

'whole-body counting' and bio-assay facilities for the follow-up of persons who may have ingested or inhaled radioactive contamination. It gives short-term training courses in radiation protection for persons with varying degrees of responsibility for radiation protection on a day-to-day basis. Committees of the Atomic Energy Control Board, including federal and provincial representatives, give special attention to the health and safety problems associated with the siting, design, construction and operation of nuclear reactors and charged-particle accelerators.

Although there is no federal regulatory authority to provide health and safety supervision over the use of X-rays, the Department has established a committee on the development of X-ray safety standards to recommend uniform standards and procedures throughout Canada. Five provinces (Nova Scotia, Quebec, Ontario, Saskatchewan and Alberta) have enacted specific enabling legislation applicable to X-rays and two (Nova Scotia and Saskatchewan) have issued regulations requiring registration of operators and/or equipment. The Department's personnel dosimetry service is available to X-ray workers and its reports are given to the provincial departments of health.

A comprehensive nation-wide monitoring program has been developed to assess the exposure of the public to radiation from radioactive fallout from nuclear-weapons testing. The Department is assisted in the systematic collection of samples of air, precipitation, soil, wheat, milk and human bone by the federal Departments of Transport and Agriculture and pathologists in hospitals throughout Canada. Reports of the concentration of such fallout components as strontium-90 and cesium-137 in these samples are published monthly. Because of a unique food-chain cycle in the Far North, a study of cesium-137 in the North is included in the nation-wide program, under which measurements are made of cesium-137 in caribou and reindeer meat and in human urine. In addition, direct measurements of cesium-137 levels in living persons are made using portable and fixed 'whole-body counters'

#### Subsection 7.—Health Research and International Health

**Health Research.**—Health research in Canada is carried on in universities, hospitals, research institutions and government departments. The main sources of financial support are governments, voluntary agencies, charitable foundations, professional bodies and business corporations.

The Federal Government conducts medical and dental research (intramural research) in the Department of National Health and Welfare and the Defence Research Board. The Medical Research Council, the National Research Council, the Department of National Health and Welfare, the Department of National Defence, the Department of Veterans Affairs, and the Queen Elizabeth II Fund all give financial support to research in universities, hospitals and other institutions (extramural research).

The Medical Research Council, formed in 1960 from the National Research Council's former Division of Medical Research (see p. 149), is the principal federal health-research advisory and co-ordinating agency. Its primary concern is the support of fundamental research in the basic medical sciences. It administers most of the federal medical research grants that support full-time investigation by research scientists in Canadian medical schools and their affiliated hospitals. The National Research Council pursues in its broad program many investigations relevant to health. Its Associate Committee on Dental Research administers specific grants for dental research and for training dental-research personnel.

The Department of National Health and Welfare supports both extramural and intramural health research, mainly of an applied nature. Intramural research is carried on by the Food and Drug Directorate, the Medical Services Directorate, the Health Insurance and Resources Branch, by several divisions and laboratories of the Health Services Branch, and by the Research and Statistics Division. The Department's extramural research program is composed of public health research, surveys and studies that have the prior approval of the provinces for assistance under the National Health Grant Program (see p. 280).