will now be involved in financial support for the provision of this product for immunization programmes across Canada.

Mr. Monteith stressed the fact that the licensing of the new vaccine had been carried out only after long and careful study. Research in this field has been in progress for some 12 years and large field trials have been under way in many parts of the world since 1957. It is estimated that over 120 million persons have received oral poliovirus vaccine to date.

SPECIAL PROBLEMS

There are many problems peculiar to vaccines of this type, and considerable time has been required to solve them. The most important consideration has been safety. The oral vaccine contains strains of each of the three known types of poliomyelitis virus. Originally fully virulent, these have been attenuated so that they are no longer able to produce disease in man when given by mouth. The biggest problem has been to make certain that the continued use in man would not cause a return to the original virulent status of the various strains.

Mass immunization trials using the strains separately for the most part but, at times, with all three together, have already been completed. The greatest number of persons immunized have been in the Soviet Union, where over 100 million people have received the vaccine, and in Poland, where approximately 9 million have been immunized. Some of the results of these studies have been made available to the world. However, the problems involved in the use of this vaccine are not the same for every country.

Some countries, for example, have not been able to apply Salk immunization and have, of necessity, turned to the oral vaccine. This was not the case in Canada. Salk immunization programmes had already yielded outstanding results and lessened the urgency of the use of the live vaccine in this country. In addition, there were a number of different varieties of oral vaccine available and much consideration was necessary before the decision was made to adopt the Sabin vaccine for use in Canada.

In this connection, a special committee was set up on October 19, 1959, to study live oral poliovirus vaccines, with a view to keeping abreast of the ever-increasing scientific data that was becoming available. The committee also acted as advisers to the Department of National Health and Welfare and the Dominion Council of Health in the formulation of laboratory experiments and community demonstrations. This work was carried out in Nova Scotia, Quebec, Ontario, Manitoba and Saskatchewan.

This special committee was headed by Dr. Andrew Rhodes, Director of the University of Toronto School of Hygiene, and included experts from the federal and provincial health departments, from universities across Canada and from the two Canadian producers. These studies have now been completed and have yielded extremely useful information regarding the stability of the strains used in the production of the Canadian vaccines. The results have established that the Sabin strains of live oral poliovirus vaccine are safe for community use in Canada and also that they are valuable immunizing agents.

Mr. Montieth stated that, because of the careful preparations that had been made, he had "every confidence that we will achieve a record with the Sabin vaccine that will match our outstanding success with the Salk vaccine in terms of safety and effectiveness".

RECORD OF SALK EFFECTIVENESS

At present, over 70 per cent of the Canadian population under 40 have received three or more doses of Salk vaccine and no cases of paralytic polio have been traced to its use. It has also been highly successful in preventing paralytic polio. Comparison of attack rates in un-vaccinated groups and in those who have received three or more doses of the Salk vaccine indicates that it was over 95 per cent effective in preventing the disease. By far the largest proportion of cases and deaths due to paralytic polio have occurred in those who have not had three or more doses of the vaccine.

Originally, because supplies of the Salk vaccine were limited, immunization programmes were generally restricted to the most susceptible age groups, namely children in the pre-school and early school groups. Later, the programme was expanded to older groups and, in the fall of 1957, the vaccine was made available to adults up to the age of 40.

When immunization of selected groups was started in 1955, the recommended schedule of primary inoculation was three doses of Salk vaccine with an interval of 4 weeks between the first and second doses and an interval of not less than 7 months between the second and third doses. Later as the vaccine became more available and as further experience was gained, booster shots were suggested on an annual basis.

In addition to providing the Salk vaccine to Canadians, the two producing laboratories have furnished substantial quantities to other countries, which have exhibited a growing demand for the Canadian product because of its high standards of effectiveness and safety.

* * * *

NEW BALLET ADVISER TO CANADA COUNCIL

Lincoln Kirstein, Director-General of the New York City Ballet and President of the School of American Ballet, visited Canada recently to attend performances by two of the country's ballet troupes. Mr. Kirstein, who with George Balanchine founded the New York City Ballet, will replace Mr. Balanchine as an adviser to the Canada Council.

Mr. Kirstein, a distinguished American ballet authority, originally persuaded Balanchine to come to America in 1933 to establish the School of American Ballet. Out of this partnership grew the New York City Ballet. He is also Vice-President of the American Shakespeare Festival at Stratford, Connecticut, and is the author of several books on the dance, including *Dance*, *Blast at Ballet*, *Ballet Alphabet* and *The Classic Ballet*.