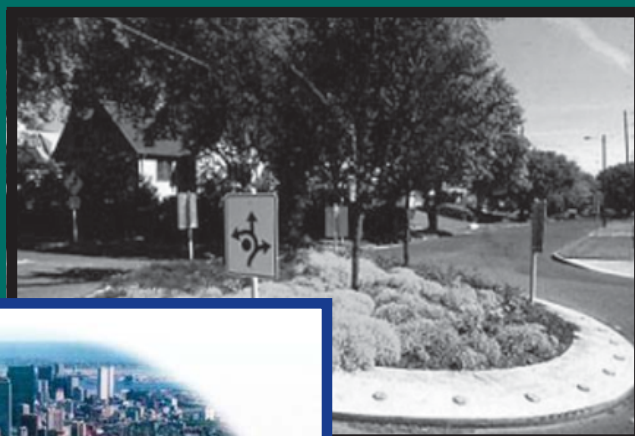


Health and the Built Environment

*Opportunities, Barriers, and Needs for Promoting Collaboration
Between Public Health, Land Use Planning
and Community Design Professionals*



A FOCUS GROUP REPORT

May 28, 2003

Developed by Tina M. Zenzola, MPH
for the National Association of County
and City Health Officials



NATIONAL
ASSOCIATION OF
COUNTY & CITY
HEALTH OFFICIALS

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Appendix A: List of Focus Group Participants



Developed by Tina M. Zenzola, MPH,
Safe and Healthy Communities Consulting,
under contract with the National Association
of County and City Health Officials.
Safe and Healthy Communities Consulting,
4605 Campus Avenue, Suite #2,
San Diego, CA 92116
(619) 295-8803
tzenzola@sbcglobal.net

INTRODUCTION

The built environment has multiple and significant impacts on the health of communities. Modern land use and transportation planning practices are now seen as contributors to several of our major public health challenges including chronic disease, obesity, physical inactivity, environmental health, and injuries^{1,2,3,4,5}. In response, leading public health advocates and agencies are sounding the alarm about these links and about the need to promote safe, active and healthy community design. The World Health Organization, the Centers for Disease Control and Prevention (CDC), and others have articulated the importance of integrating health concerns into land use and transportation planning decisions and of including public health at the local policy-making table^{6,7,8,9,10}. In a recent article, Dr. Richard Jackson and Dr. Chris Kochtitzky of the CDC asserted that, "the challenge facing those with responsibility for assuring the health and quality of life of Americans is clear. We must integrate our concepts of 'public health issues' with 'urban planning issues'. Urban planners, engineers, and architects must begin to see that they have a critical role in public health. Similarly, public health professionals need to appreciate that the built environment influences public health as much as vaccines or water quality¹¹. Indeed, the public health community is being called upon to work in a cross-disciplinary manner with community design professionals to identify and implement approaches from Smart Growth and related movements that have the potential to improve multiple health outcomes.

As part of a cooperative agreement with two CDC Centers - the National Center for Chronic Disease Prevention and Health Promotion and the National Center for Environmental Health - the National Association of County and City Health Officials (NACCHO) seeks to assist local public health agencies (LPHAs) with integrating public health considerations into local land use and transportation planning processes. Through a series of focus groups, NACCHO is helping to define the roles, barriers and needs of LPHAs as they address an array of health impacts affected by community design. To date, six focus groups have been conducted focusing on environmental health, traffic safety, health disparities, collaboration between health and planning professionals and agencies, and chronic disease/physical activity specialists. Copies of other focus group reports are available at www.naccho.org/project84.cfm.

This report summarizes findings from the focus group on Collaboration between Public Health and Planning Professionals and Agencies. The session was held on February 6, 2003 in conjunction with a Colorado conference on "Fostering Collaboration between Planners and Public Environmental Health". A total of 14 individuals participated, representing environmental health departments of local public

health agencies, local planning departments, metropolitan planning agencies, bike and pedestrian facilities consultants, transit agencies, transportation engineers, and other relevant organizations. *Appendix A* provides a complete list of focus group participants.

Four questions formed the basis of the focus group, including:

- Where can public health issues/public health agencies become integrated into the community design process? (This question was explored with respect to policy and processes at the neighborhood, city, town, county, and regional levels).
- What are some of the first steps for achieving this?
- What are the challenges or barriers to this collaboration/integration?
- What is needed from national level organizations to overcome these barriers?

Participants' responses to these four questions and a description of their ideas and opinions about the need for cross-disciplinary collaboration are captured in the following summary. As background to the reader, the term "collaboration" was not specifically defined for focus group participants. Instead, its meaning and the ways in which it might occur between these groups was left to be defined by the participants and by the focus group process.

CONSENSUS: WE NEED TO COLLABORATE

“From a transportation perspective, we would love to have public health’s backing.”

“Frankly, it was difficult to get some of those pedestrian features incorporated into the standards document and if we’d had support on speaking to broader reasons why they should have been included, it would have been a little easier.”

Focus group members representing an array of disciplines agreed that this issue—the multiple and significant impacts of the built environment on health—is too large and complex for either of their fields to address alone. Broad-scale success will only come when the affected disciplines—public health, planning, traffic engineers—and other community stakeholders, work together and merge their respective strengths. Participants representing planning and transportation asserted that they want public health professionals at the table—to echo the call for more livable and walkable communities and to bring the credibility of the public health message. They want the public health community to provide the models and strategies for what works and to offer a counterpoint to opposing voices, including those of other professional groups (e.g., fire districts, traffic engineering, utilities) and members of the community.

However, while there was significant interest in public health professionals becoming partners, some focus group members advised that local public health agencies would need to be proactive within their communities. To gain support for their involvement in planning processes, LPHAs may need to sell the benefits of the public health perspective to their local planning and transportation agencies. In addition, given current budget constraints, some planners and transportation professionals from the focus group noted that the best and most plausible role for public health agencies in planning at this time, is an informal rather than a formal, mandated one.

AREAS FOR COLLABORATION

The focus group provided a variety of specific strategies and ideas on how public health professionals and agencies can collaborate and participate in the local planning process. Clustering around four key areas, their recommendations included:

- Getting public health professionals to the policy-making table.
- Educating communities and building support for Smart Growth and walkable communities approaches.
- Providing the public health data and benchmarks.
- Addressing health disparities by expanding grassroots input into planning and transportation decisions.

Getting Public Health Professionals to the Table

The discussion of public health professionals’ direct participation in the planning process reflected upstream thinking. The focus group felt that public health professionals should be involved not just in implementation, but also in the early and more comprehensive visioning and policy-making phases. Hence, while public health professionals should play a greater role in the review of development projects, they should also look toward participating in the development of local and regional land use and transportation plans, codes, and other processes, practice guidelines, and standards. This helps to ensure that health concerns will be integrated into the overarching vision as well as into the implementation of policies and practices.

Development Review Process

“We have to be involved in the ‘look at the back of the napkin’ sketches’... at the very beginning... and try to have some input into development plans before a developer invests so much into the plan that they’re reluctant to make changes.”

-LPHA Member of County
Development Review Team

- Focus group members recommended that LPHAs be included in the regular, initial reviews of proposed development projects. LPHAs should be integrated into the “pre-submittal” stage that takes place before any public hearing or decision-making (i.e., even before formal application by the developer). This addresses one of the key barriers cited in several previous focus groups: that the traditional role of

public health professionals (particularly environmental health) has been to come in very late in the development process to sign-off on air and water quality requirements. This late-stage involvement leaves LPHAs with very little ability to affect the nature or impact of the project. Alternatively, being involved early on in the process helps ensure that health-oriented recommendations will be incorporated.

EXAMPLES FROM THE FIELD

Environmental health representatives from several Colorado counties (Larimer, Boulder and Tri-County district) participate as members of their county development review team. Along with staff from the county planning and transportation departments, environmental health staff are able to provide input to the front-end stage of the development review process. These collaborations are informal and have evolved over time as a result of the working relationships between the local planning and health agencies. The environmental health staff view their involvement in this process as the single most important activity in terms of learning about the planning process and effectively integrating health concerns into development.

- Establishing a system for LPHA input into development review may be more feasible when it occurs within county agencies as opposed to among a city and a county agency. In the Colorado example, collaboration has primarily occurred among the county environmental health departments and the county planning or public works departments. It has occurred less often between counties and city agencies. While some of the local cities occasionally request input from their LPHAs on development applications, the requests are less frequent and systematic than those from the county. Focus group participants surmised that this could be due to a difference in need, or perceived need, on the part of the cities. The larger cities may feel they already have the staff and capacity to do their own environmental health review. Another reason may be the view of many local governments that the role of LPHAs in land use planning is limited to wastewater issues. Finally, county health departments may not do as much collaboration with cities because their funding is primarily at the county level.

- As they expand into development review, focus group participants recommended that health professionals also broaden the range of issues on which they comment. Typically, LPHAs limit their comments to the usual issues of environmental health (water and wastewater permitting). However, focus group members representing environmental health voiced a strong interest in broadening the scope of their input to include community design that promotes pedestrian safety and physically active lifestyles. They noted this as an area of need in terms of training and technical assistance.
- Finally, LPHAs may need to consider charging a fee-for-service for participating in the development review process. This would address the challenge of fewer public health funds to do an ever more demanding job.

Community Plans and Master Plans

“The time to do that is when the vision is being developed, either at the Master Plan or Community Plan stage....when people are trying to pull together all those issues and say, what do we want our community to look like? How do we want it to function?”

- Public health professionals need to help shape community plans (or sub-area plans) and city/county master plans¹. These plans provide the overarching framework and vision for how a community/city/county will develop and how it will look. In some parts of the country, community plans make-up the land use element of the master plan.
- Public health professionals need to be involved in the visioning stages of these plans, where they can help shape them into a livable communities vision and ensure the integration of public health concerns. Integrating these concepts into the earliest stages of the process provides greater assurance that health impacts will be addressed during plan formation and development review.

“ One of the things we can do is make comprehensive plans more comprehensive by actually putting in a chapter on health. What are the health goals for the community? Where would we like to be in ten years in terms of health?”

-Traffic Engineer

- Focus group members proposed that local jurisdictions develop explicit community health goals and add a chapter on health to their master plans. While these plans commonly include a chapter and objectives around environmental quality, this does not typically address the broader array of health impacts. Similarly, the usual chapters on circulation or bikes and pedestrians do not sufficiently address health.

Regional Land Use and Transportation Plans

"I think we're starting at the wrong end by talking about getting in at the level of development review and master Plans. If public health wants to get into the process, the best way to do it is to get involved at the regional planning level, with regional transportation planning."

-Traffic Engineer

- Public health professionals should be included as official members of Regional Transportation Plan advisory committees². While these committees often have representatives from air quality and environmental health, they do not typically include stakeholders from other areas of health such as physical activity, walkability, and injuries. A broader public health perspective needs to be represented. From this, questions of how to best integrate health into the regional vision and planning documents can be explored (e.g., Does health become an explicit core value? Does health get a separate section in the transportation chapter? Or, does health become its own separate chapter complete with community health goals and minimum standards?).
- Focusing on the regional level has the advantage of requiring fewer public health resources in order to make an effective impact. Fewer staff would be needed to participate in one regional planning process compared to participating in numerous city and community planning processes.

Code Development and Implementing Documents

"No matter how much the local official may want to shape projects into more livable communities projects, if they don't have a basis and authority in code, they can't do it. It only leaves them the option of negotiation with the developer, but the developer doesn't have to do it."

- Focus group members emphasized the need for public health to go beyond shaping the vision, to playing a role in code development and other implementing documents. Zoning, subdivision and building codes are the key "tools" in planning by which vision is operationalized into actual working policies and rules. While the vision and overarching policies captured in the plans are important, codes are the implementing policies that legislative bodies have to abide by when making decisions about development.

Land Use Planning and Transportation Guidelines and Standards

- Public health professionals should also participate in the development of key guidelines and standards that influence the direction of local planners, public works departments, and traffic engineers in considering public health impacts during planning activities. These include, for example, city/county street design manuals that guide traffic engineers in developing solutions for local traffic or pedestrian safety problems. They also include pedestrian design guidelines that regional planning agencies can use to influence the land use patterns of local communities. Public health organizations can advocate for the development and institutionalization of these documents and provide input to their content.
- Focus group members noted how other interest groups such as fire districts and utilities are very involved and have a significant influence over the physical infrastructure of communities (sometimes to the detriment of the walking and bicycling environment). They argued that public health professionals should be involved, in part to provide the rationale for negotiating with these groups (e.g., on street width and sidewalk widening).

Educate the Community and Build Support

- LPHAs and professionals need to play a role in educating the community around issues of health and walkable communities. Focus group members felt that as practitioners, we must build market demand and broaden community support in order for Smart Growth type approaches to succeed. Those working the frontlines of these issues (e.g., city planners trying to get pedestrian-oriented design into a master plan) need the help of public health professionals in mobilizing the community and building political will.

- LPHAs can provide training on health and the built environment to Neighborhood Associations, Community Planning Groups and other citizen groups, helping them to identify and incorporate health concerns into their vision. In many communities, these groups have significant influence over the decisions of local elected officials.
- Focus group members also felt that realtors influence market demand and that public health could play a role in educating this group. For example, LPHAs could help educate realtors about hidden costs and impacts of living in an auto-dominated community relative to the advantages of buying in a walkable neighborhood.

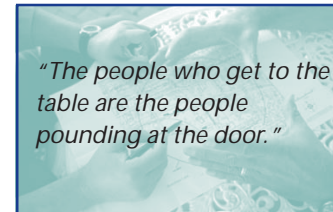
Provide the Public Health Data & Benchmarks

“Even if city councils want to do good quality of life improvement, it comes down to the traffic engineer saying, No, we’ve got to get so many ADTs³ through this intersection.”

“Our transportation benchmark is completely based on intersection level of service, how many cars can get through an intersection at a given point in time.”

- To effectively influence the process, public health professionals need to bring solid health data and benchmarks to the discussion. The statistics and analyses used by traffic engineers and transportation planners are much more established and relied on during the planning process. The dialogue is therefore inherently biased toward what improves automobile traffic flow rather than what improves health or other modes of traffic (e.g., pedestrian access). Similarly, other groups bring their minimum standards as advocacy tools in planning (e.g., fire departments demand roadways of a particular width in order to maintain a minimum emergency response time). The public health community needs to develop the health statistics, minimum standards, and benchmarks so as to counterbalance and expand the input from traffic engineering data and other groups. Otherwise, arguments about livability and quality of life will continue to be seen as “soft” issues, ultimately losing in the battle against ADT and traffic flow.

Address Health Disparities



- Focus group members felt that it is the public health community’s duty to address health disparities in the community design process. LPHAs need to point out that transportation and environmental justice are public health issues that should be considered in land use and transportation planning.
- Furthermore, it is the role of public health to bring additional voices to the decision-making table, specifically the voices of those who are not adequately represented yet who experience the greatest negative burden of land use and transportation planning. This includes low-income families, the elderly, communities of color and people with disabilities.

CHALLENGES TO COLLABORATION

Focus group members identified several challenges to collaboration; some that addressed the general challenge of gaining support for Smart Growth and some that addressed the specific issues of public health and community design. Focus group members also provided ideas for local solutions and strategies (the next section covers national solutions and needs).

Non-Overlapping Governmental Authority/Regulatory Function

- The limited authority of some counties makes the planning process more complex. Many counties have authority over most functions and services related to land use and transportation. In others, special districts have authority over key activities (e.g., water, sanitation, transit, etc.). A challenge to the general process of planning is that of gaining the cooperation of multiple governmental entities in the development and implementation of land use or transportation plans. Against this backdrop, LPHAs may face similar challenges as they enter into what is already a complex jurisdictional process.

- In addition, some LPHAs are governed by Boards of Health rather than directly by city and/or county government. This lack of a common governing body may be problematic as LPHAs try to collaborate and coordinate with county planning and transportation agencies.

“As with so much of this work, it’s about relationships. Public health agencies may need to work to keep the jurisdictional issues at bay.”

- Issues of jurisdictional boundaries also pose a barrier when county level LPHAs try to work across boundaries/borders. For example, cities may resist or feel there is no relevance to including county environmental or public health staff, particularly with regard to development review and the creation of master and other long-range plans.

Outdated Statutory Role

- As dictated by statute, the historical “official” role of LPHAs is limited to commenting on the impact of development projects on air and water quality. Given our new understanding of health and the built environment, this role is outdated. It leaves health agencies in a position of commenting on too little, too late, and ultimately to being ineffective at preventing or mitigating poor health outcomes.
- Despite the limits of this outdated role, some environmental health professionals within LPHAs have built strong relationships with their sister planning agencies and provide input on a much broader range of decisions and environmental health issues.
- Focus group members felt that the public health community needs to develop a vision and willingness to address issues of the multiple health impacts of community design. More specifically, environmental health professionals need to move from thinking with a regulatory mindset about air and water quality, towards “bigger picture” thinking and a strategic approach.

“Regulations are the solutions to yesterday’s problems, not tomorrow’s problems”

Lack of Resources and Capacity

- Public health agencies don’t currently have the funding or staff to participate in the resource-intensive process of planning, particularly at all the various levels (i.e., community, city/town, county and regional). This is in part related to the lack of funding for public health.
- Potential strategies for getting past the funding and resource barriers include:
 - Identifying community assets. Look to others in the community who might be able to do some of the tasks that we typically assume is the role of LPHA agency staff.
 - Using groups that are already skilled and at the table (e.g., environmental groups) to help carry the public health message.

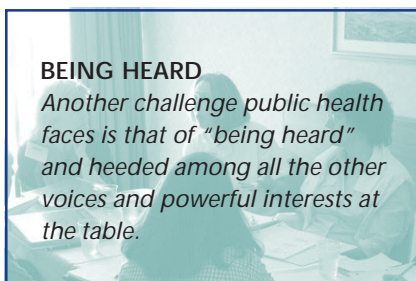
Marketing Smart Growth to Communities

- Lack of understanding and community resistance to Smart Growth development was also identified as an obstacle. Without community backing (and with the absence of supporting policies), city planners and others are often left powerless in demanding that development projects incorporate Smart Growth and pedestrian-oriented designs. Ideas for overcoming this barrier include:
 - Provide developers with incentives for Smart Growth housing and developments.
 - Build Smart Growth and pedestrian-oriented design concepts into Community Plans. This lays the groundwork so that when developers come in and propose development projects, it is already clear and stated in the Plan what the community wants in terms of the look and relationship of buildings, streets, and neighborhoods.
 - Use social marketing strategies to educate the public (e.g., link “green living” with “what it means to be a good mom”).

“Health” Too Narrowly Defined

“To be fair, I think the regional planning agencies think they are including health issues in their processes...health has been defined as ‘air’... transportation creates air impacts.”

- Until recently, land use and transportation planning has considered “health” but from the narrower scope of air and water quality. This broader notion of “health”, one that includes obesity, physical activity, diabetes and some respiratory diseases (e.g., asthma), has not been part of the planning dialogue or process. Many in transportation and land use planning already felt they were covering health but are now being introduced to this much broader definition. To move forward, they will need a greater understanding of the concepts and tools for implementation.
- Many Boards of Health and public health professionals also don’t yet fully understand the broader link between health and the built environment. Just as it is a new concept for planners and transportation officials, many in the public health community are not aware of all the implications or the potential solutions. Hence, they are less likely to see a role for the LPHAs or themselves. Participants provided an idea for addressing one aspect of this barrier:
 - Some Councils of Governments (COGs) or Metropolitan Planning Organizations (MPOs) provide training to community planning groups on the planning process. COGs and MPOs could do a similar training with Boards of Health to help them understand the planning process and the role of health. (LPHAs can also play a role in educating boards of health and COGs about the importance of this issue.)



- The public health message needs to be clear, consistent and measurable. Public health doesn’t yet have a unified voice in terms of the issues they want to bring to the planning process (i.e., air, water, obesity, physical activity, injuries). Without such a defined message, planners and elected officials will have a difficult time rallying support and standing up to the established message and goals of the development community and others.

- Public health practitioners must also determine how to balance the positive and negative health impacts of built environment approaches. For example, some strategies that improve walkability may have the potential to negatively impact air quality.

Lack of Data and Performance Criteria

- There is a lack of convincing data for policy makers to reduce the health impacts of community design. Data is needed that illustrates the problem and supports the recommended changes.
- While national data can be used to make the case at the community level, locals will be even more effective if they can demonstrate the problem with local data and examples.

Public Health Not Seen As A Valid Player

- Focus group members warned that there could be a backlash against LPHA involvement in land use and transportation planning (i.e., if it goes beyond traditional water and air quality issues). Some may question why public health is “sticking its nose in this arena.” The public health message could be further questioned and marginalized if public health professionals form alliances with controversial special interest groups.
- To minimize this backlash, LPHAs must first lay the groundwork by educating local elected officials and community design professionals about health and the built environment and the role of primary prevention. They must make it clear that land use and transportation planning are legitimate areas of concern for the public health sector, and visa versa.

MOVING FORWARD: NEEDS AND SOLUTIONS FOR OVERCOMING BARRIERS

Focus group members felt there was an important and greatly needed role for NACCHO and other national organizations to play in promoting collaboration between public health and land use planning/community design. First, they need to build local capacity and provide models, data, tools, and training to public health and other professional groups. Second, NACCHO and other key public health organizations need to play a larger leadership role at the national level including increased participation in the dialogue on issues of health, the built environment and transportation reform.

Echoing prior focus groups, suggestions regarding specific needs and strategies fell into the following general categories: data and public health benchmarks; training, resources, and technical assistance; and policy solutions.

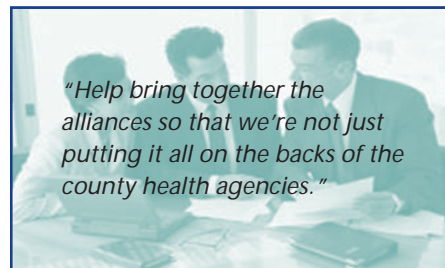
Data and Public Health Benchmarks

- Develop and disseminate clear, consistent and measurable benchmarks for safe and healthy community design (i.e., standards for the land use/transportation level of service necessary to ensure a minimum level of community health).
- For data to be effective in the community design process, it has to clearly show what improvements in health will occur with any given change in the built environment. It also has to make a link to the economic bottom-line by showing the cost-benefits of policy and built environment interventions.

Training, Resources and Technical Assistance

- Train public health professionals on the link between health, the built environment and Smart Growth/Walkable Communities. Train them, as well, in the basics of land use and transportation planning and how they can intervene to improve health outcomes. Given that most LPHAs have little funding for training, provide support for agencies to attend Smart Growth and similar conferences.
 - Conduct joint training and programs in collaboration with national planning

and transportation organizations (e.g., Urban Land Institute, Home Builders Association, Institute for Traffic Engineers and American Planning Association).



"Help bring together the alliances so that we're not just putting it all on the backs of the county health agencies."

- Conduct special trainings with environmental health professionals from LPHAs to expand their knowledge base and role. While some have already been "at the table," they can broaden their input to include more health issues in a greater number of community design processes.
- Also, train LPHAs in advocacy and grassroots community mobilizing to increase their comfort and skills as policy stewards.
- Provide data, fact sheets, talking points, policy briefs and other resources for locals to make the case in their communities. The triangle of health issues – environmental health, chronic disease, and injury – need to be connected and shaped into a coherent public health message.
- Disseminate to LPHAs copies of Dr. Richard Jackson's⁴ comprehensive presentation on health and the built environment. Adapt it such that locals can add data and information specific to their community.
- Facilitate collaboration with natural allies from the health arena (e.g., the American Lung and Heart Associations and the National Environmental Health Association) and from non-health arenas that have a stake in these issues (e.g., PTA).
- Educate the future workforce. Organize cross-training in the schools of public health and schools of transportation and urban planning. Also, integrate these multidisciplinary concepts into the core curricula of academic programs.

Policy Solutions

- Explore policy strategies that promote healthy behaviors through the use of incentives and disincentives. Such approaches would be similar to

those that succeeded in reducing smoking (e.g., higher insurance rates for those who practice specific unhealthy eating or sedentary lifestyle behaviors).

- At the national and community level, focus the discussion on issues of children's health and safety. Focus efforts for walkable communities on children as it is often more compelling concern. However, the strategy needs to address the issues and barriers that can develop due to parental fear over their children's safety while walking and being outside in their neighborhoods.
- Participate in national efforts to increase the level of funding and priority for non-motorized travel (e.g., reauthorization of TEA-21). Also, continue to merge and bring the public health voice to the national movement for Smart Growth and sustainable communities.

CONCLUSION

The multidisciplinary focus group unanimously called on local public health agencies and public health professionals to engage in land use and transportation planning, and to do this in collaboration with their community design colleagues. They provided a progressive and comprehensive agenda for building collaborative links including providing public health benchmarks, policy change and community mobilization and advocacy. Additionally, unique to this focus group, participants provided ideas and steps on how public health agencies can become more involved in the actual planning process. They pointed to the need for public health professionals to move from working just on the implementation phase of community design to participating, as well, in the upstream visioning and policy phase. The key to the success of this move is training and technical support for local public health agencies and other public health professionals on issues of health, the built environment, and land use planning and community design processes.

The results of this focus group greatly enhanced and enriched our understanding of the role of public health in community design. However, there are several questions left to explore, including how to integrate public health concerns and issues at the regional level. We currently have many strategies and examples for doing so at the level of city and town planning (e.g., developing street design standards, developing a pedestrian master plan or changing zoning to support mixed-use development). What are the parallel strategies and tools for integrating health improvements and walkability at the level of Metropolitan Planning Organizations? Another

question to be explored is determining the best and most efficient manner to deliver, on a national basis, the training and technical assistance needed by the public health community. Finally, what is the role of state public health agencies in building the capacity of LPHAs in community design?

ENDNOTES

- ¹ Department of Health and Human Services (US). Physical activity and health: a report of the Surgeon General. Washington: (1996).
- ² Centers for Disease Control and Prevention. Active Community Environments. June 2000. Accessed online at: www.cdc.gov/nccdphp/dnpa/aces.htm.
- ³ Dora C. A different route to health: implications of transport policies. *BMJ* June 1999;318:1686-1689.
- ⁴ Jackson RJ, Kochtitzky C. Creating a healthy environment: the impact of the built environment on public health. *Sprawl Watch Clearinghouse Monograph Series*.
- ⁵ Frumpkin H. Urban sprawl and public health. *Public Health Reports*; May-June 2002;117:201-217.
- ⁶ Centers for Disease Control and Prevention. Urban Sprawl: What's Health Got to do with it? *Public Health Grand Rounds*. Accessed online at: www.publichealthgrandrounds.unc.org.
- ⁷ Healthy people, healthy places: promoting public health and physical activity through community design. Report of Expert's Meeting. Robert Wood Johnson Foundation. Accessed online at: www.rwjf.org/app/rw_publications_and_links/rw_pub_other.jsp.
- ⁸ Sclar E, Northridge ME. Property, politics, and public health. *American Journal of Public Health* July 2001;91(7)1013-1014.
- ⁹ National Association of County and City Health Officials. Resolution to support community-based land-use planning. November 1999. Res. 99-10.
- ¹⁰ World Health Organization. August 1999. Draft Charter on Transport, Environment, and Health. Accessed online at: www.who.dk/London99/transport02e.htm.
- ¹¹ Jackson RJ, Kochtitzky C. Creating a healthy environment: the impact of the built environment on public health. *Sprawl Watch Clearinghouse Monograph Series*.

Appendix A: List of Focus Group Participants

City and County of Broomfield Colorado, Public Health Division
(Broomfield, CO)

City of Denver Health Department (Denver, CO)

City of Lakewood (Lakewood, CO)

Denver Council of Governments (Denver, CO)

Jefferson County Planning/Zoning (Golden, CO)

Larimar County Health Department (Larimar, CO)

Livable Communities Support Center, Center for Regional and
Neighborhood Action (Denver, CO)

Long Range Planning Commission, Charlier Associates
(Longmont, CO)

Regional Transportatioin District (Denver, CO)

Tri-County Health Department
(Northglenn, Aurora, Commerce City, and Castle Rock, CO)

Water Quality Control, Boulder County Health Co. (Boulder, CO)



NACCHO
1100 17th Street, NW
Second Floor
Washington, DC 20036
(202) 783-5550
(202) 783-1583 Fax
www.naccho.org