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## "Health and Economic Welfare"

By SIR JOHN BOYD-ORR, M.A., M.D., D.Sc.  
Director Rowell Research Institute

MR. CHAIRMAN AND GENTLEMEN:—I appreciate very much the honor of speaking to you gentlemen today but I appreciate still more the responsibility of speaking to you because I am going to talk about consumption of food in relation to health and the production of food in relation to agriculture and the trade in food in relation to economic research. These are subjects of very great importance, of vital importance to millions of families in Europe, in America, whose standards of living are so low that they cannot purchase sufficient of the right kind of food to maintain them in health. It is of importance to many farmers who are in poverty because they cannot sell sufficient food that they produce at remunerative prices and is of importance to trade because such a large part of the world's trade consists of trade in food stuffs. If agriculture is prosperous, if trade in food stuffs is remunerative there is a bottom put into industry and finance.

There have been some remarkable scientific discoveries in the last few years with regard to the effect of food on health and these discoveries have put some problems in a new understanding. I believe if these discoveries were complete we would have taken a long step forward in the solution of many of our social, agricultural and economic problems because this new science of nutrition has revolutionized our ideas about the requirements of food from a health point of view and it should revolutionize our ideas about what the size of the market for food is. Before these discoveries were made we assumed that if people had sufficient food to prevent hunger then the requirements of the body would be met. Whatever diseases or ill health oc-

curred were attributed to material infections, poisons or toxins coming from either outside or inside the body. If we could not find a positive cause at least we could attribute them to hereditary defects and consequently all that we were concerned with was seeing that a diet was sufficient to satisfy hunger. These new discoveries have taught us that in addition to satisfying hunger a diet must contain a sufficient amount of about 30 different substances each of which is necessary for health. In the absence of any one of these substances, ill health develops. Children whose diet is short of calcium or phosphorus or vitamin B develop rickets and there are a number of diseases which develop when the diet does not contain a sufficient of every one of these 30 odd substances. These diseases have become known as the deficiency diseases. The discovery of the cause of these diseases was a tremendous achievement for science because hundreds of thousands of people suffer from these diseases and unfortunately do still. Investigations in laboratories, in the clinical wards of infirmaries, have shown deficiency diseases to be common even among the wealthiest countries. Deficiency of vitamin B will cause beri beri, but minor deficiency of B causes stomach ulcers. It is known that these minor degrees of deficiency causing minor degrees of ill health because many of those conditions clear up after the patient is given vitamin B. Children treated with this grow faster, thrive better. There are many degrees of deficiency which affect eye sight, the central nervous system, the mucus membrane, the throat, and render one more easily infected by bacteria. Indeed it is believed by some that deficiency of some of these substances, especially vitamin A, is an important factor in one of our great problems, increased recognition of mental deficiency in children.

I have given you some examples of specific illnesses due to lack of some of these specific substances in the food. When the body is suffering from mal nutrition due to faulty diet there are some diseases to which the body is more susceptible. That is profoundly true of the disease of tuberculosis. It is now recognized that one of the best ways to prevent tuberculosis or even cure it is to give a diet fully adequate to health, to increase the resistance of the body against invasion of that disease. These discoveries

have led us to set up a new and much higher standard of health because if the diet is fully adequate from the time the mother fully conceives her child, from the time the child is born then we would have a race which would be free from all these diseases. It is believed by many that if all the diseases which clutter up our hospitals would disappear not only would we be free of the diseases but we would build up a race with finer physique, finer health and with all the joy of living which perfect health brings. Now if we are going to attain this new and higher standard of health, obviously we must have a new and higher standard of diet. How much of all these substances do we need? In laboratories, in hospitals we have been working on this principle for years. It was obviously important to know what the standard was. Three years ago an international committee was set up by the League of Nations to give a report on the standard. That committee consisted of leading experts brought from all over the world. Three went from the British Empire, two from the United States, and others from other countries, men who had not met before, speaking four different languages.

These 15 experts were so agreed on the standard that within 3 days they were able to draw up a report, but wishing to be quite sure that report was circulated to the leading scientific and medical institutions of the world, to receive the comments and criticisms on it. The comments and criticisms dealt naturally with medical detail, but all agreed in general terms with the report and now that report is recognized as the new international standard for diet fully adequate for health. I won't go into the details of it. The Canadian Medical Association will give you full information about the kind of diet necessary to attain health. It is a diet rich in milk for children, 1½ lb. for every child—eggs, fruit, vegetables, meat, fish. We have this information now about what health should be and about the kind of diet needed to maintain that high standard. What are we doing about it? I know best what we are doing on the other side. We recognize that poverty is preventing people from getting an adequate diet. We are giving free milk, cheap milk, cod liver oil and other protective foods to institutes and our maternal centres. In one county in Scotland every

nursing or expectant mother is given a full pint of milk. At child welfare centres we are doing the same thing. In our schools we are giving milk at half price, all being done with the object of improving the diet of the poorest class in the community whose diet we know is very, very inadequate for health. These measures have improved the diet of the people in the United Kingdom and they have also improved the diet of the educated people, who naturally have transformed their diets. They are eating more fruits, vegetables and drinking more milk and there has been a real raise in the standard of living. Compared with pre-war days our consumption in the United Kingdom of the protective foods with the exception of milk has increased roughly about 50 per cent. We expected better national health and that is exactly what we have got. Ricketts and scurvy are disappearing. Children are growing faster and are healthier. Children leaving school are about two inches taller than their parents were. Tuberculosis is cut in half. One of the surest indications of the health and physique of the community is the health of the mothers. The expectation of life has increased by as much as 7 years. Now there are other factors which have improved health but the change in diet is the one big thing, and these changes come from knowledge of the effect of food on health. It is a subject of very great national importance. Our country recognizing that we are only touching the fringe of the problem is setting up a national Nutrition Committee appointed by the government to inquire into the state of nutrition of the people of the United Kingdom to advise the government as to what means should be taken to bring the diet of the United Kingdom up to the level needed for health. Similar committees have been set up in Canada, Australia and all the other British Dominions and the United States. About 20 countries have recognized the great importance of this new science and have set up committees to deal with it. These committees are carrying out different services, because the first thing we want to know is what the effect is on the different classes. They are carrying out examinations of people in the light of this new knowledge. We find on the other side that diet is important to such an extent that there are still roughly about half whose diet is below the standard.

In the United States we find that 40 to 60 per cent of their families are existing on diets below that standard. In Australia it is not very different. When we compare the health and physique of people of all different classes with the diet enjoyed by the people in these classes we find there is a broad correlation between diet and the health and physique. In Australia we found between 17 and 18 per cent of children in one district, 21.7 of the children of pre-school age in Melbourne, were ill nourished according to this new standard. I believe apart from New Zealand, Australia is one of the best fed countries in the world.

What about Canada? A recent survey carried out in Toronto by your great medical school which has a world wide reputation and has taken a very leading part in creating this knowledge and is now taking a leading part in the promotion of it—you find here the mass of the people in the low income groups, 70 per cent of the women and men, 70 per cent of the children, are not getting sufficient—nearly half of these families are not eating sufficient food—not because the food is not available but because of the lack of mineral salts these people are suffering from mal nutrition, and one of the first symptoms of mal nutrition is lack of appetite. All countries are finding the same thing. What is the cost of it? There are two causes, one is ignorance of the people and the other is poverty. A great many people do not know sufficient about the health value of different foods and you will find that there are families on the same standard of living, the same income, same number of children, with widely different diets. Some families where the mother is intelligent and spends the money to the best advantage and buys the largest possible amount of protective food; other families, due to ignorance or carelessness spend the same amount and have an inferior diet. But ignorance is one of the biggest problems we have to face and one of the reasons for the setting up of your Canadian nutrition committee is to get the knowledge spread through the schools and to the parents. We are doing the same thing on the other side and in the United States. That is a problem that the medical profession can do something to help solve. But there remains the other problem, the problem of poverty and that is an exceedingly difficult problem to face. I am not

an economist or financier therefore I cannot deal with it efficiently. But look at it for a minute. Here you have the food. The farmer cannot get sufficient money for the food he is producing. Governments have taken action and the obvious action to take according to our old ideas of nutrition was to do something to eliminate the glut of food stuffs. We put quotas to prevent this food accumulating. Where does that policy lead us? It is a dangerous policy to apply to restrict the flow of wealth because the economic system exists to facilitate the production and distribution of wealth. When you begin to prevent wealth flowing to destroy wealth it begins to look bad for the economic system. But when you begin to apply that to food the economic system is not in a very safe way. Some of us on the other side have recognized the danger not from the point of view of public health but the larger one. The King's physician has said that with the economic system breaking down under the burden of wealth which you cannot distribute, with all the wealth of food stuffs and whole cities of people not receiving adequate diet that there is real danger of breaking down. He says it is an indication of economic and national decay, and this state of affairs cannot go on. We need men of courage, men of vision to meet the problem. We have had governments who have interfered in food trade. That interference was necessary at the time of the economic crisis. We had to make restrictions. Government interference in food is not going to stop. We cannot remove all these restrictions. We must go forward. But if the government is going to interfere in agriculture the government has to say to itself, what principles are we going to apply to our interference and I suggest that the government could say, we are going to return the amount of food stuffs imported into a country. But what limit will we place? The limit should be the amount of these food stuffs which is required by the whole population. So we are going to deal with fixed prices. What prices should we fix? They should fix the prices within the purchasing powers of the people. If we adopt these principles and we find there is a great scarcity of food we need to produce far more food. In the United Kingdom we need 2,500,000 more cows to produce the milk we need and double our food

production. We need more meat, more fish. We have no doubt that there would be if the price were within the purchasing power of all classes. We have tried experiments reducing prices and we find as the price is reduced, consumption goes up. We tried the experiment with milk, cut the price in half, and consumption went up 61 per cent. If we are going to get the additional food stuffs we need, we need to pay the farmer more for them and so we are faced with the difficulty of being forced to pay bigger prices to the farmer and sell retail at cheaper prices to the poor. We need money to bridge this gulf. Can this money be found? The amount of money needed in the U. K. is very much less than what some suppose. A relatively small amount of money would be sufficient to set the ball rolling. But we cannot allow this to break down for want of money. In Scotland in the beginning of the 19th century there was very little money but the money was found; coal fields were opened, shipbuilding industries, cotton industries, and the wealth increased. In this great Dominion of Canada by loans or credits, I don't know, money was found to put your railways across country. If we have an outlet for money where we can show it will be profitable to use it there will be no difficulty finding money. Supposing money were found and we adopted a policy of paying the farmer a price that will induce him to produce more and sell at a price enabling the public to buy what they need, what would be the result? A great improvement in health and physique. We would put a bottom to poverty. Agriculture would be well away. The policy would bring about healthy people, prosperous countryside, and believe me, a healthy vigorous happy contented population and prosperous countryside are sure foundations of national greatness. I have advocated a policy of that kind in the U. K. I have pointed out that the present restrictions on agricultural production is damaging agriculture, raising the price of food, damaging the health of the poor, preventing the expansion of trade and the policy of restriction makes for perpetuation of poverty, perpetuation of the difficulties of agriculture. By adopting national food dollars based on this new science of nutrition our food dollars would be a spare wheel for the beginning of the new cycle of economic prosperity. The organization

would be easy to set up in the United Kingdom. It would involve less government interference than the present method. And the set up in Canada, I don't know—but I suggest it might be a good thing to consider this food problem from the imperial instead of the United Kingdom point of view. When we consider it from the Imperial point of view we find that a lot of problems cancel out. If we brought in our good neighbors, the U.S. we might have very nearly a world policy, a policy to produce all the food our people need. A policy of that kind would be a new gospel to the poor, a new outlet for international trade. I believe that this great British Empire is the great bulwark for individual liberty in the world today. I say it with considerable feeling. I hope you gentlemen think the old country is anything but down and out. We have done more for our poor in the United Kingdom in the last few years than has been done by any other nation. There is more good will between classes than in any other nation and although we are a peace loving nation, if war comes, you will find there a united nation, poor and rich, all classes, standing for the defence of liberty, of thought, liberty of speech, liberty of business initiative, for that is the democratic liberty which has made our great commonwealth of nations. It is because we have such a great inheritance that we have such a great responsibility and I believe our responsibility in the first place is to these classes of our community and our system should be a standard for health. I believe this great Empire by adopting a policy of plenty, beginning with food, would bring hope and leadership to this fear ridden world. We might guide this world toward a new age of plenty which is the only sure foundation for agricultural prosperity, for economic prosperity, for financial stability, this new age of plenty which science has made available is the only sure foundation for world peace.