

HEALTH INTELLIGENCE FOR ENVIRONMENTAL PROTECTION: A DEMANDING CHALLENGE

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1. Health research goals

The health research program of the Environmental Protection Agency has three major goals. The first goal is to minimize the adverse effects of the environment upon human health by preventing exposure to harmful new environmental agents, by reducing exposures to existing pollutants and by predicting the adverse effects of proposed environmental control options. The second goal is to quantitate the health benefits of environmental controls and the third is to optimize the environment for man's health and well being. Progress is being made toward each of these goals but the pace must quicken.

A number of Federal programs, many well established and several newly proposed, serve interlocking functions in preventing exposure to harmful new agents; three new approaches are of special interest. The Toxic Substances Act, now being considered by the Congress, would fill an important gap in existing regulatory authority. Essentially, this Act would regulate synthetic organic chemicals, metallic compounds, and intermediary products from industrial processes that do not fall under existing legislation dealing with air pollution, water pollution, pesticides, radiation, noise, food, drugs and cosmetics. One such problem centers upon the polychlorinated biphenyl compounds whose value as heat mediators, plasticizers, and pesticide synergists led to widespread use prior to our understanding that such compounds are persistent environmental pollutants whose ecological and biological effects resemble those of DDT. Another example is the recent concern about the possible adverse health effects of exposure to optical brighteners which are exceedingly useful additives to plastics, textiles, paints and, most importantly, home laundry detergents. The second new approach is the National Center for Toxicological Research which is a joint effort of Food and Drug Administration of the Department of Health, Education and Welfare (DHEW) and the Environmental Protection Agency (EPA). This facility will conduct carefully controlled animal research on the carcinogenicity, mutagenicity and teratogenicity of environmental agents. Research on any one agent will involve large numbers of several species of animals and thus great expense. These research requirements led to the nick-