
Land Use, the Built Environment, and Physical Activity

A Public Health Mixture; A Public Health Solution

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A mixture, in chemical terms, is composed of substances, each of which retains its identity and properties. Mixtures do not form any new substances and can be physically separated into their original substances. Examples of mixtures include sand, blood, or air.

This supplement to the *American Journal of Preventive Medicine* contains articles¹⁻¹³ by authors from a variety—a mixture—of professions. A list of their fields includes an architect, civil engineer, economist, epidemiologist, lawyer, physician, leisure studies specialist, transportation specialist, and urban planner. One can reasonably ask, what brings the mixture together? Is this mixture going to be useful? And, if so, what is it going to do? Briefly, the mixture is brought together by interest in land use, the built environment, and physical activity. The mixture is likely to be useful because it exemplifies the main ingredients of good public health. And, the mixture will become a solution.

The mixture is brought together in every article by the relationships between land use, the built environment, and physical activity. This is an area of growing interest. Articles and special issues of professional journals have and will continue to appear.^{14,15} The interest arises because our daily activities are shaped by the decisions we have made about how to use land and the location and types of buildings we place on the land. Our choices about land use and the built environment allow or forbid, encourage or hinder, physical activity of various types. From the time we get up in the morning to the time we retire at night, the built environment—the structures we have made for ourselves to live in and travel on—molds our behaviors. The designs of our homes and work sites affects how far we walk and how many stairs we climb each day. The designs of our neighborhoods determine the availability and safety of outdoor play and whether our children can walk to school. The designs of our communities influence how we get to work or go shopping, and the

availability of parks and commercial establishments that we might like to visit.

The mixture is likely to be useful because it represents the key ingredients for good public health. Public health, by definition, is a group activity. We have public health agencies because we recognize that our health depends on our collective action.^{16,17} The policies and programs that we conduct together set the stage on which our individual activities take place. In addition to its collective essence, public health activities have three key characteristics: prevention, populations, and professional diversity. The emphasis is on preventing disease before it happens, as opposed to treating it after it does. The concern is for the entire population and not just selected individuals or groups. The method is to draw from any discipline to find the knowledge necessary to prevent disease in the entire population. The articles in this special issue well reflect these key characteristics of public health. Regular physical activity prevents a wide spectrum of diseases and conditions, and its study and promotion satisfy the prevention aspects of public health. The changes in land use and the built environment that might enable people to be more physically active have the potential to benefit all in society. To bring this about requires the knowledge and skills of a set of disciplines whose importance to the health of the public has not been adequately recognized. These papers and their mixture of disciplines well represent the professional diversity so important to and characteristic of public health.

Finally, what will the mixture do? Will it become a solution? It is not likely to become a solution in chemical terms, wherein the component parts are no longer visibly distinguishable. The individual disciplines will retain their unique identities. In other terms, however, this mixture contributes to a solution. It is and will be part of the solution to the public health problem of physical inactivity. Not only do these papers advance our scientific understanding of the topic and provide direction for future research, they also importantly suggest actions appropriate for state and local health departments to undertake presently. These actions, not surprisingly, will require health departments to collaborate with the agency-level counterparts of the aca-

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demic disciplines of the authors of these papers. Examples are summarized below.

1. Become involved with zoning decisions. The zoning practices of today developed, in part, in response to the public health needs of yesterday.² The public health needs of today should help shape the zoning codes of today.
2. Become involved with building code decisions. Although much has yet to be learned about how the design of buildings affects physical activity, it is clear that accessible and attractive stairs encourage stair climbing.^{6,18}
3. Become involved with community planning agencies. Access to public open spaces facilitates physical activity.¹¹ In general, accessibility, attractiveness, and safety are the crucial aspects of physical spaces that encourage and facilitate physical activity.¹⁹

These activities may feel uncomfortable at first; they have not been common public health activities recently. Spatial and budgetary separations and differing lexicons are likely to be problems in developing collaborations.⁵ They will become comfortable, however, because this topic—the built environment and physical activity—reflects the essential features of public health: prevention activities for the entire population arising from a mixture of disciplines.

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