Strengthening the Sense of Place

Strategies for Well-Being in the Arlington Neighborhood

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Field Projects 2008
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April 2008

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This is the final draft report submitted to Tufts University Urban and Environmental Policy and Planning Department for credit in course UEP 255 Field Projects: Planning and Practice. This report will not be considered final until a full review and approval has been conducted by the City of Lawrence Community Development Department.
Acknowledgements

There are so many people who have contributed to this report; we are grateful for the time and insights that were shared with us. We thank the City of Lawrence Community Development Department for giving us the opportunity to work in Lawrence and especially Ellen Minzner, Community Development Manager for her oversight, encouragement and enthusiasm for this project. We would also like to thank Milagro Grullón, Neighborhood Planner, for all of her guidance. We would like to thank our advisor in the Urban and Environmental Policy and Planning Department at Tufts University, Rusty Russell and our Teaching Assistant, Amelia Schmale for encouraging us along the way. We would also like to thank Justin Hollander, Meghan Welch and our fellow students in Field Projects for sharing this journey with us. We appreciate the support of Amy Stitley, Master’s candidate in the Department of Urban Studies and Planning at MIT as well as Julian Agyeman and James Jennings, UEP professors, Tamara Trejo, UEP Master’s candidate, and Scott McKeown from Management Sciences for Health.

We are also greatly indebted to the Arlington Neighborhood community for allowing us to work with them over the course of the semester. We would like to thank Arlington Community Trabajando (Ana Luna, Carlos Matos, Anabelle Rondón), Bread and Roses Housing (Mary Marra), City of Lawrence Department of Public Works (John Isensee) and Recreation Department (Linda Schivone), Groundwork Lawrence (Rose Gonzalez and Kate O’Brien), Lawrence Arlington Alma Neighborhood Association (Nelson Gonzalez and Fausto Nuñez), and the Lawrence/Methuen Community Coalition (Harold Magoon, Domingo Melendez, and staff) for sharing their visions for the community with us. We would also like to thank neighborhood residents for allowing us to visit them in their homes and helping us to understand the issues the neighborhood is facing more fully.
The Arlington Neighborhood is a vibrant Latino community located in Lawrence, MA, a once thriving mill city. While the stature resulting from the (now non-operational) textile industry has slowly dwindled over the past 50 years, the built environment (including the renovated mills) has remained as a physical reminder of this city’s history – the impacts of which continue to this day. Intricately planned for the needs of an industrial town, Arlington has grown intensely into a community of densely packed multi-family homes, an overstressed road system, an accumulation of infrastructure, and the minimizing of open, natural areas.

Commissioned by the City of Lawrence Community Development Department (CDD), our field project team was asked to provide an assessment of how the built environment has impacted public health and open space in the Arlington Neighborhood and to create strategy recommendations for the City to promote healthy, active lifestyles for its residents. For the purpose of our report, open space is any place outdoors where people can be active and interact with each other. This includes streets and sidewalks as well as parks. Our research and recommendations have been created based on community input and promising practices utilized in other communities. It is our intention and hope that these recommendations, and the community voice which helped to shape them, will be taken into consideration by the CDD as they prepare an application for a Neighborhood Revitalization Strategy Area (NRSA) designation for Arlington under HUD’s Community Development Block Grant (CDBG) program.

Asthma and diabetes are two of the most prevalent public health issues in the Arlington Neighborhood. Both of these chronic diseases have direct connections to the built environment. Lacking access to recreational areas restricts opportunities for residents to be physically active and meet even the 30-minute/day minimum exercise requirement recommended by the Center for Disease Control (Loukaitou-Sideris, 2006, 219). Parks, trails - even walkable, inviting sidewalks – provide resources to help people lead more active lives which has been shown to prevent and treat both obesity and diabetes, as well as reduce stress and increase quality of life. Currently there are eight parks located in the Arlington Neighborhood, however, inconsistent maintenance, perceptions of danger, and lack of appealing incentives (programming, tables, grills, etc.) have limited their utilization. As our report will demonstrate, absence of safe, inviting, natural space in a community poses serious threats to public health and should be a top priority for planners and those concerned about the public good. Air quality is also an issue in Arlington as, in addition to its past and current industrial factories, it is surrounded by two interstate highways, and bisected by busy, overcrowded roads. To their credit, the City of Lawrence and several dedicated community organizations and
NGO’s have already done a lot of great work to try to address the issues brought on by the built environment and impacting open space in Arlington, including the 2004 Open Space Plan for the City of Lawrence, and the Arlington Neighborhood Association’s Strategic Plan.

In order to more fully understand the realities of open space and public health in Arlington, we focused the majority of our project on listening to and capturing the voice of community leaders and residents. Rather than to assess a community from a distance, we wanted to involve those impacted the most and understand their visions for a healthy future. Throughout a 12-week program we conducted thirteen focus groups and interviews and one final community meeting. Residents that we were able to involve in our project define a healthy community as one that has people who are active in their community and have a strong connection with each other. It is also a community that is clean and free of crime. The people we spoke with acknowledged the challenges that Arlington faces, especially in terms of litter and crime. However, they also recognized the assets they had in themselves and each other and cited the many community organizations and much-anticipated community-wide events in Arlington. Community connectedness is a key factor in building and sustaining a strong, healthy, safe community. Arlington has a very solid foundation on which to build upon and many dedicated leaders committed to working towards a healthy Arlington. Through the support of the City of Lawrence, existing community work can expand – building upon their foundation a healthy community of “place” and pride.

Residents we spoke with encouraged us to focus on small but meaningful improvements. Our recommendations have been divided into the three thematic areas that were raised most during interviews: services, infrastructure and programming. Many of these recommendations, such as increasing programming for youth in parks, improving sidewalk and street maintenance, and increased community events are things that can be quick wins for the CDBG program in Lawrence to address immediate concerns of residents while working towards long-term goals.

We hope this report will be a useful resource for the CDD and community residents as they engage each other more in discussions as to how to address the concerns of the Arlington Neighborhood. We would like to thank everyone who contributed to this report for making this a memorable experience for us. We look forward to seeing Arlington continue their efforts, build new partnerships to extend their strengths, and utilize the NRSA designation to increase the quality of life and health of this truly beautiful community.
Abstract

Access to and existence of open, green, natural space provides communities with opportunities to lead healthy, active lives. Increased physical activity has been associated with not only the treatment, but also possible prevention of obesity, diabetes, and heart disease – among many other health concerns. Increased presence and interaction with the natural environment has also been shown to reduce anxiety, stress, hypertension, and signs of depression. Our report aims to encourage more focused attention and resources towards providing the Arlington Neighborhood with opportunities for physical activity, community interaction, and an enhanced quality of life. Through a combination of community outreach and academic reviews we have set forth a series of recommendations for the residents and City of Lawrence to consider in developing strategies to promote public health. We have demonstrated that the built environment of the past can not and should not pose insurmountable barriers to the health of communities now and into the future. Our findings reflect the need for a multi-pronged, multi-stakeholder approach to addressing urban public health concerns within three broad themes: Infrastructure, Programming, and Services.
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Introduction

The topics of public health and open space are complex and may often depend upon the situations in which they are used. For purposes of this project we loosely defined these areas under the following constructs:

- Public health – We were primarily interested in physical health outcomes that may be correlated with elements of the built environment. The principal public health concerns that were of interest to our client and of concern to the community were asthma, diabetes, and obesity. In addition to the physical elements of “public health,” as our research progressed we saw the need to integrate the social and sanitation elements that may have an impact on quality of life and well-being.

- Open Space – As our study sought to explore the linkages between public health and the built environment, our definition of open space was any space where community members have the opportunity to move freely and interact. These places may include parks, community gardens, even streets and sidewalks.

The built environment has always been one of several interrelated factors determining the health and well-being of a community. Looking back through urban planning history, we see direct evidence of public health concerns associated with living conditions. Perhaps the most vivid imagery of this can be found during the U.S. Industrial Revolution, when urban areas were intensely overcrowded, under regulated, unhealthy, and in some cases, toxic. Public health, safety, and well-being were not the concern of local governments during the Industrial Revolution; instead, mass production and profits controlled the course of progress.

(Kunstler 1993). Since this time, the field of urban planning has evolved through the creations and writings of visionaries, such as Frederick Law Olmsted, Ebenezer Howard, and Jane Jacobs, who saw urban spaces not as mechanical centers of production but as dynamic communities with complex needs, resources, and defining characteristics. Urban form, function, and design have changed dramatically throughout the years, but regardless of the physical attributes, one thing that has not changed has been the capacity of our places and spaces to affect our lives and experiences – physically, emotionally, economically and socially. Through conscious decisions or unintended consequence, community plans and the policies directing them have played a role in shaping development at a community-level through the allocation of important resources such as access to education, employment opportunities, and the resulting health impacts of decisions made within the physical environment.

The purpose of our Field Project has been to examine factors within the built environment of a neighborhood in a former mill town in Massachusetts that may provide opportunities or present barriers for residents to lead a healthy lifestyle, and also to develop strategies for local officials to consider in providing access and resources needed to promote and maintain active, healthy lives. Together with public health concerns, we also looked at the availability, accessibility, and importance of open space within urban areas. Open space is particularly intriguing, for not only does it have the potential to directly influence public health and safety in a physical sense, but it is within this element of the “built” environment that much of a community’s social and emotional well-being may depend.
At the request of our client, the Lawrence Community Development Department (CDD), we focused our project specifically on the Arlington Neighborhood. Our research, data, findings, and subsequent recommendations are therefore directed to the needs and resources of this particular community. Lawrence offers a glimpse into the revitalization process of a former mill town. The legacy of the textile industry, marked by renovated mills along the Merrimack River, surrounded by a community built for its workers, reminds one of the important role this once vibrant community played in early U.S. history. Today the city of Lawrence is one of the poorest in the country. The Arlington Neighborhood, situated along the Spicket River in North Lawrence is approximately seven square miles and has a population of about 7,000 people. The Neighborhood is largely Latino (approximately 85 percent) and has a 33 percent poverty rate. Given that studies have shown disproportionately negative health conditions among low-income communities and communities of color, and considering its location within a current manufacturing city, it has been the assumption of the project team that the residents of the Arlington Neighborhood may be at risk for poor health conditions resulting from factors in their built environment. It is with this assumption that we began our research to:

1. Assess the current health conditions, both real and perceived in the Arlington Neighborhood;
2. Conduct a review of past research linking health impacts to conditions or elements within the built environment, including access to open space;
3. Analyze our findings within the Arlington Neighborhood and draw comparisons to elements that we found in the literature to influence community health; and
4. Develop a set of recommendations for the City of Lawrence Community Development Department to consider as they develop their 2009-2014 consolidated plan and NRSA designation application under the US Department of Housing and Urban Development (HUD)'s Community Development Block Grant (CDBG) program.

Data Collection
In order to get as comprehensive an understanding as possible of public health, safety, and open space conditions in the Arlington Neighborhood within a limited timeframe, we utilized a multi-pronged approach to collect both qualitative and quantitative data. Primary sources of data about the Arlington Neighborhood and its health concerns were obtained through:

- Direct interviews (face-to-face and telephone) with residents, community leaders, and city officials;
- Previous research studies examining health-related issues within the city of Lawrence and surrounding areas;
- Existing documents produced by the City of Lawrence, community groups and/or non-governmental organizations (NGO’s) describing previous interventions aimed towards improving health or access to open space; and
- Attendance at a meeting of a local community organization.
Review of Previous Findings
Recognizing that the link between public health and the built environment has been empirically established by both the urban planning and medical fields (Kochtitzky, et al. 2006), we also sought out examples of previous research that could:

1. Aid our assessment of the specific (real and perceived) health concerns and challenges in the Arlington Neighborhood; and
2. Provide examples of successful interventions used by similar communities to improve public health and access to open space.

The primary factors or characteristics that we explored as having some level of impact on the health of this community, selected based on information provided in the project description and discussions with our client, are as follows:

- Socioeconomic status
- Race and ethnicity
- Access to open, green space
- Physical activity/recreation
- Mobility/walkability
- Access to healthy foods
- Community perceptions; including such elements as sense of place, fear of danger, collective efficacy, and social capital

The Arlington Neighborhood
The city of Lawrence - and the Arlington Neighborhood in particular - contains a deep, rich, and complex history which has greatly contributed to the ever-present diversity and varied strengths within this community. In addition to a diverse array of people and backgrounds, an asset of Arlington is the array of involved community leaders, residents, city officials, NGO’s, health practitioners, and various professionals. The Arlington Neighborhood is a community of individual passion, common goals, and collective strength.

Throughout our research process, and especially in speaking with residents and community leaders, we were impressed by the dedication and energy that drove community-led organizations – and that it was at this grass-roots level that much of their positive stories and perspectives emerged. In developing recommendations for the City of Lawrence and residents of the Arlington Neighborhood to move forward in implementing programs to promote public health and open space, the overall strategy we propose – and the one we found echoed throughout volumes of literature – is to draw on what you already have, including the experience and knowledge of residents, incorporate professional guidance, and focus on asset-based, participatory approaches involving multiple stakeholders and perspectives. We envision a comprehensive and holistic approach to promoting public health through planning,

“When people become involved in the design, creation, and upkeep of places, they develop a vested interest in using and maintaining these spaces. When they have a true sense of ‘ownership’ or connection to the places they frequent, the community becomes a better place to live, work, and visit. The residents’ feeling of respect and responsibility for the place bonds them to that place and to each other. No architect or town planner can design or build a place that does that.” (Borrup, 2007)
especially in regards to the access to safe, appealing open space.

**Recommendations**

Our recommendations were designed to address prevailing themes we encountered in community interviews and in the literature. These themes centered on the importance of community involvement and creating a sense of place and ownership among residents and their physical and social environments. Our recommendations also reflect the intrinsic link between public health and open space. Open space provides a vehicle with which to address many of the issues that we examined in our study – obesity, diabetes, safety – and has great impacts at both the individual (physical) and community (social)-level.

Tangible goals, such as improving opportunities for recreation and physical activity, for example, include a series of recommendations such as increased park programming, community gardens, improved trash management, snow clearing policies, and pedestrian safety measures (i.e. clearly marked crosswalks). To promote increased public participation while at the same time fostering a greater sense of ownership among residents in community affairs we also recommend that the City implements a multi-stakeholder approach in future development. Interdisciplinary committees of residents, city officials, planners, healthcare practitioners, school-board representatives and community organizations or outside NGO’s, have been repeatedly recommended in the literature as essential to the success of any community project (Jackson, 2003,33; Lavizzo-Mourey & McGinnis, 2003, 1388; Morgan & Lifshay, 2006; Building Stronger Communities for Better Health, 2004, 4, 9; Services, 2002, 67; Committee on Physical Activity, 2005, 219; Atlanta Regional Health Forum; Atlanta Regional Commission, 2006, 25). Empowering residents through active participation in the community development process will not only benefit those most affected and strengthen the final product, but will also contribute to increased community connectedness, long-term responsibility and, ultimately, sustainability.
Community Organizations

The following community organizations, among others, are currently working to strengthen Arlington socially, environmentally, and economically:

Arlington Community Trabajando (ACT): This community development corporation was incorporated in 1996 by residents of the Neighborhood to organize and engage the community and has programs geared towards enhancing the economic status and well-being of the community members, including: business development, affordable housing, foreclosure counseling, youth programs, and green space and public safety (ACT 2008).

Bread & Roses Housing: Bread & Roses Housing was established in 1988 as a community land trust to help households in Greater Lawrence attain housing that they can afford (Bread and Roses 2008).

Groundwork Lawrence (GWL): Groundwork Lawrence is a non-profit corporation, affiliated with Groundwork USA, whose mission is to enhance the environmental well-being of the community through resident and business involvement, youth programs, and support from and partnerships with local private companies (GWL 2008).

Lawrence Alma Arlington Neighborhood Association (LAANA): LAANA was created in 2005 by residents who were concerned about deteriorating physical conditions and a lack of social connectedness within their community. Through the development of LAANA, residents have been able to revive “one of the worst neighborhoods” in Lawrence, through programs such as Neighbors in Action, which is similar to a neighborhood watch (Melendez, D. personal communication, March 10 2008).

Lawrence/Methuen Community Coalition (L/MCC): L/MCC encourages strong intra-community relationships and aims to help individuals, families, and children in the greater Lawrence and Methuen communities through programs such as the Clean Up Crusade to plant trees and flowers, clean up streets, and paint over graffiti and providing food baskets for families in need over the winter holidays (L/MCC 2008).
Project goal
The goal of our Field Project was to provide an assessment of public health and open space issues in the Arlington Neighborhood in Lawrence, Massachusetts and to create strategy recommendations to address these areas. The findings and suggestions presented in this report are intended to inform the Neighborhood Revitalization Strategy Area (NRSA) application and the five year consolidated plan (2009-2014) for the Arlington community.

In order to achieve this goal, our team produced the following deliverables, which are presented in this report:

- Assessment of the Arlington Neighborhood including the built environment and demographics
- Literature review of current research on the connection between public health and open space;
- Focus groups and interviews with key Arlington Neighborhood stakeholders;
- Survey of Arlington Neighborhood residents; and
- Recommendations for the NRSA consolidated plan regarding managing and promoting access to open space to achieve public health goals.

Description of project process
This project was conducted in partnership with the Lawrence Community Development Department (CDD) of the City of Lawrence and the Tufts University Urban and Environmental Planning and Policy (UEP) Program for the UEP 255 Field Projects: Planning and Practice class. The team was advised by Ellen Minzner, Community Development Manager at the CDD. At Tufts University, the team was advised by Professor Rusty Russell and Teaching Assistant Amelia Schmale. The team met weekly during the spring 2008 semester during scheduled class time and outside of class to plan, discuss progress and create project deliverables.

In order to make the analysis of open space and public health issues in the Arlington Neighborhood as accurate as possible and to create recommendations that addressed the most pressing concerns and desires of the community, there was a very strong community participation component to the project. The

**Neighborhood Revitalization Strategy Area (NRSA)**

- a component of HUD’s Community Development Block Grant (CDBG) Program.
- designates an area that will be the focus of the CDBG funds over the five year period of the consolidated plan.
- specifies how the areas in greatest need in a community will benefit from the funds and demonstrate that they are being strategically invested (City of Lawrence, 2007).
- application must include the following:
  - defined boundaries of area that is primarily residential and is at least 51 percent low to moderate income,
  - demonstration of community involvement of the community while defining strategy
  - assessment of area’s economic conditions and opportunities for economic development,
  - plans to promote economic empowerment focusing on job creation and revitalization strategies,
  - defined benchmarks (HUD Appendix E: NRSA, n.d.).
- To plan for how the grant funds will be spent, grantees must develop a consolidated plan.
- Lawrence is in the process of developing its 2009-2014 consolidated plan for the Arlington Neighborhood which will be submitted to HUD for approval.
team made weekly visits to Lawrence and the Arlington Neighborhood to talk with community leaders and stakeholders about their concerns related to open space and public health in the Neighborhood and their ideas for improvements. A limitation of this project is that over the course of one semester it is not possible to become fully integrated into a community or to be able to fully represent the voice of the community. This was a special challenge during the spring semester, when the community is less active due to the cold and inclement weather. However, we hope that our analysis and recommendations will provide a springboard from which the CDD, the residents of the Arlington Neighborhood, and community leaders can continue discussions about public health and open space and work together to implement projects that meet the needs of the community.

U. S. Department of Housing and Urban Development and the Community Development Block Grant Program

The Department of Housing and Urban Development (HUD) was created in 1965 through the Department of Housing and Urban Development Act (HUD, 2004). “HUD’s mission is to increase homeownership, support community development and increase access to affordable housing free from discrimination” (HUD, 2004). One of the ways that HUD works to achieve its mission is through the Community Development Block Grant (CDBG) program.

The CDBG program was signed into law in 1974 by President Gerald Ford with the goal to “move power from the banks of the Potomac to the people in their own communities” (Logan and Harvey, 1987, 171-2). The CDBG program works to ensure decent affordable housing, provide services to the most vulnerable in our communities, and create jobs through the expansion and retention of businesses (HUD, 2008). Community participation is an essential element of the CDBG program. Grant recipients must have advertised community meetings, provide opportunities to review activities and progress, and provide translation when needed (HUD, 2008). The city of Lawrence receives approximately $1.7 million annually through the CDBG program (City of Lawrence, 2007).

HUD added Neighborhood Revitalization Strategy Areas to the CDBG program in 1996 (HUD programs, 2008). The incentive for establishing a NRSA in a city is that it allows for more flexibility in program design and spending as well as a reduction in some reporting requirements. The Arlington Neighborhood has been selected for the Lawrence’s 2009-2014 NRSA application. The Arlington NRSA will be the second in the city. The North Common Neighborhood was designated a NRSA in 2006 and has been successfully implemented (City of Lawrence, 2007). The Arlington NRSA will focus spending and investment under the
CDBG program in a variety of areas including: economic development, housing, parks, public services and other infrastructure.

Research Questions and Hypotheses

In order to guide our research, our field project team established three hypothesis questions regarding public health and access to open space in the Arlington Neighborhood. The research questions and accompanying hypotheses, which were confirmed and are addressed throughout this report, are as follows:

What are the current public health and open space conditions and issues in the Arlington Neighborhood?
• *Hypothesis:* There are concerns related to asthma, diabetes, and drug/alcohol abuse and there is a lack of open space and safe walkability in the community.

What is the connection between the topics of public health and open space?
• *Hypothesis:* The public health concerns in Arlington are exacerbated by lack of ability to utilize open space for physical activity and active lifestyles. By improving access to and use of open space, the Arlington Neighborhood will be able to improve public health outcomes.

How can the health of the Arlington community be improved where people live, work and play?
• *Hypothesis:* Similar communities have developed and implemented many initiatives to improve public health, safety, walkability and open space that can inform our recommendations.
Chapter 2: The Arlington Neighborhood

Site Description

The Arlington Neighborhood is approximately seven square miles and located in the northernmost section of the city of Lawrence adjacent to Methuen city line. The Arlington Neighborhood is contained within the edges of two major roadways: on the western edge is Broadway Street (Route 28) and on the eastern edge is Haverhill Street which intersects with Prospect Street. The Neighborhood is bisected by Lawrence Street. These roadways are two lane major thoroughfares which carry constant traffic throughout the day. The Neighborhood is densely designed in a grid pattern of mostly two- and three-decker homes. Zoning allows for both commercial and residential properties within the Neighborhood. Small grocery stores, known by their Spanish name “bodegas,” nightclubs, automobile repair shops, hair salons, small scale eateries (seating for fewer than 40) are the predominate businesses.

Open space is limited within the Neighborhood. To date, there are seven public parks: Howard Playstead, Hayden Schofield Playstead, Cronin Park, Highland Park, Rowell Park, Plainsman Park, Dr. Nina Scarito Park, and the William Kennedy Park (MassGIS, 2001). The streetscape contains sidewalks with few trees and little greenery. Asphalt surrounds most homes. There are two official community gardens and several unofficial ones. Despite limited access to natural areas, there are a

Economic Development in Lawrence

Economic development in Lawrence has been a continuing challenge, as it has in many former mill towns, and is evident by the high rates of poverty. At the height of the industrial revolution (1870), Lawrence was regarded as the “woolen manufacturing capital of the world” (Jaysane, P. personal communication, April 7, 2008). Unfortunately by 1920’s, mill owners began moving their operations south for cheaper labor and the Great Depression pushed Lawrence into financial decline. World War II gave the area a bit of a boost with the need for woolen garments for soldiers, but after the war, the mills continued to leave. Post industrial cities like Lawrence have attracted and established a number of businesses over the years, but their influence and opportunities have been limited in comparison to what the textile industry of the early twentieth century brought.
number of vacant lots in the Neighborhood which may be possible to revitalize.

The Spicket River in the south of the neighborhood is a prominent feature. The river often overflows onto abutting areas and trash is found within and around the river. A large fence surrounds the river as well.

The map on the previous page illustrates the team’s observations during several of our walks throughout the Arlington Neighborhood.

### Arlington Demographics Compared to Lawrence Demographics

<table>
<thead>
<tr>
<th></th>
<th>Lawrence</th>
<th>Arlington</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>72,043</td>
<td>6,917</td>
</tr>
<tr>
<td>Persons under 5 years old, percent</td>
<td>9.0%</td>
<td>10.0%</td>
</tr>
<tr>
<td>Persons under 18 years old, percent</td>
<td>32.0%</td>
<td>40.3%</td>
</tr>
<tr>
<td>Persons 65 years old and over, percent</td>
<td>9.8%</td>
<td>5.8%</td>
</tr>
<tr>
<td>Median Age, years</td>
<td>29.5</td>
<td>26.0⁶</td>
</tr>
<tr>
<td>Female persons, percent</td>
<td>52.2%</td>
<td>51.9%</td>
</tr>
<tr>
<td>White persons, percentd</td>
<td>48.6%</td>
<td>47.1%</td>
</tr>
<tr>
<td>Black or African American persons, percentd</td>
<td>4.9%</td>
<td>6.7%</td>
</tr>
<tr>
<td>American Indian and Alaska Native persons, percentd</td>
<td>0.8%</td>
<td>1.1%</td>
</tr>
<tr>
<td>Asian persons, percent³</td>
<td>2.7%</td>
<td>0.5%</td>
</tr>
<tr>
<td>Native Hawaiian and Other Pacific Islander, percentd</td>
<td>0.1%</td>
<td>0.1%</td>
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<tr>
<td>Persons reporting some other race, percentd</td>
<td>36.7%</td>
<td>44.4%</td>
</tr>
<tr>
<td>Persons reporting two or more races, percent</td>
<td>6.2%</td>
<td>10.1%</td>
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<tr>
<td>Persons of Hispanic or Latino origin, percent</td>
<td>59.7%</td>
<td>84.9%</td>
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<tr>
<td>Foreign born persons, percent</td>
<td>30.6%</td>
<td>42.4%</td>
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<tr>
<td>Language other than English spoken at home, percent age 5+</td>
<td>64.4%</td>
<td>77.2%</td>
</tr>
<tr>
<td>High school graduates, percent of persons age 25+</td>
<td>58.2%</td>
<td>41.7%</td>
</tr>
<tr>
<td>Bachelor’s degree or higher, percent of persons age 25+</td>
<td>10.0%</td>
<td>3.7%</td>
</tr>
<tr>
<td>Mean travel time to work (minutes), workers age 16+</td>
<td>21.8</td>
<td>21.1</td>
</tr>
<tr>
<td>Housing units</td>
<td>25,601</td>
<td>2,158</td>
</tr>
<tr>
<td>Homeownership rate</td>
<td>32.2%</td>
<td>23.5%</td>
</tr>
<tr>
<td>Households</td>
<td>24,463</td>
<td>2,025</td>
</tr>
<tr>
<td>Persons per household</td>
<td>2.9</td>
<td>3.4</td>
</tr>
<tr>
<td>Median household income, 1999</td>
<td>$27,983</td>
<td>$17,724⁷</td>
</tr>
<tr>
<td>Persons below poverty, percent, 1999</td>
<td>24.3%</td>
<td>33.6%</td>
</tr>
</tbody>
</table>

Notes:

¹All data were extrapolated and combined from census tracts 2504 and 2505
²Census Tract 2504
³Census Tract 2504
⁴Includes persons reporting only one race.
Source: US Census Bureau, 2000
Census Data
The table on the left-hand page highlights how Arlington differs from the rest of Lawrence. As part of the NRSA designation process, the City of Lawrence has to submit defined boundaries for the Neighborhood. The CDD engaged stakeholders and finalized the boundaries in early 2008. As the designated boundary does not follow census tracts, for the purposes of this report, we selected the two census tracts that are fully within the Arlington Neighborhood (2504 and 2505) to represent the Neighborhood as a whole.

Lawrence is a unique city itself, being one of the poorest in the state with a high level of diversity. In the 2000 census, the median household income was below $28,000, which was around half the state median for Massachusetts (US Census, 2000). The census data shows that Lawrence has one of the highest percentages of minority residents, with 60 percent of the population reporting themselves as Latino, and one of the youngest, with 33 percent of the population under 18 compared to the statewide average of 23.6 percent (City of Lawrence, 2007). Arlington is the poorest neighborhood within Lawrence and is majority (84.9 percent) Hispanic or Latino, with the largest populations originating from the Dominican Republic and Puerto Rico.

Less than half of Arlington residents have graduated from high school and less than four percent have graduated from college. The median income in Arlington is also lower than that of Lawrence. It is interesting to note the income disparities within the Neighborhood itself. In census tract 2504, the western side of Arlington, the median household income is only $17,724. The eastern side of Arlington, census tract 2505, has a median household income of $25,172. About one-third of the Arlington population is below the poverty line. Based on these statistics there is a strong need for community activism and empowerment to support individuals and families facing economic and social challenge.
Trends in Population
Prior to the industrial revolution, the population of Lawrence was approximately 40,000 people. Due to the influx of immigrants, the population doubled during the latter half of the 1800’s in to the 1900’s. As the city faced troubled times in the 1950’s, the population dropped to 64,000, the lowest in its history. As of the 2000 census, the city’s population has risen to 74,000.

The flux of immigrants coming into Lawrence has continued throughout the years. Opportunities to work in the mills attracted French Canadians, Germans, and English. After World War II, additional immigrants from Europe followed giving Lawrence the nickname, “The Immigrant City”. In the 1960’s, significant numbers of immigrants from Puerto Rico and the Dominican Republic began arriving in Lawrence. Today, these immigrants remain a large presence in Lawrence (59.71 percent of the total population, 2000 Census) where they work, live and contribute to city life. More recent immigrants to the community are from Vietnam and Cambodia.
Chapter Three: Open Space and Public Health

“Green spaces build community” (Sherer, 2003, 22)

Open space and public health:
Increasing the availability, condition, accessibility, utilization, and awareness of open space and recreational areas may be one of the most important and long-lasting investments a city can make. Open, green spaces where residents can gather, exercise, or simply enjoy for aesthetic appeal has been shown to increase economic value of surrounding land (Fausold & Lilieholm, 1999; Clements, 2005), offer habitat for urban wildlife, reduce the “heat island” effect (Spirt, 1985; Stair, Wooten, & Raimi, 2008), improve air quality (Spirt, 1985), and – as of particular interest for our study – provide residents with opportunities to live active, healthy lives. In describing a study conducted at Saint Louis University, Gies (2006, 13) points out that promoting a healthy public begins with provisions for a healthy physical community, including access to recreational opportunities that can be easily incorporated into a daily routine. The presence of (well-maintained) parks, gardens, and recreational areas in natural settings may also be linked to greater community cohesiveness, efficacy, and ownership (discussed in more detail in Chapter 4) in addition to psychological benefits and the reduction of individual stress and anxiety (Kilpatrick & Abbott-Chapman, 2007; Gies, 2006; Lawrence, Enkile & Schmid, 2003; Sherer, 2003; Stair, Wooten, & Raimi, 2008). As mentioned in the Introduction, for purpose of this study we defined open space as any area that allows community members to have the opportunity to move freely and interact with each other. Thus our research included the streetscape - sidewalks, streets, pedestrian crossings - as well as parks, natural features, the presence of greenery, and urban trees.

During conversations with city leaders (discussed later in this chapter), and residents (described in Chapter 5), the need for increased community outreach, programming, and organized activities was acknowledged as an important priority that could be accomplished in partnership with city and community organizations at minimal cost. Borrup (2007) supports this assessment and, in discussing ideas to promote community through incorporating the arts, emphasizes that “activities need to be planned, and the space needs to be clean, secure, and well maintained, or it is unlikely to serve people well.”

“Parks offer urban residents a place away from home that is essential to their physical and mental health and well-being. This is particularly true for the poor and working-class residents who do not have backyards, much less vacation homes, where they can rest and recreate.” (Low, Taplin, & Scheld, 2005, 17-18).

In an often-cited report, the Center for Disease Control (CDC) estimates that a “20 minute walk per person [per day] could eliminate the nation’s obesity epidemic” (Center for Disease Control, 2007). Increasing access and proximity to parks has been shown to increase physical activity by 25 percent (Sherer, 2003; Stair, Wooten, & Raimi, 2008). Furthermore, Sherer (2003) reports that the combination of access to parks with educational programming or outreach has been shown to produce a 48.4 percent increase in physical activity (14).
which promotes walkability and pollution reduction, Lawrence, as a whole, has utilized the initial grid-like pattern to encourage and facilitate a car-centric community. Dominating roadways and proximity to major interstate highways I-93 and I-495 have made the city a thoroughfare and are used to draw in businesses, but they are pushing residents out rather than drawing them in.

**Air quality and asthma**

The dependency on personal automobiles is problematic for many reasons, but one of particular interest in our study is the contribution to poor air quality. As described in the recent report, *Air Pollution and Pediatric Asthma in the Merrimack Valley* (2008), children with asthma often live closer to roadways that have a heavy volume of traffic than children who do not. According to the study’s results, the six Merrimack Valley communities included in the analysis had an aggregate rate of prevalence of pediatric asthma of 9.4 percent. Lawrence alone had the highest prevalence of pediatric asthma at 12.2 percent (Bureau of Environmental Health, 2008). In addition to motor vehicle emissions, the high prevalence of air pollution is partially attributed to past and current factories, in addition to solid-waste incinerators constructed in the 1970s and early 1980s (the incinerators are no longer in operation). Contributing to

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**Open Space in the Arlington Neighborhood:**

**Industrial City Design**

*Effects of Industrial City Design*

Designed in 1845 as an industrial city, the land use patterns in Lawrence were meant to serve the needs of mill workers and small businesses. The only open space was located at the heart of the city in the central business district where the wealthier people lived. Mills, shops, and dense housing dominated the landscape. Although many of the original buildings are no longer there, the original design still continues to shape the urban landscape, promoting high density and closely placed buildings (Groundwork Lawrence). Although increased density is considered by many urban planners to be an integral part of sustainable design (International City/County Management Association, 2004), which promotes walkability and pollution reduction, Lawrence, as a whole, has utilized the initial grid-like pattern to encourage and facilitate a car-centric community. Dominating roadways and proximity to major interstate highways I-93 and I-495 have made the city a thoroughfare and are used to draw in businesses, but they are pushing residents out rather than drawing them in.

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1 Obesity is more common in unwalkable neighborhoods (Sherer 2003, 14).
this analysis, Public Health Law & Policy working with Raimi and Associates have also found that “children living near heavily trafficked roads experience decreasing lung function, greater rates of hospitalization for asthma attacks, and greater risk for all kinds of cancer” (Stair, Wooten, & Raimi, 2008).

The Spicket River

The Spicket River is a 17.7 mile tributary of the Merrimack River that runs from New Hampshire to Massachusetts. This river runs through the southern portion of the Arlington Neighborhood. For many years, the Spicket River was utilized as a source of water power for the textile mills in Lawrence. After many years of discharge of industrial pollutants and dumping of trash, tires, and discarded appliances, the river is considered by many residents as a place to avoid, not a place for recreation and connection to nature. Many Arlington residents associate the river with pollution, trash and the damaging annual floods that have destroyed and damaged homes. Flooding of the river was also cited as a source of rodents and insect infestations, mold and soil contamina-

Promising Practice: Roxbury youth address asthma: The story of AirBeat

In 1992 Roxbury’s asthma rate was five times the state average (U.S. Environmental Protection Agency, 2002). In 1996 students and volunteers from youth organizations (primarily Alternative for Communities and the Environment’s youth advocacy group- Roxbury Environmental Empowerment Program or REEP) began mapping land use patterns and sources of harmful emissions in their community (Loh, Sugerman-Brozan, Wiggins, Noiles, & Archibald, 2002). Their results showed more than 1,000 vacant lots in a 1.5- square-mile area (Dudley Street Neighborhood Initiative, 1996). In 1999 another study found more than 15 truck and bus depots within a one-mile radius of Roxbury, garaging more than 1,150 diesel vehicles (U.S. Environmental Protection Agency, 2002). In this same year the U.S. EPA funded AirBeat, a project to create a real-time air monitoring station in Roxbury where residents could have up-to-the-minute reports of air quality, and policy makers could see through quantitative data the severity of the air pollution. The monitoring station was located in the center of Roxbury at street level to accurately measure the air quality that people would be exposed to and reported results via a website and hotline. Students at Greater Egleston Community High School also developed a color coded flag system to visually indicate to the community the air quality each day. A green flag is flown to indicate good air quality; a yellow flag indicates moderate air quality; and a red flag indicates unhealthy pollutant levels (Scott, 2000). This project has become a national model.
tion. Recommendations given by residents include dredging the river and/or building a high fence along both sides so that no one can dump their trash. Currently there is a chain fence along most of the river although it is not enough of a deterrent to prevent dumping. Despite the negative perceptions working against the river, each year concerned community groups organize clean-ups to remove some of the accumulated waste. Rather than restricting access to what has been described by one resident as “an untapped resource,” our group encourages the restoration of the Spicket River. Groundwork Lawrence, supported by the City of Lawrence, is working to create an urban greenway of footpaths along the river. This greenway was also suggested in the Urban River Visions Charette. Revitalizing parks, providing picnic areas, and incorporating access to the river (once restored) may provide greater incentives to community members to utilize and enjoy these areas.

2004 Lawrence Open Space Plan
The 2004 Open Space Plan was “designed to enhance and complement Lawrence’s urban character, mix of cultures, riverfronts, and industrial heritage [and] provide a vision and clear steps for implementation, and to help guide the decisions of elected officials, city departments, boards, citizens, and community organizations” (City of Lawrence Office of Planning and Development, 2006, 9). A summary of the goals and recommendations from the 2004 Open Space Plan can be found in Appendix F.

2The plan was written for 2004-2009. As it will expire next year, Groundwork Lawrence has been engaged by the City of Lawrence to write a new Open Space Plan that will cover 2009 to 2014.
Current status of 2004 Open Space Plan:

In order to learn from past efforts and experiences, we asked city staff involved in open space, public health, and recreation planning, programming and maintenance to update us on progress made towards the recommendations provided in the 2004 Open Space Plan.

While the Open Space Plan was written for Lawrence as a whole, we asked the city staff to focus on the Arlington Neighborhood specifically as that was our area of focus. As described below and summarized in Appendix F much work has been contributed towards the goals and recommendations of the 2004 Open Space Plan; however, members of our focus group recognized that there is still much work to be done to fulfill these original goals.

Programming

Focus group respondents agreed that the city should provide more programming in existing parks instead of creating new parks. As pointed out by one respondent, “Park programming should be looked at seriously as a way to generate revenue, not as an additional expense. This is possible without a major budget increase.” Given that resources are very limited, even with CDBG funds, the priority areas raised were those that could produce results most cost-effectively. Increased publicity and education are important – and relatively inexpensive – needs within this program, as many residents are currently unaware of the programs, activities, and recreational opportunities available to them.

The need for greater community involvement and inclusion in park programming was recognized as an important element towards creating relevant, desired, and sustained opportunities for residents. The 2004 Open Space Plan recommended creating a community-based Parks and Recreation Commission which would consist of representatives from the City, community organizations, area businesses, and other stakeholders. The importance of increased and more diverse programming was communicated throughout our interview. As one respondent expressed, “I believe this should be the highest priority of the next few years, with the main focus being away from planning and more toward programming.” The group reported that they would welcome more community participation and suggested inviting neighborhood associations to take on “Adopt-a-Park” programs. Such programs currently exist and are organized through Groundwork Lawrence but could be expanded with the City’s support. It was also suggested that smaller pocket parks be developed through community processes. Encouraging the development of these parks through community leadership was suggested not only as a strategy to
Promising Practice: Land Trusts:  
The Dorchester Neighborhood Backyards Project

In 1994, The Trust for Public Land initiated its Green Cities Program. The program attempts to help cities and towns by providing assistance in real estate acquisition, finance, and negotiations, and by exploring new ways to “involve communities into public financing strategies” and park management.

This initiative has helped transform vacant lots into vibrant playgrounds. The Arlington Neighborhood has the potential to implement similar projects based on this model. The following is an example from Dorchester (as taken directly from their website):

“The Dorchester Neighborhood Backyards project will transform vacant land at Elmhurst Street and between Spencer and Whitfield streets at Aspinwall Road into two neighborhood playgrounds for young children, complete with play equipment, art, swings, and picnic tables. Neighbors have been working for more than thirty years to improve these two sites, volunteering their time and energy to clean the vacant land and holding neighborhood cookouts and play days in support of the project. Now, thanks to an innovative partnership, the City of Boston will own the completed playgrounds and TPL, neighborhood organizations and residents will develop the playgrounds and raise the funds to build and maintain them.

Dorchester is the largest and most multi-racial of Boston’s neighborhoods, home to 16 percent of the population of the City of Boston living on 13 percent of the city’s land area. While Boston should be proud to be a "well-parked" city, with an average of ten acres of public open space per 1,000 residents, Codman Square has only 1.9 park acres per 1,000 residents.

The Boston Project Ministries, the Codman Square Health Center, the Codman Square Neighborhood Development Corporation, the Dorchester Environmental Health Coalition, and the Friends of Elmhurst and Spencer Whitfield Parks sponsor activities to raise awareness about the future playgrounds and engage neighbors in planning for their community.” (The Trust for Public Land, 2005)

In addition to assisting cities and towns to acquire land, The Trust for Public Land, Green Cities Initiative also assists cities and towns in their visioning process of what role open space will play in their community. The program suggests asking such questions of usage, desirability, future maintenance of the land.

increase community ownership, but also with the acknowledgement that funding for such projects from the City is not currently available. Grassroots organizations with access to private funding are therefore the most practical way to develop and maintain green space at this time. The City is looking to sell the vacant lots it owns to raise revenue for the City, so organizations (such as Groundwork Lawrence) may be able to take advantage of this to buy land for pocket parks or community gardens. Participants in our group also agreed that the City should hire more youth during the summer to get them involved with these types of community projects, but cited challenges of union restrictions that often limit who can work on City lands.

Infrastructure

Maintenance of parks and associated infrastructure is an ongoing challenge for the Department of Public Works (DPW) and the City of Lawrence. Vandalism and trash both need to be curbed in order to beautify the Arlington Neighborhood (this is explored in more detail in Chapter 4). A catalogue of park equipment
and warranties should be developed that is kept by both Community Development and Recreation Department in order to keep track of available assets. This year the City is making plans to increase the number of trash barrels, but could use more, especially in parks and along commercial streets. As discussed more in Chapter 5, a major challenge to this recommendation is the lack of city workers to collect trash as the current staff is already stretched thin with existing maintenance and waste removal.

Participants in our interview supported our suggestions for more lighting and trees (see the box to the right for urban tree recommendations from the Department of Conservation and Recreation). The First Time homebuyers program has been successful in increasing tree coverage. Through this program, new buyers receive trees to plant in their yards. The high success rate for long-term tree survival has been attributed to the increased sense of personal connection and responsibility that develops when residents are involved in community improvement programs. Our team also suggested increasing the urban canopy along the street-scape to increase shade, promote air quality, calm traffic, and provide a more inviting atmosphere – especially in the commercial areas.

In terms of recreation infrastructure, it was suggested by respondents that permanent play areas be increased. These areas are especially important for people who do not have yards, which is common in Arlington. Walking trails and an indoor recreation center were also suggested for exercise and use by gym classes. Lighted basketball courts with a curfew of 10:00 PM were suggested, as well as more large gazebos in all parks.

**Services**

Unable to hire additional workers due to current budgetary restrictions, city officials acknowledged that they will need to be creative as to how to leverage untapped funds and community resources while respecting the restrictions of the union of which the DPW staff are members.
Urban Forest in Lawrence
A street tree assessment was commissioned in 2004 by Groundwork Lawrence. The MA-Department of Conservation and Recreation’s (DCR) Urban Forestry Program, together with a group of volunteers collected data from nearly 2,300 trees in Lawrence and recommended the following (Calvin):

- Pursue financial assistance in the form of grants or awards from known sources such as Tree City USA and MA-DCR Urban and Community Forestry Program (4,9);
- Establish a tree advisory board to make recommendations to the City regarding trees within the city of Lawrence (9);
- Continue to enforce Massachusetts Shade Tree Law (10);
- Establish long range plans for maintenance and provide training opportunities to city officials, staff, and workers (8,10);
- Include a section on the urban forest in the city’s open space
- Encourage communication among departments; historical, parks and recreation, planning and school boards (4,10);
- Engage the greater community in civic improvements focused on trees (9); and
- Establish a new tree ordinance (10).
Where we live will, to a certain extent, affect our daily activities and experiences. Several researchers have clearly made the link between the conditions of physical place and the health and well-being of surrounding communities (Cohen, Inagami & Finch, 2008; Jones, Porretto & Coussens, 2005; Transportation Research Board, 2005). Jones, Porretto & Coussens (2005) point out that the built environment does have a “significant influence on human health and well-being” (39), and expands upon the definition of public health to emphasize social factors; “the social environment that a community inherits, endures, improves, or creates can have a profound influence on the health of its people and the quality of its natural and built environments” (31). Cohen and colleagues (2008) went further in their analysis to propose that the physical environment may influence health indirectly through the “perceptions of neighborhood social functioning” (206; emphasis added). As discussed in Chapter 2, present day Lawrence, from the physical features of a once thriving mill town, to the history of social diversity that has earned it the title “the Immigrant City”, has inherited a legacy of opportunities, resources, and challenges. How this legacy is utilized will have long lasting impacts, not only economically and environmentally, but also on the social fabric and overall health of its residents. This chapter will explore in more depth the relationship between public health and the built environment as specifically related to characteristics of the Arlington Neighborhood and the areas of public health explored in this study (described in the Introduction).

Prior to investigating the built environment in the Arlington Neighborhood, we wanted to learn more about findings from past research regarding the conditions or characteristics commonly used to describe a “healthy” community. After an extensive review of the literature we were able to pull out recurring elements of the built and social environment - positive and negative - that may affect human health. The following chart lists the most commonly cited (Farquhar, 2005; Pikora, et al., 2003; Bell, et al., 2002; Building Stronger Communities for Better Health, 2004; Committee on Physical Activity, 2005) factors used by both residents...
Identifying the trends found in previous studies proved extremely useful when conducting our community-based research as we began hearing that residents have similar concerns and visions that have been cited in other communities. Specific findings from our community-based research are described in further detail in Chapter 5. Commonalities between the literature and our data were encouraging since many of the communities discussed in the literature had also explored strategies to address concerns and therefore provided our team with examples of promising practices (highlighted throughout this report), possible challenges, and techniques to consider in the Arlington Neighborhood. Our final recommendations have been based upon the combination of community feedback and examples found throughout the literature.

As demonstrated in the table above, factors considered to influence health in a community are varied and sometimes complex. Based on the reported interests of the community and prevailing themes within the literature we focused our research on three broad (and intersecting) categories to address within the Arlington Neighborhood:

<table>
<thead>
<tr>
<th>Positive Qualities</th>
<th>Negative Aspects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aesthetics</td>
<td>Litter, trash</td>
</tr>
<tr>
<td>Presence of parks, trees, shade,</td>
<td>Odors</td>
</tr>
<tr>
<td>a range of views, greenery,</td>
<td>Polluted air, river, waterways</td>
</tr>
<tr>
<td>recreational opportunities</td>
<td>Noise</td>
</tr>
<tr>
<td>Safety</td>
<td>Traffic noise</td>
</tr>
<tr>
<td>Adequate lighting</td>
<td>Unkempt yards and residential properties</td>
</tr>
<tr>
<td>Traffic controls</td>
<td>Rodents and stray animals</td>
</tr>
<tr>
<td>Improved sidewalks</td>
<td>Graffiti and vandalism</td>
</tr>
<tr>
<td>Pedestrian signals/crosswalks</td>
<td>Abandoned buildings and vacant lots</td>
</tr>
<tr>
<td>Safe streets</td>
<td>Dangerous street crossings</td>
</tr>
<tr>
<td>Convenience</td>
<td>Poorly maintained footpaths</td>
</tr>
<tr>
<td>Access to shops</td>
<td>Indoor air pollution</td>
</tr>
<tr>
<td>Nearby schools</td>
<td></td>
</tr>
<tr>
<td>Economic opportunities</td>
<td></td>
</tr>
<tr>
<td>Access to healthy and affordable food</td>
<td></td>
</tr>
<tr>
<td>Environmental factors</td>
<td></td>
</tr>
<tr>
<td>Clean water</td>
<td></td>
</tr>
<tr>
<td>Clean air</td>
<td></td>
</tr>
<tr>
<td>Effective waste management</td>
<td></td>
</tr>
</tbody>
</table>
Physical activity: Including access to open space, recreational opportunities, and Walkability

Sanitation: Illegal dumping, presence of trash and litter (which contributes to rodent problems) and unkempt property.

Community Connectedness: An all encompassing category integrating the importance of strong social ties and the impact of perception on community health, safety, behaviors, and attitudes.

“Design variables, such as neighborhood aesthetics and enjoyable scenery, emerge most strongly in the physical activity literature as significant correlates of physical activity, particularly walking...Handy et al. (1998) found that positive perceptions about shade, scenery, traffic, people, safety, and walking incentive and comfort were positively correlated with numbers of walking trips to neighborhood commercial areas.” (Committee on Physical Activity, 2005, 158)

Physical activity and opportunities for recreation

The correlations between physical activity, health, and the built environment have been demonstrated in innumerable studies (Jackson, 2003; Sherer, 2003; Lawrence, Englke & Schmid, 2003; Bell, et al., 2002; Committee on Physical Activity, 2005). Although the 1996 Surgeon General’s Report of Physical Activity “recommends that adults engage in thirty minutes of moderate physical activity at least five days per week” (Loukaitou-Sideris, 2006, 219), a large percentage of Americans do not get the recreational or utilitarian activity they need to maintain a healthy lifestyle. A study conducted by the Council of State Governments attributed 12 percent of hypertension and diabetes rates to physical inactivity. “Partly as a result of inactivity, about one quarter of the population...” (Adler, et al., n.d.)

3 Through our community research we have determined that issues relating to sanitation may have significant overlaps with our assessment of ‘community connectedness.’ For this reason we have combined these two categories under the sub-heading “Power of Perception” on page 22.
[in the United States] is obese and 61 percent is overweight” (Loukaitou-Sideris, 2006, 219).

While many factors contribute to physical inactivity, including personal behavior, several studies have noted that lack of access – or lack of safe access – to resources such as parks and bike paths, or basic elements like sidewalks and pedestrian safety signals, are major contributors to inactivity. Research has demonstrated that the communities most likely to lack access to physical activity opportunities and/or safety precautions are low-income and communities of color (Loukaitou-Sideris, 2006, 223). Bell et al. (2002) suggests that “increasing the amount of walking that low-income communities and communities of color can do as a routine part of their daily activities, and increasing other forms of physical exercise, could help to reduce obesity and improve overall health, thereby reducing health disparities” (Bell et al., 2002, 19). During our interviews with residents of the Arlington Neighborhood few reported that they were unable to walk to conduct basic activities such as shopping, but gave less positive responses about access to park and recreational areas. Residents who did mention concerns about safety cited poorly maintained parks (presence of broken glass, needles), uneasiness about walking in the evening due to perceptions of crime related risks, and risks posed by ice and snow covered sidewalks during the winter months.

Promising Practice: ShapeUp Somerville
“Shape Up Somerville is a city wide campaign to increase daily physical activity and healthy eating through programming, physical infrastructure improvements, and policy work. The campaign targets all segments of our community, including schools, city government, civic organizations, community groups, businesses, and other people who live, work, and play in Somerville.”

“This effort began as a community based research study at Tufts University targeting first through third graders in the Somerville Public Schools. Today there is Coordinator working on active and healthy living programs supported by the Health Department and a Taskforce that is a collaboration of over 11 initiatives and 25 stakeholders involved in working on various interventions across the city, such as:

- School Food Service
- Teachers teaching an-School Curriculum
- After School programs using a new curriculum
- Parent, City Employee and Community Outreach
- Restaurants
- Walkability and Safe Routes to School
- Extension of the Community Path
- School Nurses and Pediatricians
- Policy Initiatives
- Farmers markets and community/school gardens”

Taken from: http://www.somervillema.gov/Division.cfm?orgunit=SUS Please visit this site for examples of walking maps and current activities.
Promising Practice: Municipal snow strategies

Timely and effective snow removal is an issue faced by many communities, not least of which are those in the Northeast and Midwest. Below are examples used by some cities to motivate residents to take responsibility for clearing snow in front of their homes. It should be noted however that both of these communities focus on fines to the property owners, while in the Arlington Neighborhood the challenge is that there is very low home ownership – which is suspected to contribute to low levels of community ownership.

“The City of St. Paul, MN, clears sidewalks when abutting property owners fail to do so. It then charges the property owner at the Department of Public Works rate of $300 per hour, with a half-hour minimum.” (WalkBoston, 2004)

“Dubuque, IA: When the Dubuque Engineering Department receives a complaint about an uncleared sidewalk, it sends a warning letter, and a few days later, if the sidewalk remains blocked, it contracts out the job. The property owner is billed for the service and that charge is added to the annual property tax bill.” (WalkBoston, 2004)

<table>
<thead>
<tr>
<th>Factors that promote physical activity</th>
<th>Factors or barriers that discourage physical activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased number of, access to, and safety of parks and recreational facilities</td>
<td>Personal</td>
</tr>
<tr>
<td>Urban greenery</td>
<td>Disabilities and other health impairments</td>
</tr>
<tr>
<td>Educational outreach</td>
<td>Concern for safety and security</td>
</tr>
<tr>
<td>Aesthetics</td>
<td>Crime, personal safety</td>
</tr>
<tr>
<td>Safety</td>
<td>Traffic controls</td>
</tr>
<tr>
<td>Convenience of facilities (shops, schools, services)</td>
<td>Lack of police protection</td>
</tr>
<tr>
<td>Pedestrian facilities</td>
<td>Long distances between destinations</td>
</tr>
<tr>
<td></td>
<td>Limited travel choices</td>
</tr>
<tr>
<td></td>
<td>Lack of access to recreational areas</td>
</tr>
<tr>
<td></td>
<td>Lack of lighting</td>
</tr>
<tr>
<td></td>
<td>Air pollution</td>
</tr>
<tr>
<td></td>
<td>Social disorder 4</td>
</tr>
<tr>
<td></td>
<td>Abandoned Buildings</td>
</tr>
<tr>
<td>Traffic control measures</td>
<td>Attractive destination</td>
</tr>
</tbody>
</table>

4 In their review, Miles and Panton report on previous research that “found that residents of socially disadvantaged neighborhoods, both men and women, walked more not less than residents of more advantaged neighborhoods despite their fear of being victimized….analyses also showed they would walk even more if they were not afraid’. (Miles & Panton, 2006, 2)

Power of Perception: The influence on the social and physical health of a community

The aesthetic qualities of communities continuously surfaced in previous studies and was a dominate theme in our interviews with residents (see Chapter 5). This supports the need for city leaders to pay attention to the sometimes overlooked importance of neighborhood appearance on people’s activities and actions. Studies exploring the power of perception regarding the built environment on community health have demonstrated that this may be as great a factor in promoting healthy lifestyles and well-being as physical interventions. When residents perceive their communities as unsafe or unclean they are less likely to interact and build connections, may not want to spend time outdoors and thus reduce physical activity, have decreased community pride and engagement, and possibly develop an overall disregard for community well-being (Cohen, Inagami & Finch, 2008; Committee on Physical Activity, 2005; Brownson, et al., 2001). Furthermore, once people living outside the community begin to associate the area with negative aspects, such as those listed in Table 1, the perceptions of danger and fear advance beyond the community boundaries, and reinforce an apathetic or hopeless outlook on the future (Semenza, 2005; Stair, Wooten, & Raimi, 2008).

A number of recent studies have been conducted that link residents’ perceptions of their community to both their physical, mental, and social health. Researchers continue to find that the appearance of social disorder (indicated by graffiti, vandalism, litter, visible drug or alcohol use) has a negative impact on residents’ levels of physical activity (Committee on Physical Activity, 2005; Brownson, et al., 2001; Miles & Panton, 2006; Loukaitou-Sideris, 2006). Citing the “broken window” theory of Wilson and Kelling (1982), Loukaitou-Sideris (2006) points out that, “General neglect of the build-

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Caution:
Obesity is associated with...

Premature death
Type II diabetes
Heart disease
Stroke
Hypertension
Sleep apnea
Asthma
Cancer
High blood cholesterol
Depression
Psychological health problems

Services, U.S. Department of Health and Human, 2001; Sherer, 2003, 13
ing stock and public environments, graffiti and litter, empty buildings, and broken windows are signs that no one really cares about or regulates a street, neighborhood, or public space, that both the physical and social context suffer from disorder” (225). In addition to the social impacts of less community interactions, some planners, most notably Jane Jacobs (1961), make the case that such communities increase their risk of crime when they decrease “eyes on the street” – a presumption that outdoor activity indirectly prevents crime through increased awareness and community interactions (Cohen, Inagami & Finch, 2008). This theory is further supported in studies conducted by Kuo and Sullivan (2001) that found an association between crime rates and greenery. One study “found that the incidence of vandalism or graffiti in sites without plantings were 90 percent as compared to 10 percent in sites with plantings” (Kuo & Sullivan 2001, 349). They further went on to combine Jacobs’ theory with the positive impacts of green space and aesthetic detail in their recommendations for property maintenance, “Well-maintained vegetation outside a home serves as one of the ‘cues to care,’ suggesting that the inhabitants actively care about their home territory and potentially implying than an intruder would be noticed and confronted” (347).

These findings are important to consider when identifying ways to promote public health in the Arlington Neighborhood. Throughout our interviews with residents, the physical appearance – presence of trash, unkempt property, graffiti – of the community was often cited as an undesirable element that decreased their perception of Arlington as a healthy community, although as indicated by the table below, vandalism rates have gone down within the last few years. Residents that we spoke with often attributed the presence of these “incivilities” to a lack of community pride, interest, or concern for the health and safety of others. Several residents had also raised concerns and frustration regarding what they see as a lack of enforcement of laws intended to keep the community clean and orderly.

<table>
<thead>
<tr>
<th>Vandalism in Arlington 2006 and 2007</th>
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<tr>
<td></td>
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<tr>
<td>Malicious Damage to M/V</td>
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<tr>
<td>Malicious Damage to Property</td>
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<td>Total</td>
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Crime Analysis Department, Lawrence Police Department, 2008

Even more concerning is the suspected spread of unfavorable perceptions of the Arlington Neighborhood beyond the city of Lawrence. Our team has heard several reports from residents and city officials that often times problems such as illegal dumping are not necessarily the caused by residents. Presumably to avoid fees required to properly dispose of large items, it is the prevailing belief of residents...
Impact of race, ethnicity, and income on health

When discussing issues of public health, especially as influenced by the physical, social, economical, and natural environment of a community it would be negligent to overlook the pervasive and historically discriminatory policies and practices based upon the race, ethnicity, and socio-economic status of an area. As discussed in Chapter 2, the city of Lawrence – and the Arlington Neighborhood in particular– is among the poorest in the state of Massachusetts. With over 80 percent of the population of Latino origin, Arlington also has one of the highest percentages of ethnic minorities in the city (Census, 2000). While our research did not look explicitly at urban plans or policies within Lawrence as they may relate to, be influenced by, or have effects on race or class, previous studies have demonstrated clear disparities in other communities regarding public health and access to resources based on these factors. The following is a summary of some of these findings as relevant to our research:

- “There is a correlation among poverty, minority status, obesity, ill health, and neighborhood factors that discourage exercise, including the absence of parks and recreation facilities” (Gies, 2006, 9).

- Bell et al (2002) found that “people living in poorer neighborhoods have higher stress levels…Stress is associated with…high blood pressure, diabetes, cancer, respiratory infections, and heart disease” (15-16).

- In a study by the CDC examining the prevalence of diabetes among urban Hispanics, poverty and education were found to be determinants. “Hispanics living in poverty were approximately three times more likely to have diabetes than were Hispanics with [higher] incomes” (Simon et al., 2003, 1153)

- “Overweight and obesity are particularly common among minority groups and those with a lower family income” (11); “In general, the prevalence of overweight and obesity is higher in women who are members of racial and ethnic minority populations than in non-Hispanic white women” (12); “For all racial and ethnic groups combined, women of lower socioeconomic status (income ≤130 percent of poverty threshold) are approximately 50 percent more likely to be obese than those with higher socioeconomic status (income > 130 percent of poverty threshold).” (Services, U.S. Department of Health and Human, 2001)

- “The poor face greater barriers to physical activity, including less leisure time, little discretionary income, inadequate information on types and amounts of physical activity necessary for good health, and lack of access to recreational amenities. Due to lack of access to automobiles, the poor walk more than other groups; however, because of the lack of pedestrian safety, this results in the poor suffering a disproportionate number of injuries and fatalities while walking”. (Lawrence, Englke & Schmid, 2003, 93-94).

- “We found a pattern of positive correlations between heat stress exposure and percentages of poor and minority inhabitants. Higher-income, predominately white neighborhoods were more comfortable places than lower-income, predominately Hispanic neighborhoods…” (Harlan et al., 2006, 14).

- “Socially disadvantaged neighborhoods present residents with dangerous streets either due to traffic and/or crime, poor public services such as police protection, high levels of social disorder, and poor access to healthy foods at affordable prices.” (Miles & Panton, 2006, 2)

- “Child pedestrian injuries appear to be higher in poor neighborhoods, for example, where children play in the streets, often because they lack access to other safe play spaces (Corless & Ohland, 1999). Lack of sidewalks and protected areas for walking and cycling to school can contribute to high levels of pedestrian collisions.” (Committee on Physical Activity, 2005, 165)

- “Ample evidence exists to show that race and class are the most important determinants of the location of environmental hazards and resultant health effects” (Rainey, 2005, 270).
(supported by video evidence) that this waste is commonly generated from outside the community and transferred here for illegal disposal. Clearly, this situation – built more upon social perception than public policy – must be addressed in a comprehensive and substantial manner if any of the recommendations in this report are to be successful and remain sustainable in the long-term. Thus our focus on “community connectedness,” explored further in Chapter 4, aims to demonstrate how social cohesion and community ownership across the entire neighborhood can facilitate the shift in behaviors and attitudes needed to reinforce and enhance the efforts made by so many community organizations to build, strengthen, and empower this community.

Social factors that influence public health and the importance of community building

As discussed in “The Power of Perceptions” (pg. 22), social connectedness and pleasing aesthetic qualities of a community have just as important a role in public health and well-being as do physical, tangible health risks such as air pollution or lack of access to healthy foods. In examining ways by which to promote healthy, active living and thus improve public health, these factors need to be equally addressed in order for efforts to succeed. An overarching message that our team encourages is the value and extreme need for community involvement in all programs regarding the physical, social, environmental or economic conditions of the community.

Several researchers have examined the impact of community participation in policy and programming with conclusions that “engaging community residents and leaders in the change process, building strong and enduring relationships, and enhancing community capacity to analyze and solve community problems” (Bell, et al., 2002, 19) is an essential element to long-term community connectedness, well-being, and overall health and safety (Gies, 2006; Fitzpatrick & LaGory, 2000; Farquhar, 2005; Arnstein, 1969). In addition to the impacts on social health and well-being, some studies have indicated that greater community cohesion may positively influence the physical health of the community. Both Bell, et. al. (2002) and Cagney (2004) cited increased social networks as tools to disseminate health education – particularly in relation to respiratory concerns such as asthma. According to Cagney, “Collective efficacy may enhance the ability to garner health-relevant resources, eliminate environmental hazards that trigger asthma, and promote communication among residents which, in turn, enables dissemination of information relevant to respiratory ailments.” (Cagney, 2004).

Providing the opportunities to develop a sense of place and community would also address some of the root-causes attributed by residents as promoting perceptions of danger and disinterest. Residents we interviewed often interpreted the presence of litter or graffiti as indicators that very few people – even other residents – care about the community or is concerned about long-term impacts. Research by
Farquhar (2005) confirmed the impacts of physical and social queues, noting that “vacant buildings and heavy traffic can discourage neighborhood interaction” (271). While our research did not allow us time to explore attitudes and behaviors of residents to confirm the suspicions given by those interviewed, even the presence of these opinions gives an indication that cohesion in the community can be strengthened and existing efforts to do so should be supported. Efforts to build a sense of place may greatly help to improve community connections to each other, as well as to the neighborhood.

Creating Place, Building Community
Throughout our research, and in discussions with residents, the link between community

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**Access to Healthy Foods**

Lack of access to healthy, affordable foods is of particular concern for low-income communities and communities of color, especially in urban areas. The rise in food-related health issues such as diabetes, obesity, and heart-disease is a distressing trend across the country, but studies have shown that African Americans and Latinos are most at risk (Karpyn & Axler n.d.; Smith, 2006; Duenwald, 2002; Morland, et al., 2002). Diabetes rates, including diabetes mortality among minority groups have been rising; a suspected cause are changing diets that lack healthy options (Vallianatos, Gottlieb & Haase, 2004). Similarly, obesity—widely considered the second most preventable cause of death after tobacco use—has become a national epidemic. A study by Morland, et al. (2002) set out to quantify access to food stores across racial and socioeconomic groups. Relying on census data and data from local government departments of health and agriculture, she and her team analyzed the location of food stores and services across four states, for a total of 216 census tracks consisting of 2,437 food locations (Morland, et al., 2002). Among their results:

- “…there are over 3 times as many supermarkets in the wealthier neighborhoods compared to the lowest-wealth areas” (26).
- “…The greatest difference is in the prevalence of supermarkets, which are four times more common in predominately white neighborhoods compared to predominately black neighborhoods” (27).

In the absence of supermarkets which offer a wide variety of foods, many communities commonly depend upon corner stores, gas stations, and/or fast food where selection of healthy foods is often limited and more expensive than what may be found at a larger grocery store or supermarket (Stair, Wooten, & Raimi, 2008). The food imbalance found in many low-income communities and communities of color has resulted in poor quality of health for residents and higher rates of certain health problems, obesity, and mortality (Stair, Wooten, & Raimi, 2008). Common recommendations to increase access to healthy foods include the creation of local farmers’ markets, promotion of urban community gardening, and development of Food Policy Councils (FPAs) (Pothukuchi & Kaufman, 1999). The efforts to promote urban agriculture and food availability are especially encouraging as it has been demonstrated that access to healthy foods not only improves the physical health of a community, but can greatly contribute to the social vibrancy and sense of connectedness among its residents.

Groundwork Lawrence has been conducting research into the availability of healthy affordable foods, promoting school-based education on proper nutrition, and has greatly contributed to food access through the creation of community gardens and development of a farmers’ market. Still, most residents in the Arlington Neighborhood do not have access to a grocery store and thus continue to rely upon options available at corner bodegas.
health and contact with nature became a clear element. As described in Chapter 5, residents often cited the presence of trees and green areas where children could play within their definition of a “healthy community.” Our research confirms this association and advocates for communities to have access to green, open space as an ingredient of building community. The most cited examples were public parks and community gardens. In Sherer’s (2003) research he has found that vegetation is positively related to residents’ sense of safety and make communities more stable (22). Community gardens, in his assessment, “increase sense of community ownership and stewardship, provide a focus for neighborhood activities, expose youth to nature, connect people from diverse cultures, reduce crime, [and] build community leaders” (Sherer, 2003, 23). Gies (2006) has provided a convincing case for community involvement in public parks as a way to build social capital (18). According to her findings:

“When people work together towards shared goals, such as working in a community garden or creating a park from a vacant lot, they get to know one another, trust one another, look out for one another, and feel invested in their neighborhood…. concrete community improvements such as fewer homicides and other violent crime; fewer property crimes, including graffiti; reduced juvenile delinquency; higher educational achievement; lower rates of asthma and teen pregnancy; and better response to the community’s needs by central governments because they see a united front” (18). Community parks also help to promote empowerment, “A community park comes to symbolize… the general ability to create change’ (19).

While many wonderful and dedicated community organizations (as listed in the beginning of this report) have been providing community members with opportunities to get involved in development and improvement projects, a stronger level of support from the City could help to bolster these efforts. “Research suggests that the most viable neighborhoods are those where residents con-

Promising Practice: “Lighten Up Iowa!”

“To promote exercise and good nutrition, the state of Iowa developed an educational program with competition being a primary element. The program brought together health care workers, school teachers, senior citizens, college students, and religious groups for five months of meetings, and trainings. Bringing together a diverse range of participants allowed for greater community interaction, and in the end, participants recognized that the social networks developed through the course were a major motivating factor. Collaboration of varied partners and groups, and an atmosphere that promoted community were cited as two important lessons learned in encouraging physical activity and healthy lifestyles. (Active Living by Design, 2006)
trol the social order, set goals for the collective neighborhood life, and implement programs that help to achieve those goals” (Fitzpatrick & LaGory, 2000, 216-217). Our team recommends greater and more significant partnerships between the community and City departments. As cited in Chapter 3 and 5, many health concerns such as illegal dumping, trash, lack of trees, park maintenance, can not currently be addressed by the City alone due to financial constraints. Community organizations could be mobilized to address some of these areas, but will not do so if they do not feel that the City is going to support, recognize, and – to the extent possible – assist their efforts. Building trust and connections is not only a task for the community residents, but should also be a priority of city leaders.

- Last year, Mayor Michael J. Sullivan appointed a Mayor’s Health Task Force in Lawrence. The committee is made up of community members, healthcare professionals, local hospitals, board of health and researchers. The executive committee works to advise the mayor, city elected officials, and policymakers on “alternatives to improve” residents’ health (City of Lawrence, 2008). Chronic diseases such as diabetes, asthma and obesity are among their highest concerns.

- Lawrence has been designated as a REACH 2010 community by the Centers for Disease Control (CDC, 2007). REACH 2010 is a national program that works to eliminate and improve health among racial and ethnic populations. REACH 2010 encourages communities to form coalitions that plan, implement, and evaluate strategies to focus on the needs of a particular group. The REACH 2010 Latino Project is located in the Greater Lawrence Family Health Center in the Arlington Neighborhood. They currently have programs focusing on diabetes and asthma (City of Lawrence, 2008).

REACH 2010 Logic Model

Giles et al. 2004, 8.
“If all community and cultural groups are included, then we are also empowering citizen-leaders and participants who will continue to contribute to the area and its growth and stability over time.”

(Low, Taplin & Scheld, 2005, 13)

While we have made an effort to interject the voice and stories of the community members included in our project throughout this report, the following section will provide a more in-depth look at the valuable perspectives and insights we gained through these contacts.

Focus Groups & Community Visits

As non-resident “outsiders” of the community, our team was aware from the outset that public participation and involvement in this project would be essential for us to gain an understanding of the challenges and experiences of Arlington Neighborhood residents. Our initial approach was to hold a series of community meetings; however, we realized that due to low attendance during the winter months (we began in January 2008), community-wide meetings would not be an appropriate method to reach residents. As an alternative we chose to hold focus groups with active organizations or stakeholders and conduct interviews with residents of the Arlington Neighborhood.

Throughout the course of our project we were fortunate to have the opportunity to speak with representatives from the following groups:

- Arlington Community Trabajando (ACT)
- Bread & Roses Housing, Inc.
- City of Lawrence Community Development Department
- City of Lawrence Department of Public Works
- City of Lawrence Department of Recreation
- City of Lawrence Inspectional Services
- Groundwork Lawrence
- Lawrence/Methuen Community Coalition (L/MCC)
- Lawrence Arlington Alma Neighborhood Association (LAANA)

Detailed descriptions of these groups can be found at the beginning of this report. All questions were approved by the Institutional Review Board (IRB) at Tufts University in advance and were exempt from full panel review (see Appendix J). A list of questions used during all focus groups and interviews can be found in Appendix C.

In order to learn what issues relating to open space and public health were most pressing for Arlington residents, we also visited residents in their homes to ask them their concerns and ideas. We are greatly appreciative of the support of Nelson Gonzalez, Domingo Melendez, and Fausto Nuñez and L/MCC staff members for accompanying us during our community visits and setting up appointments for us to meet with residents who have been active in neighborhood activities. The people we interviewed ranged from young adults to senior citizens, a fairly equal number of men and women, and people of Latino and Anglo decent. These visits gave us the opportunity to talk with people who expressed a variety of
opinions about Arlington and what could be done to build on existing public health and open space efforts. We know that given our small sample size our findings cannot be considered the definitive voice of the Arlington Neighborhood. However, we did make every effort to include as many people as possible within the time limitations of our project and encourage the continuation of community outreach and involvement as the City moves forward with next steps towards promoting public health and access to open space.

The questions that we asked during focus groups and interviews had three primary aims:

1. Gather details on how these groups/individuals perceive the built and natural environments in the Arlington Neighborhood – specifically as they relate to public health outcomes
2. Determine how different groups/individuals within the community viewed, utilized, and regarded open space. This may include all elements within our definition of open space including parks, and gardens, but also the walkability of sidewalks and safety concerns that may impact usage
3. Collect input and ideas on how to promote healthy living, access to open space, and improve overall well-being in the community

Although our questions did indirectly generate responses referencing personal/public safety and concerns surrounding community connectedness, future studies may benefit from exploring these areas in more detail.

Results:

Healthy Communities
Our first questions asked participants to describe factors that they would associate with a “healthy” community and then to describe if they felt that the Arlington Neighborhood was, by their definition, a healthy community. Responses included both social and physical characteristics that participants felt were important for a community to be considered “healthy.” The following is a summary of some of the most commonly cited elements within these definitions:

- Cleanliness – Absence of litter; clean streets and sidewalks; no graffiti
- Presence of greenery – i.e. urban trees along sidewalks
- Well-lit, safe
- Access to safe, well-maintained parks for children to play
- Absence of chronic illness (i.e. asthma)
- A healthy economy; local jobs, successful businesses
- Affordable housing
- No abandoned homes, vacant lots

The World Health Organization defines health as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” (Hancock, 1993, 16).
• Low crime
• Inviting places that attract people and encourage community interaction
• Active and well supported community organizations

Many residents agreed that the Arlington Neighborhood is healthy in a social sense, but acknowledged that there is an overall lack of community pride or ownership to motivate residents to care for or become actively involved in beautification or improvement efforts. Those that focused on the physical aspects in defining a healthy community agreed that Arlington does not meet their ideas of a healthy neighborhood. There was an understanding that there is room for improvement in any community and that more can be done to make the community healthy, safe, and inviting. The most common concerns cited by focus groups and interview participants include:

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<tr>
<th>Theme</th>
<th># of Responses</th>
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<tbody>
<tr>
<td>Crime/law enforcement</td>
<td>11</td>
</tr>
<tr>
<td>Trash/litter/illegal dumping</td>
<td>10</td>
</tr>
<tr>
<td>Community wide activities</td>
<td>10</td>
</tr>
<tr>
<td>Street/sidewalk repair/walkability</td>
<td>9</td>
</tr>
<tr>
<td>Recreation for youth</td>
<td>8</td>
</tr>
<tr>
<td>Flooding from Spicket River</td>
<td>7</td>
</tr>
<tr>
<td>Vacant lots</td>
<td>7</td>
</tr>
<tr>
<td>Tree cover</td>
<td>6</td>
</tr>
</tbody>
</table>

Although many of the residents and community stakeholders we interviewed cited similar or overlapping concerns it was clear that different opinions exist among groups as to how these concerns should be addressed or by whom. Many residents in the community are supportive of improving public health and access to open space and want to be actively involved in this process. Again, we encourage the City to continue a participatory process in the next steps of their NRSA application and implementation of CDBG funded projects in Arlington and this is also a requirement of HUD for the CDBG program.

**Opportunities for physical activity and contact with nature**

Residents agree that available green space and access to recreational opportunities is limited. Many residents that we spoke with indicated that they would like to see more greenery – including sidewalk trees, small pocket parks, and community gardens. There was also a concern that parks did not provide enough appropriate recreational opportunities for youth and that some parents restricted their children from playing in parks due to known drug and gang activity.

In terms of walkability, many people that we spoke with considered the Arlington Neighborhood a walkable community with access to shopping and other basic needs. Despite this, as discussed in Chapter 3, the Arlington Neighborhood is exposed to heavy traffic due to its location between two major highways. Lack of pedestrian safety measures were cited as a concern. During the winter months sidewalks are not cleared of snow and ice and thus pose a significant safety hazard. Concerns for personal safety and the perception of danger were also reported as a limiting factor to walking in the community.
Opportunities for improvements
Community leaders and residents have many ideas about how to improve public health and open space conditions. Garbage pickup, in residential, commercial and park areas, is one of the main issues but is also one of the most difficult to address. The Department of Public Works is currently operating on a limited staff and can not provide the type of maintenance and service that would be desirable for the community. The issue of trash has become a slightly divisive issue due to the frustrations on part of residents and the City. While the City recognizes that more staff are needed to maintain the area, funds are not currently available to hire more workers. Residents complain about inadequate service and eventually the constant presence of litter further decreases community pride and the willingness to maintain their own property or keep the community clean.

Allied Waste is contracted to collect residential trash once a week in Lawrence.
clean. At this point, city officials, feeling that the residents are not taking responsibility to help keep the community clean, place the blame for litter back on the community. A few years ago, using hidden video cameras, the City of Lawrence saw that the majority of people who were illegally dumping in the Neighborhood are in fact coming from outside of Lawrence. Knowing that people from outside the community put such a low value on the community that they are using your neighborhood as a dump site affects the ownership that people have over the cleanliness of the neighborhood and there is a limit to the energy that people will expend picking up after other people. Community organizations such as ACT, LAANA, and L/MCC conduct regular clean-up campaigns, but long-term solutions to the issue of trash and illegal dumping are urgently needed.

Additional recreational amenities – especially for youth – were widely expressed recommendations. Basketball courts and skateboarding parks were given as examples for facilities to help keep children active and prevent them from playing in the streets. Shade trees, benches, grills, and picnic tables in the parks would also attract families and community gatherings. Due to fear of drug and gang activity in the parks, a system to supervise children was widely favored. Such a program may consist of older youth that have been trained to prove after-school activities, or a group of rotating parents. More community-wide programming such as evening movies or game-nights was suggested to help build community, utilize existing resources, and claim these areas from gang activity.

Final community feedback:
The data we were able to compile from the results of focus groups, interviews, and reviews of the literature greatly aided our team in the creation of our final recommendations (Chapter 6). Before submitting these recommendations to the City however, we wanted to once again defer back to the community residents to collect their feedback and ideas and to ensure that our interpretations would accurately represent their voice to the City. Since our remaining time was limited (and the weather improving), we decided to schedule a community-wide meeting to present our findings, propose our ideas, and gather community perspectives. To announce the meeting we posted flyers (see Appendix H) at community businesses and a local school, contacted community organizations that we had been working with throughout the
semester, and relied upon word of mouth. Despite these efforts, this final meeting did not attract a representative sample from the community. One current and one former resident participated as did members of the CDD. During this meeting we reviewed our project and progress to date. As the purpose of the meeting was to generate feedback, we focused most of our time on presenting and discussing our recommendations. Participants were given a grid listing individual recommendations and asked to “score” each item and provide comments. “Scores” were composed of three categories: Strongly support; Support with changes; Do not agree/ no interest. They were also asked to note their top three priorities in the categories of services, programming and infrastructure. A summary of responses can be found in Appendix D of this report.

Despite the low attendance, we were able to have a productive discussion about the potential barriers and strategies to implementing our recommendations. New ideas and additional suggestions were generated from this session, the most notable described below:

- Participants said more efforts need to be made to advertise opportunities such as availability of community garden space. Signage around parks could be increased to assist with these efforts.
- Illegal dumping and trash were once again brought up as issues with few immediate solutions. Some ideas provided by meeting participants:
  - Conduct a trash and trash-can inventory; Identify areas where trash is most prevalent and determine if more attention can be focused on these areas
  - Rethink permits to dispose of large items. Currently this fee (and the inconvenience of going to City Hall for the permit) is a deterrent for people to dispose of waste properly and encourages dumping.
  - City-wide campaign/crack down on trash. Announce increased enforcement and fines for littering or dumping. Give residents one month notice before beginning enforcement. Provide information about proper disposal options (send information in water bills).
- Community-pride campaign
- Tree plantings should be considered as an initial step. It is fairly easy to get people to volunteer to plant trees and gives a permanent, visual sign that the community is changing.

“Wees—I don’t think you can ever get enough of them.”
- Focus Group Participant

- Reconsider how the City defines “open space.” Major health concerns in the community such as obesity and diabetes can be treated or prevented by providing people with places to be physically active. Streets and sidewalks currently are not sufficient to encourage recreational walking. If these areas were designated as “open space” they would require the assistance from the parks and recreation department to maintain them.
Greening for Breathing is a local group that formed in response to the high local levels of childhood asthma, lack of forest cover, and air pollution in New York City. The group has worked on community-based projects to promote awareness of greening and asthma in Hunts Point, and among decision-makers. With financial support from the USDA Forest Service to develop a community forestry plan, GFB began exploring implementation strategies for the green buffer that served as essential precursors to this plan.

**Greening Hunts Point**

The Greening of Hunts Point project was and continues to be the vision of the South Bronx community to provide a “greener landscape”. The focus of the project has been to increase the tree canopy along the public streets. Partnering with Greening for Breathing, the New York City Parks and Recreation Department has utilized the theories of Cornell University’s Department of Urban Silviculture regarding trees and their role in filtering out particulates in the air.

In 2002, interns, staff, and volunteers from Greening for Breathing surveyed all the trees growing in public right-of-way areas. Under the guidance of Cornell University, a strategy was created for new tree planting, tree protection and stewardship, and outreach.

Cornell University’s program in Urban Silviculture has been working with New York City and conducting research for years regarding the ability of trees to filter particulates from air. They have yet to announce any conclusive findings, but remain engaged in the project and with community.

In addition to conducting a tree inventory, the Hunts Point project also worked on creating opportunities for community gardens and undeveloped potential parkland.

The Hunts Point pilot project hopes to become a model for other communities hoping to create greener landscapes.

In addition to creating a greener landscape, air quality and asthma rates in the area will be evaluated over time to monitor the ability of trees to filter out particulates in the air.

(Greening for Breathing, 2003)
"You have to start small and work your way up"
- Arlington resident

Our recommendations seek to bring together the best of the literature on the connection between open space and public health and the expressed concerns of community residents. It is our hope that they will be implemented by the CDD and community partners to strengthen access to open space and active living, as well as a deeper sense of community and empowerment in Arlington. It is clear from both the literature and from the community that the only way to bring about changes is to involve community residents and organizations from the beginning and throughout the planning and implementation phases. Arlington is fortunate in that it has an existing network of residents and organizations that are deeply committed to improving the lives of Arlington residents and the environment in which they live. The knowledge, creativity, and skills they bring to the table should be tapped to ensure the effectiveness of programs that are implemented under the NRSA designation.

The structure of our recommendations is based on the themes we encountered during our community interviews: infrastructure, services, and programming. The prioritization of the recommendations comes from the input we received at our final community meeting, where we presented our ideas to residents. The results from this meeting can be found in Appendix D. We also provide a set of general recommendations that will contribute to the success of the more specific recommendations. During our final community meeting we discussed if it would be better for the NRSA designation to be used to support large capital projects such as building new parks or to focus on smaller improvements throughout the Neighborhood. The response was that smaller improvements are more effective. There are already several parks in the Arlington Neighborhood, so more large pieces of green space were not a priority. What is a priority is improvements in what is already available to residents from the parks to the sidewalks to the river. This sentiment is captured in our recommendations; as it is said, “Start where you can and start now.”
General Recommendations:

- Involve a broad range of community organizations and residents in the planning, implementation, and monitoring and evaluation of all activities under the NRSA designation.
- Both the literature and community stakeholders agree that in order for any project to be effective and to be owned by the community, it needs to involve the community.

- Concentrate on building ownership of the Arlington Neighborhood in residents, community organizations and the City of Lawrence.
  - The reason most commonly cited for the presence of so much litter in Arlington is that people are not proud/do not have ownership of the Neighborhood. In order to have a lasting impact, this root cause needs to be addressed. This will also help to address crime issues, as it will increase the number of eyes on the street and create a sense of cohesion and empowerment that reduces the activities that happen when people think no one cares.

- Create a sustainability and maintenance plan for the new programs that are implemented under the NRSA to ensure they can continue after the consolidation plan expires.
  - Many projects start out strong and then end due to lack of funding and benefits become negatives once infrastructure is not maintained. The sustainability of the different activities undertaken needs to be considered from the beginning so that the Neighborhood can continue to benefit from the 2009-2014 Consolidated Plan long after it ends.

- Partner with local business, such as New Balance, to fund these projects to leverage CDBG funds in Arlington.
  - Funding from HUD is limited, so it needs to be supplemented with funding from the private sector in order to implement all of the activities that the community desires. Companies operating in Lawrence have already proven to be good community partners, supplying funding and volunteers for worthwhile projects.
Infrastructure Improvements:

Top Priorities

- Plant additional trees and increase greenery along streets in the Arlington Neighborhood.
- Park St. along the Spicket River should be the first priority for more trees and sidewalks in order to address an area that is seen as particularly blighted but also as a gateway to the Arlington Neighborhood. In order for this recommendation to be effective, trees with deep roots to prevent cracking the sidewalk and an appropriate canopy for the location must be selected. A care and maintenance plan would also need to be developed.
- Provide more park “furniture” to invite utilization, including basketball courts, play equipment, benches, grills, gazebos, pavilions.
- Opportunities for youth to be active were a concern for many people. By providing resources within neighborhood parks, youth will have more positive choices for how to spend their time. Tables and benches within larger public settings can also help users feel safe, which is another concern as there is gang activity in some of the parks (Loukaitou-Sideris, 2006).

Secondary Priorities

- Increase placement of trash receptacles around Arlington, especially in front of businesses and around parks.
- Additional barrels are currently being made available, but even more could be used. Solar trash compactors\(^6\) may be the best option to increase the amount of trash that the receptacles can hold and reduce the number of times they need to be emptied by the DPW, as they are so understaffed.
- Increase the number of community gardens.
- Vacant lots can be turned into community gardens to improve access to fresh fruits and vegetables in Arlington. There are currently a few sites with gardens in the Neighborhood, but there is additional demand that would support the creation of new gardens.

Additional Recommendations:

- Improve sidewalk and street maintenance, including snow removal.
- Several people mentioned lack of snow removal and broken sidewalks as a barrier to walking in Arlington. Snow removal is a concern in front of residential, business, and City owned properties. As our definition of open space includes the streets and side-

---

\(^6\)Solar trash compactors are trash receptacles which are slightly larger than standard public trash receptacles. They have solar panels that generate energy that is used to compact trash inside. This allows for greater capacity inside the receptacle, thus reducing the frequency with which it needs to be emptied.
walks, since they are the primary places where people are active outdoors, we feel attention needs to be paid to these pathways.

- Increase the number of crosswalks, pedestrian crossing signage, street crossing lights throughout Arlington.
  - There are several unsafe intersections in the Arlington Neighborhood, where many people walk to get to neighborhood bodegas, schools, and other amenities. Improving the safety for pedestrians will help increase the number of people who are actively moving in the community, helping to improve public health.

- Build a community center.
  - Several residents suggested creating building a community center in Arlington that could be used for events and as a source of community-wide information. However, there is also the opinion that there are many meeting spaces and activity centers, such as the Boys and Girls Club. Increasing park furniture, such as pavilions could also increase meeting spaces available as serve as a community center, which is an attractive option, because many community meetings are held outside during warm weather and are the best attended.

**Programming:**

**Top Priorities**

- Hold community empowerment and skill building workshops and events that will bring together community stakeholders to determine creative ways that they can come together to address issues such as public health and access to open space.
  - These events could be traditional project development workshops or charettes, but other creative options can be explored such as having participants form groups and compete with each other to see which team can come up with the best idea to address shared concerns.

- Provide increased support for existing programs and organizations. i.e. Groundwork Lawrence; Farmers Markets; LAANA; LMCC; ACT, etc.
  - Community based organizations work tirelessly in the Arlington Neighborhood. Many of them are currently working with the City on a variety of projects. These relationships should be continued and strengthened. Communication between all groups and a sense of mutual trust and respect is crucial to forming effective partnerships that will benefit Arlington residents.
Increase youth programming and job programs, both during the school year and in the summer.

- Youth need more opportunities to become active in their communities in positive ways. Some ways that were identified were through job programs where youth could be hired to work in parks doing maintenance and running programs and supervising younger youth. There are several models of youth programs in ACT and Groundwork Lawrence that can be expanded and brought to other organizations to reach more youth. Arlington is a very young community, so youth need to be a focus of efforts to involve the community. Leadership skills, a sense of connection to and responsibility towards their community, and improved self-confidence/esteem among the young members of a community is an investment in building a strong and healthy community for the long-term. Youth who participate in agriculture or food related projects gain practical skills and leadership development including job training, empowerment and self-confidence, sense of connection to community, and some have even equated these programs to a reduction in crime (Halweil and Nierenberg, 2007; Nuru and Konschink, 2000). We would assert programs with a focus on public health and open space would see similar benefits.

Secondary Priorities

- Use programming as source of revenue
  - The City of Lawrence does not have funds to increase the budget for parks, but there is a great need for funds for improvements and maintenance. Programming such as community carnivals can be a source of revenue for the City that can be used to support parks.

- Hold Block-by-Block competitions for the cleanest/most beautiful blocks
  - In order to get residents involved in beautifying the Arlington Neighborhood, friendly competitions can be held for different blocks to come together to make small improvements, such as trash pick up, planting tree and other greenery, etc. Prizes can encourage participation but also be something that will benefit the block from something as large as more lighting or repaired sidewalks to as small as garden tools.

- Create a “Parks and Recreation commission” to coordinate open space development, maintenance, and programming efforts.
  - This was a recommendation from the 2004 Open Space Plan. It would provide an op-
portunity to get residents involved in the programming for parks and ensure there is a body that has both City staff and community members looking at parks in a holistic way.

- Expand Groundwork Lawrence’s "Adopt-A-Park" program to encourage citizen involvement and volunteer efforts in the parks.

  - This could help reduce maintenance costs which are currently an often cited barrier as well as foster a deeper sense of community ownership over the parks. Any work undertaken would need to comply with union regulations. The Adopt-a-Park program could be done in conjunction with neighborhood associations.

**Additional Recommendations:**

- New funds for “Weed and Seed” or similar program.

  - Weed and Seed was a program run out of the Lawrence Police Department that sought to weed out crime and plant the seeds of community involvement through community softball games, public health and safety fairs, and other community events. It was a very popular program that ended when the grant funding ran out. Several people spoke fondly of this program and lamented the fact that it ended.

- Incorporate a “Health Impact Assessment” (HIA) process into current and future City-sponsored or departmental programs to minimize possible negative health impacts.

  - An HIA would involve an assessment of current conditions, recommending improvements and creating an action plan with timeline to completion. Health should be defined both in terms of physical well-being as well as quality of life, social, and place-based factors. HIAs have been used in several settings in California (San Francisco and Richmond) and in Minnesota. “Minnesota defines HIA as ‘an emerging approach to policy development and program planning designed to assure that current and future policies, programs, and/or organizational structure contribute towards meeting public health improvement goals, or at least do not hamper achievement of those goals’” (Bell, et al, 2002; 35).

- Promote community gardens and farmers’ markets to increase access to fresh fruits and vegetables.

  - Whether actively participating in a community garden, or supporting a local farmers’ market, community programs involving food systems may allow for increased social interactions, the opportunity to learn new skills, provide an avenue toward financial
security, be used as a tool for community empowerment, provide connections to cultural traditions, provide health benefits from nutrition and physical exercise, reduce risk of obesity and diabetes, and in the case of horticulture therapy, provide calming, medicinal values (Halweil & Nierenberg, 2007; Pothukuchi & Kaufman, 1999; Nuru & Konschink, 2000; Gottlieb & Fisher, 2000). Studies have shown that people at farmers’ markets have as many as 10 times more conversations, greetings and social interactions than people in supermarkets” and that the social gathering aspects of markets provide a “forum for politicians, activists, and other community leaders to raise awareness about local issues” (Halweil & Nierenberg, 2007).

<table>
<thead>
<tr>
<th>Services:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Top Priorities</strong></td>
</tr>
<tr>
<td>- Increase monitoring of illegal dumping and more regular enforcement of dumping/littering ordinances and of laws in general.</td>
</tr>
<tr>
<td>- People respond to incentives- both positive and negative. If more people are punished for dumping and littering in the Arlington Neighborhood it will send two messages: someone cares and is watching to make sure the community stays clean, and if you decide to break the law, you will have to face the consequences. This would also send the message to Arlington residents that the City is looking out for them and their interests.</td>
</tr>
<tr>
<td>- Have a Trash Amnesty Day for disposing of appliances and other large items without having to buy a permit.</td>
</tr>
<tr>
<td>- Many people are holding on to large items in their yards because they cannot afford to pay for the permit or they do not want to go to City Hall to get it. Others are dumping their items in the Spicket River or in vacant lots to avoid paying for a permit. One way to clean up the Neighborhood and kick off a clean up campaign would be to have one day where large items will be collected without cost. If there is sufficient funding, this could become an annual event.</td>
</tr>
<tr>
<td>- Produce bi-lingual printed materials educating residents about how to live active, healthy lives, tenant/landlord rights and responsibilities, and opportunities available in Lawrence/ Arlington Neighborhood.</td>
</tr>
<tr>
<td>- Residents told us that many people do not know their options for trash disposal, their</td>
</tr>
</tbody>
</table>
rights as tenants or their responsibilities as landlords and property owners. It is also hard to get information out about community events and healthy living because most information in the community is spread by word of mouth and many people do not have internet in their homes. Bilingual materials could be made available and distributed through local organizations and businesses, community information boards posted around the Neighborhood and through doorknocking.

Additional Recommendations

• Conduct soil and water testing for the Spicket River
  • This would identify the presence of contaminants. The Spicket River is seen by some as being very polluted and harmful to the community. Two residents we spoke with also suggested dredging the river.

• Signage to promote exercise
  • Signs in other areas of Lawrence stating how many laps around a park equals a mile have been effective in getting people out and walking in parks. This could be effective in parks in the Arlington Neighborhood as well.

• Adopt a block program for businesses
  • In order to leverage additional resources to clean the Arlington Neighborhood, business owners can adopt their block, working to keep it clean and installing trash receptacles. The program could build on existing pride in the community and a desire to promote small businesses.

• Reduce/limit practices that promote unhealthy practices and/or “prey” on groups traditionally seen as having poor health.
  • This could involve exclusionary zoning of liquor stores, fast food or unhealthy eating establishments and providing tax incentives to promote healthy alternatives. Incentives could be made especially attractive to small business owners. Bell, et al. (2002) suggest reducing/banning advertising of alcohol, cigarettes and instead promoting public health ads.
The recommendations listed in the previous section share the vision we have for the Arlington neighborhood that we synthesized from the visions of those we met during our Field Project. Now that this foundation has been laid, the work of building a strong coalition of Arlington stakeholders and implementing the recommendations begins. The first step will be for the CDD to review our report and conclude the other analysis that is required for the NRSA application. Once this is completed and HUD has approved the Arlington NRSA, we hope this report will continue to be a resource for the CDD and Arlington residents. We recommend the NRSA designation be celebrated with a kick off meeting for the community to gain further input and start to form an action plan for implementation.

We acknowledge that this is not an exhaustive study of issues surrounding open space and public health in Arlington. As such, there were several areas that we wanted to explore further but were unable to due to the time constraints of the semester. However, we would encourage the CDD to explore these issues further. They include:

- Health care and health education provided in schools;
- Health care quality in Arlington Neighborhood, including access and outreach;
- Access to and reliability of public transportation;
- Community gardens, farmers’ markets, and access to healthy foods;
- Indoor air quality and housing conditions – especially within flood plain; and
- Indicators developed by residents to measure progress towards a healthier community.

It was truly our privilege to work in Arlington over the course of the semester. We have all taken away many lessons—academically, personally and professionally. We hope this report conveys all that we learned and the great respect we have for the Arlington neighborhood and its residents. We look forward to seeing how Arlington changes over the years and see it continue to grow as a vibrant community.

Anything is Possible: Improved streetscape and residential dwellings
Muter, 2008
Appendix A: References


City of Lawrence Office of Planning and Development. (2006). *City of Lawrence 2004 Open Space Plan*.


Pothukuchi, K., & Kaufman, J. L. (1999). Placing the food system on the urban agenda: The role of municipal institutions in food systems planning. Agriculture and Human Values, 16: 213-224.


U.S. Environmental Protection Agency. (2002). *Planning and implementing a real-time air pollution monitoring and outreach program for your community: The air beat program of Roxbury, Massachusetts*. Office of Research and Development, National Risk Management Research Laboratory, Cincinnati.


Appendix B: Maps

Vacant Lots in Arlington

Legend
- Parcel
- Vacant Lots

Source: Massachusetts Institute of Technology, 2007
Coordinates: NAD 1983 State Plane Massachusetts Mainland FIPS 2001

North
Method
Method
Method
Method

0 0.125 0.25 0.5 Miles
Percent of Owner Occupied Homes in Arlington

Source: US Census, 2000
Open Space in Arlington (as of January 2001)

Source: Massachusetts Institute of Technology, 2007
Coordinates: NAD 1983 State Plane Massachusetts Mainland FIPS 2001
Appendix C: Community Interview Questions

Community Survey Questions

1. How do you define a healthy community?

2. Do you think the Arlington Neighborhood is a healthy community? Why or why not?

3. Are there places where people can enjoy nature and be active in Arlington? Where are they? Do people use them? Why/why not?

4. Is it possible for you to walk to places like neighborhood schools, grocery stores or other places where you run errands in Arlington?

5. What are some specific areas and aspects of the Arlington Neighborhood that could be improved to promote healthy living?

6. What types of outdoor recreational opportunities would you like to see in Arlington?

Preguntas de la entrevista comunitaria

1. Cómo definir una comunidad saludable?

2. ¿Piensa usted que el vecindario de Arlington es una comunidad saludable? ¿Por qué sí o no?

3. ¿Hay lugares donde gente puede disfrutar la naturaleza y ser activos en Arlington? ¿Dónde están? ¿Están usados por la comunidad? ¿Por qué sí o no?

4. ¿Es posible caminar por lugares en el vecindario como escuelas, el supermercado u otros lugares donde tiene negocios en Arlington?

5. ¿Cuáles son unos de los áreas y aspectos del vecindario de Arlington que debe estar mejorados para promover una vida saludable?

6. ¿Cuáles son los tipos de oportunidades para recreación en el aire libre que quiere ver en Arlington?

7 Prevention Institute, 2007
## Open Space & Public Health Draft Recommendations for the Arlington Neighborhood

### Responses From Community Meeting: April 16, 2008

<table>
<thead>
<tr>
<th>Recommendations</th>
<th>Support Strongly</th>
<th>Support with changes</th>
<th>Don't like/No interest</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sidewalk improvements</td>
<td>3.1.</td>
<td>X</td>
<td></td>
<td>For beautification purposes</td>
</tr>
<tr>
<td>Increase urban trees and greenery</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increase crosswalks, pedestrian signage</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>More trash containers</td>
<td>2</td>
<td></td>
<td></td>
<td>Who will be responsible to empty them? DPW is short staffed.</td>
</tr>
<tr>
<td>More community gardens</td>
<td>2</td>
<td></td>
<td></td>
<td>Badly needed.</td>
</tr>
<tr>
<td>Build a community center</td>
<td>X</td>
<td></td>
<td></td>
<td>For recreational purposes, so kids stay busy</td>
</tr>
<tr>
<td>More park resources, i.e., benches, grills, pavilions, basketball courts</td>
<td>1.3.</td>
<td>X</td>
<td></td>
<td></td>
</tr>
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## Programming

<table>
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<tr>
<th>Top 3</th>
<th>Recommendations</th>
<th>Support Strongly</th>
<th>Support with changes</th>
<th>Don’t like/No interest</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>⬤, 1, 3</td>
<td>Community-wide meetings or events to address concerns in the Neighborhood and how to address them</td>
<td>⬤</td>
<td>⬤</td>
<td></td>
<td>Very good for better communication with police, city hall, etc…</td>
</tr>
<tr>
<td>2</td>
<td>Competitions for cleanest blocks</td>
<td>⬤</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>⬤</td>
<td>Programs for children and teens</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>⬤</td>
<td>Organized supervision of children in park</td>
<td>⬤</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Committee to manage parks</td>
<td>⬤</td>
<td>⬤</td>
<td></td>
<td>And maintain</td>
</tr>
<tr>
<td></td>
<td>Expand the “Adopt a Park” program</td>
<td>⬤</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2, 1</td>
<td>Support for existing organizations and non-profits (i.e. LAANA, LMCC, ACT, Groundwork Lawrence, Bread and Roses, etc.)</td>
<td>⬤</td>
<td></td>
<td></td>
<td>Communication between orgs. and gov.</td>
</tr>
<tr>
<td></td>
<td>Bring back “Weed and seed” or similar program</td>
<td>⬤</td>
<td></td>
<td></td>
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</tbody>
</table>
# Services

<table>
<thead>
<tr>
<th>Top 3</th>
<th>Recommendations</th>
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<th>Support with changes</th>
<th>Don’t like/ No interest</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Conduct soil and water testing</td>
<td>☑</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2, 1, X</td>
<td>Monitor illegal dumping into river</td>
<td>☑ ☑ ☑</td>
<td></td>
<td></td>
<td>To stop pollution</td>
</tr>
<tr>
<td>1, 2</td>
<td>Increased law enforcement – i.e. trash dumping, parking, idling</td>
<td>☑ ☑ ☑</td>
<td></td>
<td></td>
<td>It will curb constant trashing of city Need strategic outcomes driven approach</td>
</tr>
<tr>
<td>3, X</td>
<td>Trash amnesty day to dispose of items without purchasing a permit</td>
<td>☑ ☑ ☑</td>
<td></td>
<td></td>
<td>Give people an incentive to get rid of unwanted</td>
</tr>
<tr>
<td>X, 3</td>
<td>More bilingual educational materials – healthy living, parks in Arlington, responsibilities of citizens; how to find more information</td>
<td>☑ ☑</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix E: Sample Indicators for Healthy Communities

It is said that what is measured is what gets done. With that idea in mind, a practice that is suggested by many programs is to establish a set of indicators to track progress towards goals. While indicators can be a useful tool, they can also become meaningless and ignored if community stakeholders do not have ownership over the indicators. With this in mind, the field project team suggests that the NRSA program be started with a community meeting to establish priority indicators for the Arlington Neighborhood. In order to provide a foundation from which the city of Lawrence and stakeholders can draw upon. We do not provide suggested targets because each community is different with different appropriate targets. As part of the community meeting, we recommend targets are discussed for each indicator. Below are a list of indicators that draw from common indicators from the literature as well as sample indicators to measure community challenges that were raised in the focus groups and interviews.

Suggested indicators from literature:

- Per capita spending on public recreational and park funding (widely recommended)
- % of schools that provide healthy options for school meals (Strategic Alliance ENACT, 2000)
- % of street crossings that have pedestrian signals or crosswalks (City of Kansas City, 2003)
- Ratio of total length of sidewalk to length of street (AARP, 2005)
- Voter Registration (Spokane County, n.d.)
- # of acres of open space per capita (widely recommended)
- # trees per capita (widely recommended)
- % of students that actively participate in school activities (Spokane County, n.d.)
- % of elementary students who live within a 0.5 mile of school (National Center for Safe Routes to School, 2006)
- # and percentage of streets that have sufficient lighting (City of Kansas City, n.d.)
- Standard sidewalk width (NACCHO, n.d.).
Suggested indicators based on community specific issues:

- Park programming meets the needs of a range of community members
- Park programming is sufficient to promote positive use of parks
- # of programmed events in parks and open space
- Color variety of foods available in community
- # and percentage of drug related crimes in the last year
- # and percentage of violent crimes in the last year
- Asthma rate, disaggregated by age
- Diabetes rate, disaggregated by age
- # of vacant lots (unprogrammed)
- # of foreclosures in the last year
- # of trash cans available on commercial streets
- Streets are free of litter
- Presence of illegal dumping
- Sufficient signage to ensure pedestrian safety exists
- % of parks that have children’s play equipment
- % of population living below the poverty line
Appendix F: Past Open Space Recommendations

The goals of the 2004 Lawrence Open Space Plan are:

1. Protect and enhance existing open space assets, from neighborhood parks to recreational fields, natural areas and historic sites.
2. Increase public access to and enjoyment of our rivers, with new parks and trails that invite a variety of activities.
3. Provide recreational facilities that meet the needs of a diverse population, including youth, teens, families, elderly, and mobility-impaired residents.
4. Develop a network of safe, tree-lined streets and walking/cycling paths that provide better connections between existing neighborhoods and open space, and support greater physical activity and improved public health.
5. Initiate new public-private partnerships to build greater awareness, stewardship, and pride in our open spaces.
6. Improve management and maintenance of the city’s open space resources.

The very nature of the plan is to provide recommendations for improving open space in Lawrence. Recommendations were made for specific parks as well as general issues relating to open space.
<table>
<thead>
<tr>
<th>Issue</th>
<th>Recommendation</th>
</tr>
</thead>
</table>
| Neighborhood Park Improvements | 1. Install new steel trash receptacles and recycling containers in all city parks in place of the existing steel drums.  
2. Smaller “pocket” parks should be retrofitted to include desired uses such as basketball courts and children’s play areas.  
3. Implement a Mural with a Message Project  
4. Paint old park benches  |
| Park Specific Improvements    | 1. Cronin Park: Identify improvements to make the park safer and more usable, including new play equipment and safety surfacing.  
2. Spicket River Greenway: Build a new walking/cycling trail along the Spicket River, connecting schools, neighborhoods, and parks.  |
| Maintenance and Programming   | 1. Increase the resources available to DPW and the Recreation Department for maintenance and programming in the parks.  
2. Hire Lawrence youth to assist with parks maintenance during the summer months.  
3. Conduct feasibility study for relocation of the City Yard to create additional storage space and improved DPW facilities.  |
| Resource Protection           | 1. Conduct a citywide street tree survey to determine location, species, and conditions of trees. Based on this information, establish citywide standards and management practices for street trees.  
2. Conduct a stem-by-stem inventory of trees in city parks, and label rare and historic trees.  
3. Rezone existing public parks to Open Space for additional recognition and protection.  |
| Environmental Education       | 1. Work with the Lawrence School Department, teachers and students to renovate existing schoolyards for outdoor classrooms and learning environments.  
2. Coordinate with public and private schools to establish a citywide “Day of Service” in the parks for Lawrence youth.  
3. Develop a citywide environmental curriculum in the public schools and more service learning programs in the parks.  
4. Disseminate information about existing recreational opportunities.  |
<table>
<thead>
<tr>
<th>Issue</th>
<th>Recommendation</th>
</tr>
</thead>
</table>
| Healthy Neighborhoods    | 1. Conduct an inventory of all city streets to document the condition of roadways, sidewalks and lighting and evaluate the level of pedestrian and vehicle safety.  
2. Create a citywide pedestrian/bicycle plan to improve the safety and aesthetic character of city streets and encourage walking and cycling.  
3. Pilot a neighborhood “Adopt-a-Tree” program to engage residents in tree planting and maintenance in their front yards.  
4. Work with neighborhood residents to identify vacant lots suitable for development as small parks or gardens.  
5. Develop a beautification project  
6. Identify streets that need lighting  
7. Identify barriers Lawrence youth face when accessing recreational opportunities and create an action plan to remove identified barriers. |
| Citizen Involvement       | 1. Create a Parks and Recreation Commission to coordinate open space development, maintenance, and programming efforts across the City.  
2. Pilot a citywide “Adopt-a-Park” program to encourage citizen involvement and volunteer efforts in the parks. |
## Arlington Neighborhood Association (ANA) Five Year Strategic Plan:

The ANA (now ACT) strategic plan addresses areas of concern for the Neighborhood including housing, public amenities, business development and employment opportunity.

<table>
<thead>
<tr>
<th>Issue</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absentee landlords and property</td>
<td>1. Develop list of all neighborhood property owners</td>
</tr>
<tr>
<td>maintenance</td>
<td>2. Identify poorly maintained rental property units</td>
</tr>
<tr>
<td></td>
<td>3. Advocate for improved maintenance of property</td>
</tr>
<tr>
<td></td>
<td>4. Work with city government to improve code enforcement</td>
</tr>
<tr>
<td></td>
<td>5. Develop programs to support housing purchase by residents</td>
</tr>
<tr>
<td>Street cleaning</td>
<td>1. Contact Department of Public Works (DPW) to advocate for regular street sweeping</td>
</tr>
<tr>
<td></td>
<td>2. Develop system for monitoring sweeping to ensure adherence to schedules</td>
</tr>
<tr>
<td>Vacant lots and dumping</td>
<td>1. Identify owners of vacant lots in neighborhood</td>
</tr>
<tr>
<td></td>
<td>2. Contact DPW for clean up of publicly held land</td>
</tr>
<tr>
<td></td>
<td>3. Contact private owners of vacant land to report dumping or excessive litter</td>
</tr>
<tr>
<td></td>
<td>4. Organize regular neighborhood clean up days with broad resident support</td>
</tr>
<tr>
<td>Condition of streets</td>
<td>1. Identify streets in need of repaving or other repair</td>
</tr>
<tr>
<td></td>
<td>2. Work with DPW to schedule repairs</td>
</tr>
<tr>
<td>Street lighting</td>
<td>1. Identify streets requiring additional lighting/luminosity</td>
</tr>
<tr>
<td></td>
<td>2. Contact DPW and Mayor to advocate for new lighting</td>
</tr>
<tr>
<td>Open spaces and parks</td>
<td>1. Identify publicly held lands suitable for park construction</td>
</tr>
<tr>
<td></td>
<td>2. Advocate for unrestricted use of existing and planned parks by residents</td>
</tr>
<tr>
<td></td>
<td>3. Work with local government to site and develop new parks</td>
</tr>
</tbody>
</table>
Appendix G: Press Release

Published: March 07, 2008 05:44 am

College students studying Lawrence neighborhood

LAWRENCE — A team of Tufts University graduate students will be in the Arlington neighborhood, starting tomorrow, to conduct a review of factors that may affect the health and well-being of the people who live there.

The students from the university’s Urban and Environmental Policy and Planning Department will go door-to-door to ask questions regarding health and recreation, in an effort to determine what is important to people and what changes they would make in the neighborhood.

They will also conduct an analysis of local health and open space concerns — particularly obesity, diabetes, asthma, access to parks and walking safety.

The students will be canvassing the neighborhood through Wednesday. They are working with the Lawrence Community Development Department.

Later, the students will discuss their findings with organizations in the neighborhood and community. The final product, expected in late April, will present an assessment of current health and open space opportunities and risks, as well as strategies that may be taken to reduce or eliminate the risks and take advantage of opportunities for open space access. It will also include an analysis of research demonstrating characteristics of healthy communities.

Resources

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E-mail this story

More from the News section

North Andover High receives barely passing marks; accrediting association focuses on budget, staff cuts

Stolen copper from Andover train switches havoc with RR crossings. Police: ‘It could have been very disastrous’
Arlington Neighborhood Community Meeting

Wednesday, April 16
7:00pm
Arlington Park- 355 Park St.

A team of Tufts University Graduate Students, working under the direction of the City of Lawrence Community Development Department will present recommendations to address public health concerns and access to parks and recreation in the Arlington Neighborhood and ask for your opinions.

Share your thoughts about parks, recreation and health!

We look forward to meeting you and appreciate your time!
For more Information: Ellen Minzner at 978-620-3516
Reunión comunitaria en el Vecindario de Arlington

miércoles, 16 de abril
7:00pm
Arlington Park- 355 Park St.

Un equipo de estudiantes de la Universidad de Tufts está trabajando debajo de la dirección del Departamento del Desarrollo Comunitario de la ciudad de Lawrence. Ellas presentarán unas recomendaciones para promover salud y acceso a parques y recreación en el vecindario de Arlington y pedir por sus opiniones.

¡Compartir sus pensamientos sobre parques, recreación, y salud!

¡Esperamos conocerles y agradecimos su tiempo!
Para más información: Ellen Minzner a 978-620-3516
Appendix I: Resource Summary Guide

**Healthy People 2010**: Provides community members, health care practitioners, and city leaders with strategies to work together to improve health and well-being and reduce health disparities. *Healthy People in Healthy Communities. A Community Planning Guide Using Healthy People 2010;* available at http://www.healthypeople.gov/Publications/

**Getting it Done: New Tools for Communities.** Provides user friendly guides for community members on how to build community and mobilize members to work for change. Developed by LISC-Chicago with the New Communities Program, www.newcommunities.org. Toolkit (Identified as NSC Toolkit) can be found by following the link: http://www.newcommunities.org/news/articleDetail.asp?objectID=1041

**Sisters Together. Move more, eat better program guide**
A program of the U.S. Department of Health and Human Services “designed to help individuals and organizations plan, promote, implement, and evaluate community health awareness programs” Available at: http://win.niddk.nih.gov/sisters/


**The Healthy Neighborhoods Project**, started in Richmond, CA “uses a leadership development model to stimulate involvement by low income, ethnically diverse communities to identify and address their own public health priorities, and to help the health department to respond with effective solutions.” http://www.cchealth.org/groups/phoe/healthy_neighborhoods.php

**Great Communities Toolkit.** A project of the Great Communities Collaborative, this resource contains stories, case studies, fact sheets, instructions, and tips particularly relating to transportation oriented development. http://www.greatcommunities.org/resources/regional-tools/great-communities-toolkit

Human Impact Partners has created a Health Impact Assessment (HIA) toolkit containing sample worksheets, indicators, and data on the linkage between public health and the environment. http://www.humanimpact.org/Tools.html

WalkBoston. www.walkboston.org

“Recommendations for Sidewalk Snow and Ice Removal in Massachusetts” (WalkBoston, 2004). Available at: http://www.walkboston.org/work/snow.htm A look at current and pending legislation regarding walkability and snow removal can also be found at:

http://www.walkboston.org/work/legis.htm
Social, Behavioral & Educational Research IRB

PROTOCOL APPLICATION FOR EXEMPT STATUS

This Form Must be Typed and All Sections Must be Fully Completed
Please Also Complete the Protocol Cover Sheet

Research must be "minimal risk" in order to qualify for exempt status. Minimal risk means that the probability and magnitude of harm or discomfort anticipated in the research are not greater in and of themselves than those ordinarily encountered in daily life or during performance of routine or psychological examinations or tests.

<table>
<thead>
<tr>
<th>Does this research involve prisoners, fetuses, pregnant women or human in vitro fertilization?</th>
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<tr>
<td>☐ Yes ☒ No</td>
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If yes, this research will not qualify for exemptions.

I. Check the box in the appropriate exempt status category:

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<td>☐</td>
<td>(1) Research conducted in established or commonly accepted educational settings, involving normal educational practices, such as:</td>
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<td>(i) Research on regular and special education instructional strategies, or</td>
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<td>(ii) Research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.</td>
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<td>(2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation or public behavior, unless:</td>
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<td>(i) Information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects, and</td>
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<td>(ii) Any disclosure of the human subjects’ responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subject's financial standing, employment, or reputation.</td>
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<td>Note: This exempt status category, for research involving survey or interview procedures or observation of public behavior, does not apply to research with children, Subpart D, except for research involving observations of public behavior when the investigator(s) do not participate in the activities being observed.</td>
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<td>(3) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior that is not exempt under paragraph (b)(2) of this section, if:</td>
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<td>(i) The human subjects are elected or appointed public officials or candidates for public office, or</td>
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<td>(ii) Federal statute(s) require(s) without exception that the confidentiality of the personally identifiable information will be maintained throughout the research and thereafter.</td>
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<td>(4) Research involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publicly available or if the information is recorded by the investigator in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects.</td>
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<td>(5) Research and demonstration projects which are conducted by or subject to the approval of Department or Agency heads, and which are designed to study, evaluate, or otherwise examine:</td>
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<td>(i) Public benefit or service programs, or</td>
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<td>(ii) Procedures for obtaining benefits or services under those programs, or</td>
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<td>(iii) Possible changes in or alternatives to those programs or procedures, or</td>
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<td>(iv) Possible changes in methods or levels of payment for benefits or services under those programs.</td>
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<td>(6) Taste and food quality evaluation and consumer acceptance studies,</td>
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<td>(i) If wholesome foods without additives are consumed or</td>
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<td>(ii) If a food is consumed that contains a food ingredient at or below the level and for a use found to be safe, or agricultural chemical or environmental contamination at or below the level found to be safe, by the Food and Drug Administration or approved by the Environmental Protection Agency of the Food Safety and Inspection Service of the U.S. Department of Agriculture.</td>
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II. Justifications

A) Provide a justification for the exemption category you have selected: Data will be collected through: 1. surveying of community residents, 2. focus groups of pre-selected individuals representing community organizations, departments or interest groups, and 3. personal interviews with community leaders, city representatives, healthcare workers, business owners, and various professionals who may have knowledge of or personal investment in the City of Lawrence and Arlington Neighborhood. In most cases, unless consent is provided - written or verbal - prior to the beginning of the interview/survey, individuals will not be identified by name in our final report and only aggregate data summarizing the results of survey responses will be presented in our analysis and final product.

B) Explain how this research is minimal risk: All those who provide information to the research team (individual residents as well as invited participants of focus groups or personal interviews) will first be made aware of the purpose of our research, types of questions that will be asked, and confidentiality of their responses (see Section III for more details). Unless consent is obtained (see Section IV.A) prior to the beginning of the interview, subjects will not be identified by name in our final reports.

III. Research Description

Provide a comprehensive description of the research that includes background, objectives, subject population, recruitment process, consent process, and description of how the research will be conducted (at least a ½ page description). Be sure to also attach all questionnaires, interview protocols, recruitment documents, etc. that will be used.

The goal of our research project is to assist Arlington Neighborhood community residents and leaders within the City of Lawrence develop their application for a Neighborhood Strategy Revitalization Area (NRSA), and 5-year Consolidated Plan for 2009-2014. Our assistance will focus upon addressing the following areas of this NRSA application: public health and safety, and access to open space. We are especially interested in investigating public concerns and existing data related to:

- Obesity
- Diabetes
- Asthma
- Access to parks
- Walkability
- Public safety

Our final products will aim to present an analysis of current health risks and open space needs, strategies that may be incorporated into future plans to reduce or eliminate these risks, and a summary of research demonstrating successful practices adopted by similar communities.

To determine current conditions and past trends in regards to these areas our team will collect available data via previous health studies within the area, a literature review of research demonstrating causal linkages between these areas and the physical environment, and conduct an assessment of public health concerns and access to open space in the Arlington Neighborhood of Lawrence.

In order to collect current perspectives, opinions, ideas, and suggestions from community stakeholders - including residents...

Revised: 12/2007
Social, Behavioral & Educational Research IRB

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health care workers, city officials, business leaders, school administrators, and leaders of community organizations - our team will conduct several focus groups, surveys (of at least 25 residents), and personal interviews. Focus groups have been divided into the following segments:

1. Local community organizations. Groups that have been asked to participate include: Groundwork Lawrence, Lawrence Arlington- Alma Neighborhood Association (LAANA), LMCC, Arlington Community Trabajando (ACT), Bread and Roses, Lawrence Community Works

2. School Administrators and Parents: Via PTA meeting (no youth will be directly involved)

3. City Officials. May include but not limited to Community Development Department, Department of Parks and Recreation, Board of Health, Department of Public Works, City Councilors

Individuals participating in focus groups will mainly consist of leaders of the organizations or departments which they are affiliated, or have been identified by these organizations/departments as being an important stakeholder to contribute to our research. Prior to beginning focus groups our team will provide the following information:

- Introduction to our project, including: Goals and objectives, types of data we want to collect, how data will be used, purpose of focus group, who our team is working with (City of Lawrence Community Development Department)
- Informed consent: Participant rights to confidentiality (see Section IV, A), Explain that participation in this group is voluntary and participants may discontinue their participation at any time. Notification if recording devices are used to record group discussions for accuracy. This information will be provided prior to any group discussions or interview questions regarding subject matter of the research

Surveys will be conducted in the Arlington Neighborhood of the City of Lawrence via two methods: Home visits, and informal requests for interviews with residents in public spaces. In the case of home visits, our team will be accompanied by a representative of the Community Development Department. We will select homes based on a randomization procedure to be developed prior to beginning our research. We intend to place an announcement of this survey in local newspapers within 3 days prior to conducting these interviews to inform community members of our project and data collection. As stated in Section IV, A, no personal information, including names, will be collected from individual community residents who participate in these surveys.

Personal interviews will be conducted with key community leaders, officials, representatives or stakeholders as needed to verify information or collect specific pieces of data related to our project research areas. These interviews may be conducted in person or over the phone and will include the same introductory details and informed consent as would take place for a focus group (see above). As mentioned in Section IV, A, key city leaders or elected officials will be asked to be identified in our final report by name unless they request to remain anonymous.

IV. Confidentiality

A) Specify how confidentiality will be maintained. If confidentiality is not maintained, explain the reason for identifying participants.

No names or identifying characteristics will be collected during surveys of community residents. Names of those participating in focus groups will be withheld from report results unless an individual gives verbal or written consent/ request to be personally identified. Interviews with community leaders or professionals, not holding an official or elected position within the City of Lawrence, will be given the option to withhold their names in the final report but information provided from these sources will still be attributed to a representative of the organization with which they are affiliated. Verbal, and in some cases, written consent to utilize names of interviewees will be determined before conducting the interview. City leaders, and elected or appointed officials who represent residents of the City of Arlington Neighborhood as a whole will be identified by name in final reporting documents unless they specifically ask for information to be withheld from the record. These individuals will be told of this fact prior to beginning an interview and will be asked to acknowledge - verbally or in writing - their informed consent, and have the right to voluntarily decline an interview, or
discontinue an interview in progress. Anyone interviewed or surveyed as part of our research collection will do so in a voluntary capacity and may go off the record at anytime or discontinue an interview in progress. All interview and survey participants will be told this information prior to their participation. In cases where descriptors may add substance to our report, and we have not secured permission to use their name, only generic qualities will be used and all efforts will be made to ensure that this person cannot, from information reported, be identified in the report.

B) Where will the data be stored and who will have access to the data? Data must be stored in a secure location. Data that does not contain names or identifiers will be the responsibility of the primary investigator and made available to the other team members as needed for data analysis. Audio recordings (when/if used) will be stored with the Faculty Advisor when the research team is not using this material for transcription or analysis. All data containing names or identifiers, including transcripts of recorded focus groups, will be secured by the primary investigator via password protected electronic files or appropriately sealed and protected files in the case of paper records. To maintain security and ensure a consistent location of data, all data will be transcribed and saved electronically with password protection when possible. Paper copies of data, including those that have already been transcribed and saved electronically will be given to the faculty advisor for storage and will be kept by the faculty advisor for a period of one year following conclusion of this report.

C) Will identifiers be used to code data? (Identifiers are, for example, name, birth date, social security number, address, etc.)

☐ Yes ☒ No

If yes, will identifiers be stored with or separate from the data?

D) Will you be working with health information?

☐ Yes ☒ No

If yes, complete the “HIPAA Compliance” form (http://www.tufts.edu/central/research/IRB/Forms.htm) Send any agreements regarding the use of PHI (protected health information) to the IRB office.

V. Potential Benefits

Are there any potential direct benefits to participants that would result from participation in this research?

☒ Yes ☐ No

If yes, please describe the potential benefit to participants. Compensation is not a benefit.

The City of Lawrence will benefit by receiving an analysis of existing data on public health and open space in the Arlington Neighborhood, GIS maps, a tool for measuring the health of a community, and strategy recommendations to incorporate as appropriate into the 2009-2014 consolidated plan. If plans recommended by the Tufts research team are adopted by the City and are successful, the Arlington Neighborhood and surrounding areas will potentially benefit from improved public health, increased safety, and access to open space.

Are there any potential benefits to society that would result from this research?

☐ Yes ☒ No

If yes, please describe the potential benefits to society. Compensation is not a benefit.
### VI. Conflict of Interest

**A) Do you or will you, your spouse or dependent children, or any investigator participating in this study have, or anticipate having, any income from, or financial interest in, the sponsor of this research protocol or supporting organization (financial interest includes, but is not limited to, consulting, speaking, or other fees; honoraria; gifts; licensing revenues; or equity interests/stock options of an annual or fair market value of $10,000 or more)?**

- □ Yes
- □ No
- ☒ Not Applicable

**B) Do you or will you, your spouse or dependent children, or any investigator participating in this study have, or anticipate having, any income from, or financial interest in, a company that owns or licenses the technology being studied (technology includes but is not limited to pharmaceuticals, procedures, or devices)? Income and financial interest is defined above. If yes, please specify the nature and extent of involvement.**

- □ Yes
- □ No
- ☒ Not Applicable

**C) For those projects funded by NIH, NSF, or commercial entities, do you have a current, up-to-date Conflict of Interest Disclosure on file with the Office of the Vice Provost that describes this financial relationship?**

- □ Yes
- □ No
- ☒ Not Applicable

### VII. Further Information

**A) To your knowledge has this research study previously been reviewed by any IRB?**

- □ Yes
- □ No

- **If yes, which IRB reviewed the study?**

  - **When was it reviewed?**
  - **Protocol #:**

- **What was the outcome?**

**B) Discuss any other relevant issues or concerns that may affect or be present in your research project of which the IRB should be made aware.**
Social, Behavioral & Educational Research IRB

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Your signature below indicates that you believe this research meets the requirements for exempt status.

Principal Investigator’s Signature Date

Printed Name of Principal Investigator

Your signature below affirms that you have reviewed this application and believe this research meets the requirements for exempt status.

Faculty Advisor’s Signature (Necessary if PI is a student) Date

Printed Name of Faculty Advisor (Necessary if PI is a student)

Please Note: Protocols determined not to be exempt will require a resubmission of a full Protocol Application. The application can be found at: http://www.tufts.edu/central/research/Word/Medford/ProtocolApplication.doc

Investigators will be notified as soon as possible if this is required.
Re: IRB Study # 0802027
Title: Revitalizing the Environment in the Urban Core
PI: Temmy Zborel
Co-Investigator(s): Elizabeth Antin, Mary Muter, Kristen Stelljes
IRB Review Date: 3/5/2008

March 5, 2008

Dear Tammy,

I have reviewed your application for the new study listed above. This study qualifies as exempt from review under the following guideline: 2. Non-identifying educational tests, survey, interview, or observation of public behavior.

Any changes to the protocol or study materials that might affect the exempt status must be referred to the Office of the IRB for guidance. Depending on the changes, you may be required to apply for either expedited or full review.

If you have any questions, please contact the Office of the IRB at (617) 627-3417.

Sincerely,

Yvonne Wekeford, Ph.D.
IRB Administrator
MEMORANDUM OF UNDERSTANDING
BETWEEN
TUFTS UNIVERSITY FIELD PROJECTS TEAM NO. _5__
AND
LAWRENCE COMMUNITY DEVELOPMENT DEPARTMENT

I. Introduction

Project (i.e., team) number: ___5_____
Project title: _Revitalizing the Environment in the Urban Core________________
Client: __Lawrence Community Development Department ______

This Memorandum of Understanding (the “MOU”) summarizes the scope of work, work product(s) and deliverables, timeline, work processes and methods, and lines of authority, supervision and communication relating to the Field Project identified above (the “Project”), as agreed to between (i) the UEP graduate students enrolled in the Field Projects and Planning course (UEP-255) (the “Course”) offered by the Tufts University Department of Urban and Environmental Policy and Planning (“UEP”) who are identified in Paragraph II(1) below (the “Field Projects Team”); (ii) the Lawrence Community Development Department, further identified in Paragraph II(2) below (the “Client”); and (iii) UEP, as represented by a Tufts faculty member directly involved in teaching the Course during the spring 2008 semester.

II. Specific Provisions

(1) The Field Projects Team working on the Project consists of the following individuals:

Elizabeth Antin __email address:_____________________
Tammy Zborel______ email address:_____________________

(2) The Client’s contact information is as follows:

Client name: _Lawrence Community Development Department_
Key contact/supervisor: ___Ellen Minzner_____
Email address: ______________________
Address: __147 Haverhill Street  Lawrence, MA 01840_____
Web site: www.ci.lawrence.ma.us/Pages/LawrenceMA_PlanDev/Index
The goal/goals of the Project is/are:

The goal of the Revitalizing the Environment in the Urban Core Field Project is to provide an assessment of public health and open space issues in the Arlington neighborhood in Lawrence and create a comprehensive document that incorporates the community’s wants and needs as well as strategy recommendations in these areas. The document will inform the Neighborhood Revitalization Strategy Area application and the five year consolidated plan (2009-2014) for the Arlington community.

The methods and processes through which the Field Projects Team intends to achieve this goal are (subject to change based on the needs identified during the analysis phases):

- Community meetings to inform the direction of the project and gain primary information
- Meetings with key organizations and community leaders in Lawrence
- Collection of data from key community sources such as: Lawrence Community Development Department, Mayor’s Health Initiative, Groundwork Lawrence, Lawrence Arlington-Alma Neighborhood Association, Arlington Community Trabajando, Mass Department of Public Health, MIT@Lawrence, Greater Lawrence Family Health Center, Bread and Roses Housing, etc.
- Collect additional data through:
  - Public records (i.e. census data, pedestrian-motor vehicle accidents within an area)
  - Physical collection and observation – i.e. number of parks, access to fresh foods, availability of recreational facilities – including educational materials on public health
  - GIS maps showing proximity to public health risks/benefits, open space, etc.
- Research appropriate literature, relevant historical background, and past programs conducted or data collected that may contribute to our focus areas.

The work products and deliverables of the Project are (this includes any additional presentations for the client):

- Assessment of available information on the Arlington Neighborhood including: traffic accident reports, vacant lots, available open space, food access, disease incidence, walkability
- Facilitation at least 2 community meetings
- Presentation of results to client and Lawrence Community
- Presentation of results at Tufts University
- Final report, including strategy recommendations surrounding open space and public health in the Arlington neighborhood
(6) The anticipated Project timeline (with dates anticipated for key deliverables) is:
   January 31, 2008- 1st Community meeting- LAANA
   February 6, 2008- Final signed MOU
   February 27, 2008: Initial outline of project and status update of data collections
   February 29, 2\textsuperscript{nd} Community meeting (possibly on community mapping)
   April 4, 2008: First draft of report
   April 29, 2008- Final presentation- Tufts
   By May 2, 2008- Final presentation- Lawrence CDD
   May 2, 2008- Final report

(7) The lines of authority, supervision and communication between the Client and the Field Projects Team are (or will be determined as follows):

   • Ellen Minzner of the Lawrence Community Development Department will oversee the work of the Field Project Team on behalf of the client and provide guidance and strategic direction.
   • Kristen Stelljes will serve as the primary liaison between the Field Project Team and Ellen Minzner.
   • The Field Projects Team expects to maintain at least weekly contact with client via email, phone, or arranged meeting.
   • Other community organizations or associations (i.e. Groundworks Lawrence, Lawrence Arlington-Alma Neighborhood Association, Bread and Roses Housing) that may be involved in data collection or analysis will be kept informed as appropriate.

(8) The understanding with regard to payment/reimbursement by the client to the Field Projects Team of any Project-related expenses is:

   • The Field Projects Team will not receive payment from the client as compensation for any work performed within the scope of this project.
   It is expected that costs incurred as a result of travel, preparation on materials (community meetings, GIS maps, final report document), publicity (community meetings), or unforeseen expenses as directly related to performing work for the client will be reimbursed by UEP up to $100 or through pre-arranged financial agreement between UEP and client.

III. Additional Representations and Understandings

A. The Field Projects Team is undertaking the Course and the Project for academic credit and therefore compensation (other than reimbursement of Project-related expenses) may not be provided to team members.
B. Because the Course and the Project itself are part of an academic program, it is understood that the final work product and deliverables of the Project (the “Work Product”) — either in whole or in part — may and most likely will be shared with others inside and beyond the Tufts community. This may include, without limitation, the distribution of the Work Product to other students, faculty and staff, release to community groups or public agencies, general publication, and posting on the Web. Tufts University and the Field Project Team may seek and secure grant funds or similar payment to defray the cost of any such distribution or publication. It is expected that any issues involving Client confidentiality or proprietary information that may arise in connection with a Project will be narrow ones that can be resolved as early in the semester as possible by discussion among the Client, the Field Projects Team and a Tufts instructor directly responsible for the Course (or his or her designee).

C. The Field Project Team members and the Lawrence CDD will share ownership of the data and research materials used in drafting the report as well as the final report. Lawrence CDD will have the ability to provide feedback on the assessment and report throughout the process and alter the text of the final report upon submission to Lawrence CDD. Use of the data and text from the final report will be properly cited to give credit to the Field Project Team members as the authors.

D. It is understood that this Project may require the approval (either through full review or by exemption) of the Tufts University Institutional Review Board (IRB). This process is not expected to interfere with timely completion of the project.

IV. Signatures

Ellen Minzner
For Lawrence Community Development Department
By: Ellen Minzner
Date: 2/04/2008

Kristen Stelljes
Representative of the Field Projects Team
By: Kristen Stelljes
Date: 2/11/2008

Rusty Russell
Tufts UEP Faculty Representative
By: Rusty Russell
Date: 2/10/2008