



# **A Health Impact Assessment of the New Britain-Hartford Busway**

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# EXECUTIVE SUMMARY

The goal of this Health Impact Assessment was to better understand how the New Britain-Hartford Busway will impact the vulnerable populations along its route, in both positive and negative ways. Using The Connecticut Association of Directors of Health's Health Equity Index, an assessment was performed on the current conditions in communities surrounding the Busway. The Index provided timely information pertaining to health outcomes for residents in these communities. Using Spearman Rank Correlation Coefficients, specific community conditions were identified that correlated to poor health outcomes. This assessment was used to predict the effects of the Busway project on residents and to make suggestions to enhance the health promoting aspects of the Busway and to mitigate any negative effects on health outcomes. Data indicated that the increases in employment possibilities offered by reliable transportation such as a Busway could have a positive effect on the health of residents, especially in New Britain and Hartford, although care should be taken for those businesses affected by Busway Construction. Community safety and the possibility of neighborhood gentrification after construction of the Busway could pose a risk for residents with low levels of resources and specific recommendations are made for the mitigation of these risks.

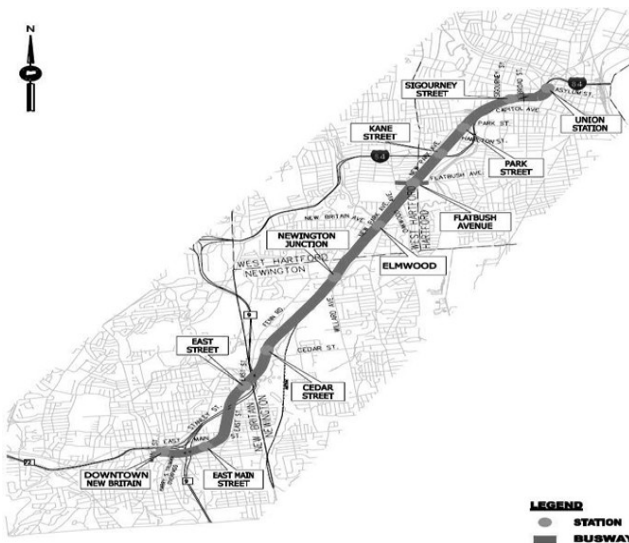


## WHAT IS A HEALTH IMPACT ASSESSMENT ?

A health impact assessment is a practical approach used to judge the potential health effects of a policy, program or project on a population, particularly on vulnerable or disadvantaged groups. Recommendations are produced for decision-makers and stakeholders, with the aim of maximizing the proposal's positive health effects and minimizing its negative health effects (The World Health Organization, 2011).

# THE NEW BRITAIN HARTFORD BUSWAY

The Connecticut Department of Transportation has recently begun construction on the New Britain – Hartford Busway project (the Busway), a Bus Rapid Transit facility on a 15.1-kilometer (9.4-mile) right of way between New Britain and Hartford. The Busway will be built alongside an abandoned railway line from New Britain to Newington Junction and then along an active railway line for the remaining route into Hartford. The Busway will also link with express bus routes from Waterbury, Bristol, Cheshire and the University of Connecticut Health Center. Eleven Busway stations will be built along the route in the municipalities of New Britain, Newington, West Hartford and Hartford.



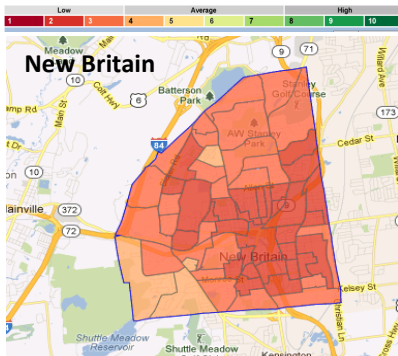
The proponents of the plan claim that the Busway would improve bus service in the region by increasing travel speeds and improving reliability over conventional on-street bus or express routes, since buses would not be delayed by congestion on local streets or Interstate 84. Additionally, a multi-use trail will be constructed between downtown New Britain and Newington Junction, which will provide a green space for residents and an opportunity for bicycle and pedestrian travel between the two municipalities away from other vehicular traffic.

The required environmental impact assessment report has been filed with the state, yet transportation projects can have health effects above and beyond simply the environmental impact. Transportation and land use decisions are two of the biggest factors that affect the social determinants of health (SDOH), conditions in which people are born, grow, live, work and age, which are largely responsible for health inequities .



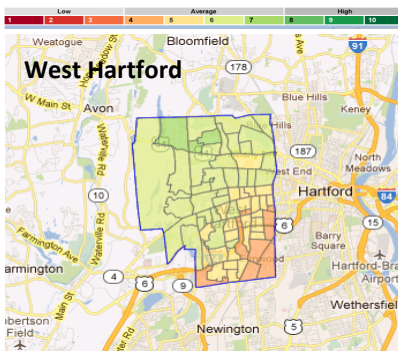
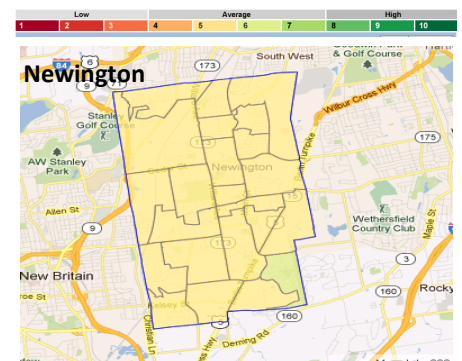
# MAPPING COMMUNITY CONDITIONS ALONG THE BUSWAY ROUTE USING THE HEALTH EQUITY INDEX

The Health Equity Index (Index) is a community-based electronic tool that profiles and measures the social determinants (including the social, political, economic, and environmental conditions) that affect health and their correlations with specific health outcomes. The Index provides data and GIS mapping for all 169 communities in Connecticut. The scores are on a 10-point scale with 1 (red) indicating the least desirable community conditions and 10 (green) indicating the most desirable. A score of 5 is the median value for the state.



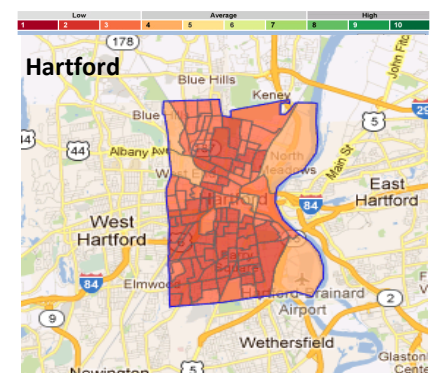
New Britain is a racially diverse city which is struggling with community conditions that are below the average of the state of Connecticut as a whole. On the Health Equity Index, the town earns the lowest score possible on the Index in community safety, and only slightly higher in economic security, environmental quality and education. The determinants of housing and employment score below the state median.

Newington is a town which is more economically secure than its larger neighbor, New Britain. While many of the home prices are lower than the state average, and while many of the residents are employed in lower paying jobs, many residents own their homes and have settled into the area for five years or more. In all, the communities surrounding the Busway are stable communities. The neighborhoods face problems with environmental quality and community safety with other determinants scoring at or above the state median.



The City of West Hartford is generally more affluent than the other towns housing the Busway, but the neighborhoods directly affected by the project are more racially diverse, and less affluent than the city as a whole. The average age of these neighborhoods is younger than the West Hartford average and many of the residents hold low paying jobs. The community conditions that are most concerning in the city are environmental quality and community safety.

Community conditions in the City of Hartford are generally worse than the rest of the state, and the Hartford neighborhoods abutting the Busway are no exception. In reality, they are some of the poorest in the city, with some of the greatest challenges to their residents. The high crime rate, high levels of poverty, high numbers of teenage mothers and poor housing conditions have led to low life expectancy, high levels of childhood and infectious disease and a low level of health care access.





## EMPLOYMENT

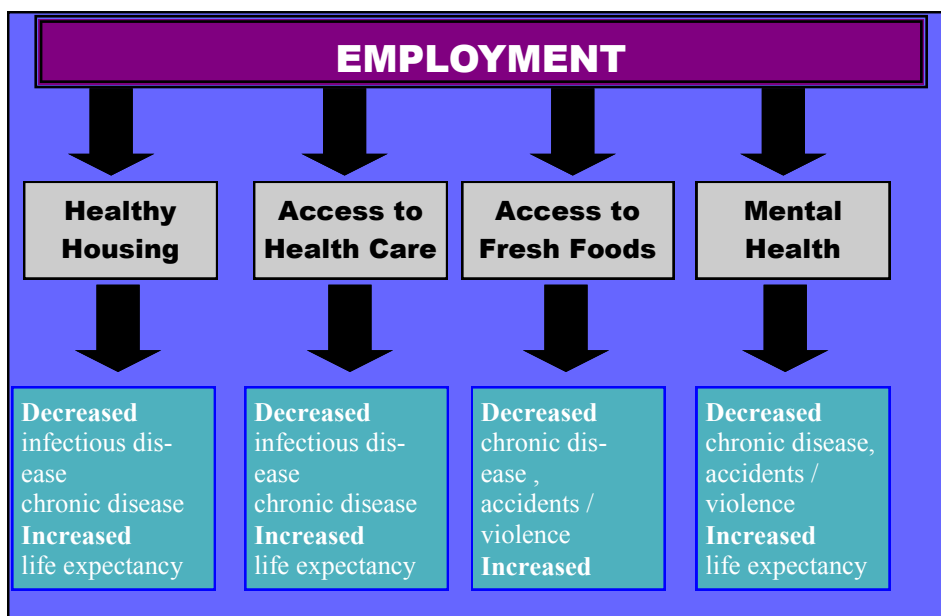
The Busway project should improve employment possibilities in a number of ways. The Busway will increase the geographical radius wherein people without a car can find employment, and 10% of residents of the areas around the Busway do not own vehicles. The possibility of economic development from the new transit project can increase the possibility of earning a living wage in the neighborhood. Finally, as the project is expected to create jobs, it is important that these jobs are made available to local workers. The vast majority of these jobs will be temporary during the construction phase, where up to 4,000 workers will be retained. Well-paying temporary jobs with on-the-job training opportunities can lead to permanent employment for those who have not been able to successfully enter the labor market.

During the course of the construction of the Busway, care must be taken not to disrupt current businesses more than is absolutely necessary. It is impossible to build a roadway without detouring traffic around the construction which will make many businesses less accessible. The possibility of job losses due to the construction is real, but can be mitigated. Services should be made available to help any displaced workers find new employment.

Health Outcome	Municipalities			
	New Britain	Newington	West Hartford	Hartford
Childhood illness	0.60	0.60	0.60	0.53
Health care access	-0.57	-0.57	-0.57	-0.64
Infectious disease	0.48	0.48	0.48	0.70
Mental health	0.42	0.42	0.42	0.58
Decreased life expectancy	0.37	0.37	0.37	0.51
Diabetes				0.71
Accidents/Violence				0.52
Cardiovascular				0.44
Renal disease				0.43
Liver disease				0.41
Perinatal care				0.39

Spearman rank correlation coefficients showing the relationship between unemployment and health. The table shows only those correlations that are significant ( $>0.3$ ). Negative numbers indicate negative correlations. Unemployment has a strong link to the health of the community, a link that is most apparent in the distressed urban areas of Hartford.

Employment can lead to better housing, access to the healthcare system, access to more nutritious foods and an overall better level of mental health. All of these factors can improve health outcomes.



# COMMUNITY SAFETY

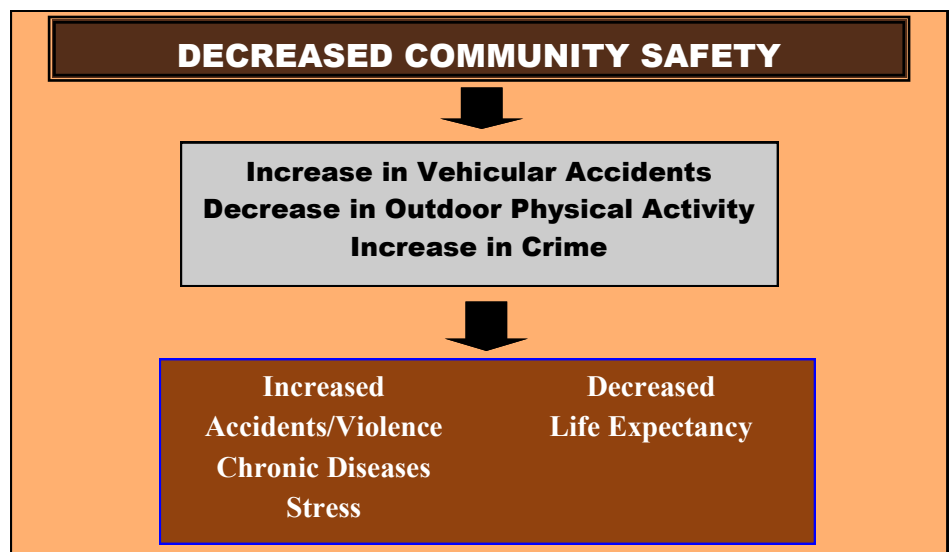
The project creates a new roadway that crosses some local streets at-grade. Although there will be a low volume of traffic on the bus-only roadway, at-grade crossings pose a safety risk. It is projected that these crossings will be controlled with traffic control signals, which will stop cross traffic only when a bus is coming close to the intersection. For residents who are accustomed to crossing the area unimpeded, it is important that these signals and safety features are properly designed to protect cross traffic.

With the construction of new stations and new multi-use trail proposed for the Busway comes the possibility of an increase in both crimes against persons and crimes against property. According to the Busway plans (Doyle & Burke, 2001), the project was designed using a concept they referred to as "Defendable Space." Important features in station plans will include elements that provide sightlines to and within the facility, structures and landscaping which will minimize the ability of people to hide from view, sufficient lighting, and easy understandable signs to inform and direct Busway passengers. There will also be easily accessible emergency phones to assist community members in need of these services. It is concerning that similar plans for lighting and emergency phones have not been made for the multi-use trail.

Health Outcome	Municipalities			
	New Britain	Newington	West Hartford	Hartford
Childhood illness	0.73	0.73	0.51	0.93
Health care access	-0.62	-0.62	-0.44	-0.79
Infectious disease	0.49	0.49	0.67	0.74
Mental health	0.43	0.43	0.55	0.72
Decreased life expectancy			0.41	0.33
Diabetes			0.32	0.53
Accidents/Violence			0.48	0.52
Cardiovascular				0.44
Renal Disease			0.47	
Liver Disease			0.31	0.47
Perinatal care				0.54

Spearman rank correlation coefficients showing the relationship between a lack of community safety and health. Hartford and West Hartford show a strong correlation between low levels of community safety and poor health outcomes. Increasing levels of crime raises the possibility of these health problems.

Without sufficient safety measures, residents of the neighborhoods surrounding the Busway may experience increases in vehicular accidents. Additionally, proper lighting, surveillance and call boxes should be put in place along the multi-use trail to reduce crime for residents who want to enjoy the newly created green space safely.

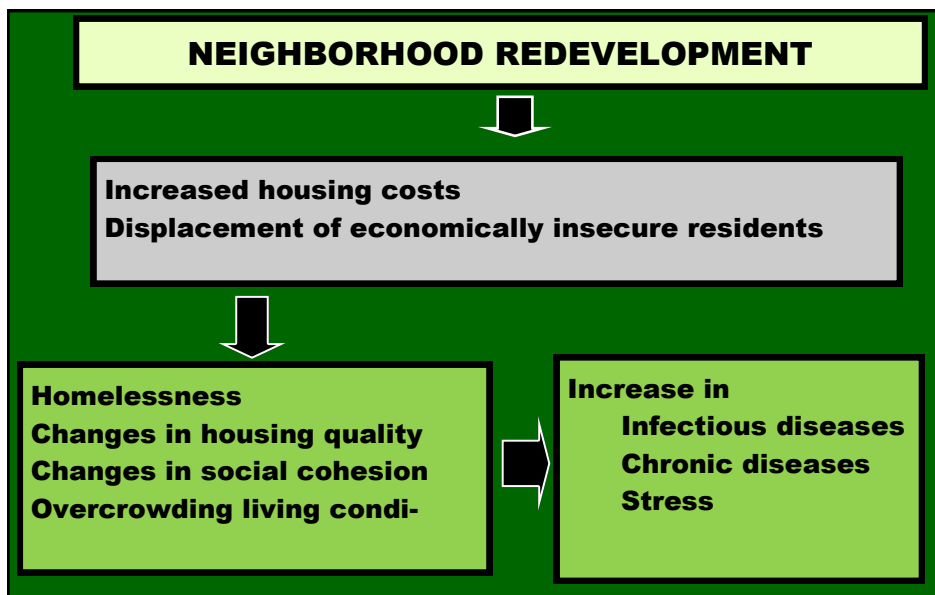


# GENTRIFICATION

With improvements in mass transit comes the possibility of an enhancement of neighborhood revitalization efforts and property values. According to this report, the four communities near the Busway have all indicated a willingness to offer financial incentives to encourage commercial development near stations. While increasing property values will be a boon for property owners, the increase in prices through a process known as gentrification could adversely affect the more economically vulnerable renters in the communities surrounding the project. According to the Brookings Institute (Kennedy, M, & Leonard, P., 2001), there are a number of key indicators that demonstrate that a neighborhood is at risk for gentrification. These include a high percentage of renters, an increased access to transportation, and comparatively low housing values. All of these factors are present in the neighborhoods surrounding the Busway in both New Britain and Hartford.

Spearman rank correlation coefficients showing the relationship between lack of secure housing and health. Hartford is already experiencing health effects that correlate strongly to the lack of affordable safe housing. Any increases in housing cost could mean displacement current residents, and the poor health outcomes associated with that displacement.

Health Outcome	Municipalities			
	New Britain	Newington	West Hartford	Hartford
Infectious disease	0.49	0.55	0.49	0.82
Health care access	-0.57	-0.47	-0.57	-0.76
Childhood illness	0.57	0.42	0.57	0.75
Accidents/Violence	0.43	0.40	0.43	0.60
Mental health		0.37		0.69
Renal disease		0.33		0.38
Decreased life expectancy		0.31		0.50
Diabetes				0.62
Liver disease				0.55
Perinatal care				0.49
Cardiovascular				0.40
Cancer				0.33



As seen in a number of the neighborhoods along the Busway, the number of families currently spending more than 30% of their income on rent was staggeringly high in New Britain and Hartford. Increased property prices are likely to lead to increased rent, forcing many renters to relocate, or lose the security of housing altogether. This can mean homelessness, a move into more crowded housing, a move into housing of a lesser quality, or a breakup of family units.

## RECOMMENDATIONS

Promote the use of a local workforce on the construction of the Busway and train local residents for future employment at the site after the Busway is complete.

Protect local businesses and residents during the construction phase. Ensure access to local businesses and provide proper signage to reroute customers to these businesses.

Plan for adequate lighting of the multi-use trail as well as emergency police call boxes. Work with local police to make sure there is proper surveillance on the trail for bicycle and pedestrian traffic, especially after dark.

Keep vehicle/pedestrian or vehicle/bicycle accidents to a minimum by putting proper safety measures in place to keep residents from crossing the Busway except at authorized crossing points. This is especially important in areas where the Busway passes close to residential neighborhoods.

Monitor for signs of gentrification including a shift from rental tenure to homeownership, a decrease in minority populations, an influx of young professionals, artists or other groups interested in cultural amenities, and an influx in services that serve more prosperous populations such as cafes and music clubs. Make a plan for neighborhood housing of residents in case of increasing prices.

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