

Question

as primarily biochemical in content may also have a definite relationship to cardiology or to psychiatry.

In broad general categories, however, according to the field of medicine, investigations which could be described as clinical accounted for about 40 per cent of the total funds or some \$650,000. In this group those in the fields of cardiology, neurology, geriatrics and internal medicine covered about one-half, while psychiatric and psychological research took up the remainder. Basic studies such as those in biochemistry, pharmacology and therapeutics, pathology and physiology involved more than 23 per cent or \$350,000 in allocations and studies in the general field of bacteriology, including virology, B.C.G. and the tubercle bacillus, made up better than 16 per cent of the total or \$260,000. Those related to the birth period, infants and children totalled \$110,000, while research on administrative aspects, medical economics and epidemiology about equalled that involving the special senses, approximately \$50,000.

A re-grouping of these studies according to general fields of interest as related to leading causes of mortality and morbidity, shows that of the total program a little more than one-third of the funds or \$548,000 are provided in support of research in mental diseases and related topics with an additional amount of \$53,000 being made available for studies in neurology. A total of \$184,000 has been allocated for studies in tuberculosis, both clinical and bacteriological, including the preventive aspects with B.C.G. vaccine. Research in diseases of the heart and arteries has been assisted in the amount of \$172,000, with an additional \$111,000 for the purchase of special equipment for cardiovascular centres in Montreal and Toronto. Virus diseases, including poliomyelitis and influenza studies, received support in the amount of \$138,000, research in arthritis and rheumatism—some \$94,000, conditions affecting the newborn—\$79,000 and obstetrical studies an additional \$31,000. In respect to diseases of the eye, a total of \$68,000 has been provided for clinical services and research, and \$22,000 for similar activities in dentistry. Studies in the field of hypersensitivity have been supported with a total of some \$47,000, while investigations in administrative aspects of public health, including nursing and environmental hygiene have been allocated in excess of \$40,000.

To indicate more accurately the accomplishments of the research program, it is necessary to examine the individual research studies and to evaluate these in the light of

their achievements in the reduction of mortality and in the alleviation of ill-health and disability.

Mental Health Research

With a total of 46 individual projects, mental health research covered such studies as fundamental laboratory investigations of fractions of the blood and other body fluids which might be accountable for mental illness, comprehensive exploration of a variety of clinical problems, related to mental illness, and field surveys of social situations and the investigations of children relating to hereditary and environmental factors involved in the development of mental disorders. Also included were psychological studies involving behaviour patterns, motivation and other related factors. The study and improvement of apparatus used in the diagnosis of mental illness, special drugs and advanced surgical procedures which have demonstrated benefit in therapy have received intensive study.

In the field of neurology, there were a variety of studies dealing with cellular structure, neurophysiology and biochemical activities in the brain. The metabolism of the brain was given particular attention as was the effect of pharmacologically active substances on this vital tissue.

Heart Research

As the leading cause of mortality, accounting for one-third of all deaths, disease affecting the heart and blood vessels received most intensive attention in terms of research expenditures and the provision of special equipment. Two cardiac centres have been now established in Montreal and in Toronto with assistance under the national health program. The institute of cardiology at Maisonneuve hospital in the short period of its existence has already distinguished itself and is achieving wide recognition for its activities in the treatment of cardiac conditions and for its research effort. Under the able direction of Dr. Paul David and with such prominent surgeons and research workers as Dr. E. D. Gagnon and Dr. Arthur M. Vineberg associated with it, rapid strides are being made in experimental heart surgery, dealing particularly with coronary artery disease, valvular defects and follow-up studies in patients having received the benefit of such treatment. Dr. Jacques Genest who directs the clinical research department at the Hotel-Dieu Hospital is conducting a study which offers great promise in the solution of problems associated with high blood pressure, while at McGill University in addition to Dr. Vineberg, Drs. Ronald Christie and D. R. Webster have combined their efforts and interests in the development of a centre for cardiovascular and respiratory research.