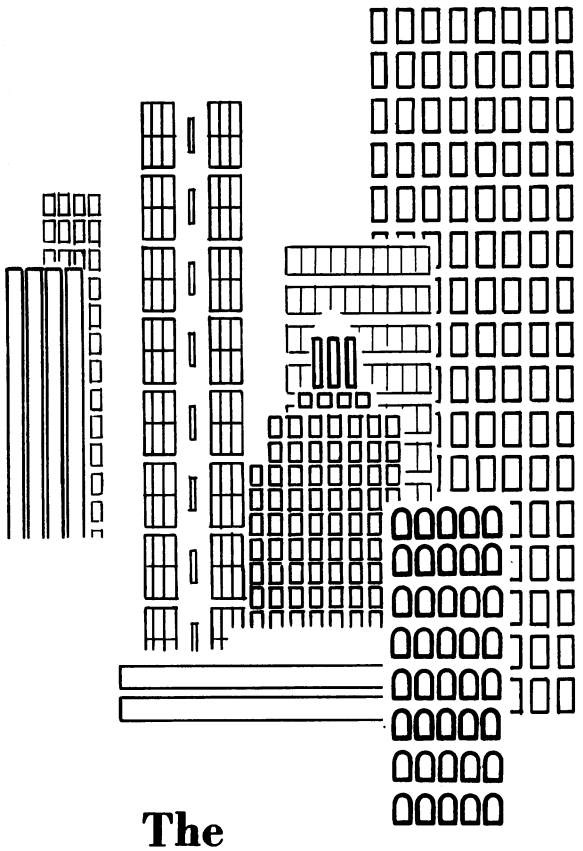

The CITY SCENE

a symposium

Two-thirds of the American people today dwell in one of the standard metropolitan statistical areas, defined roughly as a central city with at least 50,000 population and the county or counties where it is located as well as adjoining counties if they are economically integrated with the central city.

In these urban concentrations, society is hard pressed to provide the social, jurisdictional, technical, and financial adjustments required by a complex of challenges to public health. This massive, mobile, largely transient, and congested population struggles in a tangle of political divisions to provide itself with essential health facilities and to control threatening peculiarities of the environment.

The following pages carry some recent comments on the conditions and prospects of city life. Dr. Luther L. Terry profiles the cities' past contributions to the advancement of health and lists hopeful auguries in some current reforms undertaken in metropolitan areas. Dr. Herbert Domke considers patterns and needs in the administration and application of public health measures in metropolitan settings. Dr. Alan Campbell thoughtfully examines the intertwined difficulties of intergovernmental relations and public finance in the complex of jurisdictions. A city planner, Oscar Sutermeister, outlines the reasons for mutually advantageous interaction between planners and public health officials. E. Everett Ashley describes some imaginative developments in the provisions of housing for senior citizens in the city, and finally, a group of economists discuss the economics of medical care in the metropolis.

Greater emphasis on metropolitan problems by the Public Health Service and other Federal agencies is unquestionably needed. Also, despite the obvious difficulties in obtaining rapid and simultaneous action by the individual States, sound and lasting results will be promoted by State participation in solving the problems of the metropolis. The report of the Advisory Commission on Intergovernmental Relations to the House of Representatives states, "Federal action unaccompanied by necessary steps on the part of States would have to be more direct and of such a specific programmatic character that real harm might be done to the overall structure of national-State-local relations under our Federal system."

As part of its newly established program in this field, the Public Health Service is assisting in the training of State and local personnel in environmental health planning for metropolitan areas. In July 1961 the Service activated a unit at the Sanitary Engineering Center in Cincinnati, Ohio, to conduct special short courses in various aspects of environmental health. The Service is also aiding, through a teaching grant to Northwestern University, a new curriculum on metropolitan planning and environmental engineering.—WESLEY L. GILBERTSON, *chief, Division of Environmental Engineering and Food Protection, Public Health Service.*

The City in National Health

SURGEON GENERAL LUTHER L. TERRY

ONCE MORE the city is in a period of change that inspires mixed emotions. Those who love her despair as they perceive new gaps in the beloved facade, a raffishness in her grooming, her growing relief rolls, another respectable old neighborhood turned honky-tonk, a sudden show of violence. Those who despise her feel vindicated as they move their homes farther from these unpleasant surroundings in which, nevertheless, they work, study, or trade.

Throughout history it has been the fate of cities to attract and repel, at times to suffer rapid change, altering their form, their contents, their functions. Now the rate of change is accelerated. For the first time since the Dark Ages the city is not growing but disintegrating into metropolitan complexes, conurbations, statistical areas, or whatever one chooses to call them.

The word "metropolis" has acquired a new meaning. The Greeks first used it to designate the mother city of a colony. Later it meant the capital city of a state or chief city of a region. Still it meant one unit of government. Today it may mean a hundred jurisdictions with no firmer governmental ties to their central city than they have with London or Tokyo.

In this time, there is the unimaginable threat of nuclear war aimed at the destruction of cities. In such a period, it is natural that the nation's city health officers once more should band together.

Cities as Innovators

The public health movement in the United States began in the cities. Our first National Quarantine and Sanitary Conventions were organized by city boards of health. They were held in successive years, 1857 to 1860, in Philadelphia, Baltimore, New York, and Boston. The outbreak of the Civil War thwarted Cincinnati's hope of being the hostess city in 1861. Health authorities, representatives of the city council, private physicians, and interested citizens from other walks of life made up the delegations. Although north Atlantic cities were more numerous at these conventions, cities of the south and the west sent delegations to each assembly. The concern of the cities for human health transcended, in these assemblies, the desperate issues of slavery and States' rights. The health officer of Savannah was elected chairman of the last meeting in Boston, and was given an ovation at its conclusion.

These were the first U.S. intercommunity assemblies of men active and interested in public health. There was to be none like them until 1872 when another city health officer, Dr. Stephen Smith of New York City, organized the American Public Health Association.

What motivated 19th century city health officers to organize the Sanitary Convention as a voluntary association? More than the obvious threat of recurrent imported epidemics was involved. City health officials were as much or more concerned about persistent local conditions: the high infant mortality rates, filth and squalor of the slums, the lack of public water supplies and sanitary facilities, the toll of endemic diseases, and the blight of crime and alcoholism.

There was, however, a bright face to this battered coin of urban life. Our cities then, as

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Dr. Terry, Surgeon General of the Public Health Service, delivered the address on which this paper is based at the annual meeting of the United States Conference of City Health Officers, Detroit, Mich., November 16, 1961.

now, were centers of wealth, education, and the arts and sciences. Very early, they were centers of voluntary association for reform and of action to correct or alleviate social ills that accompany city growth.

The tensions created in the cities by stimuli and capacity to respond are characteristic of a viable community. These tensions repeatedly have generated magnificent responses to human need in our cities. Often, indeed, the effort has been overwhelmed by economic and political forces beyond the control of responding groups. Yet the struggle has never been completely abandoned. Our cities have never endorsed the cynic's philosophy, "the more things change, the more they are the same." In urban life, some things get worse, but the struggle toward something better continues. Some things get better, and we never return to exactly the same lower level of achievement.

Our national health effort owes many innovations to the city, each a product of urban response to social and scientific challenge. City health administration antedates other governmental organization in this field. Baltimore, for example, possesses the longest documentary record of a permanent health organization in our country. At least as early as 1816, mortality and morbidity data were collected and reported systematically. Before 1830, the city employed medical personnel and conducted citywide vaccination campaigns.

Philadelphia built our first public general hospital. Charleston organized the first voluntary association of laywomen to visit and nurse the poor. In 1866, New York City abandoned older forms of organization and created the first metropolitan health administration, setting a mark for municipal organization: indeed, a mark for public health administration at all levels.

Boston gave us our first children's hospital and trained our first Nightingale nurses. Before the turn of the century New York made a world innovation by the organization of the first public bacteriological laboratory, serving private physicians and hospitals with diagnostic tests and biological products free of charge. Other examples could be cited, but these few will demonstrate the role of the city as innovator in health and medical affairs.

Today, the obvious threats to health in our cities differ by more than a century of scientific and social change. For bacterial invasions from overseas, we substitute chemical invasions in air pollution from local sources. For high mortality due to infectious diseases, we observe high death and disability rates due to chronic disease and mental illness. Yet the basic problems and strengths of city life remain unchanged. These, I believe, stimulate the organization of the United States Conference of City Health Officers.

City health officers have responsibilities for the health of urban populations in urban environments, both changing rapidly. Municipalities are under pressures from surrounding jurisdictions: demands for services, resistance to the city's just claims, disregard of physical and social deterioration within municipal boundaries, competition for wealth-producing industries, commerce, and trade.

Yet much of the nation's wealth and its scientific, educational, and professional resources for meeting health and medical needs are concentrated in the cities. And cities, because they are cities, have more experience in the organization and delivery of community services than do the surrounding jurisdictions.

Public Health Service Viewpoint

These same problems and strengths will shape the future of the city in national health. As I see that future, the city will be in a unique position to receive and to extend the growing benefits of medical and environmental sciences.

In all our Federal-State programs, the Public Health Service works, and will continue to work, through the designated State agencies. But it would be to rewrite history, as well as to ignore our other statutory responsibilities, to say that the Service has no other channels of contact with public and private organizations throughout the country.

Over the past 10 years, Public Health Service staffs have become increasingly involved in municipal and metropolitan problems. They have studied the shifting needs and resources intensively, not as isolated representatives of the Federal government, but as members of concerned groups. Those groups include State, in-

terstate, county, and municipal authorities; voluntary agencies and institutions; industries; universities; and professional associations.

Part of the Public Health Service concern with municipal-metropolitan problems is due to recent statutory responsibilities. Part is due to the fact that older responsibilities such as disease control and interstate sanitation increasingly center in, and are affected by, metropolitan development. But a third factor, of equal importance with the other two, is the responsibility of the Public Health Service as a national expert agency. If we are not ahead of trends in our intelligence systems and competence, we are not discharging that responsibility.

The trends all point to increased concentration of health and medical needs in urban areas. Perhaps more significantly, the trends tell us that health administration at all levels will be increasingly immersed in metropolitanism as it is being manifested in our country.

Profile of Metropolitanism

In one sense, metropolitanism is a statistical fiction. To facilitate the application of improved sampling techniques, demographers and economists devised the standard metropolitan statistical area for many types of statistical surveys.

Certain social and economic factors presumably weld the city and its surrounding area into an integrated socioeconomic system. As a result of this postulation, we have SMSA's varying in size and diversity of function from Meriden, Conn. (population 50,000), to New York City (population 11 million). The inventors left out the one factor which can integrate a socioeconomic system in this century: effective governmental organization. The average number of autonomous local jurisdictions per SMSA, as presently designated, is in the neighborhood of 90.

The data collected in the SMSA's are useful as a basis for determining the characteristics and distribution of metropolitan populations. Recent population shifts are well known to city health officers. The flight of young families to the suburbs and beyond has substantially modified the types of community health services and facilities most needed in the city. The proportion of older people is higher in the city than in the country as a whole; substantially higher than in suburban areas. Hence the need for nursing homes and long-term home care services has grown in the cities. There is a tendency for middle- and upper-income older couples to move back to the city or to an urban community in another State. Cities that have made available suitable residential neighborhoods are even attracting a few younger families from suburbia and exurbia. One reason is the strain on the breadwinner of driving to and from his job in the city.

The child population in suburban areas increased in the past decade at a substantially greater rate than in the cities. Moreover, all or nearly all of this increase in many older core cities was children of dependent and low-income groups.

Dependency, illegitimacy, juvenile and adult delinquency, and organized crime also are concentrated in the city. The association of these social ills with slum conditions is the same today as it was at the turn of the century when Patrick Geddes wrote: "Slum, semi-slum, superslum, to this has come the Evolution of our Cities." Substandard housing and unsatisfactory occupancy are perennial problems for city health departments.

Before 1950, experts in city planning and environmental health predicted that many suburban developments then being constructed would be slums of the future. This has already come to pass. Families better equipped for job competition move on to better housing as soon as possible. The deteriorating vacancies are filled by larger families of lower socioeconomic status. Some cities have inherited these fringe areas by annexation. However, there is little evidence that metropolitan areas of recent rapid growth are profiting by this earlier experience. Future slums are still being constructed, both within and beyond cities.

The pressures on local health and welfare agencies stemming from these population shifts are not necessarily alleviated by the concentration of health and medical resources in metropolitan areas. Physicians and dentists are concentrated in or near cities. There are variations in the physician-population ratio by areas,

but generally metropolitan areas have a substantially higher ratio than the national average.

If health professional schools are in the area, the ratio zooms. Ann Arbor has the highest in the country, 459 per 100,000 population. The nation's entire health professional education and non-Federal research potential, is located within about one-third of the 212 SMSA's.

There is a tendency for physicians to establish their offices on the well-to-do residential periphery of the city or move to the suburbs. The high concentration of specialists in downtown neighborhoods of the central city also may be shifting toward the periphery. Dentists have been relocating to suburban business districts, the younger men tending to start their practice there. Both professions have been slow to relocate in the city's redevelopment areas, especially where public housing predominates.

Metropolitan areas have a higher ratio of general hospital beds than the rest of the country. In four large areas, the suburban hospitals were found to employ more nurses in all categories per 100 patients than did the city hospitals. The suburban institutions, however, were staffed 50 percent by part-time nurses.

Poor distribution of medical and hospital resources is characteristic of many metropolitan areas. One part of the area may have shortages, while another has more than it can use effectively. Shortages are most likely to exist in fast-growing suburbs and in sections predominantly inhabited by low-income groups and ethnic minorities.

Some types of facilities are in short supply in almost every metropolitan area. Acceptable nursing homes and community facilities for care of the mentally ill are urgently needed.

There are relatively more public health personnel in metropolitan areas than elsewhere. Per capita expenditures by local health departments from all governmental sources are higher in metropolitan areas than in the country as a whole. The portion from local governments is substantially higher in these areas than in nonmetropolitan counties.

The environmental aspects of metropolitanism are no less impressive than the demographic. The outward move of large industrial establishments to the periphery of central cities and beyond has been in process many years. We cannot make reliable predictions of future industrial distribution, but it is probable that production will remain a major function of most metropolitan areas for a long time to come.

Increased automotive traffic and burning of refuse have multiplied the sources of atmospheric pollution in all cities, frequently offsetting the benefits any movement of large producers of pollutants may have conferred.

Domestic and industrial wastes from metropolitan areas remain the major sources of water pollution. The burden on local governments has grown as they struggle to comply with State and Federal water pollution control requirements. Public water supplies, whether procured from private companies or produced by local governments, are more costly and must serve much larger numbers of people.

Food protection presents new and difficult problems for city health officers. Transportation is faster; there have been many technical improvements in processing, preservation, and distribution of foods. But the food supply comes over much longer distances than when it was derived chiefly from local and State sources. Standards of safety and quality for most foods were established 50 years ago, the criteria of contamination being pathogenic bacteria and obvious filth. Viral contamination, depreciation of nutritive values, the use of chemical additives, and the increased possibility of radioactive contamination are among the threats hanging over the health officer's head at the present time.

I have sketched only a broad profile of the city in this period of rapid metropolitan development. Metropolitanism represents an aspect of human ecology that is of immediate concern to health personnel in all areas and types of practices, the interplay of urban populations and urban environments.

There is a tendency to regard metropolitanism as a self-perpetuating force unresponsive to human intervention and control. It is seldom discussed without emphasis on its recent and predicted growth. At a recent conference it was described as "the collision of the irresistible

forces of the second half of the century with the immovable forms and structures of the first half, particularly those of government."

We as health leaders must do our part to divert the impending collision from the human beings in its path. We must strive to keep grandiose metropolitan development within the human scale.

Some New Approaches

Our preoccupation with "metropolitanism" as here described is related to our preoccupation with "the population explosion." Some psychiatrists have aptly observed that both concepts may spring from our underlying fear of a much more terrifying collision and explosion: nuclear war. Be that as it may, there are a few signs that we are beginning to temper our fears with patience and with determined efforts to tackle our problems rationally.

For example, I noted recently that professional exponents of the phrase "population explosion" for the first time in 15 years are discouraging its use. This change appears to be based on fresh evaluations of available data and on the ground that the word "explosion" is biologically inappropriate in the human context.

Within the past decade many cities have made inspiring innovations in either their physical or their governmental form. In urban redevelopment, for example, Philadelphia and New Haven come readily to mind. The entire southwest area of Washington, D.C., is being reconstructed as a neighborhood, with all age groups, income groups, and ethnic groups residing together.

The past decade has seen several new city-county mergers, placing all autonomous jurisdictions under one government. Dade County, Fla., with Miami its core city, has a federated metropolitan government similar to that of Toronto. Large-scale functions of the entire region (such as water supply, mass transport, air pollution control, sewage and garbage disposal, and sanitation) are coordinated in a single government, while the services that particularly tie people to their community (schools, personal health services, police and fire protection) remain the responsibility of the local governments.

The New York City Health Department has had an interesting reorganization to place program planning and administration close to the areas served. Moreover, the department has launched a direct attack on the problem of how to provide comprehensive health and medical care in a city with rich resources and enormous needs.

Cornell Medical School and New York Hospital, a voluntary hospital, with support by the departments of health, hospitals, and welfare, are providing comprehensive medical care in the home, office, and hospital for 1,000 families on public assistance who live nearby. Homemaker service and nursing home care are included. To measure the effectiveness of this method, the costs, quality, and utilization of the Cornell-New York Hospital services are being compared with those of the same types of service provided by the welfare department, through traditional arrangements, to a control group of 1,000 families from the same neighborhood.

In another demonstration, a second voluntary hospital is participating in the staffing and operation of the preventive health services of one of New York City's district health centers. The aim, as Dr. Leona Baumgartner, commissioner of health, has put it, is to insure "better continuity of care, through more efficient and dependable referrals for diagnosis and treatment, thereby breaking down the differentiation between prevention and treatment."

The number of municipalities that have faced up to their problems with courage and imagination represent a rising tide. Perhaps the most encouraging sign of all is that the public, voluntary agencies, and governmental units in metropolitan areas are beginning to accept the concept of areawide planning.

Within the past 2 or 3 years, three metropolitan areas (Fort Wayne-Allen County, Ind., Lake County, Ill., and Omaha-Douglas County, Nebr.) have completed environmental health plans based on the Environmental Health Planning Guide developed by the Service for this purpose. A fourth, Seattle-King County, Wash., is engaged in an areawide survey with the help of the Public Health Service. The surveys cover air pollution, water supply, hous-

ing, sewerage, refuse disposal, and organization of sanitation service.

A joint committee of the American Hospital Association and the Public Health Service recently issued the report "Areawide Planning for Hospitals and Related Facilities." Our larger metropolitan areas have already adopted coordinated planning, contributing substantially to advances in this field. We hope to see the principles of planning applied in increasing numbers of areas.

The broad value of this stir of interest is that metropolitan planning for environmental and personal health services challenges the people and the organizations to use their faculties of intellectual analysis and invention in the public interest. We should not expect utopian results. But I am confident that good will come of each effort, if it is undertaken in the urbane spirit, in its old sense of courteous and generous behavior, that has marked every significant advance in our cities.

Mantle of Leadership

The city, I believe, should be the leader in areawide efforts because its needs are greatest and because it contains the greatest concentration of resources.

The role is not an easy one. Many problems of metropolitanism stem from conflicting purposes and conflicting values. Neither the city nor the area can resolve the issues without help from the State and the nation.

This suggests that our urban civilization, with its great achievements for human life and its greater potentials, needs new relationships amongst urban, State, and Federal governments. I believe that they are in the making. There is no question that the next few years will see increased Federal aid to metropolitan areas in as yet undetermined form.

In health fields, the U.S. Congress has already indicated its concern. The problems of larger municipalities stimulated the 1961 act which increased the authorization of construction grants for municipal waste treatment plants and liberalized the allotment of grants to cities of 50,000 or more population.

Some States have gone far to help their cities and to coordinate conflicting jurisdictions affecting orderly metropolitan development in many health-related fields. California is a notable example, with important laws affecting water resources, air pollution, and hospital development. State laws also permit extensive local option for contractual arrangements among jurisdictions. Counties, for example, may contract with cities for health services to areas beyond city boundaries. Intergovernmental contracts have been worked out between cities.

The nation's city health officers are responsible for the direct delivery of services to more people than any other group of health officials. They get the telephone calls when the Russians explode a bomb. They get the complaints about city housekeeping chores long since assigned to other municipal agencies. They have to tell a mother her baby needs medical care, but the health department can't provide it. They persuade the local medical society that stroke rehabilitation isn't socialized medicine. Frequently they know they haven't nearly enough staff trained for the provision of first-class, all-purpose community health services in this second half of the 20th century. They seldom get thanks, or even an encouraging word. Yet many in State and Federal health agencies envy them. For their plans, funds, staffs, and daily efforts are there to meet human needs.

It is always inspiring to be in at the start of a worthwhile venture. In health and medical affairs from the beginning of our nation, voluntary associations have risen to meet needs: needs for better communication, mutual support in common problems and aims. I am sure the United States Conference of City Health Officers will contribute to meeting the needs of the city in national health.

Public Health in the Metropolitan Setting

HERBERT R. DOMKE, M.D., Dr.P.H.

SOME 100 million people, more than half the population of the United States, now live in an urban or a suburban setting. The trend to concentration of population in metropolitan areas has been clearly evident for more than 50 years and is continuing. Using the Census Bureau definition, which requires a central city of at least 50,000 population, there were 44 metropolitan areas in 1910, 180 in 1950, and in 1960 more than 220. The city or the suburb is now the birthplace, the playground, and the place of work for most persons, and even the lifelong farmer may retire to an urban community in Florida or California.

Thus it is in an urbanized environment that most individuals are exposed to or protected from health hazards. When illness occurs, the medical care facilities of the metropolitan area are used not only by the urban resident but frequently also by those living in rural areas. If for no other reason than sheer numbers of persons, the metropolitan setting demands attention in public health. However, more compelling reasons warrant increased interest in public health in the metropolitan setting. For the public health administrator, attention can be focused on three aspects of metropolitanization: What is the metropolitan area from a public health point of view? Are there unique public health problems due to metropolitanization? Are there special administrative advantages or problems in developing public health programs for metropolitan areas?

Dr. Domke is director of the Allegheny County Health Department and a faculty member of the Graduate School of Public Health, University of Pittsburgh. *Based on a paper given at the annual meeting of the Association of State and Territorial Health Officers, November 8–10, 1961, in Washington, D.C.*

In this brief three-point outline, there is no specific reference to the political structure of the metropolitan area. This is deliberate. There are more important and more basic considerations that influence public health administration in the metropolitan setting than boundary lines or the legal authority of city versus suburb or city government versus State government. Some believe many apparent problems can be solved by political reorganization to insure metropolitan areawide planning and control. It is well to keep in mind, however, that the concerns of air pollution, traffic control, and water management occur in metropolitan areas in every part of the world and under every form of national and local political structure. Governmental reorganization is not likely in itself to solve public health problems which stem from industrial activity or some other nonpolitical aspect of metropolitan life.

I believe it can fairly be stated that there is only a meager beginning of information and concepts about the nature of the metropolitan area and those aspects important in public health practice. It is appropriate for a physician to suggest that there is a gross anatomy and a physiology of cities. Knowledge of the structure and function of metropolitan areas is essential in the way that anatomy and physiology are prerequisites to clinical medicine. The analogy, for the physician at any rate, suggests the need to identify both the location and function of specialized subunits and also to identify how the part relates to the whole.

Whatever the dictionary definition of metropolitan, it is important in public health to identify the metropolitan area not only as a geographic, political, or population unit, but as a functioning total entity, with specialized subunits.

From a genetic viewpoint, it would appear

that the basic factors determining the location and growth of metropolitan areas are economic and industrial (*1, 2*). There are similar public health needs in cities with similar economic specialization. It is equally apparent that a steel city in the Ruhr is not Pittsburgh or Birmingham; cultural and political background influences public health in different metropolitan settings.

But although such comparisons and distinctions are easy, there remains a great need for clarification of the limits and functions of the "metropolitan" area, and of what is "urban," "suburban," "central" city, and "satellite" city. The need for definition is only partly that words be used with the same meaning. In public health confusion extends to functional and cause and effect relationships. As an illustration, it is common today to refer to a "metroplex" centered on New York City and extending north to Boston and south to Washington. It is sometimes suggested that this "conurbation" is a community with common problems. Some problems are common to this area, but there is only scanty knowledge of exactly what problems are common as a result of this agglomeration. In considering the classic metropolitan problem of traffic, it is apparent that a traffic jam in downtown Washington will not influence traffic at Times Square. It is not known if air pollution in New York City will affect air quality or health in Washington or Boston.

The difficulties of definition and identification of economic, cultural, and political relationships should indicate the importance and complexity of metropolitan areas as organized, functioning, and complex entities.

An individual is an economic unit as a working man. He is also a social and family man and every now and then a political unit as a voter. Similarly, the metropolitan area is a unit, but with many different functions, and the public health administrator must keep his special concerns in perspective and coordinate his activities with other specialists.

For example, because economic and industrial factors are primary determinants of metropolitan area location, function, and growth, the need is clear for a better understanding of and closer relationship to industrial planning. It is pertinent that business and industry leaders, for example, in the Committee on Economic Development (*3*), are demonstrating a direct interest in metropolitan area concerns and locally and nationally are taking a more active role in planning and action. Whatever deference to other specialists may be needed, it may be noted that public health practice is expert enough to provide disease prevention and controls which permit concentrations of population because we know a great deal about many aspects of community health and health in the individual.

For the public health administrator the most important question is, Does metropolitanization affect health? Certainly not all that happens to a city dweller's health is caused by metropolitanization, but it is the primary concern of the public health worker to seek the answers to such questions as, Does metropolitanization influence public health? to what degree? under what circumstances? What individuals or groups are affected? and if damaging to health, how subject to control? In brief, the metropolitan area must be developed as an important area of interest in epidemiology.

There is already a considerable amount of information relevant to the health effects of metropolitanization. Population density can be of major influence on the probability of disease occurrence and distribution. The likelihood of a second case of typhoid fever, or an epidemic, is obviously dependent on population density if all other factors are equal. The studies of the First World War which showed the critical effect of density on meningitis epidemics are another classic example. The concentration of population is consequently a prime area of epidemiologic influence.

In the metropolitan area, however, there is also power-use concentration and waste-product concentration in water, air, and on the ground (*4*). The concentration of multiple sources of pollution may reach levels which may affect health, and the concentration of population increases the chances of exposure to the hazards.

Some metropolitan hazards can be stated in terms of volume and concentration. But even in air pollution, for example, the health effects are not yet adequately defined. We do not have information from which standards for community air quality can be developed to match standards of air quality now developed for in-

plant industrial exposure. In general, however, there is evidence that industrial and population concentration will require program action by public health specialists.

When one asks what are the health effects of city living other than the effects of accumulation of wastes or concentration of population, it is much more difficult to find accepted evidence of a relationship. This area has received relatively little investigation in epidemiology. Some pioneering studies (*5*) have been performed by social scientists who have provided the evidence that neighborhoods of different economic status have their own patterns of social interaction as well as characteristic rates of mental disorder, tuberculosis, and venereal disease. Although the existence of such interrelated social and disease patterns is well known, there is a need to vary and adapt programs to these different neighborhood patterns. Such programs as those recommended by Bradley Buell (*6*) in which a family is given what can be called a social diagnosis offer an example. This is not to say that tuberculosis is a different medical entity in different social settings. But a social diagnosis may help in planning staff interaction with a family in which tuberculosis is found. The value of studies of metropolitan population groups thus may be extended beyond disease incidence to social analyses that can be applied in direct service. To the question, Does metropolitanization affect public health other than by concentration of population? the answer is yes, at least sometimes.

The primary responsibility and unique contribution of the public health worker is to identify these health effects and to interpret them to other professional specialists in metropolitan programing and frequently, of course, to apply his findings in program execution.

The deliberate emphasis here on the health aspects of urbanization might be thought unnecessary for a public health audience. Consider, however, that to my knowledge there have not been Federal, State, or local programs to analyze and publish on any regular basis even crude vital statistics data by metropolitan areas. It is also uncommon for even these most simple health data to be presented for all subdivisions of a single metropolitan area, or if presented, to be prepared with a common format. Thus an accurate statement of basic vital statistics often cannot be made for even a single metropolitan area.

Such vital statistics and other descriptive data are, of course, only a beginning of an adequate depiction of the public health circumstances of a community. It can be hoped that the National Health Survey's publication of some morbidity data on eight metropolitan areas will be extended. It is gratifying to learn that there will be information by metropolitan areas published by the National Center for Health Statistics on the 1960 census and that a series of monographs to be issued by the American Public Health Association, through a Public Health Service grant, will also develop data on metropolitan health conditions. The recent issuance of birth figures for areas with more than a million population is a forerunner, it is to be hoped, of the more detailed analyses which must be made before metropolitan area epidemiology can be adequately developed.

Another kind of interest is how best to organize a health agency in a metropolitan setting. What in metropolitan areas will aid public health programs or make for difficulty? The most obvious advantage to the metropolitan area health officer is the opportunity to develop an administrative pattern to use public health specialists of all kinds, and hopefully, to provide in a large staff for specific professional supervision. Perhaps less obvious, but no less real, is the problem of organization of staff to gain the advantages of specialization without losing the "family doctor" kind of knowledge of the patient and his family.

As with vital statistics, there is little information published about metropolitan area health administration (*7*). Descriptive information relating to administrative organization of metropolitan area health agencies would be valuable, especially if it identifies program responsibility. There is little value in knowing a staff pattern in environmental health unless one also knows the agency responsibility for specific functions such as air pollution control or housing.

As noted previously, however, the general tendency is to focus on areawide planning at the expense of neighborhood or district planning. Typically, the fragmentation into various polit-

ical units in suburbs is deplored, and it is suggested that what is needed is a metropolitan areawide agency under central direction. Important though areawide planning and action may be, there is no less need to develop plans and programs for decentralization to the subdivisions.

It is suggested that 50,000 or 100,000 population is the minimum which can support efficient and economical local public health service. There has been little discussion, however, about the practical maximum size of population that an integrated local public health unit can serve effectively. My experience in St. Louis County suggests that it is difficult to administer standard public health services from a single central headquarters when the population exceeds 400,000. In Pittsburgh and Allegheny County, districts have a population of 300,000, and several years' experience suggests that such units can relate well to their constituent municipalities and population.

These examples are not intended to imply conclusions on population size and patterns of decentralization but to indicate that metropolitan political or administrative consolidation is only one part of administrative organization. It is important to keep clearly in mind that the ultimate recipient of public health services is the individual in his family in a neighborhood (*8*). The breaking up of a centralized program in a city of more than a half million population to encourage local planning is as deserving of attention as the centralizing of planning.

In any event, voter response to various metropolitan proposals suggests that major governmental reorganizations in metropolitan areas are unlikely. There is some evidence that special district government as in sanitary sewer districts will be successful in meeting some problems (*9*). But metropolitan area growth, like the proverbial communicable disease, is indifferent to municipal boundary lines. Programs for metropolitan areas based only on present or proposed municipal or county boundaries will always have severe limitations.

The next few years may see a number of different governmental devices tested experimentally and not necessarily as a result of public referendum (*10*). It is especially important to consider changes that may possibly be made within existing legislative and administrative authority. Among measures which could be considered to improve metropolitan public health programing are the following steps.

1. Organize recording and reporting systems to serve metropolitan areas. In many States this would mean the simple consolidation of reports for two or three political jurisdictions; typically reports for the urbanized county or counties would be added to those for the central city.

2. Require local officials to coordinate planning and programing before applying for State or Federal financial grants-in-aid. In many instances grant authorities could achieve metropolitan areawide planning by requiring that applications for financial aid be coordinated at the metropolitan area level. Requirement for local coordination need not be limited to construction programs such as for sewers or urban renewal; the same type of coordination can be carried out in some disease control programs. Because the present State and Federal agencies of government have, in general, tended to deal with individual political jurisdictions rather than coordinated groups of municipalities, they have actually sometimes discouraged possible cooperative efforts. Requirement of coordination by grant-in-aid agencies at the State and Federal level may very well stimulate more rapid development of areawide planning for other functions.

3. Involve local agencies and delegate to them metropolitanwide responsibilities. In many instances State responsibility is delegated to local health departments as a regular policy; extension or modification of such arrangements could insure that the delegated service is performed metropolitanwide. Formal contractual agreements between various governmental units of the metropolises and between municipal jurisdictions and the State or Federal government might facilitate such a process. Such formal contracts have been effective in Los Angeles County, Calif., and in St. Louis County, Mo. The contract, as an administrative device, makes possible a flexibility of arrangement incomparably greater than a political change by charter amendment.

Some desirable public health planning and

programing may be difficult or impossible because there is delay or opposition to political changes which involve public health only secondarily. Important as political organization may be, it need not be an excuse for inaction. There are many other avenues of public health achievement now open within existing administrative powers or potential within existing legislation. There are already sound precedents for action other than by political reorganization.

Action to improve public health programs has frequently served as a model for other improvements. Metrowide sewer districts, city-county health departments, and city-State-Federal government cooperative programs in disease control are all examples of administrative patterns which have not only improved metropolitan area public health services, but have served as models of metropolitan government for other services as well.

The need to improve many different public services to residents of metropolitan areas is now widely recognized. Whatever pattern of administration emerges, public health programs will be affected. Improvement in public health service based on sound analysis of public health needs may frequently provide the needed leadership.

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Guidance Levels of Radioactivity in Food

"Considerations in Establishing and Applying Guidance Levels of Radioactivity in Food," a paper by Donald R. Chadwick, M.D., chief, Division of Radiological Health, Public Health Service, appears in the May 1962 issue of *Radiological Health Data*. The paper was originally presented at the Seminar on the Agricultural and Public Health Aspects of Radioactive Contamination in Normal and Emergency Situations, held at The Hague, Netherlands, December 11–15, 1961.

Single copies of *Radiological Health Data* may be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C., for 50 cents.

Economics of Metropolitan Medical Care

A group of economists met in Detroit last November, during the annual conference of the American Public Health Association, to discuss such issues as the disparity between costs and benefits of services in metropolitan medical care and the role of the Federal Government as a bottleneck breaker or master planner.

That the relation between costs and benefits is not direct was emphasized by Herbert E. Klarman, Hospital Council of Greater New York, who dwelt upon the experience of the student physician, intern, and resident in the teaching hospital. The process of teaching simultaneously with providing medical care, he said, raises costs and also influences the pattern of hospital service, perhaps to the advantage of the "interesting" case, and possibly to the disadvantage of the patient with a familiar condition. It also leads to "dumping" of patients by some hospitals. At the same time, he said, it builds capital by investing in the young physicians' education. For this both the student and the community pay.

It is in this situation that young physicians working long hours at low pay in the process of "learning" develop a sense that they have been exploited, and seek, in later years, to recoup their fancied losses, or at least to resist future efforts at suspected exploitation by social institutions.

The variation in capacity to pay and the need for services, from community to community, concerned William F. Hellmuth, dean of Oberlin. He suggested the need for new revenue sources for metropolitan areas as a whole and better distribution of revenues from existing sources with more emphasis on local need and capacity so that the resources of wealthy communities with limited populations could be applied to serve less well-endowed neighborhoods teeming with indigent hospital patients.

Selma Mushkin, currently with the Advisory Commission on Intergovernmental Relations, stressed the need for data to appraise both the supply and demand for medical care. In the absence of sufficient data to appraise needs and resources adequately, she said, the tendency is to take advantage of available funds rather than to design metropolitan medical care programs to meet specific community needs. Her comments supplemented those of Klarman, who suggested that sometimes hospital association with medical schools may be less urgent than an orientation toward service to patients. They also reflected the remarks of Michael S. March, U.S. Bureau of the Budget, who dwelt upon Federal medical services.

The Federal Government, he said, operates more than 400 hospitals (176,000 beds) and supports more than half of the medical research in the United States. Because of the magnitude of the Federal share in the supply of medical services, he asked whether adequate consideration had been given to the policies governing such outlays. The tasks of breaking bottlenecks and stimulating the preparation of community master plans, he said, were only two of many possible functions of the Federal Government.

He also observed that, in his opinion, a sharp increase in demand was not likely to bring about a strong response in the real supply of medical services, which tended to be inelastic, but rather was likely to be manifested in price increases.

Bringing economic theory into practical application, Dr. Frederick D. Mott, Community Health Association of Detroit, described the information which had been useful in planning the use of medical care facilities in the Detroit area. This information included estimates of prospective business conditions, family structures and other population characteristics, labor force data, and the range and distribution of wealth and income of households.

Following these talks, Dr. George G. Reader, New York Hospital-Cornell Medical Center, chairman of the group, invited questions from the floor, most of which concerned the need for augmenting medical manpower and knowledge, as critical to the future supply of medical services.—MARK PERLMAN, *associate professor of political economy, Johns Hopkins University, Baltimore, Md.*

Environmental Health Aspects of the Comprehensive Plan

OSCAR SUTERMEISTER, M.R.P.

UNDERLYING the Public Health Service approach to environmental health planning, through its new Metropolitan Planning and Development Branch, are two basic concepts of particular concern to planners. One of these is the application to environmental health of the principle of preventive medicine. Like many planning administrators, local public health officers find themselves so busy handling almost daily health emergencies that they seldom have time to develop, protect, and carry out long-range plans aimed at preventing future health problems.

As one Federal official has said, "Many health departments are faced with correcting past deficiencies without having time to worry about the host of new problems brought on by the exploding metropolis. We are beginning to see unmistakable evidence that we inherit these problems as a result of planning omissions" (*1*).

The second concept is the modern, broadened definition of health established by the World Health Organization of the United Nations. This definition proclaims, "Health is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity" (*2*). In the environmental field, this reverses the traditional legal approach of requiring evidence that physical conditions are so bad there is a reasonable likelihood they will lead to disease. In its place, emphasis is laid on the question, Are physical conditions so good that they promote physical, mental, and social well-being? In this mode, the planner may ask the health officer to consider such questions as:

Does the existing level of traffic noise promote well-being?

Does mixture of land uses along an arterial road bounding a residential neighborhood promote well-being?

Does creation of a high-accident rate zone on a major highway by strip commercialization promote well-being?

The application to environmental health planning of these two basic concepts could prove to have major significance in several situations.

First, broad public recognition of the need to prepare, protect, and carry out comprehensive plans could be decisively accelerated by the influence of health officials.

Second, support for comprehensive planning could be strengthened further by Federal backing of adequate development of the health aspects of local plans, with the full weight of the prestige of Federal authority, financial assistance, and performance standards. (Existing construction grant programs, such as that for hospitals authorized by the Hill-Burton Act, provide for planning surveys.)

Third, the health objective in planning would aim primarily at matters that are by nature in the public interest rather than at such private objectives as are sometimes encountered by planners, in keeping with the city planner's

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recognition of the primacy of the public interest.

Finally, health authorities can be a source of expert testimony at many critical points in the planning process, including (*a*) Federal, State, and local legislative hearings, (*b*) State and local planning commission meetings dealing with plan making and plan adoption, (*c*) local planning commission meetings dealing with plan administration through zoning recommendations and subdivision approvals, (*d*) hearings by local governing bodies on zoning applications, and (*e*) hearings by boards of appeal on special exceptions.

The avenues of action just outlined, as contributions of environmental health officials to comprehensive planning, are more potential than current, because there is still much work ahead before these actions become generally applied.

Planners who have become well acquainted with their local public health organizations and with technical public health literature relating to the multitudinous facets of environmental health have taken the first steps.

Health officials, as they become familiar with planning studies, plan elements, comprehensive plans, and administrative tools for protecting and carrying out plans, are finding a common objective with city planners and a stronger means of advancing public health.

Planners Study Health

Urban planners have various methods of categorizing their interest in environmental health. One of the simplest yields three headings: urban fringe sanitation, healthful housing, and air pollution.

Urban fringe sanitation expresses their concern with water supply, sewerage, and refuse, because hazards in water supply and sewerage are more acute in urban fringe areas, where new population growth often precedes publicly provided facilities, than in established central areas. This is probably the environmental health field of most widespread and intense concern to planners, because metropolitanization and continued expansion of freeway networks are setting the stage for ever more widespread fringe development. In fringe areas sewer extensions control the timing of intensive development. Open development on septic tanks almost assures eventual hazards and complicates the planning and financing of later increases in density. Fringe area water supply problems generally parallel sewerage problems, but are less troublesome. Refuse collection and disposal are problems of the entire urban area and may become more severe in the center than at the fringe.

The Fundamental Concerns

The fundamental environmental engineering problems associated with community growth are not related solely to the technical aspects of water supply, sewage disposal, refuse disposal, housing, radiation, and air pollution control but to governmental factors including legislation, lack of adequate planning and little or no health department participation in planning, ineffective financial arrangements rather than inability to obtain capital, and inadequate community understanding.—*Conclusions of Fringe Area Sanitation Practices Committee, American Public Health Association.*

Healthful housing is a slightly antiquated term which may eventually be supplanted by a suitably euphonious broader term meaning healthful homes in healthful neighborhoods organized into healthful subcommunities and communities. It is perfectly conceivable that environmental health activities might some day expand to cover healthful urban areas, whether these were towns, cities, metropolitan areas, or megalopoli. At the present time, however, technical literature is largely limited to residential land use for areas of neighborhood size. The key document available is "Planning the Neighborhood," by the American Public Health Association Committee on the Hygiene of Housing, 1960 edition. While some of the numerical standards prepared for the previous 1948 edition are out of date, the analytic material and health principles discussed remain fully valid and probably more pertinent and important today than in 1948, because of the traffic and land use pressures which continuing rapid urban growth is placing upon existing neighborhoods. If the environmental health

officials succeed in helping planners to accomplish some of the goals outlined in this 13-year-old text, they will make a tremendous contribution to urban life in America.

Air pollution is generally a problem as widespread as the urban area affected.

Two additional environmental health subjects which are attracting increased attention from health officials are traffic accidents on arterial roads and jet airport noise.

Health Officials Study Planning

There are several plans and elements of plans of prime concern to environmental health officials.

To various degrees, health officials participate in preliminary studies, plan preparation, public education, hearings on plan adoption, protection of plans against destructive proposals, and carrying out of plans.

Foremost is the sanitary sewer plan. The health official is interested in technical adequacy of the plan, but is vitally concerned with its coordination with the land use plan and the soil survey. For areas intended to be sewered, he reviews the land use planning and the sanitary engineering to insure that the size of lines, whether single lines or original plus relief lines, will be adequate to carry liquid wastes produced by the proposed land uses at future rates of waste water generation. Previous attempts to cope with hazards created by sewage backups in overloaded lines are an incentive to thoroughness.

For areas where land development could precede construction of the planned, permanent, integrated sewer system, health officials can insure that a combination of available controls will provide adequately for (*a*) limitation of short-term density of development in keeping with capacities of various soils to accept liquid wastes, and (*b*) the installation of capped sewers along with septic tanks, or (*c*) installation of sewers served by temporary treatment plants but designed to be integral parts of the ultimate sewer system.

This action requires coordinated use of controls provided by the land use plan, present zoning, proposed eventual zoning under full development, subdivision regulations, sanitation agency regulations, and State and local health regulations.

The second most important plan with which the health official becomes deeply involved is the residential land use plan, which is a detailing of the residential areas shown in the generalized land use plan, or in the master or comprehensive plan. His concerns here center about (*a*) planned organization of the residential areas into defined neighborhoods, each protected against through traffic and internally organized around a public elementary school; (*b*) protection of each neighborhood against arterial traffic, by coordination of neighborhood boundaries with the major thoroughfare system so that no thoroughfare crosses or penetrates a neighborhood; and (*c*) protection of each neighborhood against that through traffic which dodges major thoroughfare congestion by taking short cuts across neighborhoods on collector and local residential streets. Such protection is obtained by labyrinthine arrangement or modification of the local street pattern.

The third most important plan element for environmental health officials is the neighborhood plan. Only a few of the more progressive planning commissions in the United States, notably those in Minneapolis and Tucson, are now preparing neighborhood plans on a systematic basis. Some old-line planning commissions refuse to prepare neighborhood plans. One is still busy, after 34 years of work, preparing broad-scale plans, while existing and emerging neighborhoods are being allowed to deteriorate rapidly under current metropolitan growth pressures.

The health officer can be a prime protagonist for official neighborhood plans intended to develop and protect healthful neighborhoods, as he draws upon the wealth of material in the two publications of the APHA Committee on the Hygiene of Housing, "Appraisal of Neighborhood Environment" and "Planning the Neighborhood."

A fourth plan element with which the health official concerns himself is the highway plan, or major thoroughfare plan. The critical factor is whether or not the plan makes adequate provision for right-of-way reservation for the future widening of major thoroughfares that

may be required to satisfy the future traffic needs of rapidly and constantly growing urban areas. The penalty for a planning omission in this regard is urban scar tissue and the permanent maiming of healthful neighborhoods, caused by bulldozing new highways through built-up areas.

The most critical reservation areas needed are those at major intersections, because almost universally (except with freeways) the capacity limitations of a highway network are found at the major intersections.

Without going into comparable detail at this time, it may be said that some of the other principal plans and plan elements which provide homework for the local health officials are the water supply plan, storm water drainage plan, industrial land use plan (particularly *re* air pollution control), the subdivision regulations, the zoning ordinance, the housing code, the community renewal plan, the general neighborhood renewal plan (if any), and urban renewal project plans.

Active and aggressive participation by public health officials in comprehensive planning and urban renewal planning can produce great benefits for themselves and the public by minimizing future health hazards and for planners and the public by improving the exercise of all the planning techniques employed under the general police power of the state "in order to promote the public health, safety, morals, convenience, and general welfare." To realize these benefits, public health officials and agencies are expected to provide guidance and training, and planners and health officials both are called upon to broaden their spheres of technical competence by continued professional education and experience.

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The Insidious Threats

"Increasing population and increasing concentrations of people into the urban areas of the United States have accentuated environmental problems in two important, related ways: (1) as our air, water, and land resources are fixed, increasing populations decrease the quantity of each of these basic necessities available to the individual; (2) with increasing amounts of waste products concentrated in areas with growing populations, the relative effects of these wastes on man are increasing at an ever-increasing rate. These threats are of an insidious nature, a form of creeping paralysis which, if not recognized and corrected, can lead to urban stagnation and death as surely as the most violent epidemic."—*Report of the Committee on Environmental Health Problems to the Surgeon General, 1962.*

Intergovernmental Relationships and Public Finance

ALAN K. CAMPBELL, Ph.D.

AS a sometime fellow public servant and as a full-time student of the governmental process, I know something of the frustrations which health officers as public servants experience and the occasional despair they feel. No public servant worth his salt can escape such emotions, since they are caused by the inevitable procedural requirements, better known as red tape, of government work and by the slow response of government to fundamental social and economic changes. I would suggest that in an era when we hear so much about the cultural and scientific lag, we should also devote more thought to what might be called the governmental or political lag.

This failure of government to react promptly and decisively to major changes in our society is apparent in many fields, but perhaps on the domestic scene it is clearest in its sluggish response to the urbanization and suburbanization of U.S. society. The fact of this change hardly needs documentation. The 1960 census has confirmed what the 1950 census predicted: the continuing concentration of population in what the Census Bureau calls standard metropolitan statistical areas. Of the population increase of 28 million for the decade 1950–60, 84 percent occurred in metropolitan areas. Not only is the country now predominantly urban, it is becoming more so.

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Other statistical evidence of this change could be cited, but my purpose is not to describe the change, but to discern something of what it means for government organization and public finance.

It is generally believed that urban areas, since they require more government services than rural areas, are more costly. Such a belief is only half true. In total cost it is true, but on a per capita basis it is less evident. Total local current expenditures per capita in New York City in 1959 were $216. There are a number of rural counties in the State which have slightly higher expenditures.

The pattern of expenditures, however, differs substantially in urban and rural areas. Education expenditures per capita, for example, in New York State run from one-third to two-thirds higher in rural and suburban areas than in the cities. Highway expenditures on a per capita basis are considerably higher in the rural areas than in the cities, sometimes as much as 10 times greater. City costs are higher for the traditional urban services: police, fire protection, and sanitation.

What is the relation of urbanization to government costs if the costs in urban areas are not substantially different in per capita terms from those in rural areas? I think there is a relationship and I think it is shown by the difference in the composition of the costs. Those government functions having higher costs in the cities are the ones which traditionally have made urban costs high. On the other hand, the high costs of education and highways in rural areas are a result of the impact of urbanization on rural areas. The need for high-speed highways is not a rural need but is induced by a highly

urbanized economic system. High education costs are related to the bringing to the countryside of educational standards essential to the maintenance of a highly technical interdependent economic system, another consequence of urbanization.

My thesis, therefore, is that local government costs, whether urban or rural, are related to the urbanization of our society. The high government cost of urbanization is demonstrated, at least in part, by the extraordinary rise in the cost of government at the local level. Since 1946 local expenditures have been rising more rapidly than national income. Using New York State as an example, for the decade 1949 to 1959 total local expenditures increased by 111 percent, and per capita expenditures by 87 percent. During this same period per capita personal income in the State increased by 57 percent—30 percentage points less than local government per capita expenditures. State and Federal expenditures increased also during this period, but the Federal increase is largely accounted for by increased defense expenditures and a great deal of the increase in the States' expenditures is being used to aid local government—over half of it in New York State.

The impact of metropolitan growth has been even greater on income sources than on expenditure needs. Difficulties surround not only the kind of taxes to be employed but the jurisdiction from which they must be drawn. It is the combination of these factors which has started processions of "hat-in-hand" local officials to State capitals and to Washington.

The chief source of locally raised revenue is the much maligned property tax. This tax still provides the basic wherewithal for most local governments. In New York State it provided the same percentage of local revenue in 1959 as it did in 1949. For the most part only the large cities and urbanized counties have turned to substantial use of local nonproperty taxes.

The property tax, despite its continued use, is particularly prone to taxpayer resentment because of its lack of direct relationship to ability to pay. Property is no longer the source of most people's income, and the tax has a high visibility since it normally requires an annual or semiannual lump sum payment or is paid through the monthly mortgage payments. The almost-yearly notice from the bank that these payments must be increased to cover higher taxes often upsets household budgets carefully organized around what is assumed to be a stable monthly mortgage installment.

The property tax is also growing obsolete since the size of many jurisdictions which levy it bear little relationship to the facts of the private economic system. As the Advisory Committee on Local Government of the Commission on Intergovernmental Relations has said, "The growth of private business into larger units has also made it necessary for the larger private businesses to be taxed by the National and State Governments instead of local governments since the properties and income of such private companies cannot be adequately reached by any single local government."

This difficulty is most evident in the taxes on personal property. Again, the advisory committee explains the situation well: "This tax is becoming obsolete because of the mobility of personal property, the use of small local inventories by companies doing a large volume of business, and the complaints of small independent merchants who see their larger competitor paying taxes on relatively small stocks of goods. Intangible property is free to seek the most favorable tax sites, to move temporarily during the assessable period, or to follow the movement of the principal office of a business. Thus the city of Highland Park, Mich., lost 25 percent or more of its assessed valuation two decades ago when the Ford Motor Company moved its offices from Highland Park to Dearborn. Thus, too, the bank deposits of Illinois businesses and individuals, taxable as personal property, take an annual journey to New York just as individuals go to favorable climates to escape hay fever." The personal property tax has been constitutionally prohibited in New York.

If the property tax possesses these shortcomings, why do local governments not turn to other kinds of taxes? Some have, particularly large cities, and to a lesser extent, urbanized counties. Payroll taxes are widely used in Pennsylvania. St. Louis, 10 Ohio cities, and 4 in Kentucky also have such levies. The sales tax is used by almost every jurisdiction in California and a few large cities in other States,

among them New York City, New Orleans, and Denver. Excise taxes on cigarettes, liquor, and admissions are also employed in some local jurisdictions.

Generally, however, nonproperty taxes are not attractive to localities and for good reason. The best tax sources—income, sales, and excises—have been largely preempted by the National Government and by the States. Even if this were not true, most of these taxes could not be used locally. The local jurisdictions are too small and the taxes are difficult and expensive to administer.

The multiplicity of local government jurisdictions at the local level is the major obstacle, particularly in major metropolitan areas. The story is well told by the title of a recent book about the New York metropolitan area, "1400 Governments." Books with somewhat smaller numbers in their titles could be written about every other major metropolitan area in the country. The 212 metropolitan areas in the country are governed, not by 212 governments, but by 16,976 governments.

Not only are there many governments, but, equally important, they overlap. Perhaps I, as a political scientist, have a vested interest, but I doubt that any citizen of suburbia today can properly exercise his democratic rights unless he possesses at least a master's degree in my field.

Let's look at a concrete example. The citizens of Park Forest, a suburb near Chicago, are directly concerned with the following local governments: Cook County, Will County, Cook County Forest Preserve District, Park Forest Village, Rich Township, Bloom Township, Munce Township, Suburban Tuberculosis Sanitarium District, Bloom Township Sanitary District, Non-High School District 216, Non-High School District 213, Rich Township High School District 227, Elementary School District 163, and South Cook County Mosquito Abatement District. You must indeed have a program to know the players in this game.

The difficulties which such a governmental patchwork causes in the administration of activities which have areawide or even partial area application are obvious. Such problems as economic mass transit, air pollution, water supply and pollution, and adequate recreation facilities and parks, to name but a few, are difficult enough to solve when considered in the abstract. Trying to solve them with the present hodgepodge of local government causes many citizens to look outward to State capitals and Washington for help.

As troublesome as administrative performance is financing. In fact, Carl Chatters, author and long-time student of governmental finance, has observed that "The metropolitan areas problem is primarily a public finance problem." I think it is clear why nonproperty taxes are not a realistic alternative in these areas. Escape is too easy. Sales taxes or local income taxes would only drive business and residents across the nearest border, and normally it wouldn't be a long move, oftentimes just across the street would be far enough. Such taxes would, of course, be possible if all or nearly all the units in an area would agree to levy the tax. Such cooperation, however, is not likely.

I would like to mention two other public finance problems created by this crazy-quilt system of government. One is the great disparity in the quality of the revenue bases in these areas. Communities side by side may have such a different mix of property types that in one district a low rate will produce a high revenue yield while in a nearby area a rate many times higher will provide financing for only a minimum level of government service. A concrete example is the city of Los Angeles, which has 10,000 times the population of its suburban neighbor, Vernon, but only 20 times Vernon's assessed value. The property tax base in Vernon is about $1 million per person; in Los Angeles it is $1,600 per person.

The second finance problem is that the present jurisdictional system makes it almost impossible to relate benefits and taxes. The daily mobility of population means that a person uses the services of many jurisdictions, particularly the central city, while paying taxes to only one or two.

The result is for the jurisdictions to look outside themselves for help, seldom to areawide cooperation, but rather to State and Federal Governments. The varying needs of the jurisdictions make local cooperation difficult. A community with a good property base is not anxious to combine with one having a poor base.

Suburban communities for social and economic reasons want nothing to do with the central city.

These local reasons for not cooperating are reinforced by the belief that the State and Federal Governments have superior resources which they owe to the local communities. After all, it is argued, local residents pay the State and national taxes. The demands for State aid have, as a result, become insistent. Success has varied from State to State and from jurisdiction to jurisdiction, but there is some uniformity in the pattern which has developed.

To understand this pattern it is necessary to know something about State legislatures. To avoid being accused of bias on this point I quote the recently established (1959) Advisory Commission on Intergovernmental Relations of the House of Representatives.

"Much has been written about the rural domination of State legislatures; the basic facts are well established and there is no need to document here the various examples . . . of the relative under-representation, from a population standpoint, of urban areas in one or both houses of State legislatures. 'Rural domination' of State legislatures had frequently been a cause for just complaint by metropolitan areas. . . . Also, frequently, 'rural domination' has afforded a made-to-order argument for municipal and other local governments in the metropolitan areas to seek redress from the Congress in the form of financial assistance from the National Government."

The statistical evidence that rural and suburban areas fare better than cities in terms of financial aid is quite clear, although there is some variation from State to State. New York City, for example, received $49.24 per capita in State aid in 1959 compared with $62.18 per capita for suburban Nassau County. In fact, New York City ranked 56th out of 58 counties in amount of aid received. Only Albany and Westchester Counties ranked lower.

These differences are not explainable in terms of local fiscal ability. In fact, measures of local fiscal ability are notoriously inadequate since they are usually related, to the extent they exist, to the local property base. This base, unrelated as it is to local income, has at best an indirect relation to the actual local fiscal ability. Further, since aid is usually provided for specific functions, those jurisdictions with important unaided functions are bound to suffer. Cities lose on this score, too, since they have major expenses such as police, fire, and sanitation, which are not aided at all or, at best, very little. Were it not for welfare assistance, which is primarily aided by the Federal Government, and aid to education, cities, at least in New York State, would really be without major functional aid.

On the other hand, rural and suburban districts have relatively smaller expenditures in these unaided services and substantial aid in those functions which represent major expenditures for them, highways in the rural areas and schools in both rural and suburban areas. In most suburbs today 50 percent or more of total local expenditures are for education, and for more and more rural areas this ratio is being approached. In such counties in New York State highway per capita expenditures are second only to education.

It should be mentioned that suburban areas are gradually being faced with rising nonschool municipal costs. Having just passed through a period of skyrocketing school costs, it now appears that a similar burst in municipal expenses is just around the corner.

Cities, faced with an unfriendly political climate in their State houses, and with a State aid pattern not particularly related to their needs, are looking elsewhere. One response has been a wider employment of nonproperty taxes than those adopted by other local jurisdictions. This response, however, has grown increasingly unpopular as cities find themselves in competition with neighboring suburban areas for residents and business concerns. More and more, Washington is being looked to for help.

The pattern of suburban political behavior is less clear. Thus far, in most States the response from the State capital to suburban demands has been fairly good. In fact, V. O. Key, Harvard political scientist, has suggested that "At times the ingredients are proportioned to produce government of the metropolis, by the country, for the suburbs."

The city's reception in Washington has been cordial, especially by the Senate. The urbanization of more and more States with their re-

sulting urban electorate is gradually changing the political outlook of this once rural-oriented assembly. Nor are party lines particularly important. A change in the orientation of the House of Representatives is less evident.

What about the future? Public costs at the local level are going to continue to increase. Extensive government reorganization at the local level is unlikely. It is therefore likely that State or Federal aid or both is going to increase more rapidly than other kinds of local revenue.

The Report of the Advisory Commission on Intergovernmental Relations sums it up: "If the States do not give cities their rightful allocation of seats in the legislature, the tendency will be toward direct Federal-municipal dealings. These began in earnest in the early days of the depression. There is only one way to avoid this in the future. It is for the States to take an interest in urban problems, in metropolitan government, in city needs. If they do not do this, the cities will find a path to Washington as they did before, and this time it may be permanent, with the ultimate result that there may be a new government arrangement that will break down the constitutional pattern which has worked so well up to now."

Birth Statistics for Metropolitan Areas

Final birth statistics for all United States counties and metropolitan areas in 1960 highlight the increasingly urban character of the nation. One-third of all 1960 live births were to residents of the 24 metropolitan areas with 1 million or more inhabitants, where, during 1950–60, there was an increasing concentration of both population and births (see table). During this decade the annual number of births to women residing in these areas increased by 31 percent, while the gain for the rest of the nation was only 15 percent. Boundary enlargements of eight areas between 1950 and 1960 account for only 6 percent of the increase.

Among the 24 large metropolitan areas, Minneapolis-St. Paul registered the highest birth rate in 1960 with 27.5 per 1,000 enumerated population. The lowest rate was 20.2 for the Paterson-Clifton-Passaic area of New Jersey. The 1960 national birth rate of 23.7 per 1,000 population was exceeded in 13 of the areas.

The number of births by counties ranged from zero for Kalawao County, Hawaii, and the parts of Yellowstone National Park that are in Idaho and Montana to 136,960 in Los Angeles County, Calif. New York City residents alone contributed 157,706 live births to the national total of 4,257,850 births, of which 1,445,304 occurred to residents of the 24 large metropolitan areas.

Registered live births by place of residence, selected standard metropolitan statistical areas, 1950 and 1960

Area	1960[1]	1950
Standard metropolitan statistical areas		
Atlanta, Ga	26, 052	19, 117
Baltimore, Md	42, 324	31, 052
Boston-Lowell-Lawrence, Mass.[2]	69, 972	58, 956
Buffalo, N.Y	30, 804	24, 091
Chicago, Ill	152, 764	112, 901
Cincinnati, Ohio-Ky	27, 554	21, 093
Cleveland, Ohio	41, 182	33, 266
Dallas, Tex	27, 924	18, 198
Detroit, Mich	92, 510	76, 667
Houston, Tex	33, 360	21, 646
Kansas City, Mo.-Kans	26, 772	19, 415
Los Angeles-Long Beach, Calif	155, 702	93, 999
Milwaukee, Wis	31, 110	22, 154
Minneapolis-St. Paul, Minn	40, 770	29, 687
Newark, N.J	35, 846	28, 837
New York, N.Y	219, 056	185, 481
Paterson-Clifton-Passaic, N.J	23, 930	17, 828
Philadelphia, Pa.-N.J	98, 402	75, 755
Pittsburgh, Pa	51, 182	47, 907
St. Louis, Mo.-Ill	51, 590	40, 414
San Diego, Calif	26, 928	14, 072
San Francisco-Oakland, Calif	62, 032	51, 668
Seattle, Wash	25, 460	19, 182
Washington, D.C.-Md.-Va	52, 078	38, 435
Standard consolidated areas		
New York-northeastern New Jersey[3]	305, 646	252, 826
Chicago-northwestern Indiana[4]	168, 474	123, 582

[1] Based on a 50 percent sample.
[2] Metropolitan State economic area.
[3] Comprises four standard metropolitan statistical areas: New York, N.Y.; Newark, N.J.; Jersey City, N.J.; Paterson-Clifton-Passaic, N.J.; and two nonmetropolitan counties, Middlesex and Somerset Counties, N.J.
[4] Comprises two standard metropolitan statistical areas: Chicago, Ill., and Gary-Hammond-East Chicago, Ind.

NOTE: Figures relate to standard metropolitan statistical areas, as defined for 1960, which contained 1 million or more population in 1960. Each area consists of one or more counties and derives its name from the central city or cities in the area.

Housing for Senior Citizens

E. EVERETT ASHLEY 3d

EIGHTY PERCENT of the 17 million citizens 65 and over are fully retired from regular employment. They are completely out of the labor force. Nevertheless, a vast majority of them want desperately to avoid slipping into a passivity in which they progressively lose touch with the realities of the day.

Lacking suitable housing and essential community services, many of the elderly literally become prisoners in their quarters, unable to get out into the community. Others, compelled by circumstances to live out their lives in rooming houses or in otherwise unsatisfactory quarters, also tend to withdraw into their shells and lose contact with society.

To combat such situations the Administration has set, as its major objective in providing housing for senior citizens, the creation of an environment which encourages older people to keep in close contact with community affairs and affords them opportunities to join with others in useful, productive activity. Increasing stress is being placed upon the need for providing, as an integral part of housing developments for senior citizens, multipurpose senior centers which can become a means of re-entry into community activity. By senior centers we do not mean places where passive entertainment and time-filling activities like bingo, pinochle, and shuffleboard are emphasized. Recreation is important, but a steady and unvaried diet can be stultifying and demoralizing.

Senior centers, as we visualize them, should be a source of continued contact between the entire community and its senior citizens. They should afford challenging opportunities for useful service: volunteer work in hospitals, practical nursing training, provision of homemaker services to the less fortunate, active participation in community service organizations, and continued civic activity. They should, in addition, offer avenues for broadening knowledge through suitable adult education courses which are not confined to the arts and crafts but which open up new vistas in literature, languages, history, and the like. Such centers should provide sources of part-time employment and might, in some circumstances, even serve as the matrix of a sheltered workshop.

With proper housing, an accompanying senior center, and essential related community facilities, the stage can be set for creative retirement years. A suitable environment for retirement is an obligation owed not only to our senior citizens but to ourselves so that we use to the fullest what these people have to offer. We need their experience, their wisdom as counselors to younger generations. We need the products of their skilled hands.

Currently, the Federal Government has three programs of housing for senior citizens, all administered by constituents of the Housing and Home Finance Agency. Each is aimed at the needs of a particular income group. Together they constitute a major effort to live up to the nation's responsibilities to its older citizens.

The largest of the three is the Public Housing Administration's program for the lowest income group. PHA encourages and assists local authorities in providing housing for the elderly, either in separate public housing projects or in projects that also house younger individuals and families.

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Under the liberalizing provisions of the Housing Act of 1961, the cost of public units especially designed for older persons may exceed, by as much as $1,000 per room ($1,500 in Alaska), the limits established for regular units. Local housing authorities are required to establish policies for admission of tenants to their federally assisted low-rent projects that give full consideration to their responsibility for housing elderly persons of low income.

Single men and women who are 62 years of age or older are eligible for occupancy of low-rent public housing. A family is eligible if its head is 62 or older, or a spouse is at least 62, or if either of them has certain severe disabilities.

To help increase the supply of public housing available to the elderly, the Public Housing Administration supplies financial, technical, and management assistance to local housing authorities in providing new or remodeled dwelling units designed for elderly persons.

The 1961 act specifies that the annual Federal contribution to local housing authorities may be increased by as much as $120 per year for each unit occupied by the elderly, if the solvency of the low-rent project is otherwise threatened.

A measure of the interest in this program is demonstrated by the statistics. At the end of December 1961 more than 40,000 specially designed units were built or to be built for the elderly. Of these, almost 3,500 units are completed and occupied. But this is only part of the story. If we count all persons 62 years of age and older who live in public housing of all kinds, the total mounts to 116,000, or roughly 15 percent of the entire occupancy of federally aided public housing.

A portion of the senior citizen housing that is being generated under the public housing program is being built as a part of developments to house families of all ages. The balance is being constructed in projects intended exclusively for oldsters.

An outstanding example of public housing dwellings for senior citizens is Victoria Plaza, a 185-unit development in San Antonio, Tex. In selecting the site, psychologists from the University of Texas polled a group of older persons to learn their preferences in housing. Ninty-eight percent indicated a desire to live close to town, near churches, food stores, physicians, buslines, and, especially, near other people. With this in mind, the building was constructed near downtown San Antonio and directly across the street from another low-rent housing development for families with children.

An integral part of Victoria Plaza is a large senior center which occupies the entire first floor of the structure. In addition to recreational facilities, the center contains a beauty salon operated by project residents, a branch of the San Antonio Public Library, and two counseling offices staffed by local social agencies. The public health department operates an eight-room public health clinic for neighborhood children at the center. Eventually the clinic may also supply geriatric services.

A community kitchen in the senior center is available for the preparation of food or refreshments for parties held in the adjoining recreation rooms. Ultimately it is expected that these facilities can also provide a meals-on-wheels service for roombound residents.

The senior center in San Antonio is similar to an earlier one built as an integral part of Cedar Apartments in Cleveland, Ohio, for both project residents and other senior citizens in the metropolitan area. Private individuals and agencies in metropolitan Cleveland interested in problems of the aged were prevailed upon to join forces with the Cleveland Housing Authority to provide the essential programs, services, and furnishings through a new separate agency, the Golden Age Center, created and privately financed especially for this purpose. The center is also headquarters for the Cleveland Welfare Federation's citywide golden age program. A cafeteria, operated by the tenants, serves a low-cost meal to residents at noon. Residents participate, with the professional staff, in the operation of the center. The junior league is active in arranging activities for the oldsters at other sites.

In two other Cleveland projects the local housing authority is employing a slightly different approach toward both the housing and the provision of senior center facilities than that used in San Antonio. Instead of projects for exclusive occupancy by older persons, the authority is building two projects, Wade and

Springbrook Apartments. In each, approximately two-thirds of the units are being specially designed for the elderly, the balance being intended for younger occupants. A separate golden age center to serve residents of both apartment developments is being built. Its facilities will also be available to those living in private housing in the neighborhood.

A unique feature of Wade and Springbrook Apartments is a diagnostic unit operated by a nearby hospital. The rationale for this unit is that when elderly persons become physically indisposed or mentally disturbed, it often takes days to determine whether they can be expected to return to a normal way of life or they have developed a condition necessitating other arrangements for their future care and domicile. The diagnostic unit staffed by professional personnel will be a timely and convenient setting in which to make such determinations. It will not, however, give long-term care to ill, confused, or infirm residents. They will be transferred to appropriate private or public facilities for proper treatment and care.

Until the passage of the Housing Act of 1961, the only governmental avenue open to communities seeking to improve the housing of senior citizens was public housing. Now the resources of the direct loan program of the Community Facilities Administration are available not only to private nonprofit corporations but also to local public agencies, provided they are not receiving Federal financial assistance exclusively for public housing. A total of $125 million has been appropriated for this direct loan program designed to aid those in the lower middle-income group.

Briefly, loans may be made to cover the total development cost of housing projects for senior citizens, including such collateral facilities as cafeterias or dining halls, infirmaries, and community buildings. Loans may be repaid over periods of as long as 50 years. Loans made during the 1962 fiscal year bear an interest rate of 3⅜ percent.

The direct loan program had received applications by December 31, 1961, covering nearly 20,000 units. Fund reservations had been made for nearly $37 million, enough to cover the loan requests of projects involving some 3,400 units.

The Federal Housing Administration has available a battery of mortgage and improvement loan insurance programs to assist elderly persons in buying or renting suitable housing. FHA assistance, which dates back to 1956, covers those in the middle- and upper-income brackets. By the end of 1961, applications for more than 28,000 units had been received. Of these, projects with nearly 12,500 units had already received mortgage insurance and were either completed or nearing completion.

FHA is authorized to insure a lender against losses on a mortgage for a house being purchased by a person 62 years of age or more, even though the downpayment is made by friends, relatives, or, if approved by FHA, by a corporation.

Should an elderly person be unable to qualify as an acceptable mortgage risk, the Federal Housing Administration may still insure the loan, provided a qualified third party becomes a cosigner of the mortgage.

Construction or rehabilitation of rental accommodations for the elderly may be financed with mortgages insured by FHA. A rental housing project with either nonprofit or profit sponsorship may be eligible for FHA mortgage insurance if it contains eight or more units of new or rehabilitated housing, at least half of which are specifically designed for occupancy by persons 62 years of age or older.

The project can incorporate such commercial and special facilities as the Federal Housing Administration deems adequate to serve the occupants. Projects may be row houses or even separate dwelling units, provided they are grouped together, and may be for families or single persons.

To assist further in providing housing for the elderly, the Federal National Mortgage Association is authorized to buy these FHA-insured mortgages on an over-the-counter basis or under advance commitments. Mortgages covering multifamily units for the elderly are purchased by FNMA only under advance commitments.

A new Office of Housing for Senior Citizens, with Sidney Spector as its head, coordinates the HHFA's several programs in housing for older people and serves as a prime source of information about this special area.