Number assessed	5,801

Table 14—Numbers of Community Care Facilities and Capacities, by Permit Status for the Three Categories of Facility, 1975–77

A. ADULT CARE FACILITIES

Year	Interim Permit		Licences		Surrendered		Final Count	
	Facility	Capacity	Facility	Capacity	Facility	Capacity	Facility	Capacity
1975	59	1,792	453	14,534	130	1,928	382	14,398
1976	53	1,291	449	15,085	78	1,281	424	15,095
1977	51	1,734	465	15,008	30	511	486	16,231

B. CHILD CARE FACILITIES

1975	155	2,229	909	16,786	267	4,130	797	14,885
1976	192	2,694	929	16,869	308	4,034	813	15,529
1977	235	3,063	1,005	17,866	75	900	1,165	20,029

C. CAMPS

1975	59	5,395	75	5,942	16	819	118	10,518
1976	54	4,814	83	6,868	6	129	131	11,553
1977	58	4,905	82	6,979	1	50	139	11,834

Mental Health Programs

On October 12, 1872, just 14 months after British Columbia's entry into Confederation, Mental Health Programs had its beginnings when the Royal Hospital in Victoria was designated as the Provincial Asylum. The management of the institution was placed under the jurisdiction of Mental Health Services in the Provincial Secretary's Department, where it remained until 1959, at which time it was transferred to the Department of Health and Welfare and became known as the Mental Health Branch.

With the change in name to Mental Health Programs in 1975, as part of the reorganization of the Department of Health, the branch transferred the operation of the various mental health institutions to the Division of Government Health Institutions, and became solely responsible for the development of mental health services at the community level.

A review of the year's operations of the various community services throughout the Province appears on the following pages:

MENTAL HEALTH PROGRAMS HIGHLIGHTS

- There were over 11,000 admissions for service in the Province's 31 mental health centres. The year-end case load was over 12,600 persons. While direct treatment services consumed the bulk of staff time, many community services, such as consultation and education, were also provided.
- Admissions to the Greater Vancouver Mental Health Service totalled over 2,300 and the year-end case load was over 2,600.
- A comprehensive computerized Management Information System, which incorporates Goal Attainment Scaling, was instituted in all mental health centres and community care teams. This system will provide routine feedback regarding case-load and work-load data, problems addressed, and attainment of therapy goals. In addition, the system is designed to allow large-scale data collection for research purposes.
- The implementation of a detailed planning process resulted in a definition of 10 basic mental health service programs. These 10 programs will be used in planning for in-service education, budgeting, and local needs assessment.

COMMUNITY MENTAL HEALTH CENTRES

Mental health centres have been established in 30 British Columbia communities. The function of each centre is to develop, in co-operation with existing resources within the community, a variety of services designed to meet the specific mental health requirements of the area served.

Mental health centres are located in the following communities: Abbotsford, Burnaby, Chilliwack, Courtenay, Cranbrook, Duncan, Fort St. John, Kamloops, Kelowna, Langley, Maple Ridge, Nanaimo, Nelson, New Westminster, Penticton, Port Alberni, Port Coquitlam, Powell River, Prince George, Prince Rupert, Saanich, Sechelt, Squamish, Surrey, Terrace, Trail, Vernon, Victoria, Whalley, and Williams Lake.

A centre is staffed by a team of experts in mental health and may include a psychiatrist, a psychologist, psychiatric social workers, mental health nurses, and other professional personnel.

The majority of the centres provide the following services in varying proportions:

- Direct treatment services for adults and children.
- Consultative services to physicians, health, welfare, educational, and correctional agencies.
- Educational programs, both professional and nonprofessional.
- Special programs such as the supervision of the long-term patient, preventive programs, boarding-home care, special group homes, etc.

Members of a mental health centre may make periodic visits to outlying districts of the area served by the centre, primarily to provide diagnostic assessment, consultation, and referral services. This travelling clinic usually utilizes facilities provided by the local health units, and on an appointment basis sees patients who have been referred by the family doctor or the district public health or welfare

services. When necessary, after seeing the patient, the clinic may refer the patient back to the family doctor, in some cases to school authorities, or on occasion may recommend admission to a residential treatment facility. Treatment by the clinic team is usually given in close co-operation with the family doctor, the health unit, or other agency.

During 1977, emphasis was placed on making Community Mental Health Programs as efficient as possible, both through internal streamlining and externally through better co-ordination with various community agencies. Staff worked very hard to attempt to meet community demand for services.

Regional reports of the community mental health centres follow:

VANCOUVER ISLAND REGION

The Vancouver Island Region was serviced by mental health teams located in Courtenay, Powell River, Duncan, Nanaimo, Port Alberni, Victoria, and Saanich. In addition, Integrated Services provides direct and indirect service primarily to children located in the Capital Regional District (see page 79).

During the year the number of cases carried by teams in the Vancouver Island Region totalled 2,342. The number of new cases opened in the region was 2,151.

A large proportion of services provided by Vancouver Island centres related to direct treatment, with the remaining time spent in consultation and indirect services such as community education.

Outlying rural areas of the region continued to be serviced by travelling clinics, the areas most notable being the extreme northern end of Vancouver Island, including Port Hardy, and the Tofino-Ucluelet area, which was serviced by the Port Alberni Mental Health Centre.

The *Courtenay Centre,* in conjunction with the North Island College, was active in providing training to those people involved in mental health related activities. A survey of community needs was initiated in the Campbell River area with a view to addressing community problems.

The *Port Alberni Centre* continued its efforts to facilitate the establishment of a small in-patient psychiatric unit to service the catchment area. Group treatment services to adolescents and adults continued to be a primary direct service strategy.

The *Nanaimo Mental Health Centre* was embarking on a program emphasizing services to pre-school-age children. This program was being operated on a team basis in conjunction with other statutory and non-statutory agencies. Necessarily, the centre increased the provision of direct service consultation.

The *Duncan Mental Health Centre* continued to provide a complete range of direct services. The centre was especially active in the development of a Volunteers' Bureau to relate to the need of the mentally ill within the catchment area. The participation of the centre in inter-agency Liaison Team Meetings continued to be a significant service provided by the centre.

During the past year the *Victoria Mental Health Centre* obtained the services of a psychiatrist who related significantly to the Eric Martin Institute, adding to the flexibility of service delivery. The centre was active in the provision of field work placement for a variety of professional disciplines, including the provision of training in the area of art therapy. A growing relationship with the Canadian Mental Health Association resulted in a significant growth in the psychiatric boarding-home program.

The *Saanich Centre,* as a result of pressing community need, emphasized the provision of direct service in the area of crisis and transitional intervention. With the very significant help provided by student nurses from the University of Victoria, the centre completed a survey of abnormal parenting in the Capital Regional District. This report had significant implications in the planning of services.

At the year-end the *Powell River Centre* benefited from the addition of a part-time psychiatrist to their area. This enabled the centre's psychiatrist to emphasize community consultation and provide input related to mental health programming needs.

LOWER MAINLAND REGION

The Lower Mainland Region comprised teams located at Sechelt, Squamish, Abbotsford, New Westminster, Whalley, Surrey, Langley, Port Coquitlam, Maple Ridge, and Chilliwack. On a regional basis a total of 3,644 patients actively received services from mental health centre teams, effective the end of September 1977. A total of 2,595 patients initiated services during the past year.

The *Sechelt Centre* emphasized direct treatment services in the primary area of family and marital problems. The centre integrated well into the community it serves, with significant programs achieved through its involvement with the Sechelt Inter-Agency Committee.

The *Squamish Centre,* as in Sechelt, responded primarily to direct service clinical needs. The local management team in the area served as a vehicle for the facilitation of community mental health programming on a broad program basis. At the year-end, a psychiatrist was retained by the centre to provide sessional services.

The *Chilliwack Mental Health Centre,* as in many other areas, continued to show an increase in the number of self-referrals accepted for treatment services. A minimum waiting-period was regarded as a significant attribute to the service. A Creative Centre, largely developed and supervised by the mental health centre, provided a wide range of services to individuals experiencing emotional problems.

An expansion of the Boarding-home Program occurred in the *Abbotsford* area as a full-time boarding-home social worker was added to the complement of the centre.

Approximately 85 per cent of staff time at the *Langley Centre* was spent in direct-treatment services. The remainder of the time was expended on community involvement and education. A close relationship was maintained with Riverview Hospital as the centre psychiatrist was shared with that facility. A regular program of activities was provided by nursing staff to those patients experiencing more chronic disorders.

The *Maple Ridge Centre* and its suboffice in Mission, served a population of 42,000. The increasing number of self-referrals bore witness to the growing community acceptance of the centre. A large boarding-home population of 240 patients in 12 boarding-homes necessitated the centre developing an effective Independent Living Program, and a full range of occupational and recreational services for residents of the program.

Increasing population growth in the Surrey area increased the need for the *Surrey Centre* to provide training to lay and professional groups in the community. This added to the capability of the community to deal with its own diversified needs. Productive and co-operative relationships were developed with Surrey Memorial Hospital, and Peace Arch Hospital, with instructional sessions on psychiatric care to nursing staff.

The *Port Coquitlam Centre* continued its expansion of group programs, ranging from assertiveness training to parenting procedures. The pressure of new referrals necessitated this added service. The centre's teenage summer program made a significant contribution to community demand of a service to adolescents.

The *Whalley Mental Health Centre,* through the services of its psychologist, worked on the development of a screening battery for school-age children, with the objective of preventing emotional disturbance in later life. A close liaison with Riverview Hospital necessitated the development of an excellent chronic care program, largely through the efforts of the nursing staff.

The *New Westminster Centre* developed a group therapy program for patients receiving long-acting psychotropic medication. The opportunity for shared dialogue among people sharing a common experience resulted in an increased ability to keep patients within their own community. The centre arranged a Caregiving Workshop, which is available on request to professionals in the community. This workshop provided a basic orientation to new staff in the community, with respect to the basic principles of the helping process.

OKANAGAN-THOMPSON REGION

During 1977 the Consultant in Social Services continued to function as the Acting Program Director for the Okanagan-Thompson Region.

Monthly administrative meetings were instituted throughout 1977 in order to bring about a more comprehensive planning basis for the four mental health centres within the region and more opportunity for the Directors to compare operational notes on ideas with regard to program content and procedures.

This past year has seen a greater emphasis placed upon collaboration with other ministries and non-Governmental agencies. To this end the Okanagan-Thompson based mental health centres assisted in the sponsorship of an interministerial workshop on children's services in which 75 people from virtually every relevant agency participated. The object of the exercise was to assess the region in terms of its priorities in the delivery of services to children, and to identify areas in which improvement is necessary in programs and planning required.

Over all, client referrals have increased by about 20 per cent during this past year. Increased work loads have resulted in longer waiting-periods for services, and a depletion in the indirect services offered to the communities concerned. Of the 31 mental health centres serving the Province under the auspices of Mental Health Programs, the Kamloops, Vernon, Kelowna, and Penticton Centres are shown to fall within the top seven in terms of clients served per mental health worker.

In the *Kamloops Mental Health Centre,* direct services encompassing treatment for individuals, children, couples, and families have chiefly characterized the case load during the year. Travelling clinics are still being maintained on a monthly visitation basis to the communities of Merritt and Ashcroft and on a "on request" basis to Clinton, Lytton, and Lillooet. The total catchment area represents a population of roughly 85,000 persons.

Highlights for the Kamloops Centre for 1977 include the development of a contractual arrangement with community pharmacists to provide medication for patients directly under the care of the centre, a very full continuing education program for professional staff, and a very active summer student program serving the interests of patients within the boarding-home system.

The *Vernon Mental Health Centre* staff continued to service the communities of Vernon, Lumby, Armstrong, Enderby, Salmon Arm, Sicamous, and Revelstoke

during 1977. This covered a catchment area population of about 75,000 people. The mental health satellite project in Revelstoke (consisting of one resident mental health nurse) has now been placed under the administrative control of the Vernon Centre and is funded by the Community Care Services Society.

Individual, group, family, and marriage therapy with emphasis on reality-oriented brief or crisis services typify the case load of the Vernon Centre over the past year. In all, 744 new clients were admitted to these programs during this period. Indirect services have involved consultation to schools, a wide span of educational programs for both the professional and lay communities, as well as supportive services offered to the multiple sclerosis group, the new Mental Patients Association, and the Transition House for Separated Women.

Despite the full complement of professional staff, service demands, particularly in the area of family and marital therapy, have been almost overwhelming for the *Kelowna Mental Health Centre* in the last year. The waiting-period between date of referral and initial therapeutic contact had exceeded four months by mid-year. Opportunities for group marital therapy were developed in an attempt to cope with patient referral overload but, regrettably, services to couples requesting individual marital therapy had to be all but eliminated during the process.

Highlights of the Kelowna Centre's program in 1977 included the hiring of four well-qualified summer students. The additional services these students offered included marital therapy, crisis intervention, and a host of recreational and social activities for our chronically disabled clientele. Other highlights involved the opening of a day hospital service within the community, increased professional consultation to schools, the election of the occupational therapist as regional representative to the Program Advisory Committee, a very full and comprehensive continuing education program, and specialized consultation to the Cross-Roads Centre, Elizabeth Fry Society, Family Life Committee, and the Friends of Rape Victims.

Statistical reports reveal that as early as four years ago the *Penticton Mental Health Centre* staff were experiencing the effects of overload and greater demands of services from the region than the centre could possibly provide. This situation remains unchanged up to December 1977, with the Penticton staff carrying the heaviest patient load per professional within the Provincial mental health system.

Requests for marital and family therapy combine with a heavy chronic mentally ill case load to characterize the types of clientele serviced chiefly by the mental health centre.

Featured among the highlights of the centre's operation this year are the founding of a day care support program, under the auspices of the Penticton General Hospital, the development of a Morning Out for Moms Program in Summerland, and extension of recreational opportunities for the mentally and emotionally handicapped of Penticton and Summerland. The communities of Osoyoos, Oliver, Keremeos, and Princeton have also been served on a regular basis by the Penticton staff this year.

KOOTENAY REGION

Mental health centres in Cranbrook, Nelson, and Trail serve the Kootenay Region. Travelling clinics provide services to the surrounding communities of Golden, Fernie, Sparwood, Kimberley, Creston, Castlegar, Salmo, Nakusp, New Denver, Riondel, and Rossland. In addition, a suboffice of the *Trail Centre,* located in Grand Forks, provides services to that community and surrounding area. The population of the entire Kootenay Region is in excess of 127,000.

The three centres in the Kootenay Region had a combined average case load of over 1,100 clients each month. An average of 58 new cases were opened each month, adding to a steadily increasing demand for direct intervention services.

While direct service to individuals and families continued to receive the major portion of staff time, considerable primary prevention services have been provided. The following are examples of such services:

At the *Trail Centre,* numerous school conferences, meetings with psychiatric unit staff, case and educational discussions with probation officers, social service personnel, physicians, school counsellors, ministers and volunteers, were held. A consultative role is essential for a centre with a small staff since is adds to community service co-ordination and fosters the accessibility of mental health related programs to all segments of the community.

In the area of community and professional education, centre staff provided screening, orientation, and ongoing training of mental health volunteers.

In addition, both programs were provided with presentations, orientation, and reference material dealing with the mental health programs and specific centre services. A workshop was provided to Kinnaird Junior Secondary School teachers on adolescence. Castlegar parent groups, Kiwanis, and Rotary Annes requested, and were given, talks on the same topic. Three senior high school classes were provided with basic information through lectures on mental health problems. Parenting skills sessions were provided to a small group of single-parent mothers having serious personality and child management problems. The centre initiated and co-ordinated a community agency workshop focusing on interagency communication and the co-ordination of local services to children.

The *Trail Centre* stressed the need for increased assessment and treatment services to children and families, the provision of adequate follow-up care to chronically disabled adults, the provision of preventive educational-therapeutic parenting and marital programs, the value of effective research, and evaluation of services.

In *Nelson,* toward the year-end, there was considerable redirection of effort toward community development and education. Close co-operation and liaison were maintained with all social agencies such as Ministry of Human Resources, Public Health, Correctional units, and schools in all three school districts served by the centre.

A number of in-service education programs for groups in the community were offered, together with nurse training programs, child care courses, and consultation to various non-statutory agencies.

The Aid to Handicapped Committee was recommenced after being abandoned for several years in the area and is most valuable in finding solutions for socially, emotionally, and economically handicapped individuals.

The centre effectively supported a number of resources and community development committees such as the Justice Development Committee, ACCESS, Community Resources Board, and the Childhood Treatment Program. The crowning achievement of the year was the opening of ACCESS (Alcohol Treatment Centre), sponsored by the Drug and Alcohol Commission.

A short-stay residential home is projected for the near future.

Much effort was spent toward developing a meaningful chronic care program for the catchment area. At year-end a public health nurse was assigned to some aspects of chronic care, and the boarding-home worker was able to turn her attention toward that goal.

The centre provided training at various levels for social service and nursing students, in addition to a summer student program involved in assisting the Kootenay Society for The Handicapped Workshop, and Willowhaven private hospital,

for a variety of special cases. The Youth Activity Centre, originally initiated by the mental health centre, continued to function with minimal support.

More effort was extended this year in indirect community programs at the *Cranbrook Mental Health Centre.* The nurse and social worker taught parenting skills with the aid of the STEP group program. It was planned to continue this course on a permanent basis three times a year, revolving group leadership among each staff. The social worker committed himself to teaching several segments of a family life course at the local college.

The psychologist became extensively involved in family month this year and headed a committee to advertise and develop programs, as well as appearing several times on a local open-line radio show and local television station. Staff participated in other local community education events such as a local woman's conference and a school sex education program.

NORTHERN BRITISH COLUMBIA REGION

The Northern Mental Health Region includes mental health centres in Williams Lake, Prince George, Fort St. John, Terrace, and Prince Rupert. In addition, a satellite mental health unit is located in Kitimat which is administered by the *Terrace Mental Health Centre.* The various mental health teams also travelled to Ocean Falls, Bella Coola, Bella Bella, Quesnel, the Queen Charlotte Islands, Netlahatla, Kitkatla, Port Edwards, Fort Simpson, Hartley Bay, Hazelton, 100 Mile House, Dawson Creek, and Fort Nelson on a regular basis. Due to time and resource restrictions the various travelling clinics were only able to deal with the most serious problems and mostly aimed at assisting various community groups and agencies in identifying their needs, in achieving priority for these needs, and to seek solutions based on the efforts and strengths of the community itself. As the year ended, plans were being consolidated to place full-time additional personnel in Dawson Creek, Quesnel, Smithers, Burns Lake-Vanderhoof area, and the Queen Charlotte Islands. The services of the various mental health centres relate to a variety of services provided under the 10 mental health programs. These include an assessment and diagnostic program, a community education program, a community support program, a consultation program, a counselling program, a group therapy program, an individual therapy program, a rehabilitation program, a research and evaluation program, and a residential program.

Due to the combined efforts of the mental health centres' staff and the B.C. Division of the Canadian Mental Health Association, active community participation took place through a variety of volunteer programs, especially in *Williams Lake, Fort St. John,* and *Terrace.*

During the past year a comprehensive evaluation of local mental health needs and required services were evaluated for the communities in which mental health centres are located. The information will be used to improve co-ordination of services, and in future budgeting for mental health needs in the region. Other changes include a revised statistical and accountability system which was initiated in the last part of this year. New services provided by mental health personnel include a crisis and counselling program in *Williams Lake,* various community education and support programs such as workshops for foster parents, parent effectiveness courses, and teacher effectiveness training. A co-operative venture between a local newspaper in Prince George and representatives of various agencies, including mental health, was a weekly column on various aspects of social and health services.

GREATER VANCOUVER MENTAL HEALTH SERVICE

The Greater Vancouver Mental Health Service (GVHMS) completed its fifth year of operation in the summer of 1977 and is an integral part of the mental health delivery system for the area. The service is responsible for the operation of eight community care teams providing direct patient care in the community to a current case load of approximately 2,800 patients. Additionally, the Greater Vancouver Mental Health Service operates the following support facilities: Venture, a 10-bed short-stay crisis residence and a four-bed half-way house for men; Vista, an 11-bed half-way house for women; Blenheim House, a treatment program for disturbed pre-school children and their families; and Se-Cure, a program for agoraphobia. The GVMHS is participating in the development of sheltered workshops in order to provide additional support systems for patients living in the community.

The primary mandate of the GVMHS is to provide direct treatment services to the seriously mentally ill person in the community, and to provide service to disturbed families and children within available resources. The effectiveness of the service has been validated through a series of evaluative studies conducted by the Research Department. A Management Information System has been developed to provide information on case management and program implementation. Time spent in various key clinical activities is constantly monitored. Case loads, work loads, and cost data are printed out. Cost efficiency is reported and the amount of services received by each patient is listed. This Management Information System provides additional evaluative and planning data. The GVMHS has a Clinical Records Department which is responsible for the maintenance of a high standard of comprehensive, accurate, and up-to-date confidential clinical records of client care. These systems help to maintain a high performance standard for each team and facility.

Each community care team is working to capacity with an average patient load of 250–350. An essential part of the program is to act as a broker on behalf of the patient. This makes it vital to establish and maintain good working relationships with other agencies in the community, especially public health, Human Resources, Department of Manpower, local hospitals, and police. The teams use the community resources and programs in their area as a vital component of the treatment planning. Through the clinical expertise of the teams' multi-disciplinary staff, the GVMHS is able to provide a high standard of community psychiatric care. Programs are being developed which will enhance a delivery system of community mental health which is unequalled in Canada.

BURNABY MENTAL HEALTH SERVICES

Burnaby Mental Health Services continues to be British Columbia's only regionalized, decentralized, integrated, and comprehensive program of psychiatric services for adults, families, and children who are resident in this community.

In-patient unit—The 25-bed acute psychiatric in-patient unit treated large numbers of seriously disturbed patients, usually with brief hospitalization and without loss of ties with family, friends, and community. Although the unit is small, rapid intensive treatment maintained a high turn-over allowing service to a larger population than might otherwise be expected with the limited number of beds.

We are grateful for the kind assistance and co-operation of Riverview Hospital Intensive Care Unit, and Vancouver General Hospital Emergency Department for the occasional care of dangerous unmanageable patients.

Adult Day Programs—Burnaby continued to offer two distinct Adult Day Programs—an intensive five-day-per-week milieu program designed to produce major behavioural change and a part-time more gradual re-educative and socially rehabilitative program. New ventures this year included a gardening group on a plot rented from the Ministry of Agriculture, which proved very beneficial to a group of shy, withdrawn patients, and formal "courses" for patients in cooking, nutrition, and social skills.

The One-day Workshop for Psychiatric Day Programs in British Columbia, begun by the unit last year, has now become an annual event, and this year many of the staff attended a successful second meeting in February at the Eric Martin Institute, Victoria.

Adult Out-patient Programs—The three geographic Adult Out-patient Programs have continued to consolidate their position in the community, treating the acutely disturbed, as well as participating in the rehabilitation of the chronically mentally ill. This year the accommodation of the south team was improved.

The Burnaby Department of Human Resources has reorganized its services on a regionalized, decentralized plan, similar to the one which Burnaby Mental Health Services has been following for several years. Accordingly, revisions were being made to team boundaries to reduce confusion and improve co-operation with this important human service.

Children's Out-patient Services—The Children's Out-patient Services struggled bravely with enormous community demand and a shortage of trained personnel, which was somewhat alleviated late in the year by recruitment of a psychologist, a social worker, a nurse, and a co-ordinator for the pre-school, largely to replace previously vacant positions. A week-end of camping for the pre-school children and their families provided an additional therapeutic resource, and the popular summer program for children was offered again this year with the assistance of summer students.

Burnaby Mental Health Services continued to consult with community groups and organizations, including Burnaby physicians, Canadian Mental Health Association, Burnaby Health Department, Burnaby General Hospital, Burnaby Pre-Schools, Dogwood Lodge, Burnaby Achievement Centre, Parents in Crisis, etc. Many of the staff members have been asked to serve on advisory boards for community organizations, which was a gratifying recognition of the skills and service they provided the community.

Educational placements for students continued to be offered in registered and psychiatric nursing, psychology, social work, and occupational therapy, and to physicians serving a rotating internship.

The regular monthly in-service program of education was augmented this year by the June Provincial Community Mental Health Programs meeting, by a workshop on goal attainment scaling and new statistical procedures, and by attendance of many of the staff at sessions of the World Federation for Mental Health Congress in August at UBC. This last opportunity was made available through the generosity of the Provincial Ministry of Health and its support of this conference. In addition, a number of staff have had their competence recognized by being asked to provide workshops and teaching sessions, both locally and in various parts of the Province. Staff were also active in independent attendance at professional workshops, seminars, and courses to improve their knowledge and skills.

INTEGRATED SERVICES FOR CHILD AND FAMILY DEVELOPMENT, VICTORIA

During the year, Integrated Services expanded its emphasis on treatment services to children with the development of four basic teams, providing service in the areas of Early Child Development, Community Support Programs, Assessment and Consultation, and School Age Treatment Programs.

The training of professionals in fields related to mental health continued to be a significant service provided by Integrated Services.

Integrated Services received 488 referrals during 1977, of which 391 cases were accepted. Referrals came from general practitioners, medical specialists, Human Resources, school districts, parents, probation, and police, and public health and mental health centres. Open cases as of December 1977 numbered 250.

Cases carried by the Early Child Development Team were treated in two four-week programs and one six-week program. A total of 15 pre-school children with behavioural problems attended daily therapeutic programs.

In conjunction with School District No. 61, two demonstration project workshops were conducted for teacher-counsellors. These workshops aimed at developing skills in identification and remediation of learning problems. Teacher-counsellors received eight half-day sessions, during which they were given on-the-spot demonstrations and training. A total of eight teacher-counsellors participated, along with eight children selected for demonstrable problems needing remediation.

In collaboration with the Ministry of Health's Education and Information Division, a series of half-hour tapes was produced on parent effectiveness techniques. These were designed to model new skills for parents while fostering discussion of problems. The tapes are used in training groups for parents and can also be duplicated by other agencies.

A survey of service needs for children in the Capital Regional District was conducted, partly as a service to all agencies and partly for internal planning. This survey focused on deficits within the spread of services, and specified populations of clients being seen by most of the child-oriented agencies around Victoria.

Integrated Services has constantly been required to supply speakers and workshop leaders for a wide variety of community groups.

BRITISH COLUMBIA YOUTH DEVELOPMENT CENTRE, THE MAPLES

RESIDENTIAL AND DAY CENTRE PROGRAMS

The adolescent Residential and Day Centre Programs are located in Burnaby. They continued to provide a variety of services which include comprehensive consultation, assessment and treatment of psychological, social, and learning problems in adolescents. There are three self-contained residential cottages which provide living accommodations in separate wings for boys and girls who require intensive treatment on a round-the-clock basis. Treatment in the cottage is carried out in a warm, homelike atmosphere by a team of child care counsellors who are under the direction of a senior child care counsellor and are supported by psychiatric and social work staff. The Day Centre Program provides treatment for

adolescents who require support and counselling, yet are able to live either at home or in other suitable community facilities. They attend the centre on a daily basis. In addition, the centre serves as a transitional stage of treatment for some adolescents in the move from cottage to community. It also provides extended, intensive assessment for some adolescents prior to admission to the cottages. The day centre treats adolescents who require less structure in their daily life and can assume more responsibility than those in residence.

While in treatment the adolescents live in a milieu which promotes interpersonal relationships, personal growth, life skills, and responsibilities. Staff serve as healthy role models by encouraging age-appropriate activities such as school, athletics, recreation, and arts and crafts. Problem areas are worked on in individual, group, and family therapy.

All adolescents in the residential cottages and day centre attend school on the grounds on a regular basis. Most of the adolescents in care have experienced difficulty in the regular school system because of behavioural, emotional, or learning problems. They suffer primarily from a lack of basic educational skills. In our school there are special programs for adolescents having difficulty with reading, writing, mathematics, as well as other basic skills. The adolescents are given a comprehensive educational assessment and are then placed in individual programs that allow them to progress at their own rate. Educational staff work closely with cottage and day centre staff to ensure that therapeutic and educational goals are co-ordinated and complement one another. When indicated, some adolescents attend classes in nearby community schools. A major goal is to equip adolescents with the skills necessary to re-enter the regular school system, to attend vocational training courses, or to achieve job placement.

A variety of age-appropriate activities and programs are provided for the adolescents in care. These programs are designed to enhance a sense of accomplishment, self-worth, and independence. A gymnasium, swimming-pool, and arts and crafts centre are located on the grounds. Regular activities in these areas are provided for the adolescents by child care and residential staff. Special individualized programs such as art and dance therapy, drama, gymnastics, and swimming are designed to improve motor and expressive skills. Socialization is an important goal in the activity's program. Camping, ski-ing, movies, social events, and regular outings promote and develop social skills by bringing the adolescents into contact with the community.

Residential and Day Centre Programs ensure high standards of clinical practice by providing an ongoing, in-service training program leading to a diploma in child care. The planning and implementation of this program is under the direction of a training co-ordinator who works with the unit psychiatrists, social workers, psychologists, and child care counsellors in developing a curriculum which stresses an integrated approach to the treatment of adolescents. The in-service training program aims at skill development in child care and includes the following: Milieu, family, individual, and group therapy; interpersonal and group dynamics; assessment, supervision, cottage management, and administration; and personality growth and development. The unit is also affiliated with The University of British Columbia and provides field training to students from the University of Victoria and Douglas College. Field placement training is provided to psychiatric residents and students in social work, child care counselling, nursing, psychology, education, and recreational therapy.

Private physicians, psychiatrists, school counsellors, social workers, probation officers, and those working in mental health centres refer their clients to the Residential and Day Centre Programs. Once received, the referrals are assigned

to an interdisciplinary team for assessment and diagnostic recommendation. With the exception of seasonal lulls and staffing shortages, intake and admissions have remained steady. We continued to concentrate on treating the more seriously disturbed adolescent and his or her family.

During the fiscal year from April 1, 1976, to March 31, 1977, the Residential and Day Centre Programs of the B.C. Youth Development Centre received 161 referrals. Of these referrals, 140 assessments were completed. At the beginning of the fiscal year there were 34 adolescents in residence and nine adolescents in the Day Centre Program. During the fiscal year, 54 admissions were effected to the residence. Twenty-four admissions were effected to the day centre for a total of 78 admissions to the two programs during the year. In all, during the fiscal year, 88 adolescents were in receipt of residential treatment and 33 adolescents were in receipt of treatment in the Day Centre Program. In all, 83 adolescents were assessed but not admitted to either the Residential or Day Centre Programs for the following reasons:

(1) Inappropriate for either program.
(2) Withdrawn at the request of the referring agency.
(3) Refusal by client and/or their families.

In addition to those in the Residential or Day Centre Programs, 55 adolescents were receiving after-care services.

PSYCHOLOGICAL EDUCATION CLINIC

The Psychological Education Clinic provides a specialized therapeutic environment to assist children who are finding it impossible to cope in the school system. Problems that these children present are a combination of severe learning disorders and emotional difficulties. There are facilities for 50 children between the ages of 6 and 13. This past year a total of 63 children attended the program. All of these children have pronounced problems in their school, community, and/or home setting. Following an intake procedure which includes a school visit and home visit, the children who are accepted are placed according to chronological age in small groupings on a ratio of five children to one teacher. Their academic program is individually adjusted based on a success-oriented approach using positive reinforcement. The cognitive and emotional needs of the child are continually monitored and altered according to the current functioning level. In addition to the essential school subjects and the social interaction milieu of the program we include a series of camping experiences. The usual length of time for these outings is four days and either consist of an individual class or the whole school together. Much is learned and modified through this intensive contact.

Children stay in the school program for varying lengths of time ranging from a few months to several years. The Clinic is designated a relatively short-term-stay facility and over the years the length of stay has ranged from between 10 to 17 months. The over-all average length of stay in the school is just under 13 months. Following the return to community school contact is maintained for several months and a follow-up questionnaire sent out to determine the maintenance of behaviour and academic progress.

An important component of the school program is the requirement that all parents agree to participate in a treatment or counselling relationship. The family work is the responsibility of the psychological staff that is employed. Occasionally when medication is considered desirable, the psychiatric staff of the adjacent

Burnaby Mental Health Children's Team provides aid. This past year has seen single-family units, in addition to bringing several families together in a group, to discuss child management techniques, among other things. This format will be continued in the future.

In response to a request from the Ministry of Education, a one-month training program was offered for teachers who are already in the field, but are not sure how to work effectively with the emotionally disturbed and learning disabled child in their classroom. A one-month intensive session for four teachers at a time was provided, consisting of both didactic and experiential presentations. This session can be followed up with a workshop in the teacher's local area by one of the staff travelling there to assist them in consolidating their new knowledge.

BOARDING-HOME PROGRAM

The year 1977 was extremely active in the Mental Health Boarding-home Program in respect of future planning. This was an outcome of the announcement by the Government of the provision of a Long-term Care Program in the Ministry of Health, effective January 1, 1978. This new program is a major step forward in the provision of residential and home health care, making such care available to all residents of British Columbia at an equal, minimum-user charge. Much of the Boarding-home Co-ordinator's time throughout the year was devoted to planning for the place of the Mental Health Boarding-home Program in Long-term Care, as well as to serve on committees researching and working to devise structures for the implementation of the Long-term Care Program, and to serve as a mental health liaison person to the Provincial Adult Care Facilities Licensing Board.

A decision was reached that the Mental Health Boarding-home Program is a specialized part of the Long-term Care Program, but will continue to be administered by Mental Health Programs, co-ordinating and co-operating with the Long-term Care Program at the community level.

Another decision reached was that the Ministry of Human Resources would continue to assume responsibility for the funding of the mental retardation residential program, rather than place this funding under Long-term Care, and that the Ministry of Human Resources would gradually assume program and supervisory responsibility for the mental retardation portion of the Mental Health Boarding-home Program. Planning for this changeover began late in the year.

Statistics made available during the year demonstrated that the continued development of the Boarding-home Program, and particularly the development of half-way house resources, has reduced the usage, by individual patients, of expensive psychiatric beds in local general hospitals. This reduction of usage has been quite startling. For example, one woman had 403 days of hospitalization in a two-year period prior to boarding-home placement, and only one-day hospitalization in a three-year period following placement. The Boarding-home Program is having as significant an impact on the rate of recidivism to hospital of persons referred to the program directly from the community as it had previously on the rate of recidivism of persons referred from the mental health institutions.

There was 492 placements made to the program during the year, and the case load at the end of the year was 2,083, as compared to 1,978 at the end of 1976. In all, 187 persons were discharged from the program to more independent living situations. Only 88 persons required rehospitalization in a psychiatric unit of a

general hospital or a mental health institution, and such rehospitalization was mainly of very short duration. Turnover in the case load continued to increase significantly, related to the development of more sophisticated treatment techniques, and to the use of the program for a younger age-group of persons referred directly from the community as a prevention of the development of chronicity. Such persons can be helped to regain their confidence by a fairly short period of stay in a resource offering an appropriate program.

During the reporting year a committee, composed of Boarding-home Program personnel, was formed to write standards which would be applicable throughout the Province for the Occupational Therapy Program of the Boarding-home Program. The committee presented its report to administration in December.

Occupational therapists and activity workers, assisted by volunteers, students, and LIP workers, continued to provide activity programs for boarding-home residents. These programs are designed with specific aims in mind for each resident, and with the over-all goal of integration of the resident into those community activities which are established for the general population. Residents participate on a voluntary basis. Community volunteer groups and individuals provided a valuable contribution to this element of the Boarding-home Program.

The approximate distribution of placements made and case load of the Boarding-home Program in 1977 were as follows:

	Placements Made, 1977	Case Load, December 31, 1977
Region 1 (Kootenays)	18	118
Region 2 (Okanagan-Thompson)	168	724
Region 3 (Fraser Valley)	185	856
Region 4 (Skeena)	21	21
Region 5 (Greater Vancouver)[1]	18	81
Region 6 (Cariboo-Peace River)	14	17
Region 7 (Georgia Strait)	37	170
Region 8 (South Vancouver Island)	31	96
	492	2,083

[1] Burnaby and North Vancouver were the only municipalities of the Greater Vancouver area where placements were made through the Mental Health Boarding-home Program.

CONSULTANTS

Staff consists of consultants embracing the various mental health disciplines. Their varied responsibilities include the provision of consulting services to the field staffs; conducting studies regarding the Province's need in terms of facilities, programs, and treatment services; maintaining liaison with other Governmental, community, and nonprofit agencies; co-ordinating the recruitment of professional personnel; the provision of continuing educational seminars and workshops; and involvement in research projects.

A brief report of the work undertaken by each of the disciplines during the year follows:

NURSING CONSULTATION

The 1977 calendar year opened with the relocation of the Consultant in Nursing's office from Victoria to the Burnaby Psychiatric Services complex. The purpose of the move was to improve the efficiency and effectiveness of available

time for nursing consultation services. An added incentive was to improve the accessibility of the Nursing Consultant to the majority of nurses in mental health and related agencies.

The year was filled with a wide range of diverse activities designed to fulfil the Consultant's responsibilities and achieve the goals of mental health nursing consultation. Althought many were of a maintenance nature, others broke new paths, provided new information, and occasionally suggested more effective ways than formerly of bringing services to people.

In this regard, it was a distinct contribution to mental health service delivery to complete the Revelstoke Mental Health Project which developed an innovative mental health nursing service to patients/clients of the Queen Victoria Hospital, the Revelstoke physicians, and the community's support services. The report of the project should provide useful guidelines for other communities in the Province.

A second project also provided information useful to community mental health services. This was a study of the Role and Functions of the Community Psychiatric Nurse Position in Mental Health Centres which focused on changes in the use and expectations of the nurse in this position.

A third nursing study was still under way at year-end. It sought to determine the need for psychiatrically trained nurses in the Province and the obstacles to the fulfilment of that need.

Activities during the year were not only focused on the nurse in mental health/psychiatric nursing practice and the services provided by the nurses. There was an increasing awareness of the need to focus on competence. In this regard both nursing associations continued to work with increasing intensity on their respective projects. The Consultant in Nursing was privileged to participate in two such projects as they applied to the mental health field. The Psychiatric Nurses' Association of Canada completed its first draft of a Statement of Standards of Practice for the Registered Psychiatric Nurse, and the Consultant, as a member representing employers on the British Columbia component of the Standards Committee, was privileged to participate in a national meeting which developed guidelines for testing the validity of the standards. In a similar vein, the Registered Nurses' Association of British Columbia moved vigorously into an awareness phase of a Quality Assurance Program for Nursing Practice and conducted two workshops, for 70 mental health and community psychiatric nurses on structure, process, and outcome standards for nursing practice in this specialty.

Much of the Consultant's time was allocated to over 20 committees with a prime goal of ensuring that a broad, professional mental health nursing viewpoint was made available for the operation of Government directed and/or financed mental health services. One event emanating from committee work was the presentation of a panel of experts on The Implementation of the Mental Health Act in the Variety of Psychiatric Services in the Province. The viewpoints expressed by users of the Act from many parts of the Province highlighted the need for changes in the light of the development of a diversity of services since the Act was promulgated.

Psychiatric nursing education programs underwent marked changes in administration and in curriculum organization at both the B.C. Institute of Technology and at Douglas College. The Consultant's involvement with both programs encompassed a great deal more than advisory committee responsibilities, as requests were met for input into studies, lectures, planning, and evaluation at both educational institutions. It was satisfying and noteworthy that interest in and applications for entrance into both programs exceeded the spaces available for a historically first time.

Mental health nursing consultation services were provided informally and formally to general hospitals requesting such. A telephone exchange of opinion and information was marginally fruitful. Visits were made to the psychiatric services of five hospitals. The purposes, generally, were to gather data, examine resources, and facilitate problem-solving in the areas of administration, education, personnel, and clinical programs. Reports were provided to the administrations concerned and follow-up discussions were held when requested.

Other activities included the provision of critiques for a wide variety of proposals and papers submitted by ministries other than Health and Education, institutions, agencies, and individuals. All of these enabled the Consultant to further her own knowledge and to stretch her own resources of knowledge and experience. It was therefore very satisfying to have the opportunity to visit two segments of the community mental health services in Manitoba, at Selkirk and Brandon, as an experience that replenished and enriched the Consultant's perspective on community mental health care.

SOCIAL WORK CONSULTATION

During 1977 the Consultant in Social Services continued to carry the additional responsibilities of Co-ordinator of Continuing Education for Mental Health Programs and that of Acting Program Director for the Okanagan-Thompson Region.

Throughout this past year, consultation and direction were provided to numerous mental health centres throughout the Province on matters of clinical significance and the over-all delivery of services to the mentally ill. This exercise has been an important aspect of the Consultant's role since social workers represent the largest single professional group engaged in the delivery of mental health services within the Province of British Columbia.

The Consultant continued to work with the Series Review Committee in its objectives to have the entire social work classification system revised in accordance with new developments within the field, and to have position titles altered to reflect more precisely the professional activity of social workers within the mental health system. To this end the Series Review Committee has been co-ordinating its efforts with the Classification Division of the Government Employee Relations Bureau, and the personnel officers in both Mental Health Programs and Government health institutions with a view to the development of a more workable classification scheme. At year's end the Series Review Committee had completed its work of writing new job descriptions in accordance with the structure of the new classification series.

The Committee on Social Work Education completed its task of establishing linkage with the two B.C. Schools of Social Work which provide clinical content for graduate students contemplating a career in mental health. The committee was satisfied with the curriculum content at The University of British Columbia in terms of its relevance to mental health. The School of Social Work at the University of Victoria has been evaluated as an undergraduate course of studies with no immediate relevance to mental health *per se,* except in the sense of preparing the student for graduate studies. The school has no immediate plans for a graduate clinical program.

The Committee on Social Work Education has been asked to assist the Continuing Education Committee in its plans to devise an appropriate continuing education program for mental health social workers commencing in the fall of 1978.

The Continuing Education Committee, functioning under the chairmanship of the Consultant in Social Services, assisted roughly two thirds of the mental health centres with their unit-based educational programs this past year. Utilizing largely mental health staff, most regions of the Province were offered training programs designed to enhance practice skills.

Over 200 staff of the Greater Vancouver Mental Health Services and Mental Health Programs attended a Provincially sponsored Mental Health Conference at The University of British Columbia in June 1977. In addition to Provincial and regional meetings, workshops dealing with services to children, legal issues in mental health, research, and the Boarding-home Program constituted a very full and busy conference.

The Consultant was in regular attendance as a member of the Child Care Facilities Licensing Board during this past year. Aside from the usual licensing items, the board was additionally occupied in the drafting of new child care facilities regulations which are to be submitted for legislative approval early in 1978.

The announcement of a Provincially based Long-term Care Program resulted in the Consultant in Social Services being asked to serve on the Executive Board as Mental Health Programs' representative. Considerable work has been accomplished in developing the program to date and for mental health in particular, redesigning the Boarding-home Program to fit this new structure. A workshop for boarding-home staff was held in November 1977 to assist the staff with functional problems associated with the integration of the two programs.

In early December a disciplinary workshop was held for clinical social workers of the Greater Vancouver Mental Health Services and Mental Health Programs. Several leading educators were invited to conduct workshops dealing with the development of problem-solving mechanisms for groups, psychiatric work-ups in social work practice, parenting skills, and the bettering of mental health boarding-home operations.

The Consultant was also required to attend as a regular member of Mental Health Programs' working committees, such as the Program Advisory Committee, Planning Committee, Legislative Committee, and other *ad hoc* working groups.

PSYCHOLOGY CONSULTATION

Specific involvements of the Consultant in Psychology included the question of legislation and mandate for community mental health services and centres. As part of this review, information of trends and practices of the other provinces and American states were collected and analysed for relevant information. The latter will be utilized to help in the review of existing legislation and/or regulations pertaining to community mental health programs.

Other areas of involvement by the Consultant in Psychology, togther with the Consultants in Social Work, Nursing, and Psychiatry, included a review of existing clinical policies with the aim of proposing modifications wherever necessary to reflect contemporary standards. One aspect consisted of analysing staff roles to determine whether it is possible to identify areas of commonality between the different disciplines as well as areas of role differences. Similarly, standards of practice are being reformulated wherever necessary to ensure the maintenance of high-quality services to the consumer. In conjunction with this, a review is being done of the various skills required to implement the various mental health programs. One of the aims is to prepare information packages and training packages in specific program areas at both the journeyman and advanced levels.

The development of new mental health programs is an area of special concern. In order to keep informed about new trends and developments elsewhere, mental health newsletters and publications from various provincial and state mental health departments are received on a regular basis. Together with other literature from professional journals, it has been possible to maintain up-to-date information regarding services and concerns which might be relevant or applicable to our own programs.

The development of new mental health programs is closely related to the determination of mental health needs in the various catchment areas. The procedure that was developed in co-operation with a number of mental health centres is now in the process of being standardized for application to the various mental health centres throughout the Province.

Other areas being reviewed include the summer student program and the possibility of internship and field placements.

Liaison with other Government ministries, agencies, and community groups is an important aspect of the responsibilities of the Consultant in Psychology. New responsibilities include the development of volunteer services within Mental Health Programs. Additional areas of special involvement are related to the role definition of psychologists in community mental health programs and the recruitment of community psychologists. Attempts are being made to streamline the whole recruitment procedure with the aim to shorten the time it takes to fill vacant positions. Temporary responsibilities included the assignment of Acting Regional Program Director for Northern British Columbia. The Province has been divided into five mental health regions for the purpose of facilitating liaison between regions and Victoria, the development and implementation of mental health programs in the various mental health centres, and the identification of needs in the catchment areas of the various centres. The aim is to appoint full-time Regional Directors as soon as such positions have been approved.

MANAGEMENT ANALYST CONSULTATION

The Services of the Management Analyst were directed more specifically to Mental Health Programs during 1977, and work for the Government health institutions was phased out by mid-year, when personnel at Riverview Hospital assumed responsibility for these services.

The assignment of a programmer analyst to assist with the development of the Information Systems resulted in this being a most productive year. The focus of activity was on the implementation of the Client Information System, an automated data gathering and treatment evaluation system which provides feedback to staff members in the centres and teams on a regular basis. The implementation process was staggered over several months to allow time for training sessions in all facilities. As of November 1, all mental health out-patient units in the Province were using the new system.

While this was in progress, a Service Information System was being developed to provide field staff and the various levels of management with service delivery information on a regular basis. This system, which interfaces with the Client Information System, is scheduled for implementation in 1978.

The assistance and support of the Statistician, Research and Planning Officer, and Records Consultant in the development and implementation of these systems were much appreciated.

RESEARCH AND PLANNING

The Research and Planning Officer was involved in a number of short-term evaluation studies, implementation of a new Management Information System, consultation to field staff regarding research projects, and long-range planning. In general, 1977 was a year of continued development and expansion of this relatively new position.

Evaluation studies were completed on a suicide-prevention service in Vancouver, a mental health worker project in Revelstoke, and the community psychiatric nurse position in Mental Health Programs. In addition, an assessment of community awareness of mental health centres in the Capital Regional District was completed; and an analysis of physician referrals to British Columbia mental health centres was conducted. Other research efforts included the presentation of a paper on development of community-based services in urban areas at the 1977 Canadian Psychological Association Conference, and the acceptance for publication of a paper on a *post-hoc* planning model.

Planning efforts resulted in the development of a statement of 10 basic mental health service programs which are available through every mental health centre. The objectives of these programs are to be stated in terms amenable to evaluation research. Other planning efforts include work toward the development of a mandate, and work on numbers and locations of required new staff.

The Research and Planning Officer was involved in the designing and implementation of the new Management Information System for Mental Health Programs. This included conducting Goal Attainment Scaling workshops for the professional staff at each of the 31 mental health centres. A Goal Attainment Scaling Procedure Manual was written for distribution to all professional staff.

Other activities included dissemination of research information from professional journals to field staff, consultation to field staff on research projects and data analysis, involvement in inter-ministerial committees dealing with Long-term Care Program data collection, school health services, and co-ordinating the Mental Health Programs orientation sessions for new staff.

In addition to the above activities, the Research and Planning Officer serves as the Acting Regional Program Director for the Kootenays Region.

STATISTICS AND MEDICAL RECORDS

During 1977 the Statistical Section continued to be responsible for the collection, processing, and distribution of data on clients who received services in the 31 mental health centres and the 10 community care teams of the Greater Vancouver Mental Health Service. However, the major work of the section this year has centred around the conversion from the old statistical system to the Client Information System. Implementation of the Client Information System necessitated travel by the Statistician and the Medical Records Librarian, with other Mental Health Programs headquarters staff, to each of the centres involved in the conversion, to instruct field personnel in the use of the system. Full implementation was achieved by the fall of 1977. There remain only four units—British Columbia Youth Development Centre, Burnaby In-patient Unit, Vista, and Venture—whose records are processed by the Mental Health Programs Statistical Section but who are not on the Client Information System. Because these units do not fit the model for which the system was designed, a subsystem appropriate to their record-keeping needs is planned.

Statistical Forms and Routine Reports

Changes in the responsibilities of the Statistical Section made retraining of statistical clerks necessary. The Statistical Section's responsibility for the new Client Information System includes verifying forms, compiling data, submitting computer reports, and supporting field personnel in the use of the system. Due to the more detailed recording under the new system, the reports provide more information than was possible under the old system. Standardization of the data collection system and computer recording is expected to facilitate accurate record-keeping and will provide more data for research into mental health needs in the Province.

Data Retrieval

In addition to routine listings, analyses, and reports, including the Annual Statistical Report for 1976, a variety of requests coming from the field and headquarters staff, other Government ministries, and university faculty were processed. These included an analysis of the Integrated Services for Child and Family Development case load, examination of patient movement in facilities operated by Government health institutions between 1971 and 1976, and several programs to examine case loads in terms of problem and treatment to answer questions raised by the Federal *Social Services Act.*

Projects undertaken during the year included the transfer of responsibility to the Ministry of Human Resources for the statistics for their retardate facilities and to Government health institutions of responsibility for the statistics for their institutions.

The statistician played an active role on several committees and participated in the Federal-Provincial Working Party on Mental Health Statistics.

Liaison with the Division of Vital Statistics and Statistics Canada was maintained throughout the year.

Medical Records

The Clinical Records Committee completed the writing of release of information policies and is currently devising a standardized system of record-keeping.

A program of microfilming client records over 7 years old was undertaken in co-operation with the Central Microfilm Bureau.

Time was also spent in orientating a number of new clerical staff and participating in clerical staff workshops.

Table 15—Patient Movement Data,[1] Mental Health Facilities, 1977

Mental Health Facilities	Entries				Exits				
	Total	Direct Admissions	Returns From Leave	Permanent Transfers	Total	Discharges	Leaves	Permanent Transfers	Deaths
All mental health facilities	14,281	13,918	302	61	15,823	14,670	828	58	267
Hospital programs	1,422	1,130	272	20	1,528	778	682	13	55
Riverview	1,422	1,130	272	20	1,528	778	682	13	55
Geriatric facilities	369	343	25	1	411	82	117	....	212
Valleyview	266	241	24	1	307	69	111	....	127
Dellview	69	69	....	....	68	1	5	....	62
Skeenaview	34	33	1	....	36	12	1	....	23

[1] Table compiled from actual data through September 1977 and projected for the remainder of the year. (NOTE—In cases in centres/teams opened in 1977, table compiled on basis of available data for 1977).

Table 15—Patient Movement Data,[1] Mental Health Facilities, 1977—Continued

Mental Health Facilities	Entries				Exits				
	Total	Direct Admissions	Returns From Leave	Permanent Transfers	Total	Discharges	Leaves	Permanent Transfers	Deaths
Mental Health Programs[2]	10,228	10,183	5	40	11,558	11,374	29	45	.....
Total in-patients	814	769	5	40	794	720	29	45	.....
Burnaby	366	349	5	12	358	317	29	12	.....
BCYDC	56	56	.....	.....	51	51	.....	.....	.....
Venture (August 1975)[3]	351	339	.....	12	348	328	.....	20	.....
Vista (August 1975)[3]	41	25	.....	16	37	24	.....	13	.....
Total out-patients		11,676				13,090			
All mental health centres		9,203				10,459			
Abbotsford		228				307			
Burnaby[4]		126				127			
Burnaby Central (March 1977)[3]		183				219			
Burnaby Children's (March 1977)[3]		103				241			
Burnaby Day-Program (March 1977)[3]		93				99			
Burnaby North (February 1977)[3]		267				323			
Burnaby South (January 1977)[3]		226				241			
Chilliwack		236				231			
Courtenay		276				475			
Cranbrook		209				120			
Duncan		135				461			
Fort St. John		148				455			
Grand Forks (November 1976)[3]		113				121			
Kamloops		336				213			
Kelowna		372				540			
Kitimat (July 1977)[3]		40				150			
Langley		241				159			
Maple Ridge		260				480			
Nanaimo		289				301			
Nelson		288				83			
New Westminster		309				220			
Penticton		344				177			
Port Alberni		232				183			
Port Coquitlam		357				307			
Powell River		189				191			
Prince George		193				100			
Prince Rupert		121				172			
Saanich		301				315			
Sechelt		111				115			
Squamish		65				44			
Surrey		368				424			
Terrace[4]		309				345			
Trail		212				209			
Vernon		539				679			
Victoria		388				468			
VISC (August 1976)[3]		311				413			
Whalley		420				636			
Williams Lake		265				115			
All community care teams		2,262				2,436			
Blenheim House		56				33			
Broadway Clinic		385				400			
Kitsilano		273				255			
Mount Pleasant		241				152			
Richmond		145				161			
Secure (April 1975)[3]		116				188			
South Vancouver (July 1974)[3]		161				171			
Strathcona		369				423			
West End		247				305			
West Side		269				348			
BCYDC (out-patients)		211				195			

[1] Table compiled from actual data through September 1977 and projected for the remainder of the year. (NOTE—In cases in centres/teams opened in 1977, table compiled on basis of available data for 1977).

[2] Subtotal does not include community care teams.

[3] Month centre/team commenced reporting.

[4] Burnaby Mental Health Centre divided into teams for statistical reporting purposes. Kitimat divided from Terrace Mental Health Centre for statistical reporting purposes.

Table 16—Patient Movement Trends, Mental Health Facilities, 1974–77

Mental Health Facilities	Yearly Sum of Entries[1] From—			Resident or Case Load		
	Oct. 1974 to Sept. 1975	Oct. 1975 to Sept. 1976	Oct. 1976 to Sept. 1977	End of Sept. 1975	End of Sept. 1976	End of Sept. 1977
All mental health facilities	15,737	15,623	15,278	17,466	17,803	17,445
Hospital programs	1,924	1,612	1,432	1,392	1,244	1,150
Riverview	1,924	1,612	1,432	1,392	1,244	1,150
Geriatric facilities	438	427	386	980	930	909
Valleyview	332	302	270	645	609	581
Dellview	88	97	81	178	177	185
Skeenaview	18	28	35	157	144	143
Mental Health Programs[2]	10,431	10,820	11,139	12,557	12,823	12,690
Total in-patients	413	674	800	61	61	77
Burnaby	301	319	351	18	17	23
BCYDC	51	45	57	28	30	35
Venture (August 1975)[3]	45	269	347	8	8	9
Vista (August 1975)[3]	16	41	45	7	6	10
Total out-patients	12,962	12,910	12,660	15,033	15,568	15,309
All mental health centres	9,846	9,941	10,067	12,375	12,661	12,506
Abbotsford	264	331	283	305	350	296
Burnaby[4]	1,015	975	876	1,002	1,253	.....
Burnaby Central (March 1977)[3]	.....	.....	128	.....	.....	240
Burnaby Children's (March 1977)[3]	.....	.....	72	.....	.....	127
Burnaby Day-Program (March 1977)[3]	.....	.....	65	.....	.....	17
Burnaby North (February 1977)[3]	.....	.....	194	.....	.....	419
Burnaby South (January 1977)[3]	.....	.....	170	.....	.....	302
Chilliwack	344	258	245	334	469	455
Courtenay	276	328	277	338	344	179
Cranbrook	297	254	210	224	237	251
Duncan	349	331	169	486	401	207
Fort St. John	370	208	143	600	762	563
Grand Forks (November 1976)[3]	.....	.....	127	.....	.....	65
Kamloops	253	380	368	352	496	613
Kelowna	377	426	455	787	696	681
Kitimat (July 1977)[3]	.....	.....	20	.....	.....	107
Langley	226	226	247	348	277	384
Maple Ridge	415	394	316	737	783	634
Nanaimo	356	319	289	411	372	360
Nelson	354	454	372	1,013	266	428
New Westminster	200	228	287	231	273	362
Penticton	294	381	241	379	508	610
Port Alberni	417	393	239	298	214	290
Port Coquitlam	377	388	341	265	306	349
Powell River	222	205	208	302	256	273
Prince George	159	167	193	286	396	486
Prince Rupert	293	178	131	134	96	47
Saanich	287	396	340	555	548	577
Sechelt	147	133	120	109	100	79
Squamish	67	35	76	104	59	80
Surrey	360	345	375	614	727	726
Terrace[4]	308	333	328	146	279	135
Trail	192	220	211	304	372	374
Vernon	664	669	612	760	701	637
Victoria	425	418	389	447	452	397
VISC (August 1976)[3]	.....	30	271	.....	181	238
Whalley	467	463	434	430	387	279
Williams Lake	71	75	245	74	100	239
All community care teams	2,944	2,764	2,321	2,537	2,806	2,696
Blenheim House	78	46	61	76	80	104
Broadway Clinic	432	417	371	659	692	703
Kitsilano	351	262	264	293	286	294
Mount Pleasant	310	250	224	185	214	260
Richmond	187	202	140	214	248	228
Secure (April 1975)[3]	53	132	136	48	83	58
South Vancouver (July 1974)[3]	226	252	183	210	203	192
Strathcona	648	593	388	325	365	342
West End	238	237	252	248	281	236
West Side	421	373	302	279	354	279
BCYDC (out-patients)	172	205	272	121	101	107

[1] For the residential facilities, this includes permanent transfers, admissions from community, and returns from leave and escapes.

[2] Subtotal does not include community care teams.

[3] Month Centre/Team commenced reporting.

[4] Burnaby Mental Health Centre divided into teams for statistical reporting purposes. Kitimat divided from Terrace Mental Health Centre for statistical reporting purposes.

Hospital Programs

Prior to the introduction of the British Columbia Hospital Insurance Service on January 1, 1949, the Province had been interested in developing a comprehensive program for many years. In 1932 the findings of a Royal Commission had recommended that a compulsory health insurance maternity plan be considered, and in 1936 a Health Insurance Act had been placed on the statutes but never proclaimed. In 1937, British Columbians voted in favour of health insurance in a referendum held in conjunction with a Provincial general election. Finally, in 1948, the *Hospital Insurance Act* was passed, establishing a Hospital Insurance Service which, when implemented on January 1, 1949, provided coverage for acute care in approved general hospitals.

The funding of the operating costs of the service (Hospital Programs) was a 100-per-cent responsibility of the Province until 1958 when the Federal Government agreed to share on a Canada-wide basis approximately 50 per cent of the approved cost of certain hospital services. Subsequent to March 31, 1977, Hospital Programs was brought under the *Federal-Provincial Fiscal Arrangements and Established Programs Financing Act, 1977,* when shared-cost arrangements under the *Hospital Insurance and Diagnostic Services Act* were terminated.

In March 1975 the name of the service was changed to Hospital Programs as part of a reorganization of the Ministry of Health.

The following pages contain individual reports of the divisions which comprise the administrative structure of Hospital Programs, and brief reviews of pertinent legislation and statistical data.

HOSPITAL PROGRAMS HIGHLIGHTS

- Gross operating expenditures for public general, rehabilitation, and extended-care hospitals for the calendar year 1977 amounted to $560 million.
- In all, 387,949 eligible adult and child patients were discharged in 1977, a decrease of 2,692 or 0.69 per cent less than in 1976; 95.8 per cent of all patients discharged were covered by Hospital Programs.
- Hospital Programs was responsible for 3,278,476 days of care for adults and children in public hospitals, a decrease of 64,696 days or 1.94 per cent less than 1976. The average length of stay was 8.45 days.
- In 1977, 26 major hospital projects were completed, involving an estimated $96.8 million. This construction program included the following new extended-care hospitals: The University of British Columbia (300 beds), Queen's Park (300 beds), and Delta (100 beds). In addition, three diagnostic and treatment centres were opened at Elkford, Pemberton, and Cumberland. The latter unit was built in conjunction with a 50-bed intermediate care unit.
- At year-end there were 5,315 extended-care beds in the Province and there were approximately 955 additional extended-care beds under construction or in planning stages; of these about 100 additional beds were expected to come into operation during 1978.
- During 1977 the regional hospital districts debenture sales to the B.C. Regional Hospital Districts Financing Authority amounted to $61 million.
- Grants totalling $10 million were approved toward purchases of movable and fixed technical equipment amounting to approximately $16 million. Over 8,000 applications for such grants were received from hospitals.
- Over 2,000 patient accounts and 2,300 emergency-service and minor-surgery accounts were processed daily by Hospital Programs.
- Over 9,600 out-of-Province hospital accounts were processed, resulting in an estimated total expenditure of over $6.7 million.
- During 1977, over 16,000 day care dialysis treatments for renal failure were given.
- Over 156,000 accounts were processed for Day Care Surgical Services, Day Care/Night Care and Out-patient Psychiatric Services, Day Care Diabetic Services, and Dietetic Counselling Services.

BRITISH COLUMBIA REGIONAL HOSPITAL DISTRICTS ACT

The *Regional Hospital Districts Act* provides a mechanism for financing the capital cost of hospital buildings and equipment. The Act provides for the division of the Province into large districts to enable regional planning, development, and financing of hospital projects under a formula which permits substantial financial assistance from the Provincial Government.

Each regional hospital district is, subject to the requirements of the Act, able to pass capital expense proposal by-laws authorizing debentures to be issued covering the total cost of one or more hospital projects. Once a proposal has been approved by the Minister of Health the district is able to proceed to arrange both temporary financing and long-term financing on a favourable basis. The long-term financing is provided by the Regional Hospital Districts Financing Authority (*see* below), which purchases debentures issued by the various districts as required.

Each year the Provincial Government pays through Hospital Programs from the Hospital Insurance Fund a portion of the principal and interest payments required on the debentures issued by the Regional Hospital Districts' Financing Authority in accordance with section 22 of the Act. The balance of the principal and interest requirements are raised by the district through taxation.

Under the sharing arrangements the Province pays annually to or on behalf of each district 60 per cent of the approved net cost of amortizing the districts' borrowings for hospital construction projects after deduction of any items which are the districts' responsibility, such as provision of working capital funds for hospital operation, etc. If a 4-mill tax levy by the district is inadequate to discharge its responsibility in regard to annual charges on old debt for hospital projects as well as the remaining 40 per cent of the charges on new debt resulting from hospital projects, the Province will provide 80 per cent of the funds required in excess of the 4-mill levy.

The affairs of each regional hospital district are managed by a board comprised of the same representatives of the municipalities and unorganized areas who comprised the board of the regional district (incorporated under the *Municipal Act*) which has the same boundaries as the regional hospital district. The board of each regional hospital district is responsible for co-ordinating and evaluating the requests for funds from the hospitals within the district, and for adopting borrowing by-laws subject to approvals and conditions required under the Act, in respect to either single projects or an over-all program for hospital projects in the district.

In 1975 the British Columbia *Regional Hospital Districts Act* was amended to increase the discretionary amount which a regional hospital district can raise annually for unforeseen capital expenditures if specified by the Minister to $200,000, or the product of one quarter of a mill, whichever is the greater.

BRITISH COLUMBIA REGIONAL HOSPITAL DISTRICTS FINANCING AUTHORITY ACT

The *British Columbia Regional Hospital Districts Financing Authority Act* establishes a Provincial Government authority similar to the one set up to assist school districts in financing their projects. The functions of the authority are referred to briefly above.

In 1975 the purposes of the authority were expanded to permit assistance to medical and health facilities and community, human resources, and health centres and any other community, regional, or Provincial facilities for the social improvement and welfare of the community or the general public good. Also, the authority was permitted to purchase debentures from incorporated bodies other than regional hospital districts, provided they are authorized under any Act or their charter or their memorandum of association to issue debentures for the financing of projects permitted under the Act.

HOSPITAL INSURANCE ACT

The Hospital Programs branch of the Ministry of Health operates under the authority of the provisions of the *Hospital Insurance Act,* which also authorizes the establishment of the Hospital Insurance Fund, from which grants are made to hospitals toward operating expenses and capital costs. Grants are also made to regional hospital districts toward capital expenditures made to hospitals.

- Generally speaking, every permanent resident who has made his home in British Columbia during the statutory waiting-period is entitled to benefits under the Act.
- Reimbursement to public general hospitals is based on an approved annual budget; for accounting purposes, *per diem* rates are used for medically necessary in-patient care rendered to qualified British Columbia residents who are suffering from an acute illness or injury, and those who require active convalescent, rehabilitative, and extended hospital care. The payment made to a hospital by Hospital Programs from the Hospital Insurance Fund amounts to $4 less than the *per diem* rate, and in the case of extended-care patients under 19 years of age, $1 less than the *per diem* rate, approved for that particular hospital. The patient is responsible for paying the remainder. The Provincial Government pays the above-noted daily $4 or $1, as applicable, on behalf of Provincial social welfare recipients.
- The wide range of in-patient and out-patient benefits provided under the Act is described below.
- Qualified persons who are temporarily absent from British Columbia are entitled to certain benefits for a period which ends at midnight on the last day of the twelfth month following the month of departure.
- In addition to the payment toward operating costs, paid to hospitals as described above, hospitals and regional hospital districts receive grants of up to 60 per cent of approved costs of construction or acquisition of hospital facilities, one third of the cost of minor movable equipment, 75 per cent of the cost of major diagnostic equipment, and 100 per cent of the cost of equipment which results in proven savings in operating costs.

HOSPITAL ACT

One of the important functions of Hospital Programs is the administration of the *Hospital Act.* The Deputy Minister of Medical and Hospital Programs is also the Chief Inspector of Hospitals for British Columbia under the Act.

The *Hospital Act* controls the organization and operation of hospitals, which are classified as follows:

- Public hospitals: Nonprofit hospitals caring primarily for acutely ill persons.
- Private hospitals: This category includes small hospitals, most of which are operated in remote areas by industrial concerns primarily for their employees, and licensed nursing-homes which are not under hospital insurance coverage.
- Rehabilitation and extended-care hospitals: These nonprofit hospitals are primarily for the treatment of persons who require long-term rehabilitative and extended hospital care.

HOSPITAL RATE BOARD AND METHODS OF PAYMENT TO HOSPITALS

The Hospital Rate Board, appointed by Order in Council, is responsible for advising the Deputy Minister in regard to hospitals' operating budgets and rates of payments to hospitals for both in-patient and out-patient benefits.

A system of firm budgets for hospitals, which, with modifications, has been in use since January 1, 1951, provides for a review of hospitals' estimates by the Rate Board. Under the firm-budget procedure, hospitals are required to operate within the total of their approved budgets, with the exception of fluctuation in days' treatment and other similar items. They are further advised that deficits incurred through expenditures in excess of the approved budget will not be met by the Provincial Government. However, hospitals retain surplus funds earned as a result of keeping expenditures within the total amount approved.

The value of variable supplies used in patient-care has been established. It is generally recognized that the addition of a few more patient-days does not add proportionately to costs because certain overhead expenses (such as heating, etc.) are not affected. However, some additional supplies will be consumed, and it is the cost of these variable supplies which has been determined.

When the number of days' treatment provided by the hospital differs from the estimated occupancy, the budgets are increased or decreased by the number of days' difference multiplied by the patient-day value of the variable supplies. Individual studies and additional budget adjustments are made in those instances where large fluctuations in occupancy involve additions or reductions in stand-by cost.

Policies to be used in the allocation of the total funds provided are approved by the Government. The Hospital Rate Board reviews the detailed revenue and expenditure estimates forwarded by each hospital and applies the policies in establishing approved budgets.

Approximately 96 per cent of all in-patient hospital accounts incurred in British Columbia are the responsibility of Hospital Programs. Cash advances to hospitals are made on a semimonthly basis, so that hospitals are not required to wait for payment until patients' accounts are submitted and processed by Hospital Programs. Qualified patients are charged $4 per day, and in the case of extended-care patients under 19 years of age, $1 per day, effective June 1, 1976, which is deductible when calculating payments to hospitals from the division.

Nonqualifying residents are charged the hospitals' established *per diem* rate, which is all-inclusive, that is, the daily rate covers the cost of all the regular hospital service, such as X-ray, laboratory, operating room, etc., provided to patients, in addition to bed, board, and nursing care.

HOSPITAL CONSULTATION AND INSPECTION DIVISION

This division provides consulting services to public and private hospitals, and to other divisions of Hospital Programs and the Ministry of Health, in all aspects of hospital organization, operation, and management. It is also responsible for an inspectional program to ensure that minimum standards of care, safety, and licensure are met.

The services of the division are provided by teams consisting of consultants in hospital administration, biomedical engineering, dietetics, clinical laboratory, management engineering, nursing, social services, and X-ray.

During the year the ongoing work of consultation and inspection saw the continuation of the "team approach" to visiting. In all, 145 visits were made to general hospitals and 310 to private hospitals. Three members of the division participated in 13 "GAMAT" sessions, the program developed by the British Columbia Health Association to provide education for hospital society trustees, emphasizing their role and responsibilities. Personnel hours and work load statistics from the hospitals' 1976 Hospital Services Form 1 submissions were analysed to produce a current Provincial productivity profile.

The division's Management Engineering Unit was involved in planning the move and development system within the Ministry's new building in Victoria. It was also active in promoting the principles of materials management as it affects both design and space allocation in new hospital construction. Assistance was provided to the special consultant of Pharmacare in developing new systems for drug delivery and a new Central Supply Service (pharmaceuticals, medical and surgical) for the Ministries of Health and Human Resources.

The Senior Consultant in Dietetics became President of the B.C. Dietetic Association and served as a member of two Federal Task Forces—one of these involved work load measurement for Departments of Dietetics, and the other for revision of construction standards regarding dietetic facilities. A diet manual developed by the B.C. Dietetic Association was distributed to all hospitals in the Province. A menu planning guide was developed for institutions providing long-term care for the elderly. Slide/tape presentations on dishwashing and vegetable preparation and cooking were also developed. Work sampling studies were carried out for the development of a Staffing Methodology for Departments of Dietetics.

The year 1977 was an assessment year for Nursing's Patient Classification and Staffing by Workload Index, a project done in co-operation with the Surrey Memorial, Victoria General, and Vancouver General Hospitals.

RESEARCH DIVISION

The division performs a statistical resource function for Hospital Programs and serves as a focal point for data collection and analysis. Primarily responsible for examining the need for new hospital beds and services, the division is also involved in a wide range of activities.

The preparation of recommendations for additional hospital capacity, in the face of an ever-increasing range of benefits and services covered by Hospital Programs, necessitates close liaison at the hospital, regional, and Provincial levels. In spite of a greater emphasis being given to alternatives to acute in-patient beds, the population growth of the Province necessitates a continuing review of general hospital bed requirements. Reports and proposals for revised hospital capacity are placed before the planning group of Hospital Programs for review, and if approved, are submitted to the Minister for approval. During the course of the year, 30 detailed studies of hospital requirements for both acute and extended-care beds were completed, including those resulting in the establishment of the Greater Vancouver Regional Hospital District 1981 acute-care bed matrix report.

The division also compiles statistical data relating to all hospitalization in the Province. The admission/separation records submitted by the hosptals for each patient form the basis of this information. All diagnoses and operations are coded

according to the Eighth Revision of the International Classification of Diseases Adapted (ICDA). Through this classification system, the incidence of disease is analysed by age, sex, geographical location, as well as other variables.

In connection with morbidity analysis, the division publishes a number of annual reports. The *Statistics of Hospital Cases Discharged* includes the standard morbidity tables consistent with other provinces, and which affords an opportunity to make interprovincial comparisons of hospital data. The *Statistics of Hospitalized Accident Cases,* which is also prepared annually, provides a broad analytical coverage of hospitalized accident cases by circumstance, type of accident, and nature of injury. A report of the *Day Care Surgery in British Columbia Hospitals* is also prepared by the division for purposes of showing the potential and development of this type of service. First published in 1973, the publication *Acute Chemical Dependency* was updated during the year to include data on hospitalized cases from 1969 to 1976. In addition to these reports, the division supplies data to many agencies, both inside and outside of the Government. The demand for hospital morbidity data continues to grow and has become particularly useful in the planning of specialized hospital services.

The division also maintains a reporting system for therapeutic abortions performed in hospitals in the Province.

HOSPITAL FINANCE DIVISION

The Hospital Finance Division is responsible for the assembling of relevant information and the preparation of data for the use of the Hospital Rate Board in its review of the annual and pre-construction operating estimates of hospitals. During this process, estimated revenues and expenditures are examined in detail, and adjustments to estimated amounts are recommended. The gross expenditure approved by the Hospital Rate Board for public general, rehabilitation, and extended-care hospitals for 1977 amounted to approximately $560 million.

The division also reviews the annual budgets prepared by regional hospital districts, and works closely with the British Columbia Hospital Financing Authority and the regional hospital districts in financing of hospital capital projects and repayment of debentures. Total regional hospital district debenture sales to the British Columbia Regional Hospital Districts Financing Authority amount to $308 million, of which $54 million was added during 1977.

Another function of the Finance Division is the processing of admission/separation records (accounts), which hospitals submit for each patient, and approving for payment all acceptable claims and the coding for residential data, etc. Also included are out-patient, day-care, and out-of-Province accounts.

The division is also responsible for the approval of grants to assist hospitals in the purchase of equipment. The equipment grant structure is such that Hospital Programs pays 100 per cent on approved equipment, where the equipment purchase will result in the recovery of capital costs in a reasonable time through savings in approved staffing; 75 per cent on major diagnostic equipment used in pathology, radiology, nuclear medicine, and ultra sound; and 33⅓ per cent on all other movable depreciable equipment. In 1976, after review of approximately 8,000 applications received from hospitals, grants totalling $10 million were approved on purchases of movable and fixed technical equipment amounting to approximately $16 million.

The division also assists in administering the Federal/Provincial Agreement under the *Hospital Insurance and Diagnostic Services Act*. This involved the preparation of annual claims for the period up to March 31, 1977, and the disbursement of Hospital Programs funds in a manner that maximized the Province's reimbursement under the agreement. Subsequent to March 31, 1977, shared-cost arrangements under the *Hospital Insurance and Diagnostic Services Act* were terminated and Hospital Programs was brought under *Federal-Provincial Fiscal Arrangements and Established Programs Financing Act, 1977*.

In order to ensure that plans for new hospitals or hospital additions are prepared with economical and efficient operation in mind, pre-construction operating estimates are completed by hospitals at the final sketch plan stage. It is essential that the estimated operating costs of the new hospital, or new addition, compare favourably with other hospitals actually in operation. Where the hospital's pre-construction operating estimates do not indicate a reasonable operating cost, it may be necessary for the hospital board to revise its construction plans to ensure efficient and economical operation. Once a satisfactory pre-construction operating budget has been agreed upon by the hospital officials and Hospital Programs, the hospital board is required to provide written guarantees relative to the projected operating cost. It is considered that this method of approaching the operating picture for proposed hospital facilities ensures more satisfactory planning, efficient use of hospital personnel, and an economical operation.

As a means of assisting hospital staff to maintain and develop health care skills, Hospital Programs provided over $420,000 in hospital operating budgets during the year to enable hospital employees to attend or participate in short-term educational training courses.

The following is a summary of comparative expenditures of Hospital Programs (including capital) for the fiscal years ended March 31, 1973–77, inclusive.

	1973	1974	1975	1976	1977
	$	$	$	$	$
Administration	1,538,905	1,800,229	2,438,265	3,556,066	3,619,325
Payments to hospitals	235,594,194	275,801,859	370,927,805	483,107,890	536,939,951
Totals	237,133,099	277,602,088	373,366,070	486,663,956	540,559,276

FINANCE CLAIMS SECTION

Patient accounts processed during the year were in excess of 2,000 per working-day, plus over 2,300 emergency-service and minor surgery accounts.

The staff of Admission Control reviews each application for benefits under the *Hospital Insurance Act*. Details of residence are checked with the verifying documents, and as a result over 5,600 claims had to be returned to the hospitals during the year because they were incomplete or unacceptable, and over 1,600 letters were written on eligibility, verification, and related matters.

The In-patient Claims Section pre-audits the charges made to Hospital Programs and ensures that all information shown on each claim is completed so that it can be coded for statistical purposes, and that it is charged to the correct agency, such as Hospital Programs, Workers' Compensation Board, the Department of Veterans Affairs, or other provinces and territories. The In-patient Claims Section returned over 2,500 claims for clarification of information. Preliminary figures for 1977 show that more than 450,000 accounts (excluding out-of-Province) were processed.

The day care surgical services, day care/night care psychiatric services, out-patient psychiatric services, day care diabetic services, and dietetic counselling accounts increased in volume to over 13,000 per month in 1977. Payment for out-patient physiotherapy patients was provided and preliminary figures indicated that accounts for over 380,000 treatments were processed. During the year, renal dialysis treatments were made available for out-patient treatment of chronic renal failure, and figures indicated that over 16,000 treatments were given in 1977. During the year the service continued to provide a quarterly statistical run of day care surgical services for the hospitals of the Province.

The Out-of Province Section processes all claims for hospital accounts incurred by British Columbia residents in hospitals outside the Province. This requires establishing eligibility and the payment of claims. During 1977, over 800 accounts were processed each month, resulting in an estimated total annual expenditure of over $6.7 million.

The Claims Distribution Centre receives, sorts, and distributes all the forms and correspondence received in the Hospital Claims Section; approximately 13,000 claims, documents, and letters are handled daily.

HOSPITAL CONSTRUCTION AND PLANNING DIVISION

During 1977 this division continued to provide a consultative service to hospital boards planning new acute or extended-care hospital facilities, diagnostic and treatment centres, and additions or alterations to these buildings. Due to continued inflationary trends, emphasis was placed on using public funds to the best advantage and deleting any work not considered strictly necessary. All construction programs and applications for grants toward minor building improvements submitted to the branch were reviewed with this in mind.

The increased hospital construction activity was demonstrated by the fact that 26 major projects were completed in the Province during 1977, an approximate increase of 30 per cent over 1976, and the capital cost of constructing these facilities almost tripled. Some of the reasons for the significant increase in capital costs were the increased number of major projects being undertaken, plus the cost of inflation, as well as the impact of the new building and fire codes. Some of these major projects included the completion of the new addition to provide 176 additional beds and enlarged service departments at Burnaby General Hospital; the additions and renovations project completed at Mount St. Joseph Hospital, Vancouver, which provided an additional 90 acute and 94 extended-care beds; and two new 300-bed extended-care units in the Greater Vancouver area—one at Queen's Park, New Westminster, and the other on the campus of The University of British Columbia. Both these extended-care facilities will be used for teaching purposes. These four projects in the Greater Vancouver Regional Hospital District accounted for over $56 million of the total capital expenditures in 1977. Further details of these and other projects are included at the end of this report.

The changeover to metric measurement for construction projects starts officially on January 1, 1978. This division was already receiving plans in metric measurement and the transition appeared to be moving smoothly.

The program to provide intermediate and personal care coverage in the Province commenced January 1, 1978, which was expected to greatly increase the work load of this division.

This division was very appreciative of all the help received from the Provincial Fire Marshal's Office during the year, particularly in arriving at acceptable but economical solutions to the many problems encountered in meeting building and fire code requirements. During the year, three major projects involving upgrading fire alarm systems, installing fire walls and doors, etc., were undertaken to meet current fire code requirements. These three projects at the Royal Inland Hospital (Kamloops), Shaughnessy, and Sunny Hill Hospitals in Vancouver, would result in an over-all capital cost of just under $2 million.

During the year the first insurance guidelines were issued in an attempt to standardize insurance requirements on all hospital construction projects. It was hoped that not only would these guidelines provide assistance to administrators but also effect some economies in premiums.

The division continued to have a representative on the Joint Technical Planning Committee, a committee consisting of members of Government and the construction industry working together on mutual problems. This committee had been responsible for the standardization of contract documents, a firm price policy, and improved tendering procedures. An offshoot of this committee was the Construction Mediation Council, which had been most successful during the year in reducing the adversary elements between the owner and the contractor. The Mediation Council was able to resolve a number of disputes quite successfully, therefore avoiding the necessity of their going to arbitration or to court. The services of the Council was available for any disputes arising on Government-funded construction projects.

The additional work load created for the division by the large projects delayed the acute care guidelines and the revision of the extended-care guidelines. The new Government policy of allocating capital funds for hospital construction over five-year periods for the first time makes regional hospital districts and hospital boards aware of the total funds which are available for their project.

PROJECTS COMPLETED DURING 1977

Burnaby General Hospital—On September 30, 1977, the Minister of Health officially opened the new addition. The project raised the acute rated capacity to 414 beds, which was a reduction in the approved capacity of 494 acute beds. The reduction was in compliance with the bed matrix for the Greater Vancouver Regional Hospital District.

A renovation project was still under way at the hospital.

Cumberland—A new intermediate care unit of 50 beds and a diagnostic and treatment centre with six holding beds were opened in June 1977.

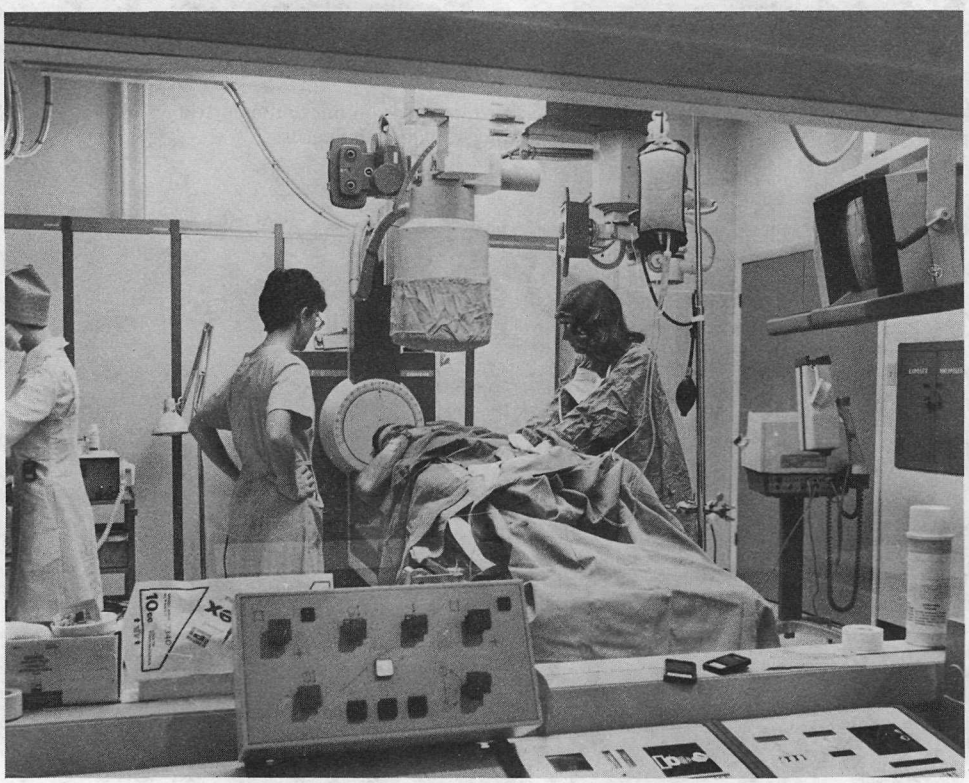
Delta—On January 28, 1977, the Minister of Health officially opened the new 100-bed extended-care hospital.

Elkford—A new diagnostic and treatment centre with three holding beds was officially opened by George Haddad, M.L.A., on May 21, 1977.

Fort Nelson General Hospital—The new north addition, which includes emergency, laboratory, and administration offices; and the new south addition, which includes a new pædiatric suite, central stores, and space later to be used as a Physiotherapy Department, were opened by the Minister of Health on November 4, 1977. Renovations were still under way at the hospital at the year-end.

Wrinch Memorial Hospital, Hazelton—On May 11, 1977, the Minister of Health officially opened the new hospital, which contains 27 acute beds, plus eight in "shell" and four extended-care beds.

Queen's Park Extended Care Hospital, New Westminster, is one of the many projects completed in 1977. The facility provides 300 beds.



Cardiac catheterization laboratory at St. Paul's Hospital, Vancouver, was opened to patients in January 1977. The laboratory is equipped to carry out several types of angiograms, and the procedures are recorded on both still and movie films. reference.

Medical Services Plan stores physician claim cards on microfilm cartridges in background, each holding 13,000 claim cards.

Riverview Hospital, a major Government institution, arranged an informative staff "open house" in the spring of 1977.

Royal Inland Hospital, Kamloops—Stage I, Phase II, of an expansion and renovation program, providing for the expansion of diagnostic services and 14 beds in "shell," was completed in July 1977.

A project fulfilling requirements of the Fire Marshal, including improvements to the 1911 and 1945 wings, was completed in October 1977.

Kelowna General Hospital—A new 100-bed Cottonwoods Extended-care Unit was officially opened by the Minister of Health on October 20, 1977.

Nanaimo General Hospital—A project to complete a "shell" area for a 12-bed intensive care unit was completed in November 1977. Only nine beds were to be placed in service initially.

Queen's Park Hospital, New Westminster—The new 300-bed extended-care hospital, of which 100 beds are for teaching purposes, was officially opened by the Minister of Health on October 14, 1977.

Pemberton—On June 28, 1977, the Minister of Health officially opened the new Pemberton Diagnostic and Treatment Centre. The centre has three holding beds.

Powell River General Hospital—A project to replace the steam and condensate return lines between the hospital and the MacMillan Bloedel Limited mill was completed late in 1977.

Queen Charlotte Islands General Hospital—A project to upgrade mechanical and electrical services was completed in 1977.

Mater Misericordiæ Hospital, Rossland—The first extended-care patients were admitted to the renovated second floor area on May 12, 1977.

Mills Memorial Hospital, Terrace—The completion of the additions and alterations program, as well as 16 psychiatric beds and six day care psychiatric spaces, was marked by opening ceremonies on July 11, 1977. The first patients were admitted to the unit on August 17, 1977.

Tofino General Hospital—An expansion and renovation program including emergency laboratory and radiology departments was completed at the end of 1977.

Vancouver

Children's Hospital—The temporary expansion of the Surgical Suite was completed in April 1977 and the Cleft Palate Unit in the latter part of 1977.

Mount St. Joseph Hospital—On May 18, 1977, the Minister of Health officially opened the completed expansion and renovation project at the hospital. The project provided an additional 70 acute and 94 extended-care beds for a total rated capacity of 161 acute and 150 extended-care beds. However, in consequence of the Greater Vancouver Regional Hospital District bed matrix, the new acute rated capacity will be 151 beds.

St. Paul's Hospital—Alteration and improvements to diagnostic and treatment and service areas were completed in February 1977.

St. Vincent's Hospital—Phase II of the hospital's expansion program was completed late in 1977. The project involved alterations and renovations to the 1939 East Wing, including the alteration of the old dietary department for ambulatory services, renovation of the radiology and physiotherapy departments, and upgrading the electrical services.

University of British Columbia Health Sciences Centre—The new 300-bed extended-care hospital was officially opened by the Minister of Health on July 12, 1977.

Vancouver General Hospital—The new Surgical Day Care Facility and the renovations of the Heather Pavilion D-Floor operating-rooms were completed in July 1977.

Renovations to the Burn Unit in the Fairview Pavilion were completed in October 1977.

Preliminary work on the new Emergency Department (site clearance, etc.), was completed in August 1977.

VICTORIA

Glengarry Hospital—Phase I, excavation, to provide an additional 150 extended-care beds was completed toward the end of 1977.

Mount St. Mary Hospital—A kitchen renovation and addition project was completed at the hospital in 1977.

Royal Jubilee Hospital—Interim renovations to upgrade Emergency Department were completed in October 1977.

PROJECTS UNDER CONSTRUCTION AT YEAR-END

Matsqui-Sumas-Abbotsford General Hospital—Phase I of an addition project —(*a*) a surgery department addition and (*b*) the provision of 20 psychiatric beds— was under way at the hospital at the year-end. The project would eventually provide an additional 129 acute beds.

Burnaby General Hospital—Renovation part of a major expansion project.

Dawson Creek District Hospital—Stage II, including the expansion of the administration area, day care surgery, emergency, and radiology.

Fort Nelson General Hospital—Renovations include modification to the boiler and emergency generator rooms, female staff facilities, kitchen, laundry, cafeteria, radiology, and other general renovations.

Langley Memorial Hospital—An extended-care unit to provide 75 beds.

Mission Memorial Hospital—Provision of an extended-care unit of 50 beds.

Royal Columbian Hospital, New Westminster—A major expansion consisting of an addition of 54 beds for an eventual capacity of 463 acute beds. The reduction from the originally approved capacity of 525 acute beds was brought about by the implementation of the bed matrix for the Greater Vancouver Regional Hospital District.

Lions Gate Hospital, North Vancouver—The Northern (Services) expansion project.

South Okanagan General Hospital, Oliver—Construction of a 75-bed extended-care unit.

Eagle Ridge Hospital & Health Care Centre, Port Moody—Phase I of a project which would eventually provide 110 acute beds and 75 extended-care beds. The first phase included site clearance.

Saanich Peninsula Hospital—Construction of a 75-bed acute-care addition.

Michel-Natal District Hospital, Sparwood—A new 27-bed acute hospital.

VANCOUVER

Shaughnessy Hospital—Fire protection upgrading project.

Sunny Hill Hospital for Children—A fire protection upgrading project.

UBC Health Sciences Centre—Construction of a new 240-bed acute hospital.

Vancouver General Hospital—Preliminary work on the new Emergency Department project, with excavation.

VICTORIA

Glengarry Hospital—Phase II of a project to provide an additional 150 extended-care beds at the hospital.

Victoria General Hospital—Renovations to the Radiology Suite.

TENDERING STAGE AT YEAR-END

Prince George Regional Hospital—75-bed extended-care unit.

PROJECTS IN ADVANCED STAGES OF PLANNING

Castlegar and District Hospital—Completion of "shell' area for 10 additional extended-care beds.

St. Joseph's General Hospital, Comox—Expansion of diagnostic and treatment facilities.

Creston Valley Hospital—Enlargement of the Emergency Department.

Cowichan District Hospital, Duncan—Alterations to existing Intensive Care/Coronary Care Unit.

Lady Minto Gulf Island Hospital, Ganges—Expansion of services and the addition of 10 extended-care beds.

Royal Inland Hospital, Kamloops—Stage II, addition and replacement of acute beds plus necessary services.

Mission Memorial Hospital—37 acute-bed addition.

Prince George Regional General Hospital—Stage II, improvement of central power plant.

St. Mary's Hospital, Sechelt—Expansion of services.

Trail Regional Hospital—Phases II and III, services expansion, fire protection, and electrical upgrading.

Vancouver General Hospital—New Emergency Department (Stage II).

ADDITIONAL PROJECTS APPROVED AND IN VARIOUS STAGES OF PLANNING

New facilities (acute hospitals)—Delta (75), Port McNeill (10), Port Moody (110), Victoria General Hospital North (300 beds on a new site).

Additional and/or replacement acute beds—Abbotsford (129, including 15 activation/rehabilitation and 20 psychiatric beds under way), Cranbrook (42 deferred), Duncan (12 psychiatric), Mackenzie (seven plus five in "shell"), Maple Ridge (53), Nanaimo (26), Richmond (76), Salmon Arm (12), Surrey (24), Vancouver—Cancer Control Agency of B.C. (44), New Children's/Grace (200 pædiatric, 90 obstetrical), St. Paul's (replacement beds).

New extended-care facilities—Creston (35, deferred), Merritt (10, deferred), Parksville (55), Port Moody (75), Princeton (10, deferred).

Additional extended-care beds—Campbell River (15, deferred), Comox (15), Salmon Arm (15), Surrey (78), Vancouver (Metropolitan Council, 40 plus 40 intermediate care), Shaughnessy (150 veterans), Sunny Hill (22), Vernon (38), Victoria (St. Mary's Priory, 51).

Expansion and/or updating of services—Chilliwack, Clearwater, Cranbrook (deferred), Fort St. John, Maple Ridge, Nanaimo, Penticton, Prince George, Richmond, Surrey, Tahsis, Vancouver (St. Paul's, Shaughnessy, Sunny Hill, Vancouver General), Victoria (Royal Jubilee, Victoria General South).

MEDICAL CONSULTATION DIVISION

The function of this division is to provide medical consultation with Hospital Programs, with other departments of the Government, with hospitals at all levels of care, and with regional hospital districts. For example, within Hospital Programs, in addition to medical consultation, the division assists in planning and implementation of new services by having representatives on the Planning Group, Equipment Committee, and the Functional Program Review Committee of Hospital Programs.

The division continued to maintain liaison with other health agencies such as the College of Physicians and Surgeons of British Columbia, the B.C. Medical Association, B.C. Health Association, and the Faculty of Medicine at UBC. Understandably, in a province with more than a hundred hospitals, problems relating to medical staff activities occur and these organizations provided valued assistance in the resolution of difficulties. Participation on the Medical Advisory Committee of the B.C. Medical Association with advisory subcommittees to the Government on many subjects continued to be a useful function.

Medical Consultation Division has the responsibility for a general auditing of the quality of medical care for hospitals. This function is performed by a central review of discharge diagnoses and related information, patterns of care, hospital role, and by on-site visits. Regular visits by the Medical Record Librarian Consultant assist hospitals in maintaining a high standard of medical documentation. The audit process also involves assessment of eligibility for acute care or other types of care or insured benefit. During 1977, registered nurses within the division audited and medically coded approximately 460,000 admission/separation records, and 70,000 day care surgical services records. The coded information was utilized by the Research Division to produce both the regional and hospital profiles necessary for planning and audit functions.

The Medical Consultation Division has the responsibility for both the program and eligibility status of extended-care patients. The Central Registry for Long-term Care applications was developing a computer application to handle all data requirements arising from long-term care program assessment material. In the meantime, the manual filing system continued to manage the hospital waiting-lists. Starting in 1978, these lists will be based on the local assessment teams' evaluation of eligibility criteria and social circumstances. This procedure will be an extension and an improvement of the initial assessment begun in some areas of the Province several years ago. Any applicant for long-term care would be assured of immediate assistance, together with guidance toward the appropriate facility, should institutional care be necessary.

During 1977 there was an increase of approximately 1,000 in the number of extended-care beds available in the Province, bringing the total to slightly over 5,300. New units were opened in Kamloops (100 beds), in the Greater Vancouver

Regional Hospital District (794 beds), and in Rossland (18 beds), together with smaller "holding units" designated for extended care in various community hospitals. A further 175 new extended-care beds would be available for patients in 1978; over 700 more were in various stages of approved planning or construction at year-end.

These institutions receive a regular quarterly review by a special multi-disciplinary team. This function emphasizes a consultative review of the hospitals to assist in establishing optimal patient programs. The review also permits an individual audit to establish the need and eligibility for continuing care. The policy of short-term admission of extended-care patients proved to be very useful, supporting and encouraging relatives who wish to take care of extended-care patients in their own homes, but who require occasional holiday or other relief.

During 1977 the Medical Consultation Division continued to have responsibility for determining eligibility for applicants for admission to the five designated intermediate care homes in the Province, totalling 663 beds. These homes were visited regularly to contribute to the development of an intermediate-care program in the unit and, secondly, to assess the continued eligibility of the residents. On January 1, 1978, these responsibilities will be transferred to the Adult Care Facilities Licensing Board, and its long-term care administrators, who are based in health units around the Province as part of the new Long-term Care Program.

The new Long-term Care Program benefits to be effective January 1, 1978, will also mean that extended care will be a part of continuum of long-term care provided by the Province. However, meeting the needs for care of those residents who are incompatible with the usual units because of mental and emotional handicaps, would still present a challenge to all concerned. It was hoped that this type of care, particularly in larger communities, can be suitably provided within special extended-care programs being developed.

ADMINISTRATIVE SERVICES DIVISION

The division provides a variety of administrative services to the other divisions of Hospital Programs and to outside agencies. These services include the following:

ADMINISTRATION

The personnel function, including payroll, recruitment, promotion, and labour relations matters.

The review of requisitions and vouchers for all divisions, including travel expenses and requisitions for supplies and equipment.

The receipt and deposit of all incoming cheques.

The handling and distribution of all hospital forms and the sorting and distribution of mail.

The co-ordination of the preparation of the annual estimates for Hospital Programs.

The preparation and publication of the *Hospital Programs Bulletin.*

The preparation and distribution of information pamphlets for Hospital Programs.

LEGISLATION

The drafting of legislation, regulations, and Orders in Council related to the various statutes administered by Hospital Programs. In performance of these duties the division works closely with the Ministry of the Attorney-General. Statutes which relate to the division's activities include

- *Hospital Insurance Act;*
- *Hospital Act;*
- *Regional Hospital Districts Act;*
- *British Columbia Regional Hospital Districts Financing Authority Act;*
- *Medical Centre of British Columbia Act;*
- *Practical Nurses Act.*

HOSPITAL SOCIETIES

The provision of assistance to hospital societies in connection with the drafting of hospital constitutions and by-laws and their interpretation and application.

The review of hospital by-laws or amendments to hospital by-laws prior to their submission for Government approval as required under the *Hospital Act.*

The processing, in collaboration with the Hospital Consultation and Inspection Division, of transfers of private hospital property and transfers of share in the capital stock of private hospital corporations.

The co-ordinating of the acquisition and disposal of hospital sites and private hospitals.

In conjunction with the Land Registry Office, control over the property of hospitals and private hospitals to ensure that the property records are suitably endorsed so that land transfers may not be made until they are approved under the *Hospital Act.*

FEDERAL-PROVINCIAL HOSPITAL ARRANGEMENTS

The drafting and processing of the necessary amendments to the Federal-Provincial Agreement and associated matters.

During the year, revised financial arrangements were agreed to with the Federal Government and, commencing April 1977, shared cost arrangements under the *Hospital Insurance and Diagnostic Services Act* were terminated.

REGIONAL HOSPITAL DISTRICTS

In conjunction with officials of other divisions, other Government ministries, and the various regional hospital districts, the division assists in processing capital expense proposals and in arranging for the necessary by-laws and Orders in Council for temporary borrowings and related matters.

ELIGIBILITY

The review of applications for benefits made by or on behalf of persons admitted to hospitals.

The maintenance of uniform standards of eligibility in all hospitals and the provision of assistance to hospitals in training admitting staff.

The handling of applications to the Health Insurance Supplementary Fund.

THIRD-PARTY LIABILITY

This section is responsible for the review of all hospitalization reports for patients admitted to hospitals with accidental injuries. This also includes the processing and verification of the reimbursement from public liability companies for hospital expenses paid on behalf of accident victims. During the year ended March 31, 1977, a total of $3,609,575.19 was recovered through the process.

APPROVED HOSPITALS

Hospitals as Defined Under the Hospital Insurance Act Revised to June 23, 1977

(A) PUBLIC HOSPITALS (ACUTE CARE)

A. Maxwell Evans Clinic, Vancouver.
Armstrong & Spallumcheen Hospital, Armstrong.
Arrow Lakes Hospital, Nakusp.
Ashcroft and District General Hospital, Ashcroft.
Bella Coola General Hospital, Bella Coola.
Boundary Hospital, Grand Forks.
Bulkley Valley District Hospital, Smithers.
Burnaby General Hospital, Burnaby.
Burns Lake and District Hospital, Burns Lake.
Campbell River & District General Hospital, Campbell River.
Cariboo Memorial Hospital, Williams Lake.
Castlegar and District Hospital, Castlegar.
Chemainus General Hospital, Chemainus.
Chetwynd General Hospital, Chetwynd.
Children's Hospital, Vancouver.
Chilliwack General Hospital, Chilliwack.
Cowichan District Hospital, Duncan.
Cranbrook and District Hospital, Cranbrook.
Creston Valley Hospital, Creston.
Dawson Creek and District Hospital, Dawson Creek.
Dr. Helmcken Memorial Hospital, Clearwater.
Enderby and District Memorial Hospital, Enderby.
Fernie District Hospital, Fernie.
Fort Nelson General Hospital, Fort Nelson.
Fort St. John General Hospital, Fort St. John.
Fraser Canyon Hospital, Hope.
G. R. Baker Memorial Hospital, Quesnel.
Golden and District General Hospital, Golden.
Grace Hospital, Vancouver.
Kelowna General Hospital, Kelowna.
Kimberley and District Hospital, Kimberley.
Kitimat General Hospital, Kitimat.
Kootenay Lake District Hospital, Nelson.
Lady Minto Gulf Islands Hospital, Ganges.
Ladysmith and District General Hospital, Ladysmith.
Langley Memorial Hospital, Langley.
Lillooet District Hospital, Lillooet.
Lions Gate Hospital, North Vancouver.
McBride and District Hospital, McBride.
Mackenzie and District Hospital, Mackenzie.
Maple Ridge Hospital, Maple Ridge.
Mater Misericordiæ Hospital, The, Rossland.
Matsqui-Sumas-Abbotsford General Hospital, Abbotsford.
Michel-Natal District Hospital, Sparwood.
Mills Memorial Hospital, Terrace.
Mission Memorial Hospital, Mission.
Mount Saint Joseph Hospital, Vancouver.
Nanaimo Regional General Hospital, Nanaimo.
Nicola Valley General Hospital, Merritt.
Ocean Falls General Hospital, Ocean Falls.
100 Mile District General Hospital, 100 Mile House.
Peace Arch District Hospital, White Rock.
Penticton Regional Hospital, Penticton.
Port Alice Hospital, Port Alice.
Port Hardy Hospital, Port Hardy.
Powell River General Hospital, Powell River.
Prince George Regional Hospital, Prince George.
Prince Rupert Regional Hospital, Prince Rupert.
Princeton General Hospital, Princeton.
Queen Charlotte Islands General Hospital, Queen Charlotte City.
Queen Victoria Hospital, Revelstoke.
Rest Haven General Hospital, Sidney.
Richmond General Hospital, Richmond.
Royal Columbian Hospital, New Westminster.
Royal Inland Hospital, Kamloops.
Royal Jubilee Hospital, Victoria.
R. W. Large Memorial Hospital, Waglisla.
St. Bartholomew's Hospital, Lytton.
St. George's Hospital, Alert Bay.
St. John Hospital, Vanderhoof.
St. Joseph's General Hospital, Comox.
Saint Mary's Hospital, New Westminster.

St. Mary's Hospital, Sechelt.
St. Paul's Hospital, Vancouver.
St. Vincent's Hospital, Vancouver.
Shaughnessy Hospital, Vancouver.
Shuswap Lake General Hospital, The, Salmon Arm.
Slocan Community Hospital, New Denver.
South Okanagan General Hospital, Oliver.
Squamish General Hospital, Squamish.
Stewart General Hospital, Stewart.
Stuart Lake Hospital, Fort St. James.
Summerland General Hospital, Summerland.
Surrey Memorial Hospital, Surrey.
Tahsis Hospital, Tahsis.
Tofino General Hospital, Tofino.
Trail Regional Hospital, Trail.
University Health Service Hospital, University of British Columbia, Vancouver.
University of British Columbia Health Sciences Centre Hospital, Vancouver.
Vancouver General Hospital, Vancouver.
Vernon Jubilee Hospital, Vernon.
Victoria General Hospital, Victoria.
Victorian Hospital, Kaslo.
West Coast General Hospital, Port Alberni.
Windermere District Hospital, Invermere.
Wrinch Memorial Hospital, Hazelton.

(B) REHABILITATION HOSPITALS

G. F. Strong Rehabilitation Centre, Vancouver.
Gorge Road Hospital, The, Victoria.
Holy Family Hospital, Vancouver.
Pearson Hospital (Poliomyelitis Pavilion), Vancouver.
Queen Alexandra Hospital for Children, Victoria.
Sunny Hill Hospital for Children, Vancouver.

(C) EXTENDED-CARE HOSPITALS

Delta Centennial Hospital, Delta.
Fellburn Hospital, Burnaby.
Juan de Fuca Hospital, Victoria.
Louis Brier Hospital, The, Vancouver.
Menno Hospital, Abbotsford.
Mount St. Francis Hospital, Nelson.
Mount Saint Joseph Hospital (top floor), Vancouver.
Mount St. Mary Hospital (excluding top floor), Victoria.
Overlander Extended Care Hospital, Kamloops.
Pearson Hospital (excluding facilities for tuberculosis patients), Vancouver.
Pouce Coupe Community Hospital. Pouce Coupe.
Queen's Park Hospital, New Westminster.
Saanich Peninsula Hospital, Saanichton.

(D) DIAGNOSTIC AND TREATMENT CENTRES

Arthritis Centre of British Columbia, The, Vancouver.
Cumberland General Hospital, Cumberland.
Elkford and District Diagnostic and Treatment Centre, Elkford.
Gold River Health Clinic, Gold River.
Houston Hospital, Houston.
Keremeos Diagnostic and Treatment Centre, Keremeos.
Pemberton and District Diagnostic and Treatment Centre, Pemberton.

(E) OUTPOST HOSPITALS

Red Cross Outpost Nursing Station, Alexis Creek.
Red Cross Outpost Nursing Station, Atlin.
Red Cross Outpost Nursing Station, Bamfield.
Red Cross Outpost Nursing Station, Blue River.
Red Cross Outpost Nursing Station, Edgewood.
Red Cross Outpost Nursing Station, Kyuquot.

(F) FEDERAL HOSPITALS

Canadian Forces Station Hospital Holberg, San Josef.
Canadian Forces Station Hospital Masset, Masset.

(G) PRIVATE HOSPITALS

Cassiar Asbestos Corporation Private Hospital, Cassiar.
Mica Creek Private Hospital, Mica Creek.

STATISTICAL DATA

The tables below represent statistical data compiled by the Hospital Finance Division, showing the extent of hospital coverage provided to the people of British Columbia through Hospital Programs.

In 1977 there were 103 public general hospitals as well as six diagnostic and treatment centres. In addition, care was also provided by six Red Cross outpost hospitals; two Federal hospitals; two contract hospitals; five public rehabilitation hospitals, plus one rehabilitation hospital operated by the Provincial Government. There was also the specialized out-patient facility of the Canadian Arthritic Society at their Vancouver Centre, who provide services in several facilities throughout the Province. Hospital coverage under the *Hospital Insurance Act* for patients in the extended-care hospitals and units commenced December 1, 1965, and by the end of 1977 had increased to 61 extended-care units, which includes one facility operated by the Provincial Government.

Data for the year 1977 have been estimated, based on reports submitted by hospitals to August 31, 1977, and are subject to revision when the actual figures for the year are submitted.

Table 17 shows that 387,949 adult and children patients were discharged (separated) from British Columbia public hospitals in 1977, a decrease of 2,692 or 0.69 per cent less than 1976. This table also shows that 95.8 per cent of the total adult and children patients discharged (separated) from British Columbia public hospitals were covered by Hospital Programs. Table 18 indicates that, in 1977, Hospital Programs was responsible in British Columbia for 3,278,476 general hospital days of care for adults and children, a decrease of 64,696 days or 1.94 per cent less than in 1976.

As shown in Table 19, the average length of stay for public hospitals adult and children patients in British Columbia during 1977 was 8.45 days and the days of care per 1,000 population was 1,432. These figures, which show a continuation of the trend of decreased length of stay, were a result of a more effective utilization of hospital beds and ambulatory services. For comparison purposes, the data for extended-care hospitals were not included in the above observations, although an additional 639 days of care per 1,000 population were provided for these patients.

Table 20 is supplemented by Table 21 because the number and volume of ambulatory services covered by Hospital Programs expanded considerably. It should be noted that psychiatric, diabetic, and renal dialysis day-care services are provided only in a limited number of hospitals. Services listed under "Other" are related to special out-patient services provided by the Cancer Control Agency of B.C., G. F. Strong Rehabilitation Centre, and the Narcotic Addiction Services (transferred program to Public Health in April 1977). The growth of ambulatory services reflected a trend toward the broader provision of hospital-based services, providing greater patient convenience and reducing the pressure for construction and maintenance of in-patient beds, which is partially reflected by the reduction in incidence of patient-days noted above.

Table 17—Patients Separated and Proportion Covered by Hospital Programs, British Columbia Public General Hospitals[1] Only (Excluding Federal, Private, Extended-care, and Out-of-Province Hospitalization)

	Total Hospitalized in Public Hospitals			Covered by Hospital Programs		
	Adults and Children	New-born	Total	Adults and Children	New-born	Total
Patients separated—						
1972	391,732	34,774	426,506	375,373	33,595	408,968
1973	395,120	34,544	429,664	377,719	33,599	411,318
1974	412,500	35,566	448,066	394,507	34,665	429,172
1975	415,805	36,538	452,343	398,279	35,700	433,979
1976[2]	408,278	36,117	444,395	390,641	35,292	425,933
1977[3]	404,984	36,872	441,856	387,949	36,132	424,081
Percentage of total patients separated—						
1972	----	----	----	95.8	96.6	95.9
1973	----	----	----	95.6	97.3	95.7
1974	----	----	----	95.6	97.5	95.8
1975	----	----	----	95.8	97.7	95.9
1976[2]	----	----	----	95.7	97.7	95.8
1977[3]	----	----	----	95.8	98.0	96.0

[1] Includes rehabilitation hospitals.
[2] Amended as per final report received from hospitals.
[3] Estimated, based on hospital reports to August 31, 1977.

Table 18—Total Patient-days and Proportion Covered by Hospital Programs, British Columbia Public General Hospitals[1] Only (Excluding Federal, Private, Extended-care, and Out-of-Province Hospitalization)

	Total Hospitalized in Public Hospitals			Covered by Hospital Programs		
	Adults and Children	New-born	Total	Adults and Children	New-born	Total
Patient-days—						
1972	3,462,509	219,158	3,681,667	3,323,252	210,764	3,534,106
1973	3,400,453	214,003	3,614,456	3,257,106	206,178	3,463,284
1974	3,582,774	213,439	3,796,213	3,400,873	206,376	3,607,249
1975	3,565,532	213,846	3,779,378	3,413,630	207,471	3,621,101
1976[2]	3,488,179	207,316	3,695,495	3,343,172	201,111	3,544,283
1977[3]	3,413,413	206,330	3,619,743	3,278,476	200,487	3,478,963
Percentage of total patient-days—						
1972	----	----	----	96.0	96.2	96.0
1973	----	----	----	95.8	96.3	95.8
1974	----	----	----	94.9	96.7	95.0
1975	----	----	----	95.7	97.0	95.8
1976[2]	----	----	----	95.8	97.0	95.9
1977[3]	----	----	----	96.0	97.2	96.1

[1] Includes rehabilitation hospitals.
[2] Amended as per final report received from hospitals.
[3] Estimated, based on hospital reports to August 31, 1977.

Table 19—Patients Separated, Total Patient-days and Average Length of Stay According to Type and Location of Hospital for Hospital Programs Patients Only, and Days of Care per 1,000 of Covered Population

	Total (Excluding Extended Care)		B.C. Public Hospitals		Other B.C. Hospitals, Including Federal and Private		Institutions Outside British Columbia		Extended-care Hospitals
	Adults and Children	New-born	Adults and Children	New-born	Adults and Children	New-born	Adults and Children	New-born	
Patients separated—									
1972	388,747	33,878	375,353	33,595	8,140	39	5,234	244	1,822
1973	392,550	33,962	377,719	33,599	8,092	34	6,739	329	2,293
1974	404,271	34,979	394,507	34,665	3,572	78	6,190	237	2,449
1975	406,000	36,059	398,279	35,700	1,425	72	6,296	287	3,022
1976[1]	400,675	35,832	390,641	35,292	475	80	9,559	460	3,592
1977[2]	396,556	36,546	387,949	36,132	475	80	8,132	334	3,751
Patient-days—									
1972	3,543,587	212,549	3,323,252	210,764	168,950	264	51,385	1,521	817,321
1973	3,474,733	208,154	3,257,106	206,178	155,150	172	62,477	2,164	1,044,529
1974	3,565,198	208,224	3,400,873	206,376	103,064	464	61,261	1,384	1,227,949
1975	3,486,573	209,631	3,413,630	207,471	15,517	336	57,426	1,824	1,357,352
1976[1]	3,424,979	204,156	3,343,172	201,111	1,647	390	80,160	2,655	1,498,797
1977[2]	3,346,531	203,199	3,278,476	200,487	1,647	390	66,408	2,322	1,584,183
Average days of stay—									
1972	9.12	6.27	8.85	6.27	20.76	6.77	9.82	6.23	448.58
1973	8.85	6.14	8.62	6.14	19.17	5.06	9.27	6.58	455.53
1974	8.81	5.95	8.62	5.95	28.85	5.95	9.90	5.84	501.41
1975	8.59	5.81	8.57	5.81	10.89	4.67	9.12	6.36	449.16
1976[1]	8.55	5.70	8.56	5.70	3,47	4.88	8.39	5.77	417.26
1977[2]	8.44	5.56	8.45	5.55	3.47	4.88	8.17	6.95	422.34

[1] Amended as per final reports from hospitals.

[2] Estimated, based on hospital reports to August 31, 1977. Estimated patient-days (including newborn) per 1,000 of population covered by Hospital Programs: 1972, 1,669; 1973, 1,600; 1974, 1,531; 1975, 1,512; 1976, 1,474; 1977, 1,432. (Because the Armed Forces, Royal Canadian Mounted Police, and some other groups are not insured under the Provincial plan, the actual incidence of days would be somewhat higher than shown.) In addition, estimated patient-days per 1,000 population for extended care amounted to 372 in 1972, 454 in 1973, 502 in 1974, 555 in 1975, 603 in 1976, and 639 in 1977. Population figures according to latest census figures.

Table 20—Summary of the Number of Hospital Programs In-patients and Out-patients, 1972–77

	Total Adults, Children, and Newborn In-patients	Estimated Number of Emergency, Minor Surgery, Day Care, and Out-patients	Total Receiving Benefits
1972	424,447	453,589	878,036
1973	428,805	792,367	1,221,172
1974	441,699	1,045,460	1,487,159
1975	445,081	1,191,650	1,636,731
1976[1]	440,099	1,228,723	1,668,822
1977[2]	436,853	1,297,510	1,734,363

[1] Amended as per final Reports received from hospitals.

[2] Estimated, based on hospital reports to August 31, 1977.

Table 21—Summary of Hospital Programs Out-patient Treatments by Category, 1972–77

	1972	1973	1974	1975	1976	1977
Psychiatry—						
Out-patient	7,955	8,943	12,771	17,915	22,352	25,290
Day care	8,131	9,277	19,737	34,219	40,392	46,336
Minor and emergency	267,203	408,925	503,492	571,055	542,223	575,000
Day care surgery	44,633	50,089	55,920	62,019	66,663	75,580
Diabetic day care[1]	167	885	1,493	2,354	3,426	4,296
Physiotherapy[2]	.....	162,997	296,863	338,583	368,867	380,462
Dietetic counselling[3]	.....	.....	.....	5,937	10,218	13,630
Renal dialysis, day care[4]	.....	.....	.....	.....	10,481	18,351
Other[5]	125,500	151,251	155,184	159,568	164,101	158,565
Totals	453,589	792,367	1,045,460	1,191,650	1,228,723	1,297,510

1 Commenced October 1972.
2 Commenced April 1973.
3 Commenced January 1975.
4 Commenced June 1, 1976.
5 Other includes (*a*) cancer out-patients, (*b*) rehabilitation day care, (*c*) narcotic addiction out-patients (transferred program to public health in April 1977).

Table 22—Patients Separated, Total Days' Stay, and Average Length of Stay in British Columbia Public Hospitals for Hospital Programs Patients Only, Grouped According to Bed Capacity, 1977[1] (Excluding Extended-care Hospitals)

	Bed Capacity					
	Total	250 and Over	100 to 249	50 to 99	25 to 49	Under 25
Patients separated—						
Adults and children	387,949	189,691	109,032	48,601	28,354	9,934
Newborn	36,132	14,485	11,352	6,874	2,451	970
Patient-days—						
Adults and children	3,278,476	1,737,544	855,023	342,543	185,527	50,196
Newborn	200,487	81,776	64,146	35,207	15,129	4,229
Average days stay—						
Adults and children	8.45	9.16	7.84	7.05	6.54	5.05
Newborn	5.55	5.65	5.65	5.12	6.17	4.36

1 Estimated, based on hospital reports to August 31, 1977.

Table 23—Percentage Distribution of Patients Separated and Patient-days for Hospital Programs Patients Only, in British Columbia Public Hospitals, Grouped According to Bed Capacity, 1977[1] (Excluding Extended-care Hospitals)

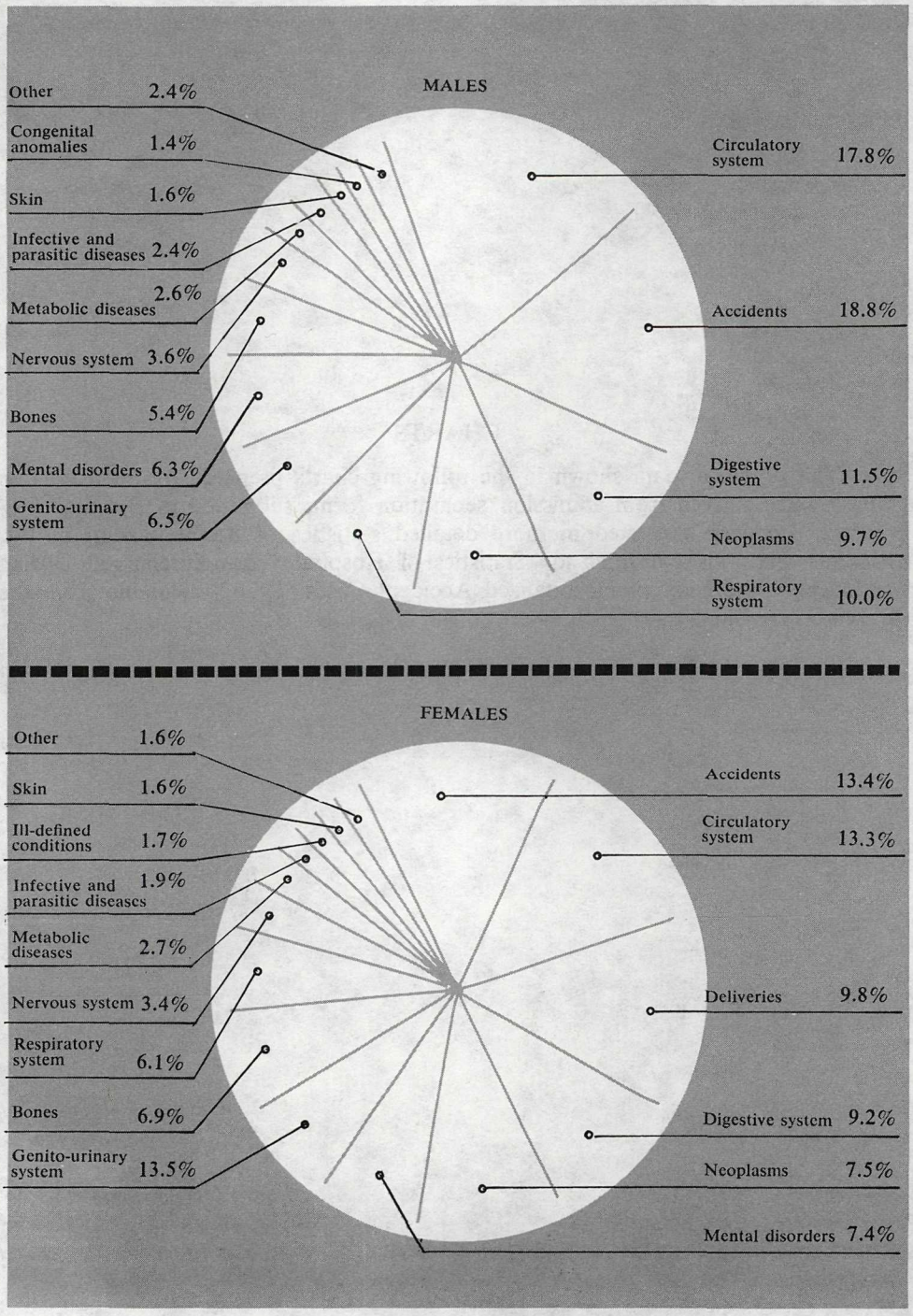
	Bed Capacity					
	Total	250 and Over	100 to 249	50 to 99	25 to 49	Under 25
Patients separated—	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent
Adults and children	100.0	48.90	28.10	12.53	7.31	2.56
Newborn	100.0	40.09	31.42	19.02	6.78	2.68
Patient-days—						
Adults and children	100.0	53.0	26.08	10.45	5.66	1.53
Newborn	100.0	40.79	32.0	17.56	7.55	2.11

1 Estimated, based on hospital reports to August 31, 1977.

CHARTS

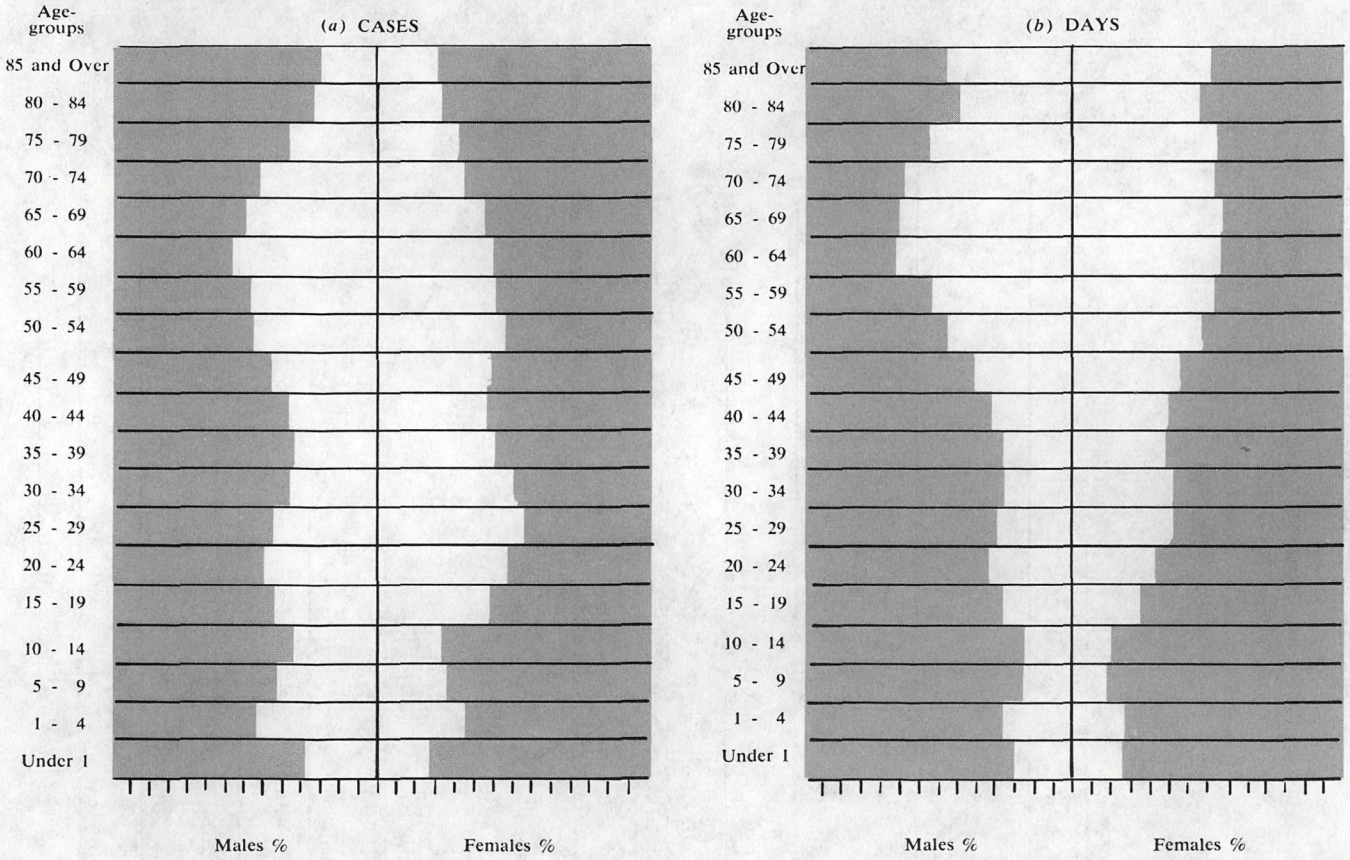
The statistical data shown in the following charts prepared by the Research Division are derived from admission/separation forms submitted to Hospital Programs. Readers interested in more detailed statistics of hospitalization in this Province may wish to refer to "Statistics of Hospital Cases Discharged During 1976" and "Statistics of Hospitalized Accident Cases, 1976," available from the Research Division.

CHART I—PERCENTAGE DISTRIBUTION OF DAYS OF CARE*, BY MAJOR DIAGNOSTIC GROUPS, HOSPITAL PROGRAMS, 1976 (IN DESCENDING ORDER)



* Including rehabilitative care.

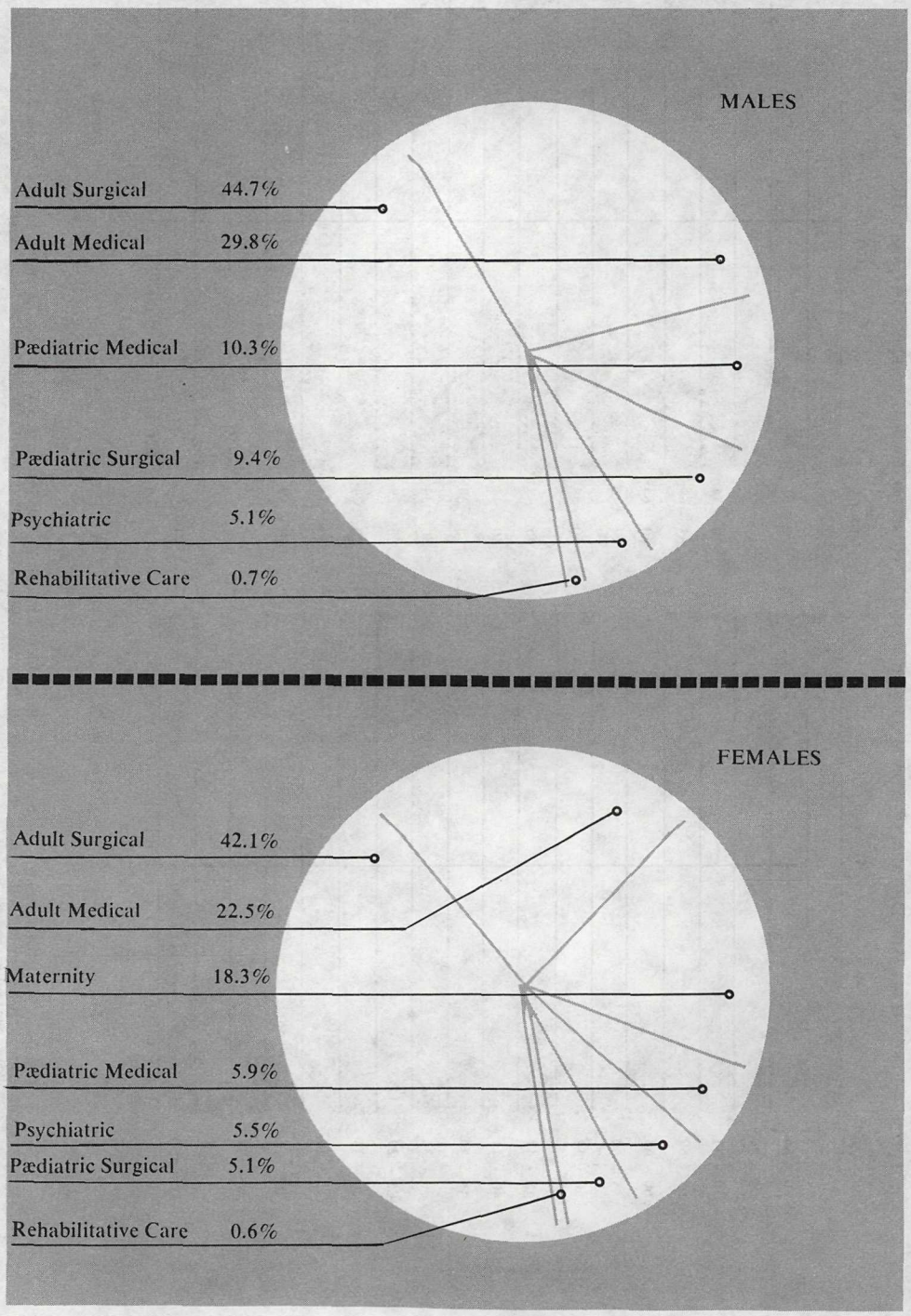
CHART II—PERCENTAGE AGE DISTRIBUTION OF MALE AND FEMALE* HOSPITAL CASES AND DAYS OF CARE,† HOSPITAL PROGRAMS, 1976



* Group XI (Deliveries and Complications of Pregnancy, Childbirth, and Puerperium) has been excluded so as to bring out more clearly the comparison between males and females in respect of hospitalization not connected with the natural process of childbirth.

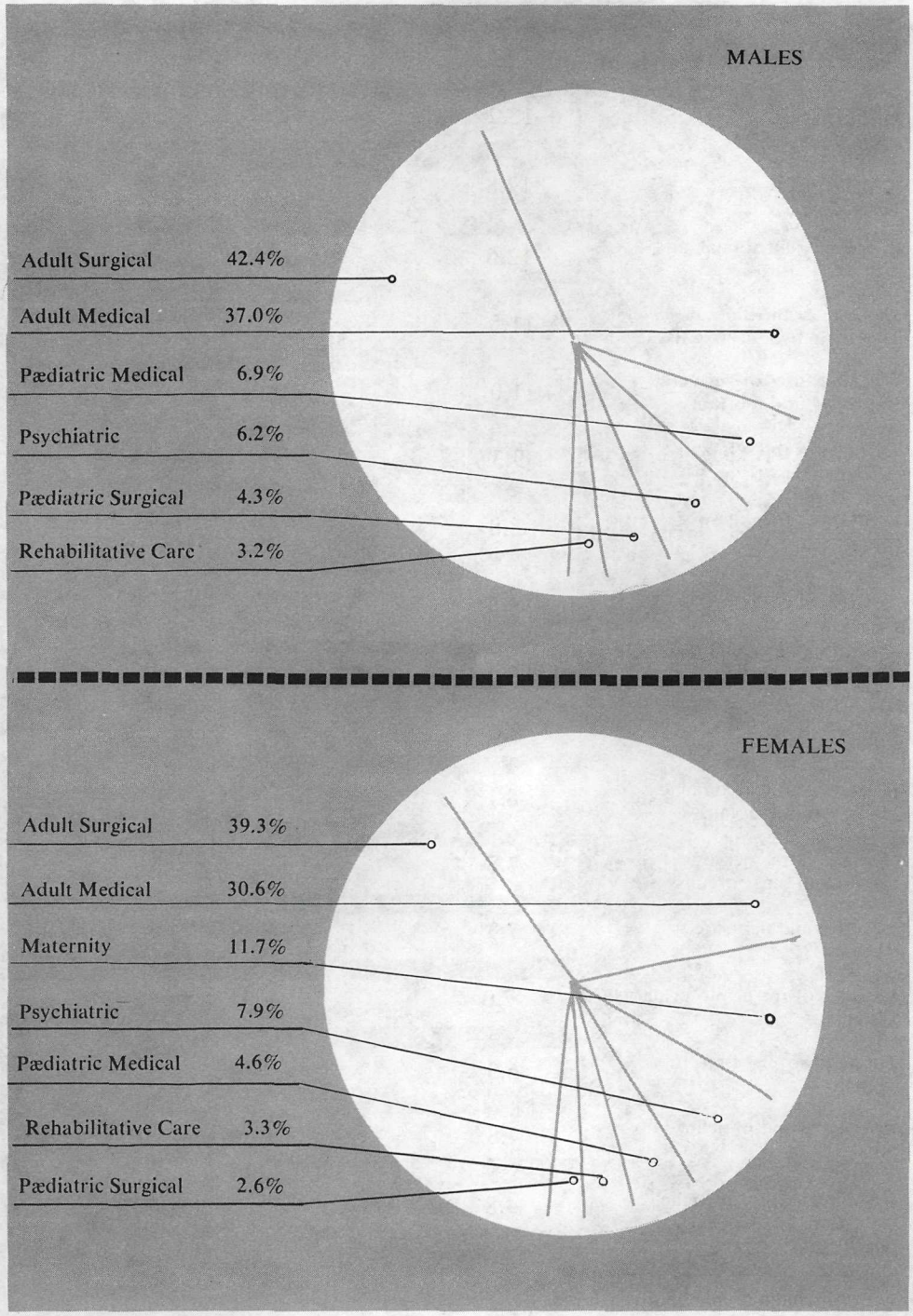
† Acute care only.

CHART III—PERCENTAGE DISTRIBUTION OF HOSPITAL CASES,* BY TYPE OF CLINICAL SERVICE, HOSPITAL PROGRAMS, 1976 (IN DESCENDING ORDER)



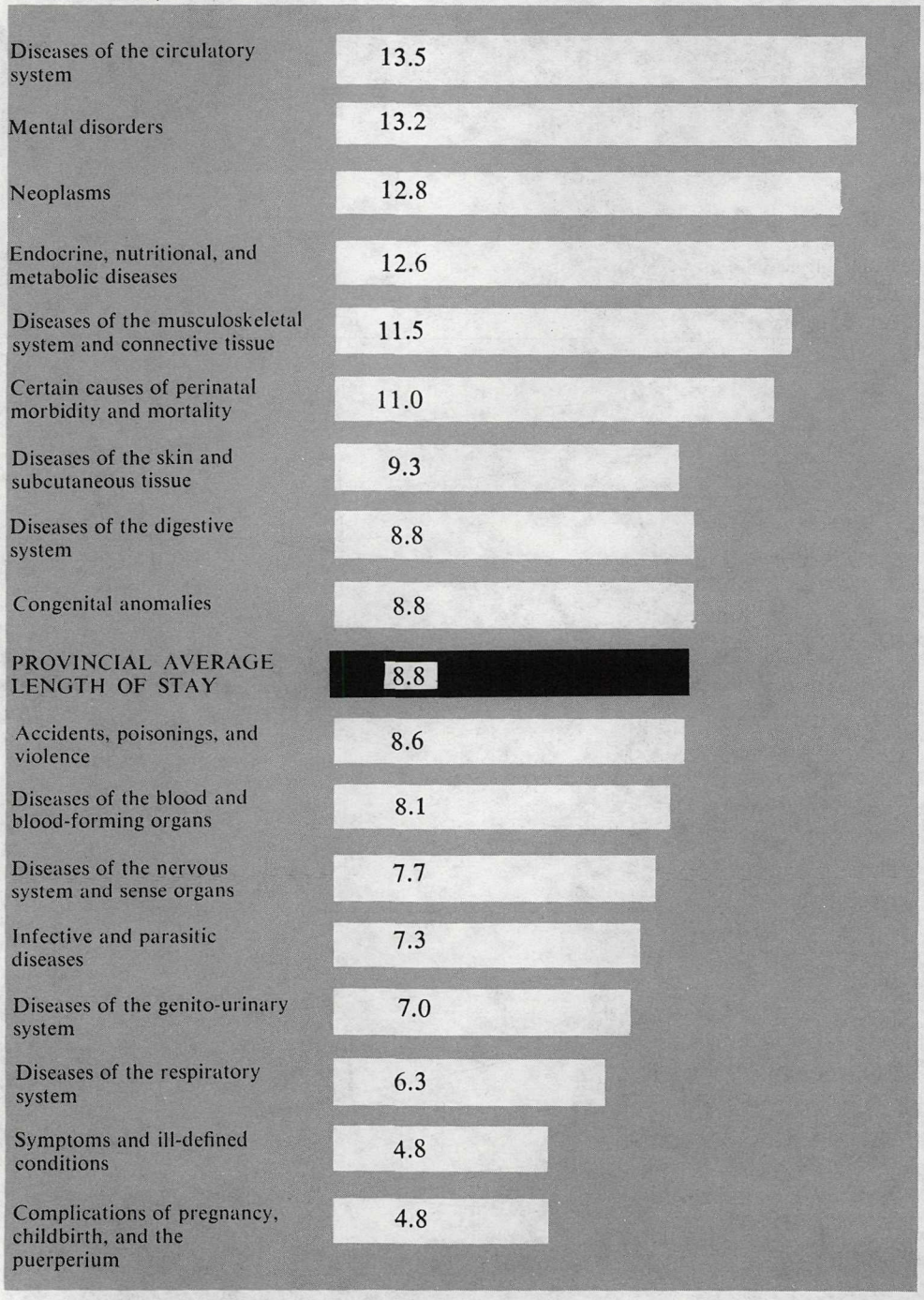
* Including rehabilitative care.

CHART IV—PERCENTAGE DISTRIBUTION OF HOSPITAL DAYS,* BY TYPE OF CLINICAL SERVICE, HOSPITAL PROGRAMS, 1976 (IN DESCENDING ORDER)



* Including rehabilitative care.

CHART V—AVERAGE LENGTH OF STAY OF CASES* IN HOSPITALS IN BRITISH COLUMBIA, BY MAJOR DIAGNOSTIC GROUPS, HOSPITAL PROGRAMS, 1976 (IN DESCENDING ORDER) (EXCLUDING NEWBORNS)



* Including rehabilitative care.

Medical Services Commission

On July 1, 1968, the Government established an over-all Medical Services Plan, which is administered and operated in accordance with the *Medical Services Act* and regulations, under the supervision of the Medical Services Commission. The commission is empowered to function as the public authority appointed by the Government of the Province to be responsible to the Minister in respect of the administration and operation of the plan established under the regulations.

The Medical Services Plan of British Columbia provides a prepaid medical services plan upon uniform terms and conditions for all residents of the Province and their dependants. Insured services under the plan are paid for insured persons regardless of age, state of health, or financial circumstances, provided the premiums fixed by the commission are paid. Payment for the services provided is made, on a fee-for-service basis, according to a tariff of fees approved or prescribed by the commission, or on a salaried, sessional, or contract basis at levels approved by the commission.

MEDICAL SERVICES COMMISSION HIGHLIGHTS

During the past year the commission continued its endeavour to provide a high quality of service to residents of the Province, with emphasis on prompt payment of physicians and improved relations with the public and health professions.

The total expenditure for insured benefits under the Medical Services Plan rose 7.12 per cent to $300,467,866 in 1976/77 from $280,509,129 in 1975/76.

The increased costs to the Medical Services Plan are a result of upward revisions to the fee schedule, increased utilization of benefits, changes in the practitioner/population ratio, and increased population.

BENEFITS UNDER THE PLAN

BASIC MEDICAL SERVICES

The Medical Services Plan provides insurance coverage for all medically required services rendered by medical practitioners, including osteopathic physicians, in British Columbia, and certain surgical procedures of dental surgeons where necessarily preformed in a hospital as provided under the *Medical Care Act* (Canada). A contribution from the Federal Government is payable to the Province toward the cost of these insured services.

ADDITIONAL BENEFITS

In addition to payment for the above services, additional benefits, when rendered in the Province, are provided without extra premium by the Government of British Columbia. All payments are paid only at a tariff of fees approved by the commission. "Year" means calendar year. A brief description of these additional benefits follows.

Chiropractic—Payment for the services of a registered chiropractor is limited in any one year to a total of $75 per patient under the age of 65 years and $100 per patient 65 years of age or over. There is no payment for X-rays taken by a chiropractor.

Naturopathic—Payment for services of a naturopathic physician is limited in any one year to a total of $75 per patient under the age of 65 years and $100 per patient 65 years of age or over. There is no payment for X-rays taken by a naturopathic physician.

Orthoptic treatment—Payment for orthoptic treatment is limited to $50 per patient in any one year and a maximum of $100 per family in any one year when rendered to an insured person on the instructions of, or referral by, a medical practitioner.

Physiotherapy—Payment for the services of a registered physiotherapist on the instructions of, or referral by, a medical practitioner where performed other than in general or rehabilitative hospitals, is limited in any one year to a total of $75 per patient under the age of 65 years and $100 per patient 65 years of age or over. Out-patient physiotherapy services in general hospitals or in rehabilitative hospitals on referral by the medical practitioner are benefits provided by the British Columbia Hospital Programs.

Podiatry—Payment for services of a registered podiatrist is limited to $50 per patient in any one year and a maximum of $100 per family in any one year when rendered other than on the instructions of, or referral by, a medical practitioner within the year. There is no payment for X-rays taken by a podiatrist.

Optometry—Services of registered optometrists are approved for required diagnostic optometric services to determine the presence of any observed abnormality in the visual system. The plan does not pay for the fitting or cost of lenses.

Orthodontic—Service provided by a dental surgeon for an insured person 20 years of age or younger and which is consequentially necessary in the care of a cleft lip and/or cleft palate is paid only where that service arises as part of or following plastic surgery repair performed by a medical practitioner. There is no payment for dentures, appliances, prostheses, or for general dental services other than those referred to under basic medical services involving certain medical procedures of dental surgeons, where necessarily performed in a hospital.

Special nursing—Special nursing services of a registered nurse are paid, including the cost of board, to a maximum of $40 per patient in any one year, but only where such services are deemed advisable by a medical practitioner.

Under existing arrangements, the services of a member of the Victorian Order of Nurses, acting under or with an attending medical practitioner, are paid under the plan at a rate of $2 net per visit to a maximum of $40 per patient per year, but this limit does not apply to the administering of injections on the instructions of a physician.

No payment is made for any of the additional benefits when the service is performed outside the Province of British Columbia.

SERVICES EXCLUDED UNDER THE PLAN

Services which are provided under other Federal or Provincial Acts such as the *National Defence Act* (Canada), the *Hospital Insurance Act,* and the *Workers' Compensation Act* of the Province.

Pathology, radiology, and/or electrodiagnostic services performed within the Province at a laboratory that, at the time the service is rendered, is not an approved laboratory for the performance of the service.

Services which are not considered to be medically required by the patient, e.g., cosmetic services, examinations at the request of a third party, medico-legal services, advice by telephone, travel charges of a practitioner.

While unexpected medical services arising when an insured person is temporarily absent from British Columbia are covered at British Columbia rates, prior authorization in writing from a medical director of the plan is required where the insured person elects to seek medical attention outside the Province, otherwise payment may not be made under the plan.

PREMIUM RATES AND ASSISTANCE

For those persons having maintained a permanent residence in British Columbia for the 12 consecutive months immediately prior to making application, and who otherwise qualify as eligible under the Medical Services Act Regulations, premium assistance is available as follows:

(*a*) Applicants who were not liable to pay income tax in the 12 months ending December 31 of the previous year qualify for a subsidy of 90 per cent of the full premium rate.

(*b*) Applicants whose taxable income in the 12 months ending December 31 of the previous year did not exceed $1,000 qualify for a subsidy of 50 per cent of the full premium rate.

Monthly premiums payable by subscribers, effective July 1, 1976, are as follows:

		If Qualified for—	
	Full Premium	50 per Cent Subsidy	90 per Cent Subsidy
	$	$	$
One person	7.50	3.75	0.75
Family of two	15.00	7.50	1.50
Family of three or more	18.75	9.37	1.87

(*c*) Temporary premium assistance is available for a three-month period under unusual circumstances which, by reason of illness, disability, unemployment, or financial hardship render an eligible person unable to pay his currently required premiums for coverage under the plan. Temporary premium assistance is at 90 per cent of the full premium rate.

LABORATORY APPROVAL

A six-member Advisory Board on Laboratories, appointed by the commission, continues to provide advice and recommendations to the commission pertinent to its determination of approval of laboratories for the performance of insured services under the regulations set down by the Lieutenant-Governor in Council in September 1971. The commission is responsible for ensuring the reasonable availability of quality laboratory services for insured persons throughout the Province, of controlling the expansion of facilities or provision of new facilities until there is reasonable utilization of existing facilities, and of requiring that, where approved public facilities provide service of equal quality and availability, priority consideration be given to the services provided by such approved public facilities.

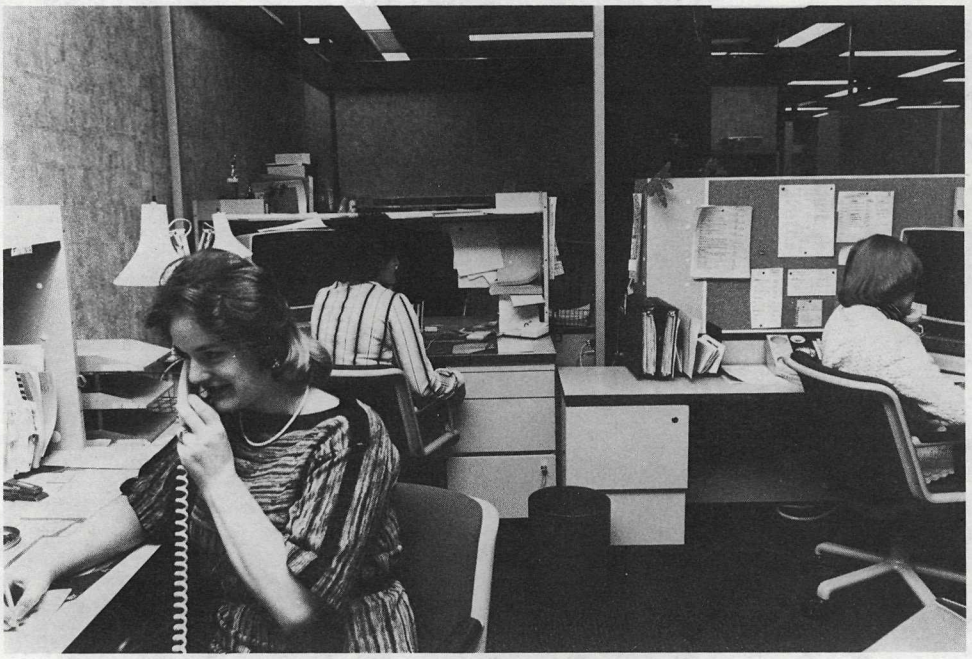
PROFESSIONAL REVIEW COMMITTEES

As in the past, the commission has continued to work closely with the peer review committees of physicians and other practitioners providing services under the plan.

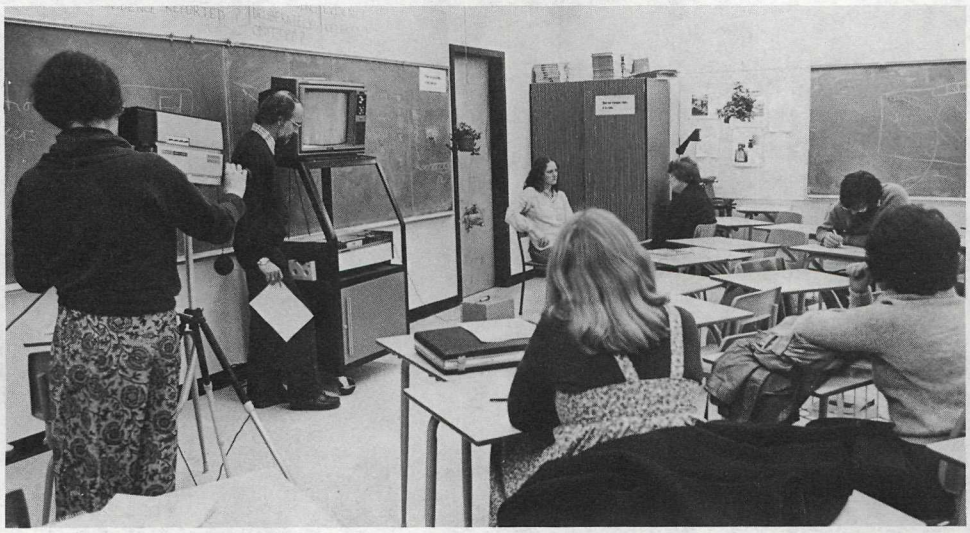
The commission provides data to the professional licensing authorities or other relevant practitioner bodies with respect to the volume and type of services rendered under the plan and various other statistical information on an annual basis. The commission also provides various statistical information to them on a request basis.

SALARIED AND SESSIONAL

While most medical services in British Columbia are paid for on a fee-for-service basis, there is, nevertheless, a substantial volume of services paid on a salary or sessional fee basis.



Telephone inquiries to the Medical Services Plan offices are handled by operators in the registration and premium billing division who have immediate access to computer files. Three of the 11 computer terminals are shown above. This unit receives approximately 20,800 telephone inquiries a month.



Alcohol and Drug Commission staff provide basic lay-counsellor training for local community groups wishing to provide help to people with alcohol and drug problems. Couple in background adopt patient and counsellor roles, while camera at left records session on videotape for later playback and analysis.

Apart from the Provincial Government, which employs physicians in this way, there are many other organizations within the Province which make arrangements with physicians to provide insured services on this basis and arrange with the Medical Services Commission for reimbursement of their costs.

When the Medical Services Commission reimburses an organization which employs a doctor performing insured services on a salaried basis, a payment is made to the organization for the shareable portion of the doctor's salary, that is, the proportion of the salary which represents the time he spent on providing insured services to individuals. An additional amount is paid to cover the relevant overhead costs of the organization employing the doctor.

A sessional fee is a payment of a set amount of money for the part-time services of a physician for half a day (three and one-half hours) and the sessional fee includes, where pertinent, a payment for overhead, which goes to the physician because of his continuing overhead costs in his additional private practice.

In the year 1976/77 the total expenditure on injured services by the Medical Services Commission was $300,467,866, which was made up of $285,587,456 in the form of fee-for-service payments and $14,880,410 for salary and sessional payments.

STATISTICAL TABLES

STATISTICAL HIGHLIGHTS

The total expenditure for insured benefits under the Medical Services Plan rose 7.12 per cent to $300,467,866 in 1976/77 from $280,509,129 in 1975/76 (*see* Table 32).

The *per capita* cost for insured benefits rose 5.82 per cent over the previous year (population, October 1, 1975 = 2,458,000; October 1, 1976 = 2,488,000).

The *per capita* cost of insured benefits shared by the Federal Government rose 5.46 per cent over the previous year.

The *per capita* cost of insured benefits not shared by the Federal Government rose 12.23 per cent over the previous year.

Contributions to the Medical Services Commission under the *Medical Care Act* (Canada) and *Hospital Insurance Diagnostic Services Act* is estimated to be $124,450,000 or 43.9 per cent of the shareable cost (*see* Table 32).

Administration costs were 4.2 per cent of the total costs in 1976/77 (*see* Table 32).

The increased costs to the Medical Services Plan are a result of upward revisions to the fee schedule, increased utilization of benefits, changes in the practitioner/population ratio, and increased population.

SUBSCRIBER STATISTICS

Table 24—Registrations and Persons Covered,[1] by Premium Subsidy Level, at March 31, 1977

Subsidy (Per Cent)	Subscribers	Persons
90	247,869	398,303
50	27,603	51,711
Nil	815,296	2,053,484
Totals	1,090,768	2,503,498

Table 25—Persons Covered, by Age-group, at March 31, 1977

Age-group	Persons
Under 1	31,296
1–4	143,221
5–14	425,266
15–24	478,702
25–44	679,677
45–64	490,586
65–69	86,014
70–79	105,935
80–89	45,599
90 and over	8,400
Unknown	8,802
Total	2,503,498

[1] Coverage data do not include members of the Canadian Armed Forces, RCMP, and inmates of Federal penitentiaries.

CHART VI—COVERAGE, BY AGE-GROUP, AT MARCH 31, 1977

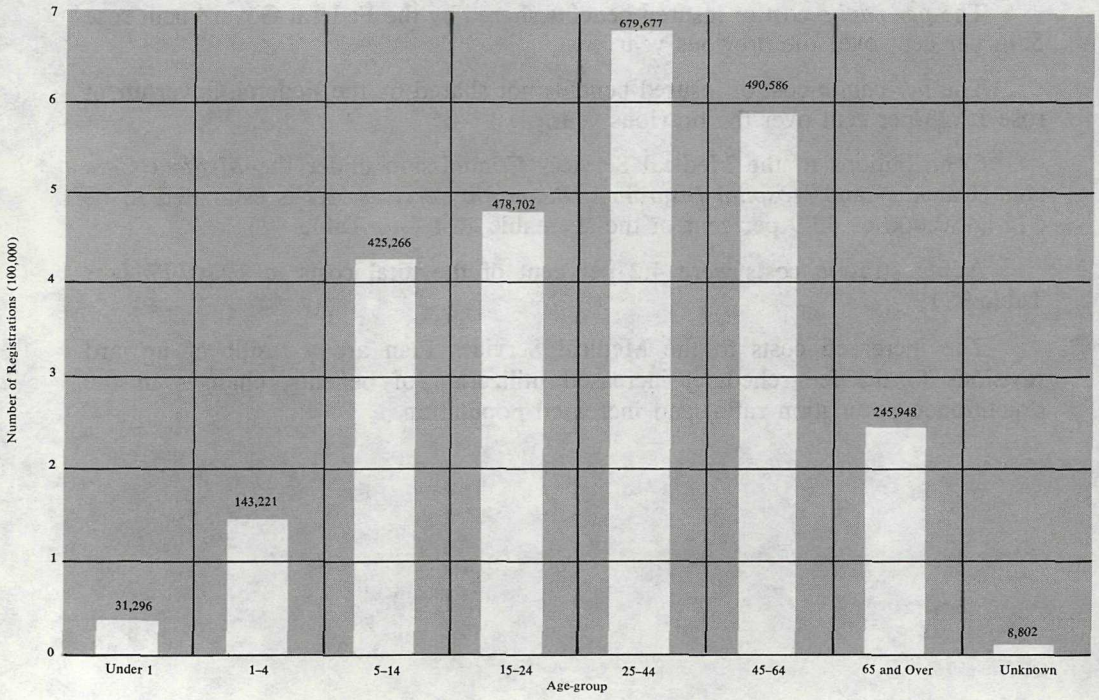
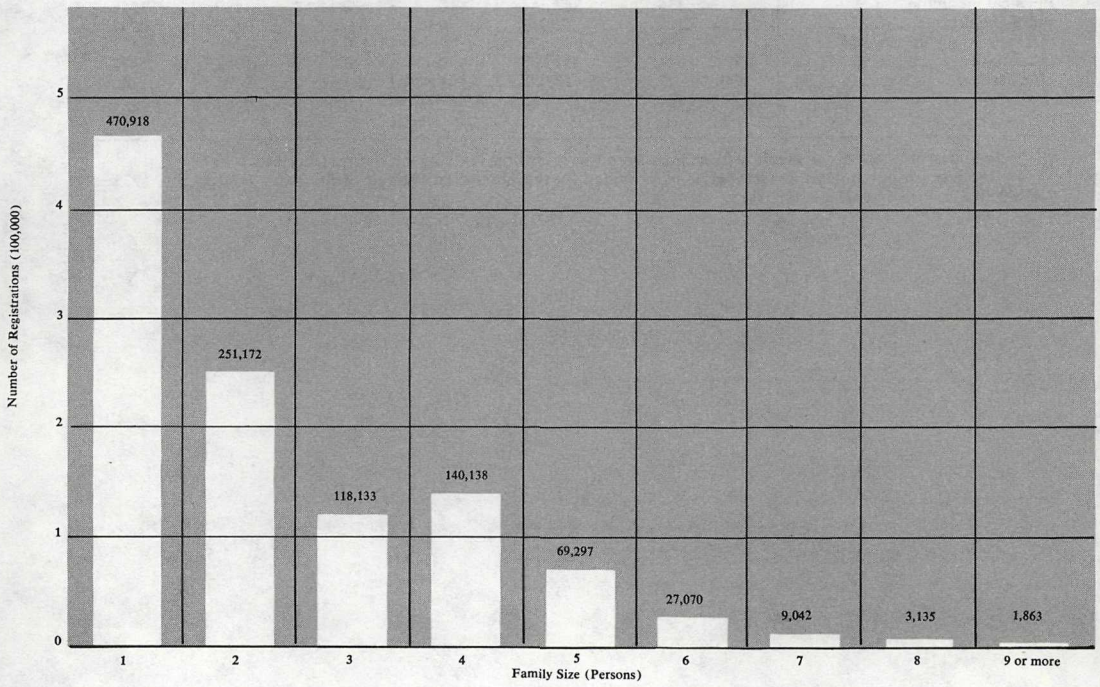


Table 26—Coverage, by Family Size, at March 31, 1977

Family Size (Persons)	Number of Families
1	470,918
2	251,172
3	118,133
4	140,138
5	69,297
6	27,070
7	9,042
8	3,135
9 or more	1,863
Total	1,090,768

CHART VII—COVERAGE, BY FAMILY SIZE, AT MARCH 31, 1977



FEE-FOR-SERVICE PAYMENTS

MEDICAL PRACTITIONERS AND DENTAL SURGERY IN HOSPITAL

(Shareable under *Medical Care Act* (Canada) and *Hospital Insurance Diagnostic Services Act*)

Table 27—Distribution of Fee-for-service Payments for Medical Services (Shareable)

Specialty	Amount Paid[1]		Percentage of Total		Cost per Person[2]	
	1975/76	1976/77	1975/76	1976/77	1975/76	1976/77
	$	$			$	$
General practice	105,060,418	121,268,241	42.83	42.89	42.7422	48.7422
Dermatology	2,863,102	3,267,459	1.17	1.16	1.1648	1.3133
Neurology	1,879,674	2,215,236	0.77	0.78	.7646	.8904
Psychiatry	7,241,146	8,107,158	2.95	2.87	2.9460	3.2585
Neuropsychiatry	255,350	270,201	0.10	0.10	.1039	.1086
Obstetrics and gynæcology	9,423,996	10,591,056	3.84	3.75	3.8340	4.2569
Ophthalmology	9,499,490	10,793,888	3.87	3.82	3.8647	4.3384
Otolaryngology	4,378,720	4,802,170	1.79	1.70	1.7814	1.9301
Eye, ear, nose, throat	67,808	78,040	0.03	0.03	.0276	.0314
General surgery	16,236,333	17,445,619	6.62	6.17	6.6055	7.0119
Neurosurgery	1,487,416	1,470,098	0.61	0.52	.6051	.5909
Orthopædic surgery	6,100,443	7,350,110	2.49	2.60	2.4819	2.9542
Plastic surgery	1,924,550	2,211,734	0.78	0.78	.7830	.8890
Thoracic surgery	1,534,638	1,790,910	0.63	0.63	.6243	.7198
Urology	4,234,210	4,676,948	1.72	1.65	1.7226	1.8798
Pædiatrics	5,207,397	6,373,353	2.12	2.25	2.1186	2.5616
Internal medicine	14,729,605	18,031,588	6.00	6.38	5.9925	7.2474
Radiology	18,791,569	21,331,364	7.66	7.54	7.6451	8.5737
Pathology	18,512,358	22,930,983	7.55	8.11	7.5315	9.2166
Anæsthesiology	9,562,753	10,559,120	3.90	3.73	3.8905	4.2440
Physical medicine	349,134	387,558	0.14	0.14	.1420	.1558
Public health	37,125	82,323	0.02	0.03	.0151	.0331
Dental surgery in hospital	797,895	1,042,896	0.33	0.37	.3246	.4192
Osteopathy	267,524	253,008	0.11	0.09	.1088	.1017
Unclassified	4,839,927	5,418,988	1.97	1.91	1.9691	2.1780
Totals	245,282,581	282,750,049	100.00	100.00	99.7895	113.6455

[1] Includes only those payments *which have been made* during the respective fiscal periods.

[2] Based on population as at October 1, as provided by the Dominion Bureau of Statistics (October 1, 1975=2,458,000; October 1, 1976=2,488,000).

Table 28—Distribution of Medical Fee-for-service Payments and Services, by Type of Service

Type of Service	Number of Services[1]		Amount Paid[1]	
	1975/76	1976/77	1975/76	1976/77
General Practitioners			$	$
Complete examination	840,991	921,305	14,755,705	17,833,752
Partial examination	4,750,866	5,138,438	41,781,369	49,650,511
Subsequent office visit	2,015,474	1,928,602	11,165,550	11,644,309
Night, Sunday, holiday, or emergency visit	504,508	532,592	11,130,950	12,920,042
First house visit	117,426	120,128	1,949,202	2,176,642
Subsequent house visit	52,857	51,652	696,007	742,415
Hospital visit	1,588,357	1,615,598	7,285,156	8,347,479
Subtotals	9,870,479	10,308,315	88,763,939	103,315,150
Specialists				
Consultation	818,317	872,218	27,138,260	31,708,063
House visit	7,101	8,705	219,769	292,389
Office visit	410,533	446,491	3,032,591	3,725,470
Hospital visit	511,561	597,871	4,052,763	5,232,490
Subtotals	1,747,512	1,925,285	34,443,383	40,958,412
Other Medical				
Anæsthesia	1,972,565	1,950,739	12,428,983	13,307,831
Obstetrics	52,326	56,577	7,533,653	8,530,339
Surgery	455,903	473,023	34,101,129	37,591,620
Special procedures	678,922	711,401	10,080,800	11,598,083
X-ray	1,196,817	1,245,188	18,418,583	20,834,883
Laboratory	5,888,239	6,429,943	24,042,481	29,576,147
Common office procedures	1,279,209	1,301,000	6,661,863	7,486,805
Psychotherapy	208,876	203,227	5,597,453	6,245,203
Electrodiagnosis	16,173	16,543	527,837	610,518
Miscellaneous	12,602	14,183	2,682,477	2,695,058
Subtotals	11,761,632	12,401,824	122,075,259	138,476,487
Totals	23,379,623	24,635,424	245,282,581	282,750,049

[1] Includes only those services *which have been paid* during the respective fiscal periods.

Table 29—Average Fee-for-service Payments, by Type of Practice[1]

Type of Practice	Number of Active Practitioners		Average Payment[2]		Median Payment[2]	
	1975/76	1976/77	1975/76	1976/77	1975/76	1976/77
			$	$	$	$
General practice	1,461	1,598	63,680	69,272	63,991	68,367
Dermatology	33	36	80,513	90,458	76,170	88,257
Neurology	23	28	82,550	82,162	82,485	79,584
Psychiatry	104	123	60,483	60,817	61,883	61,367
Neuropsychiatry	2	2	127,108	134,678	127,108	134,678
Obstetrics and gynæcology	102	112	87,414	91,443	85,142	91,068
Ophthalmology	115	114	82,783	95,006	81,112	90,735
Otolaryngology	51	52	88,011	96,052	86,383	95,224
General surgery	161	166	81,268	84,846	77,791	82,583
Neurosurgery	19	17	77,072	82,405	71,803	83,530
Orthopædic surgery	76	86	79,121	86,192	75,735	81,870
Plastic surgery	24	25	79,901	87,955	75,861	84,907
Thoracic and cardiovascular surgery	13	12	126,949	157,909	137,141	149,854
Urology	46	48	91,589	96,862	86,612	87,559
Pædiatrics	53	57	66,544	76,568	61,754	72,601
Internal medicine	143	183	79,408	87,192	77,143	81,650
Anæsthesia	170	179	57,721	59,632	56,978	61,169
Physical medicine	5	5	58,352	68,067	60,640	63,302
Osteopathy	4	5	62,781	50,492	47,240	29,325
Surgery, general practice[3]	43	42	59,124	67,609	60,737	60,359
Pædiatrics, general practice[3]	22	22	63,241	69,169	57,400	66,437
Internal medicine, general practice[3]	18	14	52,311	59,353	48,158	54,647

[1] Type of practice is based on practice being carried out, rather than on certification.
[2] Includes only those physicians whose services on a fee-for-service basis grossed $20,000 or more.
[3] These are special classifications created for statistical purposes. Physicians in these categories are certified specialists, but derive 50 per cent or more of their income from general practice services.

ADDITIONAL BENEFITS

FEE-FOR-SERVICE PAYMENTS, NONSHAREABLE BY FEDERAL GOVERNMENT

Table 30—Distribution of Fee-for-service Payments for Insured Services, Nonshareable Additional Benefits

Type of Service	Amount Paid[1 2]		Percentage of Total		Cost per Person[3]	
	1975/76	1976/77	1975/76	1976/77	1975/76	1976/77
	$	$			$	$
Special Nursing	2,869	3,284	0.02	0.02	0.0012	0.0013
Victorian Order of Nurses	24	.....	.....	.....	.....	.....
Red Cross	14,180	13,604	0.10	0.08	.0058	.0055
Chiropractic	6,948,718	8,117,112	47.11	45.51	2.8270	3.2625
Naturopathic	282,599	371,719	1.92	2.08	.1150	.1494
Physiotherapy (office)	2,458,833	3,225,027	16.67	18.08	1.0003	1.2962
Physiotherapy (hospital)	81	5	.....	.....	.....	.....
Orthoptic	4,448	5,405	0.03	0.03	.0018	.0022
Podiatry	1,279,644	1,630,866	8.67	9.14	.5206	.6555
Optometric	3,632,256	4,300,985	24.63	24.11	1.4777	1.7287
Orthodontic	73,830	88,528	0.50	0.50	.0300	.0356
Unclassified	52,048	80,872	0.35	0.45	.0212	.0325
Totals	14,749,530	17,837,407	100.00	100.00	6.0006	7.1694

[1] Includes only those payments *which have been made* during the respective fiscal periods.
[2] These amounts are fee-for-service payments made under the plan only, and in no way reflect the total for the services of these practitioners.
[3] Based on insured population at October 1, as provided by the Dominion Bureau of Statistics (October 1, 1975 = 2,458,000; October 1, 1976 = 2,488,000).

Table 31—Average Fee-for-service Payments, by Type of Practice, Nonshareable Additional Benefits

Type of Practice	Number of Active Practitioners		Average Payment[1]		Median Payment	
	1975/76	1976/77	1975/76	1976/77	1975/76	1976/77
			$	$	$	$
Chiropractic	174	180	38,476	43,328	36,267	40,258
Naturopathic	8	9	32,514	39,571	32,254	37,528
Physiotherapy	62	80	33,276	35,178	27,519	24,483
Podiatry	27	29	42,384	53,452	45,592	54,833
Optometry	132	135	26,354	29,833	25,401	28,889

[1] Includes only those practitioners whose payments from the British Columbia Medical Services Commission grossed $10,000 or more. It must be emphasized that these payments in no way represent the practitoners' total income or net income.

Table 32—Summary of Expenditures, 1969/70 to 1976/77

(Calculated on an Accrued Basis)

	Medical Fee-for-Service	Salaried and Sessional	Additional Benefits	Administration	Total
	$	$	$	$	$
1969/70	105,700,011	3,677,387	6,929,779	5,687,035	121,994,212
1970/71	122,818,267	4,375,798	6,611,815	6,030,059	139,835,939
1971/72	127,000,505	4,788,365	5,534,520	6,567,847	143,891,237
1972/73	139,532,341	6,022,920	7,897,244	7,320,137	160,772,642
1973/74	159,614,356	7,991,062	8,963,080	8,581,794	185,150,292
1974/75	190,452,494	10,424,602	11,089,892	12,501,015	224,468,003
1975/76	250,026,093	15,437,520	15,045,516	12,659,521	293,168,650
1976/77	268,496,749[1]	14,880,410[1]	17,090,707	13,040,063	313,507,929

[1] The Federal contribution applicable to 1976/77 is projected to be $124,450,000 or 43.9 per cent of total payments for shareable costs.

Government Health Institutions

Although the emphasis in mental health care is on community-based services, there will continue to be a need for specialized facilities to accommodate those whose treatment cannot be adequately taken care of at the community level. Facilities for specific types of care have been developed under Government agencies. These include facilities and services for those of the mentally ill, the emotionally disturbed, and the senile aged, as well as the tubercular and the profoundly physically disabled whose condition requires admission to a specialized treatment unit.

Effective November 7, 1977, I. Manning was appointed as Director of Government Health Institutions. These institutions comprise Riverview Hospital and Valleyview Hospital (Essondale), Dellview Hospital (Vernon), Pearson Hospital, and the Willow Chest Clinic (Vancouver). A brief report of these facilities follows:

RIVERVIEW HOSPITAL

The continuing drive toward accreditation of Riverview Hospital by the Canadian Council on Hospital Accreditation was the focus of a great deal of activity in all departments throughout the year. While progress was made, the Council surveyors made a number of recommendations for improvements needed to enable the hospital to meet or exceed the accreditation standards. At the year-end an active Accreditation Committee was at work under the leadership of the Director of Nursing.

The extent of the customary practice of secluding patients who have become disturbed was reviewed in the accreditation survey, and scrutiny of the policy by Nursing and Medical staffs was under way. Through these concerted efforts, a substantial reduction in the use of seclusion rooms was anticipated, with various approaches of a more therapeutic nature being more widely used instead.

Material progress was made on a previous accreditation recommendation that the two laboratory areas be unified, and a contract for this work was awarded in October.

A number of significant changes occurred in the organization of treatment services during the year. Because of a long waiting-list for the admission of patients suffering from chronic organic brain syndrome, this program was relocated in the Centre Lawn Unit and was expanded from 40 to 86 beds. An assessment team involving a physician and senior nurse assessed all patients referred for this program from the local area.

A corresponding relocation and centralization of all acute psychiatric services to the Crease Unit was accomplished. Participation of senior psychiatric staff in the Inter-hospital Co-ordinating Committee improved communication between the hospital and other psychiatric services in the Vancouver area. The most urgent referrals from these units had been for the admission of patients considered too disturbed to be handled in the general hospital. In order to provide a satisfactory service for these patients, Ward West-4 of the Crease Unit was developed as an intensive care special admitting ward. The regionalization of patients admitted from non-Vancouver areas was preserved in this move.

Surgical and general medical services, of both an acute and long-term nature, were centralized in the North Lawn Unit. To accommodate the needs of this service, renovations in the North Lawn Building were planned, in order to relocate the surgical consultation services and the Radiology Department in that area.

Close liaison with the assessment teams for intermediate and extended care facilities was established, in order to facilitate transfer to these facilities of patients no longer requiring the more intensive and specialized services provided at Riverview Hospital.

The Medical Staff Organization continued its activities, including the function of monitoring the quality of care. In this connection the Psychiatric Audit Committee developed criteria for treatment of particular psychiatric conditions as an aid to the audit process.

The Department of Nursing also pursued its audit work, and developed and implemented a program of nursing histories and nursing care plans for each patient. Revision of Nursing Policy Manuals was also undertaken, and an over-all Hospital Policy Manual was developed.

The first steps in a long-range plan for the aged hospital plant were taken during the year, and discussions were under way late in the year for its resumption, in liaison with the British Columbia Buildings Corporation.

VALLEYVIEW HOSPITAL

Valleyview Hospital, located on the Essondale site in Coquitlam, provides 620 in-patient beds to those over 70 years of age with psychiatric problems that cannot be handled elsewhere in the community.

In preparation for the introduction of the Long-term Care Program on January 1, 1978, efforts at Valleyview have been made to expand the acute psychiatric treatment wards of the hospital and to extend its training facilities to assist the community-based care facilities for the aged. Plans were also under way to reorganize and expand activation services in order to embark upon an outreach program.

During 1977 the Valleyview volunteer auxiliary was incorporated under the *Societies Act*. Two "firsts" were achieved with the appointment of the first male president of any hospital auxiliary in British Columbia, and the opening of the first auxiliary Gift Shop in any Government hospital.

The changes in health care facilities in the Lower Mainland affected the mix of patients in Valleyview. During the year, many patients who had been stabilized in their psychiatric condition, but still had physical maladies, were discharged to extended-care beds. Difficulty was still being experienced in accommodating patients ready for discharge but who required only intermediate or personal care. The patient population at the end of 1977 was far more ambulatory than at the beginning of the year, as many bed patients were placed in extended care, and new patients from the community filled the beds in Valleyview.

During 1977, Valleyview admitted 242 patients from the community; 70 were discharged; 110 were released on leave, and 119 died in hospital.

DELLVIEW HOSPITAL

Dellview Hospital is a special care facility under the Government Health Institutions, providing for the needs of geriatric patients over 70 years of age who suffer from mental illness.

The Minister of Health visited the hospital during September and announced that Dellview would be transferred to a society administration of one form or another.

Medical services continued to be provided through the part-time services of a physician, with dental services available through a local dentist using the hospital's dental suite. Psychiatric support was available through the Vernon Mental Health Centre, while physiotherapy, pharmaceutical, radiological, and regional laundry services were available under contract from Vernon Jubilee Hospital. Twenty-five new head gatch beds were purchased during the year and made nursing the elderly considerably easier.

All patients received swine flu and Victoria 'A' vaccine early in the year with no adverse effects noted. The incidence of flu was much less than in the past several years.

In-service programs were very active with a total of 112 programs and 468 session. Films, cassette tapes, cassette and slide presentations were used. There were lectures on safety, fire, housekeeping, dietary, nursing procedures, diagnostic procedures, nursing upgrading, drug therapy, aggression, behaviour modification, diabetes, strokes, respiratory care, metric system, body mechanics, and Workers' Compensation.

Educational programs held included Wheelchair Seminar; History Taking Counselling and Interviewing; Defensive Driving; Care for the Elderly; Safety Program for the Ministry of Highways and Public Works; and St. John's Industrial First Aid.

During the year Public Works was very active on the hospital premises, with the moving of the hospital administration to their new Administration Building; installing insulation; and the painting of three wards. This created a temporary reduction in bed count, but new, bright, well-maintained wards made it well worth the additional effort of patient relocations within the hospital. Consequently, admissions were down somewhat from previous years. At the year-end all male applicants had been admitted, but a fair delay was being experienced by the continuing increase in female patient applications.

The Dietary Department maintained a very satisfactory service, providing many little extras for patient parties and outings throughout the year.

Housekeeping maintained an excellent standard throughout the year, in spite of all the construction activity in the hospital.

An "Open House '77" was held during September and was well attended by the local community. The Dellview Social Club was very active hosting a number of dances and sporting events.

An intensive remotivation program was implemented for 25 female patients in the Annex. The program was designed to promote independence, self-help, and self-esteem in the patient. Along with this program a day care program was started in the Annex for patients from the main wards who could gain from the behaviour modification program. Both programs were very successful, with many patients recovering old skills in cooking, baking, personal hygiene, and independent thought and actions.

The Summer Student Employment Program provided employment for 23 students. With the assistance of these students a full and varied activities program was implemented. Every patient, except the seriously ill, was included and took an active part in the program. Their activities included picnics at local lakes, barbecues, outings to local parks, shopping trips, entertainment by local choirs, visits to private homes, cherry-picking, and tours of local orchards during blossom-time.

The Occupational/Recreational Therapy Department initiated and maintained a wide variety of programs, including bowling, movies, bingo, parties, dances, arts and crafts, remedial exercises, pub therapy, and in general did much to brighten the patient-day. During the year a new station wagon was purchased by the hospital, which greatly increased patient outings.

During December a number of local choirs toured the hospital, entertaining the patients with Christmas carols.

During the Patients' Christmas Party, one full evening of entertainment was presented by seven separate groups of performers who toured through the hospital, performing in each ward.

PEARSON HOSPITAL AND WILLOW CHEST CENTRE

During the year, Pearson Hospital continued to provide in-hospital care for tuberculosis patients; persons with severe respiratory disabilities, primarily from poliomyelitis; and extended-care patients where the emphasis is on the younger age-group. Willow Chest Centre In-patient Unit continued to be vacant, pending

completion of major renovations, following which the tuberculosis patients at Pearson Hospital would be moved to Willow. This was expected to take place during March or April of 1978.

At Pearson Hospital the numbers of both polio and tuberculosis patients dropped significantly, and allowed the consolidation of patients from two wards each into one ward of each. This reduction coincided with planned upgrading of toilet and washroom facilities which, when completed, will result in an additional 78 extended-care beds being available.

During the year a pilot project was organized to assess the value of an out-patient therapeutic program for persons eligible for intermediate or extended care. The goal of this program is to prevent or delay hospitalization through allowing the patient and the family to deal more effectively at home with the problems related to physical disabilities. Indications were that the program was quite successful and was meeting a real need in the community. At the year-end, full establishment of the program on a continuous basis was being recommended. This is a team program involving Occupational Therapy, Physiotherapy, Nursing, and to a lesser degree Dietary and Social Services.

Additional involvement in community health care was the subject of considerable planning during the year. Architectural drawings and models were prepared, and funds have been requested, for the converting of the old auditorium into an education centre. The hospital was already involved in educational programs which were available to community hospitals, but planned to expand this role, to provide additional programs to health care workers and families of the disabled in the community. A basic no-frills approach was envisioned, which would involve teaching of the elementary aspects of caring for the physically disabled either in hospital or at home.

Progress was made in 1977 within the areas of Nursing care and Nursing administration. An extensive study of charting systems and evaluation of the quality of care commenced. New treatment approaches were initiated, particularly in respect to prevention and management of decubiti ulcers. Considerable effort was expended on staff development, as well as in completing and preparing for the implementation of the reorganization study of this department.

In regard to medical care, a number of staff changes were made, including the appointment of Dr. M. Seraglia as Medical Co-ordinator, and the obtaining of the services of a psychiatrist, a gynæcologist, and a dentist.

During the year the Director of Dietetics, and the senior dietary consultant from the Hospital Consultation Division, updated their earlier report on the proposed construction of a new main kitchen required to modernize the preparation and the distribution of food within the hospital, as well as to significantly reduce the high cost of the present out-dated labour-intensive system.

Commencing May 1, 1977, all meat, fish, and poultry have been purchased from the Central Butcher Shop at Riverview. Good service and reduced costs resulted.

Starting in April, all maintenance and repair work on hospital vehicles was done at Central Transport, Riverview Hospital, with reduced costs and responsive service.

Electronic safety procedures were commenced and testing equipment purchased, with the assistance of the consultant Biomedical Engineer from Hospital Programs.

The co-operation received from Public Works was very good and considerable upgrading of the physical plant was accomplished.

Within the Social Service Department the past year saw an even greater involvement of staff in team and community activities, with a resultant improvement in the quality of service delivered to the patient. There was renewed interest and assistance from Handicapped Resources, Alcoholics Anonymous, Vancouver School Board, Vancouver City College, the Canadian Paraplegic Association, the Multiple Sclerosis Society, and others.

The Laboratory was granted accreditation, for the first time, by the Joint Committee on Accreditation for Diagnostic Services. Later in the year, A. Drever, Senior Technician, received a certificate of merit from the American Pathology Association Quality Control Program.

The X-ray Department was redecorated with a much cheerier atmosphere being presented to the patients. The obtaining of a surplus X-ray unit from Riverview was being pursued, in order that safety and quality of work can be improved.

Drug profiles have been completed on four wards and it was hoped to continue establishing them on the remaining wards. A costing system was set up so that more accurate costing could be carried out for the four in-patient programs within the hospital, rather than on an averaging basis as was done previously. This confirmed that drug costs for the extended-care patients had been reduced.

The Personnel Department was very active during the year, with a number of grievances being dealt with and major classification reviews being implemented. Several studies were completed and reports submitted. These included Staff Development and Training; Emergency Services Plan (Strike); Fire Emergency Instructions; Nursing Reorganization Plan, and a Ministry Organization Proposal.

An Assistant Executive Director, B. Swan, was recruited and a number of projects were commenced, including hospital forms review, metric conversion, review of nursing clerical and record systems, medical records procedures, key control system, accounting and trust fund procedures, duplicating facilities, etc.

One of the highlights of the year was the celebration of the hospital's silver anniversary, including an open house on September 23, with the Honourable R. McLelland, Minister of Health, as a special guest. There was considerable patient involvement in the activities of the day and a tremendous amount of enthusiastic staff input. The original Medical Director, Administrator, and Director of Nursing were among the many visitors.

The year 1977 was productive, marked by progress in program development and provided the promise of future improvement, and efficiency, in the delivery of care to the patient and the community.

EMERGENCY HEALTH SERVICES COMMISSION

The commission was established pursuant to an Act of the Legislature effective July 1, 1974, with the following powers and authorities:

(*a*) To provide emergency health services in the Province:

(*b*) To establish, equip, and operate emergency health centres and stations in such areas of the Province that the commission considers advisable:

(*c*) To assist hospitals, other health institutions and agencies, municipalities, and other organizations and persons to provide such services, and to enter into agreements or arrangements for that purpose:

(*d*) To establish or improve communication systems for emergency health services in the Province:

(*e*) To make available the services of medically trained persons on a continuous, continual, or temporary basis to those residents of the Province who are not, in the opinion of the commission, adequately served with existing health services:

(*f*) To recruit, examine, train, register, and license emergency medical assistants:

(*g*) To provide ambulance services in the Province; and

(*h*) To perform any other function related to emergency health services as the Lieutenant-Governor in Council may order.

To these functions has been added the responsibility for the medical aspects of the Provincial Emergency Programme, such as medical involvement in disaster planning, responsibility for Federal stores stockpiled around the Province, and involvement when actual disasters occur.

During the year, one full-time crew member was added to each of the following volunteer-manned stations: Fort Nelson, Burns Lake, Nakusp, Sicamous, and Revelstoke. New services were opened at Lions Bay and Kitwanga, and authorization has been given to open stations at Wells and Field, bringing the total number of operational stations throughout the Province to 159.

The commission provides three levels of instruction to ambulance crews:

Emergency Medical Assistant I—80 hours, basic course.

Emergency Medical Assistant II—240 hours, more advanced training.

Emergency Medical Assistant III—1 year, advanced pre-hospital care ("paramedic").

Thirty-three EMA I courses were given involving 351 students; seven EMA II courses were given involving 120 students; three EMA III courses involving 32 students are at present in progress. Each EMA III course is preceded by a pre-entrance course and examination and 67 students took this course. Four instructor training courses were arranged involving 32 potential instructors, and covered such subjects as infant transport, driver training, and instruction techniques. In addition, 840 Industrial First Aid Certificates were either renewed to existing full-time or part-time employees, or were presented to new part-time employees.

This year, the EMA I course has been given on week-ends to part-time crew members who were prepared to give up the necessary time. The response to this approach has been overwhelming, and this program is fully committed for the next year. The present program allows for six such courses to be carried on simultaneously.

For the fourth year, the commission employed a physician to provide medical coverage for the fishing fleet for a 10-week period divided between Rivers Inlet and the Port Renfrew area.

Funds were made available during 1977 to increase the ambulance production program, with the result that 42 new units were placed on the road during the year. In addition to the ambulance production program, the commission workshop outfitted and modified 14 vehicles provided for the Ministry of the Attorney-General for use as mobile breath/alcohol testing units.

The commission was authorized to institute an air ambulance service effective February 1, 1977. To co-ordinate this program, a Provincial Dispatch Office has been established in Victoria, and all air movements are now channelled through this Dispatch Office. It is estimated that, since inception of this service in February, approximately 1,180 flights will have been co-ordinated by the end of 1977.

As in former years, two meetings were held with representatives of the Provinces of Alberta, Manitoba, and Saskatchewan responsible for ambulance services. The Executive Director of the commission also participated in the following meetings: International Congress on Disaster Medicine in Germany; a two-day meeting with the Swiss Air Rescue Service in Zurich, on the subject of air ambulance service and rescue techniques for mountainous terrain; a meeting of the American College of Emergency Physicians; the B.C. Road Safety Committee; meetings of the Interdepartmental Working Committee on Traffic Safety; and several meetings of the Vancouver City Disaster Committee in relationship to disaster planning for the Lower Mainland. A two-day seminar on ambulance techniques was held in Kamloops, attended by both full-time and part-time crew members, and was opened by the Minister of Health. The Executive Director was also responsible for the organization of the annual meeting of the American Association for Automotive Medicine held in Vancouver, at which meeting he presented a paper on the functions and organization of the commission. Visits were also made to some of the more remote services in the Province during the year.

At the request of the B.C. Ferry Corporation, medical emergency kits were placed on 12 of the ferries, containing equipment suitable for use by physicians in an emergency. These kits will be maintained by the commission. Staff will check the contents periodically and arrange replacement of out-dated medication.

The commission has experienced an increase in call volume of approximately 9 per cent compared with the previous year.

FORENSIC PSYCHIATRIC SERVICES COMMISSION

A number of significant developments occurred over the past year in the provision of forensic psychiatric services in this Province and it was gratifying to note that the program was receiving national recognition as an exemplary service.

Heavy demands were made upon the Forensic Psychiatric Institute, which continued as the major in-patient assessment and treatment service. Admissions to this unit increased by 15 per cent over the past two years, with a relative increase of 93 per cent in the number of individuals remanded for psychiatric assessment. These latter cases were particularly demanding on professional time. Recognizing that the institute must fulfil its statutory obligation, and that it cannot function effectively at the current high bed utilization rate of 94 per cent, there was agreement in principle to an increase of the bed capacity from 130 to 155 beds, and the provision of the necessary staff and services.

The commission has co-operated closely with the Ministry of the Attorney-General in the establishment of a full-time, as opposed to a part-time, Chairman of the Review Board backed by the necessary staff. This has facilitated the regular review of the status of Order in Council patients and the new procedure is proving most effective, particularly in assisting in the rehabilitation of the longer term patients.

At the year-end the Victoria Clinic was in full operation and was providing a very satisfactory level of service to southern Vancouver Island. The Vancouver Clinic was also fully operational and in August assumed full responsibility from the Ministry of the Attorney-General for providing services to the Vancouver City Jail and Lower Mainland Regional Correctional Centre. A court liaison officer was appointed who worked closely with the Crown Prosecutor's office in the disposition of individuals charged with an offence who are mentally ill. The commission also continued to provide assessment services for juveniles referred by the court either on an out-patient basis or at Willingdon Detention Centre, and they have accepted the responsibility of providing psychiatric services to the containment program when this service becomes operative.

During the year the administration moved to 805 West Broadway where the commission occupies the Seventh Floor. The provision of additional space allowed not only the extension of the clinical service, but the relocation of the administrative offices for the commission as a whole. The new services and expanded case load placed a heavy burden upon the administrative staff and there was an urgent need to augment the personnel, medical records, and business offices. The kitchen equipment of the Forensic Psychiatric Institute was being replaced and it was anticipated that a building program will be initiated in the coming year.

A co-ordinator of education will be appointed in January 1978. In the meantime, a great deal of formal and informal education was provided to the community at large and to the various professional groups. The Executive Director was particularly involved in discussions with the judiciary, lawyers, correctional staff, and police. Only when mutual trust and understanding exists can the forensic service hope to be effective in the complex sphere in which it operates. Dr. Duffy, the Executive Director, was honoured by being asked to participate as a resource person to a national conference of judges in November. In the field of research, the commission was initiating a study on diversion and hoped to receive funds to commence a full-scale research project in this area in 1978.

In September, eight of the original 10 Commissioners appointed in August 1974 were replaced by four new appointees, thereby reducing the board to six members. A great deal of credit was due the original commission members, who guided the forensic service through its difficult formative years, and had the satisfaction of seeing a soundly based program in operation at the time of their retirement.

ALCOHOL AND DRUG COMMISSION

During 1977 there was a consistent and increasing capacity on the part of the commission, and its direct and indirect service agencies, to provide support to the individual caught up in an alcohol or other drug dependency.

The regionalization of the Province into four areas was completed and a more effective and equitable distribution of services had been achieved. In November 1977 a Regional Supervisor responsible for the direct services in the Lower Mainland was appointed.

By the end of the third quarter, December 31, 1977, one new 20-bed detoxication centre, two intensive residential treatment centres totalling 55 beds, and three out-patient clinics had become operational. Two narcotic out-patient clinics had been taken over as a direct service, and a number of existing out-patient clinics had been adapted to serve a wider geographic area.

To determine future funding priorities the commission was evaluating the impact of the Revelstoke Dam project and the Alcan Pipeline on Northern and Interior communities.

Where treatment services did not exist, or would not be an effective means of bringing treatment to the area, the commission staff played a supportive role to existing community agencies and groups through consultative service, audio-visual and print materials, workshops, and training programs.

In conjunction with the Regional Director, Health and Welfare Canada, the commission assumed co-ordinating responsibility for native Indian matters relating to alcoholism.

At the year-end the Commission was developing a health entry program for the treatment of heroin addiction in B.C., with a target date of December 31, 1978, for implementation.

COMMISSION DIRECT TREATMENT SERVICES

Alcohol and Drug Counselling Services

Alcohol and Drug Counselling Services continued to be offered at the four Vancouver area offices. Plans were under way to broaden the base of operations and relocate units in Burnaby/New Westminster and the North Shore areas. During the year a counsellor visited Pender Street Detoxication Centre to provide a "Film and Group Program" to clients on a daily basis. This approach proved effective and resulted in a significant increase in the number of clients willing to pursue some form of ongoing treatment. Another attempt to work more closely with other agencies in the system was the monthly on-site visits with the Victoria Life Enrichment Society; these visits also had a positive effect on the referral procedure, allowing for an easier transition from one facility to another.

The service put a special emphasis on their work with Industrial Alcoholism Programs and assigned one counsellor to concentrate on four companies, which resulted in a doubling of referrals from the Industrial Programs.

Another area of increased referrals was from the legal sources; such referrals were largely through the "Driving While Impaired" groups coming from Whatcom County, Wash. Next year could see a heavy influx of drivers picked up through the new BATmobile program and the changes in legislation related to blood alcohol levels.

During the past year, there was a significant increase in all areas of service to clients, collaterals, and the community at large.

Youth and Family Counselling Services

The Youth and Family Counselling Services in Vancouver provides out-patient counselling and supportive activities for young people. During the period April 1, to December 31, 1977, the services provided treatment to about 250 young people. Significantly, 88 of these were new contracts and over 60 per cent were 19 years of age or younger; the majority were between 15 to 17. About 70 per cent of the new contacts were considered as identified patients/clients, slightly more than 50 per cent were assessed during intake as having a major drug-abuse problem with almost daily use of multiple "street drugs" and/or alcohol. Another 40 per cent were considered "at risk" because of their frequent regular drug use.

The total clientele of the services consists of an almost equal number of men (55 per cent) and women (45 per cent). There were a greater number of young people 19 years of age or less (60 per cent plus) than last year (40 per cent). The largest group of clients came to the program on their own (20 per cent) or through friends (5 per cent); 10 per cent were referred by Probation Services and police; 15 per cent from schools, and the Ministry of Human Resources services.

The services were used as a training resource for professional students, and over 20 students from various disciplines used the services for their field instruction placement. Other students from community education and clinical research programs were also involved, most students stayed for more than 10 weeks in the program.

The services continued to develop and strengthen liaison with other community agencies and youth service groups.

Narcotic Addiction Services

Treatment Clinics

There are five out-patient clinics located in Vancouver; the average case load in 1977 was 300 clients. In October 1977 the out-patient clinics in Coquitlam and Kelowna also became direct service programs. The clinics provide treatment for opiate-dependent individuals and their families, using methadone for the medical management of their addiction. Heavy emphasis is placed on individual, marital, family, and vocational counselling. Many clients remained longer in treatment in 1977, thus increasing their chances for positive change.

In addition to the treatment component of the program, the clinics offer information about drug use to families, individuals, social and health service agencies, and to all other community-based agencies. In 1977 there were great advances in developing and strengthening liaisons with other agencies and groups involved with the clients, such as the Parole Services, Community Mental Health, and the Child Welfare/Abuse team.

The clinics also serve as a training resource for professional students from The University of British Columbia, BCIT, and Douglas College.

Pender Street Detoxication Centre

During the first seven months of the year 1,342 clients were admitted to the Pender Street Detoxication Centre; of these 46 per cent had no previous admissions, 28 per cent had one or two previous admissions, and 25 per cent had three or more previous admissions. Of the first admissions, 30 per cent were females, 69 per cent were males. In addition to the 1,342 clients admitted there were 268 drop-ins, whose average length of stay was over five hours. Over 68 per cent of the drop-ins had no previous contact with the centre.

Of the clients admitted, only 8 per cent left the centre during the first 20 hours after admission, as compared to 18 per cent the year before. An encouraging

81 per cent of the clients admitted completed treatment, most leaving the centre the fourth day after admission.

Self-referrals continue to make up the largest category (31 per cent) of admissions, with 15 per cent being referred by the hospital. There was an increase in referrals from employers (4.5 per cent) as compared to 0.5 per cent last year, and from physicians 2.1 per cent, as compared to 1.1 per cent last year.

An impressive 75 per cent of the clients completed treatment and were willing to accept a referral to ongoing treatment. As there was limited space at some of the treatment programs, only 64 per cent of the clients were referred. However, with the opening of PACIFICA Treatment Centre, this situation improved.

Hypnotherapy Program

The hypnotherapeutic program was started in April 1975. The fundamental approach is to offer a non-chemical treatment service, utilizing the principles and techniques of strategic hypnotherapy for chemically dependent individuals.

The client population is made up of individuals who are chemically dependent or involved in the use of one or more drugs. The client may also be involved in other treatment programs such as methadone maintenance or another social service.

Referrals come from other Alcohol and Drug Commission services, probation, police, other agencies, and self-referrals, often based on contacts with individuals who have participated in the program.

During the year the program showed considerable promise in effecting significant behaviour change in drug-dependent individuals.

NEW TREATMENT SERVICES

Maple Cottage Detoxication Centre

In response to the need for more detoxication beds in the Lower Mainland, the commission opened a 20-bed detoxication facility on the Woodlands grounds in New Westminster. Maple Cottage Detoxication Centre, opened December 7, 1977, provides the setting for voluntary withdrawal for men and women who are chemically dependent. The centre will serve the Lower Fraser Valley as far as Hope, excluding Vancouver, which already has two such facilities. The Royal Columbian Hospital provides the emergency medical services.

Clients may be self-referred, or be referred by family, social service agencies, public and mental health units, the police, and the hospital. The average stay will be three days. As at the Pender Street Detoxication Centre, clients completing their withdrawal are referred to ongoing treatment facilities within the system of care.

PACIFICA Residential Treatment Centre

PACIFICA, a 30-bed residential treatment centre for chemically dependent men and women willing and able to participate in a structured treatment program, was opened in October 1977. This 30-bed facility is ideally located at the YW/YMCA in New Westminster, which provides a comfortable location with recreational facilities in a central area, for clients from the Lower Fraser Valley. PACIFICA is the first such residential program available to men and women in the Lower Mainland and, at the year-end, was already booked up weeks in advance.

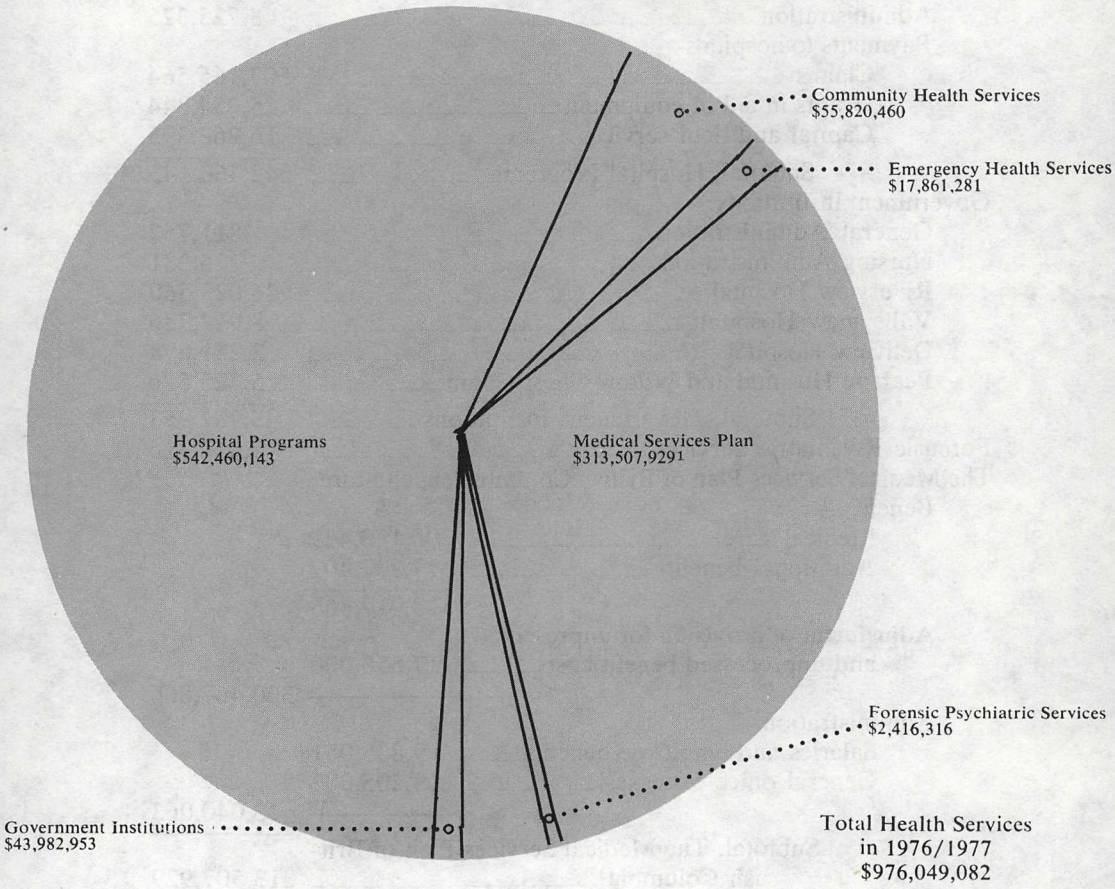
Treatment North

Treatment North, a 20-bed residential treatment centre administered by the Prince George Regional Hospital, provides a 28-day program for chemically dependent men and women. The centre was opened in September 1977, to provide residential care for residents of Northern British Columbia.

Table 33—Expenditure, by Principal Categories, in the Ministry of Health for the Fiscal Year 1976/77

	Total Expenditure in Fiscal Year Ended March 31, 1977 $
Community Health Services	55,820,460[1]
Hospital Programs	542,460,143
Government Institutions	43,982,953
Forensic Psychiatric Services	2,416,316
The Medical Services Plan of British Columbia	313,507,929[1]
Emergency Health Services	17,861,281
Total Health Services	976,049,082

CHART VIII—EXPENDITURE BY PRINCIPAL CATEGORIES, IN MINISTRY OF HEALTH FOR THE FISCAL YEAR 1976/77



[1] The expenditure of $313,507,929 shown for the Medical Services Plan is the gross operating cost as shown in the detailed statements in Section F of the Public Accounts. The actual charge to Vote 96 was $195,445,000 and covered the return of the Federal sharing under the *Medical Care Act* (Canada) and *Hospital Insurance and Diagnostic Services Act,* subsidy by the Province for low-income residents, and the estimated deficits not covered by premiums and other revenues. Similarly, the total for the Ministry of Health is shown as $976,049,082, whereas the net total is $857,986,153. This latter figure is $269,273 less than the total shown in Section D of the Public Accounts as half of the Accounting Division expenditures are made on behalf of the Ministry of the Provincial Secretary and Travel Industry.

Table 34—Detailed Expenditure, by Principal Categories, in the Ministry of Health for the Fiscal Year 1976/77

		Total Expenditure in Fiscal Year Ended March 31, 1977
		$
Community Health Services:		
Minister's Office		96,665
Deputy Minister's Office and Branch Support Services		226,879
Branch Executive and Administrative Support		3,746,734[1]
Local Health Services		28,205,324
Special Health Services		11,749,315
Other Health Care expenditures		11,795,543[2]
Subtotal, Community Health Programs		55,820,460
Hospital Programs:		
Office of Deputy Minister of Medical and Hospital Programs		52,515
Administration		3,725,325
Payments to hospitals—		
Claims		507,165,564
Grants in aid of equipment		15,254,344
Capital and debt services		16,262,395
Subtotal, Hospital Programs		542,460,143
Government institutions:		
General Administration		811,752
Nursing Administration		276,231
Riverview Hospital		26,023,560
Valleyview Hospital		8,914,736
Dellview Hospital		2,231,098
Pearson Hospital and Willow Chest Clinic		5,725,576
Subtotal, Government institutions		43,982,953
Forensic Psychiatric Services		2,416,316
The Medical Services Plan of British Columbia expenditure:		
Benefits—	$	
Medical care	300,180,459	
Additional benefits	17,837,407	
	318,017,866	
Adjustment of provision for unpresented and unprocessed benefit costs	17,550,000	
		300,467,866
Administration—		
Salaries and employee benefits	9,835,061	
General office expenses	3,205,002	
		13,040,063
Subtotal, The Medical Services Plan of British Columbia[3]		313,507,929
Emergency Health Services		17,861,281
Total, Ministry of Health		976,049,082

[1] This figure is $269,273 less than the total shown in Table D of the Public Accounts as half of the Accounting Division expenditures are made on behalf of the Ministry of the Provincial Secretary and Travel Industry.

[2] Pursuant to sections 12A and 12B of the *Constitution Act*, administration of part of this vote (Action B.C.) was transferred to the Ministry of Recreation and Travel Industry effective October 29, 1976.

[3] The complete 1976/77 Financial Statements and notes for the Medical Services Plan are on pages 149 to 151.

MEDICAL SERVICES PLAN

Financial Statement

AUDITOR'S REPORT

I have examined the statement of working capital and financial position of The Medical Services Plan of British Columbia operating under the direction and control of the Medical Services Commission of British Columbia as at March 31, 1977, and the related statements of operations and changes in cash position for the year then ended. My examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as I considered necessary in the circumstances.

In my opinion these financial statements present fairly the financial position of The Medical Services Plan of British Columbia as at March 31, 1977, and the results of its operations for the year then ended, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

K. M. LIGHTBODY
Acting Comptroller-General

June 28, 1977
Victoria, B.C.

Table 35—Statement of Working Capital and Financial Position as at March 31, 1977, of The Medical Services Plan of British Columbia

	1977 $	1976 $
Working capital deficiency—beginning of year	54,695,066	1,544,256
Excess of expenditure over revenue	27,347,041	70,779,366
	82,042,107	72,323,622
Working capital funding—Province of British Columbia	(38,940,904)	(17,628,556)
Working capital deficiency—end of year	43,101,203	54,695,066
Represented by:		
Liabilities—		
Bank overdraft	9,373,013	—
Estimated liability for unpresented and unprocessed benefit claims (Note 1)—		
Medical care	27,850,000	44,653,300
Additional benefits	1,700,000	2,446,700
	29,550,000	47,100,000
Premiums received in advance	15,404,807	11,373,175
Accounts payable	218,383	—
	54,546,203	58,473,175
Deduct assets—		
Cash	—	3,778,109
Due from the Province of British Columbia	11,445,000	—
	11,445,000	3,778,109
Working capital deficiency	43,101,203	54,695,066

See accompanying notes to financial statements.

Table 36—Statement of Operations for the Year Ended March 31, 1977, of The Medical Services Plan of British Columbia

	1977 $	1976 $
Revenue:		
Premiums (Note 1)—		
Subscribers' premiums	133,504,908	96,334,358
Adjustment of provision for premiums received in advance	(4,031,632)	(2,324,871)
	129,473,276	94,009,487
Government of British Columbia—premium assistance	28,363,560	18,832,849
	157,836,836	112,842,336
Interest income (Note 1)	183,517	1,791,946
Government of Canada contributions—		
Medical Care Act	106,717,451	86,368,370
Hospital Insurance and Diagnostic Services Act	21,423,084	21,386,632
	128,140,535	107,755,002
	286,160,888	222,389,284
Expenditure:		
Benefits—		
Medical care	300,180,459	256,933,126
Additional benefits	17,837,407	14,759,859
	318,017,866	271,692,985
Adjustment of provision for unpresented and unprocessed benefit claims	(17,550,000)	8,816,144
	300,467,866	280,509,129
Administration—		
Salaries and employee benefits	9,835,061	8,880,645
General office expenses	3,205,002	3,778,876
	13,040,063	12,659,521
	313,507,929	293,168,650
Excess of expenditure over revenue	27,347,041	70,779,366

See accompanying notes to financial statements.

Table 37—Statement of Changes in Cash Position for the Year Ended March 31, 1977, of The Medical Services Plan of British Columbia

	1977 $	1976 $
Cash provided:		
Subscribers' premiums	133,504,908	96,334,358
Province of British Columbia—		
Working capital funding	38,940,904	17,628,556
Deduct received subsequent to year-end	11,445,000	—
	27,495,904	17,628,556
Premium assistance	28,363,560	18,832,849
	55,859,464	36,461,405
Government of Canada	128,140,535	107,755,002
Interest income	183,517	1,791,946
	317,688,424	242,342,711
Cash applied:		
Medical Plan benefits	317,966,589	271,692,985
Administration	12,872,957	12,659,521
	330,839,546	284,352,506
Decrease in cash	13,151,122	42,009,795
Cash—beginning of year	3,778,109	45,787,904
Cash (overdraft)—end of year	(9,373,013)	3,778,109

See accompanying notes to financial statements.

NOTES TO FINANCIAL STATEMENTS FOR THE YEAR ENDED MARCH 31, 1977

1. Significant Accounting Policies

(*a*) *Income determination*—Premium and interest income are recognized only when cash is received. Premiums received in advance are not included in income until the period in which income is earned.

(*b*) *Liability for benefits*—The liability for benefits, consisting of unpresented and unprocessed claims for medical care and additional benefits, has been estimated on the basis of past experience of the commission.

(*c*) *Fixed assets*—The cost of fixed assets acquired is charged to administration expense.

2. Comparative Figures

The 1976 comparative figures have been restated, where necessary, to conform with the classification adopted for the year ended March 31, 1977.

ANNUAL REPORT ADVISORY COMMITTEE

Editor: R. H. Thompson.

Assistant Editors: J. Matters, J. Mackin.

Co-ordinators: J. Doughty, K. Williams, J. Berry.

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