The Path to Active Living Physical Activity Through Community Design in Somerville, Massachusetts

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Background:	Somerville, Massachusetts, an ethnically diverse, urban community northwest of Boston,
	presents opportunities and challenges for active living. With a dense street grid, well-
	maintained sidewalks, neighborhood parks, and existing Community Path, Somerville is
	very walkable. However, two major surface arteries traverse and bisect neighborhoods,
	creating pedestrian safety and environmental justice issues.

- **Intervention:** Major goals included promoting increased collaboration and communication among existing active-living efforts; managing the Community Path extension project; encouraging Portuguese-speaking adults to incorporate daily physical activity; leveraging existing urban planning work to establish secure, attractive walking/biking corridors; and embedding active-living messages in everyday life.
- **Results:** The Somerville Active Living by Design Partnership (ALbD) successfully created a robust task force that was integrated with citywide active-living efforts, secured resources to increase infrastructure and support for active living, including city-level coordinator positions, and changed decision-making practices that led to incorporation of pedestrian and bicycle transportation priorities into city planning and that influenced the extension of the Community Path.
- Lessons Partnerships must employ sustainability planning early on, utilize skilled facilitative leaders to manage leadership transitions, and engage new partners. Identifying, cultivating, and celebrating champions, especially those with political power, are critical. Working closely with research partners leads to rich data sources for planning and evaluation. Changing the built environment is difficult; working toward smaller wins is realistic and achievable.
- **Conclusions:** The synergy of ALbD and other community interventions created a foundation for short-term successes and accelerated political–cultural changes already underway with respect to active living.

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Introduction

Somerville, Massachusetts, situated northwest of Boston, is a diverse city of immigrant, student, blue-collar, and professional residents. A city of contrasts, Somerville is home to both Tufts University and the manufacturer of Marshmallow Fluff, and both urban farmers' markets and limited greenspace. Somerville, the most densely populated city in New England (i.e., 4.1 square miles with a population density of 18,453 per square mile), possesses opportunities and challenges for active living. With a dense street grid and well-maintained sidewalks and neighborhood parks, most residents are within a short walk of open space and commerce. However, two major surface arteries traverse Somerville and bisect neighborhoods, creating pedestrian safety and environmental justice issues.

Somerville is not a wealthy community, spending \$1764 per capita annually from its general fund, while neighbors Boston and Cambridge spend \$3467 and \$3583, respectively.¹ Somerville has become a community of new immigrants, with the portion of the population who are foreign-born increasing from 22% in 1990 to 29% in 2000, representing the third-highest percentage increase in Massachusetts.² The city's reported nonwhite population rose from 16% in 1990 to 27% in 2000.² In 2001, a total of 49% of men and 39% of women were obese or overweight.³ Forty-seven percent of fourth graders were obese or overweight.⁴

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Somerville has a strong history of collaborative efforts, doing more with less and building readiness to address pressing community needs. When the opportunity to apply for Active Living by Design (ALbD) funding arose in 2003, public health and active transportation advocates were already working, albeit separately, on related goals. Health advocates from the local healthcare provider network, the Cambridge Health Alliance (Alliance), and the Somerville Public Health Department (Health Department) provided leadership for a public health nutrition task force (Nutrition Task Force) to address childhood obesity, nutrition education programs, and physical activity. Likewise, the Friends of the Community Path (Friends of the Path) and the City of Somerville Office of Strategic Planning and Community Development (Community Development) were building readiness to extend the existing community walk/bike path eastward toward commuter destinations in Boston (Figure 1). Support that spanned several mayoral administrations resulted in the construction of the Linear Path (1990); completion of an alternatives analysis study (2000); and allocation of Community Development Block Grant funding for the path development. In addition, the

Shape Up Somerville: A Community-Based Environmental Change Obesity Prevention Intervention (Tufts Shape Up) research grant was increasing physical activity options and the availability of healthful foods within, before, during, and after school, home, and community settings for public elementary school children in Grades 1 through 3.^{5–8}

In response to the ALbD call for proposals, a group of five existing organizations came together and agreed to communicate and coordinate actions in support of ALbD program goals (Figure 2). Groundwork Somerville (Groundwork), an affiliate of the National Park Service, provided leadership with support from the Health Department. Other partners included representatives from the Alliance, the Massachusetts Alliance of Portuguese Speakers (MAPS), Community Development, and Friends of the Path. The major goals of the project included:

- promoting increased coordination and communication among existing active living efforts;
- extending the Community Path eastward from relatively affluent West Somerville to less-affluent East

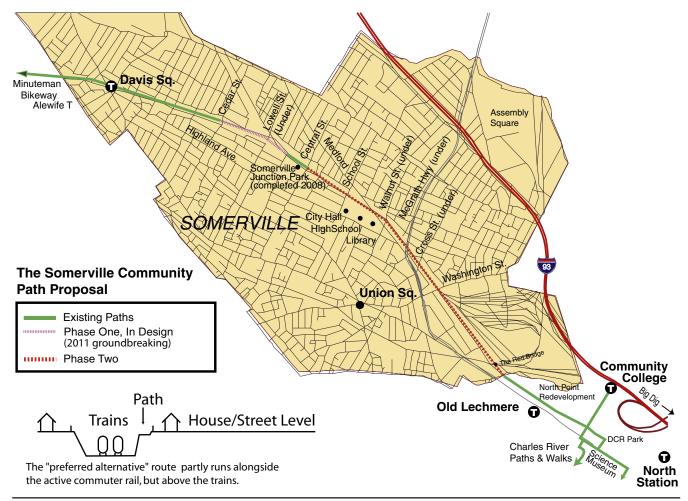


Figure 1. Community Path detail

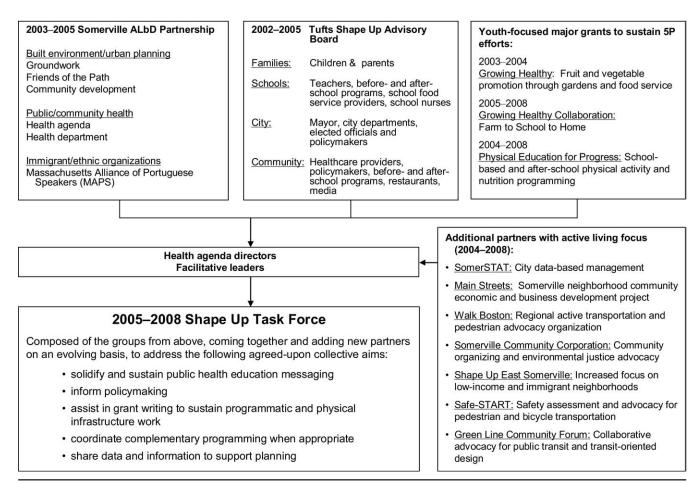


Figure 2. Integration of Somerville ALbD partnership, Tufts Shape Up, and other Active Living efforts resulted in robust Shape Up Taskforce: 2000–2008

Somerville and creating the city's first bike/pedestrian coordinator position to manage the extension project;

- encouraging and monitoring overweight Portuguesespeaking adults' progress in culturally and linguistically tailored physical activities such as yoga and walking;
- leveraging urban planning work to establish secure, attractive walking corridors;
- embedding active living messages in everyday life.

Methods

Setting and Population

Somerville is a city of 77,478 just north of Boston. Its small size, population density, dense street grid with well-maintained sidewalks, active coalitions (over 40 groups), and promising amenities (growing path network) made Somerville an ideal city for targeting the general population and encouraging changes that could result in more community residents incorporating active living into daily routines. Somerville residents are 77% white, 6.5% black, 6.4% Asian, 9% Hispanic or Latino, and 5% other.² In the past ten to 20 years, Somerville has witnessed a rise in the number of young, urban professional citizens seeking a vibrant, affordable, walkable city in which to live. However, 28% of Somerville residents

speak a language other than English at home. Of the students enrolled in the Somerville Public School District during 2008–2009, 50.5% reported their first language was not English, while an additional 17% have limited English proficiency.⁹ Sixty-five percent of Somerville youth are low income; 48.5% are obese or overweight; and only 47.3% successfully passed a fitness test.⁹

The implementation of the Somerville ALbD grant from 2003 to 2008 coincided with new political leadership and several child-focused, grant-funded health promotion projects. Mayor Joe Curtatone, a strong advocate for youth development and promoting Somerville as a city for families, was elected in November 2003. A number of youth-focused grants were underway, including Tufts Shape Up with a focus on first through third grade children; an Institute for Community Health (Institute)–led Growing Healthy school food service, and garden-based fruit and vegetable promotion; and a Somerville School Department–led Physical Education Program grant (Figure 2). The confluence of the political environment and grants created an ideal climate for active living and healthy eating.

Active Living by Design Community Action Model

To organize the active-living promotion grant activities, the partnership tailored the ALbD community action model, which included key tactics organized around the 5P framework: preparation, promotions, programs, policy, and physical projects (www.activelivingbydesign.org/our-approach/ community-action-model).¹⁰

Preparation. The ALbD Partnership underwent several changes in leadership during the course of the grant—from the environmentally focused Groundwork Somerville, to the community health–focused Alliance, and, finally, to the local health department. The partners engaged in ALbD grant activities also changed over time due to funding, personnel, and organizational changes.

With the leadership of Groundwork, the ALbD partnership met monthly from 2003 to 2005 to develop a vision statement, generate content for a blog, manage implementation efforts, and organize collaborative grant writing efforts. Funds provided by the ALbD grant were front loaded in the first 2 years to pay for three part-time coordinators. The Groundwork Coordinator promoted increased coordination and communication among existing active-living efforts, a function later transitioned to the Alliance-funded Somerville Health Agenda director. The bike/pedestrian coordinator was hired to manage the Community Path extension process, and the MAPS coordinator (Years 1-3 only) focused on encouraging Portuguese-speaking adults to incorporate daily physical activity. In the final years of the ALbD grant, Tufts gift funding to the Health Department added a Shape Up coordinator, who further strengthened Shape Up Task Force leadership. The bike/pedestrian coordinator was transitioned to the City of Somerville (Community Development).

Each of the existing major Somerville grants had advisory boards. In 2005, as Tufts Shape Up grant funding ended, its project manager was hired by the Alliance as Health Agenda director and assumed leadership of the ALbD grant. Under the Somerville Health Agenda director leadership, the ALbD partnership and the Tufts Shape Up Advisory Board convened existing grant stakeholders; physical activity and healthy eating advocates; and urban planners to form one united task force to maximize the collaborative impact and resources for promoting healthy eating and active living. Eventually, the Health Agenda director led the task force to adopt the already familiar name Shape Up Somerville, and a new unified Shape Up Somerville Task Force (Shape Up Task Force), emerged to guide most active living and healthy eating work in the city (Figure 2). Monthly task force meetings included prioritizing new grant opportunities, strategizing promotion activities, and providing reports and updates (e.g., food service changes; school gardens and programming; and height, weight, and fitness assessments in schools). A smaller subcommittee continued to focus exclusively on implementing and monitoring ALbD grant activities.

The Shape Up Task Force expanded to include emergent transportation organizations and the community-based research and evaluation organization, the Institute for Community Health (Institute). Other new partners included a community group organized around the extension of the Boston-area Green Line subway system to Somerville and the mayor-initiated Safe-START (Safe, Sustainable Transportation Assessment and Recommendations Team), whose mission was to increase safety for all travelers, including pedestrians, bicyclists, and motorists, and to create conditions on Somerville streets, intersections, and sidewalks that increase the number of people who walk, bike, and use other sustainable transportation.

Implementation. Specific intervention activities implemented by the Somerville ALbD Partnership and Shape Up Task Force during the ALbD funding period are described in Table 1.

Promotions. The Shape Up Task Force engaged in many promotional activities to increase awareness of and build support for active living across the city. Collaboration with WalkBoston created Somerville Walking and Somerville Parks maps in four languages to encourage walking and park use. A local cable show aired a Walk to School video. The task force invested time and resources in rebranding promotional materials and creating new slogans, logos, and messages for key audiences. Task force members organized other promotional events, such as Walk/Bike Days, Go Green/Wear Green discounts with local businesses, and annual race events.

Results from an evaluation of Tufts Shape Up grant activities⁶ brought the Somerville experience to a national audience via media outlets such as *The Wall Street Journal*, The Associated Press, *Nightline News*, and CNN. The Shape Up Task Force was also presented to national audiences through presentations at a National League of Cities annual meeting and at a CDC-sponsored obesity conference.

Programs. Active Living by Design and the Shape Up Task Force used grant funding and sought additional funding for a variety of active living programs. Three examples include (1) providing funding for staff support to MAPS in order to engage Portuguese-speaking adults in physical activity and education through the Healthy Mind, Healthy Body program, which encouraged physical activity and mental health wellness in preventing and managing chronic disease and cancer using culturally and linguistically sensitive activities (e.g., walking groups and yoga classes); (2) supporting and advocating institutionalization of strategies from the child-oriented community interventions that influenced the environments of elementary school children (e.g., Walk to School activities, schoolyard gardening, and the installation of bicycle racks at schools); and (3) providing staff support, along with the Alliance, on a Fitness Buddies program for city employees that encouraged healthy eating and physical activity.

Policies and physical projects. The Shape Up Task Force worked to influence policies and environment changes that support active living across the city by supporting the involvement of the bike/pedestrian coordinator in decision-making processes that affected the built environment, and through the use of regional (e.g., WalkBoston) and national (e.g., walking expert Mark Fenton) resources to run pedestrian training workshops. Strategies to influence the physical environment included advocating for incorporation of pedestrian and safe routes objectives into the Somerville Community Development Plan, supporting bikers' rights and responsibilities, and developing active living evaluation and zoning amendments to biking/parking ordinances and a bike lane policy. The bike/pedestrian coordinator worked collaboratively with state Congressman Mike Capuano's office to further the development and extension of the Community Path by advocating for federal transportation dollars. After a

	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008
Preparation	Vision statement completed Bike/Pedestrian Coordinator 0.5 FTE hired Groundwork Project Coordinator 0.5 FTE hired Subcontract to MAPS coordinator	Health Agenda provides project facilitation Health Agenda convenes all partners involved in healthy weight work resulting in creation of Shape Up Task Force	Health Agenda, Health Department, and Community Development jointly assume project facilitation role Tufts gift funding supports Shape Up coordinator hiring Bike Pedestrian Coordinator FTE absorbed in Community Development budget	Shape Up Task Force partners with sustainable transportation organizations to achieve mutual goals	 Shape Up Task Force secured future grant funding including: ALbD Sustainability Healthy Kids Healthy Communities Mass Dept Public Health Wellness
Promotion	Local and national presentations conducted by ALbD partners Jigsaw puzzle map teaching how to walk to Somerville destinations created by Friends of the Path Four companies and public transportation authority add active living features to commercial and public transit maps	Talking About Somerville: ALbD local cable access program produced	Walk to School video played by local cable access (Tufts Shape Up created) Local media covers community path extension project Physical Activity Guide updated and distributed community-wide (Nutrition Task Force originally created) School Zone Safety and Walking Promotion Brochure produced (Safe-START)	Wall Street Journal story celebrating Tufts Shape Up first-year results published New England Cable News covers Tufts Shape Up Ivanhoe Productions News Health Feature spotlights Somerville active living 3500 Walking Maps completed in multiple languages (WalkBoston) 500 Welcome Packets including walking maps distributed to new residents	Shape Up Somerville resolution passed by Boar of Aldermen Killer at Large produced by Shinebox Productions
Programs	Healthy Mind, Healthy Body Program launched by MAPS (Years 1–4) Pedestrian Training Workshop led by Mark Fenton	Two Bike Commuter classes held	AmeriCorps volunteers conducted walkability assessments and painted a 1.4-mile walking route in East Somerville	Fitness Buddies conducted with city employees Walk/Ride Day launched in conjunction with Green Streets Initiative Shape Up Task Force continued 5K Walk, Run, and Wellness Fair event (Tufts Shape Up–originated)	Shape Up–approved businesses promoted and highlighted (Tufts Shape Up originated)
Physical projects		Bicycle Parking Amenities installed at 2 elementary schools Thermoplastic striping completed at city crosswalks Community School redesigned to feature bike/pedestrian access	750 crosswalks painted, 60 pedestrian crossing signs, 75 glow sticks, and 14 mid-block pedestrian crossing signs placed throughout city	Beautification, signs, mile markers installed on Community Path	Somerville Junction Park completed 2 community gardens completed 50 bike racks installed throughout city
Policies	Bicycle, pedestrian, and safe routes to school objectives incorporated into Community Development plan 25% Design Review meeting for Community Path extension completed	\$900,000 allocated federal transportation money	Land transfer agreement negotiated to allow for Community Path Cedar to Central extension to proceed 75% Design Review meeting for Community Path extension completed \$2 million budgeted for Community Path extension Shape Up Gym Reimbursement BeneFIT created for non-union city employees Bicycle parking ordinance enacted Bicycle lane policy developed School district approves		Public Transportation Commuter Pass Program launched for city employees Safe-START Pedestrian and Bicycle Safety Priority Locations Assessment and Recommendations presented to Board of Aldermen Vending machines incorporate healthier options at City Hall Somerville Open Space Plar incorporates pedestrian and bicycle transportation priorities

ALbD, Active Living by Design; FTE, full-time equivalent; MAPS, Massachusetts Alliance of Portuguese Speakers

series of pedestrian and bicycle accidents, including one in which a Tufts student was struck and killed at a pedestrian crossing, the mayor initiated Safe-START. Somerville hosted a "Healthy Communities Summit" in 2008 to educate regional elected officials across Massachusetts on zoning laws, builtenvironment changes that support healthy lifestyles, school wellness policies, food policies, and partnerships.

Results

Shape Up Task Force

During the ALbD grant period, the continuity of skilled facilitative leadership,¹¹ which integrated the partnership, Tufts Shape Up, and other active living efforts, resulted in a robust Shape Up Task Force. The task force partners successfully secured financial and inkind resources, institutionalized city positions to increase infrastructure and support for active living, increased awareness and support for active living, and incorporated active living principles into city planning and decision making (e.g., Community Development Plan).

Financial and In-Kind Resources Leveraged

Since 2005, Shape Up Task Force members have received over \$2 million in additional funding for active living-related work (e.g., Shape Up East Somerville), and the City of Somerville has received approximately \$2.5 million for various physical- and built-environment enhancements. Tufts University provided gift funding to create a Shape Up Somerville coordinator position within the Health Department. The Alliance, Institute, Health Department, Community Development, other municipal departments, and community-based organizations also provided substantial in-kind staffing to sustain grant writing and the 5P activities.

Institutionalized Key Positions

The Shape Up Task Force successfully encouraged the city to absorb the bike/pedestrian coordinator position into the budget of Community Development. The bike/pedestrian coordinator influenced decisionmaking processes by participating in planning meetings to advocate the incorporation of pedestrian and safe routes objectives into the Community Development Plan. Specifically, the coordinator proposed activeliving evaluation and zoning amendments to biking/ parking ordinances and a bike lane policy to the mayor and Board of Aldermen. In 2006, Mayor Curtatone directed the Bike/Pedestrian Coordinator to staff Safe-START. This decision ordained a more clearly defined role for the bike/pedestrian coordinator in all decision-making processes that affected the built environment.

Physical and Policy Improvements

Through the joint advocacy of the Shape Up Task Force and the bike/pedestrian coordinator, principles and priorities supportive of pedestrian and bicycle transportation have become a part of city planning and decision making. In 2005, the city's Traffic and Parking Department dedicated \$100,000 of their annual budget to ensure crosswalk improvements (e.g., striping and pedestrian countdown lights). Safe-START developed recommendations for major streetscape and safety changes that were presented to the Board of Aldermen. By reviewing pedestrian and bicycle crash-location data, Safe-START identified 27 priority locations, school zones, and parks. When roadways are reconstructed, appropriate accommodations for bikers and pedestrians are recommended (e.g., installation of traffic calming tables, placement of bollards near entry areas to all elementary schools, and upgrades to traffic signals). After painting new bike lanes, bike traffic increased from 75 bikes to 188 bikes an hour in one location. Bicycle safety has been enhanced through the addition of bike lanes and bike racks (Figure 3).

With the political support of the mayor, Board of Aldermen, and School Committee, the Shape Up Task Force also helped pave the path for a number of smaller policy and environmental changes to encour-



Figure 3. Morning commuters on bike lane in Somerville, Massachusetts

age healthy and active lifestyles. For example, the city initiated a "benefit" policy that provides an annual reimbursement to non-union city employees who demonstrate ongoing gym memberships. A city-sponsored assessment of environmental factors that influence physical activity and healthy eating during the workday resulted in the inclusion of healthier snacks in cityowned vending machines and the installation of bike racks for use by city employees.

Community Path Extension

While the original ambitious goal to extend the Community Path eastward across the city in 5 years was not realized during the ALbD funding period, substantial short-term wins toward the accomplishment of that goal were achieved, including acquisition of property and planning for co-location of a subway with a walking/biking path. More than \$3 million transportation dollars have been earmarked for the Community Path extension. The Alliance and the city negotiated a land transfer agreement valued at \$1 million for one section of the Community Path extension. In addition, another \$480,000 was raised from Urban Self-Help and the Environmental Protection Agency Brownfields Program to build a park along the path extension. The Shape Up Task Force's efforts led to the construction of numerous parks, gardens, greenspaces, and walking paths.

Discussion

Lessons Learned

Weathering change. The Shape Up Task Force focused on preserving and building partnerships despite leadership transitions brought about by periodic organizational staff turnover and changes in government leadership. The institutionalization of key positions such as the Health Agenda director and the bike/pedestrian coordinator, and the ongoing support of lead task force organizations to offset leadership changes, were critical to the success of the task force. During the ALbD funding period, the task force changed and expanded to accommodate not only new leadership, but also new constituency groups, city priorities, and opportunities. Considerable adjustments were made to the ALbD work plans. For example, the Community Path extension was linked to the extension of the Green Line subway to enable the Community Path to benefit from earmark transportation dollars set aside for the construction of light rail stations.

Engaging in initiative sustainability planning. After participating in an Evolutionary Sustainability¹² workshop sponsored by the ALbD, the partners pursued sustainability more deliberately, including participating in other groups' planning processes both to influence mutual goals and to change the culture and orientation of key leaders. The Shape Up Task Force learned to cultivate opportunities for sustainability based on cost, demands of staff time, and institutional support. For example, task force members' participation in an East Somerville community planning process led to the joint prioritization of environmental justice and active living issues, which resulted in the receipt of funding from the Massachusetts Department of Public Health to adapt the 5P model to the neighborhood level.

Recognizing the roles of champions and catalysts for change. The political culture in Somerville was also changing slowly in response to the substantial economic and demographic shifts. The Somerville ALbD Partnership and Shape Up Task Force efforts benefited from champions and catalysts for change, some of whom had considerable political power. Mark Fenton's Spring 2004 Pedestrian Training Workshop later became a foundation for the Safe-START Pedestrian and Bicycle Safety Priority Locations Assessment and Recommendations Report. Mayor Curtatone's 2005 decision to create Safe-START and staff it with the bike/ pedestrian coordinator propelled active living concepts in a positive way. Safe-START meetings, attended by representatives from the mayor's office, Board of Aldermen, School Committee, municipal department heads, and two large local institutions (Tufts University and the Alliance), became the political venue for these changes to be integrated into the city's Community Development Plan.

Limitations and Challenges

Setting realistic goals. The Somerville ALbD Partnership and Shape Up Task Force have learned that active living, particularly changing the built environment, does not come cheaply or quickly. The Somerville experience supports goal setting with modest expectations and working toward smaller wins along the way to major physical environment and policy changes. For example, a short-term win was getting bike lanes on major streets painted. The long-term policy win was the endorsement by city decision makers for all future street rebuilding projects to give priority consideration for construction of additional bike lanes. Physical changes in the built environment often require resources well beyond the capacities of local cashstrapped municipalities such as Somerville. For example, while Safe-START developed a \$5 million plan to improve priority pedestrian and bicycle safety locations across the city, no systematic active transportation funding exists at either the state or federal level to which Somerville can apply to improve these locations. Advocacy at the state and national level is necessary to generate funds to support active living initiatives. The key is to plant organizational seeds and sow partnerships that will be able to capitalize on opportunities when they emerge.

Working with community-based organizations. The Portuguese speakers' organization MAPS is typical of community-based organizations representing major ethnic groups (e.g., Latino and Haitian immigrants) in that it is almost entirely dependent on grant funding and often represents (although not exclusively) vulnerable populations experiencing more pressing survival needs. Efforts to engage Portuguese-speaking adults in culturally and linguistically tailored physical activity and maintain multicultural leadership involvement in the task force were challenged by the limited resources available through the ALbD funding to support dedicated staff at community-based organizations. In the early years of the grant, MAPS had a part-time ALbDfunded coordinator dedicated to health and wellness programs and had great success engaging participants in physical activity programs (e.g., yoga and walking groups). However, by Year 4, MAPS relied on an unpaid volunteer because the ALbD subcontract was insufficient to cover its staffing needs, which interfered with the success of the program and destabilized the relationship with the Shape Up Task Force. Because active living competes with new immigrants' high-priority survival needs, sustainable funding is key to maintaining community based-organization involvement in partnership activities and ensuring the inclusion of active-living programming.

Communicating messages to diverse communities. Developing and implementing messages that were universally accepted by all residents in the diverse and transient communities of Somerville was challenging. While the Shape Up Somerville slogan was successfully adopted by active living stakeholders and advocates, the Shape Up Task Force was not successful in efforts to develop a comprehensive communications strategy or active living promotional messages that spanned age groups and appealed to diverse subpopulations.

Conclusion and Next Steps

Over the past 5 years, Somerville, as a community, has come a long way on the path to active living. The synergy that resulted in the robust task force also created a foundation for many short-term successes across the 5P model and accelerated political and cultural changes already underway. Turnover in city transportation, engineering, and planning staff has created opportunities to change the culture and orientation of these core city functions. The task force has dedicated time and energy to educating new staff on best practices for active living. Future plans include updating job descriptions and training programs to include skills in planning for active living. The national media spotlight resulting from the May 2007 *Wall Street* Journal article celebrating Tufts Shape Up brought visibility and name recognition to Somerville, which translated into pride and a sense of ownership in active living initiatives by community residents and political leaders.13 From the multidisciplinary and engaged Shape Up Task Force to the ways in which Mayor Curtatone and the Board of Aldermen advocate for the inclusion of active living concepts in every major transportation priority, Somerville is poised to continue redesigning the built environment to incorporate active living. There are still several perceived and actual barriers to active living; however, partnership building, leveraging resources, and using data and research for planning have provided Somerville the opportunity to move from "ready to embrace active living" to being a fuller participant in actively living.

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