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**Integrating Health into Community Design
and Decision-making:
*Opportunities for New Jersey Municipalities***

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ABOUT THE AUTHORS

This paper was prepared collaboratively by the following staff at the Rutgers University Edward J. Bloustein School of Planning and Public Policy who serve as facilitators of the New Jersey Health Impact Collaborative: Jon Carnegie, Jeanne Herb, Karen Lowrie, Leigh Ann Von Hagen, and Jennifer Senick. More complete bios can be found at www.policy.rutgers.edu.

ABSTRACT

Community planning and public health have a long and strong history together. From the early days of zoning to more recent efforts to promote healthy community design, the decisions local officials make every day related to land use, urban design, infrastructure investment and economic development have the potential to significantly affect human health in a multitude of ways. While not always considered closely aligned, the two disciplines are inextricably intertwined. While for centuries public health and planning focused on the challenge of infectious disease, in recent decades there has been a steep rise in chronic health problems such as obesity, heart disease, diabetes, asthma and other conditions. Growth in chronic disease has been attributed to many factors, including longer life spans and changes in diet and nutrition; however, there is growing consensus in both the planning and public health professions that the way we have designed communities over the past 50-60 years plays an important role in determining health outcomes.

Local planning and policy decisions are integral to achieving community health goals and affecting change in our communities and improving health outcomes over the long term. This white paper: (1) outlines the importance of considering health outcomes in all policy and community planning decisions; (2) explores the emerging practice of Health Impact Assessment as a tool for considering health impacts in planning and policy decisions; (3) highlights some of the great working being done by New Jersey municipalities to use Health Impact Assessment and Health in All Policies approaches to inform decision-making; (4) suggests steps local officials can take to advance a Health in All Policies approach to local decision-making; and (5) showcases some of the resources and near term learning opportunities available to local officials throughout New Jersey to create healthy communities.

Introduction

The American Public Health Association defines public health as “the practice of preventing disease and promoting good health within groups of people, from small communities to entire countries.” The American Planning Association defines community planning as “a dynamic profession that works to improve the welfare of people and their communities by creating more convenient, equitable, healthful, efficient, and attractive places for present and future generations.” Community planning and public health have a long and strong history together. From the early days of zoning to more recent efforts to promote healthy community design, the decisions local officials make every day related to land use, urban design, infrastructure investment and economic development have the potential to significantly affect human health in a multitude of ways. While not always considered closely aligned, the two disciplines are inextricably intertwined.

As Catherine Ross et al. point out in their recent publication *Health Impact Assessment in the United States*, “Public health has been an important discipline and practice since the first civilizations, and many public health initiatives that remain important today have their origins in initiatives thousands of years old. For example, aqueducts, public toilets, and swamp drainage as public health interventions can be traced back at least as far as the ancient Romans.”¹ Similarly, elements of city planning, such as the layout of cities, road network planning and the design of public spaces and parks, can be traced along a similar timeline. Public health infrastructure, such as sewers and drinking water systems, have for millennia been a part of city design.

For centuries, public health as a discipline has focused on addressing critical challenges associated with combating acute infectious diseases. In that context, land use regulation was sometimes used to “...prohibit ‘unreasonable’ uses of land to prevent outbreaks of infectious diseases.”² At the turn of the last century in the United States, rapid industrialization created extreme pollution and unsanitary conditions in many American cities. “Tanneries and slaughter houses abutted homes and schools, and tall skyscrapers blocked light and air from streets.”³ These conditions resulted in the spread of disease and frequent public health emergencies.

In response to this growing crisis, the United States Supreme Court, in 1926, gave local governments the right to regulate land use through the use of zoning laws. The ruling in *Village of Euclid vs. Ambler Realty Co.* gave rise to the practice of “Euclidean” zoning, which systematically separates land uses for the purposes of protecting the health, safety and welfare of residents. This practice proliferated in the United States in the years and decades that followed.

While the practice of single use zoning contributed to a drop in the transmission of infectious disease, it also resulted in the patchwork pattern of subdivisions, office parks and strip malls that characterize almost every modern American city and town today. The separation of uses encourages the use of motor vehicles and increases the harmful emissions they cause, makes it

¹ C. L. Ross et al., *Health Impact Assessment in the United States*, DOI 10.1007/978-1-4614-7303-9_2, © Springer Science+Business Media New York 2014

² <http://www.healthycommunitiesbydesign.org/Content/10052/HistoricalPerspective.html>

³ Ibid

difficult to walk and bike safely to even near-by destinations and limits access to jobs and essential services for those that cannot afford or choose not to drive a car.

Today, the spread of infectious disease is less of a problem, but in recent decades there has been a steep rise in chronic health problems such as obesity, heart disease, diabetes, asthma and other conditions. Growth in chronic disease has been attributed to many factors, including longer life spans and changes in diet and nutrition; however, there is growing consensus in both the planning and public health professions that the way we have designed communities over the past 50-60 years plays an important role in determining health outcomes.

Although we are less likely to be exposed to industrial pollution or contract a disease due to unsanitary living conditions, we get less physical exercise, breath in pollution from the cars we drive, and depending on where we live, we may have limited access to health care and healthy food choices. Ironically, it seems the problems we face in terms of chronic disease in the 21st century may be in part due to the planning decisions we made in response to the public health concerns we faced in the early 20th century.

Over the past several years there has been growing interest in reconnecting the disciplines of public health and community planning to combat the health challenges we face in the United States and New Jersey. In 2008, the New Jersey Department of Health launched ShapingNJ, a state partnership for nutrition, physical activity and obesity prevention that seeks to “prevent obesity and improve the health of populations that are at risk for poor health outcomes in New Jersey by making "the healthy choice, the easy choice." ⁴ One of ShapingNJ’s core principles is to emphasize changing the policies and environments in which we live.

In 2012, the U.S. Department of Health and Human Services published Healthy People 2020 which outlines a series of health improvement priorities to be achieved by 2020. The overarching goals of Healthy People 2020, are to:

1. Attain high-quality, longer lives free of preventable disease, disability, injury, and premature death
2. Achieve health equity, eliminate disparities, and improve the health of all groups
3. Create social and physical environments that promote good health for all
4. Promote quality of life, healthy development, and healthy behaviors across all life stages⁵

Local planning and policy decisions are integral to achieving these goals and affecting change in our communities. This white paper outlines the importance of considering health outcomes in all policy and community planning decisions, highlights some of the great working being done by New Jersey municipalities to use health impact assessment and Health in All policies approaches to inform decision-making and showcases some of the resources available to local officials throughout New Jersey to create healthy communities.

⁴ - <http://www.state.nj.us/health/fhs/shapingnj/shapingnj/#sthash.mvmm8hTG.dpuf>

⁵ <https://www.healthypeople.gov/2020/About-Healthy-People>

Improving Public Health: Pieces of a Puzzle

According to the United Health Foundation's *America Health Rankings* 2014 annual report,⁶ New Jersey ranks 11th in the nation for overall good health. Relative to other states, New Jersey has a low and decreasing prevalence of smoking (decreasing by more than 12 percent since 1990), low and decreasing rate of infant mortality (decreasing by 50 percent since 1990), low incidence of most infectious disease and high numbers of dentists and physicians. This is good news for the Garden State.

The bad news, however, is that New Jersey faces some health challenges as well, including a high prevalence of low birth weight babies (31st in nation) and high rates of preventable hospitalizations (34th in nation). We also rank in the bottom half of states in levels of physical inactivity and cardiovascular disease, and adult obesity is trending upward. Drug deaths have increased dramatically in the past two years. Also troubling is a large disparity in health status by educational attainment of New Jersey compared to other states (35th among states). Additionally, health disparities are found within the state, as the state's southern counties and most in the New York metropolitan area have generally lower rankings in both overall health conditions as well as the factors that influence health conditions (things that can determine health).⁷

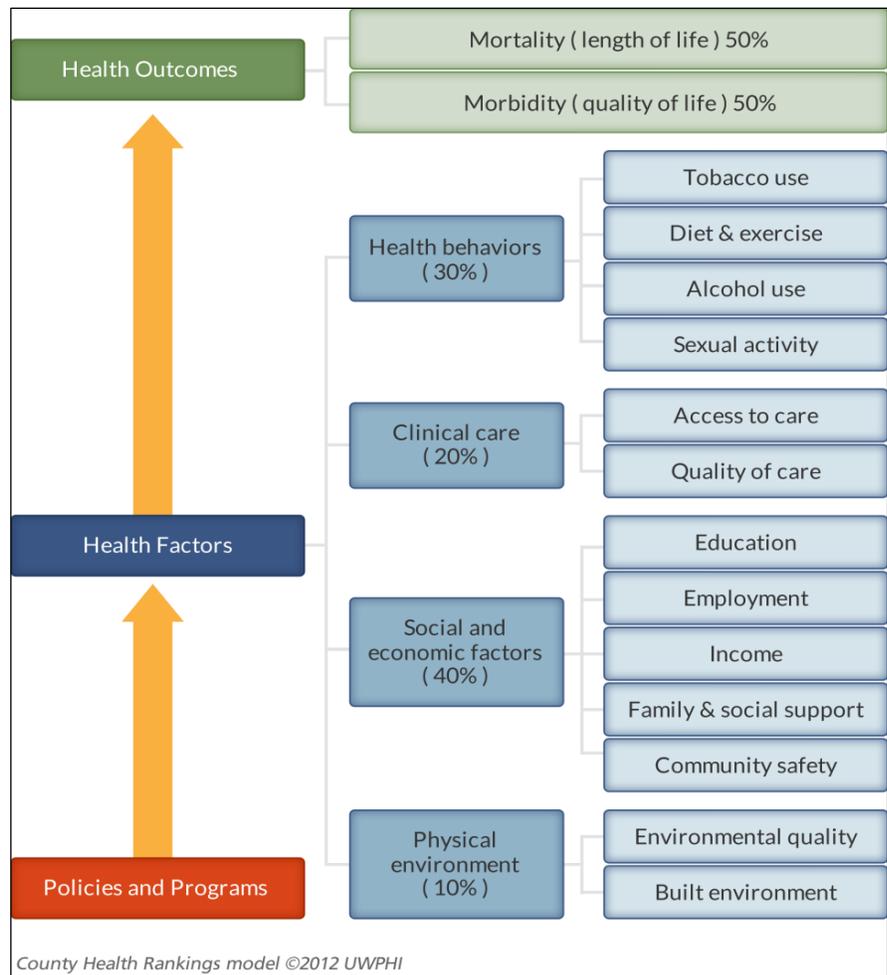
State and local leaders, including elected and appointed municipal officials, can make a tremendous difference in promoting good health among residents. We all know that health is influenced by many factors at the individual level including genetics, age, gender and personal behaviors (such as smoking, drinking alcohol, nutrition and exercise). Over the past several decades, policies and programs at the national and state level have effectively worked to instill healthy behaviors and healthful choices among individuals, such as educational campaigns to stop smoking. Also successful have been national, state and local efforts to increase access to quality healthcare through both public policy, educational programs and campaigns and innovative provision of health care services.

It is less clear whether other efforts to influence personal behavior, such as programs to increase access and consumption of healthy foods, ban soft drinks and increase physical activity, have met with success in New Jersey and surrounding states. Without a doubt, ongoing efforts in New Jersey to improve the health of our residents must continue to include strategies that educate individuals about healthy choices as well as strategies that provide access to good quality and affordable health care.

⁶ <http://www.americashealthrankings.org/NJ>

⁷ <http://www.countyhealthrankings.org/app/new-jersey/2014/overview>

In addition to factors associated with individual behavior, Americans more and more understand the important contribution of how social conditions and the places where we live, work and play contribute substantially to our health. Examples of social conditions that affect our health include availability of economic resources to meet our daily needs, quality schools, transportation access, community safety and exposure to crime. Examples of conditions of the physical and built environment that affect health include housing conditions, exposure to harmful pollutants, access to healthy foods and recreational opportunities, and community design.⁸ The County Health Rankings model developed by the University of Washington



and spearheaded by the Robert Wood Johnson Foundation, estimates that these physical, social and economic contribute just as much to morbidity and mortality as behaviors and healthcare (see figure).

Opportunities abound for local elected and appointed officials, along with residents and professional staff, to consider possible health outcomes of local decision-making including decision-making that might not otherwise seem to be health-related. Just the process of *considering* possible social and physical determinants of health as part of local decision-making can open up opportunities for us to implement programs, policies and projects in ways that result in positive health outcomes for our residents. Consider the types of decisions that are made every day by New Jersey’s municipalities and a host of opportunities to advance good health become apparent, including decisions related to land use, zoning and master planning, housing, education, roads and transit, housing siting and standards, trash and wastewater, etc.

The Centers for Disease Control defines the “social determinants of health” as: “the circumstances in which people are born, grow up, live, work, and age, as well as the systems put in place to deal with illness. These circumstances are in turn shaped by a wider set of forces:

⁸ <https://www.healthypeople.gov/2020/about/foundation-health-measures/Determinants-of-Health>

economics, social policies, and politics.”⁹ Another way to look at the influence of these determinants is to ask how might a proposed project, plan or policy affect air quality, water quality, livelihood, personal and community economic resources, education, social networks, nutrition, transportation, housing, noise, safety, parks, natural spaces, inequity, private services and/or public services, and thus lead to predicted health outcomes? For example, a policy might result in an increase in rents for formerly affordable housing, creating housing insecurity and an increase in shared housing, which creates overcrowding and finally, health outcomes related to stress, fire risks and infectious disease. Decisions regarding open space and land use can expand or reduce residents’ opportunities to be involved in active recreation as well as their exposure to pollution from commercial sources or vehicles.

Health in All Policies and Health Impact Assessment

The concept of considering possible health outcomes of decisions that might not ordinarily be thought of having health impacts is referred to nationally as taking a “*Health in All Policies*” approach. The Health in All Policies approach builds on previous collaborative public health work and is spreading rapidly and dynamically in the United States and around the world. In New Jersey, it is particularly important to think about health as part of local decision-making because of the unique challenges we face as an older industrial state with the densest population in the United States.

Health in All Policies is a collaborative approach to improving the health of all people by incorporating health considerations into decision-making across sectors and policy areas.

American Public Health Association

Past zoning and development decisions have created problematic land use patterns and a heavy reliance on vehicle travel. Only 3 percent of New Jerseyans walk to work. Our decades of development and industrialization has left a legacy of more than 16,000 contaminated industrial sites and an aging infrastructure that requires up to \$70 billion to address deferred maintenance.^{10,11} Also, many vulnerable subpopulations reside in the state including immigrants, the elderly and low-income individuals and families. Although New Jersey has three of the top 11 counties with the highest median income in the country, nearly one third of state residents are living in poverty and research clearly points to poverty as a key factor influencing health. People with lower socioeconomic status are more vulnerable to negative health impacts from future decisions.¹² A Health in All Policies approach engages diverse government partners and stakeholders to work together to improve health and simultaneously advance other goals, such as job creation and economic stability, transportation access and mobility, environmental sustainability and educational attainment.¹³

⁹ <http://www.cdc.gov/socialdeterminants/>

¹⁰ NJ DEP, Site Remediation, Environmental Trends Report, 2013.

¹¹ Council of New Jersey Grantmakers, Facing our Future: Infrastructure Investments Necessary for Economic Success, April 2012.

¹² Kaplan, G. A. (2009, September). The poor pay more: Poverty’s high cost to health. Robert Wood Johnson Foundation. Retrieved from: <http://www.rwjf.org/content/dam/farm/reports/reports/2009/rwjf47463>

¹³ Ståhl, T., Wismar, M., Ollila, E., Lahtinen, E., & Leppo, K. (Eds.). (2006). *Health in All Policies: Prospects and potentials*. Finland: Ministry of Social Affairs and Health, Finland, & European Observatory on Health Systems and Policies. Retrieved from: http://www.euro.who.int/__data/assets/pdf_file/0003/109146/E89260.pdf

An exciting new area of practice is emerging in the United States that can assist communities, policymakers and other decision-makers to predict possible health impacts of decisions that might otherwise not be thought to affect health – to integrate health upfront into “non-health” policies and decisions. *Health Impact Assessment* (HIA) is a practical applied tool in the toolbox of health in all policies. HIA uses both quantitative and qualitative data and involvement of affected residents to identify possible positive and negative outcomes of a decision and to offer recommendations on how decisions can be modified to enhance positive health outcomes.

Health Impact Assessment (HIA) is a process that helps evaluate the potential health effects of a plan, project or policy before it is built or implemented. An HIA can provide recommendations to increase positive health outcomes and minimize adverse health outcomes.

Centers for Disease Control and Prevention

The National Research Council defines Health Impact Assessment as “a systematic process that uses an array of data sources and analytic methods and considers input from stakeholders to determine the potential effects of a proposed policy, plan, program or project on the health of a population and the distribution of those effects within the population. HIA provides recommendations on monitoring and managing those effects.”

Health Impact Assessments are different from community health assessments, environmental impact assessments, public health assessments and health risk assessments.¹⁴ One important distinction about Health Impact Assessment is that it is a forward-looking tool, meaning it is designed to help a decision-making consider possible negative and positive health outcomes of a decision as part of the decision-making process. One important benefit of HIA is that it can assist local decision-makers identify specific recommendations that can adjust their decisions to result in better health outcomes.

Although more prevalent outside the United States, almost 400 Health Impact Assessments have been conducted in the U.S. since 2007, with only one in the State of New Jersey prior to 2014. More than half of the Health Impact Assessments conducted in the U.S. have been applied at the local level of decision-making and about half have been done to assess impacts of changes to the built environment or transportation. More and more, Health Impact Assessments are being applied to other sectors such as education, energy, food policy and housing.

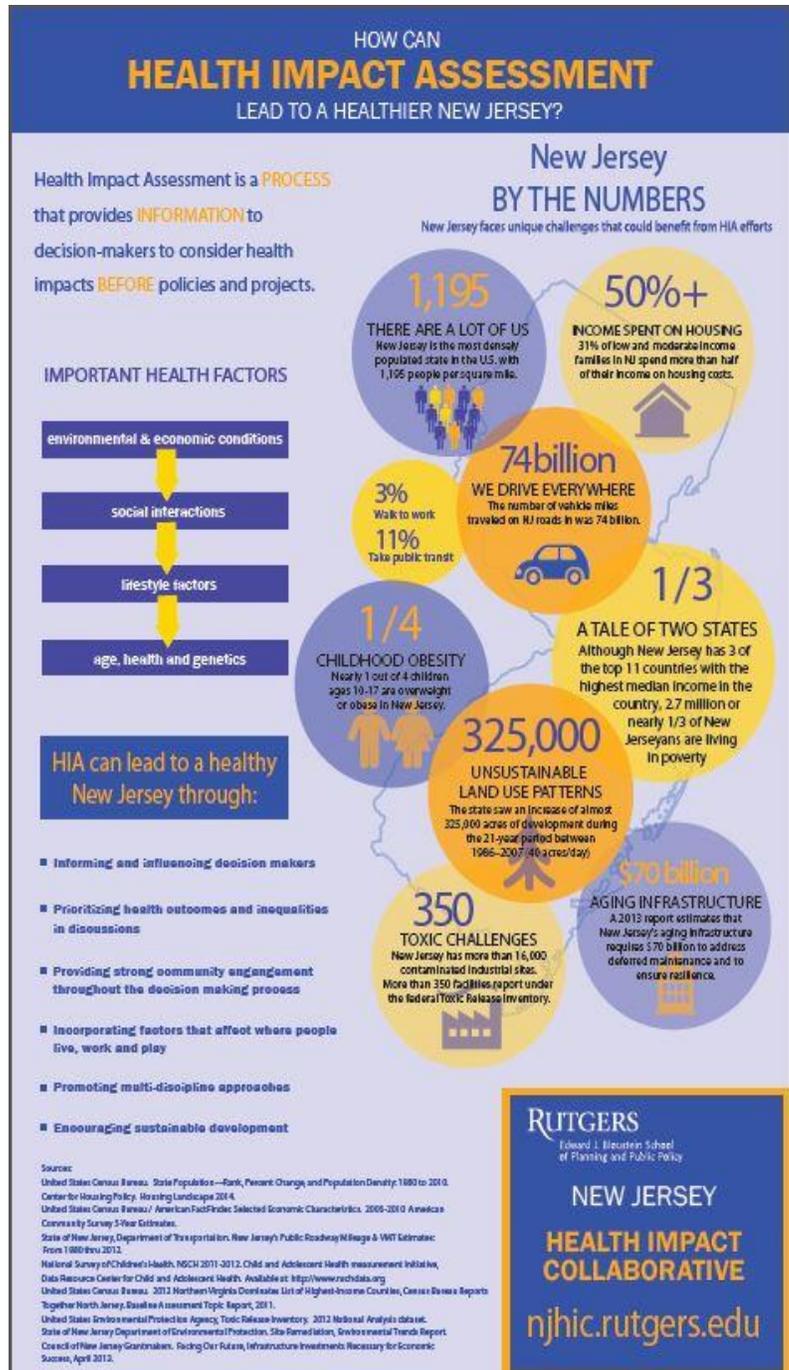
¹⁴ http://www.cdc.gov/healthyplaces/types_health_assessments.htm

A Health Impact Assessment (HIA) is a structured, but flexible, process that:

- Predicts anticipated health outcomes of a proposed decision or project
- Translates that information into feasible recommendations for balanced, well-informed decisions that maximize benefits and minimize health risks
- Helps weigh trade-offs and understand the direct and indirect health impacts of a project, plan or policy and
- Includes strong engagement of community, business and other decision-making bodies

HIAs can be scaled to fit the available timeline and resources. In general, HIAs can be conducted at three levels of effort depending on the importance of the decision, available time and resources:

- *Desktop HIAs* use existing information and limited stakeholder engagement;
- *Rapid HIAs* use existing research and may involve some fieldwork, stakeholder engagement meetings and a review of health and scientific literature;
- *Comprehensive HIAs* gather extensive amounts of scientific and health literature may include collection of new information, may involve in-depth community surveys, interviews, and regular contact with decision-makers.



All levels of HIA are guided by 6 steps:

- **Screening** – Step 1 determines whether an HIA will add value to a decision. An HIA practitioner asks: “Is an HIA needed?” and “Will it be useful to the decision process?”
- **Scoping** – Step 2 involves developing a plan for the HIA. An HIA practitioner asks: “What health impacts will be considered?” and “What populations will be affected?”
- **Assessment** – Step 3 is the phase where an HIA practitioner gathers data from official sources, scientific literature, modeling, surveys and focus groups to identify current health conditions and predict health impacts of the pending decision.
- **Recommendations** – Step 4 is the process in which an HIA practitioner identifies practical, feasible alternatives for how the decision can be designed to promote and protect health.
- **Reporting** – Step 5 involves communicating the HIA findings and recommendations.
- **Evaluation** – Step 6 includes examining the impact of the HIA and developing plans for monitoring its ongoing impact on the proposed policy, plan, project or program to find out if the HIA helped to change outcomes.

HIAs emphasis on stakeholder engagement is one of the things that distinguishes it from other decision-support tools. A second element of HIA that distinguishes it from other decision-support tools is that it is intended to predict possible health outcomes of a decision prior to the decision being made so that it can inform the decision itself.

There are many ways a Health Impact Assessment provides value to local decision-making process. HIAs are:

- ✓ **Informative.** HIAs are applied to a decision about a policy or project that might not otherwise focus on health.
- ✓ **Data driven.** HIAs provide solid research and best-practice on social, economic, and environmental determinants.
- ✓ **Collaborative.** The HIA process engages with stakeholders from government, community, businesses and non-profit organizations, creating the opportunity for building and sustaining cross-sector partnerships.
- ✓ **Pragmatic.** HIAs are focused on providing timely, useful judgments based on available knowledge rather than elegant quantitative models.
- ✓ **Focused.** HIAs provide feasible recommendations that can help minimize risks and maximize benefits.
- ✓ **Cost-saving.** HIAs can promote efficiency by identifying issues being addressed by multiple agencies and fostering discussion of how agencies can share resources and reduce redundancies, thus potentially decreasing costs and improving performance and outcomes.

There are many types of local decisions that can benefit from HIA including:

- Policy decisions by local municipal and school governments such as ordinances and codes;
- Policy implementation once a decision has been made;
- Projects that are approved but with remaining decisions concerning siting, permitting, design or construction; and
- Comprehensive plans including municipal master plans, zoning, open space and regional growth plans.

HIA Practice in New Jersey

Despite its success and proliferation nationally, only one HIA had been conducted in New Jersey prior to 2014. As a result of leadership from Rutgers University and partners both within and outside the university, over the past year, that number has increased to five. In the past 14 months, four HIAs were either completed or are underway in New Jersey communities. These include:

❖ Bloomfield Avenue Complete Corridor Plan

This recently completed HIA was designed to predict the potential health outcomes of a proposed plan to implement a “road diet” along a segment of Bloomfield Avenue in Essex County, New Jersey. The HIA focused on elements of a potential road diet that would result in a reduction of at least one lane of motor vehicle traffic along the four-lane Bloomfield Avenue, and reconfigure the remaining lanes for improved safety.

Bloomfield Avenue, also known as County Route 506, is an arterial road that connects suburban and urban areas of Essex County. The Bloomfield Avenue Complete Corridor Plan is a study of a 4.3 mile segment of Bloomfield Avenue that not

HIA in Action: Informing Local Decision-making across the U.S.

- **Baltimore Comprehensive Zoning Code Rewrite** – recommendations to improve health benefits included lighting, landscape design and community gardens
- **Railroad Avenue Station Area Plan, Pittsburg, CA** – recommendations to mitigate air quality and noise impacts integrated into Plan
- **Jack London Gateway Development, San Francisco, CA** – many recommendations adopted into plan for senior citizen housing including pedestrian protection medians and noise insulating windows
- **Page Avenue Revitalization, St. Louis, MO** – recommendations included a community marketplace for small businesses and a healthy food zone ordinance
- **Public Housing Rebuild Post-Hurricane Ike, Galveston, TX** – Decision-makers used HIA recommendations to inform family placement into scattered units according to health factors

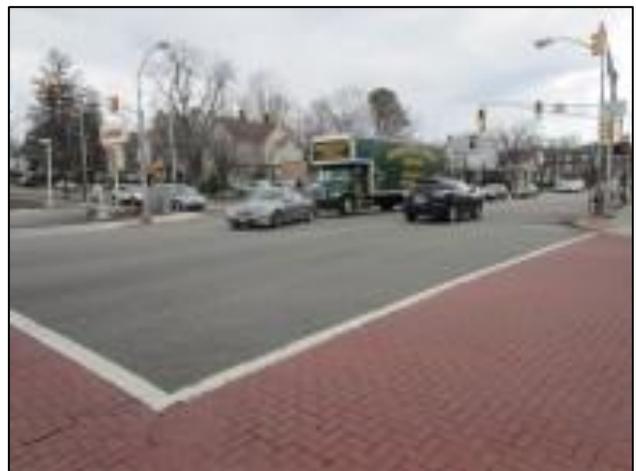


Photo credit: NJ Health Impact Collaborative

only serves as a principal arterial for cars and trucks, but also is a major transit corridor with bus, rail and shuttle service. The portion of Bloomfield Avenue addressed by the HIA is an undivided highway with four lanes of motor vehicle traffic, two lanes in each direction, with parallel parking along both sides. The road bisects busy central business districts in Montclair and Bloomfield. For the entire study area length, Bloomfield Avenue is a destination for shopping, dining, living and accessing schools and services. Some of the main issues affecting health and safety along Bloomfield Avenue are sidewalk and roadway widths, parking lanes, traffic flow, vehicle speeds and intersection design.

As part of the project, HIA practitioners conducted a survey and gathered public input through a variety of methods including meetings and focus groups, as well as booths at public open houses and events. Additionally, HIA practitioners reviewed scientific and health literature to identify current health conditions associated with Bloomfield Avenue as well as predicted health impacts of the potential “road diet” plan. Outcomes from the HIA include:

- ✓ **Current conditions** - The HIA found very few enjoy traveling on this section of Bloomfield Avenue. In fact, many try to avoid the road due to safety concerns. Drivers, cyclists and walkers all mentioned poor driver behavior and poor infrastructure most frequently. Issues with traffic congestion were rarely mentioned. Survey respondents frequently mentioned the need for increased policing of the avenue – for speeding, double-parking, jaywalking, cycling on sidewalks as well as crime.
- ✓ **Predicted Health Outcomes and findings-** The HIA predicted possible health outcomes from the potential road diet plan. These include: increasing safety of all road users including a significant reduction in motor vehicle, pedestrian and cyclist crashes within the study area and likely reductions in the stress experienced by those who commute to work or school as well as shoppers and patrons of social services along the corridor. The HIA also found that, as road diet measures are implemented, access to many amenities, businesses and community assets that contribute to a healthy lifestyle (healthy food, recreation, social services, medical clinics, etc.) will improve because people will feel safer using Bloomfield Avenue to travel.
- ✓ **HIA Recommendations** - The HIA recommended certain actions be taken as part of the potential road diet plan to further enhance positive health outcomes, including:
 - Instituting measures to both inform drivers of the speed limits and install engineering improvements that slow motor vehicle speeds;
 - Promoting driver, pedestrian and bicycle safety through educational programs and events;
 - Minimizing motorist, cyclist, pedestrian and transit user confusion and stress through reduced and more defined travel lanes and increased spaces used for bicyclists, pedestrians and transit stops;
 - Implementing measures to encourage walking or bicycling transportation to and among businesses and transit stops;
 - Addressing social equity by supporting non-motorized access and use of public services by vulnerable subpopulations.

Partners for Health Foundation, which serves communities in the project study area, provided funding for the Bloomfield Avenue HIA. The HIA was conducted in conjunction with a local demonstration project funded by Together North Jersey¹⁵ a voluntary regional planning initiative created through a grant from U.S. Department of Housing and Urban Development as part of a Sustainable Communities Regional Planning Grant program.

❖ Middlesex Greenway Access Plan Health Impact Assessment

This recently completed HIA examined the potential health impacts of a variety of strategies being considered to attract new users to the Middlesex Greenway in Middlesex County, New Jersey. The HIA focused on predicting the potential health impacts that would result from increased Greenway use including impacts to mental health, physical activity and environmental exposures.

The Middlesex Greenway is a 3.5-mile long county trail that opened in 2012 after over two decades of advocacy to transform the old Lehigh Valley Railroad line into a paved recreation trail. It connects the downtowns of Metuchen, Clara Barton in Edison, and Fords in Woodbridge and their diverse populations by providing a 10-foot wide, paved trail suitable for walking, biking and jogging. The greenway offers varied health benefits including improved fitness, reduction in obesity-related diseases and conditions, and stress reduction that results from both the natural beauty of the outdoors and from an enhanced sense of community.



With 1,900 employers, 20 parks, 7 schools, and a number of historic and community attractions located within one mile of the greenway, there are many opportunities for making the trail accessible to nearby communities and creating programs that attract residents and visitors. Staff from Middlesex County and local residents and government officials from the three Greenway-host towns are planning meetings to discuss implementation of short-term and long-term recommendations resulting from the Greenway HIA. Using community and resident engagement, research into scientific and health literature and data, the HIA practitioners sought to predict the health outcomes of a set of strategies that were designed to increase use of the Greenway by area residents. HIA practitioners held open houses, conducted resident surveys and engaged local businesses to better understand current and future Greenway use to better understand impacts to health.

- ✓ **Current Conditions** – The HIA found that the Greenway is an important, yet underutilized, asset to promote physical fitness among area residents and visitors. However, the HIA also found that Greenway use was not optimal due to concerns about personal safety, potential collisions on the Greenway, areas where the Greenway crosses

¹⁵ <http://togethernorthjersey.com/>

streets and along roads leading to the Greenway, as well as concerns about health risks associated with exposure to animals, insects and allergens.

- ✓ **Predicted Health Outcomes and Findings** – The HIA projected that greater use of the Greenway by area residents and visitors could significantly increase social interaction and physical activity. This would likely lead to substantial improvement in the mental and physical health of trail users, with disproportionate positive impacts for lower income individuals who have limited options for fitness. The increase in exposure to green space will reduce stress, but allergens or animal/insect bites could also lead to negative health outcomes, particularly for children and for those with allergies or asthma. With more people using the trail for walking, bicycling, skateboarding and rollerblading, there is a possibility of more collisions and thus more injuries. However, if the trail access and the shared use of trail space are well-managed and users are educated about proper trail etiquette and crosswalk use, collisions can actually decrease. Perception of crime should also decrease, as more people using the trail will reduce feelings of isolation for senior citizens and women alone, and more awareness. Further, an increase in pedestrians using nearby streets to access the trail or to make loops will likely benefit the local economy through purchases of food, drink and equipment, with a conservative projection putting the dollars injected into the local economy at more than \$100,000.
- ✓ **HIA Recommendations** – Recommendations resulting from the HIA offered practical suggestions for how future plans for the Greenway could maximize physical and mental health benefits for greenway users, and minimize risks to health from environmental exposures. Recommendations included suggestions on strategies to:
 - Increase options for bicycle access to the Greenway from nearby neighborhoods;
 - Enhance the Greenway experience by adding bicycle and exercise amenities;
 - Improve connections to reach other parks and trails from the Greenway;
 - Improve security by adding more lighting in certain areas, improving signage and promoting walking groups to use the trail together;
 - Enhance Greenway use by schoolchildren through greater educational use of the greenway, such as outdoor-themed curricula, after school sports, and for student research;
 - Promote the greenway and nearby businesses and attractions as a local tourism destination;
 - Expand the greenway to Perth Amboy and the Dismal Swamp to expand its use regionally.

The HIA was conducted as part of a local demonstration project funded by Together North Jersey, a voluntary regional planning initiative created through a grant from U.S. Department of Housing and Urban Development as part of a Sustainable Communities Regional Planning Grant program.

❖ **City of Hoboken, New Jersey Proposed Stormwater Management Plan**

The City of Hoboken, once an island bounded by the Hudson River to the east and marshland, streams and ponds to the west, is today a vibrant and growing city. Due to its location, riparian heritage, and a development pattern characterized by a high-level of impervious surface, many parts of the city are subject to persistent and sometime severe flooding. Because much of Hoboken is at or below sea level, flooding is a regular occurrence and as well as an acute

occurrence during weather events such as Superstorm Sandy. Multiple flooding events over the past several years led to major disruptions, streets closed to traffics and the city’s aging sewer system becoming overwhelmed with rainwater, backs-up and overflows.

One of the strategies under consideration in Hoboken to address chronic and event-related flooding is the development and adoption of an updated stormwater management element to the City’s Master Plan and adoption of a new stormwater management ordinance that can facilitate implementation of nature-based “green infrastructure” best management practices citywide. In partnership with New Jersey Future and the Sustainability Institute at The College of New Jersey, Rutgers University is leading an HIA to assess the potential health impacts of proposed amendments to Hoboken’s stormwater management plan and associated ordinances.



Photo credit: www.nj.com

The HIA, which is anticipated to conclude in August 2015, is considering the health impacts of frequent flooding and the possible risks and co-benefits of implementing a comprehensive green infrastructure strategy to reduce flooding and combined sewer overflow events in the city. The goals of the HIA include:

- Understanding the health impacts of flooding and combined sewer overflow events under current conditions in Hoboken;
- Understanding the potential health risks and benefits of stormwater management and flood mitigation strategies under consideration;
- Identifying the distribution of health impacts related to flooding and combined sewer overflow events to assess the extent to which certain populations are more affected both by health risks and benefits;
- Identifying opportunities to maximize benefits and minimize risks associated with implementing proposed natural infrastructure approaches to stormwater management;
- Connecting housing authority residents to resiliency planning efforts in the city;
- Influencing decision-making related to stormwater management planning in Hoboken and in other jurisdictions to maximize health benefits;
- Informing and identifying the broader context of existing efforts related to hazard mitigation and resiliency planning and opportunities to transfer knowledge and lessons learned during HIA process to other jurisdictions.

The Hoboken HIA is funded by The Health Impact Project, a collaboration of the Robert Wood Johnson Foundation and The Pew Charitable Trusts. The Rutgers-led project is one of the first times HIA is being applied to disaster recovery decision-making in the United States.

❖ Mystic Island, Little Egg Harbor: A Voluntary Residential Buyout Program

Little Egg Harbor is located in Ocean County, NJ. Mystic Island is an unincorporated community in Little Egg Harbor Township that includes several islands joined together in the 1960's resulting in buildable space surrounded by lagoons. In October of 2012, Hurricane Sandy caused much of the area to flood with almost seven feet of water, damaging approximately 4,000 homes. Nearly 1,000 of those homes were destroyed or significantly damaged. The homeowners in this area are suffering many health effects of the storm aftermath, from allergic reactions due to mold growth to the stress from repairing damaged housing.



Photo credit: Press of Atlantic City

One potential option for addressing areas with frequent flooding and projected issues with future sea-level rise, like Mystic Island, is a voluntary buy-out program. Blue Acres is a program of New Jersey Department of Environmental Protection (DEP) intended to buy out properties that have been damaged by flooding (or may be prone to damage by storms and storm-related flooding) and are eligible for acquisition. The flood prone land is converted into municipal owned open space. Through NJ DEP's Superstorm Sandy Recovery Fund, the state of NJ will spend \$300 million in federal disaster funds to give homeowners the option to sell Sandy-damaged homes at pre-storm value in flood-prone areas. In addition, Hazard Mitigation Grant program funding from the Federal Emergency Management Administration can be used to fund buy-outs.

In partnership with New Jersey Future and the Sustainability Institute at The College of New Jersey, Rutgers University is leading an HIA to determine the potential health impacts associated with a coordinated voluntary buy-out program that could potentially result in the purchase and removal of up to 500 properties. Expected to conclude until August 2015, the Little Egg Harbor HIA is considering health factors including:

- Stress of dealing with acute storm events and persistent flooding, including associated mental health outcomes such as seeking refuge with alcohol and drugs
- Respiratory problems (nasal & throat irritation, coughing, wheezing, eye irritation, skin irritation, asthma, chronic pulmonary disease or COPD) due to mold exposure
- Effects of a buyout of properties on social fabric of the community
- Impacts of potential new open space created by the buyout area, including recreational opportunities
- Household financial impacts of repeated flooding, repair and insurance costs
- Economic and fiscal impacts to the community including property tax and municipal services
- Impacts to vulnerable subpopulations including elderly, low income and disabled

The Mystic Island - Little Egg Harbor Township Voluntary Buyout HIA is also funded by The Health Impact Project as part of the Rutgers-led project exploring how best to use HIA as part of disaster recovery decision-making.

HIA and HiAP can Help Municipalities Promote Health

Local officials throughout New Jersey are encouraged to view HIA and HiAP as important tools available to improve the health of their residents and overall health of their communities. Many New Jersey municipalities have undertaken programs and are implementing innovative strategies to enhance the health of their communities. For example, for a decade now, the Mayor's Wellness Campaign, a program of the New Jersey Health Care Quality Institute in partnership with the New Jersey State League of Municipalities, has provided opportunities and resources for hundreds of Mayor's across the state to be local champions of healthy community initiatives.

Last year, the City of New Brunswick launched its LIVE WELL-VIVIR BIEN NEW BRUNSWICK™ campaign that will serve as a platform for development of a healthy community Blueprint for Action. The City of Trenton as part of Trenton 250, its comprehensive master plan re-write process, will develop a first of its kind in New Jersey master plan health element. This effort is being advanced through a partnership with the New Jersey Chapter of the American Planning Association, the New Jersey Public Health Association, and the Edward J. Bloustein School of Planning and Public Policy at Rutgers with support from the Centers for Disease Control, The American Planning Association and the American Public Health Association.

The City of Newark in partnership with Rutgers New Jersey Medical School is embarking on development of a citywide community health assessment. As part of a New Jersey Department of Health Shaping NJ¹⁶ pilot program, the City of Elizabeth is partnering with the Gateway Family YMCA and other partners to undertake a "Shaping Elizabeth Community Health Initiative. These and other efforts lay the groundwork for adopt HiAP approaches and for using HIA to inform specific decisions on a wide array of programs, projects and policies.

Here are some specific actions local elected and appointed officials, administrators and professional staff can take to fully integrate health considerations in the decisions that govern the design and function of our communities:

1. Participate in an upcoming training on HIA and HiAP.
2. Work with community leaders, local hospitals, health care providers and the public to identify what health challenges are facing your community and to set goals for the future. Then use those goals to guide municipal decisions.
3. Convene a HiAP task force to bring together your municipal health official and other municipal departments to discuss HiAP, HIA and how local decisions can be used to improve health conditions in your community.

¹⁶ <http://www.state.nj.us/health/fhs/shapingnj/>

4. Make a list of all the decisions your governing body, local boards and commissions and municipal departments make each week, month or during the year. Consider the broad definition of social determinants of health and ask yourself, which of these decisions may have potential health impacts?
5. Set aside resources in your next budget to conduct one or more HIAs on pending local decisions. Experience conducting an HIA can help decision-makers and the public understand how all kinds of decisions can affect the health of your community and its residents.
6. Direct your municipal planning board to include health considerations in the next update or reexamination of your community's Master Plan. This effort should consider health impacts across all elements of the Master Plan. Use the community's Master Plan as guide for all municipal decision-making, not just for decisions related to land use.
7. Identify five decisions that may have important impacts in your town over the next year and consider whether there is an opportunity to improve the health of your residents based on how the decision is made or implemented. Then learn about what other communities have done to shape those decisions in a way that can maximize health benefits and minimize health risks.

Upcoming Opportunities for New Jersey Municipalities

Health Impact Assessment is a practical tool that New Jersey municipalities can use to expand their efforts to improve the health of their residents. A local official involved in the recently completed Middlesex Greenway HIA provided this insight:

“It is so important to remind the public and our elected officials that creating opportunities like the Middlesex Greenway translate into fewer doctor visits, better health emotionally and physically, and help reinforce a sense of community. The HIA gives us the evidence to take to the freeholders.”

With the introduction of the New Jersey Health Impact Collaborative, interest in HIA is quickly growing in New Jersey among New Jersey’s counties and municipalities, state executive agencies, community and statewide community-based and advocacy organizations. Resources now exist for New Jersey municipalities to learn how HIA can provide a new tool to build and steward healthy communities. There are multiple ways in which elected and appointed municipal officials, as well as professional staff and consultants, can become more familiar with HIA to better understand when and how HIA may benefit specific municipal decision-making.

Here are a few upcoming opportunities to learn more and take the next step:

Examples include:

- **Training Opportunities:** An HIA training was provided by the New Jersey Health Impact Collaborative at January’s annual meeting of the New Jersey Chapter of the American Planning Association and a training is expected to be provided at a September meeting of the New Jersey Association of County and City Health Officials. Additionally, the New Jersey Health Impact Collaborative is working in partnership with the New Jersey State League of Municipalities to determine the most effective forum to offer HIA training to municipalities. Whether the outcome is an HIA training panel at the November annual meeting, or a dedicated training for New Jersey municipalities, stay tuned for announcements on its availability.
- **Inaugural Conference:** The New Jersey Health Impact Collaborative is hosting its inaugural conference on May 7, 2015 at Rutgers University in New Brunswick. The conference is specifically designed to introduce the concept of HIA to New Jersey decision-makers. Keynote speaker Dr. Dick Jackson will provide an important overview of current developments across the United States to integrate health into community design and decision-making. Other speakers will introduce HIA practice as well as insights into outcomes of HIAs across the country. New Jersey practitioners will present the outcomes of four HIAs done in collaboration with local partners in various parts of the state. Register for the conference at: <http://njhic.rutgers.edu/conference2015/>.

- **Sustainable Jersey:** One of Rutgers' partners on its initiative funded by The Health Impact Project is The Sustainability Institute at The College of New Jersey, which supports the Sustainable Jersey municipal government certification program.¹⁷ As part of this partnership, Sustainable Jersey will be integrating HIA elements into several of its existing actions to more systematically integrate consideration of health benefits of the actions. Municipalities that incorporate the new health elements will receive additional bonus points when undertaking or revising those actions. Additionally, a new Sustainable Jersey action is under development that will award points for efforts that result in building capacity for HIA in the municipality such as participating in an HIA training or continuing education. Stayed tuned by joining the Sustainable Jersey email list.
- **Continuing Education and HIA Technical Assistance:** The New Jersey Health Impact Collaborative Serves as a technical assistance, training and mentoring provider to local governments, state agencies, non-profit and community organizations and others that want to implement an HIA or better understand HIA. Contact the Collaborative if you have an HIA that you want to undertake. Sign up for the Collaborative's email list at: www.njhic.rutgers.edu. Over the next year, the Collaborative will also be offering Continuing Education programs as well which may provide an ideal introduction to HIA for you and your municipality.

¹⁷ <http://www.sustainablejersey.com/>