

# CHIA

Chronicles of Health  
Impact Assessment

Improving community health through health impact assessments

October 2020

VOLUME 5 ISSUE 1

## PROMOTING HEALTH EQUITY THROUGH THE BUILT ENVIRONMENT IN DULUTH, MN: EXTERNAL RESOURCES AND LOCAL EVOLUTION TOWARD HEALTH IN ALL POLICIES

*Katrina Smith Korfmacher, PhD*

### *Abstract:*

Communities, professionals, and researchers recognize that environmental factors contribute to the health inequities experienced by vulnerable populations in the U.S. These environmental health injustices persist despite well-developed systems for both public health and environmental protection. The root cause of these issues is often “siloesd” decision-making by separate health and environmental institutions. Health Impact Assessment (HIA) can be an important tool for bridging these siloes to promote health equity at the local level. This raises the question: how can external resources best support local initiatives? This paper examines the interaction between national, state, and non-governmental efforts to promote HIA and local actions to promote healthy and equitable built environment in Duluth, MN. A wide range of local activities in Duluth aimed to alter the long term trends, decision processes, and institutions shaping its built environment. These included integrating health in brownfield redevelopment, local land use plans, food access, and transportation decisions. Technical and financial support from external groups played a key role in developing the community’s capacity to promote health equity across public, private, and non-profit organizations. These multiple streams of action culminated in the mayor’s declaration in 2016 that health and fairness would be adopted as key goals of the city’s new Comprehensive Plan. How did such innovative efforts thrive in a small, post-industrial city with limited resources? Duluth’s experiences provide insight into how external governmental, funding, academic, and non-profit entities can more effectively, efficiently, and equitably support the evolution of local initiatives.



IUPUI

**RICHARD M. FAIRBANKS  
SCHOOL OF PUBLIC HEALTH**

INDIANA UNIVERSITY  
Indianapolis

THE SOCIETY OF  
PRACTITIONERS OF  
HEALTH IMPACT ASSESSMENT

**SOPHIA**

## Introduction

In her first State of the City address in March 2016, Mayor Emily Larson referenced the 11 year life expectancy disparity between adjacent zip codes in Duluth, and commented that “our right to a good and healthy life should not be determined by our zip code, or our income, education, race, gender or religion...My vision is of a healthy – prosperous – sustainable – fair – and inclusive community” (Larson, 2016). This small, post-industrial city may seem an improbable place for such a strong vision for health equity to be expressed by a city leader. This statement built on over ten years of local work promoting the importance of a healthy and equitable built environment. This work evolved through a complex interplay of external resources and local activities that developed capacity in HIA. Duluth’s efforts to promote health equity involved improving access to transportation, healthy food and opportunities for physical activity. The literature is rich with examples of communities where initial efforts at Health Impact Assessment evolved into broader adoption of Health in All Policies (Collins & Kaplan, 2009) (Armijo et al., 2019; Calloway, 2019; Rudolph et al., 2013). This raises the question of whether and how external institutions (funding, training, etc.) can support such local evolution. This paper explores the role of external resources, relationships, and initiatives that helped to grow Duluth’s local initiatives over more than ten years. The paper concludes with lessons learned about the potential impact of external support and recommendations for future efforts to support evolution towards Health in All Policies in other communities.

## The Setting: Duluth, Minnesota

Duluth, Minnesota is a small city (86,000 residents) on the western tip of Lake Superior. Duluth emerged in the 1800’s as a transportation hub for the Midwest’s

agricultural and industrial products. Later, it became an important industrial center focused around steel and other heavy industries. With the decline of the steel industry and growth of alternate transportation routes, Duluth’s economy shrank, resulting in a 30% population loss between 1960 to 1980. As of 1983, Duluth had an unemployment rate of 16%, more than double the statewide rate and among the highest in the country (Bunnell, 2002).

Because of this industrial history, the City has a large number of brownfields, sites of known or potential environmental contamination (U.S. Environmental Protection Agency, 2020). Two former industrial sites totaling around 800 acres together comprise the largest Superfund site in Minnesota. The western part of the city is located on a narrow strip of flat land between the lake and a steep escarpment, limiting land available for new development. Duluth’s economy has expanded in recent years, with several new businesses locating on former industrial sites. Duluth has become a regional center for healthcare and a gateway to outdoor recreation in the region. The city is renowned for its extensive network of bike and hiking trails, contributing to its being named the “Best Place to Live in the U.S.” by Outside Magazine in 2014 (Pearson, 2014).

Despite the city’s growing prosperity, significant disparities exist in economic and health status, particularly for racial and ethnic minorities. Recognizing this, community groups, public health professionals, and city staff have engaged in a wide range of “policy, systems, and environmental” (PSE) change efforts to promote health equity (Honeycutt et al., 2015). This “Healthy Duluth” work has included several Health Impact Assessments, brownfields redevelopment, transportation planning, and a comprehensive plan update. Taken together,

these efforts aimed to reduce health disparities by focusing on the built environment in low-income neighborhoods. Table 1 traces how external resources fostered and enhanced local health equity initiatives in Duluth between 2005 and 2017. Although the city has not formally adopted Health in All Policies, health equity is now infused in many local decision processes.

### **Initiation of Healthy Duluth Efforts**

Building on its reputation as an outdoor activity and recreation-focused community, the City of Duluth applied for and was granted designation as a Governor's Fit City in 2007 (Duluth to be named," 2007). Fit City was a voluntary designation established under the Minnesota Department of Health (MDH) in 2005 to encourage and highlight cities' commitment to supporting healthy living (New Ulm, 2006). Through Fit City, city staff convened a group of community stakeholders to promote physical activity opportunities in Duluth.

This city-led effort soon spun off into a community organization also called Fit City. Fit City members attended a CDC conference on "Community Approaches to Obesity Prevention" where they learned about other communities' efforts to pursue health equity through work to change "policies, systems, and environments" (PSE). Convinced of this approach, Fit City members decided to focus on policy work, which transitioned into the Healthy Duluth Area Coalition (HDAC). HDAC aimed to bring together multiple groups that were working to promote health and equity in the community. According to its website, "The Healthy Duluth Area Coalition is committed to changing the policies, systems and environments of our city to encourage active living and affect how residents access healthy foods. We bring together the people who can facilitate the greatest change, who advocate for wellness, and who strive for health equity. We are here to help everyone be

well by supporting active living and healthy eating, and by working to make the healthy choice the default choice." HDAC's efforts were organized into five objectives, the most active of which were to promote "A Comprehensively Healthy Local Food Environment and a "Balanced and Diverse Community Transportation System" (Healthy Duluth Area Coalition, 2018). HDAC has been supported by a variety of local and external funders over time, including grants from foundations and state agencies. For example, the Center for Prevention at Blue Cross Blue Shield Minnesota provided several grants to the Healthy Duluth Area Coalition, including support for the Fair Food Access campaign's work in Lincoln Park in 2014 and funding to establish a Health Equity Collaborative in 2016 (Center for Prevention at Blue Cross Blue Shield of Minnesota, 2020).

The HDAC partners varied over time depending on current funding and projects. HDAC leveraged the knowledge and contributions of multiple partners whose work aligned with these initiatives, but whose organizations had limited ability – whether due to staff, financial, legal, or institutional constraints - to directly advocate for policy change. In addition to HDAC's activities and convening functions, many individual organizations in Duluth engaged in related activities to promote health equity through changes in the built environment. Taken together, these activities are referred to here as "Healthy Duluth" efforts.

The St. Louis County Health Department was a key player in many of these efforts. In 2008, the Center for Prevention at Blue Cross Blue Shield of Minnesota distributed copies of the video "Unnatural Causes" to local health departments across the state. "Unnatural Causes" showcases how the environment significantly impacts disparities in public health (Unnatural Causes, 2008). Health department staff who viewed

this video connected its message with health disparities they observed in Duluth. As one health department staff member noted, “I don’t think the impact that Unnatural Causes had on us can be overstated” (J. Gangl, personal communication, March 17, 2016). By sharing this video of systems change efforts in other communities, the Center for Prevention played a role in mobilizing health department engagement in health equity.

The growing focus of the local health department on changing systems to promote health equity was strengthened and sustained by Minnesota’s State Health Improvement Program (SHIP, renamed the State Health Improvement Partnership in 2016). SHIP was a cornerstone of Minnesota’s 2008 health reform law and funded local health departments to conduct community-based activities aimed at reducing risk factors for chronic disease. The program explicitly encouraged health departments to engage in “policy, systems, and environment” (PSE) change, and later SHIP grant guidelines added a health equity focus. With SHIP support, St. Louis County health department staff played a significant role in building coalitions, sustaining local partnerships, and participating in planning efforts. For example, health department staff supported convening the Safe and Walkable Hillside Coalition, which contributed to community engagement in the first Health Impact Assessment in Duluth (6th Avenue HIA).

### Health Impact Assessment in Duluth

Another important external contribution to the Healthy Duluth work was MDH support for three Health Impact Assessments (HIAs). As described below, these HIAs built community partners’ capacity and complemented HDAC’s ongoing efforts to promote health equity through shaping decisions about Duluth’s built environment.

Health Impact Assessment (HIA) is a voluntary approach to identifying the potential health impacts of non-health decisions (Bhatia, 2011; National Research Council Committee on Health Impact Assessment, 2011; Ricklin et al., 2016; Rhodus, et al., 2013). HIA has been promoted as a way to build consensus, engage affected communities, and develop recommendations that improve health equity. Starting around 2008, the Minnesota Department of Health made a significant and sustained commitment to supporting HIA as a tool to promote health equity. MDH obtained grants from federal agencies and foundations to help build capacity for HIA throughout the state (as of 2018, the program had identified 34 HIAs conducted in Minnesota (Minnesota Department of Health, 2020)). As part of these efforts, Duluth received technical support and funding for three HIAs between 2010 and 2014. These opportunities allowed local stakeholders to learn about HIA, use health data to analyze how built environment decisions affect health disparities, and gather community input on ways to improve environmental health equity. Although the HIAs were led by MDH, the experience of working together on these HIAs built local stakeholders’ capacity and provided data, analyses, and recommendations that informed future work.

### **6th Avenue Redesign HIA, January-June 2011**

The first HIA in Duluth was supported through a MDH grant from the Association of State and Territorial Health Officials (ASTHO) to conduct three HIAs in the state. The HIA examined an ongoing effort to redesign 6th Avenue, a busy road that bisects the low-income Hillside neighborhood in downtown Duluth (St. Louis County Health and Human Services, 2011). 6th Avenue posed a major challenge to the walkability of the neighborhood. Consolidation of two neighborhood schools in 2011 required many children to cross 6th Avenue to get to their new school. Due to the dangerous traffic

on 6th Avenue, many of these children were bussed to school, despite living only a few blocks away. The HIA assessed the health impacts of the proposed 6th Avenue redesign with respect to accessibility, safety, physical activity, and livability, with a focus on vulnerable populations including children, older and disabled adults, and low-income residents. The HIA recommended increasing the number of bus stops, adding a traffic signal, enhancing crosswalks, creating a designated bike lane, and improving snow clearing (Minnesota Department of Health Climate & Health Program, 2014). The HIA's public engagement efforts built local stakeholders' understanding of how transportation planning affects community health.

#### **Gary-New Duluth Small Area Plan Health Impact Assessment, June 2013 – June 2014**

In 2013, Duluth conducted a second HIA on an ongoing Small Area Planning (SAP) process with MDH support through a grant from the Health Impact Project, a partnership of Pew Charitable Trusts and the Robert Wood Johnson Foundation (Korfmacher, 2019; Korfmacher 2020). The Gary-New Duluth neighborhood, located around 10 miles west of downtown, was a disinvested area that had originally been developed to house workers at the nearby U.S. Steel Duluth Works plant (City of Duluth, 2006; Minnesota Department of Health Climate & Health Program, 2014). The neighborhood lost 50% of its population between 1950 and 1980 (Bunnell, 2002). The HIA team conducted several public meetings, focus groups, and a community survey to solicit feedback from the public. The survey identified “jobs and economic development, crime prevention, and access to goods and services” as top community concerns.

The HIA identified “children, older adults, low-income people, people with lower educational

attainment, disabled people, and people with pre-existing health conditions” as potentially vulnerable community members, and focused its analysis on how the SAP might affect the health of these groups in particular. The HIA provided for significant additional community engagement in the SAP process. For example, residents suggested incorporating a “community events board” into the design of new neighborhood entrance monuments recommended in the SAP (Minnesota Department of Health Climate & Health Program, 2014, p. 51).

In addition to increasing community engagement, this HIA built diverse professionals' understanding of HIA. The HIA's Technical Advisory Committee (TAC) included community groups and representatives from the county health department, Arrowhead Area Agency on Aging, the city Department of Parks and Recreation, regional transportation planners, and the local hospital. Because several members of the HIA TAC also served on the SAP Steering Committee, they were able to enhance additional stakeholders' understanding of how the plan's recommendations could promote health equity.

#### **Lincoln Park HIA, January 2014 – September 2015**

Whereas the Gary-New Duluth HIA was conducted parallel to the Small Area Planning process, Duluth's third HIA (also supported by the MDH Health Impact Project grant) integrated HIA fully into the planning process. This reflected a growing appreciation of HIA among community leaders. This third HIA addressed Lincoln Park, a low-income neighborhood just to the west of downtown Duluth. It is a dense urban neighborhood with some of the highest racial and ethnic diversity in the city (Minnesota Department of Health Climate & Health Program & Division, 2015).

The 2011 St. Louis County Health Status Report identified Lincoln Park area as having the lowest life expectancy in the city (Gilley, et al. 2011). Non-profit and government agencies had been actively pursuing community revitalization of the Lincoln Park neighborhood for many years. One goal of the SAP process was to provide steps the City could take to build on these efforts.

In 2011, a study by University of Minnesota-Duluth and UMN Extension had documented residents' food access challenges, including distance to full service grocery stores (10 minutes by car, 30 minutes by bus) and higher prices for food at local convenience stores (Pine & Bennett, 2011). Since 28% of households in the study area did not have a car, the study concluded that 10-15% of residents experienced significant barriers to accessing healthy food. The HIA made several recommendations to increase food access for residents. The HIA's housing recommendations focused on the potential to increase social cohesion through more home ownership, reducing housing costs so people had more money to purchase healthy food, and improvements in housing quality with stronger enforcement of housing codes. Additional recommendations related to increasing safety, community building, and social cohesion, and creating a positive sense of place. This HIA process strengthened connections between local stakeholders around health equity and enhanced their focus on food access.

### **Summary: HIA in Duluth**

These three HIAs together had a significant impact on integrating health in public decisions in Duluth, including:

1. Providing an evidence base and data that could be easily referenced to inform future implementation decisions, grant proposals, and evaluation efforts.

2. Increasing public engagement, which enhanced community involvement in future efforts.
3. Building the capacity of local stakeholders to do HIA, strengthening relationships between professionals in diverse organizations, and increasing leaders' commitment to promoting health equity.

However, without external funding, the city could not provide the resources needed to complete additional HIAs on a regular basis. One more HIA was conducted in Duluth with support from the U.S. EPA on waterfront habitat restoration (Williams, et al. 2020)). Nonetheless, the experience of doing these HIAs motivated stakeholders to find other ways to integrate health into ongoing local decisions. The next sections describe additional approaches through which stakeholders in Duluth have considered health when making decisions that affect the built environment.

### **Integrating Public Health in Brownfields Redevelopment**

In addition to Health Impact Assessments, efforts in many other sectors, agencies, and groups in Duluth aimed to promote a healthier, more equitable built environment. The Duluth Business and Economic Development Department was in an important early contributor to promoting health equity through brownfield redevelopment. State and federal brownfields programs have increasingly emphasized the broad public health improvements that may be gained by constructive reuse of contaminated land (U.S. Environmental Protection Agency, 2018). Starting around 2008, city staff noted that the U.S. EPA's requests for brownfields redevelopment proposals prioritized projects that would improve public health outcomes. This guidance from U.S. EPA encouraged local officials to identify health-promoting

redevelopment projects. For example, with the Business and Economic Development Department's leadership, the 10.2 acre Clyde Iron Works brownfield site ("Clyde Park") was developed into a multi-sport complex with a restaurant and event venue. Clyde Park anchored the redevelopment of the distressed Lincoln Park neighborhood as a hub for recreational and sports activities. With a documented 400 blighted and/or brownfield sites in Lincoln Park alone, the ongoing focus on promoting public health through brownfield redevelopment is expected to have a significant impact on shaping this neighborhood's future.

Duluth's groundbreaking work on linking brownfields with health, in turn, leveraged additional outside resources. For example, staff at the Agency for Toxic Substances and Disease Registry (ATSDR) Brownfield/Land Reuse Initiative heard about Duluth's ongoing efforts and in 2010 invited the City to partner with them on a proposal to the Great Lakes Restoration Initiative to assess the public health benefits of restoring the St. Louis River and Lake Superior waterfront. Although the project was not funded, it resulted in a stakeholder workshop in July 2012 to identify community health indicators for successful restoration. This workshop strengthened the brownfield program staff's connections with the ongoing Healthy Duluth efforts.

Another example of leveraging outside resources came from Duluth's Business Resource Manager Heidi Timm-Bijold's ongoing relationship with the statewide nonprofit Minnesota Brownfields. In 2012, Minnesota Brownfields partnered with Duluth to develop and pilot their Health Indicator Tool, which bolstered the city's ability to identify health benefits of redevelopment projects. The Health Indicator Tool has since been disseminated as a statewide resource for documenting the public

health impacts of brownfields redevelopment (Minnesota Brownfields, 2018).

The City of Duluth continued to integrate health assessments in numerous brownfield plans and related infrastructure projects, such as expansion of bike paths in low income neighborhoods. For example, in 2014 Duluth received a U.S. EPA Area-wide Planning grant for the Irving Fairmount Brownfields Revitalization Plan that included health department staff on the team and emphasized health equity as a goal for redevelopment. As Duluth Business Resource Manager Heidi Timm-Bijold said,

*"We were not intentional about the health conversation (before), but now ...we are very clear about the conversation as it relates to food, safety, connectivity – it is just part of the discussion. So as we move forward... it is becoming normalized to think about health as part of the process" (H. Timm-Bijold, personal communication, March 17, 2016).*

### Transportation Equity

As noted above, Duluth's initial efforts focused around promoting healthy lifestyles by providing trails and other resources for physical activity. Over time, the Healthy Duluth efforts came to reframe their efforts in terms of "transportation equity" – shaping the local transportation system so all Duluth residents could access health-supportive resources, including opportunities for active and public transportation. As St. Louis County health department educator Josh Gorham stated,

*Not only is transportation about health – active living - it's about getting to healthy food, healthcare, social activities, and much more... As socio-economic disparities became more of a priority in Public Health efforts in Duluth, we needed to reframe our*

*approach. We were no longer just talking about active transportation; we were talking about transportation equity” (J. Gorham, personal communication, March 18, 2016).*

Although individual groups still relied on outside resources to support staff and specific projects, these efforts were sustained by the integration of transportation equity goals into existing organizations’ agendas and activities.

For example, the HDAC organized a series of activities to highlight the potential for promoting health equity in the built environment. Some of these events were inspired by similar efforts in other cities, and supported by local financial and staff resources. The HDAC coordinates an annual “Bike/Bus/Walk” month, including a “bike with the mayor” event (French, 2014). “Parklets” have been created by businesses temporarily taking over parking spaces as public seating and recreation spots (French, 2015). These and other events helped engage the public and raise the community’s awareness of Healthy Duluth’s efforts.

In addition to these “pop up” events and projects, Healthy Duluth stakeholders engaged in ongoing efforts to promote transportation equity. For example, the Lincoln Park HIA identified low-income residents’ challenges accessing healthy and affordable food. In response, the city established a “Grocery Bus” specially equipped with racks for bags of food with scheduled runs from high need communities to the nearest full service grocery store (Lundy, 2016).

On an ongoing basis, Healthy Duluth Area Coalition members participated in public hearings and commented on street redesign programs, advocating successfully for traffic calming, bike lanes, and improved bus stops. In 2014, Duluth initiated a “St. Louis River

Corridor Initiative” to expand trails, parks, and neighborhood improvements after the floods of 2012 (City of Duluth, 2016). In 2016, Mayor Larson affirmed her commitment to implementing the plan, prioritizing segments that serve lower income neighborhoods. Meanwhile, the Metropolitan Planning Organization’s Technical Advisory Committee appointed a public health representative to ensure that health equity was “at the table” for a wide range of regional transportation decisions. These and other ongoing transportation equity efforts reflected stakeholders’ success in building community understanding and support for improving the built environment into ongoing local decisions in a wide range of sectors. Having health equity-oriented stakeholders involved helped counter concerns about costs and negative impacts on private businesses (e.g. loss of public parking, added construction costs).

### **Toward Health in All Policies?**

These examples show how Healthy Duluth efforts increased consideration of health equity in a wide range of decisions. These initiatives started with voluntary efforts to encourage healthier lifestyles. After learning about the power of other communities’ efforts to promote systems change, Healthy Duluth’s efforts began to focus on policies, plans, and programs that shape the built environment. Funding and directives from the Minnesota Department of Health through the local health department supported local efforts to promote health equity, as did funding for three HIA’s over a period of 4 years. At the same time, with encouragement from the U.S. EPA, the City of Duluth’s brownfields redevelopment programs increasingly focused on public health outcomes. The robust network of community and government groups fostered by these activities increasingly integrated health equity considerations throughout their work, notably in the area of transportation planning.

Despite this highly evolved ecosystem for considering health in a wide range of decisions, these efforts remain decentralized and vulnerable to loss of staff and technical capacity developed through past experience. The City of Duluth considered adopting a Health in All Policies resolution, but it did not decide to do so. Stakeholders reported concerns that adopting

an HiAP resolution might result in a “checklist” mentality, rather than meaningful consideration of systems changes. However, these ideas have clearly been taken up by the city leadership, as evidenced by Mayor Larson’s declaration that health and fairness would be key goals in Duluth’s 2016 comprehensive planning process (Larson, 2016) .

**Table 1. External resources and evolution of Duluth’s local health equity initiatives\***

Date	External Resource	Local Initiative
2005	Minnesota Governor Pawlenty establishes voluntary “Fit City” program	Duluth recognized as a “Governor’s Fit City, forms advisory committee
2007		
2008	Blue Cross Blue Shield’s Center for Prevention distributes copies of Unnatural Causes video to local health departments	Fit City Duluth obtains non-profit status as an organization St. Louis County health department staff view Unnatural Causes video Fit City members attend CDC conference
2009	CDC hosts “Community Approaches to Obesity Prevention” conference	Fit City Duluth forms 10-person team to attend CDC conference St. Louis County health dept. initiates of Safe and Walkable Hillside Coalition
2010		Health Duluth Area Coalition begins meeting
2011	MDH supports first HIA in Duluth (redesign of 6th Avenue)	St. Louis County Health Status report issued; credits “Unnatural Causes” Stakeholders participate in HIA
2013	MDH supports second HIA (Gary-New Duluth Small Area Plan)	Stakeholders participate in HIA to support Small Area Plan for Gary-New Duluth
2014	MDH supports third HIA (Lincoln Park Small Area Plan) U.S. EPA awards brownfield planning grant for Irving Fairmount BCBS Center for Prevention grant to HDAC for Fair Food Access work	HIA integrated into Small Area Plan process for Lincoln Park City pilots Brownfields Health Indicator Tool in Lincoln Park St. Louis River Corridor Initiative begins HDAC engages Lincoln Park residents in Fair Food Access work
2015		“Grocery Bus” begins running
2016	BCBS Center for Prevention grant to HDAC for health equity work	Mayor sets “health and fairness” as goals of city’s Comprehensive Plan HDAC initiates Health Equity Collaborative
2000-2017	U.S. EPA emphasizes public health as goal of brownfields redevelopment	City receives over \$17 million in brownfield grants; leverages over \$100 million

\*This table highlights several types of external resources (financial, technical, or human) supporting health equity initiatives in Duluth, but is not comprehensive.

## What Can We Learn From Duluth About Supporting Evolution of HiAP in Other Communities?

*“There has been a momentous but intentional aligning of the stars around this work” (Heidi Timm-Bijold, City of Duluth Business Resource Manager, personal communication, 2016)*

The experience of Duluth, MN offers insight into how one small city embraced and implemented the idea of enhancing health equity in the built environment through policy change. By creating informal yet robust networks for collaboration, stakeholders in Duluth were able to leverage varied community, local, state, and national resources to promote a healthier, more equitable built environment through a wide range of systems and policy changes. Duluth's experience endorses the idea that local cross-section collaboration around HIA can evolve into pervasive and powerful changes in systems to promote health equity.

At the same time, the Healthy Duluth efforts also may be viewed as a case of how national, state, and non-governmental efforts to promote community innovation can make an impact at the local level. Duluth's efforts benefitted from staff support, funding, and technical resources from external private, non-profit, and government groups. Indeed, several national programs that supported particular initiatives point to Duluth as a successful model of how their ideas, programs, and resources that can be replicated in other communities.

Looking closely at Duluth's efforts over time shows that the whole story is more complex. There was an ongoing exchange of ideas, initiatives, and opportunities between local stakeholders and external resources. Local stakeholders took advantage of state and

national programs, expertise, and funding to build a strong network of diverse organizations working to promote health equity through changes in the built environment. Stakeholders in Duluth attributed the sustained growth of these health equity efforts to the community's size, progressive nature, and commitment to collaboration. These characteristics allowed them to develop relationships across and collaborate between organizations with minimal formal structures. These relationships also in turn helped them identify, successfully access, and sustain resources from external agencies. These outside resources were particularly helpful during the initial development of Duluth's initiatives. However, continued support – for example, through the MDH State Health Improvement Program, Center for Prevention funding of health equity projects, and federal agencies' (particularly U.S. EPA and Department of Transportation) integration of health equity goals in their funding, policies, and programs – has been essential to sustaining these efforts.

This version of the story suggests that Duluth's evolution toward Health in All Policies may not be replicable in other communities that lack the ability to initially access resources, collaborate, and build local capacity. However, it does suggest strategies for regional and national actors to make such local initiatives possible in a broader range of communities:

- Provide opportunities for locals to learn. Duluth stakeholders reported numerous examples of learning from others' initiatives and ideas about how to promote health equity. Even the simple act of distributing the Unnatural Causes video affected locals' thinking. The opportunity to convene a team and travel to the Building Healthy Communities conference to learn from national – and particularly other local – leaders was even more

impactful. Bringing such opportunities to communities that are not actively seeking HiAP assistance may help seed new local initiatives.

- Make collaboration an expectation. By its nature, HiAP requires cross-sector collaboration. However, many organizations inadvertently discourage collaboration, because it can take time away from achieving direct institutional or professional goals. Building collaboration into job descriptions, performance reviews, and reporting can counteract these barriers. External institutions can encourage this. For example, the State Health Improvement Program's guidance to local health departments to foster local partnerships had a tremendous impact on the human resources available to health equity efforts in Duluth.
- Build health equity into review criteria for funding. An increasing number of funders, including both foundations and government agencies (e.g. the U.S. EPA and U.S. Department of Transportation) include public health promotion among the criteria for evaluating proposals for non-health projects. These cues were acted upon by Duluth's brownfield redevelopment and transportation agencies, significantly advancing the local focus on health in externally funded plans and projects. Providing incentives and guidance on how to address health in a non-health funding opportunities could significantly boost local efforts.
- Support sustained convening. It is particularly difficult for local groups to sustain funding for convening collaborative efforts. Collaboration by definition takes a long time, has uncertain outcomes, and

often results in unexpected new directions. As the Duluth case reaffirms, sustained convening over many years is necessary to build local capacity, leverage additional funding, bring in new partners, and adapt action agendas over time. Modest long-term support for local conveners can have a multiplier effect on local initiatives' evolution toward HiAP.

- Be patient. Collaboration takes a long time, but making impacts on local decision processes takes longer. Evidence of policy, environmental, or health outcomes – takes longer still. As well, local systems changes can seldom be attributed to a single effort. Duluth's experience shows how stakeholders can “help the stars align” toward health equity-promoting decisions, but that the process may be indirect, diffuse, and non-continuous. Funders should be mindful of this timeline as they set expectations for outcomes, encourage documentation of process changes, and integrate intermediate metrics like increased capacity into evaluations.

With increasing recognition that environmental factors contribute to the health inequities experienced by vulnerable populations, moving toward Health in All Policies at the local level is critical. Strategically deployed human, financial, and technical resources from external sources can fertilize local cross-sector collaborations and build local capacity for HiAP. Duluth's experience shows that such local initiatives have tremendous potential to bridge the silos between environmental and public health and address the root causes of environmental injustices.

---

## References

- Armijo, G. A., Haworth, K., & Young Winne, E. (2019). Incorporating health and equity into plans and policies: A step toward Health in All Policies. *Chronicles of Health Impact Assessment*, 4(1). <https://journals.iupui.edu/index.php/chia/article/view/23354>
- Bhatia, R. (2011). Health Impact Assessment: A guide for practice. Human Impact Partners. <https://humanimpact.org/wp-content/uploads/2011/01/HIA-Guide-for-Practice.pdf>
- Bunnell, G. (2002). Making places special: Stories of real places made better by planning. American Planning Association.
- Colloway, E. (2019). The long road to the “All” of HiAP. *Chronicles of Health Impact Assessment*, 4(1), 45 – 66. <https://doi.org/10.18060/23705>.
- Center for Prevention at Blue Cross Blue Shield of Minnesota. (n.d.). <https://www.centerforpreventionmn.com/initiatives/health-equity-in-prevention/>
- City of Duluth. (2006). Comprehensive Plan Historic Development Patterns. <https://duluthmn.gov/media/5652/2006-comp-plan-full-document.pdf>
- City of Duluth. (2016). St. Louis River Corridor Initiative-Connecting People to the River. <https://duluthmn.gov/parks/parks-planning/st-louis-river-corridor/>
- Collins, J., & Koplan, J. P. (2009). Health Impact Assessment: A Step Toward Health in all Policies. *JAMA*, 302(3), 315–317. <https://doi.org/10.1001/jama.2009.1050>
- Duluth to be named ‘Governor’s Fit City’. (2007, March 20). Duluth News Tribune. <http://www.duluthnewstribune.com/content/duluth-be-named-governors-fit-city>
- French, B. (2014). May is Bus.Bike.Walk. Month. <http://www.zeitgeiststarts1.com/HealthDul/active-living/may-is-bus-bike-walk-month/>
- French, B. (2015). Parklet Applications are Open! <http://www.zeitgeiststarts1.com/HealthDul/active-living/parklet-applications-are-open/>
- Gilley, J., Gangl, J., & Skoog, J. (2011). St. Louis County Health Status Report. Duluth, MN <https://www.stlouiscountymn.gov/Portals/0/Library/Dept/Public%20Health%20and%20Human%20Services/SLC-Health-Status-Report.pdf>
- Healthy Duluth Area Coalition. (2018). Coalition members. <http://www.zeitgeiststarts1.com/HealthDul/about-us/coalition-members/>
- Honeycutt, S., Leeman, J., McCarthy, W. J., Bastani, R., Carter-Edwards, L., Clark, H., Garney, W., Gustat, J., Hites, L., Nothwehr, F., & Kegler, M. (2015). Evaluating policy, systems, and environmental change interventions: Lessons learned from CDC’s Prevention Research Centers. *Preventing Chronic Disease*, 12, E174. <https://doi.org/10.5888/pcd12.150281>
-

- 
- Korfmacher, K. S. (2019). *Bridging Silos: Collaborating for Environmental Health and Justice in Urban Communities*. MIT Press.
- Korfmacher, K. S. (2020). *Bridging Silos: A Research Agenda for Local Environmental Health Initiatives*. *NEW SOLUTIONS: A Journal of Environmental and Occupational Health Policy*, 1048291120947370.
- Larson, E. (2016). *State of the City - Forward Together*. Duluth, MN <https://duluthmn.gov/media/6888/sotc-speech-2016.pdf>
- Lundy, J. (2016, July 25). Changes in store for Grocery Express. *News Tribune*. <https://www.duluthnewstribune.com/news/4081116-changes-store-grocery-express>anges in store for Grocery Express. *Duluth News Tribune*. Retrieved from <http://www.duluthnewstribune.com/news/4081116-changes-store-grocery-express>
- Minnesota Brownfields. (2018). *Brownfield Health Indicator Tool*. <http://mnbrownfields.org/home/available-resources/brownfield-health-indicator-tool/>
- Minnesota Department of Health. (2020). *Health Impact Assessment (HIA)*. <https://www.health.state.mn.us/communities/environment/hia/>
- Minnesota Department of Health Climate & Health Program (2014). *Gary/New Duluth Small Area Plan Health Impact Assessment*. [http://www.health.state.mn.us/divs/hia/docs/gnd\\_hia.pdf](http://www.health.state.mn.us/divs/hia/docs/gnd_hia.pdf)
- Minnesota Department of Health Climate & Health Program. (2015). *Lincoln Park/Duluth Small Area Plan Health Impact Assessment*. [https://duluthmn.gov/media/5713/final-garynewduluth\\_healthimpactassessment.pdf](https://duluthmn.gov/media/5713/final-garynewduluth_healthimpactassessment.pdf)
- National Research Council Committee on Health Impact Assessment. (2011). *Improving health in the United States: The role of Health Impact Assessment*. Washington, DC: National Academies Press.
- New Ulm, M. (2006). *Governor's Fit City*. [http://www.ci.new-ulm.mn.us/index.asp?SEC=7220A3BF-18EC-4FCB-ACF7-29EBA92DA595&Type=B\\_BASIC](http://www.ci.new-ulm.mn.us/index.asp?SEC=7220A3BF-18EC-4FCB-ACF7-29EBA92DA595&Type=B_BASIC)
- Pearson, S. (2014, August 12). *Why Duluth is the Best Town in America*. *Outside Magazine*. <https://www.outsideonline.com/1924981/why-duluth-best-town-america>.
- Pine, A., & Bennett, J. (2011). *Food access in Duluth's Lincoln Park/West End neighborhood*. University of Minnesota. Extension. <http://hdl.handle.net/11299/171650>
- Rhodus, J., Fulk, F., Autrey, B., O'Shea, S., & Roth, A. (2013). *A review of Health Impact Assessments in the U.S.: Current state-of-science, best practices, and areas for improvement*. <https://www.epa.gov/sites/production/files/2015-03/documents/review-hia.pdf>
- Ricklin, A., Madeley, M., Whitton, E., & Carey, A. (2016, July 1). *The state of Health Impact Assessment in planning*. American Planning Association. <https://www.planning.org/publications/document/9148434/>
- Rudolph, L., Caplan, J., Ben-Moshe, K., & Dillon, L. (2013). *Health in All Policies: A Guide for State and Local Governments*. American Public Health Association and Public Health Institute.
-

- 
- St. Louis County Health and Human Services. (2011). Health Impact Assessment: Duluth, Minnesota's Complete Streets Resolution, mobility in the Hillside neighborhoods and the Schematic Redesign of Sixth Avenue East. <http://www.pewtrusts.org/~media/assets/2011/06/20/6thavenueeastfinalreport.pdf?la=en>
- U.S. Environmental Protection Agency. (2020). Overview of the Brownfields Program. <https://www.epa.gov/brownfields/brownfield-overview-and-definition>
- Unnatural Causes. (2008). Unnatural causes: Is inequality making us sick? [Film. California Newsreel. <http://www.unnaturalcauses.org/>
- Williams, K., Hoffman, J., Rhodus, J., & Clark, R. (2020, January 01). Kingsbury Bay-Grassy Point Habitat Restoration: A Health Impact Assessment [PowerPoint slides]. The United States Environmental Protection Agency's Center for Computational Toxicology and Exposure. <https://doi.org/10.23645/epacomptox.11740134.v1>

---

## **CORRESPONDING AUTHOR**

Katrina Smith Korfmacher, PhD  
Department of Environmental Medicine  
University of Rochester  
Box EHSC  
601 Elmwood Avenue  
Rochester, NY 14642  
[Katrina\\_korfmacher@urmc.rochester.edu](mailto:Katrina_korfmacher@urmc.rochester.edu)

### **Acknowledgement:**

This paper builds on a case study included in (Korfmacher, 2019). This work was supported in part by the National Institute of Environmental Health Sciences through grant P30 ES001247. Research protocols were deemed exempt by the University of Rochester's Research Subjects Review Board. The author greatly appreciates the information provided by numerous stakeholders involved in the Healthy Duluth efforts. The content of this manuscript is solely the responsibility of the author and does not necessarily represent the views of the National Institutes of Health, interviewees, or organizations featured in the case study.

### **CHIA Staff:**

#### **Editor-in-Chief**

Cynthia Stone, DrPH, RN, Professor, Richard M. Fairbanks School of Public Health, Indiana University-Purdue University Indianapolis

#### **Journal Manager**

Angela Evertsen, BA, Richard M. Fairbanks School of Public Health, Indiana University-Purdue University Indianapolis

**Chronicles of Health Impact Assessment Vol. 5 Issue 1 (2020) DOI: 10.18060/24034**

© 2020 Author(s): Korfmacher, K.

 This work is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/)