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Environmental Protection: Rx for Public Health

More than four years ago, while I was serving as Chairman of the President's Council on Environmental Quality, a Federal interagency task force began addressing itself to the same basic question that concerns this conference: what do we know and what should we do about polychlorinated biphenyls, or PCBs?

In its report of May, 1972, the task force concluded that PCBs were highly persistent, could be found in all parts of the environment, could "bioaccumulate" to relatively high levels in fish, and could have serious adverse effects on human health. The task force recognized, at the same time, that for uses in closed electrical systems PCBs had some very real advantages over other materials. They conduct heat, but not electricity. The only available substitutes for use in capacitors and in transformers -- which are widely used in indoor electrical systems -- were flammable. It appeared that to ban PCBs from these uses would be, in effect, to substitute a safety hazard for a health hazard.

The task force, as a result, recommended the discontinuance of all current uses of PCBs except in closed electrical systems.

It also called for early enactment of the Toxic Substances Control Act to provide the regulatory authority required not only to deal more effectively with the problems posed by PCBs and other chemicals already in the environment, but to take sensible steps to prevent such chemicals from posing such problems in the first place.

Already, in 1972, the sole American producer of PCBs had voluntarily restricted the sales of PCBs to uses in closed electrical systems.

Both the Food and Drug Administration and the Environmental Protection Agency announced actions designed to reduce the levels of PCBs in our food and our waters.

The United States asked the Organization for Economic Cooperation and Development (OECD) to take appropriate action, on the international level, to control PCBs. In February, 1973, in the first international agreement aimed at limiting the production and use of chemicals in order to protect the environment, the member countries of the OECD announced their decision to prohibit the use of PCBs for industrial or commercial purposes except in certain closed systems. I might add that one member country, Japan, after PCB contamination of rice oil adversely affected 1000 people, has banned the future production or import of PCBs.

We believed that all these measures added up to an effective, comprehensive program that would "take care" of the PCB problem

— that would enable us to continue to take commercial advantage of the unique properties of PCBs while insulating the public and the environment against exposure to hazardous levels of these chemicals.

Instead, more than three years later, we find that, although PCB levels in food have steadily declined, PCBs are present in our environment to a far greater degree and at higher levels than we have previously thought. We have found high PCB levels -- levels greatly exceeding FDA guidelines -- in salmon, striped bass and other fish in the Great Lakes, the upper Mississippi River, Southern California, the Gulf of Mexico and in the Hudson River and other waterways in New York State. Our selective sampling of drinking water disclosed the presence of PCBs in the water supply of two communities.

The evidence we have accumulated over the past three years has underscored our original concern over the toxicity of PCBs and over the potential health hazard posed by the presence of high PCB concentrations in waterways, in water supplies and in fish.

This, in brief, is the situation we find ourselves in today.

We have called this conference to help us deal with it -- to determine, as I said at the outset, what we know and what we should do about PCBs.

We do know one thing that we must do -- that we should have done three years ago when the task force urged us to do so -- that, had we done it, might have enabled us to really come to grips with the PCB problem and rendered this conference unnecessary -- and that is to enact an effective Toxic Substances Control law. I cannot help but recall that when I became the first Chairman of the Council on Environmental Quality in February, 1970, my very first directive to our small staff was to develop a legislative proposal for dealing with this class of problem. The time had clearly come for an effective mechanism to deal broadly with such problems, not only after the fact, but also to help prevent their occurance in the first place.

Almost five years have now passed since President Nixon first proposed such legislation to Congress.

Over those five years we have introduced into the commercial market an estimated 600 chemical compounds annually. We have done so without any systematic, advance assessment of their potential impact upon public health. Yet, as we have learned through our experience with such materials as vinyl chloride, we may not discover how harmful a compound can be until years after it has become a rather commonplace item in our everyday life, even a significant factor in our economy. And we, again and again, find ourselves engaged in an extremely difficult and drawn-out struggle to protect the public from a hazard to which

it has already been exposed while at the same time trying to avoid putting people out of business or out of work. We find ourselves trying to choose between a health hazard and a safety hazard. We find ourselves without the authority we need to really cope with the problems posed by PCBs — the authority to limit selected uses and distribution of PCBs as well as to require testing concerning the health and ecological effects of proposed substitutes.

With regard to PCBs, we will continue to address the problem as effectively as we can under existing authorities — especially under the Water Act -- while at the same time recognizing the inherent inadequacies of the piecemeal approach we are forced to take. We are also working on measures we would propose under any toxic substances bill that may be enacted. They would take into account, not only the available information on toxicity and exposure levels, but also the impact of any regulatory steps upon business, employment and the economy. I look forward to the contributions this conference can make to the development of an effective regulatory program for PCBs both under existing authority and under a Toxic Substances law.

About a month ago, in testimony prepared for delivery before the Environment Subcommittee of the Senate Commerce Committee, Dr. David Rall -- who is scheduled to follow me this morning — said, and I quote: "Toxic substances control legislation

which prevents the exposure of segments of the population to disease-producing substances is a key element of preventive medicine." There is, indeed, an increasing body of evidence, and an impressive array of expert opinion that we may be approaching the whole question of human health from the wrong side -- that, as a matter of national policy as well as of personal practice, an ounce of prevention may well be worth a pound of cure.

The Department of HEW estimates that our total national health bill this year will add up to nearly $120 billion. Yet a good many informed observers believe that, because most of that money goes for cure rather than prevention, we are not getting what we pay for. Our traditional health care system, they say, simply cannot cope with environmentally-induced diseases. Dr. Ernst L. Wynder, president of the American Health Foundation, has pointed out that heart disease, cancer, stroke and accidents account for 70 percent of deaths among Americans. And the chief causes of these diseases are "environmental" -- in the broadest sense of that term. "Thus," Dr. Wynder concludes, "in a society where infectious diseases have been largely overcome through sanitary measures, immunization and antibiotics, the major causes for today's death toll are chronic diseases. This death toll is largely due to unhealthy life styles, unhealthy working environments and disease-producing products."

The more sophisticated and sensitive our monitoring devices become, the more data we accumulate on the health effects of pollutants and other agents in the environment, the worse things look. Over a year ago, scientists uncovered disturbing evidence that children -- whom we had believed unaffected in any lasting way -- can contract chronic and acute disabilities as a result of air pollution. As many as 20 percent of the children in a city such as New York, one study concluded, can develop severe and chronic respiratory diseases. Another study in a southern city with relatively heavy air pollution had similar results. More recently, a group of scientists reported that the most significant factor in a dramatic drop in deaths in the San Francisco area during the gas shortage early last year -- a 13.4 percent decrease in deaths compared with the same period over the previous four years -- was reduced exposure to pollutants from auto exhausts.

We are spending around $1 billion this year on research into cures and causes of cancer. The National Cancer Institute has estimated that the actual cost of cancer to people amounts to tens of billions of dollars a year. Yet the World Health Organization estimates that from 60 to 90 percent of all cancer is the result of "environmental" factors -- again, in the broadest sense of that term. We have all read the news stories recently concerning the 1975 Nobel award to three

American scientists for research into possible links between viruses and cancer. I was struck by the fact that, in their first public statements upon receiving the award, two of these scientists stressed the fact that -- in the words of one of them, Dr. David Baltimore of the Massachusetts Institute of Technology -- "the role of viruses in cancer is small" and that "the best hope today for cures is research into environmental causes of cancer." "This," Dr. Baltimore went on to say, "is a good place to put funds now."

We should understand, as well, that while environmental protection often appears to involve substantial costs, we really have no choice about whether or not we are going to bear these costs. Society has already been bearing these costs in one form or another — in the loss of recreational uses of rivers and beaches, in the increased treatment costs of our drinking water, in the damage from air pollution to buildings, farm crops and forests, and most importantly through medical and hospital bills, time lost on the job because of illness, human suffering, earlier mortality and the like. When we control and cut pollution at the source, we are shifting its costs from the shoulders of society as a whole onto those of the polluter, where they belong in the first place. Such costs then tend to be passed on to the polluter's customers. But

this is the most efficient way of allocating theses costs and of encouraging, at the same time, the development of both processes and practices that generate less pollution. Moreover, all our experience indicates that the cost of the particular pollution to society as a whole is usually far greater than the cost of clean-up and control. We estimate, for example, that measurable annual damages of $11.2 billion from particulates and sulfur oxide are more than twice the annual costs of control.

What all of this suggests to a layman such as myself is that both our popular understanding of, and our public approach to, health care and disease control are going to have to undergo a searching re-examination and, I suspect, radical revision. It suggests that -- at least when they are well spent -- some of our most effective "health care" dollars may be the "disease prevention" dollars we spend to curb and control pollution and other agents that we introduce into our own environment. It suggests that the battle against disease must increasingly be fought, not simply in the hospitals and the doctors' offices, but in our streets and our homes and our offices, in our air and our water, in our food and our products, in our personal habits and lifestyles. It suggests that, if -- in the words of Dr. Irving Selikoff of the Mount Sinai School of Medicine in New York -- "environmental disease is becoming the disease of the century," then environmental

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protection, in the broadest sense of the phrase, must become the most important ingredient in any national health program.

Such a broad prescription may seem far removed from the more immediate -- and urgent — concerns of this conference. But I think we all understand that it is our failure to get at the real roots of the problem that concerns us here — our preoccupation, instead, with the symptoms and surfaces and single instances of things -- that has made this conference and the problem it addresses so critical.

At the start of my remarks, I successfully resisted the temptation to issue the dramatic announcement that this was my last PCBs conference.

It is, however, my fervent hope that you do your work so well at this conference that we will never need to call another one.

I thank you for coming, and I look forward to seeing the results of your work.