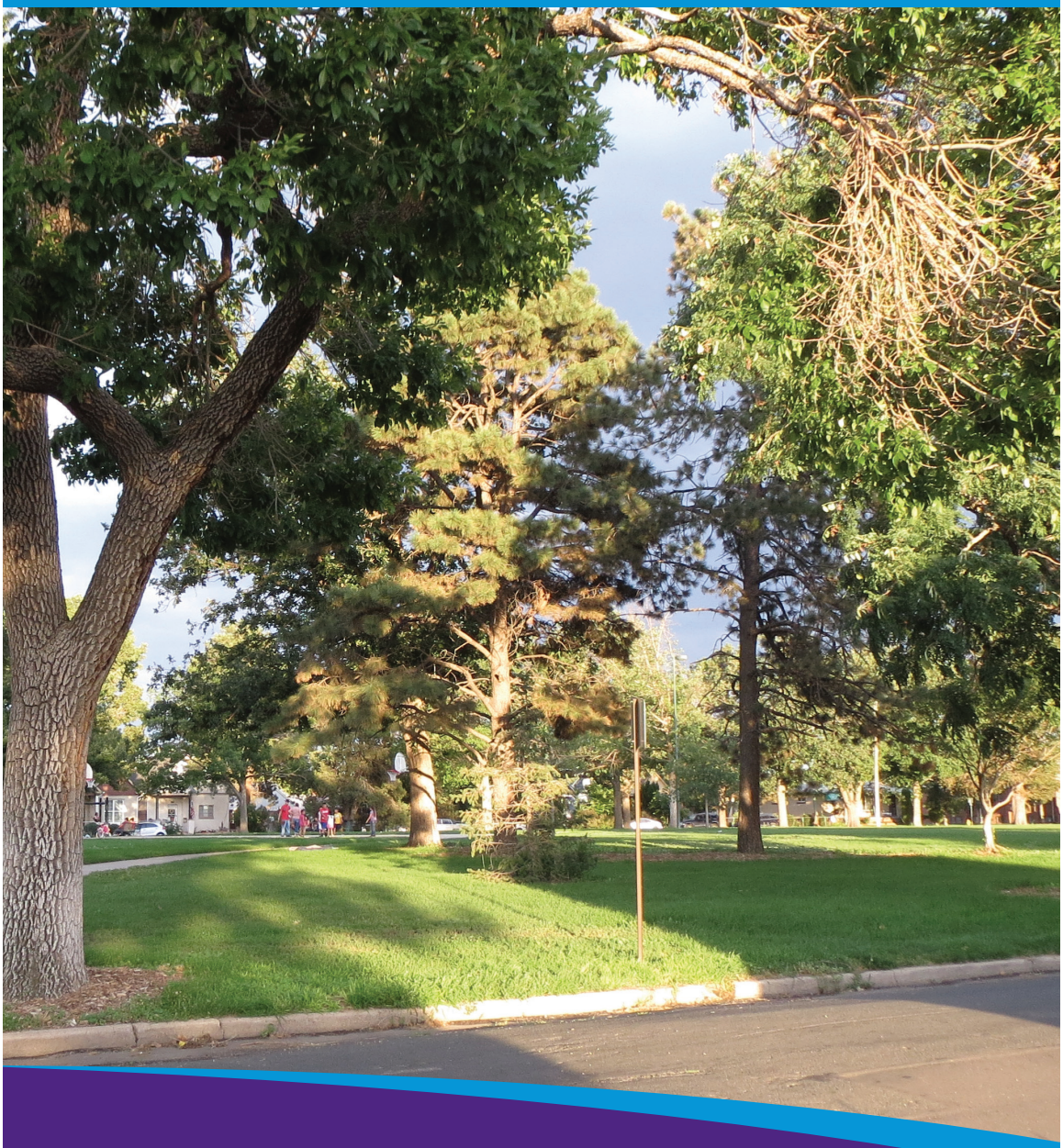
# EXECUTIVE SUMMARY



## How **Neighborhood Planning Affects Health** in Globeville and Elyria Swansea

**SEPTEMBER 2014**

DENVER
ENVIRONMENTAL HEALTH

Be Healthy Denver
COMMUNITY HEALTH MATTERS

# Executive Summary

## How Neighborhood Planning is Related to Health in Globeville and Elyria Swansea

Globeville and Elyria Swansea are two of Denver's oldest neighborhoods, settled in the 1880s by Central and Eastern European ethnic communities who came for jobs in the railroad yards and heavy industries such as metals smelting. Over time, the neighborhoods continued to attract large industrial operations, which provided jobs but also produced decades of negative environmental impacts on air quality, water, and soil. The construction of Interstates 70 and 25 in the 1960s restricted physical access to the neighborhoods and produced more vehicular air pollution. At the time, little consideration was given to the health problems associated with such development.

Today, the community of 10,000 residents regularly experiences noise, odors, and periodic poor air quality from industrial operations, heavy truck traffic, freight trains and highways. The residents, the majority of whom are Hispanic families with young children, suffer from some of the highest rates of cardiovascular disease, diabetes, obesity, and asthma in the City. These chronic diseases are associated with poor diet and lack of exercise, among other factors, which are shaped by a deficient pedestrian and bicycle infrastructure and a lack of sources for healthy and affordable food. Opportunities for outdoor physical activity are also limited in the neighborhoods due to disconnected streets and sidewalks, lack of nearby goods and services, and concerns about crime and safety.

The **built environment** – those settings and surroundings designed and maintained by human efforts, including homes, schools, businesses, parks, roadways and transit systems – has the potential to be improved through the new Neighborhood Plans for each community. The Neighborhood Plans are being created with the City Planning Department's sponsorship and resident guidance and input, and are intended to represent the community's vision for future development. Upon adoption by City Council, these Neighborhood Plans will be the first ever for Elyria Swansea and the first in 25 years for Globeville.

This report recommends ways to improve residents' health through Neighborhood Plans and other efforts.

## Defining Health Has Changed

In recent years there has been a growing understanding of the connection between how communities are designed and the impact on human health. Health is defined as *"a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity."*[1] Research shows a strong relationship between the built environment and physical activity and nutrition. Environments that do not provide people with choices that support healthy lifestyles can contribute to chronic diseases such as diabetes, cardiovascular disease, and obesity. Well-designed neighborhoods can improve health, and poorly-designed communities can harm health.[2]

## Connecting Health to Public Policy

In response to this awareness of the connection between community design and health, District 9 Councilwoman Judy Montero led the Denver City Council in prioritizing health considerations for neighborhood planning in its 2014 Priorities,[3] including use of "Health Impact Assessment (HIA)" in all Neighborhood Plans. This HIA for the Globeville and Elyria Swansea Neighborhood Plans is the first to be conducted under this City Council directive.

## An Opportunity of a Generation

Globeville and Elyria Swansea are in North Denver, which is currently undergoing several multi-million dollar infrastructure and redevelopment projects being coordinated under the North Denver Cornerstone Collaborative. These include the reconstruction of Interstate 70, improvement of City gateway corridors and the South Platte River greenway, and three new transit rail lines. In addition, the National Western Stock Show, a century-old annual livestock event, is redeveloping its 100-acre complex in Elyria Swansea into a year-round destination centered on education, economic development, tourism and entertainment. These projects present a historic, once-in-a-generation opportunity to rebuild a connected, healthy community for all people.

While this HIA focuses solely on the Neighborhood Plans and does not examine specific development projects, it is designed to set the stage for other projects by expressing the residents' vision for a future community that supports healthy living.

## What is a Health Impact Assessment?

A **Health Impact Assessment (HIA)** is a process to incorporate health considerations into a plan, project or policy. It provides a framework for collaboration among interdisciplinary partners to better understand how environmental, physical, economic, and social conditions determine health in order to inform public policy and decision making. This is particularly important now in Globeville and Elyria Swansea, as redevelopment will reshape the built environment for decades to come.

## Factors that Impact Health

The health of an individual or population is only partly determined by genetics. The environment in which one lives – including housing, parks, schools, transportation, access to health care, environmental quality, jobs, healthy food, and the resulting daily choices that are available – all have a far greater impact on one's health.[4] **Health inequality** results when factors outside of individual genetics and personal choice affect peoples' health.

Through resident participation in the neighborhood planning and HIA processes, five major health factors were identified as top concerns and were analyzed in this HIA:

- Environmental quality
- Connectivity and mobility
- Access to goods and services
- Community safety
- Mental wellbeing.

## Key Findings

The HIA process revealed the following key findings about the major conditions that impact health in Globeville and Elyria Swansea:

**Environmental Quality**

- Highway traffic is the main source of air pollution in the communities. Although average air pollution is not higher than in other areas of Denver, there are periodic noticeable spikes in poor air quality.
- Odors emitted from industrial operations sometimes cause short-term health effects such as watering eyes or throat irritation, and longer-term quality of life impacts such as limited ability to exercise outdoors.
- Highway traffic, freight trains, and industrial plants emit noise at levels that sometimes exceed recommended federal thresholds and can cause residents stress and interfere with daily activities.
- The neighborhoods have undergone two large soil cleanup projects in the last several decades. Cleanup activities have largely been completed, yet misperceptions remain.
- The scarcity of trees and green infrastructure in the neighborhoods further reduces the capacity to improve air and water quality.

**Connectivity and Mobility**

- Getting around and through the neighborhoods is challenging due to disconnected roads, multiple railroad tracks, and other physical barriers which isolate residents within their neighborhoods and from other places. This environment also limits opportunities for physical activity including walking.
- Heavy freight trucks regularly travel on residential streets, serving industrial businesses that are located within the neighborhoods. Residents have long raised concerns about the danger posed to pedestrians by the close proximity of trucks, particularly to children walking to school.
- Half of the public streets do not have sidewalks. Many bus stops lack benches or even a safe place to stand, and the bicycle infrastructure is deficient as well.
- Fewer residents own vehicles in these communities than in Denver overall, and must rely on the multi-modal infrastructure for transportation. Four new transit rail stations will be opening soon, and the connections within the neighborhoods to these new stations by foot, bicycle or bus are currently unclear.

**Access to Goods and Services**

- There is no grocery store in this community of 10,000 people. Residents must travel further – in some cases twice as far as the average City resident – to shop for food for their families. Convenience stores do not offer affordable, nutritious foods or fresh produce for meal preparation at home.
- There are few retail stores or local services in the neighborhoods. Residents must travel outside of the area to take care of daily needs such as shopping, pharmacies, health care, child care, banking, and other services. This leads to increased driving, decreased walking, fewer social interactions and "eyes on the street."
- While recreation facilities in both neighborhoods exceed the City's minimum ratio per person, residents report concerns about safety, amenities, and lack of programming that meets their needs, particularly for children and youth.

**Community Safety**

- An increase in vehicle crashes resulting in fatalities to pedestrians and cyclists in recent years raises significant concerns about unsafe conditions at some intersections.
- There is a difference between reported crime rates and resident perceptions of crime. Property crime decreased significantly in both neighborhoods in early 2014 from the previous year, yet fear of crime remains high. Some crime may go unreported due to unwillingness of residents to interact with law enforcement.
- Street lighting in both neighborhoods is inadequate and less than in other City neighborhoods. Most residents do not use porch lights at night, which adds to the general feeling of darkness and unsafe conditions.
- The presence of graffiti, illicit activities and stray animals leads to safety concerns.

**Mental Wellbeing**

- Residents feel anxious and stressed in their daily lives due to the daily impacts of strong odors and loud noise generated by industries and trains.
- Trains crossing streets often cause lengthy delays for vehicles and pedestrians, impeding residents' ability to get to their destinations on time.
- Concerns about safety restrict residents' movements and limit their ability to gain mental health benefits from use of the parks and the river trail.
- Perceptions and fears about pollution linger despite substantial environmental cleanup activities. Lack of outreach in Spanish leads to continued misperceptions among residents who only speak Spanish.
- The pending I-70 reconstruction and other large redevelopment projects in the neighborhoods add to residents' stress, since many impacts of construction are still unknown.

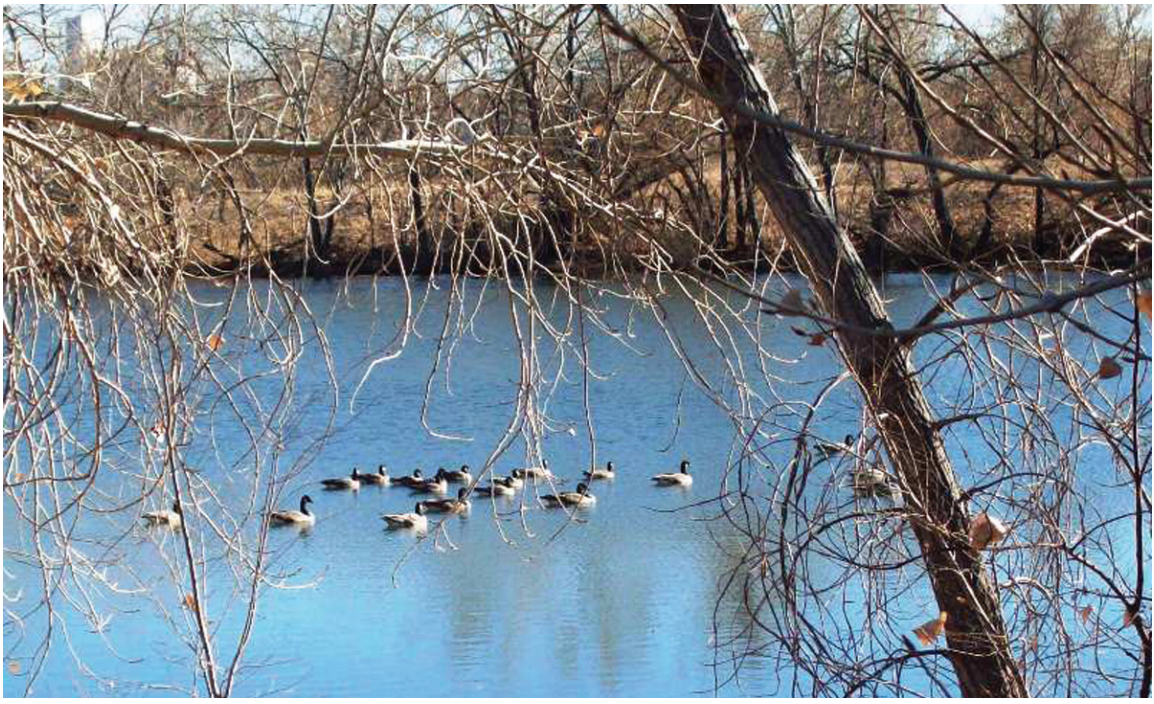
## How the Neighborhood Plans Can Affect Health

Increased separation or buffering between industrial and residential uses is needed to mitigate the impacts of industrial operations including poor air quality, noise and odors. Without buffering or other means to reduce impacts, residents will continue to experience the negative effects of their proximity to industry.

Noise will likely stay at existing levels or increase as growth occurs, unless active measures are taken to reduce current and future sources of noise including highways, trains, industry, and trucks. Long-term exposure to excessive noise can affect sleep and student learning, and lead to an increased risk of high blood pressure and cardiovascular disease.

A connected, orderly street network is necessary for efficient and safe travel throughout the neighborhoods, including access to jobs and schools. Streets must offer multi-modal elements including sidewalks, bike facilities, and connections to transit in order to support a safe pedestrian environment and access to physical activity as part of daily life.

Increasing the number of retail shops and necessary services to the neighborhoods can increase walking, decrease driving, and increase social interaction. Making parks and trails more accessible and safe can increase physical activity, reduce chronic disease risk factors, and improve mental wellbeing.



[1] Preamble to the Constitution of the World Health Organization as adopted by the International Health Conference, New York, 19-22 June, 1946; signed on 22 July 1946 by the representatives of 61 States (Official Records of the World Health Organization, no. 2, p. 100) and entered into force on 7 April 1948.http://www.who.int/about/definition/en/print.html.

[2] National Association of County and City Health Officials (2002). NACCHO Statement of Policy: Healthy Community Design. Accessed at http://www.naccho.org/advocacy/positions/upload/03-02-Healthy-Community-Design.pdf.

[3] Denver City Council (2013). Denver City Council Sets Priorities for 2014. Press Release, May 9. Accessed at: https://www.denvergov.org/Portals/695/documents/PRESS%20RELEASE%20City%20Council%202014%20Budget%20Priorities.pdf

[4] North Carolina Institute of Medicine (2009). Socioeconomic Determinants of Health; in Prevention for the Health of North Carolina: Prevention Action Plan. October, 243-271. Accessed at: http://www.nciom.org/wp-content/uploads/NCIOM/projects/prevention/finalreport/Prevention-Chpt11.pdf.

## Recommendations

**The Neighborhood Plans can contribute to improved health for residents through the following actions:**

**Environmental Quality**

- Minimize negative impacts of industrial uses upon residential neighborhoods through land use designation, buffering or other means
- Reduce the impacts from trucks
- Address odor impacts from marijuana grow facilities
- Reduce noise impacts from current roadways
- Require mitigation of noise impacts from future highways
- Explore creation of "quiet zones" for trains
- Increase urban tree canopy and green infrastructure to improve air and water quality
- Review upcoming redevelopment projects to minimize negative environmental impacts

**Connectivity and Mobility**

- Build and improve streets that include multimodal elements ("Complete Streets")
- Connect existing streets where recommended
- Build connections to parks, trails, and green space
- Improve existing "school zones" on streets for student safety
- Connect to and through the redeveloped National Western Center

**Access to Goods and Services**

- Create appropriate locations for and connections to local stores and services
- Incentivize development of new neighborhood retail, including a grocery store
- Develop access to healthy foods in the National Western Center
- Incentivize provision of healthy foods in existing neighborhood food stores
- Develop a flexible market space that can support culturally relevant activities

**Community Safety**

- Reduce vehicles crashes and fatalities at key intersections
- Improve street lighting
- Enforce City regulations regarding graffiti, vandalism, stray animals and property maintenance

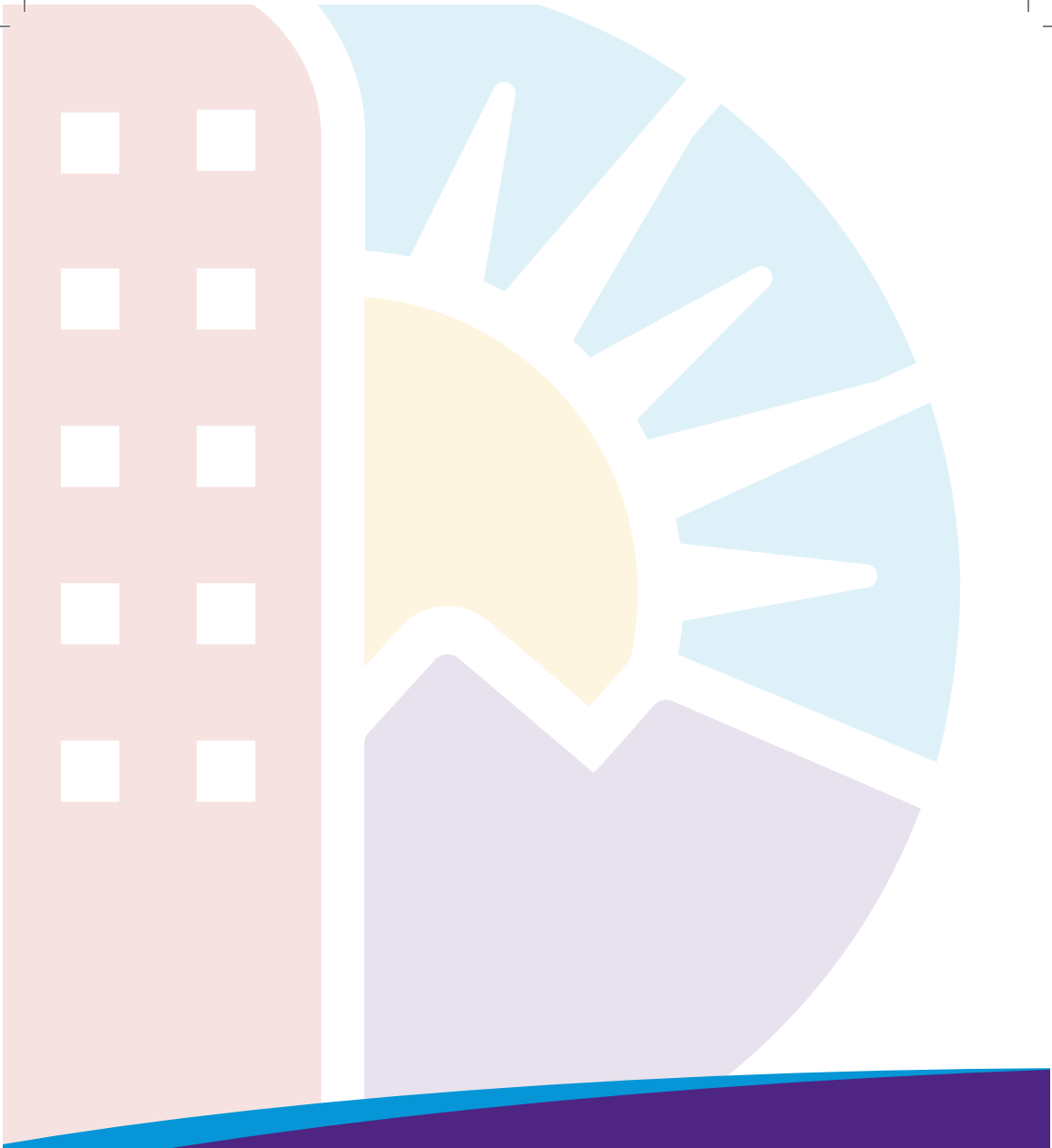
**Mental Wellbeing**

- Address the factors in the physical environment that contribute to stress, anxiety and poor mental wellbeing
- Strengthen bilingual communication and outreach regarding the upcoming I-70 reconstruction and other major redevelopment projects

## Next Steps

The information and recommendations in this HIA are being incorporated into each of the Neighborhood Plans for Globeville and Elyria Swansea. The Neighborhood Plans are anticipated to be adopted by the Denver City Council in 2014 and 2015.

The findings and recommendations in this HIA are designed to be used to inform specific projects, plans, or policies in Globeville and Elyria Swansea, both currently and in the future. Stakeholders including City departments, other agencies, local nonprofits, community groups and residents can work independently or together to implement the various recommendations; indeed, some activities are already underway. Implementation of these HIA recommendations will likely result in community design that contributes to better health for current and future residents.



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