Binder 1

THE GENERAL ENVIRONMENTAL HEALTH PROBLEM

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Our urban areas have swollen to vast organisms which transcend the possibility of study and control through the efforts of individuals. The environments of our urban areas are man-made. Solutions to urban environmental problems must be approached through group action.

The growth and movement of population is adding to the complexity and multiplicity of public health problems. It has been suggested that an inadequate supply of water may be the only factor that may limit the growth of our cities. In most other respects, a metropolitan area of 50,000,000 may be possible. Throughout history, man has increased to the extent that his manner of life and environment have allowed. Various experts have predicted a U.S. population of 225,000,000 by 1975; or 320,000,000 by 2000. Predictions indicate that one-third of this total will live in ten (10) super-metropolitan areas and that urbanites will comprise 85% of the total population in this country.

It is reasonable to expect a continued downward trend of the death rate and age distribution curves will develop larger bulges at both ends.

The continued growth of urban and suburban areas requires not only rapid expansion, but almost a "crash" program of increasing all environmental health activities. Without the necessary planning and prevention now, the price for curative programs will be vastly increased in future years. We are not only concerned with the community's health in future years, but in future generations.

The population will continue to grow, age, have more leisure time, and congregate in urban areas. There are "musts" in every environmental health activity. Each poses a problem and is a challenge for planning and improvement. We must increase environmental health activities as related to all age groups, working conditions, etc. whether at home, work, school, or play. Environmental health activities must encompass not only the dangers of dying, but the hazards of living. Our overall environmental health needs are increasing more rapidly than available facilities and personnel.

Time and large-scale financing are required, but it has been difficult to convince governing bodies that programs of the necessary magnitude must be undertaken immediately -- and the average citizen often takes his public health services for granted, assuming that he is being protected when no such protection exists. It is difficult to compete for necessary financing with activities such as police, fire, traffic engineering, and public works, where lack of effort is indicated by immediate symptoms. A decreased or insufficient environmental health budget is more insidious in that the adverse

effects may not be apparent for years or generations. We must re-emphasize that treating our environmental health problems too little, too late, not at all, or in a curative manner, will reap nothing but sorrow, expense, and increased morbidity and mortality for our metropolitan areas. Environmental health programs are a basic function of government that cannot be overlooked, sidetracked, or excused so that other immediate demands for governmental financing may be met. While we have inadequate environmental health services, millions are spent for other community services which are not absolutely necessary or basic to the health, safety, and welfare functions of government. Too many governmental expenditures are not in tune with public needs and basic governmental functions. Many of these inconsistencies can only be explained historically, politically, or by understanding expedience.

Financial support for environmental health needs is available if governing bodies can be convinced as to the need - and the priority. We must show that the benefits justify the expenditures. Governing bodies will find methods of supporting what seems to be of value on a priority basis. Opportunities for the application of knowledge will always be greater than the funds available, so priorities must be established at all levels of government. And our approach to necessary environmental health services must be realistic and practical.

Local interest, backing, control, and financing provide the basis for the most efficient and effective environmental health program. Most activities cannot be managed efficiently or economically from the state level. When this is attempted, one more incentive for local communities to support and manage their own health departments is removed. As more and more incentives are removed, the likelihood of our total population living under the protection of effective environmental health services becomes more remote. The local health department is a necessary part of the total public health program and we must be adamant in insisting on a sound allocation of responsibility at all levels of government.

The Nation's health is dependent on the State's health, and the State's health is dependent upon that of local jurisdictions. Too often only lip service is given to the need for solving health problems locally with personnel responsive to local needs and direction. Many are guilty at times of thinking that the state can do a better job. Often this is based on the reluctance to delegate authority or as a reaction to expediency. We need strong state and local health services. State health departments have the responsiblity of providing strong leadership; of supporting, encouraging, and assisting in the development and improvement of local health services; and providing technical assistance, consultation, methodology, demonstrations, training, and financial assistance.

We need considerable leadership in modernizing state laws to provide proper and necessary responsiblity and authority for local health agencies. We must meet the environmental health needs of each specific community and provide benefits that the people consider worth the cost. To do this, we must understand the politics of public health, or the political process in relation to public health.

The political process is basic to community life and action. Health workers cannot ignore it, so they must understand it. Access to government, to public opinion, to vital points in the power structure of each community are of crucial importance. The product is action. An understanding of the political process is as necessary to community public health administration as is an understanding of the scientific basis for public health practices. Politics is an art based on experience and knowledge. It is the art of recognizing what is possible at a particular time and place and of mobilizing support and influence so as to achieve those aims which are considered desirable. It is the art of understanding the formal and informal community power structure. The political highway in the community is one that environmental health personnel must learn to travel despite its twistings, turnings, and ruts. Skill in avoiding its dangers and in mastering its geography will no doubt be reflected in the ability to deal effectively with the health problems of the modern community.

Any program is apt to become involved in politics and may become the weapon of politics. Look at the "Radiation in Milk" situation if you don't believe it.

Many public health workers have demonstrated their distaste for the political process whether it be good or bad politics. Perhaps this is one of the reasons other community service agencies have their feet more firmly planted in the financial trough. We need professionalism in public health, but this should not rule out being practical. Perhaps too much public health professionalism, and security of position by virtue of this professionalism, has, in some cases, prevented necessary administrative changes and progress.

A working knowledge of social forces, the political process, and community organization may often be more important than any specified professional background. Environmental health problems transcend professional disciplines and the talents of a vast array of specialists must be utilized to conduct a successful program. Environmental health practice is not the sole province of any one specialty, and to so think is to think narrowly. The Director of an Environmental Health program has as much need for administrative skills as for those involving technical and scientific knowledge. Although we firmly believe in teamwork, each group in the environmental health field tends to form a separate professional discipline, and a certain amount of competition among the disciplines is not only unavoidable, but desirable. It is a disadvantage, however, that each discipline tends to form a closed fraternity by itself. And each attempts to build up its own importance, and budget, and salary level within the general system. However, it is desirable to have a number of ambitious people striving to lead the fight for environmental health.

It should be remembered that many of the great leaders did not belong to any "closed fraternity", and were not organization men. They were dedicated individuals who achieved eminence not because they wore the right label but because they had the right ideas, the right information, the right abilities. Shattuck was a publisher; Chadwick, a lawyer; Snow, an anesthetist; Addams, a social worker; Winslow, a sanitarian; Pasteur, a chemist; Lasker, an advertising man; and so on. Whoever is to lead the fight for envoronmental health, the job belongs

to no group by divine right. It is not hereditary. The leadership falls to those who earn it.

It is important that the public be brought in as partners in studying, planning, budgeting, and executing environmental health programs if we are to receive the necessary public understanding and support. It is only honest to admit that the public, in many communities, exhibits apathy, disinterest, and lack of understanding with respect to environmental health. Perhaps this is a symptom of lack of environmental health leadership and administrative skills. We need greater citizen participation and must put an end to "living in a professional shell", or existing on a totem pole because we are "Professionals." We must not only permit, but encourage, people to study their own problems and decide what must be done. We must seek and gain consensus and speak across professional boundaries to leaders in other fields as well as to the general public.

This obviously leads into the field of public relations. Any environmental health program is doomed to failure unless good public relations are a constant adjunct to it. The public can be vitally interested in, and knowledgable of environmental health needs and achievements if we utilize good public relations as we go along. The various mass news media can be our most important allies if we will show the sincere desire to work with them. We must constantly remember that ultimately we must deal with people, not things.

Environmental health personnel have a basic public relations problem within their own public health family -- one which must be faced at all levels of government. Some of the greatest harm is done due to the inadvertent ignorance displayed by other public health personnel regarding environmental health needs, personnel, etc. It should also be remembered that this problem exists in reverse.

Another problem facing all levels of government involves the jurisdictional prerogatives of almost 17,000 local governmental units in about 212 metropolitan areas. Most metropolitan areas are patchworks of governmental units which often cannot be justified logically and can only be explained historically. There is no standard solution to this problem and not necessarily any standard goal. Some metropolitan areas have found it desirable to merge health departments or other government agencies and in others it has been found that this would merely serve to lower standards presently being achieved by one of the agencies involved. Both cities and counties are artificially constructed with regard to where people live, work and play. It might be better if we would talk about an areal approach to environmental health problems based on the needs and desires of local taxpayers rather than worrying about what has been done or recommended elsewhere. It might also be more palatable, at least in the beginning, if we would talk in terms of "coordination" instead of "amalgamation."

During this conference we have only begun to detail and specify the tremendous scope of our modern-day environmental health problems. Obviously we could do a lot with money and personnel; but there is even a shortage of the necessary trained, skilled personnel. There are more than 17,000 professional public health positions and almost 9,000 persons in these positions are without the necessary professional training. Even the necessary training facilities and aids are not available to properly train environmental health personnel in many of their present-day responsibilities.

We do not have enough trained public health engineers or public health sanitarians. We do not even know how many sanitarians we have or exactly what their duties are throughout the country. Particularly in the West, a large percentage of environmental health programs are staffed and administered by professional public health sanitarians. The Public Health Service is now conducting the first National Inventory of Sanitarians Engaged in Public Health. Within a few months this should furnish us with a profile of the sanitarians in public health, their training, training needs, numbers, educational level and responsibilities.

If we find it impossible to do the whole job, we must establish priorities for our environmental health activities based on the problems in each community. Frequently we may find that we are forced to curtail some services in order to provide others. The changes necessitating these priorities may be based on environmental problems or may be based on community demands and expectations. At any rate, a continuous re-evaluation of needs and effort is required. There are several useful tools for such evaluations, the most recent of which is the new Public Health Service Environmental Health Planning Guide. We must study routine and accepted programs to determine if they are still needed or if personnel could better be re-assigned to other needs.

We have another problem in arriving at reasonable uniformity of interpretation of various environmental health standards throughout the country. Such lack of uniformity is confusing to the citizens and indicates a questionable basis for the standards. However, we must realize that we will never attain complete uniformity of interpretations even within one state or section of the country due to the differences in social forces, racial groups, economic conditions, community demands, etc. At any rate our programs and requirements should be based on need and fact, not implications, inferences, suggestions or economic pressures.

We must detail and justify our environmental health needs not only to our fellow public health employees but to our governing bodies, the newspapers and the taxpayers. It is becoming increasingly more difficult and impractical to obtain greater budgets by adding new programs.

Results of environmental health expenditures must be worth the money, or we are not using our personnel economically and efficiently. However, the nature and effects of many of today's stresses are not reflected in explosive outbreaks like those characteristic of communicable disease and do not readily lend themselves to assessment in terms of vital statistics. Environmental health practice in the past was geared to communicable disease problems. Now, it is modified to embrace the impacts of increasing amounts, types, and combinations of non-living contaminants and other stresses -- impacts that are more subtle and long-range in their effects. The resolution of these problems is more involved and complex than those of communicable disease control. There is difficulty in measuring the effects as well as in precisely isolating and understanding the cause.

Thus, while the community wants to see the results of its assistance or expenditures, the results may often be difficult to demonstrate.

A high degree of ingenuity is frequently necessary to convince people that they should pay to control environmental factors and stresses they can't see, or which are difficult to demonstrate through vital statistics.

Every health agency has an obligation to engage in necessary environmental research. There are a thousand problems and answers needed. Research funds are available from various sources. But most local health agencies are so understaffed and busy meeting problems of the day that they can't devote time and effort to planning, organizing, and administering a research project.

A good health department plays a dual role in promoting environmental health by:

1. Stimulating interest in areas where it does not have primary responsibility, and technical expertness, and
2. by taking the leadership in those areas in which it has expertness or responsibility.

With these principles in mind, some local health departments may have to take the leadership in promoting such environmental health-related activities as building codes, zoning ordinances, plumbing codes, urban renewal, refuse collection services, planning departments, etc.

Many of us feel that, nation-wide, there are too many environmental health programs that are not administered by the health department. This has resulted in new agencies, duplication, overlapping, confusion, etc. In some cases this has occurred because the particular governing body was not aware of the environmental health implications, the concern of environmental health workers, or the competence of environmental health personnel. Perhaps this could be abbreviated to state that there was lack of environmental health leadership. But regardless of this, environmental health officials must still be interested in such programs and have a working relationship with the departments to which such programs have been assigned.

A great deal of time could be utilized in discussing proper salary scales for various environmental specialists. Too many have arrived at an answer by making a "survey" of pay scales utilized by other health agencies. This usually only compares one under-paid position with another under-paid position and results in compounded and continued error. A more realistic approach would be to compare pay scales with those paid by industry to comparable personnel in the same economic areas.

A similar problem exists regarding personnel - population ratios. The APHA has suggested for example that health agencies have "one sanitation person" for each 15,000 population. This figure was merely pulled out of the air at a meeting of so-called experts some 20 years ago and was never based on actual studies, program content, or need. Furthermore, none of us really knows what is meant by the word "sanitation" as used in this recommendation. It doesn't say whether we are talking about sanitarians, engineers, or sub-professional inspectors. Further, it doesn't differentiate between a limited program in a rural area and that of a highly complex, comprehensive metropolitan program. The

recommendation is a useful guide and a point of departure but must be viewed critically in the light of community needs and expectations. The APHA or the Public Health Service should re-evaluate this figure and issue a new recommendation based on all the factors involved. The present recommendation only serves to stifle progressive environmental health programs in many communities.

Environmental health specialists have found it necessary to revise their thinking with relation to goals in recent years. Formerly, we thought in terms of eradication of an undesirable environmental factor but now environmental health administrators must think in terms of "tolerance" for certain environmental factors instead of eradication. It is impractical and impossible to eradicate radioactivity, toxic chemicals, food additives, etc. But we can attempt to keep the levels of such contaminants within recommended concentrations or levels.

It is often difficult, if not impossible, to adequately separate public health problems from esthetic problems, particularly in the minds of the taxpayers. Environmental specialists must definitely be concerned with various esthetic problems in the environment, particularly if they are of concern to the citizens and the governing body.

For purposes of organization and simplicity, our environmental health contacts have been categorized as air, water, shelter, and food. Other speakers have discussed certain aspects of all except the latter. Inasmuch as the food contact is the remaining major environmental contact to be discussed, I will place more emphasis on this than on other items which may come under the heading of "The General Environmental Health Problem."

Food sanitation is one of the most important aspects of any comprehensive environmental health program. It takes a major bite out of most environmental health budgets, and is actively desired by our citizens and governing bodies. The quality of an entire health department is often judged to a large extent by the quality of its food sanitation program. And regrettably, there have been comparatively few successful food control programs. This is true despite the importance of effective food control to urban public health -- everyone eats and their health is influenced by the quality of the food control programs throughout the Nation. Food control programs must consider production, processing, packaging, transportation, distribution, storage, cooking, serving, sales, advertising, labeling, and waste disposal. A comprehensive food control program must also include aspects of the other environmental contacts -- Air, Water, and Shelter. It includes industrial hygiene, vector control, waste disposal, plumbing inspection, accident prevention, chemical contaminants, etc. This, obviously, requires many skills, and the cooperative efforts of many individuals, departments, and agencies. The public demands that the successful food control program include esthetic considerations as well as items of direct and immediate public health importance. A successful food control program leads to community pride and backing -- (it's "safe to eat out"), industry pride and backing for their health department (more business), and is a basis for health department and health department personnel pride, prestige, status and recognition.

We must keep consumer satisfaction and protection foremost in our minds. This is a basic function of a tax-supported agency.

The urban health department must have a broader, more comprehensive food control program than any other agency. It must combine food control provisions similar to those administered by the PHS, FDA, USDA, and SHD at this level. And this is the level where many of the headaches are -- the education, public relations, administration, enforcement -- and we must work with the people we live with without the opportunity to call the shots from a distant office. This program must be carried out properly and "sold" to all concerned, as we are working with our taxpayers. The food industry is one of our largest industries so we must deal with a large percentage of our citizens in this one program.

Food control programs of many local health departments only include those establishments where food is consumed "on the premises". To some degree this has happened because 1) these are the establishments covered by the PHS Recommended Food Sanitation Ordinance and Code, and 2) such establishments are subject to being surveyed by the PHS or SHD to determine a sanitation compliance rating and a health department enforcement rating. Methods have not been widely utilized for surveying and rating other food establishments such as markets, bakeries, food processors, canneries, flour mills, ice plants, samplers, caterers, itinerant restaurants, school carnivals and church suppers, vending machines, mobile units, slaughterhouses, poultry and rabbit processors, vegetable dealers, etc. so such aspects of food control frequently go relatively uncontrolled.

I understand that the PHS hopes to develop a rating method to accompany their new Food Sanitation Manual that will give some information and recommendations not only on compliance and enforcement ratings, but also on personnel, staffing, budgets, public relations, equipment, lab facilities, etc. Also, the new code will cover a wider array of food establishments than covered by the 1943 Code which is still widely used.

Milk Sanitation is a specialized branch of food control of extreme importance to our urban areas. We hear of little disease caused by milk because of the excellent public health controls being utilized. However, experience has shown that even a temporary breakdown in these controls may result in a large-scale disease outbreak. Milk supplies no longer are entirely supervised by health officials from the consuming area. Modern processing, refrigeration, and transportation methods enable us to receive milk supplies from production points hundreds of miles distant. This means that local health departments must rely on the certification of other health agencies.

Meat inspection is another specialized branch of food control, but has been operated in a far different manner from other food activities. I believe newer methods of administering and enforcing meat inspection activities should be developed so as to place increased responsibility on the meat industry and reduce the number of meat inspection personnel at all levels of government. The money saved could well be used to augment other public health financial needs.

Our environments have become "chemicalized" with the mushrooming chemical industry, wide application of nuclear energy, and revolutionary changes in food processing. The use of chemicals in foods

will continue to increase, but must be properly used in controlled amounts. Chemicals are necessary to the production and processing of many high quality foods. It is often difficult to determine the relationship between chemicals and health. Controlling the use of chemical food additives poses another problem and challenge to the environmentalist.

Other general environmental health problems for brief discussion include:

Industrial Hygiene
Hospital Sanitation
Nursing Homes
Child Care Centers
Plumbing Hazards
Vector Control
School Sanitation
Swimming Pool Safety and Sanitation
Home Accident Problems
Housing Conservation and Rehabilitation
Recreational Areas
Land-use Planning and Subdivision Control

Basic findings of a recent survey conducted by the American Public Health Association, which sent questionnaires to all state and territorial health officers, as well as a sampling of directors of city and county health departments and regional directors of the United States Public Health Service, indicated that the most important need during the sixties is for an expansion of local health services. The effects of the trend toward metropolitan living and the newer environmental hazards presented by atmoshperic pollution, ionizing radiation, and the protection of foodstuffs was reflected in environmental health being most frequently mentioned as the most important "newly emerging health problem."

Whether we like it or not, the metropolitan area will be the dominant fact of American society in our immediate and long-range future. Very few, if any, of the serious problems resulting from this metropolitanization will have simple solutions. But all of them will, almost certainly, have to be tackled during the next decade or two with more foresight and drive than they have been in the immediate past. The metropolitan region and its problems will therefore increasingly dominate our domestic scene. A greater share of the knowledge, effort and budget of public health and other governmental agencies will be directed toward bringing about an effective control of the environment in these complex metropolitan areas in which three-fourths of the people will be living and working. There will be fundamental issues of political organization and constitutional power; of cultural and esthetic values; of the balance between individual freedom and the common good.

The duties of environmental health personnel in future years are not only going to be stiffer and more complex, but radically different. Indeed, the years ahead are practically at hand.

Last year in Philadelphia a seminar on behavior and environment indicated that sanitarians are expected to be not only lawyers, chemists, radiologists, detectives, and entomologists, but also have to be psychologists, sociologists and political scientists.

To put it another way, we have a new business; call it metropolitan organics or metropolitan dynamics if you like. In the years ahead the piece-meal management of environmental health is going to be futile unless the metropolitan area as a whole is in shape to support a sanitation program. For example, if the highways are jammed, the milk trucks and the frozen food trucks will sit cooking in the sun. If the schools are neglected, the kitchen help will be too ignorant to keep its hands clean. If suitable locations are not provided for warehouses and pasteurization plants by a system of planned zoning, it will be that much more difficult to deliver milk and other foods in a wholesome condition. If a neighborhood runs down or if unemployment rises and business goes bad, the local grocers are sure to cut corners on refrigeration. When a dozen different jurisdictions, inspections and laboratories operate in a given region where one alone would serve, valuable man hours of environmental health are lost forever.

No environmental specialist is expected to set up a City Planning Commission single handed, but as a key figure in the control of environmental health in the city, he should influence the attitudes of various industries in the general cause of environmental health, when bond issues come up, when zoning plans are proposed and when condemnation proceedings begin. He will also advise his own health department in relation to city plans of the city's pressing needs as he sees them from his front row seat. He will lift up his eyes to take a long hard look at the city as a whole and let the city know what he sees.

There has been much progress in environmental health practices, but we still have much unfinished business. In this modern age, the image of environmental health has not always kept pace. There are still many who equate environmental health with communicable diseases and dead horses in the river and little else. Those who are truly interested in modern environmental health must seek to demonstrate its importance, and to project it to those in responsible positions. It is our job, collectively, to present what is commonplace to us in a manner that will be exciting, create understanding and stimulate the necessary support. To do this we must use the tools of education, information, consultation, research, demonstration, persuasion, enforcement, and perhaps even the "art of politics."

The public desires and deserves better environmental health controls than we have been able to offer.