

# **Lowry Corridor, Phase 2 Health Impact Assessment**



## **Phase 1 Groundbreaking**

**2007**

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# Lowry Corridor, Phase 2 Health Impact Assessment (HIA)

## I. Executive Summary

A Health Impact Assessment (HIA) identifies changes that optimize positive and minimize negative health consequences of a proposed policy or project. It is similar to an Environmental Impact Assessment (EIA), but rather than focusing on the environment, HIA focuses on human health and the potential for health impacts that may be felt by those most impacted by the policy or project. This HIA is being conducted to analyze the potential health effects of the Phase 2 reconstruction project of the Lowry Avenue Corridor.

The Lowry Avenue Corridor is located north of downtown Minneapolis. It is a five-mile thoroughfare that stretches from Theodore Wirth Parkway on the west to Stinson Boulevard on the east, connecting the cities of Robbinsdale and St. Anthony via north Minneapolis. This formerly vibrant community corridor has become an area of concentrated poverty and unemployment, with associated high rates of crime and drug use. To address the decline of Lowry Avenue, the county and city undertook an extensive planning process, with strong community input, in 2001 and 2002. The outcome of the planning process was the Lowry Avenue Corridor Plan, which was approved by Minneapolis City Council on July 12, 2002.

Construction on Phase 1 began on May 1, 2006 and was completed in mid-2007. It includes the 10 block segment of Lowry Avenue from Girard Avenue east to Interstate 94. Phase 2 development of the Lowry Avenue Corridor Project includes a 16 block segment of Lowry Avenue that runs between Girard Avenue and Theodore Wirth Parkway. The neighborhoods impacted by the reconstruction are Cleveland, Folwell and Jordan. Final design for Phase 2 is occurring in 2007, and it is anticipated that the completed HIA will enhance this final design process.

An HIA process includes five key steps: 1. Screening - to determine if a complete HIA is needed, 2. Scoping - to narrow and frame the focus of the assessment, and highlight key issues for consideration, 3. Assessment – to identify potential health determinants relative to the reconstruction project, 4. Communicating results – to involve and inform members of the community, and 5. Evaluating the impact of the HIA – to assess the actual impact of the HIA recommendations.

After completing the first three steps of the HIA process, an internal team made up of three Hennepin County (HC) staff developed recommendations related to each of the determinants of health impacted by the reconstruction process. Four primary themes surfaced in the recommendations:

- 1.) *Social connections* could be improved through making Phase 2 of Lowry Avenue more aesthetically pleasing. This can be accomplished through the incorporation of art, neighborhood designation markers, and landscaped boulevards.
- 2.) *Stabilization of the neighborhoods* can be achieved through improving transit, upgrading businesses and eventually realizing increased home values.
- 3.) *Improved Right-of-way design* improves physical safety of pedestrians and bicyclists in the corridor.
- 4.) *Physical activity* is encouraged through improvements to pedestrian facilities and the addition of community based programs.

Because this was the first HIA conducted in Hennepin County and the design project was well on its way when chosen as a pilot, this HIA was completed in its entirety by HC staff. While this is not an optimal method for conducting an HIA, nor is it preferred for ongoing work, it is being used as a learning tool, and has proven to be an excellent teaching tool for future HIA work in Hennepin County.

## **II. Background**

The Lowry Avenue Corridor is located north of downtown Minneapolis. It is a five-mile thoroughfare that stretches from Theodore Wirth Parkway on the west to Stinson Boulevard on the east, connecting the cities of Robbinsdale and St. Anthony via North Minneapolis. This formerly vibrant community corridor has become an area of concentrated poverty and unemployment, with high rates of crime and drug use. To address the decline of Lowry Avenue, the County and City undertook an extensive planning process, with strong community input, in 2001 and 2002. The outcome of the planning process was the Lowry Avenue Corridor Plan, which was approved by Minneapolis City Council on July 12, 2002.

The desired goals of the project as stated in the plan are:

- *Enhance access to jobs through public transportation.*
- *Effectively link civic spaces through transit, bicycle and pedestrian connections.*
- *Congregate services, retail and office space around transit centers/nodes.*

The planning process identified the following strategies to improve the livability of the corridor:

- Remove blighted buildings to make way for new multi-income housing.
- Provide neighborhood-focused retail and services at transit-centered nodes.
- Reconstruct Lowry Avenue with intersection improvements, on-street bicycle lanes, wide sidewalks and landscaped boulevards.
- Attract private investment to the region.

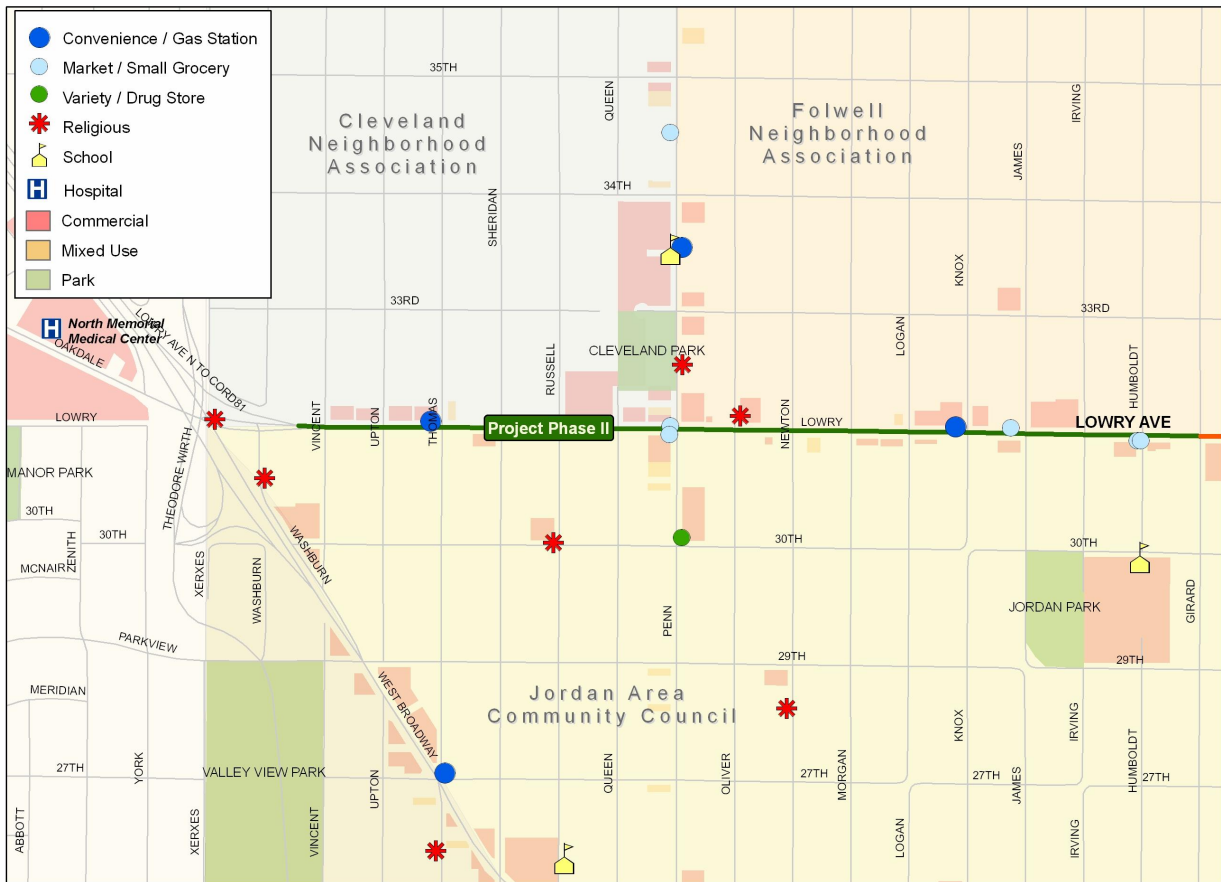
The roadway will be reconstructed in five phases.

Construction on Phase 1 began on May 1, 2006 and was completed in mid-2007. It includes the 10 block segment of Lowry Avenue from Girard Avenue east to Interstate 94. This HIA was conducted to analyze the potential health effects of Phase 2 development of the Lowry Avenue Corridor Project, which includes a 16 block segment of Lowry Avenue that runs between Girard Avenue and Theodore Wirth Parkway. Final design for Phase 2 began in early 2007 and construction will begin in spring, 2008.

See Lowry Avenue layout and assets map on the following page (Map A). The map identifies existing assets along Lowry Avenue as well as the three-block radius surrounding Lowry Avenue. There are a number of small markets and convenience stores along Phase 2 of the Lowry project. A number of places of worship exist in the area as well as three elementary schools.

# Map A

## Lowry Avenue Community Assets along Phase II



**Note:** There are no health clinics in the project neighborhoods. However, North Memorial Hospital—a Level I trauma center—is at the junction of Theodore Wirth Parkway and Lowry Avenue in the City of Robbinsdale at left on this map, just beyond the Minneapolis border.

### III. Community Data

In order to successfully conduct this HIA, it is critical first to understand the dynamics of the neighborhoods involved in this reconstruction process. The neighborhoods impacted by the Lowry Corridor Phase 2 project are Cleveland, Folwell, and Jordan. A summary of the major demographic and social changes these neighborhoods have experienced over the past few years follows.

2000 Demographic Information							
Geographic Area	Total Pop.	% below poverty	% under age 19	Racial makeup			
Cleveland	3,440	16.9	35	AfAm - 30%	Cauc - 52%	Asian- 10%	Hispanic - N/A
Folwell	6,331	16.3	41	AfAm - 40%	Cauc - 38%	Asian- 12%	Hispanic - N/A
Jordan	9,149	28.9	47	AfAm - 49%	Cauc - 24%	Asian - 17%	Hispanic - N/A
*Minneapolis	388,282	16.7					Hispanic - 7.6%
*Hennepin County	1,116,200	8.3					Hispanic - 4.0%

Data sources: Minneapolis Community Planning and Economic Development

\* 2000 US Census

- **Total Population increased** in these three neighborhoods. Folwell experienced a 28% increase from 1980 to 2000, Jordan experienced a 16% increase, and Cleveland increased by 7% during the same time period.
- **Diversity increased** as the previously Caucasian neighborhoods became home to African American, Asian, and Hispanic populations. The Non-Hispanic white population decreased by 52% in the period from 1980 to 2000, while the number of minorities increased by 163%.

The following health and community data is reported by planning district, which is composed of several neighborhoods. Jordan is included in the Near North planning district and Cleveland and Folwell neighborhoods are included in the Camden planning district.

#### Family

- **Housing security is low.** The number of people who reported missing a rent or mortgage payment during the prior 12 months was nearly 16% in the Near North, 6.9% in the Camden area, 6% overall in Minneapolis, and 3.8% across all of Hennepin County (HC).
- **Raising children is difficult.** People who stated that they strongly agreed or agreed with the statement "This is a good community to raise children in" totaled 53% in Near North, 73.4% in Camden and 73% overall in Minneapolis. This compares to 89% in HC overall.

#### Community

- **Community cohesion is low.** People who stated that they strongly agreed or agreed with the statement "Living in this community gives me a secure feeling" in the Near North Community is 53%, compared to 73% in Camden, 81% in Minneapolis, and 89% in HC.
- **Violent crime increased 14%** from 2001 to 2002 according to police records.

## Health

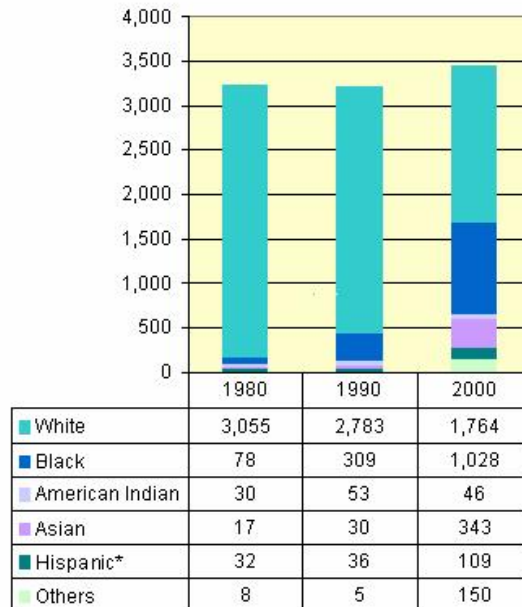
- **Overall health is poor.** Only 51% of Near North and 56% of Camden residents rated their health as excellent or very good in the 2002 Survey of the Health of Adults, the Population and the Environment (SHAPE) compared to 60% of Minneapolis residents overall and 65% across Hennepin County.
- **Both overweight and obesity rates in 2002 were higher** in these communities than in Hennepin County as a whole. Combined rates for overweight and obesity in Near North were 63% and 56% in Camden. In Hennepin County as a whole, 52% of the population reported being either overweight or obese, and in Minneapolis, 48% reported this.
- **Diabetes** occurs in about 7% of residents in the project area compared to 5% in both Minneapolis and across HC as a whole.
- **Percent of residents with asthma** in the Near North was 14% compared to 11% in Camden and 11% in all of Hennepin County.
- **Percent of residents with high blood pressure** in both the Near North and Camden was 23% compared to 16.5% in Minneapolis and 18% in all of Hennepin County.
- **Percent of residents with high cholesterol** in the Near North was 15%, Camden was 21% Minneapolis was 15% and Hennepin County was 20%.

Data source: Survey of the Health of Adults, the Population, and the Environment (SHAPE) 2002. SHAPE is an ongoing health surveillance project that monitors the health of adults, and now children, in Hennepin County. The project takes a comprehensive look at health status, health behaviors and health care practices of residents, as well as other social and environmental factors that influence health.

## Cleveland Neighborhood

The Cleveland Neighborhood has experienced a significant turnover in residents over the past 25 years. Overall population has grown a modest 7%. The majority of residents in 2006 were young African Americans versus in the 1980s when neighborhood residents were primarily older Caucasians. The number of Asians in Cleveland has grown 20 times since the 1980s and the Hispanic population has tripled. This has led to a diverse and varied resident base with new and changing needs and interests.

**Cleveland:** Ethnic distribution



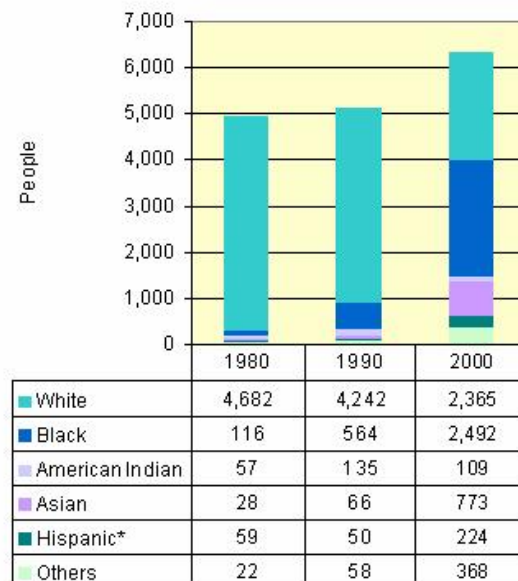
\* Hispanics could be any race

Source: Minneapolis Community Planning and Economic Development with data from the U.S. Census of Population and Housing (SF1)

## Folwell Neighborhood

The Folwell Neighborhood has seen an increase of (27%) in population from 1980 to 2000. In addition to the large increase in population, there was also a significant shift in demographics. Whereas in 1980 only 6% of residents were people of color, in the year 2000 63% of the neighborhood residents were people of color. There has been a significant increase in the number of African Americans, American Indians, Asians, and Hispanics.

**Folwell:** Ethnic distribution



\* Hispanics are any race

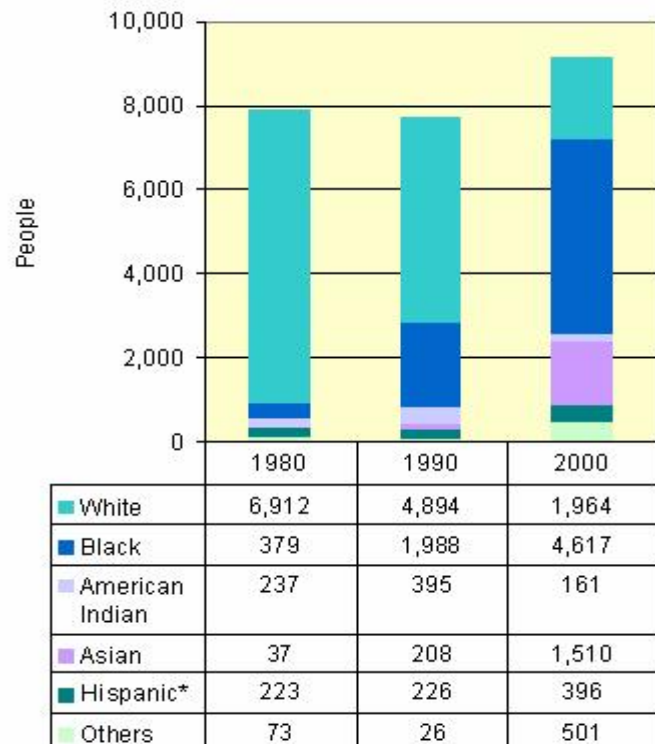
Source: Minneapolis Community Planning and Economic Development with data from the U.S. Census of Population and Housing (SF1)



## Jordan Neighborhood

The Jordan neighborhood experienced a 16% increase in population from 1980 to 2000. Similar to Cleveland and Folwell, Jordan saw a large shift in its racial makeup. Where 88% of the population was Caucasian in 1980, only 21% of the population was Caucasian in 2000. The majority of residents are African American (51%), and almost 17% are of Asian heritage. The Hispanic and American Indian populations are somewhat smaller --- 4% and 2% respectively.

Jordan: Ethnic distribution



\* Hispanics could be any race

Source: Minneapolis Community Planning and Economic Development with data from the U.S. Census of Population and Housing (SF1)

## **IV. HIA Process**

**HIA Objective:** *To identify changes that will optimize positive and minimize negative health consequences of Phase 2 of the Lowry Avenue reconstruction project.*

An HIA goes beyond the social, economic and environmental impacts included in the Environmental Assessment completed for this project, and delves into the impacts Phase 2 is likely to have on people's social connections, interactions, mental and physical health. The HIA involves five major steps: 1. screening, 2. scoping, 3. assessment, 4. communicating results, and 5. evaluating impact of the HIA.

### **A.) Screening**

The HIA assessment team (composed of internal Hennepin County staff) completed a screening process to determine:

1. Will the Lowry Corridor Phase 2 project have an impact on health?
2. How might it affect vulnerable populations in the impacted neighborhoods?
3. What is the likely direction (positive or negative) and scale (negligible to serious) of the health impacts associated with the project?
4. Is there is a need for a detailed HIA?
5. Is the HIA an effective tool to issues health and equity presented in the Lowry Corridor Phase 2 project?

### **Finding:**

The assessment team used the screening checklist below to assess the potential impacts above, and determined that an HIA should be conducted.

**Table 1: Screening Checklist**

To your knowledge:	Yes, Conduct an HIA	No, no need to conduct an HIA	Level of certainty for your response (high, medium, low)
Is there potential for positive health impact(s) as a result of the proposed project?	Yes		H – There is definitely potential
Is there potential for negative health impact(s) as a result of the proposed project?	Yes		H – congestion at Penn/Lowry H - Asian food market will close H – decreased access to businesses during construction
Are the potential negative health impacts likely to affect a large number of people? Include consideration of future and intergenerational impacts.		No	H
Are the potential negative health effects likely to cause death, disability or hospital admission?		No	H
Are the potential negative health impacts likely to be disproportionately greater for disadvantaged or vulnerable groups in the population?		No	H
Are the potential negative health impacts likely to be disproportionately greater for certain populations of the neighborhood/minorities?		No	H
Are there public or community concerns about potential health impacts of this project?		No	H
Is there uncertainty about what the potential health impacts might be?	Yes		M – Construction and redevelopment provide safer sidewalks, intersections and bike lanes, and redevelopment provides incentive for new businesses to regenerate the neighborhood. An awareness campaign and education on the value of physical activity and social connections may be necessary to provide incentive for people to access these amenities.
Is there support from the policy-makers involved, or political support within the organization to carry out an HIA?	Yes		This is being used as a pilot to determine the value added benefit of the information gleaned from this versus other methods such as an Environmental Assessment.

**B.) Scoping:**

The Scoping Checklist below was used to narrow and frame the focus of the assessment, and highlight key issues for consideration. It also was used to define the scale of the HIA needed.

**Finding:**

It was determined that a rapid HIA would be sufficient for this project. This includes assessment team review as well as some data collection and analysis.

**Table 2: Scoping Checklist**

Question		Impact Description
Is the magnitude of the proposed construction project significant?	Yes	This is a large scale Community Works project for Hennepin County. It is a significant financial project (approximately \$23 million) and is more comprehensive than typical roadway construction because it includes redevelopment planning.
Are there significant potential health impacts of the project?	Maybe	There is not a direct significant health impact from the roadway construction; however, potentially significant health benefits could be gained if it is paired with redevelopment that fosters community-building, as well as a health awareness and education campaign.
What is the level of political interest in this project?	High	Minneapolis Mayor, RT Rybek, has made North Minneapolis a priority, this corridor is a significant capital improvement project for Hennepin County, and has high level county support.
Are there other political considerations?	Yes	Redevelopment potentially creates other political considerations at the city staff and council member levels, and Hennepin County administration priorities include increased high school graduation rates and lower teen birth rates.
What is the level of public interest?	High	High for neighborhood organizations, residents, elected officials and staff.
Are there funds available for HIA?	No	\$10,000 was received in NACCHO grant funds for this HIA pilot project.

**C.) Assessment:**

The assessment team first identified potential health determinants relative to the Phase 2 Lowry Avenue reconstruction project. Health determinants include social, cultural and economic factors that may be influenced by the redevelopment of Lowry Avenue. Following the identification of health determinants, the team assessed the following:

1. Direction of the impact (positive or negative)
2. Level of impact (low, medium or high)
3. Likelihood of the impact occurring (probable, possible or speculative)
4. Whether or not the impacts might be felt by a particular group in the community
5. What indicators should be measured and potentially monitored

**Finding:**

The impacts of the Lowry Corridor Phase 2 construction and redevelopment project were determined to be positive, with construction-related access to businesses and property acquisition as the only potentially negative impacts. However, the potential exists to make it even better for example, by improving social connections and right-of-way design, and by stabilizing the neighborhood.

The Lowry Corridor Phase 2 construction and redevelopment project was found to have “High” or “Significant” impact on the following determinants of health:

- Social and Cultural Factors
- Economic Factors
- Environmental Factors
- Population-based Factors/Services

Table 3 provides detailed information on the expected impact to the health determinant, the level and likelihood of impact, and measurable indicators to assist in evaluating the impact of the actions. Level of impact was assessed by the project team using current literature and professional experience to guide their assessment.

**Table 3: Health Determinants and Impacts**

Categories of health determinants	Specific health determinants	Impacts: + Positive - Negative	Severity of Impact: Low, Medium or High	Likelihood of Impact	Differential impacts on particular Group(s)?	Measurable Indicators of Health Determinants Numbered at Left (Quantitative or Qualitative)
Social and Cultural Factors	<ol style="list-style-type: none"> <li>1. People will have increased social supports, decreased fear of crime, increased community reputation and increased perception of safety.</li> <li>2. Crime rates likely will decrease due to more “eyes on the street” and a stable population of people who stay longer and are more invested in the neighborhood than short term residents.</li> <li>3. Neighborhood population age distribution will be expanded (primarily young families now) through life cycle housing being developed along with the roadway reconstruction</li> <li>4. It is anticipated that three families will be moved which may positively or negatively impact social and family connections for these people.</li> </ol>	<p style="text-align: center;">+</p> <p style="text-align: center;">+</p> <p style="text-align: center;">+</p> <p style="text-align: center;">+/-</p>	<p style="text-align: center;">H</p> <p style="text-align: center;">M</p> <p style="text-align: center;">M</p> <p style="text-align: center;">H</p>	<p style="text-align: center;">Probable</p> <p style="text-align: center;">Possible</p> <p style="text-align: center;">Speculative</p> <p style="text-align: center;">Probable</p>	<p style="text-align: center;">No</p> <p style="text-align: center;">No</p> <p style="text-align: center;">No</p> <p style="text-align: center;">Yes</p>	<ol style="list-style-type: none"> <li>1. SHAPE Questions (Near North and Camden communities)</li> <li>2. Current and future Crime Data comparisons</li> <li>3. Census data</li> <li>4. Relocation survey and data</li> </ol>
Economic Factors	<ol style="list-style-type: none"> <li>1. Housing values will be stabilized and mixed income housing will be decent, safe and sanitary within 2 blocks of either side of Lowry.</li> <li>2. Access will improve to jobs in downtown Minneapolis and the NW suburbs through improved transit service.</li> <li>3. Businesses may have temporary economic losses due to roadway construction</li> <li>4. Neighborhood viability will improve through sustainable commercial and retail businesses</li> </ol>	<p style="text-align: center;">+</p> <p style="text-align: center;">+</p> <p style="text-align: center;">-</p> <p style="text-align: center;">+</p>	<p style="text-align: center;">H</p> <p style="text-align: center;">M</p> <p style="text-align: center;">H</p> <p style="text-align: center;">M</p>	<p style="text-align: center;">Possible</p> <p style="text-align: center;">Possible</p> <p style="text-align: center;">Probable</p> <p style="text-align: center;">Speculative</p>	<p style="text-align: center;">No</p> <p style="text-align: center;">No</p> <p style="text-align: center;">Yes</p> <p style="text-align: center;">Yes</p>	<ol style="list-style-type: none"> <li>1., 4. Hennepin County Property Tax Records for 2006 and 3-5 years post construction</li> <li>2. Comparisons between Travel Behavior Inventories (TBI)</li> <li>3. Tracking of business complaints</li> </ol>

<b>Table 3 Continued: Health Determinants and Impacts</b>						
<b>Categories of health determinants</b>	<b>Specific health determinants</b>	<b>Impacts: + Pos. - Neg.</b>	<b>Severity of Impact: Low, Medium or High</b>	<b>Likelihood of Impact</b>	<b>Differentia l impacts on particular Group(s)?</b>	<b>Measurable Indicators of Health Determinants Numbered at Left (Quantitative or Qualitative)</b>
Environmental Factors	<ol style="list-style-type: none"> <li>Storm water runoff will be of improved quality</li> <li>Improved Right Of Way (ROW) design increases green space, boulevards, sidewalks, bike lanes and transit facilities</li> </ol>	<p>+</p> <p>+</p>	<p>H</p> <p>H</p>	<p>Probable</p> <p>Probable</p>	<p>No</p> <p>No</p>	<ol style="list-style-type: none"> <li>Existing research demonstrates this</li> <li>Before and after inventory of corridor infrastructure</li> </ol>
Population-based Factors / Services	<ol style="list-style-type: none"> <li>Increased access to housing, public transportation, basic amenities (grocery stores, banks, community centers, libraries, etc.) and policing.</li> <li>Physical safety will increase due to separation of sidewalks from roadway, and smoother traffic flow with installation of left hand turn lanes.</li> </ol>	<p>+</p> <p>+</p>	<p>H</p> <p>H</p>	<p>Possible</p> <p>Probable</p>	<p>No</p> <p>No</p>	<ol style="list-style-type: none"> <li>Before and after inventory of development along corridor</li> <li>Current traffic crash and injury data versus 3 and 5 years following project completion</li> </ol>
Individual / behavioral Factors	<ol style="list-style-type: none"> <li>Physical activity may be increased due to separation of sidewalks from roadway, installation of bike lanes, and landscaped boulevards</li> <li>People's stress levels and sense of control over their own lives may increase</li> <li>People with special needs will have increased mobility due to improved infrastructure (curbs &amp; sidewalks)</li> </ol>	<p>+</p> <p>+</p> <p>+</p>	<p>M</p> <p>L</p> <p>H</p>	<p>Possible</p> <p>Speculative</p> <p>Probable</p>	<p>No</p> <p>No</p> <p>Yes</p>	<ol style="list-style-type: none"> <li>1., 2. SHAPE Questions (Near North and Camden communities)</li> <li>3 Before and after inventory of corridor infrastructure</li> </ol>

## V. Recommendations

Hennepin County has committed to spend approximately \$23 million for roadway reconstruction on Phase 2 of the Lowry Avenue Corridor project. This HIA has identified the importance of assessing and addressing health, and incorporating community aspects to expand the impact of the reconstruction. The following recommendations are grouped according to health impact and are intended to help ensure the success of this important redevelopment project.

<b>Health Impact: Economic Factors</b>	
<i>Health Determinant: Stabilized housing values</i>	
<b>Health Impact: Social and Cultural Factors</b>	
<i>Health Determinant: Increased social supports, decreased fear of crime, improved community reputation</i>	
<b>Recommendation</b>	<b>Coordinating Entity (ies)</b>
<ul style="list-style-type: none"> <li>Develop a partnership between neighborhood associations, schools, public health and others to collaborate around social supports and services.</li> </ul>	<ul style="list-style-type: none"> <li>To Be Determined (TBD)</li> </ul>
<ul style="list-style-type: none"> <li>Ensure that neighborhood markers already in the design are prominent at key entrances to Cleveland, Folwell and Jordan neighborhoods.</li> </ul>	<ul style="list-style-type: none"> <li>Hennepin County HCWT</li> </ul>
<ul style="list-style-type: none"> <li>Incorporate attractive and safe streetscape amenities such as benches, decorative pedestrian level lighting and trees for shade.</li> </ul>	<ul style="list-style-type: none"> <li>Hennepin County HCWT</li> </ul>
<b>Recommendation</b>	<b>Coordinating Entity (ies)</b>
<ul style="list-style-type: none"> <li>Develop partnerships with Minneapolis Community Planning and Economic Development (CPED) to solicit housing and business developers to fill gaps identified by neighborhood and help meet project goals of regenerating the neighborhood and contribute to the neighborhoods' economic vitality.</li> <li>Develop housing that meets today's standards for safety, for example, using healthy materials, allowing appropriate space for inhabitants, etc.</li> </ul>	<ul style="list-style-type: none"> <li>Hennepin County HCWT and Minneapolis CPED</li> <li>Minneapolis CPED</li> </ul>
<i>Health Determinant: Increased access to jobs via improved transit</i>	
<ul style="list-style-type: none"> <li>Develop partnerships to improve and access to transit and jobs.</li> </ul>	<ul style="list-style-type: none"> <li>Hennepin County HCWT</li> </ul>
<ul style="list-style-type: none"> <li>Develop partnerships with CPED and neighborhood associations to determine commercial and retail priorities, as well as which types of businesses and services might be most successful at the Lowry and Penn intersection.</li> </ul>	<ul style="list-style-type: none"> <li>Hennepin County HCWT</li> </ul>



<b>Health Impact: Environmental Factors</b>	
<i>Health Determinant: Improved quality of storm water runoff.</i>	
<b>Recommendation</b>	<b>Coordinating Entity (ies)</b>
<ul style="list-style-type: none"> <li>• Provide incentives to developers to incorporate rain gardens, permeable pavers, and/or storm water containment ponds for storm water runoff.</li> </ul>	<ul style="list-style-type: none"> <li>• Hennepin County HCWT</li> </ul>
<i>Health Determinant: Improved Right Of Way (ROW) design improves flow and increases sidewalk and bicycle lane use. Please note that most of these features are already being incorporated into the design and construction</i>	
<ul style="list-style-type: none"> <li>• Maintain 8-foot or greater sidewalks.</li> </ul>	<ul style="list-style-type: none"> <li>• Hennepin County HCWT</li> </ul>
<ul style="list-style-type: none"> <li>• Maintain 6-foot or greater striped bike lane.</li> </ul>	<ul style="list-style-type: none"> <li>• Hennepin County HCWT</li> </ul>
<ul style="list-style-type: none"> <li>• Provide 10-foot boulevards for snow storage, pedestrian security (separation of pedestrians from moving vehicles), and to allow for trees that will shade pedestrians.</li> </ul>	<ul style="list-style-type: none"> <li>• Hennepin County HCWT</li> </ul>
<ul style="list-style-type: none"> <li>• Use zebra striping and countdown meters at pedestrian crossings located at all commercial nodes and intersections near schools.</li> </ul>	<ul style="list-style-type: none"> <li>• Hennepin County HCWT</li> </ul>
<ul style="list-style-type: none"> <li>• Use driver feedback speed limit signs in areas where children are likely to cross Lowry Avenue to go to school and at pedestrian crossings.</li> </ul>	<ul style="list-style-type: none"> <li>• Hennepin County HCWT</li> </ul>
<ul style="list-style-type: none"> <li>• Incorporate art into the streetscape.</li> </ul>	<ul style="list-style-type: none"> <li>• City of Minneapolis, HCWT</li> </ul>
<ul style="list-style-type: none"> <li>• Stamp concrete or install markers showing number of steps or mileage between certain destinations.</li> </ul>	<ul style="list-style-type: none"> <li>• Hennepin County HCWT</li> </ul>
<ul style="list-style-type: none"> <li>• Reduce availability of parking to improve walking and biking facilities.</li> </ul>	<ul style="list-style-type: none"> <li>• Hennepin County HCWT</li> </ul>
<i>Health Determinant: New or redeveloped properties incorporate LEED or similar standards, as well as Americans with Disabilities Act (ADA) standards.</i>	
<ul style="list-style-type: none"> <li>• Provide incentives to developers so that new or redeveloped construction incorporates features consistent with LEED or similar standards and that they provide green space on site.</li> </ul>	<ul style="list-style-type: none"> <li>• Hennepin County HCWT</li> </ul>
<ul style="list-style-type: none"> <li>• Require developers to meet or exceed the Americans with Disabilities Act (ADA) standards.</li> </ul>	<ul style="list-style-type: none"> <li>• Hennepin County HCWT</li> </ul>

<b>Health Impact: Population-based Factors and Services</b>	
<i>Health Determinant: Improved roadway design increases access to amenities and public transportation</i>	
<b>Recommendation</b>	<b>Coordinating Entity (ies)</b>
<ul style="list-style-type: none"> <li>• Encourage healthy food outlets and discourage unhealthy food/tobacco/alcohol outlets.</li> </ul>	<ul style="list-style-type: none"> <li>• Hennepin County Public Health Promotion</li> </ul>
<ul style="list-style-type: none"> <li>• Locate unused public space for community gardens and/or a local farmer's market.</li> </ul>	<ul style="list-style-type: none"> <li>• Hennepin County Public Health Promotion</li> </ul>
<ul style="list-style-type: none"> <li>• Design a colorful, graphically designed way-finding map that clearly and creatively shows community assets and amenities, as well as transit routes.</li> </ul>	<ul style="list-style-type: none"> <li>• Hennepin County HCWT</li> </ul>
<ul style="list-style-type: none"> <li>• Identify walking route(s) and collaborate with Minneapolis Artist in Residence to develop signage markers to mark the routes and denotes steps, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Hennepin County Public Health Promotion</li> </ul>
<ul style="list-style-type: none"> <li>• Dedicate Hennepin County public health staff to write grant for a Minnesota artist to partner with neighborhood associations and schools to develop traffic calming artwork.</li> </ul>	<ul style="list-style-type: none"> <li>• Hennepin County Public Health Promotion</li> </ul>

<b>Health Determinant: Improved roadway design increases physical safety</b>	
<ul style="list-style-type: none"> <li>Place “Share the Road” posters in key locations, such as bus stops, in the community.</li> </ul>	<ul style="list-style-type: none"> <li>Hennepin County HCWT</li> </ul>
<ul style="list-style-type: none"> <li>Decrease parking spaces and increase walking and biking routes and signage to discourage driving.</li> </ul>	<ul style="list-style-type: none"> <li>Hennepin County HCWT</li> </ul>

<b>Health Impact: Individual/Behavioral Factors</b>	
<b>Recommendation</b>	<b>Coordinating Entity (ies)</b>
<b>Health Determinant: Increased physical activity and decreased stress</b>	
<ul style="list-style-type: none"> <li>Partner with the North Regional Library to develop and implement an awareness and education campaign that includes skills such as nutritious shopping and cooking, healthy eating out and other determinants that impact health.</li> </ul>	<ul style="list-style-type: none"> <li>Hennepin County Public Health Promotion</li> </ul>
<ul style="list-style-type: none"> <li>Apply for Medica’s <i>Healthy Living</i> grant to modify and enhance lifestyles to achieve maximal health status and quality of life. Medica will be looking for programs that demonstrate behavior changes in lifestyle involving physical activity, nutrition and weight management.</li> </ul>	<ul style="list-style-type: none"> <li>Hennepin County Public Health Promotion</li> </ul>
<ul style="list-style-type: none"> <li>Assist neighborhood small grocers to expand fruit and vegetable offerings and promote increased fruit and vegetable consumption.</li> </ul>	<ul style="list-style-type: none"> <li>Hennepin County Public Health Promotion</li> </ul>
<ul style="list-style-type: none"> <li>Partner with Minneapolis Department of Health and Family Support (MDHFS) to encourage healthy food outlets and discourage unhealthy food/tobacco/alcohol outlets.</li> </ul>	<ul style="list-style-type: none"> <li>Hennepin County Public Health Promotion but MDHFS is lead – it’s their jurisdiction</li> </ul>

## **VI. Communicating Results**

Due to the unique nature of this “trial” HIA, a formal plan to communicate recommendations will not be developed. The recommendations and HIA process used to determine the recommendations will be shared with Hennepin County leadership from Public Works (Phil Eckhert, HCWT Director and Marthand Nookala, Public Works Director) and HSPHD (Todd Monson, Public Health Director; Karen Wahlund, Service Area Manager; and Lisa Mueller, Acting Program Manager) for the purpose of demonstrating how the HIA process could be incorporated into current practices. In addition, an overview of the HIA process and the Lowry HIA report may be presented to Hennepin County 2<sup>nd</sup> District Commissioner and Lowry Avenue champion Mark Stenglein, as well as 3<sup>rd</sup> District Commissioner and Active Living champion Gail Dorfman, to get input on the prospects for HIA work in Hennepin County.

## **VII. Evaluating Impact**

A key step in the HIA process is to evaluate the impact of the HIA on the project it proposes to influence. The assessment team will track decisions made in the project and determine whether or not HIA recommendations were implemented, and if implemented, whether they made a difference.

One impact that already has occurred is that by the very process of conducting this HIA, the project manager for the Lowry Avenue Corridor redevelopment, Carol Lezotte, became aware of the breadth of health issues that impact communities. This awareness led her to successfully apply for funding through the Non-Motorized Transportation Pilot Program through the federal Transportation Bill SAFETEA-LU. These funds (\$108,000) will be used to purchase and place countdown timers at key intersections, bike racks at key public buildings, and markers to encourage pedestrian traffic.

## **VIII. Conclusion**

As part of this pilot project, the HIA team explored various HIA models. They tested the most applicable components, and assessed what went well and what could be improved. The team ultimately developed a blended model that can be used for future HIAs in Hennepin County. Using this model will inform and improve policies and projects undertaken by Hennepin County and also ensure that the health of residents is not compromised.

The health impacts of proposed construction and development projects and policies are not currently addressed in the county. Incorporating HIAs into planning processes would provide an opportunity to view projects and their intended outcomes from a health perspective. This, in turn, would help the county gain a better return on its investment in terms of quality of life in the impacted community and future health impacts. Therefore, the HIA assessment team has determined that the practice of incorporating HIAs into policy-making and planning for infrastructure should be recommended for Hennepin County. HIAs would benefit county residents through their broad analysis of health and development, and the connections between the two disciplines.