EIGHTH WORLD HEALTH ASSEMBLY

Agenda item: 7.5

HUMAN AND MEDICAL GENETICS

Memorandum Submitted by the Delegations of Denmark, Finland, Iceland, Norway and Sweden

During recent years it has become increasingly obvious to those who are concerned with the prevention of illness and the promotion of health that:

Medical Genetics, which is based on and constitutes an essential part of human genetics, has to take its place among the sciences concentrating their efforts on the understanding and control of diseases in man.

The future health of a human population is dependent on a variety of factors, hereditary as well as environmental. A very important group of these factors, which determine the fate and survival of a population, is composed of the hereditary diseases and anomalies, defects and abnormalities occurring in the population.

A number of diseases and defects are chiefly due to heredity, each generally caused by a single pathological gene, arisen through mutation in the past, perhaps many generations ago, perhaps more recently. The acquired diseases on the other hand are principally caused by environmental factors. Between these two extremes lie the majority of lesions, for the production of which both genotypical and para-typical factors may assert themselves; they are dependent on a hereditary predisposition.

This is why the study of the hereditary lesions is of so great consequence for public health, clinical, preventive and social medicine as well as for population problems, demography and medical statistics. In many countries during recent years
an increasing social consciousness has been manifesting itself, a growing feeling that society must make living conditions tolerable for everybody; this has necessitated the study of the hereditary diseases, and, not least, of their frequency in the population. It is of importance to know the number of people who, on account of hereditary lesions, are incapacitated and have to be treated, to be given social relief or to be placed in hospitals or institutions.

Furthermore, the study of the incidence of defective traits is an essential part of medical genetics. It is fundamental for investigations on the significance of mutation as a cause of disease and on the way in which the hereditary lesions arise through mutation.

These problems have increased in importance with the extended use of atomic energy.

With the decrease in the incidence of diseases caused by exogenous factors, the endogenous cases are expected to remain constant or even increase as a result of the progress of civilization. This further stresses the need of the co-operation of medical genetics in the promotion of health.

A thorough instruction in human and medical genetics, including general as well as clinical genetics, ought to be a part of the medical curriculum.

Consequently, during recent years chairs (professorships or lecturerships in human and medical genetics) have been established in connexion with medical schools, hospitals and medical faculties at universities in numerous countries, for instance Canada, Denmark, France, Germany, Great Britain, Holland, Italy, Norway, Sweden, Switzerland, and the United States of America.

Furthermore, research institutes for medical genetics have been organized in many scientific centres. A considerable number of textbooks and manuals in medical and human genetics have appeared during the last decades.
As to the immediate and future tasks and possibilities of medical genetics, it can be stated that, inter alia, the problems concerning atomic energy and its relation to medicine and public health cannot be solved without the co-operation of human and medical genetics. Investigations into the incidence and genetic effects of spontaneous and induced mutations form an integrating part of all work on radiation-induced diseases in man.

Among other subjects, which are in the centre of investigations carried out by medical geneticists, is the problem of identification of genetic carriers of disease. The detection of genetic carriers will make possible an improved approach to the physiology and biochemistry of disease, by providing for study a number of people in the very early stages of the conditions.

With a knowledge of the ways and means of hereditary transmission and expression of diseases it might be possible to realize the very early signs of disease, so often at present unrecognized, which can take on new and important meanings in the light of genetics, giving rise perhaps to new criteria for diagnosis, earlier identification, and consequent new opportunities for prevention and therapy.

In the future it will be necessary from the point of view of preventive medicine to follow and control the serious hereditary diseases in the population in the same way as for instance epidemic diseases are followed and controlled; for that purpose a medico-genetic epidemiological control for instance by means of a genetic-hygienic registration will be an indispensable remedy. International collaboration between medical genetics and the other sciences of medicine is a necessity for the prevention of illness and the promotion of health.

For these reasons the Danish, Finnish, Icelandic, Norwegian and Swedish delegations hold the view that the question of human genetics, according to the Constitution,
falls within the scope of WHO, and they therefore propose the adoption of the following resolution:

The Eighth World Health Assembly,

Believing that the problems concerning human genetics are of utmost importance for the health and well-being of mankind;

Considering that these problems, according to the Constitution, fall within the scope of WHO;

REQUESTS the Director-General, if funds can be made available, to convene in 1956 a symposium or a study group on human genetics.