

# I-75 Focus Area Health Impact Assessment

Health Impact Assessment Committee

5/10/2011

Mohammad Alam, PhD

LiAnne Howard, MCP



We know **health** matters

## Purpose of a Health Impact Assessment (HIA)

- According to the Centers for Disease Control (CDC) the Health Impact Assessment (HIA) is used to:
  - Evaluate the potential health effects of a project or policy before implementation.
  - Provide recommendations to increase positive and minimize adverse health outcomes.
  - Inform the decision-making process for plans, project, and policies in non-traditional public health arenas such as transportation and land use.”
- No mandate and recommendations are voluntary.

# Health Impact Assessment Committee Formed

- The Health Commissioner, Dr. Maseru, formed a CHD HIA Committee out of concern for the health impact from zoning, transportation, and the built environment
  
- The Cincinnati Health Department HIA Committee Members are:
  - Mohammad Alam, Ph.D., Director of Environmental Services
  - Ellen Berninger, BA, School and Health Care Coordinator
  - Denisha Garland, MPH, RS, HHS, LRA, Public Health Educator
  - Marilyn Goldfeder, RN, MPH, Public Health Nurse 2
  - LiAnne Howard, MCP, MEd, Senior Administrative Specialist
  - Camille Jones, MD, MPH, Assistant Health Commissioner
  - Tunu Kinebrew, MPA, Vital Statistics Coordinator
  - Darius Porter, BS, RS, Sanitarian
  - Richard Thornburg, MPH, RS, Supervising Sanitarian

# I-75 Planned Improvements

- Interstate 75 (I-75) is a major north-south transportation corridor that bisects the City of Cincinnati. Infrastructure improvements planned by the Ohio Department of Transportation (ODOT) include adding one lane in both directions of the interstate and replacement of the Brent Spence Bridge.



# I-75 Focus Area Plan is also known as Revive Cincinnati: Neighborhoods of the Mill Creek Valley

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- The City of Cincinnati commissioned a comprehensive plan for four selected neighborhoods adjacent to I-75. This plan is the focus of the HIA.
- The plan makes recommendations for:
  - Economic development and redevelopment
  - Neighborhood investment
  - Developing, maintaining and linking green space (ex. parks, boulevards, parkways, cemeteries)
  - Transportation infrastructure and transportation modes
  - Urban design

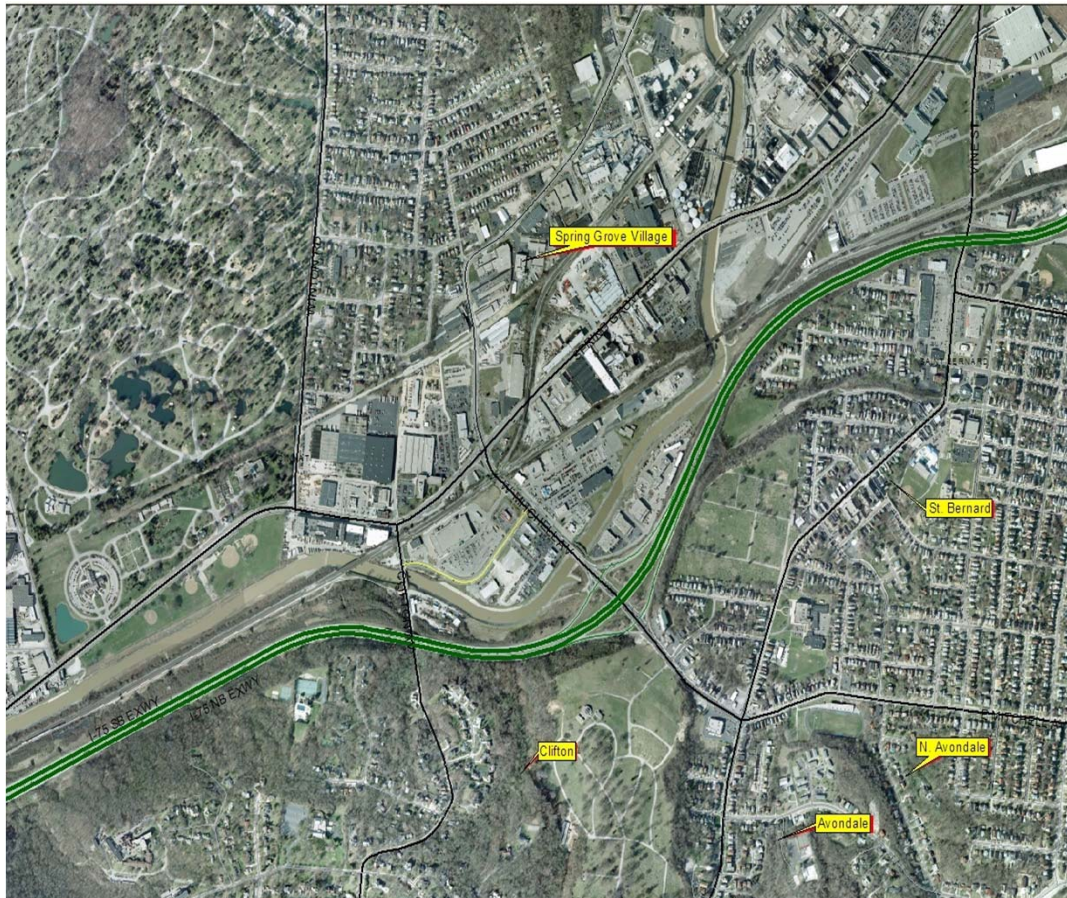
## Selection of Study Neighborhoods

- Due to time constraints, the HIA scoping process determined that only two of the four focus areas could be studied.
- Neighborhoods adjacent to the Mitchell Avenue Interchange focus area including Avondale, Spring Grove Village and the Queensgate focus area were included.





# Mitchell Avenue Interchange Focus Area: Avondale and Spring Grove Village Neighborhoods



- Promote two retail activity nodes.
- Link existing cemeteries, parks and trails.
- Create a stronger Mitchell/Vine Gateway.
- Naturalize the Mill Creek and at the same time advance Metropolitan Sewer District Initiatives.
- Create street oriented and riverfront oriented mixed uses.



# Queensgate Focus Area



- Mitigate the I-75 barrier with a better connected street network.
- Connect trail and park network from Mill Creek to Lower Price Hill, the Banks and points east and west along the Ohio River.
- Naturalize the Mill Creek.



# Expert Consultants

- The HIA Committee relied on experts in the areas of air quality, traffic, and accommodations for displaced residents.
  - Rajiv Bhatia, MD, MPH, Director, Program on Health, Equity and Sustainability, San Francisco Health Department
  - Kerri Castlen, Permits and Enforcement Area Supervisor, Air Quality Management Division, Hamilton County Department of Environmental Services
  - Robin Corathers, MCP, Executive Director, Mill Creek Restoration Project
  - Nancy Ellwood, BS, MS, Sustainable/Green Infrastructure Technical Support, Metropolitan Sewer District

## Expert Consultants (Continued)

- Robert Glandon, Ph.D., Chair, Land Use Planning Group, National Association of County and City Health Officials
- Charles C. Graves, BA, MS, Director, City Planning Department, City of Cincinnati
- Christine Green, MCRP, Healthy Places Coordinator, Columbus Public Health
- Sergey A. Grinshpun, Ph.D., Professor and Director, Center for Health Related Aerosol Studies, Department of Environmental Health, University of Cincinnati
- Martha Kelly, BS, Principal Engineer, Department of Transportation Engineering, City of Cincinnati
- Tiina Reponen, Ph.D., Professor, Center for Health Related Aerosol Studies, Department of Environmental Health, University of Cincinnati

## Expert Consultants (Continued)

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- Candace Rutt, Ph.D., Health Psychologist, Division of Nutrition, Physical Activity and Obesity, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention
- Kenneth Smith, Ph.D., Senior Analyst, Chronic Disease and Environmental Health, National Association of County and City Health Officials
- Christopher Sparks, Graduate Student, Department of Industrial Hygiene, University of Cincinnati
- Public Health Seattle & King County (2008). *A Bridge to a Healthier Community, State Route 520 Health Impact Assessment*

# Health Impacts

- Air Quality – the demolition and construction activities will result in disturbance of the air quality in the construction area and may impact air quality for the adjacent neighborhoods.
- Traffic/Crashes/Air Quality – traffic patterns, vehicle crashes, walkability, and air quality related to stopping and starting will change during and after construction.
- Displacement – some residents and businesses will be displaced as a result of the Interstate Highway improvements.



# Construction Recommendations

- Pre – Construction Period
- Construction Period
- Post Construction



# Pre - Construction Period Recommendations

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- Construction Contracts
  - Air quality monitoring and data collection
  - Control and handling of dirt tire tracks, crushers, noise, debris disposal, dust control, lead control and recycling.
- Community Education Program
  - Inform residents of complaint hotlines: City of Cincinnati 513-591-6000 and Hamilton County Department of Environmental Services, Air Quality Division 513-946-7777.

# Construction Period Recommendations

- Use radio broadcasts and ARTIMIS to update real time traffic and road construction information.
- Develop safe and clearly marked alternative routes.
- Provide construction schedules to emergency medical services.
- Schedule construction activities that delay traffic to lowest traffic volume periods.

## Construction Period Recommendations (Continued)

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- Use approved noise control devices for generators, compressors and similar equipment.
- Limit the operating periods for equipment that produces loud noise, particularly during nighttime periods.
- Maintain walking access to key neighborhood services such as grocery stores, hospitals, gas stations, Laundromats, post offices and schools.



# Post Construction Recommendations

- Install traffic calming devices, such as traffic circles, reduce curb radius, and speed humps.



- Finalize the air quality study and report on the air quality impact of the construction of interstate highway lanes.

# Air Quality Health Impacts

- Particulate matter 2.5 (PM 2.5) The small, easily inhaled particles can have an adverse effect on cardio-pulmonary diseases and trigger asthma.
- Volatile Organic Compounds (VOC's) also have an adverse effect on cardio-pulmonary diseases, and some compounds are suspected to cause cancer.

# Air Quality Recommendations

- Collaborate with the University of Cincinnati Center for Health Related Aerosol Studies to design a methodology for measuring the air quality in the pre-, during, and post-construction phases.



## Air Quality Recommendations (Continued)

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- Promote inclusion of landscaping and green space in the plan.
  - Plants and trees filter air contaminants such as dust
  - Plants absorb carbon dioxide and other harmful gases from the environment and produce oxygen.



## Air Quality Recommendations (Continued)

- Support the efforts of the Revive Cincinnati: Neighborhoods of the Mill Creek Valley Plan to restore the Millcreek to its natural state by forming a partnership with the Millcreek Restoration Project and Planning, Transportation Divisions and the Sewer Department.



## Air Quality Recommendations (Continued)

- Support the features of the Revive Cincinnati: Neighborhoods of the Mill Creek Valley Plan which provide alternatives to motor vehicle transportation.



## Air Quality Recommendations (Continued)

- Maximize creation and preservation of green space in the Revive Cincinnati: Neighborhoods of the Mill Creek Valley.



- Utilize plants and trees that produce a low level of allergens. Some landscaping plants may cause allergic reactions and asthma in sensitive individuals.

## Air Quality Recommendations (Continued)

- Monitor air quality at schools, day care centers and senior housing during and after demolition and construction. Alert the Hamilton County Department of Environmental Services, Air Quality Division to work with the construction company/school/day care to mitigate air quality concerns.





# Traffic Health Impacts

- Traffic patterns may change during Interstate 75 lane construction and bridge replacement. Diversion of traffic away from arterials to neighborhood streets creates opportunity for crashes.
- Air quality may change in relation to increased stopping and starting of traffic during construction, and due to increased Interstate capacity.

# Traffic Recommendations

- Support Revive Cincinnati: Neighborhoods of the Mill Creek Valley Plan recommendations to create connectivity (easy access) for pedestrians across the barriers such as I-75, large arterial streets, and the Mill Creek.



## Traffic Recommendations (Continued)

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- Create safe, efficient ways to connect neighborhoods to businesses and public services during and after construction.
  
- Create walkable streets.
  - Sidewalks should have room for two people to walk side by side
  - Sidewalks should be at least 5 feet wide in residential areas and 8-12 feet in commercial areas.
  - Sidewalks should not be immediately adjacent to the street.

## Traffic Recommendations (Continued)

- City sidewalks should be available everywhere and be kept in good condition.
- Intersections should have clearly marked crosswalks and walk/don't walk signals. Utilize traffic calming devices so that pedestrians feel safe.



## Traffic Recommendations (Continued)

- Promote safe neighborhood streets. Safe street characteristics include:
  - Bright street lights.
  - Litter free environment.
  - Streets with well maintained yards and clean sidewalks.
  - Lots of caring neighbors outside during the day and night.
  - Kids play outside.
  
- Adopted from Columbus Public Health

# Displacement Health Impacts

- Moving is the 4<sup>th</sup> major source of stress for American families and the effects of forced relocation can have a higher mental health impact.



# Displacement Mitigation Recommendations

- Assist displaced residents in locating “Leadership in Energy and Environmental Design (LEED)” certified housing and lead abated housing options.
- Provide streamlined access to low-interest, no down payment loans to purchase housing in the City of Cincinnati to interested displaced families.
- Minimize business loss due to relocation.
- Minimize obstacles for people to access businesses during construction.
- Minimize the mental health impact of loss of community, social supports, and relocation.
- Assist with access to mental health services.

# Displacement Mitigation Recommendations (Continued)

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- Utilize programs that can keep those dislocated families that are interested in remaining connected as a group through meetings, recreation, etc. because moving is particularly difficult for children.
- Minimize the loss of business revenue in Spring Grove Village, Avondale, and the City of Cincinnati.
- Minimize the loss of jobs to the residents of Spring Grove Village, Avondale, and the City of Cincinnati.
- Assure access to local food, transportation and health care services in the affected communities as well as to the displaced families.

# Next Steps

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- Solicit community input on the HIA recommendations.
- Final review by the Health Commissioner.
- Presentation to the Board of Health.
- Forward the final HIA document to all who participated in the document development.
- Meet with Mayor Mallory and Vice Mayor Roxanne Qualls and other interested City Council members.
- Forward the final HIA document to the Ohio Department of Transportation.
- Evaluate the effectiveness of the HIA recommendations that includes the air quality study.

# Questions and Concerns

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# Cincinnati Health Department

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