Cong. John E. Fogarty
Providence Kiwanis Club
Providence, Rhode Island
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It's always an honor and a pleasure to be invited to speak to my friends and neighbors here in Providence, and I am particularly pleased to address the Kiwanis -- a group I respect so highly.

My remarks today are somewhat related to the aims of the Kiwanis Club -- to render service to youth, community, and nation -- aims I concur with wholeheartedly. These aims are also my aims not only as Representative of the 2nd District, but also in my principal committee assignment in the Congress.

In the 20 years that I have represented the 2nd District of Rhode Island, I have been privileged to serve a majority of that time as Chairman of the Subcommittee on Appropriations for the Department of Health, Education, and Welfare, of which the Public Health Service and the National Institutes of Health are a part. I've heard a lot of reports by scientists during those years, and it's made me realize what a vast amount of progress we've made in the last few years -- man is living longer; we're making good headway in the fight against cancer, heart disease, and some of the other killers; in short our technological advances are amazing.

Progress in Medical Research

Listening to the scientists who appear before my committee every year, I've been able to acquire a number of facts about the progress of medical research.

We have been kept-up-to-date on a remarkable and successful treatment of one form of cancer called choriocarcinoma. In this case, -- methotrexate -- has caused these cancers -- which appear in pregnant women -- to disappear. As of today, a number of 5-year cures have been recorded. And thousands of other drugs have been and are being developed by pharmaceutical firms and screened and tested by the National Cancer Institute. During this fiscal year, nearly 60 contracts will be in effect with 43 different industrial concerns for cancer chemotherapy research. Government and industry have worked out a patent policy to protect the firm's rights to its own inventions, and to guarantee that the public will receive full benefit from the drugs the Government helped to develop.

There is encouragement, too, in another serious disease area. The tranquilizers and energizers the doctors have been prescribing over the last few years have helped many patients and have let the light into the formerly black picture of mental sickness. There is hope now that scientists will find why and how these drugs help the patient and, more important, that study of the drugs, and their effects on the body may show what goes wrong when a mind becomes disordered.

Just as a sidelight on drugs and research -- more and more drugs are being developed and found useful in a variety of diseases. You know, I'm sure, about the new oral drugs for the treatment of diabetes, and the corticiosteroid drugs which relieve pain and inflammation in many arthritis patients. Malaria is still a serious public health problem in many parts of the world, but quinine is no longer the only preventive or treatment for it; there are a number of new drugs that are not only effective in suppressing the disease, but prevent the recurrence of attacks.

Our scientists are making progress, too, in the fight against diseases of the heart and blood vessels. Surgeons can correct many of the heart defects babies are born with. Rheumatic fever, formerly a serious heart crippling disease, can be treated so as to prevent damage to the heart. Drugs have been developed to reduce high blood pressure with its threat to life. Studies now under way in many parts of our nation and abroad are bringing new knowledge of the relation of fats in the diet to artery hardening.

But not all of our progress is of the same kind -- some of our successes bring problems with them.

Man-Made Health Problems

History tells us that every generation creates its own problems, and in our generation a lot of our problems seem to be in the field of environmental health -- in those areas of progress created by the

physical sciences.

Radiation

We're all very much aware right now of what's been happening in the sciences connected with atomic radiation. The Russians are at it again with their bomb testing, and in the process are threatening parts of this country with fallout.

The Public Health Service, which has been monitoring fallout for some time, stepped up its monitoring-reporting system last week to maintain a 24-hour survey of atmospheric radioactivity. By reporting conditions once a day, the 44 radiomonitoring stations throughout the country give the Public Health Service an almost instantaneous picture of the fallout pattern across the country.

Now, aside from our concern over the current situation, I would like to consider the present state of radiation in our environment. Man and the other living beings have, of course, been exposed to ionizing radiation from natural sources since time began. But over the past 30 years, the estimated annual amount of radiation received by the average individual in this country increased nearly ten-fold. In the last decade, the number of people using radioisotopes for medical purposes in the U.S. increased more than 400 percent. And it is predicted that our nuclear power capacity in the next 30 years will increase the accumulated volume of high and intermediate level wastes from one and a half million gallons to approximately 2 billion gallons.

There is no cure for the effects of ionizing radiation on man. In the past, man was evidently in balance with his environment with respect to the amounts of radiation he was normally subjected to. Today, as I have pointed out, we are being subjected daily to larger and larger

amounts of radiation. Scientists have some knowledge of the health effects of radiation in relatively heavy doses. But they are still in the dark about the amounts that man can absorb over a lifetime without harmful effect.

There are about 500 nuclear reactors in the U.S. now, and they cover every conceivable type -- experimental, power production, high-temperature, low-temperature. As the number and size of these reactors increases, so does the waste problem. We have no method of disposal for the wastes, which contain a very high amount of radioactivity, ~~a half-life ranging from 25 to 5,000 years~~. So at present we are simply holding 65 million gallons of this waste in strategic spots throughout the country. The low-level waste is discharged to the environment -- to the air, the land, and the water. Some industrial plants simply used to dump the radio-isotopes down the drains, with the result that the sewage treatment system reintroduced the contanimation into industrial water supplies. These and many other similar conditions have been corrected, but many others are crying out for attention.

From the standpoint of safety regulations, the responsibility is divided among the Atomic Energy Commission, the Public Health Service, and the Food and Drug Administration. The day is fast approaching when we can no longer afford the luxury of such divided responsibility. The potential hazard predicted by our scientists may become grim reality much sooner than we think. It is true for individed responsibility and

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for vigorous application of the knowledge we now have. I intend to see that more active steps are taken to meet this grave and urgent problem.

Air Pollution

Now let's look at another environmental hazard -- air pollution. Because the Los Angeles smog has had more than its share of publicity, few people realize that about 90 percent of our urban population -- around 6,000 communities -- lives in localities having air pollution problems.

And the air-borne villains today aren't the simple ones they used to be -- mainly soot and smoke. Today new substances and materials are being manufactured so fast that we can't keep up with their effects on man, let along keep track of the way certain ones combine to produce other harmful substances.

The National Air Sampling Network monitors the air-borne chemicals in 250 cities and non-urban sites, and the Public Health Service is analyzing 30 substances found in these samples. One interesting thing they've discovered is that smoke from one pack of cigarets a day would contribute to the air about 60 micrograms of a certain hydrocarbon each year. Now, a rural or suburban dweller might inhale about one microgram of this hydrocarbon each year -- but an individual living in the city could inhale as much as 150 micrograms a year. This particular hydrocarbon is believed by the scientists to contribute to the cause of cancer.

Understand, I'm not making an anti-tobacco speech -- I'm just trying to point out some of the complexities of the air pollution problem.

For instance, lead, which is a cumulative poison, comes from such sources as agricultural sprays and automobile exhausts, and is present in our air, food, water, and tobacco. And now the question arises whether the increasing use of tetraethyl lead in gasoline may push the airborne amounts of this substance past the point of balance and into the danger zone.

The Federal level, agencies such as the Weather Bureau, the Bureau of Standards, Bureau of Mines, the Public Health Service, and the Department of Agriculture are attacking this problem. But this is one area of environmental health in which cities and states must provide the impetus for control programs that are designed to meet their particular needs. One very potent citizen's group that is fostering much action of this kind is the Air Pollution Control Association, a voluntary organization representing industry, as well as civic and other interests.

Water Pollution

Now we come to the problem of keeping our water free of pollution. It's an old problem, with some of the old areas still unsolved. For instance, textile, pulp and paper mill, and metal finishing wastes still resist suitable treatment. So do acid mine drainage, natural salt deposits, irrigation return flows, and silt.

In addition to these pollutants, which have been appearing in water for years, thousands of new chemicals are finding their way into our streams, rivers, and lakes. What's being done about it? Quite a bit. More than 10 years ago, the Surgeon General of the Public Health Service

invited some representatives of major industries to meet with him, and they formed a National Technical Task Committee on Industrial Wastes. This Committee has working relationships with most of the professional engineering and technical societies which have an interest in water, and it has task groups representating food industries, mineral products, chemical processing, and general industries. They're an effective group. In addition, the Government is sponsoring research to improve the efficiency of chemicals in sewage treatment plant operations. Other contracts provide for investigation of electrodialysis in the treatment of water wastes; for the synthesis of ion exchange materials, and so forth.

Congress included a most important provision in the Water Pollution Control Act approved by the President on July 20, 1961. Recognizing the problems created by our expanding technological age, Congress authorized research laboratories to be established in major regions of the country. One of these water pollution control field laboratories I expected to be located right here in Rhode Island. These research facilities will bring the best possible scientific personnel and the tools they use closer to the problems affecting our State, our Cities, and their industries.

Just as in the beginning of New England's history, water was the basic mover of its industries, today with our greatly expanding tourist economy, clean water is a prime requisite for New England's prosperity and our waters must at the same time serve our growing industries and cities.

Another sign of progress in this field is the recent announcement of the establishment of a million-dollar Shellfish Sanitation Laboratory which I expect to be located right here on our own Narragansett Bay. The creation of this Laboratory will be an important new step in the Government's continuing program to safeguard the purity of our shellfish by investigating the effects of all forms of pollution in shellfish waters, and will also include a pilot program in methods of purification of shellfish. We in Rhode Island have particular reason to welcome this new facility because of the importance of shellfish to our economy and because of the national reputation for quality enjoyed by shellfish from our waters.

of industry in the control of environmental health hazards is increasing."

In attacking the problems of environmental health hazards on "the level of Government closest to the people," we are reminded that the government <u>is</u> the people. It is up to each one of you and to me as members of our community, to assume our share of the responsibility of keeping our fellow citizens aware of these health hazards, and to do whatever we can to help combat such threats of the future.

I am confident that the same measure of success against these man-made hazards can be made in the near future than has been made against many of man's diseases in the recent past. There is no alternative. We not only <u>should</u> -- we <u>must</u>.