City and Regional Planning: A Primer for Public Health Officials

Emil E. Malizia, MRP, PhD, AICP

Abstract

Recognizing that planners’ decisions affect the public’s health, some public health officials are becoming more involved in city and regional planning. This article describes city and regional planning fundamentals to help public health practitioners better understand plan making and plan implementation, including the development project review process; provides examples of how three local public health agencies are currently involved in planning; and discusses general strategies for such participation. With this information, public health officials could increase their influence on local planning with consequent public health benefits.

Introduction

Although genetic, individual, and interpersonal factors have received most attention in research on chronic diseases, recent work has begun to focus on macrosystem and environmental factors that relate to the city and regional planning.1-4 This research is finding relationships between the built environment and physical activity, safety, nutritional behavior, and other public health factors. Research frameworks and agendas have been posed to extend knowledge in this field.5-6 As a result, city and regional planning practice is attracting attention in public health circles, for planning shapes the physical environment and community structure that affect public health.

Economic growth in the 19th century generated unprecedented economic opportunity, productivity, and wealth but also poverty and the dense, dirty, and dangerous industrial city. The public health profession and the early city planning movement shared concern for improving municipal sanitation and housing. Yet by 1917, when planners first made claim to professional status, the fields of public health and planning had already grown apart.7 When planners called for greater linkage between the fields in 1994, few planners answered the call.8 Health researchers have generated most of the knowledge about the relationships between the built environment and the related social dimensions (community structure) and public health and safety, although some planning researchers are investigating the impact of urban form and structure on physical activity and health.9-11

Because of the importance of the built environment and community structure and the high forecasted costs of chronic diseases, many public health officials and the broader health community want to encourage healthier and safer lifestyles in American cities. Yet most new development, constrained by time and regulation and motivated by profit, has engineered physical activity and healthy lifestyles out of the urban environment, to the detriment of city residents.

Public health officials could play an important role in metropolitan development (urban and suburban) if they better understood the city and regional planning process and were equipped with tools for effective participation. This article is intended to increase this understanding and provide avenues for successful collaboration to pro-
mote public health and safety. It is presented in six subse-
quent sections: contemporary land-use planning, trans-
portation planning, the tools used to implement land use and transport plans, vignettes illustrating innovative ways public health officials are participating in plan mak-
ing and implementation, general strategies and resources for successful participation in planning, and conclusions. A glossary of terms developed to complement this article is available at www.planning.unc.edu/phglossary.htm.

Contemporary Land-Use Planning

*Physical planning* is a process that involves problem iden-
tification and goal setting, information gathering and analysis, design of alternatives, and synthesis requiring public choices. Physical plans lay out the current and future land uses of the city or larger region, including transportation and public facilities. These plans involve city residents, members of the planning commission, and elected local officials as well as planners and other professional staff. In addition to being responsive to public goals and local conditions, the best plans will be imple-
mented because they have the necessary political support. The primacy of public health and safety in adopted plans will depend on the influence that public health officials are able to exert during the analysis and design phases of planning and their ability to build alliances and sway other stakeholders when hard choices arise.

In land-use planning, planners often use the values of economy, equity, environment, and livability to support the goal of sustainable communities. Planners facilitate public participation to define the goals, visions, and approaches to be pursued through physical plans. Public participation leads to a definition of the public interest (public goals and objectives) that legitimizes local planning. Still, the planner must be cognizant of underrepre-

dented groups, including, most importantly, future resi-
dents of the community.

*Information gathering and analysis* focus on both the urban area and local stakeholder groups. The analysis in-
volves forecasting because plans pertain to urban form in future periods (5, 10, or 20 or more years ahead). Most
and conservation, environmental hazards and safety, 
noise, housing, economic development, urban design, and 
historic preservation. Such plans can be crafted for urban 
and suburban areas, metropolitan areas, and even non-
metropolitan areas. The plans may include functional 
plans that address the most important elements such as 
housing, educational campuses, public transit, parks and 
open space, streets and circulation, bicycle-pedestrian ac-
cess and circulation, and even health and emergency ser-
vices. Public health professionals have the expertise and 
knowledge to participate in the preparation of such func-
tional plans, especially the health and emergency services 
plan. They can leverage this participation to gain access 
to other areas of land-use planning.

**Network of Plans**

Communities may devise one comprehensive plan that is 
used to guide development over time. In most places, es-
pecially larger jurisdictions or places supporting more in-
tensive land-use planning, planners formulate interrelated 
plans that contain different plan elements, including (1) 
areawide policy plan, (2) land-use design plan, (3) small-
area plan, and (4) development management plan. The 
areawide policy plan applies the goals and visions of the 
community and agreed-upon planning principles and 
guidelines to show the resulting pattern of land use. For 
the entire area, it identifies the character of future urban 
form and designates areas to receive development or be 
protected relative to existing urban development. Natural 
features of the land and environmental constraints heav-
ily influence the areawide policy plan. This plan, which 
shows rural-to-urban transition areas, redevelopment 
zones, and locations for major public facilities, is most 
appropriate at the metropolitan scale.

The land-use design plan focuses on the urbanized 
and urbanizing areas of the local jurisdiction that are in-
tended for development or redevelopment. This plan 
maps the assignment of specific uses to the land. It ac-
commodates the forecasted levels of employment and 
population by translating this growth into estimates of de-
mand for residential, commercial, industrial, and civic or 
cultural space. It provides sufficient land and the trans-
portation, recreational, and other public facilities needed 
to support forecasted growth. Residential areas include 
housing but also the associated population-serving com-
mercial and civic activities. Economic and equity values 
guide this plan, although planning for residential areas 
also stresses livability. This plan traces its lineage to the 
city plans prepared by the founders of the planning field 
almost 100 years ago.

Finer-grained small-area plans further articulate the 
design plan for strategically important residential neigh-
borhoods or commercial areas. Such areas within the ju-
risdiction typically include central business districts, rede-
velopment areas, transit and transportation corridors, his-
toric districts, or other areas of local significance. These 
plans often incorporate urban design and emphasize liv-
ability. They rely heavily on the participation of residents, 
business owners, and other local stakeholders. With greater 
recognition of public health and safety, small-area 
plans could focus on neighborhoods experiencing the 
greatest health disparities or environmental justice con-
cerns, places most threatened by natural hazards, or areas 
with poor infrastructure or high crime rates.

Whereas the areawide policy plan, land-use design 
plan, and small-area plan briefly address the required 
tools for plan implementation, the development manage-
ment plan treats the mechanisms of implementation more 
comprehensively. It discusses regulations and public in-
vestments anticipated for effective planning such as zon-
ing, capital improvement programs, and related ordinanc-
es. This plan presents the means to monitor, evaluate,
and update community plans, underscoring the point that planning is an ongoing, continuous process. Indeed, because attitudes, conditions, and information change, public health advocates can continue to influence plans by remaining engaged in the planning process over time.

The different areas of land-use planning should be given equal weight, but plan making usually receives more attention than does plan implementation. In many communities, development outcomes fail to provide facilities, such as sidewalks, that are called for in the plan. Land-use planning that contributes to the creation and maintenance of healthy environments could spur greater attention to plan implementation and related health and safety outcomes.

In many jurisdictions, redevelopment plans assume major importance. Some jurisdictions are surrounded by other incorporated areas or have little undeveloped land, whereas others have stable or declining populations. To the extent that these planning efforts focus on deteriorated housing and poor neighborhoods, well-known public health concerns come to the foreground, such as vector control, exposure to toxins and pollution, mental health problems, and violent crime. Environmental health professionals could play important roles in redevelopment planning with this focus.

Given the varying scope of comprehensive plans and other functional areas of planning, public health professionals must decide where to focus their energy and attention. Ultimately, the decision depends on local circumstances. In some places, economic development, downtown revitalization, skills training for the unemployed, reuse of brownfields, community development in minority areas, or other community structure issues may represent the best way to change the environment in order to promote public health and safety. In other places, especially in central cities and older suburban areas, housing may pose the greatest challenge because of not only its affordability but also its unsafe and unsanitary condition. Elsewhere, involvement in planning for public facilities, especially the selection of school sites, may be the highest priority. In general, however, health professionals should focus on the physical planning process that shapes the built environment and food access, participating selectively along the continuum of plan making to plan implementing. Transportation planning and the implementation of physical plans are discussed in the next two sections.

**Transportation Planning**

The geographic scope of land-use plans is often limited to local jurisdictions and adjoining areas. Public health officials may see the logic of exerting influence on the built environment and community structure at the larger metropolitan scale. In most areas, transportation planning is organized at this scale. The transportation plan may be viewed as a combination policy plan and land-use design plan that highlights future transportation corridors and facilities.

Although the concern for transport and circulation is found in the earliest city plans, modern transportation planning evolved from federal legislation. The Federal-Aid Highway Act of 1956 authorized the construction of the interstate system, which proposed 41,000 miles of limited-access highways throughout the United States. The legislation encouraged local cooperation largely to counteract the authority vested in state transportation agencies, but metropolitan planning was not mandated. However, the Federal-Aid Highway Act of 1962 required urban transportation planning to precede the funding of transportation projects. The 3C planning process—continuing, comprehensive, and cooperative—continues to define the structure and elements of urban transportation planning. State transportation departments primarily oriented to highway construction continued to undermine regional planning efforts by working directly with local governments. Thus, long-range metropolitan plans had minimal impact on resource allocation for transport facilities.

In 1975, Metropolitan Planning Organizations (MPOs), planning bodies representing both locally elected officials in the region and state officials, were tasked by the federal government to approach urban transportation planning more comprehensively in reaction to growing national opposition to highway projects cutting through urban neighborhoods and to environmental legislation that sought to mitigate the impacts of highway construction. Although the Reagan administration eliminated many federal requirements for regional planning, transportation planning survived. MPOs focused on generating transportation improvement programs (TIPs) that addressed the 3- to 5-year time frame and provided a bridge from current construction projects to long-range transportation plans. MPOs had their role expanded, including some responsibility for air quality, when the Intermodal Surface Transportation Efficiency Act was passed in 1991. The MPOs finally had the authority to participate in project selection in conjunction with state transportation agencies.

Although MPOs can be single-purpose transportation bodies representing all local jurisdictions in the region, most are part of a broader regional planning organization, such as a regional council of governments. They engage in meaningful transportation planning that includes both the formulating and the updating of long-range plans and TIPs. The MPOs receive a list of projects from each locality. They use both formal and informal reviews to set priorities among these projects. Generally, higher priority or less expensive projects go into the TIP, whereas lower priority or larger scale projects are added to the long-range plan. Public health professionals can help identify projects for the long-range plan or the TIP, including projects for nonmotorized transportation modes or for safety improvements. They can also work on specific projects by scrutinizing decision criteria and impact analyses to determine whether health and safety issues are being addressed.

One formidable challenge for transportation planners is the interaction between land use and transportation facilities. Any geographic area has inherent natural features
upon which the built environment is overlaid. Residential, commercial, civic, and industrial development consumes land. Surface transportation facilities represent a lineal form of land use (corridors) that knit together the urban landscape. In most places, transportation planners respond to forecasted market-driven development more than to the development patterns found in land-use plans. This tilt reflects the relative power of business and real-estate interests in most urban and suburban areas compared with the authority of public planners and planning commissioners.

Another challenge in the land use–transportation connection relates to the function of nonmotorized utilitarian travel. In areas where public transit is not available, walking and bicycling trips are primarily local, not regional. In fact, the coordination of local land use and transportation planning largely determines the viability of walking or bicycling to destinations (e.g., presence of sidewalks or multiple land uses in close proximity). Yet regional movement is the motivation for transportation planning. Thus, the skew in favor of motorized modes in the absence of effective public transit, especially automobile travel, is understandable.

Transportation planning uses a four-step forecasting process: (1) estimate the number of trips forthcoming from each subarea or zone (trip generation); (2) determine the destinations of these trips by subarea or zone (trip distribution); (3) determine whether the trip will be accomplished by walking, bicycling, driving, carpooling, busing, or taking public transit (mode choice); and (4) estimate the route to be taken for each mode considered (assignment). This forecasting approach is used for other forms of planning and impact assessment, such as air quality planning, hazards mitigation planning, and development impact assessment.

As with all formal modeling applications, the quality of the resulting forecasts is a function of the accuracy of the data and veracity of estimated behavioral relationships. When models are not properly specified or calibrated because of changes in travel behavior, forecasts suffer. For example, with less data available on bicycling or walking, estimates of mode choice may be biased in favor of automobile trips. Furthermore, the dearth of data on bicycling and walking, both utilitarian and recreational, makes it more difficult to argue convincingly for more federal transportation funding for nonautomobile modes of travel. Research and demonstration projects presented by planners, public health officials, and environmental advocates could attack these biases.

Ideally, transportation plans respond to market forecasts of land development that implement land-use plans. In reality, transportation plans often respond to road construction interests and powerful land developers, thereby increasing the likelihood of overinvestment in highways. In some cases, public health professionals advocating development that reduces automobile congestion, air pollution, mental stress, accidents, injuries, and so on may be able to change the transportation outcomes.

Because modern cities function and change at the metropolitan scale, more attention needs to be devoted to regional planning. Transportation planning, though far from ideal, attempts to offer a rational approach to public resource allocation at the regional scale. Increasingly, the process is transparent, participatory, and considerate of related issues such as air quality, economic development, environmental justice, historic preservation, and nonautomobile-orientated forms of development. Public health professionals could request appointment to MPOs or at least ex officio status to become formally involved in transportation planning and large-scale development projects. They could also join local coalitions advocating accessibility more than mobility, transit-oriented development, pedestrian and bicycle rights of way, and other regional initiatives that can promote public health and safety.

**Plan Implementation**

Plan implementation encompasses all the tools used to transform the ideas contained in physical plans into physical reality. These tools are based on the four powers of government: the police power or regulatory authority; eminent domain (the power to purchase private land for public use or purpose); the power to raise funding through taxation or borrowing; and the expenditure power that permits development-related expenditures, subsidies, or capital improvement outlays. These powers reside at the state (and federal) levels. In “home rule” states, local jurisdictions have been granted substantial powers and latitude by the state; in “Dillon rule” states, municipal powers are circumscribed and narrowly defined.

Local government implements physical plans and participates in the process of urban development or redevelopment in three ways. First, as the regulatory authority, local government guides the location and intensity of development with the zoning ordinance and the pace of development with growth management techniques. Second, it is also a provider of urban infrastructure and recipient of taxes and fees. Public infrastructure makes private development possible, and development-generated revenues help pay for that infrastructure. Third, local government participates more directly in the development process as initiator, joint venture partner, lender, or tenant to support specific development projects.

The most important implementation tool is zoning, which regulates private property by specifying use (e.g., residential, commercial), density limits, setbacks, and other requirements. Form-based zoning—the most recent entry—represents a different approach to development regulation. Whereas traditional zoning regulates land in a prescriptive manner, form-based zoning prescribes the desired urban form in terms of building type, that is, height, configuration, and coverage; the relationship of building types to the street; and desirable streetscapes and landscapes. Because allowable activities are related to building type, buildings with more than one use are permitted. Form-based codes are closely associated with new urbanism principles. They can help make multiple destinations more
accessible to pedestrians, create public spaces convenient for social interaction, locate residences close to the street to increase safety, and so on. Compared with traditional zoning, these outcomes can promote more sustainable and healthy development patterns.\(^\text{24,25}\)

Other implementation tools are defined in the aforementioned glossary (see terms with an asterisk at The University of North Carolina at Chapel Hill's Center for Urban and Regional Studies website: www.planning.unc.edu/phglossary.htm). Public health professionals should regard these techniques as vehicles for facilitating the creation of healthier environments.

In the remainder of this section, implementation is viewed from the bottom-up perspective of a proposed development project. In most instances, a private developer with control of land comes to the locality with jurisdiction over that land to request approval of a proposed development or redevelopment project. Most public or nonprofit organizations proposing development are subjected to the same review process, including boards of education seeking approval of development projects for new schools. The developer seeks to have his or her project entitled, that is, receive permission to develop the property in accordance with public plans and policies. In other words, the government grants development rights to the property owner. After the project is granted all approvals and is deemed to be in compliance with zoning and other regulations, the developer may obtain a building permit and begin construction. This perspective is particularly useful because it reveals many avenues public health professionals can take to participate in development reviews.

The development review or entitlement process can be quite complicated and is locally specific (Figure 2). For simplicity, a series of questions are used that touch on the most important aspects of implementation\(^\text{26}\):

1. Is the project consistent with zoning or is rezoning required?
2. When consistent, is the project allowable by right (without further review)?
3. Does the project require the subdivision of land?
4. Is a zoning variance needed?

**Rezoning**

Traditional zoning ordinances divide the local jurisdiction into districts, usually distinguished by appropriate land use, and prescribe the size, height, placement, and separation of structures in each zone. Most localities have a zoning board or board of adjustment in charge of enforcing the zoning ordinance. Unlike physical plans that portray public priorities, policies, and future visions, the zoning ordinance and the related official map have the force of law. If the proposed use conflicts with the approved uses in that district, the developer must file a request for rezoning. Other grounds for rezoning can be based on changed market conditions or the potential to generate substantial public benefits. However, localities cannot legally grant rezoning requests that create tiny zones with uses different from the surrounding zone (spot zoning) or convey changes in return for benefits promised by the land owner (contract zoning).\(^\text{27}\)

Neighborhood and environmental groups may oppose rezoning for proposed development projects or may want to limit development permanently in certain areas. One tactic is to seek downzoning, that is, the reduction in density, height, or coverage or the change from a more intensive to a less intensive use (e.g., from multifamily to single-family residential). Conversely, developers often seek upzoning. For example, land currently in agricultural, rural, or transitional districts may be rezoned for more intense urban development, or areas slated for redevelopment are permitted higher densities or floor-area ratios. Changing the zoning substantially in either direction has a major impact on the value of the property: higher density results in higher land values.

Both upzoning and downzoning can promote the public interest. The former may increase the local tax base, provide more revenues for public services, generate more compact efficient development patterns, and contribute to housing affordability. The latter may diffuse the environmental impacts of development and preserve community assets but may also contribute to sprawl. The more fundamental point, however, is that environmental quality and economic viability need not be mutually exclusive. Conflicts between economic and environmental goals can often be resolved with well-designed projects. Such projects may increase the gross density of the land enough to eliminate more drastic upzoning while protecting sufficient environmental assets to fend off the appetite for downzoning. For example, higher density in one area may allow an adjacent section to be saved as green space for public use.

City planners, planning commissioners, public health boards, and public health professionals should work together to clarify rezoning trade-offs by examining the public health and safety implications (e.g., change in exposure to hazards or toxins, change in accessibility to recreational facilities or healthy foods, change in risk of injuries). They should justify the costs imposed on private development in terms of the public benefits generated. These benefits are more easily recognized when the projects are consistent with the comprehensive plan and are explicitly related to public health and safety.

**Conditional Use**

In a declining number of jurisdictions, developers can present any project that conforms to current zoning and move forward because it is allowable by right. As long as the developer follows the zoning rules and the planning staff or zoning board determines compliance, no public hearings or official public approvals are required. In these instances, the capacity of public water and sewer systems and other public facilities are assumed to be adequate because existing zoning is supposed to have taken public facility capacity constraints into account. However, infrastructure may not be adequate if planned facilities have not been financed and built.
In most localities, however, proper zoning does not permit development. It only affords the legal standing to request entitlements, especially for relatively large residential or commercial projects. The developer must seek a conditional-use or special-use permit that almost always requires preparation of a site plan and estimation of the project’s off-site effects. Site plans and impact studies are presented to allow the public to take a close look at the proposed development.

After informal review and comment by the planning staff, the project is formally reviewed by the planning commission and elected officials at two or more public hearings. Often, the developer is pressed to make microlevel changes, such as more landscaping, preservation of existing trees, modifications to signage, careful dumpster location and screening, or different building orientations. The public is less likely to carefully check the project’s consistency with the land-use design plan or other relevant plans; that is the planner’s responsibility. Public health professionals can help underscore the importance of this task during site-plan reviews and support the planner’s position on consistency. They can also provide advice on potential exposure to industrial hazards, noise, air pollution, and other environmental threats.
With site-plan approval, the developer receives a permit to proceed with the project. The details of condition-
al-use requirements are reviewed by professional staff, who issue a zoning compliance permit when the project passes muster. Before rezoning- or conditional-use permits can be granted, environmental engineers based in municipal utility departments or authorities require owners to certify that capacity exists in municipal water and sewer systems to ensure the adequate supply of potable water and safe processing of sewage. They approve the sizing of on-site water and sewer lines, check connections and water pressure, supervise meter installation, and impose tap fees on the project.

Local public health agencies participate in the site-plan review or zoning compliance process by analyzing the environmental health impacts of the project under review (effects on air, water, and land) in relation to sanitary standards. They are primarily involved in residential development projects, including mobile home parks that propose wells for drinking water or septic fields for sewage treatment. They may also regulate solid waste disposal and on-site package treatment plants or subsurface disposal designed to process sewage in planned unit developments (PUDs). This environmental health connection is the one formal linkage between city planning and public health that remains in force. Such reviews are often narrowly focused and pro forma in spite of their importance (e.g., individual septic systems may contribute to sprawl, whereas community water systems and package sewage treatment plants may promote more compact development). As illustrated by examples in the next section, public health officials can become more fully involved in plan implementation.

Subdivision of Land
Especially in residential projects and business parks, the developer must also request subdivision approval when a parcel of land is to be divided into smaller parcels that are eventually sold to builders or home buyers. Subdivision regulations are required by states to expose the safe and development of land to public review and approval. Single-family residential development projects and other projects involving development on two or more parcels involve submission of a plat showing private lots, streets, and public space (if applicable). In jurisdictions that require site-plan approval, design standards and environmental impacts are considered during this review process. In other jurisdictions, most site issues are deferred to the review of the proposed subdivision plan. The subdivision process often includes the assessment of impact fees and the deeding of land for public use (e.g., a park site). Subdivision ordinances should be consistent with and supportive of long-range land-use plans and small-area plans. Yet in some states, neither zoning ordinances nor subdivision regulations need be consistent with comprehensive plans.

Variances
The developer determines whether to request a zoning variance, which can occur anytime during the review process. A variance is justified when application of the zoning requirements imposes significant hardship on the property owner, thereby resulting in an unintended taking of private property. The classic example is an irregularly shaped lot that cannot be developed after the zoning requirements are imposed. Usually, variances can be granted at the administrative level without serious public scrutiny and have nothing to do with rezoning.

The developer must meet additional requirements to complete the project; the project must pass all inspections that apply local building codes to receive a certificate of occupancy. However, construction regulations are not considered here because they implement local health and safety requirements and building codes and standards rather than physical plans.

Examples of Public Health Participation in Local Planning
Connections between local public health practice and planning practice are not readily apparent at present. Many are embedded in development regulations that have historical roots in the protection of public health and safety, such as building height (more light and fresh air), street widths and lot setbacks or side yards (fire safety), industrial performance standards (occupational health), and adequate facilities for water and sewage (infectious-disease prevention). Planners have been slow to recognize the benefits that could accrue to the planning field by elevating public health and safety to primary goals.

Compared with planners, public health professionals are more aware of the relevance of the built environment, community structure, food access, and related factors as possible health determinants, but they face barriers to participation in planning. The most compelling are lack of funding, absence of trained staff, and minimal authority to enter the politicized arena of planning and development. However, the ongoing collaborative work of the National Association of County and City Health Officials (NACCHO) and the American Planning Association (APA) is gradually building new linkages between the professions in selected areas around the United States, and NACCHO is providing support for local public health agencies to encourage participation in local land use and transportation decisions.

In spite of the barriers, local public health officials have become engaged in the city planning process in some places. Three noteworthy efforts are briefly summarized in this section. The examples span the continuum of plan making to plan implementing. In addition, reasons why some local public health professionals or boards of public health oppose such activities are noted.

Ingham County Health Department
Robert Glandon, PhD, with the Ingham County Health Department, Michigan, has been leading an environmental health assessment that examines the land use–public health connections in the Lansing region. This tri-county
Five years ago, as a result of visionary leadership, the Tri-County Health Department (TCHD) near Denver, Colorado, hired Carol MacLennan expressly to expand the agency’s land-use services. Previously, TCHD’s public health engineer, Warren Brown, had sole responsibility for public health review of the development applications referred to the agency. MacLennan’s job was to expand the range of issues TCHD addressed during development review and to integrate TCHD into the broader land-use planning process. In 2002, she and Brown surveyed the Arapahoe, Douglas, and Adams county commissioners and planners to identify the issues they wanted TCHD to address, how they perceived TCHD’s land-use services, and how these services could be improved. All three counties ranked regulatory issues such as wastewater, water quality, and water management as high priority. Arapahoe and Douglas counties also welcomed the promotion of physical activity and reduction of vehicle emissions through pedestrian- and bicycle-oriented community design. Adams County took a leadership role in working with TCHD on waste and water quality but declined TCHD’s involvement in planning because of a lack of any explicit statutory mandate.

In each of the past 3 years, MacLennan and Brown have reviewed an average of 300 development applications and have worked extensively with planners from all three counties in the process. They have been involved in the one county master plan update to occur during this time.

MacLennan and Brown have become effective players in the planning process, adding public health to the mix of standard factors considered in making land-use decisions. Their preferred approach is face-to-face meetings that begin early in the review process. MacLennan attends weekly development review meetings with planners from Adams and Arapahoe counties and confers with planners from Douglas County by telephone or meets on a case-by-case basis. Brown or other environmental health specialists handle the technical issues that arise. As a result, TCHD works directly with real-estate developers as well as planners. The department has learned that informal involvement with planners and developers early on is superior to one-time appearances at public hearings late in the process. Brown’s engineering background and MacLennan’s environmental planning and interagency relations experience complement each other to increase TCHD’s effectiveness.

MacLennan and Brown distinguish what local public health agencies must address to ensure regulatory compliance from what they should address to promote public health and safety. The “ought to’s” in comparison with the “have to’s” are based on “prevention as a tool of first choice, preservation of the quality of existing resources, assessing decisions from a regional perspective, and making choices that support the sustainability of the community.”

NACCHO and TCHD have cooperatively developed a comprehensive checklist for development project reviews designed to help environmental health professionals protect public health and safety. Both mandatory and suggested areas of intervention are included. This checklist is available on NACCHO’s website.
professionals within local public health agencies are normally responsible for development reviews and are often the ones to become involved in land use and transportation planning.

TCHD and Arapahoe County are reaping the benefits of cooperation in the Sky Ranch project, a large PUD. Arapahoe County planners and TCHD worked together to provide a critical review of the developer’s initial PUD plan. The county relied on design guidelines, the zoning code for PUDs, and TCHD’s oral and written comments to back up recommended revisions in the plan. The developer incorporated many suggestions and changed homebuilders to implement them. As a result, the final PUD plan goes well beyond code requirements and adopts standards that promote public health through active living and smart growth principles.

San Francisco Department of Public Health

Dr Rajiv Bhatia, Director of Occupational and Environmental Health, San Francisco Department of Public Health, has invested substantial effort to improve the health and safety of urban residents, especially low-income populations. He has organized these efforts around four strategies to inject public health objectives into the land-use decision-making process. Collaboration and capacity building is the most general strategy, whereby the health department partners with and supports other public agencies and community-based organizations participating in land use or transportation issues. Another strategy is to integrate human health impacts in the environmental impact assessments required under California state law. The third strategy is to use health impact statements, which analyze the positive and negative health implications of land-use change, by applying existing empirical evidence. The final strategy is to conduct community HIAs as collaborative, consensus-building processes across interests, disciplines, and institutions. All these related strategies attempt to forge a new arena for public health practice that routinely integrates health assessments into the planning and development review process.

Bhatia approaches his work with a multicausal framework that regards health as the product of social forces and dynamics that define demographics, social and economic structures, and social participation. He focuses on health resources available to the community more than individual health outcomes because the former are the fundamental basis for the latter. Health resources are essentially the resources required to meet human needs. Land-use planning, zoning, and project approvals can affect whether and how these needs are met by influencing both the built environment (availability of public infrastructure and services, housing quality and affordability, transit access, nutritious food) and the community structure (community cohesion, safety, secure livelihood, political power).

The health department has worked with community organizations and planning staff to address the critical issue of affordable housing. In one instance, the health department weighed in against a high-rise luxury housing project that would have had negative health impacts on the community. As a result, the city required the developer to fund affordable housing as a condition of project approval. In a more recent case, evidence of the costs of displacement and political pressure led the developer to guarantee lifelong leases and rent control for existing residents until comparable housing became available in the area.

These three examples demonstrate the importance of the local context when formulating appropriate involvement in land use and transportation planning. Glandon focuses on long-range planning and has built political coalitions in a slow-growth, politically fragmented region. MacLennan and Brown are actively engaged with planners in development project reviews in a high-growth region where they enjoy support from their agency and the county commissioners. Bhatia is concerned with low-income neighborhoods and community-based organizations in a mature central city with great disparities in health status and wealth and is trying to forge closer working relationships with local planners. These examples suggest that motivated public health professionals can find varied yet useful roles within a wide range of local geographic, economic, and political conditions.

Strategies for Public Health Participation in Planning

Local public health agencies engage in a wide range of activities to promote public health and safety. As new programs arise, such as combating bioterrorism, long-standing responsibility for the control of infectious disease continues. Because public health professionals operate in a resource-limited demanding environment, strategies to participate in city and regional planning must be time and cost effective and have a reasonable chance to succeed.

As shown in the previous section, public health professionals are overcoming the barriers to participation in planning. Local public health agencies that have strong leadership willing to devote resources to hire or designate staff to city and regional planning are rare. But when such leadership is present, as in TCHD, involvement in planning tends to be effective. Furthermore, public health professionals involved in the planning arena will become more confident as they gain experience, colleagues, and training in the planning field.

The general activities of state and local public health agencies have been categorized as assessment and surveillance, policy development, and assurance (testing and treatment). Public health professionals engaged in surveillance activities can analyze local conditions to provide evidence of public health impacts. In the absence of hard science, statistical correlations or spatial associations between environmental conditions and health outcomes can be compelling. Health disparities portrayed geographically can demonstrate the need to take action. Such analyses can help quantify the trade-offs at both the plan-making and project-review levels.
Public health directors are in the best position to engage in policy development. They can review and provide input on state and local land-use codes and ordinances from the health perspective. Public health educators can promote grassroots participation in local planning through training and information dissemination. Most city and regional planners would welcome assistance from these quarters.

Environmental health professionals focus on assurance activities and have the substantive knowledge to determine compliance with environmental mandates and other regulations. Professionals who are interested can acquire additional knowledge of city and regional planning through in-service training and become active in ways described in previous sections. As noted, public health professionals working in the environmental health arena have the most compelling rationale for involvement in planning.

Localities tend to have stakeholders who welcome economic growth and urban development (progrowth interests) and those who oppose or seek to strictly regulate growth and development (antigrowth interests). Either progrowth-antiregulation forces or antigrowth-proreregulation forces may dominate the planning and development review arenas. Public health professionals can be effective in either of these environments. They can elevate the level of debate by treating planning and development as means to the end of better public health and safety.

Opportunities for closer collaboration between public health and planning professionals are compelling in environmentally sensitive areas experiencing growth pressures, such as coastal, mountainous, arid, and hazard-prone areas. Unplanned development in such areas increases the likelihood of loss of life and property, destruction of habitat, harm to fish and shellfish, and so on and amplifies the destructive power of natural hazards. Public health professionals have the authority to engage when personal safety or food safety are threatened.

Public health professionals can encourage development that promotes healthy living, going beyond existing codes and regulatory requirements. They can champion health and safety even without the authority to formally intervene. For example, in plans or development project reviews, they can push for open space, greenways, bicycle trails, active recreation areas, and access to healthy food. They can also encourage nonautomobile trips by combining residential and nonresidential development to place origins and destinations close to one another and by providing streets, sidewalks, and crosswalks that enable pedestrian mobility. They can foster public safety by calling for the redevelopment of deteriorated neighborhoods or downtowns. Related planning and policy levers for public health professionals include environmental justice, better housing, better municipal services, better job programs, and expanded health insurance coverage.

HIA is a tool that may facilitate involvement of public health officials in planning decisions that affect health. It is commonly defined as “a combination of procedures, methods, and tools by which a policy, program, or project may be judged as to its potential effects on the health of a population, and the distribution of those effects within the population.” HIA can be used to objectively evaluate the potential health impacts of a policy or project before it is implemented and provide recommendations to increase positive or minimize adverse health outcomes. HIAs that have been conducted in Europe and elsewhere can be viewed as a way to improve collaboration between planning and health professionals in the United States.

In general, public health professionals and planners should be natural allies. In reference to the basic values of land-use planning cited above (environment, equity, economy, livability), environmental quality is the most straightforward connection that links the professions anywhere along the continuum of plan making to plan implementing. Development can have negative environmental effects and negative public health outcomes that warrant serious attention. The concern for equity focuses attention on the health disparities that plague metropolitan regions as well as most jurisdictions within them. Planners and public health professionals share an interest in environmental justice because of their joint concern for environment and equity. A viable local economy is important to public health professionals and planners alike because the local economic base generates resources needed to promote health and safety. Furthermore, livability can be founded on safety and security concerns. Both professions understand the importance of a future orientation in considering these basic values.

Participation in city and regional planning and development reviews may be unfamiliar or intimidating and may stretch abilities. Yet public health professionals who engage can take the high ground as the “soft-spoken underdog” advocating for better public health and safety. By moving outside their conventional role of agency or program director, they will be embracing the broader role of lead advisor on local public health and safety. Local political leaders who witness successful participation are more likely to legitimize this broader role and provide resources to support it.

Resources for Public Health Professionals

Health-related topics have been presented at annual conferences of the APA for the past several years. In December 2004, APA aired its first audio conference on “planning and public health.” Papers presented at the March 2005 APA conference are scheduled to be published in a special 2006 issue of the Journal of the American Planning Association. The Robert Wood Johnson Foundation is promoting these efforts through its Active Living Research Program. Public health professionals can access these resources by contacting APA (www.planning.org) or Active Living by Design (www.activelivingbydesign.org).

APA and NACCHO are working together to promote better connections between professional planners and public health officials at the local level with support from the Centers for Disease Control and Prevention. Public health professionals in various parts of the United States
are working directly with city planners on mutual concerns. In addition, NACCHO has compiled information on city planning and implementation that should be useful to public health professionals.29,30,34 The Spring 2003 issue of NACCHO Exchange describes other resources for public health professionals, including Active Community Environments—a guide developed to promote more walkable communities through policy development and participation in land use and transportation planning—and Protocoll for Assessing Community Excellence in Environmental Health—a process methodology for developing a plan to promote environmental health that can be applied to land use and transportation planning.

In the examples of participation in planning described above, Glandon is demonstrating the power of using GISs to show spatial correlations between built environment and health or safety outcomes, MacLennan and Brown are using the development review checklist, and Bhatia is spearheading the use of HIA and analysis. This listing is not intended to be exhaustive but rather to demonstrate that any interested public health professional can find resources to infuse health and safety concerns into plan making, plan implementation, or development project reviews.

Conclusions

Both general and specific ways for public health professionals to participate in plan making and plan implementing are presented. In this arena of emerging collaboration, relations between the public health profession and the planning profession should remain fluid until different strategies can be tested in various practice situations. City and regional planners are generally open to interaction with other professionals, public officials, and lay citizens. As they realize the many ways public health professionals can be valuable allies, they will enthusiastically embrace opportunities to collaborate.

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Emil E. Malizin, MPH, PhD, AICP, is Professor and Chair, Department of City and Regional Planning, University of North Carolina at Chapel Hill.

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By Larry S. Chapman, MPH

The vast majority of us live in or around cities. This edition of *The Art of Health Promotion* provides excellent background on the intentional planning processes that can help create healthful living environments. The author helps us understand the “how” of planning and its contribution to the potential process of creating healthier living spaces.

In addition, it is clear that the details of the legal provisions surrounding community decision-making are complex, yet eminently manageable. Focused advocacy on the health promotion-related issues that affect the ways in which our living spaces either support or detract from one’s ability to live in a healthy fashion needs much greater societal attention.

Issues of physical space, proximity to walking opportunities, access to stairs, parking placement and configurations, sports and recreation availability, layout of retail facilities, design of sporting complexes, smoking ordinances, alcohol use provisions, drug use policies, food preparation and use policies, transportation uses and options, and a variety of public health practices are just a few of the types of public policy decision-making issues that require increased advocacy. These areas are often the practical expressions of substance that must be addressed in creating healthful living environments.

However, the greatest challenge for us as a nation is not in the techniques of planning, but rather in the adoption of the will to use these planning processes to actually create cities, communities, and living spaces that help support the adoption of healthy lifestyle practices. The broad-based societal support for health promotion and the creation of healthful environments that are necessary to help shape our living spaces do not appear to be present in most communities. Technique is admittedly important, but the desire and, even more importantly, the will to change is probably a more critical concern for our field at this time in history. The growing national problem of obesity is likely to add some additional pressure to this emerging public debate. Perhaps the related adverse health consequences and their economic implications will contribute in a meaningful way to the emergence of the collective will to utilize the public planning processes to create healthy living, working, and playing environments.

Any way you look at it, the status quo will not likely be tolerated indefinitely regardless of who controls the planning process. However, I believe it would serve our nation and our people well, if we, as a profession, can help to catalyze the societal discussion around these issues and hopefully help galvanize a new era of planning that results in the intentional creation of much healthier living, working, and playing spaces. After all, this is not just a good idea for our generation, but it may well be vital in order to safeguard future generations.

Larry S. Chapman, MPH, is Chairman and Senior Consultant for Summex Corporation, and the Editor of the Art of Health Promotion.
Definition of Health Promotion

“Health Promotion is the science and art of helping people change their lifestyle to move toward a state of optimal health. Optimal health is defined as a balance of physical, emotional, social, spiritual and intellectual health. Lifestyle change can be facilitated through a combination of efforts to enhance awareness, change behavior and create environments that support good health practices. Of the three, supportive environments will probably have the greatest impact in producing lasting change.”

(O’Donnell, American Journal of Health Promotion, 1989, 3(3):5.)

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