CHIA
Chronicles of Health Impact Assessment
Improving community health through health impact assessments

October 2019 VOLUME 4 ISSUE 1

LETTER FROM THE EDITOR

In the fall 2019 CHIA issue, we have a special series of articles submitted and invited by our guest editor, Gretchen Armijo. Gretchen has been working at the City of Denver as the Built Environment Administrator and has conducted several HIA's as part of her work. Gretchen has provided some very interesting articles that she will introduce in her own letter. I very much appreciate all her contributions to making this a meaningful journal issue.

Thank you also to Conner Tiffany, IU Graduate Service Learning Assistant, for his help with this issue.

If you would like to be a guest editor in the future, please submit your name and the topic you would like to write about and recruit at least two additional articles to me at cylstone@iu.edu. I hope you have a great fall.

Sincerely,
Cynthia Stone DrPH, RN
Chronicles of Health Impact Assessment Editor-in-Chief

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LETTER FROM THE GUEST EDITOR

Since the time that I began to use Health Impact Assessments in my work as an urban planner almost a decade ago, the use of HIAs and HiAP has continued to broaden throughout the U.S. Applying the tools to plans, projects, and policies has led to lots of real-world stories of success as well as lessons learned. I believe that as HIA and HiAP practitioners, sharing our valuable stories of 'how did you actually do that?', 'what worked and what didn't?' and 'what did you learn from it?' get to the heart of this practice: how to improve health and equity through intentional consideration of the impacts of policies, legislation, and built environment projects on people's health, wellness, and access to opportunity.

I asked several of my many distinguished HIA colleagues from around the country to share their real-world stories of their use of HIA and HiAP to lead to more equitable development outcomes in the built environment. Erik Calloway at ChangeLab Solutions sets the stage with a reflective examination of HiAP experiences and lessons from Minneapolis, MN, Seattle, WA, and Richmond, CA. In Fort Collins, CO, Kelly Haworth and Liz Young at Larimer County Public Health share their story of creating a new partnership and sharing data with engineers to inform sidewalk construction projects. Finally, in Denver, CO, my colleague Maggie Kauffman and I share the evolution of our HIA 1.0 program to a more integrated HIA 2.0 to expand and quantify health and equity.

I hope you find these stories informative, inspirational, perhaps entertaining, and encouraging in your practice of HIA and HiAP.

Happy reading!

Gretchen Armijo, AICP, LEED AP

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LETTER FROM THE SOCIETY OF PRACTITIONERS OF HEALTH IMPACT ASSESSMENT

As health impact assessment (HIA) takes root as an established practice both in the U.S. and globally, the focus has shifted from how to do an HIA, to how to integrate it into broader health in all policies (HiAP) efforts. This is reflected in discussions at recent gatherings, including the 2019 Society of Practitioners of Health Impact Assessment (SOPHIA) Practitioner Workshop, and Advancing Health and Health Equity: Lessons from Around the Globe Convening.

The SOPHIA Practitioner Workshop, held in St Paul Minnesota in April 2019, brought together nearly 54 new and experienced HIA practitioners for two days of valuable presentations and discussions on the state of the field. Presentations offered current applications of HIA including techniques for broader integration of health into decision-making that support HIA, such as ecosystem services, equity analysis tools, and results-based accountability. The plenary panel featured examples of HIA practice from the states of Georgia and Minnesota, and the country of Wales which demonstrated how individual HIAs can be leveraged to create more sustained, integrated work. There were also several sessions focused on health in all policies including: a discussion on HIA as a translational research tool which can be used as a strategy for achieving integration of health at higher levels of decision-making; evaluation strategies for HiAP; and the SOPHIA HiAP Working Group. You can read the full Workshop Report at: https://bit.ly/2zegmNH

Advancing Health and Health Equity: Lessons from Around the Globe Convening hosted 35 experts in HIA and HiAP for a one-day meeting in Barcelona, Spain in July 2019. Experts provided examples of work they are leading to promote the integration of health into decision-making in Australia, USA, Wales, Spain, Chile, the Philippines and Switzerland. Many of these examples included cross-sectoral and integrated strategies that are part of or support health in all policies, including: development of health notes in the USA; HiAP strategies in South Australia; development of statutory frameworks for HIA in Wales; adoption of HiAP strategies as part of public health governance in Spain; and use of global governance on air pollution and health as an entry point for health in all policies efforts. A video recording of the proceedings will be available on the SOPHIA website (www.hiasociety.org).

Having attended both these events I have come away with a renewed appreciation for the importance of viewing HIA as an important tool in the larger toolbox of HiAP strategies, and of the need to view HiAP as a governance mechanism for achieving health and equity. The articles contained in this edition offer examples of work that continue to advance both the practice of HIA an HiAP. I invite you to reflect on them, as I have, with a view towards understanding how both HIA and HiAP can be used strategically to advance efforts towards achieving health and equity.

Sincerely,

Katie Hirono
President, Society of Practitioners of Health Impact Assessment

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ABOUT THE JOURNAL

A Health Impact Assessment (HIA) is a systematic process that uses a variety of data sources and analytic methods and input from community stakeholders to determine the potential health effects of a proposed policy, program, or plan. HIAs provide recommendations to decision makers on how to adjust the policy or program to minimize negative health effects and increase potential positive health benefits.

The editorial board and staff of CHIA strive to give expression to health impact assessment research and scholarship while serving the public health profession.

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MADE TO ORDER: USING GUBERNATORIAL EXECUTIVE ORDERS TO PROMOTE HEALTH IN ALL POLICIES

Maxim Gakh, JD, MPH

Abstract:

The Health in All Policies (HiAP) approach presents different and often complementary avenues to address the social determinants of health. But at its core, HiAP relies on collaborations to make health a governmental priority across sectors. In the United States, HiAP efforts can involve multiple levels of government and strategies that may vary in formality. In some states, state-level HiAP efforts may be advanced by gubernatorial executive orders (GEOs). GEOs are often used to promote health. GEOs may be powerful in the HiAP context because of their potential to manage the different sectors that comprise state government and thereby address the social determinants of health. By synthesizing the relevant literature and providing illustrative examples of HiAP-promoting GEOs, this review explores how, why, and whether to use GEOs for HiAP. It demonstrates that GEOs may advance HiAP with or without using a HiAP label, along different steps in the policymaking cycle, and by addressing common HiAP challenges. Champions of HiAP should therefore examine the possible utility of GEOs to promote state-level HiAP efforts.

A HiAP strategy aims to promote health through collaboration across sectors

Health Impact Assessments (HIAs) can help address the social determinants of health across sectors that make decisions with health consequences (NRC, 2011). These sectors include the built environment, housing, education, agriculture, and energy (NRC, 2011; Rudolph, Caplan, Ben-Moshe, & Dillon, 2013; Wernham & Teutsch, 2015; Towe et al., 2016). HIAs have the ability to engage communities in decision-making, educate policymakers, create partnerships, and link data and scientific evidence to real-time decisions (NRC, 2011; Dannenberg, 2016; Wernham & Teutsch, 2015). In fact, HIAs are one of the few existing, systematic tools available to target decisions that impact these social determinants (NRC, 2011). Addressing the social determinants of health can simultaneously impact populations across multiple health outcomes (Frieden, 2010). Yet HIA work also faces challenges (NRC, 2011; Dannenberg, 2016; Rudolph et al., 2013). An important challenge of using HIAs to target the social determinants is that most HIAs analyze a limited number of issues rather than creating consistent and sustainable change in how decisions with indirect health impacts are approached (NRC, 2011; Wismar et al., 2006).

Thus, it is important that HIAs are part of a larger movement aiming for comprehensive integration of health into all sectors' decisions (IOM, 2011; Kemm, 2006; Rudolph et al., 2013; Wernham & Teutsch, 2015). This movement, sometimes called "Health in All Policies" (HiAP), is rooted in the "healthy public policy" concept (Gottlieb, Fielding, & Braveman, 2012; IOM, 2011; Rudolph et al., 2013; Sihto, Ollila, & Koivusalo, 2006; Gase, Pennotti, & Smith, 2013; Wernham & Teutsch, 2015). HiAP has gained acceptance in the public health field both in the U.S. and globally (Rudolph et al., 2013; Ollila, 2011; Sihto et al., 2006; Wimar et al., 2006; Wernham & Teutsch, 2015) along with the recognition that the social determinants of health are critical in shaping health outcomes (Sihto et al., 2006; Frieden, 2010; Wernham & Teutsch, 2015; WHO, 2008; CDC, 2018; IOM, 2011; APHA, 2012; HHS, 2019).

Like HIAs, at its core, HiAP focuses on integrating health concerns into non-health sectors (IOM, 2011; Rudolph et al., 2013; Sihto et al., 2006; Gase et al., 2013; Wernham & Teutsch, 2015; Gakh & Rutkow, 2017). It involves addressing the health implications of policy decisions in non-health sectors, because "other sectors are often key in terms of health determinants" (Ollila, 2011, p.13). But this is easier said than done: "The central issue facing HiAP is how to enhance the feasibility of placing health criteria on the agendas of policy-makers who have not previously considered health" (Sihto et al., 2006, p.11). Operationally, HiAP-related efforts can take many forms (Sihto et al., 2006; Rudolph et al, 2013; Ollila, 2011; Wernham & Teutsch, 2015; Gase et al., 2013). They can focus on specific social determinants or health-related issues (Sihto, et al., 2006; Rudolph et al., 2013; Ollila, 2011; Wernham & Teutsch, 2015). Alternatively, HiAP efforts can directly focus on decision-making processes and systems change to encourage consideration of health across decisions (Sihto et al., 2006; Rudolph et al., 2013; Ollila, 2011; Gase et al., 2013; Wernham & Teutsch, 2015).

Cross-sector partnerships are also central to HiAP endeavors (Sihto et al., 2006; Rudolph et al., 2013; Ollila, 2011; Gase et al., 2013; Wernham & Teutsch, 2015). In the broadest sense, these partnerships involve collaboration among governmental, for-profit, and non-profit organizations formed around health-related goals and comprised of context-specific activities and enabled by different structures (Johnston & Finegood, 2015). HiAP efforts are not exclusively government-centric (Rudolph et al., 2013; Ollila, 2011; Wernham & Teutsch, 2015). However, governmental HiAP efforts usually involve collaboration by government agencies that are organized around sometimes seemingly inconsistent missions (Rudolph et al., 2013; Sihto et al., 2006). In the HiAP context, Greer & Lillvis define "intersectoral governance" as "the set of political,

legal, and organizational structures that enables the coordination of multiple sectors to address causes of ill health, and is therefore the mechanism permitting HiAP" (2014, p.13). Implementing this type of cross-sector governmental collaboration can encounter barriers, such as variable organizational cultures; limited understandings across organizations; inconsistent definitions of success; and limited resources, tools, and expertise (Johnston & Finegood, 2015; Sihto et al., 2006; Rudolph et al., 2013; Gase et al., 2013; Wernham & Teutsch, 2015).

HiAP implementation can pursue formal strategies, informal strategies, or both (Rudolph et al., 2013; Gase et al., 2013; Wernham & Teutsch, 2015). Formal HiAP endeavors, including implementation that relies on law, can catalyze or set out cross-sector HiAP work (Rudolph et al., 2013; Gakh, 2015; Wernham & Teutsch, 2015). In fact, as Hall & Jacobson found in interviews with policy actors, legal mandates can sometimes "encourage buy-in for cross-sector collaboration" (2018, p.6). Different formal, law-based mechanisms are available to issue HiAP-related mandates – including legislation, regulation, and memoranda of understanding – and choosing among them can involve balancing structural factors like legal authority and political realities (Rudolph et al., 2013; Gakh, 2015).

Gubernatorial executive orders (GEOs) may be the right mechanisms for state-level HiAP efforts, depending on legal structures and de facto realities (Rudolph et al., 2013; Gakh, 2015). GEOs allow governors to mandate action from multiple state-level sectors simultaneously and may present fewer procedural obstacles and require less political capital to adopt than other legal mechanisms that formalize HiAP (Gakh, 2015). A closer look at GEO documents and how they can be crafted to encourage HiAP is therefore in order. Examining these documents in detail is also an important first step to inform studies on how GEOs impact HiAP implementation.

GEOs are an important public health policy mechanism that is well suited for HiAP

GEOs are an essential and sometimes overlooked policy mechanism that can advance public health (Gakh, Vernick, & Rutkow, 2013; Gakh, Callahan, Goodie, & Rutkow, 2019). A GEO may allow a state governor to set or operationalize formal changes to programs and policies without the need for official legislative support (Gakh et al., 2013). State laws vary in what a governor can legitimately direct by executive order (CSG, 2010; Ferguson & Bowling, 2008; Gakh et al., 2013). GEOs may be used for symbolic gestures, such as flying flags on state property (Ferguson & Bowling, 2008). But they may also undertake various substantive public health goals by targeting public health emergencies, establishing or modifying government agencies or programs, directing public health agencies, prioritizing health issues, and controlling state operations (Gakh et al., 2013).

GEOs can promote the cross-sector governmental work that constitutes HiAP. The literature contains examples of GEOs as law-based, state-level mechanisms to promote HiAP (Pepin, Winig, Carr, & Jacobson, 2017; Weisman, Helmy, Moua, & Aoki, 2018; Gakh, 2015; Polsky, Stagg, Gakh, & Bozlack, 2015; Rudolph et al., 2013; Gase et al., 2013; Wernham & Teutsch, 2015). But a closer look at the mechanism itself in the context of HiAP is warranted because most public health-related GEOs tend to include directives salient to HiAP. These directives include managing government agencies, establishing new government entities, mandating cross-sector collaboration, or requiring the investigation and development of recommendations to address particular health problems (Gakh et al., 2019). This review uses frameworks focused on public health policy and cross-sector collaboration to demonstrate that, like other formal mechanisms, GEOs (1) can promote HiAP with or without using a HiAP label; (2) help prioritize, formulate, adopt, implement, and evaluate HiAP efforts; and (3) address some common

barriers to state-level governmental HiAP efforts. To illustrate these points, this review relies on GEOs identified through key terms searches in relevant databases (e.g., Westlaw's Netscan Executive Orders database and the Lexis Advance databases containing state statutes and legislation and administrative codes and regulations) and from a priori knowledge.

GEOs may promote HiAP with or without an articulated commitment to HiAP

HiAP implementation can involve sweeping efforts that focus on modifying decisions that impact the social determinants of health or on more discrete health-related priorities (Rudolph et al., 2013). GEOs can support both types of efforts and can do so with or without labeling the effort as "HiAP." This is important because it demonstrates that GEOs that support HiAP can take many forms.

At the broad and explicit end of the range of GEO types, for example, in 2015, Vermont Governor Shumlin issued an order to establish a HiAP Task Force (Vt. Exec. Order No-07-15 (Oct. 6, 2015)). This order recognizes the role that non-health sectors play in health behaviors and outcomes and therefore that health necessitates a "shared responsibility and an integrated and sustained policy response across government" (Vt. Exec. Order No-07-15 (Oct. 6, 2015, p.1)). The Vermont HiAP Task Force, chaired by the state health commissioner and with representatives from different state agencies (e.g., agriculture, commerce, transportation, public service, education, human services, natural resources), is responsible for determining how "to more fully integrate health considerations into all state programs and policies, and promote better health outcomes through interagency collaboration and partnership" (Vt. Exec. Order No-07-15 (Oct. 6, 2015)). California's HiAP efforts similarly include a 2010 GEO, issued by Governor Schwarzenegger, that also directly establishes an intergovernmental HiAP Task Force rooted in the state's efforts to manage growth (Cal. Exec. Order No. S-04-10 (Feb. 23, 2010)). A recent New York GEO requires state government entities to integrate the state's Prevention Agenda priorities and World Health Organizations Domains of Livability, which focuses on healthy aging, into their plans, "guidance, policies, procedures, and procurements" to promote "Health Across All Policies" (N.Y. Exec. Order No. 190 (Nov. 14, 2018, p.1)).

However, considering only GEOs that institute broad HiAP initiatives and include HiAP labels overlooks HiAP-promoting GEOs that contain substantive directives that can facilitate cross-sector HiAP work but are not cast in "health in all policies" language. At its core, HiAP is defined as integrating health concerns into other sectors (IOM, 2011; Rudolph et al., 2013; Sihto et al., 2006); HiAP implementation strategies are therefore not limited to HiAP-oriented government organizations (Rudolph et al., 2013; Wernham & Teutsch, 2015; Gase et al., 2013). Understanding how HiAP-like orders can integrate health into other sectors is critical because it reveals a more subtle use of GEOs to advance the HiAP approach.

GEOs focused on education and children from several states illustrate how GEOs with no mention of HiAP can encourage more nuanced HiAP-like practice. For example, on its face, a Kansas GEO makes no mention of HiAP, the social determinants of health, or the connection between education and health (Kan. Exec. Order No. 10-05 (Jun. 17, 2010)). However, the order creates a statewide advisory group, with a state health agency representative, focused on early childhood education to examine opportunities for collaboration among state government agencies and to improve existing data systems (Kan. Exec. Order No. 10-05 (Jun. 17, 2010)). A Connecticut order uses a similar approach; it requires the state Office of Early Childhood to establish an interagency effort around early childhood education that includes the health department (Conn. Exec. Order No. 35 (Jun. 24, 2013)). It also requires the state executive branch to "collaborate and cooperate with the Office" (Conn. Exec. Order No. 35 (Jun. 24, 2013, p.2)). Similarly, recognizing that many state government

agencies "lead programs that are important to the success and well-being" of children, a Tennessee GEO establishes a Children's Cabinet focused on "shared policy, planning, coordination, cooperation, and collaboration" (Tenn. Exec. Order No. 10 (Jan. 30, 2012, p.1)). This Cabinet includes state-level government entities, including agencies responsible for education, human services, and health, and requires executive agencies to support the Cabinet's efforts (Tenn. Exec. Order No. 10 (Jan. 30, 2012)). The Kansas, Connecticut, and Tennessee orders illustrate that, even when GEOs do not contain HiAP language, they can include HiAP-like content requiring cross-sector collaboration around health and integrating health into government work in areas that are important to the social determinants.

GEOs may prioritize, formulate, adopt, implement, and evaluate intergovernmental HiAP work

Policymaking is a complex and dynamic process with the ability to change health (Brownson, Chriqui, & Stamatakis, 2009; Golden & Moreland-Russell, 2016). Multiple models and frameworks are useful to understand policy in the context of health (Oliver, 2006). Although policy-making is difficult to categorize meaningfully, one way to visualize policymaking is as a five-step cycle comprised of policy prioritization, formulation, adoption, implementation, and evaluation – and back to the start (Golden & Moreland-Russell, 2016). GEOs can support HiAP efforts throughout each step of this policymaking cycle.

GEOs can prioritize integrating health into other sectors through cross-sector collaboration. Prioritization involves identifying, selecting, or framing a health-related issue for policy intervention (Golden & Moreland-Russell, 2016). Both HiAP-based and HiAP-like GEOs can do this. For example, the Vermont, New York, and California GEOs clearly establish health as a cross-cutting issue for state government agencies, elevating the importance the importance of considering health across government decisions and the pursuit of HiAP as a goal (Vt. Exec. Order No-07-15 (Oct. 6, 2015); N.Y. Exec. Order No. 190 (Nov. 14, 2018); Cal. Exec. Order No. S-04-10 (Feb. 23, 2010)). HiAP-like GEOs can also prioritize health issues and approaches across sectors. For instance, a Louisiana GEO names an existing commission as an interagency council to establish, review, update, and implement the state's plan to address homelessness (La. Exec. Order No. BJ 2013-5 (Mar. 19, 2013)). Similarly, a North Dakota order establishes a statewide, cross-sector coalition to improve "collaboration and coordination on behavioral health services for service members, veterans, and their families and survivors" (N.D. Exec. Order No. 15-01 (Jan. 8, 2015, p.1)). In these examples, GEOs emphasize the importance of health issues and frame health-related problems as cross-sector problems.

GEOs can also formulate policy to incorporate health into other sectors. Policy formulation involves developing, articulating, and considering policy solutions to health problems (Golden & Moreland-Russell, 2016). Vermont's executive order, for instance, requires the interagency HiAP Task Force to report to the governor "potential opportunities to include health criteria in regulatory, programmatic, and budgetary decisions" and strategies from other jurisdictions to integrate health across government decisions (Vt. Exec. Order No-07-15 (Oct. 6, 2015, p.2)). Although not explicitly focused on HiAP, Nevada's GEO establishing a cross-sector food security council in the health department calls for annual reports with recommendations (Nev. Exec. Order No. 2014-03 (Feb. 12, 2014)). Both GEOs require cooperation around identifying and articulating cross-sector policy solutions focused on health.

In addition, GEOs can be vehicles to adopt HiAP or HiAP-like policy. Adoption involves processes that result in choosing a particular policy (Golden & Moreland-Russell, 2016). The issuance of the Vermont, New York, and California HiAP GEOs embodies the adoption of a HiAP approach through formal policymaking channels (Vt. Exec. Order No-

07-15 (Oct. 6, 2015); N.Y. Exec. Order No. 190 (Nov. 14, 2018); Cal. Exec. Order No. S-04-10 (Feb. 23, 2010)). Similarly, while not explicitly HiAP-focused, a Massachusetts GEO that formally adopts for multiple state executive agencies a policy of "procuring Environmentally Preferable Products and Services" to conserve natural resources, limit generation of toxic substances, and reduce negative impacts on health and the environment also operates as formal adoption of state policy integrating health concerns across sectors (Mass. Exec. Order No. 515 (Oct. 27, 2009, p.2)).

Executive orders issued by governors can help implement polices that embed health into non-health sectors through collaboration. The implementation phase involves operationalizing adopted policy through specific strategies, tasks, and responsibilities (Golden & Moreland-Russell, 2016). The California, New York, and Vermont HiAP GEOs lay out specific implementation strategies to operationalize HiAP. The Vermont and California GEOs both create HiAP Task Forces (Vt. Exec. Order No-07-15 (Oct. 6, 2015); Cal. Exec. Order No. S-04-10 (Feb. 23, 2010)). In addition, the California order requires the state health department to staff and facilitate the work of the HiAP Task Force (Cal. Exec. Order No. S-04-10 (Feb. 23, 2010)), while the Vermont order requires its HiAP Task Force to develop tools to help state agencies consider health impacts of policy decisions (Vt. Exec. Order No-07-15 (Oct. 6, 2015)). The New York order requires each agency to appoint and deputize a coordinator responsible for HiAP implementation (N.Y. Exec. Order No. 190 (Nov. 14, 2018)). HiAP-like GEOs can also help implement policies that embed health across sectors. For example, Maryland's Governor Hogan used a GEO to create an executive council committee centered on paid sick leave with representatives from multiple agencies and duties that include collecting data, surveying employees and employers, developing policy recommendations, providing regular updates, and submitting a final report (Md. Exec. Order No. 01.01.2017.08 (May 25, 2017)). While varying in HiAP scope and, with or without using HiAP labels, the Vermont, California, New York, and Maryland GEOs illustrate how GEOs can be used to operationalize the HiAP approach and HiAP principles.

Finally, GEOs can also be helpful mechanisms to launch evaluation of efforts that bring health into other sectors. Evaluation is the last stage of the policy cycle and involves examining the impacts of an implemented policy on its target and on other indicators so necessary adjustments can be made (Golden & Moreland-Russell, 2016). The Vermont GEO encourages evaluation of HiAP efforts by requiring Task Force members to describe how they are integrating health concerns into their respective decisions (Vt. Exec. Order No-07-15 (Oct. 6, 2015)). While not mentioning HiAP, a Michigan GEO that forms a state Interagency Council on Homelessness, with representatives from many government agencies including health, orders the Council to craft a plan to end homelessness and then "monitor and oversee the implementation" of the plan through measurable goals, coordinated data and reporting systems, and progress reports (Mich. Exec. Order No. 2015-2, Jan. 16, 2015, p.1)). GEOs can therefore include evaluation components to state-level efforts that bring the health lens into other sectors.

GEOs may address some of the problems of cross-sector collaboration around health

GEOs can also tackle some common challenges faced by cross-sector collaborative efforts to bring health into governmental decision-making. Greer & Lillvis identify two major barriers to HiAP's intersectoral governance – (1) "coordination" (i.e., how to get the non-health sector to focus on health) and (2) "durability" (i.e., how to maintain HiAP efforts across time) – by synthesizing relevant literature from the public health, political science, and public administration fields (2014, p.14). They identify three categories of possible ways to overcome these barriers: (1) "political leadership" (i.e., actualizing commitment from leaders), (2) "bureaucratic change" (i.e., modifying existing processes, procedures, and

modes of interaction) and (3) "indirect strategies" (i.e., pursuing longer-term changes to policy-making) (Greer & Lillvis, 2014, p.14-15). Related to these solutions, Kania and Kramer articulate five common conditions of "successful collective impact": (1) shared agendas, (2) consistent metrics, (3) collaborative work that reinforces each other, (4) constant communication, and (5) an organization that can take on coordination (2011). They argue that "collective impact" – or "the commitment of a group of important actors from different sectors to a common agenda for solving a specific social problem" – provides a way to solve complex problems like health (Kania & Kramer, 2011, p.23). Both frameworks provide guidance for HiAP efforts. They are also consistent with other discussions in the HiAP literature (Rudolph et al., 2013; Gase et al., 2013, Wernham & Teutsch, 2015). GEOs are important tools that can be part of the solution to overcome barriers to HiAP.

Leadership by policymakers and shared agendas can promote HiAP (Kania & Kramer, 2011; Greer & Lillvis, 2014). GEOs can foster both. Issuing a HiAP-promoting GEO formally establishes HiAP as a cross-sector priority at the highest level of state executive leadership. By using GEOs to create HiAP task forces, the Vermont, New York, and California governors formally signaled to state government agencies from different sectors and to others that they recognize the value of and are committed to HiAP (Vt. Exec. Order No-07-15, (Oct. 6, 2015); N.Y. Exec. Order No. 190 (Nov. 14, 2018); Cal. Exec. Order No. S-04-10 (Feb. 23, 2010)). The language of all three orders acknowledges that health policy is made across sectors and the importance of incorporating health into decision-making (Vt. Exec. Order No-07-15, (Oct. 6, 2015); Cal. Exec. Order No. S-04-10 (Feb. 23, 2010); N.Y. Exec. Order No. 190 (Nov. 14, 2018)). All three orders establish HiAP as a shared priority for state agencies and health as a cross-sector responsibility through formal policy mechanisms issued by the state's chief executives (Vt. Exec. Order No-07-15, (Oct. 6, 2015); Cal. Exec. Order No. S-04-10 (Feb. 23, 2010); N.Y. Exec. Order No. 190 (Nov. 14, 2018)). The Vermont, California, and New York GEOs also enshrine at least some robustness into their HiAP efforts. California requires delivering one report with recommendations to state government (Cal. Exec. Order No. S-04-10 (Feb. 23, 2010)); Vermont requires an annual report with recommendations to the governor and periodic reporting of progress (Vt. Exec. Order No-07-15, (Oct. 6, 2015)). And New York requires establishing responsible parties (N.Y. Exec. Order No. 190 (Nov. 14, 2018)). HiAP efforts would likely be sustained at least until completion. Furthermore, as long as these GEOs remain in effect, they can serve as a formal commitment to HiAP articulated for all state agencies by the state's chief executives.

HiAP-like GEOs, too, can be a vehicle for leadership to support coordination and durability and to set cross-sector agendas on issues with health impacts. A Colorado GEO, for example, adopts a shared agenda of supporting "zero emissions vehicles" (Colo. Exec. Order No. B-2019-002 (Jan. 17, 2019, p.2)). It creates a cross-sector workgroup of state agencies, including health, and encourages agencies to coordinate efforts while requiring workgroup members to modify their rules, programs, and plans to support this health-promoting goal (Colo. Exec. Order No. B-2019-002 (Jan. 17, 2019)). By requiring the implementation of specific policies and clarifying that the GEO stands "until modified or rescinded" (Colo. Exec. Order No. B-2019-002 (Jan. 17, 2019, p.1)), this GEO also supports the robustness of HiAP-related work.

HiAP can involve modifying bureaucratic processes and entities to support coordination and durability, establish coordinating organizations, require reinforcing work, and encourage continuous communication (Kania & Kramer, 2011; Greer & Lillvis, 2014). GEOs can support these types of changes. The California and Vermont GEOs design new state government entities – HiAP task forces – as organizations to coordinate HiAP and assign the responsibility of leading the HiAP efforts to health departments (Vt. Exec. Order No-07-15 (Oct. 6,

2015); Cal. Exec. Order No. S-04-10 (Feb. 23, 2010)). Both orders also require agencies to collaborate in ways that augment each other's work and encourage communication. California's GEO calls upon all agencies that report to the governor to cooperate with the HiAP Task Force (Cal. Exec. Order No. S-04-10 (Feb. 23, 2010)). Vermont's order requires agencies constantly to interact through the new task force as they identify health-promoting strategies; integrate health into their "rulemaking, policies, and programs;" and regularly report progress (Vt. Exec. Order No-07-15, Oct. 6, 2015, p.2). While New York's order requires establishing HiAP-responsible staff across agencies who also must liaise with a central HiAP committee (N.Y. Exec. Order No. 190 (Nov. 14, 2018). These changes attempt to modify normal bureaucratic structures and processes to enable HiAP.

A HiAP-like GEO from Washington focused on carbon pollution (Wash. Exec. Order 14-04 (Apr. 29, 2014)) also changes bureaucracy, establishes coordinating entities, requires reinforcing work, and encourages continuous communication. Among its mandates are requirements to non-health agencies like the departments of transportation, commerce, ecology, and administration, to take on specific tasks related to clean energy (Wash. Exec. Order 14-04 (Apr. 29, 2014)). It contains requirements for mutually-supportive work, such as including reviewing statutory limits on greenhouse gas emissions, reducing state government contributions to emissions, and stimulating renewable energy (Wash. Exec. Order 14-04 (Apr. 29, 2014)). These tasks contribute to a more comprehensive state policy. This Washington order also shifts existing government structures. It creates an "Energy, Transportation, and Climate subcabinet […] to organize, coordinate, and implement state agency work" related to carbon pollution, comprised of senior leaders from various state departments (Wash. Exec. Order 14-04 (Apr. 29, 2014, p.8)). Furthermore, this GEO encourages communication through collaboration on recommendations and by including federal, tribal, regional, and local partners in implementation (Wash. Exec. Order 14-04 (Apr. 29, 2014)).

Finally, stressing transparency and inclusiveness as well as creating and using shared data and metrics can support sustaining HiAP indirectly (Kania & Kramer, 2011; Greer & Lillvis, 2014). Here too GEOs may be a helpful mechanism. For example, the California GEO requires its HiAP Task Force to "convene regular public workshops to present its work plan" and also to "solicit input from stakeholders" to inform its HiAP report (Cal. Exec. Order No. S-04-10 (Feb. 23, 2010, p.2)). The California and Vermont GEOs may also indirectly encourage transparency and inclusiveness through HiAP reports and recommendations that are made publicly available. Similarly, a Pennsylvania HiAP-like GEO, which focuses on cross-sector management, policy, and problem-solving, attempts to "engage internal and external stakeholders" to improve state government operations through "continuous process improvement methods" and by tracking key data indicators and publishing online the goals and progress of the governor's administration (Pa. Exec. Order 2018-01 (Feb. 1, 2018, p.1)). By improving data systems, integrating stakeholders into government decision-making, and promoting transparency, these GEOs may indirectly contribute to HiAP efforts.

Order with Caution

GEOs serve as a legal mechanism with the potential to support state-level HiAP efforts. They can do this by focusing directly on HiAP or by championing HiAP-like principles. They can help prioritize, formulate, adopt, implement, and evaluate HiAP efforts. They can also target some of the common obstacles that HiAP cross-sector efforts face.

However, GEOs may not always be the most appropriate vehicle to establish formal HiAP endeavors, and cautious optimism is in order. The GEOs presented here demonstrate the potential of GEOs to promote HiAP. But GEOs are just mechanisms – means to ends. Like all mechanisms, GEOs as mechanisms are outcome-neutral. The extent to which they promote or hinder HiAP is a function of

what they actually say and how they are actually implemented.

Even though, on their face some GEOs look like they could support HiAP, they miss opportunities; they do not contain language to integrate health into other sectors even when they recognize the role other sectors play in health. Florida's order on transportation in one of the state's economic hubs serves as an example. While this GEO articulates the importance of health and the connections between health, transportation, community development, economic activity, and the environment, and also includes cross-sector collaboration and community engagement directives, the order alludes to health without saying that some of the cross-sector partners must bring a health perspective to the collaboration (Fla. Exec. Order No. 13-319 (Nov. 1, 2013)). Therefore, the precise language of the GEO plays a vital part in the GEO's ability to promote cross-sector collaboration with health in mind.

GEOs also have structural limitations that are consequential in the HiAP context. For example, as previously discussed, there is state-by-state variation about what governors can do with GEOs (CSG, 2010; Ferguson & Bowling, 2008; Gakh et al., 2013). In some states there is no express legal authority to issue GEOs in areas especially relevant to HiAP – such as reorganizing the executive branch, creating governmental entities, or targeting administration – though there nevertheless may be implied authority to do so (CSG, 2010). Similarly, in some states, certain GEOs may need to undergo legislative review or the same procedural processes as administrative regulations (CSG, 2010; Ferguson & Bowling, 2008). Such requirements may lessen the appeal of GEOs for HiAP by negating some of the speed and simplicity that makes GEOs appealing in the first place. Like other policy mechanisms, GEO requirements can change over time, lapsing in many ways; they can sunset by their own provisions, expire by operation of law, or be over-ridden through political processes – by the same or a subsequent governor or through legislative action (Gakh et al., 2013). Recognizing these limitations is important in deciding whether to pursue a HiAP-promoting GEO.

While state governments are critical for HiAP implementation in the United States, federal and local governments should not be overlooked. There are many important HiAP efforts at the local level, some that also use executive orders. For example, the sustainability effort in Washington D.C. includes a mayoral order creating a cross-sector HiAP task force to plan for and recommend HiAP operationalization (D.C. Exec. Order No. 2013-209 (Nov. 5, 2013)). Local-level orders should be examined in further detail. Beyond executive orders, municipal, county, and regional government entities are important HiAP partners (Rudolph et al., 2013; Wernham & Teutsch, 2015), especially because many of the social determinants of health (e.g. education, housing, transportation) are particularly affected by local policy (Dean, Williams, & Fenton, 2013).

Relatedly, in evaluating the potential use of a GEO for HiAP, interactions between federal, state, and local government entities should be considered. As Washington State's Partnership Council on Juvenile Justice GEO demonstrates, sometimes HiAP-like GEOs may be in direct reaction to federal policy. This order makes clear that the Council it establishes is a direct response to federal legislation that "requires each state to establish a state juvenile justice advisory group to receive [federal] funds" (Wash. Exec. Order No. 10-03 (Sept. 13, 2010, p.1)). While orders like these can simultaneously respond to federal policy and promote HiAP, the extent to which they evidence a genuine commitment to state-level, HiAP-promoting policy merits asking. It may be difficult to distinguish policy from politics; the intent of a GEO that looks like it promotes HiAP may actually be to achieve an alternative goal. This is important because the intent of a HiAP-promoting GEO may affect the robustness of the resulting HiAP effort.

Notably, whether HiAP-promoting GEOs actually result in HiAP implementation is an important question. Just because a health sector representative is involved in cross-sector collaboration around health does not mean the health perspective will prevail or even receive adequate attention. Limited authority, resources, commitment, bureaucratic changes, or know-how that accompany a GEO that appears HiAP-promoting may result in unsuccessful HiAP efforts or even further undermine public health. Even more crucial but difficult to evaluate is whether HiAP-promoting GEOs actually improve the social determinants of health. Of course, these evaluation questions are equally important to ask of all public health efforts, including efforts that use other legal mechanisms to formalize policy. Despite these cautions, GEOs should not be overlooked by HiAP practitioners and advocates as vehicles to promote cross-sector HiAP efforts in state government.

State	Citation with Date Issued	Online Availability	Order Topic	Additional information on implementation (where available)
California	Ca. Exec. Order No. S-04-10 (Feb. 23, 2010)	https://wayback.archive-it.org/5763/20101008184544/http://gov.ca.gov/executive-order/14537/	Health in All Policies	https://www.cdph.ca.gov/Programs/OHE/Pages/HIAP.aspx
Colorado	Colo. Exec. Order No. B-2019-002 (Jan. 17, 2019)	https://www.colorado.gov/governor/sites/default/files/inline-files/b_2019-002_supporting_a_transition_to_zero_emissions_vehicles.pdf	Zero Emissions Vehicles	https://www.colorado.gov/pacific/cdphe/zero-emission-vehicle-mandate-proposal
Connecticut	Conn. Exec. Order No. 35 (Jun. 24, 2013)	https://portal.ct.gov/-/media/Office-of-the-Governor/Executive-Orders/Others/Governor-Dannel-P-Malloy--Executive-Order-No-35.pdf	Office of Early Childhood	https://www.ct.gov/oec/site/default.asp
Washington, D.C.	D.C. Exec. Order No. 2013-209 (Nov. 5, 2013)	https://www.dcregs.dc.gov/Common/NoticeDetail.aspx?noticeId=N0045216	Sustainable DC	https://www.sustainabledc.org/
Florida	Fla. Exec. Order No. 13-319 (Nov. 1, 2013)	https://www.flgov.com/wp-content/uploads/orders/2013/13-319-plan.pdf	East Central Florida Corridor Task Force	https://spacecoasttpo.com/plan/east-central-florida-corridor-task-force/
Kansas	Kan. Exec. Order No. 10-05 (Jun. 17, 2010)	https://kslib.info/DocumentCenter/View/578/EO-10-05?bidId=	Early Childhood Advisory Council	---
Louisiana	La. Exec. Order No. BJ 2013-5 (Mar. 19, 2013)	https://www.doa.la.gov/Pages/osr/other/2013BJexo.aspx	Interagency Council on Homelessness	---
Massachusetts	Mass. Exec. Order No. 515 (Oct. 27, 2009)	https://www.mass.gov/executive-orders/no-515-establishing-an-environmental-purchasing-policy	Environmental Purchasing Policy	https://www.mass.gov/environmentally-preferable-products-epp-procurement-programs

Maryland	Md. Exec. Order No. 01.01.2017.08 (May 25, 2017)	https://content.govdelivery.com/attachments/MDGOV/2017/05/25/file_attachments/822423/ExecutiveOrder%2B01.01.2017.08.pdf	Committee on Paid Sick Leave Policy	https://www.dllr.state.md.us/paidleave/paidleavereport.pdf
Michigan	Mich. Exec. Order No. 2015-2 (Jan. 16, 2015)	https://www.michigan.gov/documents/snyder/EO_2015-2_479496_7.pdf	Interagency Council on Homelessness	https://www.michigan.gov/whit-
North Dakota	N.D. Exec. Order No. 15-01 (Jan. 8, 2015)	http://www.nd.gov/veterans/files/resource/2015.1.8%20Executive%20Order%202015-01.pdf	Cares Coalition	https://www.ndcares.nd.gov/
Nevada	Nev. Exec. Order No. 2014-03 (Feb. 12, 2014)	http://gov.nv.gov/uploadedfiles/govnvgov/Content/News_and_Media/Executive_Orders/2014_Images/EO_2014-03_GovernorsCouncil_FoodSafety.pdf	Governor's Council on Food Security	http://dpbh.nv.gov/Programs/OFS/GCFS_Meetings/OFS_-_Governor_s_Food_Security_Council/
New York	N.Y. Exec. Order No. 190 (Nov. 14, 2018)	https://www.governor.ny.gov/news/no-190-incorporating-health-across-all-policies-state-agency-activities	Health Across All Policies	https://health.ny.gov/prevention/prevention_agenda/health_across_all_policies/
Pennsylvania	Pa. Exec. Order 2018-01 (Feb. 1, 2018)	https://www.oa.pa.gov/Policies/eo/Documents/2018-01.pdf	Governor's Office of Performance Through Excellence	https://www.governor.pa.gov/about/office-performance-excellence/#about
Tennessee	Tenn. Exec. Order No. 10 (Jan. 30, 2012)	https://publications.tnsosfiles.com/pub/execorders/exec-orders-haslam10.pdf	Governor's Children's Cabinet	---
Vermont	Vt. Exec. Order No-07-15 (Oct. 6, 2015)	https://legislature.vermont.gov/statutes/section/03APPENDIX/003/00069	Health in All Policies	https://www.healthvermont.gov/about-us/our-vision-mission/building-culture-health
Washington	Wash. Exec. Order No. 10-03 (Sept. 13, 2010)	https://www.governor.wa.gov/sites/default/files/exe_order/eo_10-03.pdf	Partnership Council on Juvenile Justice	https://www.dshs.wa.gov/ra/office-juvenile-justice/washington-state-partnership-council-juvenile-justice
Washington	Wash. Exec. Order 14-04 (Apr. 29, 2014)	https://www.governor.wa.gov/sites/default/files/exe_order/eo_14-04.pdf	Carbon Pollution Reduction and Clean Energy Action	https://www.governor.wa.gov/boards-commissions/workgroups-and-task-forces/carbon-emissions-reduction-taskforce-cert

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HEALTH IN ALL POLICIES IN DENVER, CO: MOVING FROM PLANS TO EQUITABLE DEVELOPMENT OUTCOMES

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Abstract:

The City of Denver's Departments of Public Health and Environment and Community Planning and Development have worked together using Health Impact Assessments (HIA) and Health in All Policies (HiAP) frameworks to formalize using a health equity lens for city planning and resource prioritization. Previous land use and transportation planners did not consider health or equity impacts on future growth and development. HIAs and a health-focused approach were initiated with neighborhood planning and expanded into the Blueprint Denver plan for land use and transportation. The Neighborhood Equity Index was also developed to help city agencies prioritize financial and programmatic resources to be more equitable. Lessons learned from the process include the need to develop relationships across organizations, more data and mapping can inform policy decisions and the need for health and equity champions inside and outside of organizations.

Introduction

Health Impact Assessment (HIA) and Health in All Policies (HiAP) have been used widely in the last decade in the U.S. to bring health research and evidence into civic decision-making. Over 400 HIAs have been conducted in the U.S. over the past 20 years to inform policy making in areas including housing, education, labor and employment, criminal justice, natural resources and energy, climate change, and the built environment. HiAP is a collaborative approach to improving a community by incorporating health, sustainability and equity considerations into decision-making across government agencies and policy areas (Change Lab Solutions, 2015). HIA and HiAP are different in that HIA is used to assess a single proposed decision and its potential impact on health; whereas HiAP is an approach that uses multiple strategies, including HIA, to integrate health into governmental decision-making processes (National Association of County and City Health Officials, 2012). While HIA has always included an analysis of health equity – the differences in the distribution of health impacts across groups of people – HiAP has more recently included the consideration of not only health equity, but economic, social, environmental, and racial equity, among others (Public Health Institute, 2019).

This article will explore the ways in which the City of Denver's Departments of Public Health and Environment (DDPHE) and Community Planning and Development (CPD) have worked together using HIA and HiAP frameworks to formalize how a health equity lens is incorporated into city planning and resource prioritization.

HIA 1.0: Evolving Use of HIAs in Denver

In Denver, CO, like many other cities, land use and transportation planners typically have not considered the health or equity impacts of future growth and development. Planning and zoning were initially used in the 1800s to protect public health through separation of nuisance uses, but since then the focus changed to regulatory protection of public and private property rights.

Even in plans drafted within the last 10 years in Denver, 'public health' was defined in plans to include anything from building bike lanes to replacing dead street trees to promoting urban gardens. While these actions ultimately contribute to good health, there was no examination of the health status of residents as a group, the existing environmental conditions in specific communities, and any disparities in health or exposures experienced by certain groups. Therefore, the recommendations were not targeted to solving specific health issues that may have been historic and place-based.

In 2013, a Denver City Councilperson organized Council support for a budget priority that all new neighborhood plans include a health impact assessment to better understand the impacts that the built environment had on health. She represented the North Denver council district, which was home to heavy industry, freight rail, highways, and residents who experienced higher-than-average serious health conditions that they attributed to their polluted environment.

Globeville Elyria Swansea HIA

Over the next 2 years, DDPHE and CPD partnered to simultaneously conduct the *Globeville Elyria Swansea Health Impact Assessment*, with the *Globeville Neighborhood Plan* and *Elyria Swansea Neighborhood Plan*. For the first time, planning for the future growth of these neighborhoods included specific strategies to address the negative health impacts of growth and development. For example, reducing exposure to poor air quality, noise, and odors from industry and highways, rerouting trucks out of residential areas to reduce pollution and crashes, and building a safe crossing over the railroad tracks to the elementary school.

Westwood HIA

The successful partnership between DDPHE and CPD resulted in a second comprehensive HIA conducted to inform the next neighborhood plan, the *Westwood Neighborhood Plan*. The Westwood neighborhood was mainly residential and had little environmental pollution, yet residents had no grocery store or recreation center and were surrounded by two high-speed state highways. They also had one of the largest populations of children and youth in the City, who showed early signs of poor health, including obesity. *The Westwood Neighborhood Plan* included recommendations identified through the HIA process that could improve health, such as prioritizing the construction of a new recreation center, slowing speeds on the 'main street' of the neighborhood, and adding a range of housing types to accommodate families and 'aging in place'.

HIA 2.0: Neighborhood Planning with Health and Equity

Following these two neighborhood-specific HIAs conducted between 2013-2015, City Council, city staff and community members concluded that the HIAs had been successful in adding health considerations, awareness and strategies to neighborhood planning. The Globeville Elyria Swansea and Westwood HIAs allowed city agencies beyond public health to see the direct connections between planning, public works services, parks and recreation services and health. These two HIAs provided a basis of understanding for the health impacts of any project a city conducts, and because community input was a critical part of the HIA process, the health impacts included in the HIA were validated by both quantitative and qualitative data. However, HIAs are time and resource intensive, and there was no way to conduct a comprehensive HIA for every neighborhood in Denver.
Previously, neighborhood planning had occurred on an ad-hoc basis in reaction to specific development pressures. Some neighborhoods had never received a formal plan. As Denver continued to grow rapidly and involuntary displacement, uneven development, and lack of access to services grew across the city, it was clear that the neighborhood planning process needed a new approach. CPD needed to accelerate neighborhood planning in order to give timely policy guidance to the Denver City Council about local redevelopment and public investment, while also prioritizing areas of the city that were experiencing the most inequity as a result of uneven growth and investment. This urgent need led to the development of the Neighborhood Planning Initiative (NPI), a ten-year endeavor that will update all neighborhood plans across the city. There are 78 neighborhoods in Denver, so the City developed a systematic way to prioritize neighborhoods that were most in need of an updated plan and work through the priority list over ten years. Neighborhoods were grouped together into small planning areas, which allowed for 100% coverage of the city over about ten years while still keeping planning areas small enough to allow for resident input and neighborhood-specific recommendations. This prioritization process was the foundation of the partnership between CPD and DDPHE staff to consider health and equity in neighborhood planning, and the Denver Neighborhood Equity Index was developed to help prioritize the plans based on indicators of health and economic opportunity.

Neighborhood Planning Initiative and the Denver Neighborhood Equity Index

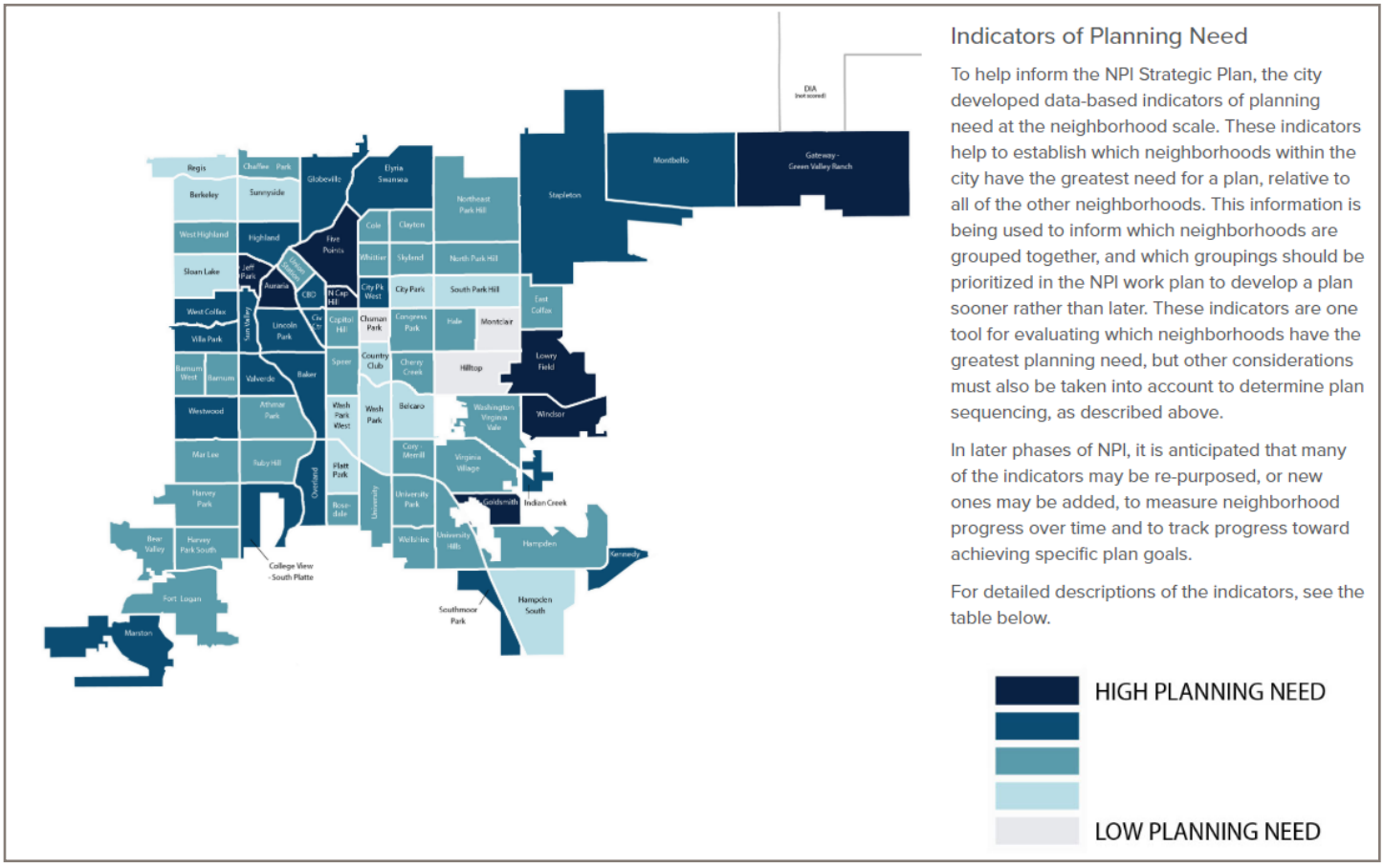
After the NPI process was created, city agencies worked together to agree on how to prioritize the planning areas. This process took place in three steps. Step 1) Each neighborhood was ranked in terms of planning need by considering quantitative indicators related to:

- Livability
- Investment
- Policy and Regulation
- Economy
- Demographics

Step 2) After considering indicators in each of the areas above to prioritize individual neighborhoods, CPD then defined the neighborhood planning areas based on the following criteria:

- Shared histories, issues, and aspirations
- Built environment and natural features
- Planning need
- Character, context, and development patterns
- Major destinations (institutions, amenities, shopping districts)
- Common infrastructure (major roads, drainage)
- Geographic size and population
- Councilmember and public input
- Avoiding splitting neighborhood boundaries into different planning areas to maintain ability to track data and trends over time

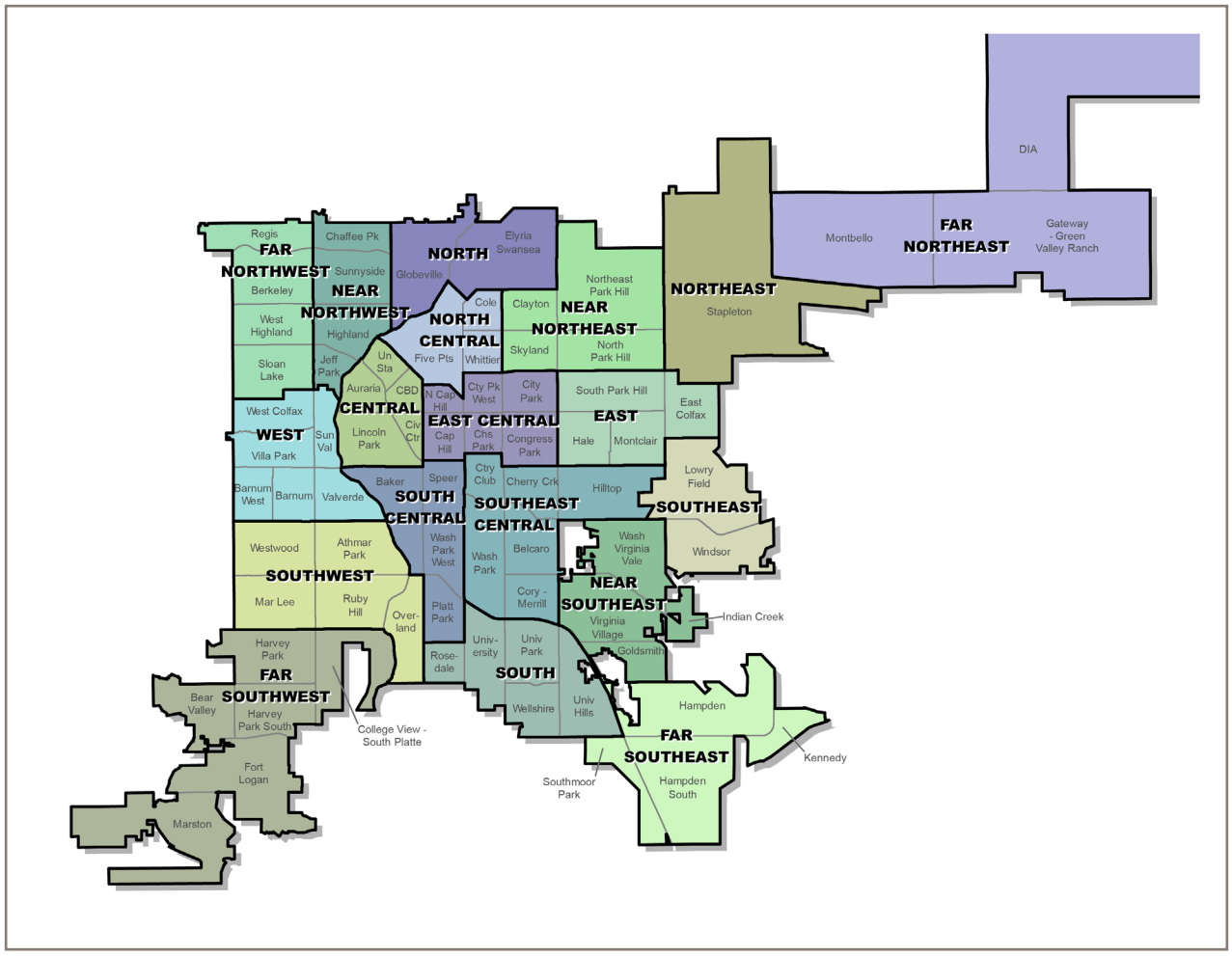
Figure 1: Neighborhood Planning Need



Step 3) After the planning areas were created, the planning staff prioritized the order in which the city would work on plans for each area using the following criteria:

- **Previous Planning:** Prioritize groupings where most neighborhoods have either outdated plans or no plan.
- **Impact:** Prioritize groupings where change is already taking place, and/or where new planning will have the most impact.
- **Funding:** Prioritize areas that already have funding or grants in place for small area planning.
- **Efficiency:** Where possible, ensure the efficient use of city resources by combining forces with other concurrent/related planning efforts.
- **Geographic Equity:** Conduct plans in different parts of the city as part of each phase.

Figure 2: Neighborhood Planning Area



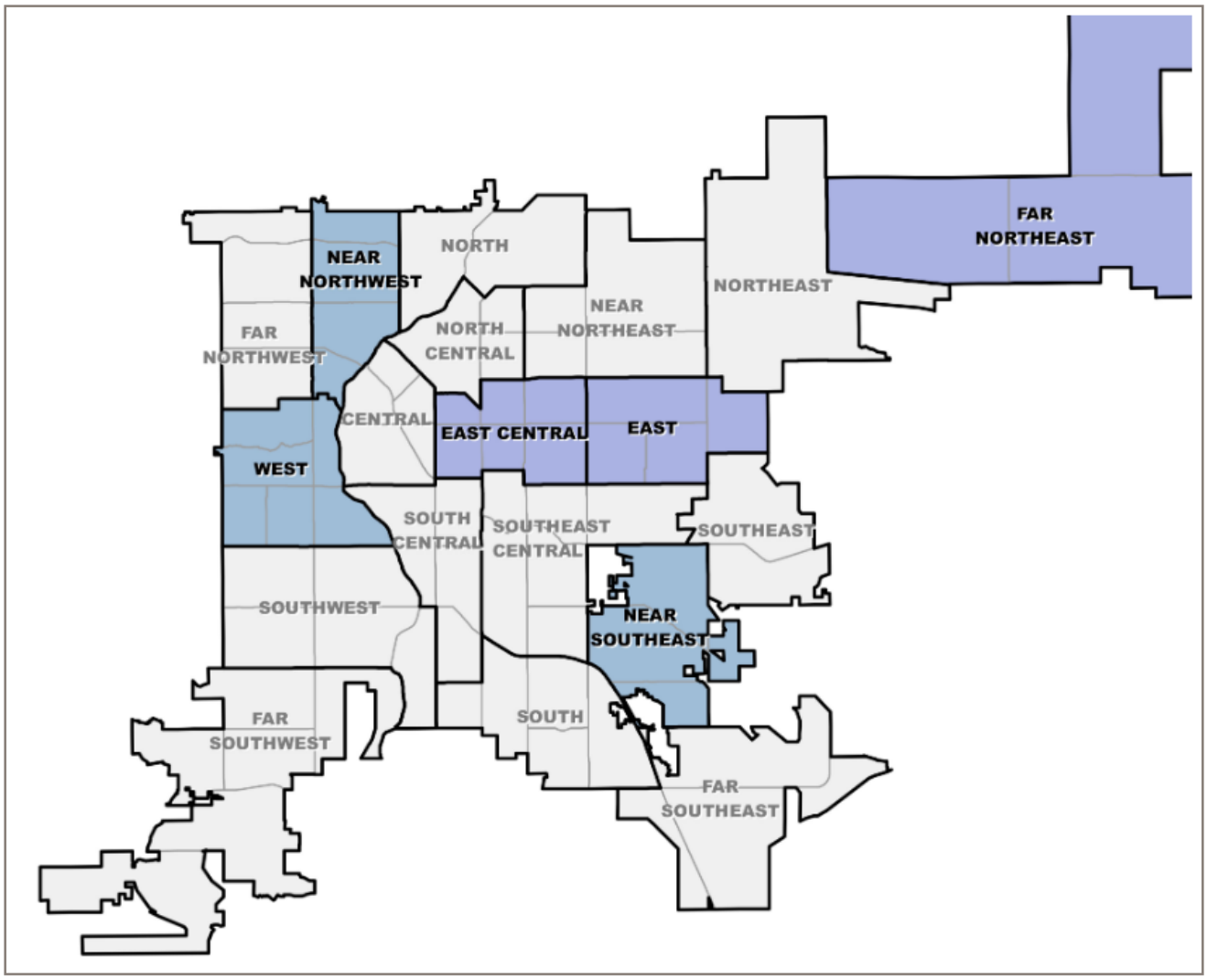
Based on priority, the NPI was separated into phases. The map below shows the planning areas prioritized for Phases I and II of the NPI, of which one plan (Far Northeast Denver) has been completed and formally adopted by the City of Denver.

Development of the Neighborhood Equity Index

Measuring health equity is complex, especially in the absence of a common definition and set of indicators. The City of Denver used the following definition of Health equity to guide which indicators were included in the index:

Health equity means that everyone has a fair and just opportunity to be as healthy as possible, regardless of race, income, age, gender or ability (Colorado Health Institute, 2018). Equity embraces a larger set of factors that shape access to opportunity. Equity is when everyone, regardless of who they are or where they come from has the opportunity to thrive. This requires eliminating barriers like poverty and repairing injustices in systems such as education, health, criminal justice and transportation (Colorado Department of Public Health and Environment, 2019).

Figure 3: Neighborhood Planning Initiative Phase I and II Planning Areas



Measuring health equity requires inclusion of not only health outcome indicators, but a combination of health, socioeconomic, and other environmental factors to paint a more complete picture of the environment people face in their everyday lives that can promote, or hinder, opportunity and a high quality of life. These factors can include economic and housing stability, educational opportunities, safety, and access to necessary goods and services.

With new demand for neighborhood-specific plans and given that Denver is a city with strong neighborhood identity, DDPHE developed an index in 2017 to help illustrate health equity at the neighborhood level. DDPHE quantified health equity-related factors in each neighborhood, which were considered in the Livability section of neighborhood ranking in the NPI. The Neighborhood Equity Index was developed to help city agencies prioritize financial and programmatic resources to more equitably serve the City and County of Denver. It takes into account issues of the built environment in addition to traditional public health data around morbidity, mortality, and social determinants of health. Given the inclusion of built environment indicators alongside traditional public health surveillance indicators, The Neighborhood Equity Index is particularly useful for planning and geographic prioritization.

The Neighborhood Equity Index is divided into five sub-category areas and consists of seven total indicators:

1. Socio Economic Factors
   a. Poverty – measured by Median Household Income
   b. Education – measured by Percent Population (25+ years) with a High School Diploma or Equivalent
2. Built Environment Factors
   a. Access to Food – measured by Percent of Living Units within ¼ Mile Walk to a Full-Service Grocery Store
   b. Access to Parks – measured by Percent of Living Units within ¼ Mile Walk of a Quality Park
3. Access to Care
   a. Prenatal Care – measured by Percent of Women that Receive Prenatal Care in the First Trimester of Pregnancy
4. Morbidity
   a. Childhood Obesity – measured by Percent of Children 2-17 Years that are Considered Obese (based on BMI greater than 25)
5. Mortality
   a. Average Life Expectancy

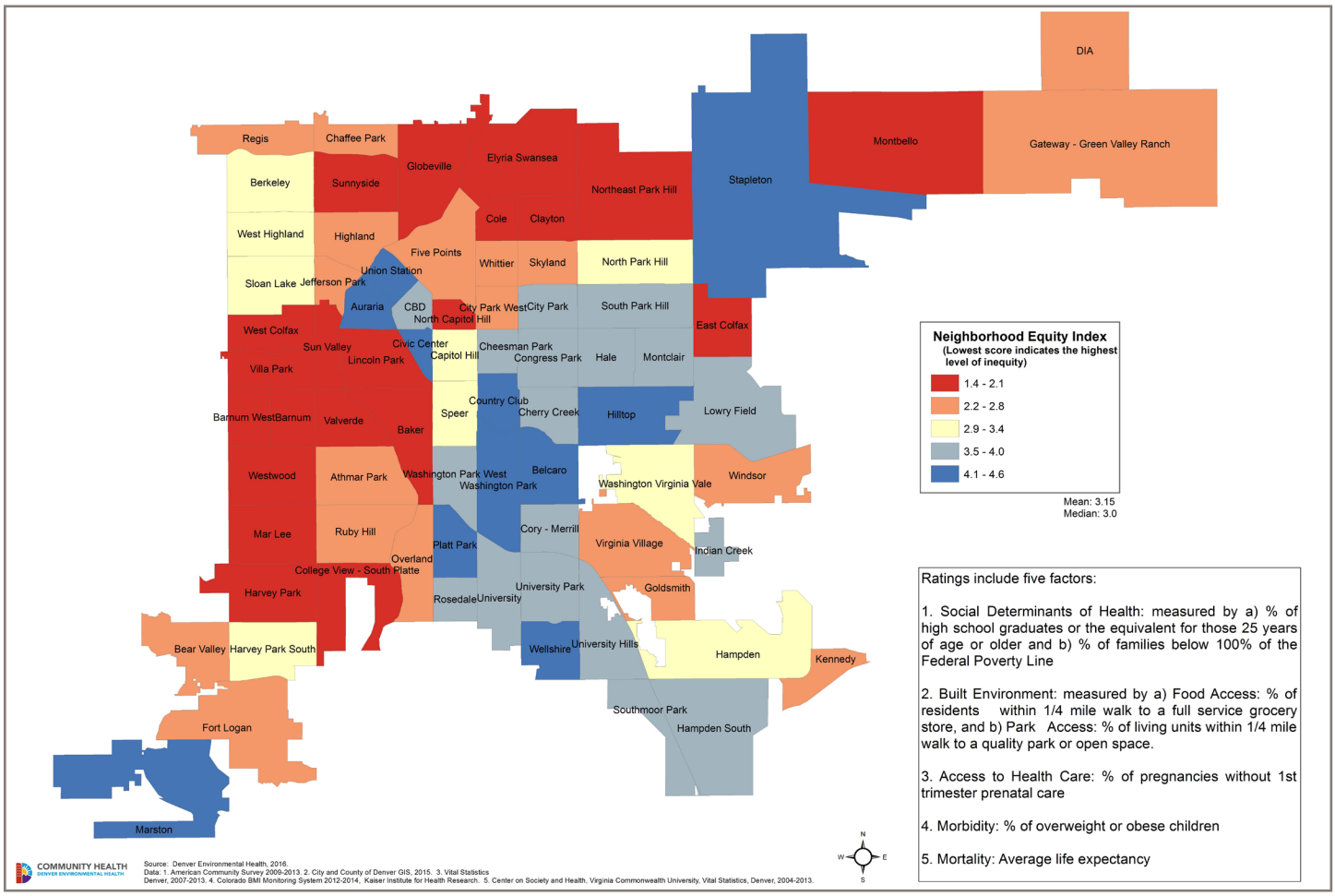
While some indicators were available at a neighborhood level geography, others were available at the Census Tract level and had to be aggregated into neighborhoods. Each of the 78 Denver neighborhoods were ranked according to each indicator measure, and then grouped into four equal groups. The ranking and grouping process allowed for each indicator to score in the same direction, where a lower group number indicated more inequity, and a higher group number indicated less inequity. Once each neighborhood received a group number for each indicator, the group numbers for indicators in the same sub-category were averaged to create the Socioeconomic, Built Environment, Access to Care, Morbidity, and Mortality scores (note that sub-categories with only one indicator were not averaged). Finally, the sub-index scores were averaged to create an overall equity score for each neighborhood. While many of the indicators in the sub-indices come from secondary sources, the built environment indicators were developed by the City and County of Denver to try to illustrate the relationship between the built environment, health, and equity.

While it is clear there are many factors contributing to inequities across the City of Denver that are not included in the equity index, the index still provides valuable information about what kinds of interventions and programs to prioritize in particular

areas, as well as which city agencies should be engaged in those interventions in order to be most effective. Not only does the equity index give a comprehensive picture of inequities across the city, but it also provides an opportunity to begin to understand what might be driving health inequities in particular neighborhoods by allowing users to drill down to sub-index scores. For example, if a neighborhood scores a 1 in the built environment sub-score (even if the overall index score is a 3), it's an indication that poor access to green space and healthy food may be disproportionately driving health inequity in that neighborhood. Further, it helps justify the need for public health, public works, city planning, and parks and recreation to work together to improve access to those resources, whether through changes in mobility opportunities, acquisition of available land for park space, or education about healthy eating and active living. This type of strategic prioritization and partnership has helped the City of Denver be more efficient with limited resources, as well as more effective in working with community, using shared messaging and setting common goals.

The Index has also allowed for internal alignment in the way agencies across the City of Denver look

Figure 4: Denver Neighborhood Equity Index



at and consider equity in their plans and programs. Health equity considerations were formally integrated into the way neighborhood planning areas were prioritized for the NPI, as well as integrated into Blueprint Denver, the comprehensive planning framework the each NPI plan is nested under. With each step toward formalizing equity considerations into city planning and partnership in Denver, DDPHE has played a more significant role in informing the way that health equity is incorporated into planning. Since the development of the Neighborhood Equity Index and its incorporation into Blueprint Denver, health equity and equity measurement has been an immediate conversation at the beginning of new city plans and projects. DDPHE staff helped author a chapter on quality of life in the Far Northeast Denver Neighborhood Plan, the first NPI plan to be adopted, lifting up the way the built environment and other social determinants of health connect planning recommendations and health outcomes. Each subsequent NPI plan will include a quality of life chapter with input from DDPHE staff. DDPHE has partnered with the CPD planning teams to explore existing conditions, prioritize which specific conditions may be driving health inequities, and write recommendations, both infrastructure and policy related, that could help improve health outcomes through built environment change.

Considering Equity in Other City Plans and Projects

Below are several examples of the way DDPHE, CPD, and other city agencies have worked together in formally incorporate health equity into city projects and plans.

Denveright Comprehensive Plans

The Neighborhood Equity Index served as a catalyst for the City to explore deeper issues of inequity across City investment and development policies. From 2017-2019, Denver embarked on a comprehensive update of its Citywide plans governing land use, transportation, parks and mobility (known as *Denverite*). Through this extensive planning effort, community stakeholders and City staff realized that 'business as usual' land use planning had not only not improved conditions for the worst-off communities, but had perhaps contributed to more significant gentrification, involuntary displacement, and greater inequity. After decades of increasing racial diversity, Denver saw a reversal of those gains over the past 10 years, with fewer racial minority groups in the City. This analysis led to the formation of a "Blueprint Denver Equity Subcommittee" to review the draft plans through an equity lens. The subcommittee hired an equity expert to educate the team and help lead review of the plans. The results led to changes in many of the recommendations to avoid unintended consequences affecting the most at-risk communities and improve access to opportunities for those most locked out. For example, the initial concentration of future economic development along existing 'centers' and 'corridors' left out some areas already with the lowest access to opportunity. Also, the recommendations to create a range of housing types and price points was strengthened to give decisionmakers the levers they needed to add more affordable housing in Denver. Finally, equity data and analysis were explicitly built in to other city processes such as budgeting and development permitting, or equitable development would not occur.

Vision Zero

The Neighborhood Equity Index map was also used to inform Denver's Vision Zero planning. In considering equity for changes to the built environment, DDPHE also developed a High Injury Road Network map to help illustrate where most of the traffic injuries occur. When used as a complement to equity indicators, DDPHE was able to highlight 'Communities of Concern', or areas of Denver that scored low on socioeconomic indicators and were in closest proximity to a high injury roadway.

Safe Routes to School

The 'Communities of Concern' data layer is also used by Denver's Safe Routes to School program as a method of deciding where to prioritize infrastructure changes around schools. Importantly, the prioritization work occurs in partnership with Denver Public Works, ensuring that the conversation around health and equity related to the built environment spreads throughout City agencies.

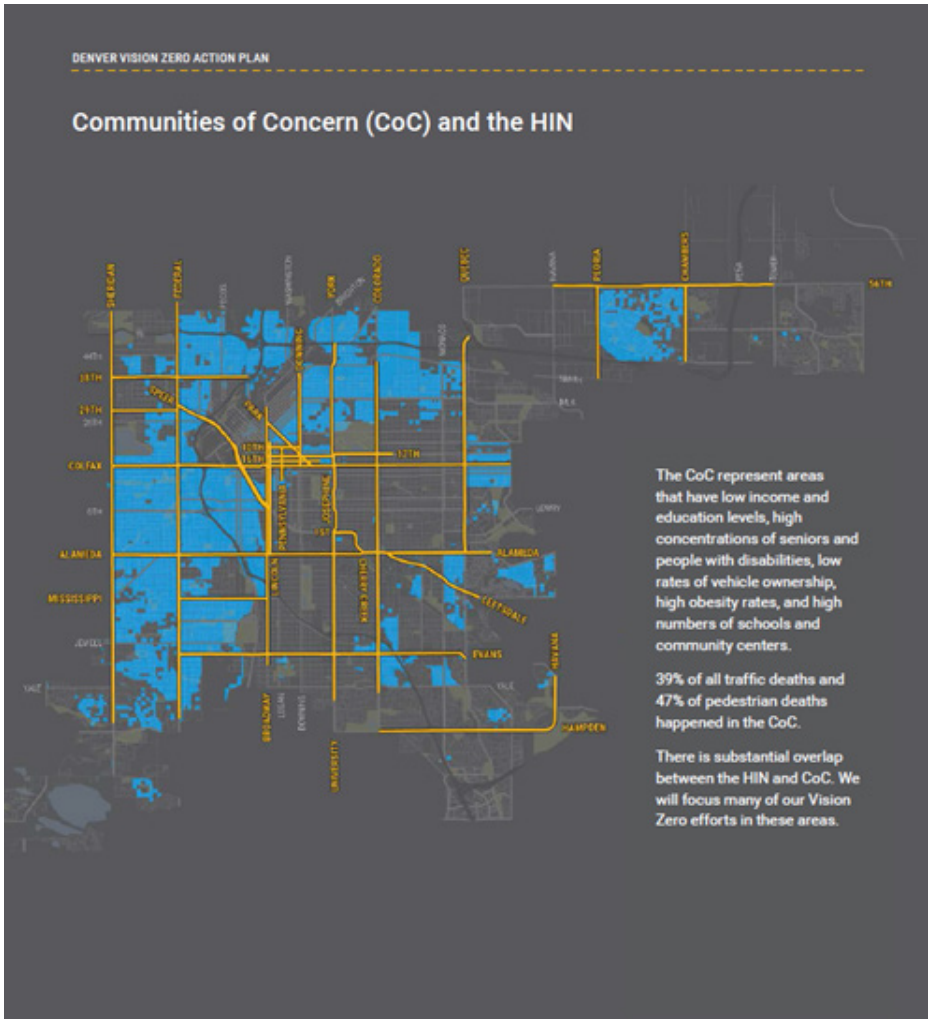
Elevate Denver Bond Program

In 2017, Denver voters approved a 10-year, $937 million bond fund to pay for over 500 Citywide infrastructure projects. The Neighborhood Equity Index, along with other datasets, was used to help decision-makers prioritize projects for bond funding.

Where are We Now?

Over the last seven years, from the first HIA conducted by the city to inform neighborhood planning to today's integration of 'HIA 2.0' into city plans, projects and processes, it is important to consider questions such as: How did we do? Has health improved? Has equity improved?

Figure 5: Denver Communities of Concern and the High-Injury Network

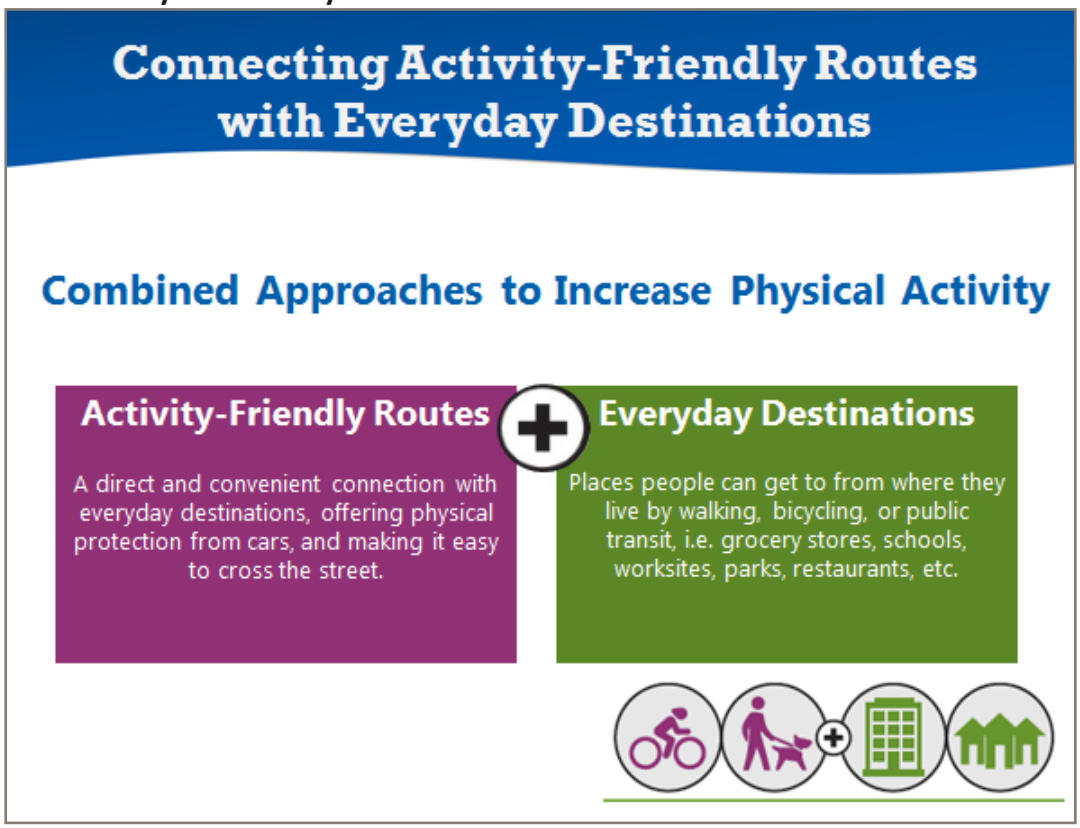


Seven Years In: What We Know

In the Globeville and Elyria Swansea neighborhoods, an HIA was used by the community to inform many decision points after the neighborhood-specific plans were adopted. Of the 36 recommendations in the HIA, about 75% are either completed or in process. Many of these are related to built environment improvements such as street redesign and connectivity, additional pedestrian infrastructure, a mix of land uses, and reduction or mitigation of environmental pollution. Some recommendations are changes to City processes, such as licensing and permitting for marijuana businesses, while other spurred improvements to community engagement such as increasing Spanish language outreach. The HIA also helped lead to the settlement of a lawsuit between the state transportation department and the North Denver neighborhoods in 2019, with $550,000 allocated for a health study of residents to better understand environmental impacts on health. Ideally the study will be able to select some longtime community residents to get a true picture of changes in health and equity.

The Westwood HIA was completed in 2016 and recommended many built environment changes to improve health. As a result of strong community demand for a recreation center, the Elevate Denver Bond Program included funding for a new recreation center in the neighborhood, a $37.5 million project that will likely lead to increases in physical activity, employment, green space, community pride and potentially decreases in criminal activity. Some pocket parks are being developed as of 2019, and

Figure 6: CDC Recommendation for Combined Built Environment Approaches to Increase Physical Activity



(CDC, 2019)

additional funding was procured to complete streetscape improvements on the main street in the neighborhood to slow traffic and increase pedestrian activity. The Westwood HIA also helped to elevate Vision Zero program activities in Westwood, including addressing speeding and fatalities on the state highways bordering the neighborhood. Finally, a number of the HIA recommendations were included in the process of drafting Blueprint Denver, the citywide land use and transportation plan adopted in 2019.

Both HIAs and both neighborhood plans supported increased creation of mixed land uses, residential density, parks and recreation, and pedestrian and bicycle infrastructure. According to The Guide to Community Preventive Services, combining activity-friendly routes with everyday destinations has been shown to lead to increased physical activity (CDC, 2019) This can help mitigate the higher rates of obesity and diabetes that residents of both planning areas experience.

What We Don't Know

In terms of changes to health outcomes of residents, it is too early to see those changes show up in the data yet because changes to the built environment and changes in population health take time. In addition, a confounding factor was discovered that may make it hard to measure future changes in health. As neighborhoods receive new attention and investment, gentrification and involuntary displacement have taken root. Demographic data show that over the last 5 years, the Globeville neighborhood became whiter and richer (American Community Survey, 2017), indicating that the once predominantly Hispanic, lower income neighborhood has had an influx of White, middle-upper class residents move in, and longtime residents move out. Whether that demographic shift is due to increasing cost of living in the City of Denver, changes in employment, or other reasons, it is expected that health and socioeconomic data will show 'improvements' in factors such as child obesity, diabetes, education attainment, income, and employment. However, those improvements are likely due to the shift in population demographics rather than a true improvement in the health of residents experiencing inequity and poor health outcomes because *different people* are being measured. A true measure of change would need to consider the same people and indicators that were measured before and after the HIA was conducted. This type of approach would require studying populations longitudinally across geographic boundaries.

Health outcomes in Westwood may not have changed after only 3 years. However, the Westwood community saw the displacement that occurred in the Globeville and Elyria Swansea Neighborhoods after new planning and investment activities, and to their credit, they organized and fought for protections to reduce such displacement. In response to these efforts as well as more organized advocacy from groups throughout Denver, new city programs were created to help low-income homeowners pay for rising property taxes, and residents are pushing back on plans to dramatically increase density which they feel will further drive up property values. With such protections in place, measurement of health and equity outcomes in Westwood may actually include largely the same group of residents who were there before the changes took place, which would show a much more accurate picture of long-term changes in health and equity.

Lessons Learned

The evolution of HIA and HiAP in Denver has yielded a number of lessons learned for City staff. While the lessons themselves are similar to other HIA and HiAP case studies, the context of how each of these lessons learned have played out in Denver may help give specificity to other municipalities and health departments working to formalize health and equity considerations and cross-sector partnerships.

1. *Developing relationships across organizations is key to building partnerships and collaboration*

   In Denver's case, DDPHE built a new relationship with CPD through two comprehensive HIAs and neighborhood plans. By the time the Citywide plans were initiated, that relationship was already in place, and public health had a seat at the table. It is important to start building relationships early, even on a small project or initiative, so that mutual trust is in place when significant opportunities arise to collaborate.

2. *Data and mapping are needed to inform policy*

   One of the biggest lessons learned is that data do not have to be complicated to be powerful. The Neighborhood Equity Index is a relatively simple index, made up of only seven indicators. Yet, because it was mapped at the neighborhood level, a geographic unit that almost every person in Denver can relate to, it has a powerful impact on the way City agencies continue to work together to make planning and implementation more coordinated. Further, using datasets that are relatively simple makes explaining their meaning to those who aren't data savvy more straight forward, meaning that the message lands more effectively with decision makers; that certain populations in the city experience more inequities than others and that City resources should be prioritized to serve those populations and neighborhoods so that we all may advance as a city and have improved quality of life. The neighborhood equity index has provided a relatively simple way for DDPHE to begin the conversation around equity at many different tables, often leading to deeper and more complex conversations specific to the project or geography in question.

3. *It is important to build capacity of stakeholders to advocate for the consideration of health and equity in planning and decision making*

   Public health staff can't be the only ones advocating for health and equity. It takes engineers, planners, City council staff, housing officers, etc., to all normalize health and equity discussions and expectations in everyday City work. Public health can build capacity by offering in-house trainings or workshops to staff so that when a decision point arises, there are already advocates in place throughout the organization.

4. *Getting health and equity into plans or projects is not enough; they must be built into decision making processes in order to have staying power*

   A budget is an expression of values. How, where and on whom a municipality spends its money shows what it values most. Health and equity need to be considered and quantified as part of the budgeting process, just like other factors; if not, other priorities will take precedence.

5. *You need health and equity champions both inside and outside the organization*

   One Denver City councilperson championed HIAs as a new tool to highlight health inequities almost a decade ago. Her championship elevated health and equity as legitimate concerns for decision makers to consider, not just responding to the loudest voices in the community. By the time the Citywide and neighborhood plans were initiated, other Council people, community members, and other city staff were aware and vocal about including health and equity in the planning process.

6. *Implementation plans are necessary*

   Entities need to be clearly designated as accountable for plan implementation, including City departments or community organizations. Plan recommendations should use standard language for easier tracking and implementation. Also, standard performance or outcome metrics should be selected across as many plans as possible to standardize progress reporting.

7. *Finally, timing is everything: "Luck is what happens when preparation meets opportunity"*

   The first two HIAs and the support that was built from those processes laid the groundwork for the acceptance of health and equity in other City plans, projects and processes in Denver. Be on the lookout for possible intervention points to partner to add health and equity considerations: it might be as small as a plan for a new trail or bikeway, a chance to collaborate on a grant application for infrastructure that also considers health, or as large as a 20-year comprehensive planning effort to guide land use, housing, and transportation into the future. Look for those 'lucky' windows of opportunity.

An Example of Lessons Learned in Data from City Staff

In addition to simplifying datasets, it has also been helpful to standardize, as best as possible, what data and conditions are analyzed in every city plan. Through the first NPI plans, DDPHE has begun to develop a standard set of indicators to look at in the very beginning to understand the existing conditions in any given neighborhood. This is not to say we do not consider neighborhood specific issues as well, but the standard set allows us to compare across neighborhoods, making the data more relative. For example, if we know the average rate of emergency department use for youth asthma across the city, and for neighborhoods surrounding a planning area, it gives a much better picture of whether youth asthma should be a factor that a particular plan focuses on. We try to focus on factors that are modifiable through built environment and infrastructure change for the standard set, but also add in indicators around access to medical care and health outcomes. Though we don't expect to see short-term change in health outcomes, understanding which health outcomes are concerns in specific planning areas often helps inform which built environment changes to recommend and implement.

Next steps in Denver

As DDPHE continues to learn from ongoing work and partnerships, there are a number of actions that can be taken to help further the existing efforts to include health and equity considerations in all city plans and projects.

1. *Add more data and maps to public website for wide accessibility*

   After publishing the Neighborhood Equity Index, it is clear that we need to continue to make health and health equity data more available and accessible. DDPHE plans to continue to add ready-to-use maps, raw datasets, story maps, and topic-specific data products to their website going forward so that the conversation and momentum around addressing health inequities does not slow down. Further, it is hoped that these data products will be put into the context of equity and be easily understandable for any audience.

2. *Continue to embed health and equity into City processes*

   In 2019, DDPHE added health and equity criteria to their internal budget prioritization process, requiring that all budget requesters

answered a series of questions about unintended consequences and what specific populations their work would impact. The intention is to expand these criteria to the Citywide budgeting process starting in 2020. Also, with the wider availability of neighborhood-level health and equity data, the intention is to use this to inform processes such as zoning, licensing and permitting, and rules for community input into public hearings.

3. *Add progress reporting on health and equity metrics to public website*

   Regular reporting and transparency about progress in meeting (or not meeting) the metrics will serve to build trust and hold decisionmakers accountable to the public.

4. *Explore health and equity differences beyond geographic boundaries*

   DDPHE has explored geographic areas of Denver through the neighborhood planning initiative and other neighborhood-based projects. As DDPHE continues to consider displacement and gentrification, it is important to start to understand changes in specific populations that exist beyond geographic boundaries. While neighborhood-specific historical inequities may still be present in the built environment and burden of disease, looking more closely at socioeconomic status and race and ethnicity clearly shows neighborhoods populations are changing. As neighborhoods continue to shift, we must be careful to not leave behind those being displaced, meaning we need to think beyond neighborhood boundaries and start to follow changes in specific populations in order to best prioritize resources and programming.

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A CASE STUDY ON INCORPORATING HEALTH AND EQUITY INTO URBAN PLANS, TRANSPORTATION, AND LAND USE POLICIES

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Abstract:

In 2017, the Built Environment Program at the Larimer County Department of Health and Environment (Colorado, USA) collaborated with a partner municipal agency to create a health and equity index to be a component of a revitalized sidewalk prioritization model. The Health Equity Index uses indicators that are linked to the determinants of health to spatially understand factors that contribute to an individual or household's likelihood of being more vulnerable. The data to create the Health Equity Index is publicly sourced at block group level from the United States Census American Community Survey 5-year estimates and at census tract level from the Center for Disease Control and Prevention's 500 Cities dataset. The score is one of three factors used to determine sidewalk improvement priorities in the City. The new model mapped prioritization and created broader geographic distribution than what was previously used. The creation of the Health Equity Index was a valuable partnership that led to multiple outcomes outside of the sidewalk prioritization process. First, its creation has established a foundation for partnership between two sectors across different government agencies. Second, the Health and Equity Index has also been used as an assessment tool for the adopted City Plan, the guiding comprehensive plan for the municipal agency. Through this process, we have learned that elements of Health Impact Assessment can be a powerful tool for understanding the health impacts of a policy or process on community, as well as for building and developing trusted cross-sector relationships.

Introduction

The United States (U.S.) spends nearly $3.0 trillion in health care annually, 90% of which is to treat chronic and mental health conditions (OASH, 2016; CDC, 2019). However, the exorbitant expenses are not leading to better health outcomes. Compared to similar wealthy countries, Americans are dying younger and faring worse in measurable health indicators like obesity, diabetes, and injury (OASH, 2016; CDC, 2019). In the U.S., obesity affects almost 30% of adults and 20% of children, nearly one-third of all deaths can be attributed to heart disease or stroke, and approximately 30 million people have diabetes (CDC, 2019). As health professionals see the expenses, morbidity, and mortality climb, the viable programmatic solutions to address chronic diseases have become more complicated. According to the Office of the Assistant Secretary for Health (OASH) at the U.S. Department of Health and Human Services, "scholars estimate that behavioral patterns, environmental exposure, and social circumstances account for as much as 60% of premature deaths. These factors shape the context of how people make choices every day - and reflect the social and physical environments where these choices are made" (OASH, 2016, p. 7). Furthermore, the Robert Wood Johnson Foundation states, "…positive changes in health behaviors require action on the part of the individual, but also require 'that the environments in which people live, work and play support healthier choices' " (Robert Wood Johnson, 2014, p. 6). This research demonstrates the need for interventions that take a system and environmental approach to addressing chronic diseases.

In 2003, the *American Journal of Public Health* released a special issue on "Built Environment and Health," which led other professional journals to do the same over the next few years; a sign that design professionals are engaged in the topic, research, and practice of including health into land use (Jackson et al., 2013). As a result of the research instigated by this special issue, there has been a growing body of strategies that public health practitioners and urban planning professionals are able to leverage to address built environment in their communities. For example, the Community Preventive Services Task Force through the CDC has recommended a combined built environment approach to increasing physical activity in the community (CDC, 2019b). This combined approach includes connecting every-day destinations to activity friendly routes to create a strategy that leverages both land use and transportation policies. Health in All Policies (HiAP) is another example of an approach that can be utilized to consider the health ramifications in all policies and all sectors including transportation, land use, agriculture, and housing (Robert Wood Johnson, 2014). Health Impact Assessments (HIA) are an example of a tool that can be used to implement an HiAP strategy; where HIA's use a standardized process to understand the effects a development, policy, or plan can have on the health of a local community before it is implemented (CDC, 2016). Public health practitioners are able to leverage Public Health 3.0, a national call to action crafted by the Department of Health and Human Services which emphasizes designing public health interventions to address the upstream determinants of health, or "... the macro factors that comprise social-structural influences on health and health systems, government policies, and the social, physical, economic and environmental factors that determine health" (Bharmal et al., 2015, p. 1). All these examples are evidence that the public health field has a growing body of tools, resources, and models to address chronic diseases through a built environment lens.

This article will discuss, from a public health practitioner's perspective, how a local public health agency has begun to incorporate principles of HIA's to address chronic disease by working closely with a local municipal organization to incorporate health factors into their sidewalk prioritization process. We review the local context, partnership, methods, and results of how a prioritization of sidewalk development shifted after including health as a key factor for decision making.

Context

In 2016 the Larimer County Department of Health and Environment (LCDHE), a local public health agency, launched a new Built Environment Program (BEP) that works to promote physical activity and address health inequities by promoting healthy community goals in urban plans and subsequent policy documents. LCDHE does not have the authority to implement land use and transportation policies, so in order to achieve desired program goals, BEP staff must collaborate closely with municipal staff who implement the transportation and land use policies. As a result, BEP uses a two pronged approach: working directly with professional partners who implement land use and transportation policies to support them in finding ways to include health into plans and policies, and working with community members, non-profit agencies, and advocacy organizations to develop community-driven projects and support community engagement efforts.

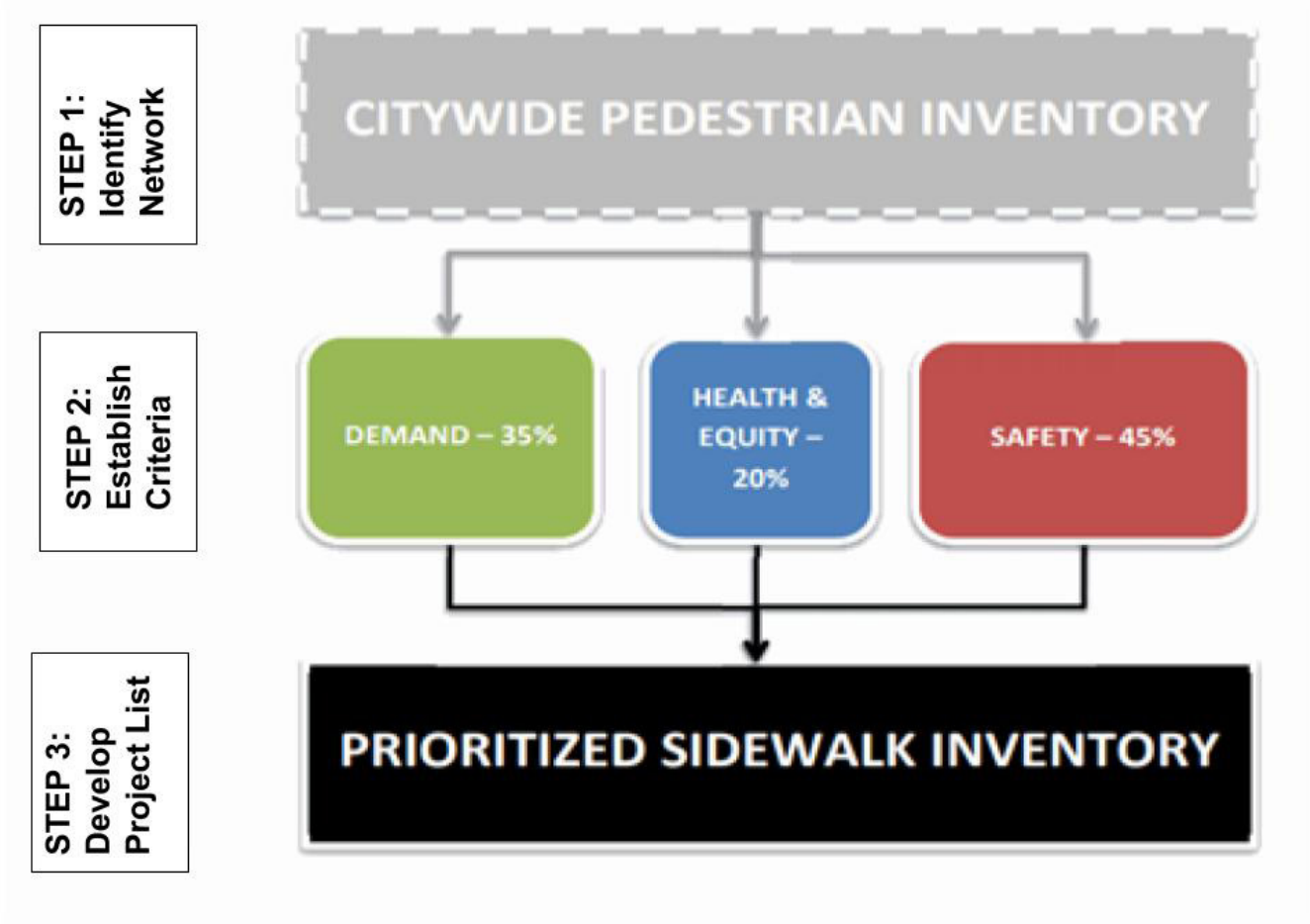
Implementation of the BEP's two-pronged approach is simple: the BEP seeks projects from partners and offers technical assistance to create and increase organizational capacity to incorporate health into plans and policies (see Figure 1). Although not formalized through a policy mandate or resolution, the BEP follows a HiAP approach. In practice, this requires a diverse range of partners, representing sectors including non-profit, community-based groups, data analysts, planning, transportation, public works, and engineering. With this strategy described above, a partnership was formed with a Municipal Engineering Department in the City of Fort Collins and resulted in the creation of the Health Equity Index (HEI) which was used as a portion of the municipal agency's sidewalk prioritization model. The HEI described in this paper followed the same process as conducting a HIA and was used as a tool to implement our HiAP strategy.

Figure 1: Technical Assistance graphic

Sidewalk Prioritization

Prior to the inclusion of the HEI into the sidewalk prioritization model, the partner municipal agency used a process that was largely based on pedestrian demand, and as a result the Downtown and the area around the University were the highest scoring areas to target infrastructure funding and changes (Duggan, 2014). To address this, Municipal Engineering staff worked with BEP to develop a new model that would incorporate indicators that would identify health inequities and ultimately redistribute funding to areas of the municipal boundary as referenced in Figure 2 (City of Fort Collins, 2017). Below, we will discuss the methods for creation of the HEI portion of the overall sidewalk prioritization model.

Figure 2: Updated sidewalk prioritization model



Health Equity Index

The intent of the HEI is to identify where vulnerable communities may be concentrated within the municipal boundary so prioritization of sidewalks can be targeted to assist those who may be more likely to need access to higher quality sidewalk infrastructure. The index is part of an overall location model and represents just one factor for final decision making.

The HEI methods that are listed below provide more details of the assessment phase for an HIA. Including the HEI as part of a prioritization process required following the standard HIA process (screening, scoping, assessment/recommendation, reporting, evaluation). A summary of these steps is included in Table 1 and is expanded upon below.

Table 1: Summary of HIA Process

Screening	The screening process was conducted in partnership with the municipal agency. Through conversations it was identified that there was an opportunity for a process to include health and equity as criteria for a decision to prioritize future sidewalk development. Stakeholders involved in screening were staff from BEP and the municipal agency's Engineering Department.
Scoping	Stakeholders identified relevant community health outcomes that were likely impacted by sidewalks through literature reviews and best practices. Equity indicators were included as a consideration of which populations were more likely to be impacted by sidewalk availability.
Assessment/ Recommendation	The HEI described in the methods section below provides more details of the assessment phase of the HIA. Recommendations were to include the HEI as a portion of the sidewalk model to prioritize future sidewalk development in vulnerable communities.
Report	The municipal agency incorporated the HEI into the City Plan, the City's Comprehensive Plan.
Evaluation	No formal evaluation has yet been conducted.

Methods

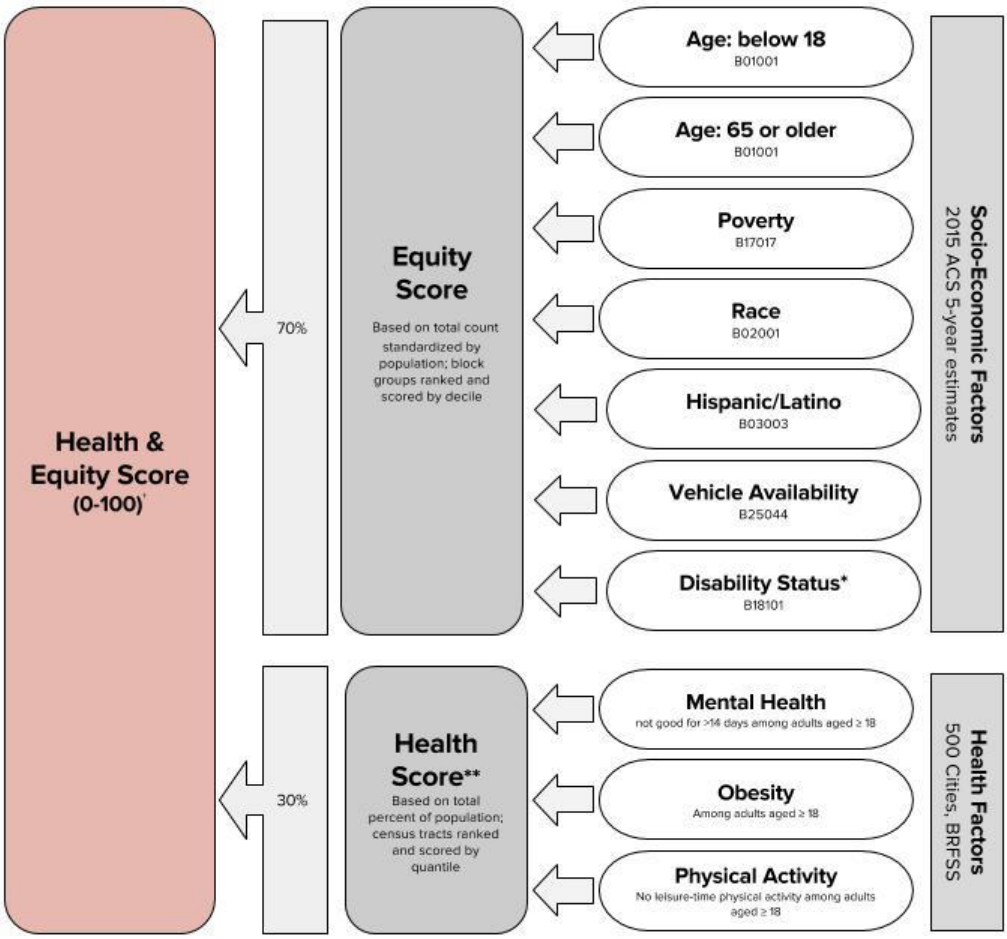
Screening and Scoping

A brief literature review of sidewalk prioritization models used by cities was conducted. After reviewing and discussing with the municipal agency, the indicators and methods for the HEI were adapted from the Seattle Department of Transportation's Pedestrian Master Plan (Seattle Department of Transportation, 2017).

Assessment

The HEI is made up of two scores: a health score and an equity score. The Equity Score is 70% of the total score and the Health Score is 30%. The two scores are combined and standardized to a 100-point scale (See Figure 3). A score of 100 indicates the most health and equity vulnerabilities and implies a geographic area with greater need for sidewalk quality and availability.

Figure 3: Health Equity Index Graphic



*Population at block group level estimated from census tract data based on assumption of equal distribution based on population size
**Health information for tracts 8069001601, 8069001709, and 8069001301 not available; health score derived from average health score of like equity score census tracts
`Scored at block group level; all block groups within census tract were given same health score

The Equity Score

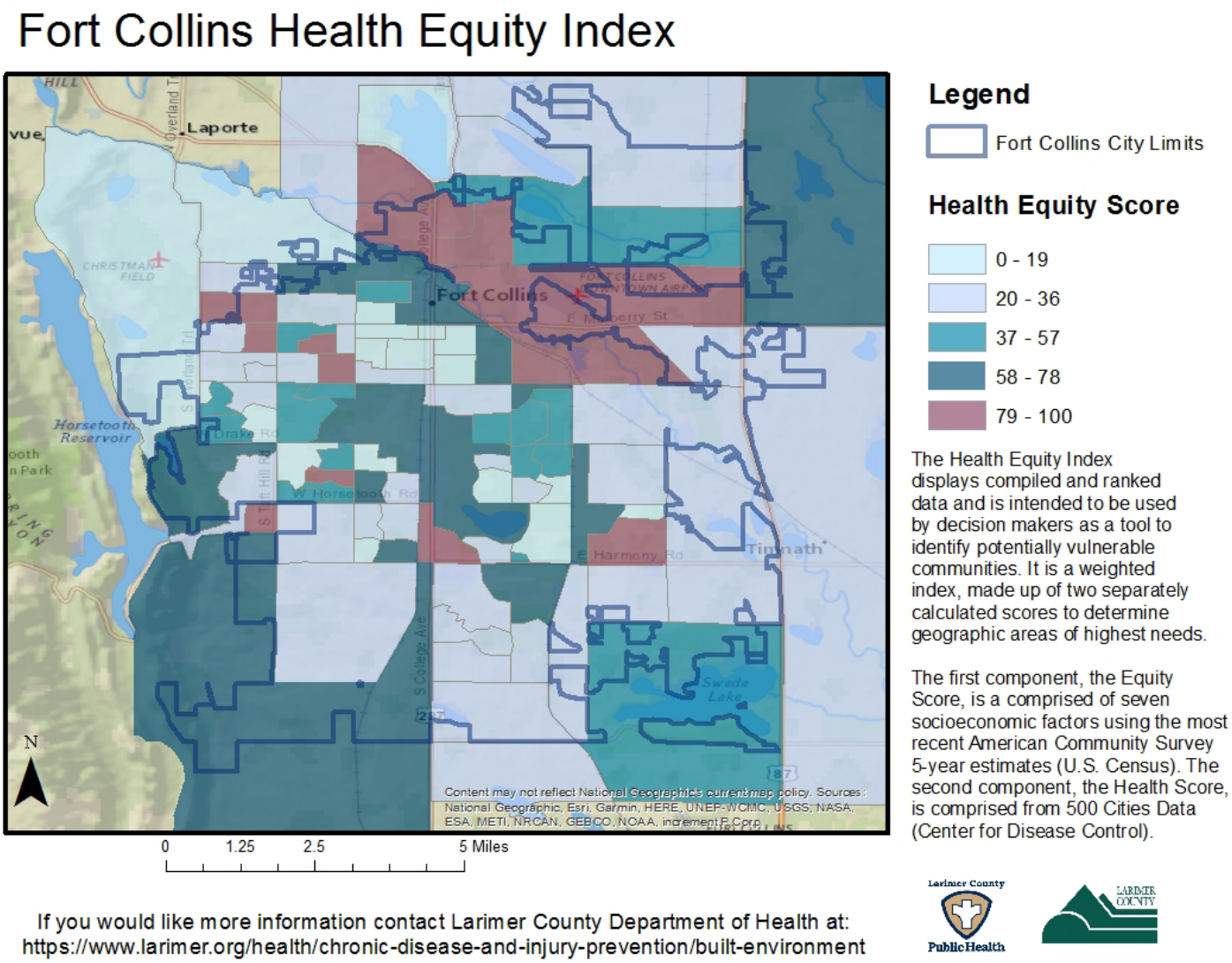
The Equity score uses Block Group level 2011-2015 American Community Survey 5-year estimates for age (under 18 and over 65 years old), households at or below Federal Poverty Level, Hispanic/Latino, race (non-white), households without a vehicle, and disability status. The population count for each indicator was compiled and standardized by the total population of the block group. Block groups were then ranked from highest to lowest by decile and each block group received an equity score between one and ten; ten being the highest possible rank, indicating the most vulnerable. It is important to note, disability status is only reported at census tract-level, so an assumption was made that the population of people with disabilities was evenly spread throughout block groups based on population, and a proportion was created at the block group level.

The Health Score

The Health score uses 3 indicators: rate of obesity in adults, rate of no leisure time physical activity in adults, and rate of poor mental health for more than 14 days in adults. These indicators were identified by staff creating the HEI and the new prioritization model as the most relevant indicators to measure overall health that could be attributed to absence or presence of sidewalk. Additionally, this data was used as it was readily available through the CDC's 500 Cities Project, which uses the Behavioral Risk Factor Surveillance System's (BRFSS) data. The percent of each health indicator was combined, and Census Tracts were sorted according to overall percent and were assigned a score of one through five; five being the highest, indicating poor health. Block groups within the same census tract were assigned the same health score.

The two scores were combined and standardized on a 100-point scale, which created a final Health Equity Score. The score was visualized geospatially, as referenced in Figure 4.

Figure 4: Health Equity Index for the City of Fort Collins



If you would like more information contact Larimer County Department of Health at:
https://www.larimer.org/health/chronic-disease-and-injury-prevention/built-environment

Recommendation

The municipal agency ultimately decided to use a weighted scale to incorporate three different priorities into the sidewalk prioritization process, shown in Figure 2. The three different priorities included are: Demand (weighted at 35%), Health Equity Index (weighted at 20%), and Safety (weighted at 45%). The weighted health score is the final health and equity score that was calculated by BEP.

Discussion

The original demand model that was used for sidewalk prioritization concentrated infrastructure investments near the central Downtown and the area surrounding Colorado State University, a local university, shown in Figure 5 (Robert Mosbey, personal communication, March, 2019). The areas of dark red indicate areas of the city with the highest demand for sidewalk infrastructure.

Figure 5: GIS map of Previous City of Fort Collins Pedestrian Priority Rating

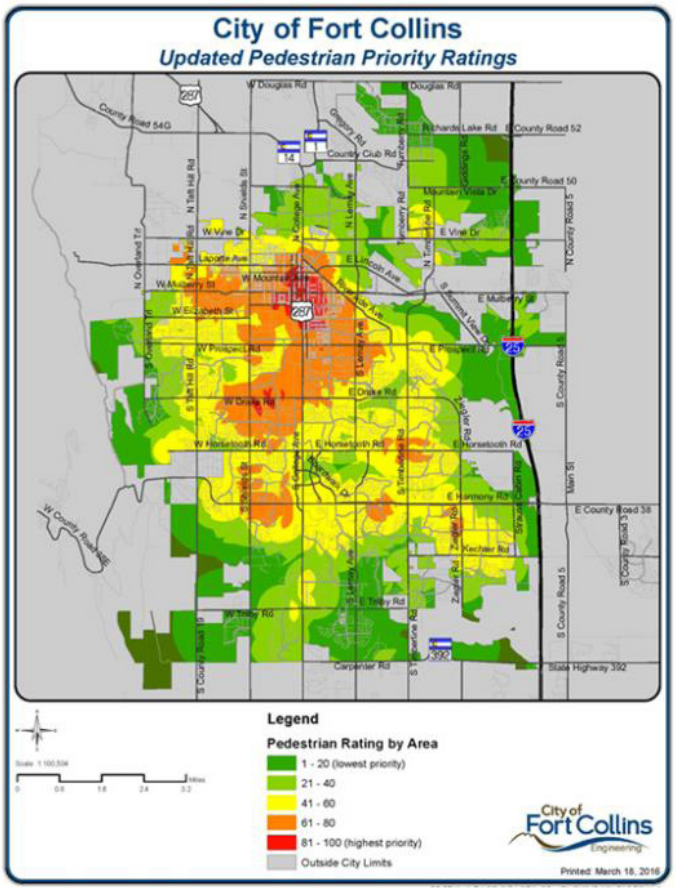
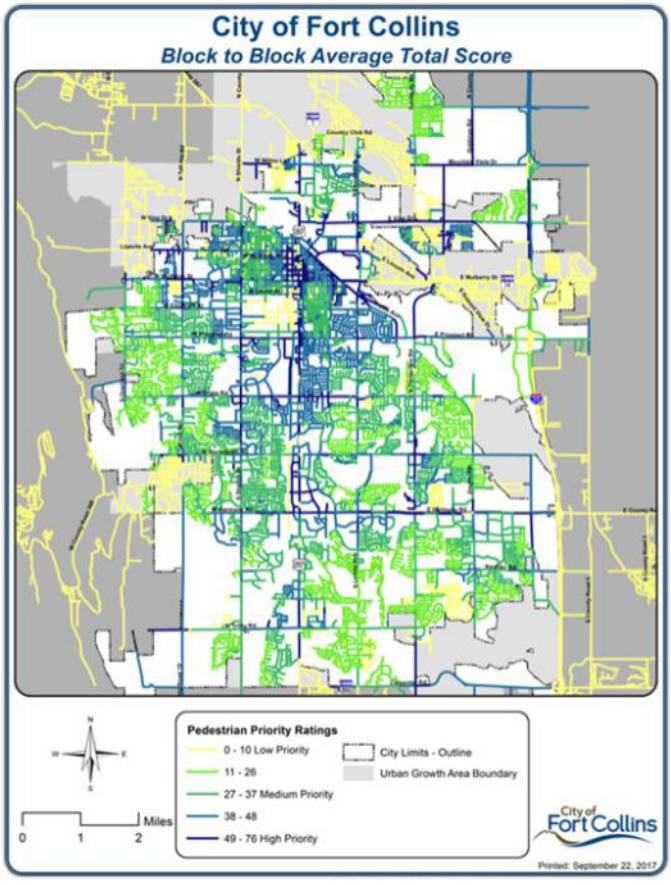


Figure 6: GIS map of Updated Sidewalk Priorities and safety



After modifying the model to include safety and health, the priority sidewalks became more geographically dispersed throughout the municipal boundary, as shown in Figure 6 (City Fort Collins, 2017). At this point in time, no formal analysis on the comparative models has been done to determine a percentage of change. However, visually, users can note that with the updated model, the Downtown is still the major focus area but some of the priority ratings have shifted. For example, there are hotspots in the southern end of the city that are no longer identified as medium-high priority using the updated model. Additionally, there are more identified areas in the north and west of the city that heightened their priority ranking by becoming a medium or medium-high priority.

Limitations

There are several identified limitations of the HEI. First, there are two potential issues with the accessible data utilized for the HEI to be acknowledged: first, there are self-report concerns in BRFSS data that cannot be accounted for; second, HEI uses estimated and modelled data from the American Community Survey 5-year estimates and from the Centers for Disease Control and Prevention's 500 Cities data. In knowing that this is estimated and modelled information, we acknowledge there may be a diluted effect when this information is weighted again and again in the HEI and in the sidewalk prioritization model. The HEI is an attempt to spatially understand factors that contribute to an individual or household's likelihood of being vulnerable, and therefore, it is just an example of one tool to be considered in a decision-making process.

Second, disability status is not reported at a block group-level. The American Community Survey estimates do not report disability status at a block group level only at the census tract-level. This information was estimated by assuming the population of people with a disability are spread evenly throughout the block groups in a census tract. Each block group received a proportionate number of people reporting a disability based on the total population size of that block group.

Third, the 500 Cities data only reports on 14 cities in Colorado and only 500 cities in the United Sates. Users outside of those 14 cities (or 500 Cities, nationally) may consider talking with the state health department about accessing community level estimates or any other available health data.

Fourth, the 500 Cities data compiles information at the census tract-level; additionally, some of the indicators do not exist at the Census tract-level. The information that does not exist was estimated by finding the block groups with the same equity score as the census tract that did not have corresponding health data and an average of the health scores using the block groups with the same equity score is used as an estimated health score.

Fifth, American Community Survey estimates and the 500 Cities data is updated regularly and therefore, the model becomes outdated annually. Ideally, HEI would have the ability to pull data and update automatically.

Last, the indicators were not weighted individually and are weighted as a combined number. Therefore, some individuals and households (depending on the indicator) are counted multiple times and the percent of total for a block group may be over 100%.

Implications and Lessons Learned

Although there was a shift in sidewalk distribution due to the inclusion of the HEI into the sidewalk prioritization model, we also saw two large unintended outcomes that are worth discussing: 1) The relationship built between two sectors and 2) The inclusion of the HEI in the municipal agency's *City Plan*, the comprehensive urban planning document (City Fort Collins, 2019). In the paragraphs below we will discuss the implications of these two outcomes.

An important outcome was the development of a relationship between a local health department and a municipal organization. The creation of the HEI was dependent on two different sectors coming together to utilize the skills and expertise of the other which required a thoughtful approach to understanding organization context and skills as well as dedicated staff time to develop the partnership. For example, to better understand the skills and expertise from the BEP the Municipal Engineering staff worked with BEP to become knowledgeable on best practices for inclusion of health and equity, the determinants of health, and the relationship between health and the built environment. Conversely, BEP staff worked with Municipal Engineering staff to understand the previous sidewalk location model, how sidewalk funding was allocated, the policies associated with sidewalk prioritization, decision making process, and timing of sidewalk development. In these two examples listed above the education and capacity building was delivered during one-on-one conversations. Ultimately, taking the time to understand and value each sectors contribution to changing a process was essential in the creation and utilization of the HEI. The staff time that was dedicated to this process is important to note as building relationships in order to follow the HIA process required significant time and may be unique to the LCDHE BEP. BEP staff capacity is currently supported through state level competitive grants that allow staff to provide technical assistance to conduct assessments and co-create tools with partner agencies.

The second unintended implication was the inclusion of the HEI into the municipal agency's *City Plan*, which is both the Comprehensive and Transportation Plan for the City of Fort Collins (City of Fort Collins, 2019). The BEP was able to leverage the work already done in partnership with the City Engineer and provide the HEI to the Planning staff at the City of Fort Collins for consideration of including the HEI in the *City Plan*. The HEI was then included in the "Trends and Forces" chapter which outlined existing conditions in the City of Fort Collins and is central to the Health Equity "spread" presented in the introductory chapter of the adopted *City Plan*. As the *City Plan* is a foundational urban planning document, it is likely the HEI will lead to the inclusion of health into future decision-making regarding distribution of capital improvement projects and land use policies that will have an impact on Health Equity within Fort Collins. However, as comprehensive plans are 20-30 year guiding documents, this plan has yet to create any tangible benefits for vulnerable communities in the city.

Conclusion

Local Public Health Agencies have numerous tools, resources, and models to address upstream Determinants of Health, especially through a built environment lens. Elements of HIA can be a powerful tool for not only understanding the health impacts of a policy or process on community, but also for building and developing trusted cross-sector relationships.

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THE LONG ROAD TO THE "ALL" OF HIAP

Erik Calloway

Abstract:

The objective of health in all policies (HiAP) is straightforward: integrating health and equity considerations into policies across all sectors of government will transform systems and environments in ways that support healthier, more equitable outcomes. However, pursuing that objective is complex and achieving those outcomes takes time.

This article examines three communities (Minneapolis, MN, Seattle, WA, and Richmond, CA) which have been pursuing HiAP long enough to achieve meaningful policy, systems, and environmental change. We identify when and how each community employed five key strategies for effectively adopting and implementing HiAP. And we present policies each community has adopted with examples of outcomes these initiatives have achieved. The purpose of this assessment is to set realistic expectations for how long it may take to achieve HiAP and to identify themes that could help other communities realize this level of progress more quickly and efficiently.

Based on our assessment of these communities, we conclude that it is not uncommon for it to take ten years or more to integrate health and equity into a substantial and coordinated set of policies across government agencies and departments. However, we also see that each step taken toward HiAP makes subsequent steps easier. And as more policies include health and equity concerns, the entire system does become more effective at improving health and equity outcomes. Finally, we show that that integrating health and equity across a range of plans and policies does shape decisions, lead to actual community transformation, and improve community health outcomes.

Introduction

What does it look like when a community has successfully integrated health *and equity* in all policies (HiAP)? And how long does it take to get there? There are countless examples of communities across the country drafting plans, adopting policies, and building projects with the intention of improving community health and equity. There are also many lessons to learn about HiAP by examining these communities; some show common ways to use planning or capital improvement projects as a vehicle for opening discussions about the importance of HiAP; some show the type of early wins that HiAP initiatives can lead to. However, the objective of HiAP is much more ambitious than just adopting a policy or building a project which addresses the social determinants of health in one way or another. HiAP is a collaborative approach to improving the health of a community by systematically incorporating health, sustainability, social justice and equity considerations into decision-making across departments, institutions, agencies and policy areas.[1]

Decision making processes in local government are complex and involve a wide range of sectors and stakeholders. Communities can have hundreds or thousands of plans, policies and regulations on the books. Moving any one plan or policy from start to finish can take time. Local governments only have the capacity to work on so many plans, policies or projects at a time. Given all of this, it should not be surprising that it takes time and effort to fully operationalize HiAP and see it result in changes across any community's decision-making processes, policies, built environment, and health outcomes.

A few pioneering communities have been working to apply HiAP long enough to have seen their efforts influence decision-making processes and result in a coordinated portfolio of policies across sectors. This article provides a brief overview of three such communities that are further along in their efforts to comprehensively integrate health and equity in all policies. By focusing on these communities, we can identify themes of successful implementation. We can see what it looks like to have health integrated across a range of policies in a coordinated way. Because these communities have reported on some level of tracking, evaluation, or action, we can show how their HiAP perspectives have resulted in decisions that have shaped healthy and equitable community transformation in measurable ways.

Community Review

In this section, we present three case study communities: Minneapolis, MN, Seattle, WA, and Richmond, CA (see Table 1 for case Study Community Profiles). These communities were selected for three primary reasons. First, these communities were among the first in the country to either adopt a resolution or update a comprehensive plan with a stated objective of addressing the social determinants of health across city policies. This results in a selection of communities that have been pursuing HiAP for over 10 years. Second, each community has made significant progress operationalizing health and equity in all policies as is evidenced by the fact that each community has adopted multiple plans or policies that explicitly address health in coordinated ways across multiple city departments. Third, these communities have their plans and policies online, making it possible to easily review (and link to) their content, understand their policy and planning processes, and track the progress they have made to date.

These communities' initiatives go by different names. However, we consider them all examples of HiAP because 1) they all state that improved health outcomes are a goal, 2) they all address the social determinants of health and 3) they have all involved the local, county, and/or state health department.

Each community has done a wide spectrum of work including 1) resolutions, or similar documents committing their community to health or equity in

Table 1. Case Study Community Profiles			
	Minneapolis MN	Seattle WA	Richmond CA
Government Structure			
Mayor	Yes	Yes	Yes
City Council Election Structure	By wards	At large	At large
City Manager / Coordinator	Yes	No	Yes
Annual Operating Budget (Billions)			
Total	$1.7	$6.02	$.37
Population (2010)			
Total	382,578	608,660	103,701
Race and Hispanic Origin (2017)			
White Alone, not Hispanic or Latino	59.9%	65.3%	17.9%
Black or African American Alone	18.9%	7.1%	20.6%
Asian Alone	6.0%	14.5%	14.8%
Hispanic or Latino	9.8%	6.5%	42.0%
Two or More Races	4.9%	6.6%	4.8%
Income & Poverty (2017)			
Median Income	$55,720	$79,565	$61,045
Persons in Poverty	20.7%	12.5%	15.7%
Life Expectancy (2015)			
Range	67.2 - 89.4	73.2 - 88.3	73.0 - 84.5
Average	78.6	81.2	78.8

Table 1. Sources:
Government Structure: http://www.ci.minneapolis.mn.us, https://www.seattle.gov/, http://www.ci.richmond.ca.us/
Annual Operating Budget: 2019 Minneapolis Budget in Brief, Seattle Open Budget Website, 2019 Richmond Budget in Brief
Population, Race and Hispanic Origin, Income and Poverty: www.census.gov/quickfacts
Life Expectancy: www.cityhealthdashboard.com

all policies 2) internal strategic plans, action plans, committees and task forces that operationalize healthy and equitable decision-making within the local government 3) inclusive and representative community engagement that has demonstrably shaped planning or budgeting decisions 4) comprehensive plans or similar long-range, multi-sector planning documents where health or equity are fundamental guiding principles 5) health and equity data which is used to inform planning processes or track progress 6) health or equity-driven prioritization of capital investments or budgeting.

For this review, we identify the genesis of each case study initiative and present how each initiative evolved over time. We highlight some of the key plan and policy milestones in each community. We map the processes they went through as their initiatives spread across government departments and agencies over time. We summarize the resulting plans and policy changes each community has adopted to date. We show how they are tracking success. And we give some examples of how their HiAP initiatives have guided decisions or resulted in healthy and equitable investments.

We also flag where, at different points in their journeys, each community has employed the following five key strategies for effectively adopting and implementing HiAP (ChangeLab Solutions, 2015):

These key strategies were originally identified by interviewing a dozen communities and reviewing

Figure 1. Five Key Strategies for communities to adapt and implement HiAP

(ChangeLab Solutions, 2015)

- [*Convene & Collaborate*]: This involves meeting, communicating, and exchanging health-promoting ideas, resources, and programs between departments, agencies, institutions, and partners
- [*Engage & Envision*]: This involves engage communities in public discussions to define what it means to be a healthy, equitable community by describing what success looks like and specifying the health equity outcomes the community is trying to achieve.
- [*Make a Plan*]: This involves coming to a shared understanding of the barriers to and opportunities for health in a community and establishing strategies, policies, and actions to remove barriers and leverage opportunities to achieve the community's vision.
- [*Invest in Change*]: This involves looking for ways to save, repurpose, combine, and attract new resources to operationalize HiAP and fund plan implementation.
- [*Track Progress*]: This involves gathering and analyzing data to evaluate and report on progress toward planned outcomes.

policies used to guide such initiatives. These strategies do not need to occur in a specific order. This is in part because individual planning and policy processes are not always linear. It is also because HiAP initiatives can involve many different planning, policy, and implementation actions that are at different phases and are being worked on across multiple departments simultaneously. As a result, different planning, policy, and implementation actions could be employing different strategies at any given time. However, we do believe that all five strategies must ultimately be employed for a HiAP initiative to be successful. This review shows that each community has employed all five of these strategies at multiple points during their initiatives.

[NOTE: this review attempted to highlight major milestones of each community's HiAP journey to date. There are likely additional healthy, equitable plans and policies or collaborations with other state, regional, and local agencies that have been completed in these communities but are not included below]

Minneapolis, Minnesota

2008 Our review of Minneapolis' journey toward health in all policies begins in May 2008 when racial disparities data related to the City of Minneapolis Employment and Training Program led the City Council - through Resolution 2008R-184 - to participate in a Joint City of Minneapolis and Hennepin County "Racial Disparities in Employment Steering Committee" (Minneapolis City Council, 2008). [*convene & collaborate*] This resolution and steering committee had a relatively narrow charge (racial disparities in employment) and it did not explicitly focus on health outcomes. However, by focusing on concentrations of poverty and unemployment localized in neighborhoods of color, it established a trajectory which would ultimate intersect with policies addressing the social determinants of health.

2012 By 2012, the City had updated its Sustainability Indicators and Targets to include eliminating racial disparities in employment for Minneapolis residents (Gordon, n.d.). [*track progress*] This action was informed in part the Minneapolis Foundation, which released a report with racial, education, jobs, housing, and other data which "shines a light on the shocking and unacceptable differences in how Minneapolis residents are faring on the most essential indicators of a healthy and productive life" (Minneapolis Department of Civil Rights, 2011). [*track progress*] In an attempt to address these challenges, the Minneapolis Foundation convened a One Minneapolis Call to Action conference to begin a conversation about how to address disparities in the city. [*convene & collaborate*]

[NOTE re: 5 Key Strategies - In Minneapolis, although a vision and plan had not yet been established, *tracking and evaluating data* was an effective way to influence decisionmakers about the importance of the initiative]

2012 The Minneapolis Foundation report and the Racial Disparities in Employment Steering Committee's work had uncovered the role of institutional racism in driving inequity. This understanding led the City to declare - through Resolution (2012-456) Supporting Equity in Employment in Minneapolis and the Region - that institutional racism is a problem in Minneapolis and called on City government to "lead by example" and use a racial equity framework to inform City budget, policy and program decisions" (Gordon, n.d.).

This racial disparity work was beginning to converge with the Health Department's increasing involvement with the City's place-based policy and planning activities. For example, in 2012, the Health Department

prepared a Health Impact Assessment (HIA) for the Park and Recreation Board's Above the Falls: Master Plan for the Upper River in Minneapolis (Department of Health and Family Support, City of Minneapolis, 2012). [*track progress*] And, "in fall 2013, the [City's] Public Health Advisory Committee (PHAC) engaged in a prioritizing activity to better align its discussions, actions, and efforts with the Minneapolis Health Department and City of Minneapolis goals" (Health Department, City of Minneapolis, 2015). [*make a plan*] That process yielded housing and homelessness as one of six priorities (Health Department, City of Minneapolis, 2015). In the short term, this led to a meeting between the Residential Finance Manager from the City's Community Planning & Economic Development office and the City Council's Public Health Policy & Planning Sub-committee in order to discuss housing policies, funding, and development (Health Department, City of Minneapolis, 2015). [*convene & collaborate*] In the longer term, this focus on housing would create multiple points of alignment with policies and actions in the City's upcoming Comprehensive Plan update.

2014 As the City's commitment to racial equity expanded beyond employment, the City began to review its own historic policy context of institutional discrimination. This included studying best practices from other communities about how to address racial equity (City of Minneapolis, n.d.b).

By April 2014, the ideas and concepts the City had learned up to this point were reflected in a new City vision and set of adopted goals and strategic direction which were drafted with Public Health Department participation as well as broad public comment. [*engage & envision*] These now included values of both Equity (fair and just opportunities and outcomes for all people) and Health (the well-being of people and our environment) as well as the goal that disparities are eliminated so all Minneapolis residents can participate and prosper (City of Minneapolis, 2019b).

Each department was directed to use these goals, strategic directions and values to create individual business plans (City of Minneapolis, n.d.d). [*make a plan*] For example, the Community Planning and Economic Development Department Business Plan includes a visions to "address equity in the planning process through effective and meaningful public processes" and "proactive coordination on planning efforts with the City's Public Works Department and with the Park Board, School District, Police Department, Health Department, and other interested organizations" (Community Planning & Economic Development, City of Minneapolis, n.d.).

[NOTE re: 5 Key Strategies - Once Minneapolis had *convened, collaborated, and reviewed data* to define the problem as well as *engaged* the community to establish a *vision*, the City *made an internal plan* for how to operationalize the initiative]

2015 By 2015, conversations such as a One Minneapolis discussion about what was working and what wasn't made it clear that more guidance was needed for departments to incorporate racial equity principles into their operations, programs, services and policies (City of Minneapolis, 2015). To provide this guidance, the City established a dedicated Division of Race and Equity within the Office of the City Coordinator (21 M.M., § 10). [*convene & collaborate*]

2016 With health and equity now fully committed to, Minneapolis began to see changes to their internal policies and protocols that guide government processes across city departments. For example, a critical component of integrating health and equity in all policies is community engagement and in January 2016 the City's Neighborhood & Community Relations Department released a Blueprint for Equitable Engagement. This was "adopted by the City Council in May 2016 as a five-year plan to ensure an innovative and equitable engagement system for the City of Minneapolis" (Gordon, n.d.). [*engage & envision*]

2016 Perhaps Most importantly, in April 2016, the City Council "directed the Department of Community Planning and Economic Development (CPED) to update the policies of the City's Comprehensive Plan in service to the values of growth and vitality, equity and racial justice, health and resilience, livability and connectedness, economic competitiveness, and good government" (City of Minneapolis, n.d.a). (emphasis added) [*make a plan*] The comprehensive plan update began with a significant amount of community engagement through a variety of methods designed to be inclusive and empowering. This included specific attention given to questions about health and an entire phase of engagement dedicated to equity as well as access to housing, jobs, and transportation equity.

[NOTE re: 5 Key Strategies - Minneapolis used the comprehensive plan update process to *make a plan* for improving community health through policies across city departments]

2018 The processes followed a typical comprehensive planning timeline, taking a little over two years for the city to engage the community about big ideas [*engage & envision*], develop a policy framework, and prepare a draft plan [*make a plan*]. The City Council adopted the Minneapolis 2040 Comprehensive Plan in December 2018. Health and equity, both major themes that came out of community engagement (City of Minneapolis, n.d.c.), are reflected in the 14 goals (Minneapolis City Council, 2017) that are the foundation for the plan. The final plan includes 28 policies related to the "Health" goal and 39 policies related to the "Eliminate Disparities" goal.

Furthermore, the implementation chapter includes a range of actions intended to ensure the plan's health and equity goals were realized. This includes identifying the health department as a key partner agency in many activities such as updating the Transportation Action Plan as well as making changes to the City's housing ordinance, the proactive housing inspection program, capital improvement program funding process, and rezoning study. The implementation chapter also states the City's decision to merge its recurring strategic planning process with its race and equity planning for the first time. The initial results of this alignment resulted in a set of goals and policies to operationalize equity which were adopted in 2018.

2019 Even through the Comprehensive Plan has an implementation chapter, the City needed more detailed guidance and action steps to operationalize the health and equity-related actions in that chapter. Toward this end, the City is currently in the process of developing a Strategic and Racial Equity Action Plan (SREAP). [*make a plan*] "The Strategic and Racial Equity Action Plan builds on the City's Comprehensive Plan and will inform the City's budgets in 2020 and beyond" (City of Minneapolis, 2019a). "A small number of

policy areas from the Comprehensive Plan will be selected as priorities for SREAP. These will provide guideposts to steer resource allocation across departments and inform policymaker decisions" (City of Minneapolis, 2019a). The SREAP process started with a cross-department retreat [*convene & collaborate*] where participants rated all 97 Comprehensive Plan policies to establish priorities. Policy priorities as of Jan 2019 are public safety, housing, and economic development. The SREAP is in its final stages and looks to be on track for adoption at some point in 2019.

Integrating health and equity throughout the updated Comprehensive Plan was an important step in Minneapolis' journey. Since the Comprehensive Plan has been adopted, the City has continued to expand health and equity in its policies. Two of the short-term priorities the City is pursuing with a health and equity perspective are transportation and housing.

The housing priority is aligned with the SREAP's prioritization of housing as well as the Health Department's prioritization of housing dating back to 2014. According to the Comprehensive Plan, the first step was to make "incremental changes [to the City's unified housing policy] as needed to implement comprehensive plan policies" and "explore new strategies and tools to create and preserve affordable housing throughout the city, such as inclusionary zoning and naturally occurring affordable housing (NOAH) preservation" (City of Minneapolis, 2019c). The city prepared a series of reports in August-November 2018 which concluded that the City's housing ordinance should be updated. Recommendations included tax increment financing policy and a program to support affordable housing requirements relating to the City's interim Inclusionary Zoning Ordinance. In December 2018, the City adopted an amended and restated Unified Housing Policy (City of Minneapolis, 2018). [*invest in change*]

To address the transportation priority, the Public Works Department has started a Transportation Action Plan and related Vision Zero Action Plan to be completed in 2020. These plans will be built on the foundation of the Comprehensive Plan with health-aligned goals including climate, safety, and equity. [*make a plan*]

[NOTE re: 5 Key Strategies - Minneapolis's initiative has included *making multiple plans* to: operationalize the initiative internally, improve community-wide health through policies across departments, and ensure health and equity goals are translated to implementation]

The City has created extensive health and equity policy infrastructure - which includes a racial justice resolution, committee, department, strategic plan, staff trainings, departmental business plans, and comprehensive plan. The power of having established this infrastructure can be seen when we turn our focus to the City's budgeting process. [*invest in change*] The City convenes a Capital and Long Range Improvement Committee to evaluate capital requests and develop recommendations for the City's Capital Improvement Program (City of Minneapolis, 2019e). The committee uses alignment with the City's adopted vision, mission, values, and goals to evaluate proposed projects. In addition, projects must support the City's comprehensive plan policies. Among other criteria, projects score well if they have previously been deemed as a high priority in plans (such as

the comprehensive plan), if they achieve equity in service delivery, if they improve environmental health, and if they enhance quality of life in neighborhoods.

[NOTE re: 5 Key Strategies - *Investing in change* can include allocating budget differently. The Minneapolis Capital and Long Range Improvement Committee's project evaluation process shows how changing decision-making processes can lead to increased investment in health and equity.]

Budgeting Process Outcomes: Highly rated capital improvement projects whose funding has been shaped by this process include: neighborhood parks rehabilitation with a 2020-2024 budget of $24 mill; pedestrian and bike improvements including safe routes to school, protected bikeways, and special bike boulevards with a 2020-2024 budget of $18.6 million (City of Minneapolis, 2019e).

The City continues its pursuit of health and equity in all policies through its current policy work (City of Minneapolis, 2019d).

Seattle, Washington

2005 Similar to the City of Minneapolis, Seattle's HiAP journey began with a focus on race. Their Race and Social Justice Initiative (RSJI) [*convene & collaborate*] developed from narratives collected during Mayor Greg Nickels' campaign in 2001 (Race and Social Justice Initiative, 2008). Over the course of the campaign, it was reaffirmed that certain populations in Seattle felt represented, while others did not, and Mayor Nickels found the one recurring factor was race. Beginning in 2005, the RSJI was developed to address race and social justice across all City departments in pursuit of racial equity. One of the initiative's first actions was to require all City departments to implement work plans for how each department would address key indicators of racial and social injustice including: health, education, criminal justice, environment, and the economy (Race and Social Justice Initiative, 2008). [*make a plan*]

2009 From the beginning, the RSJI has guided its work through three-year strategic plans. [*make a plan*] Over the first three years, the initiative's work concentrated on laying groundwork. This started with building an understanding of racial and social injustice across departments. It included establishing a management structure for the initiative by creating an Office of Civil Rights as the lead department as well as "change teams" within every other City department to guide implementation.[*convene & collaborate*] The City also began transforming its community engagement processes.[*engage & envision*] Executive Order 01-07 established a Translation and Interpretation Policy which required all City departments to translate government documents into all languages spoken by a substantial number of Seattle residents. The City also developed a new Outreach and Public Engagement Policy. This policy requires departments to designate liaisons to coordinate and implement inclusive public engagement. Furthermore, the City created a Racial Equity Toolkit for all departments to use to assess policies, initiatives, programs, and budget issues. [*invest in change*] As a result of this early work, racial disparities considerations began shaping the practices and policies of various departments including human services, housing, and public utilities (Race and Social Justice Initiative, 2008).

[NOTE re: 5 Key Strategies - Investing in change includes changing internal protocols. In Seattle, an early investment involved

creating toolkits to help staff integrate race and equity considerations into their decisionmaking processes]

The 2009-2011 RSJI Strategic Plan focused on reducing disparities within the City as an organization, strengthening community and access to services, and beginning to develop a shared vision and a collaborative action plan to achieve racial equity (Race and Social Justice Initiative, 2008).

Although the city had taken initial steps toward building up the internal infrastructure necessary to plan for and address racial and social justice, they had still not successfully integrated health or equity into many city policies. So, the City Council re-affirmed the City's commitment – through Resolution No. 31164, adopted on November 30, 2009 - to racial and social equity and re-directed all City departments to assist in eliminating racial and social disparities (Simmons, 2019).

2012 Following an assessment involving over 40 community meetings and a roundtable with 25 Seattle institutions and organizations [*engage & envision*], the 2012-2014 RSJI Strategic Plan showed positive progress over the previous three years in equitable contracting, expanded and inclusive public engagement, and internal training and education.[*track progress*] Priorities for the next three years included the need to improve coordination and linkages both between city departments and the community, and to make better use of data to measure progress (Racial & Social Justice Initiative, City of Seattle Office for Civil Rights, n.d.b).

The City's state-mandated deadline for a major review of its comprehensive plan was approaching in 2015. We will see how this provided an excellent opportunity to improve coordination and linkages both between City departments and the community by integrating equity and health into the new comprehensive plan.[*make a plan*] In 2011, the City began early community engagement to scope the comprehensive plan update. [*engage & envision*] By March – May 2012, the City had an initial Public Engagement Report. Health and equity-related themes identified in this initial public outreach report included: building healthy, complete communities; policies related to the City's Climate Action Plan; and policies that encourage equitable access to healthy food (City of Seattle, Department of Planning and Development, 2012). However, the report also provides an example of the challenge of coordinating health, equity, and social justice concerns across city activities. The report shows that racial and social justice was not included in the initial questionnaire sent to the public. Despite this, it did come up as an additional community-suggested item.

2014 After a round of project planning and research, the City initiated the plan update process. The City took the next few years to translate the community's core values of race and social equity, environmental stewardship, community, quality of life, and economic opportunity and security into a comprehensive plan document. As the City drafted the plan, it used the City's Racial Equity Toolkit and drew from the values in the RSJI and Equity & Environment Initiative (EEI). It attempted to integrate health and equity principles across the plan's various elements through issues such as access to jobs, education, healthy foods, parks, and affordable housing. These concepts are reflected in both the citywide planning sections and individual neighborhood plans. Tying it all together is a strategy

which concentrates growth, development, and investment in select "Urban Villages" (note that the urban villages strategy has its origins in Washington State's 1990 Growth Management Act).

2015 At this time, the RSJI had achieved clear successes since the 2012 strategic plan, such as using the Racial Equity Toolkit to shape the Comprehensive Plan update process. The 2015-2017 RSJI Strategic Plan also highlighted the challenges and slow pace that policy, systems, and environmental change can move.[*track progress*] Generally, the City was still struggling to see consistent implementation and measurement of the RSJI's equity tools and processes across departments (Race and Social Justice Initiative, Seattle Office for Civil Rights, n.d.a).

[NOTE re: 5 Key Strategies - The way that Seattle has *tracked progress* through three-year strategic plans has allowed them to systematically build on successes and address gaps or barriers to implementation as their initiative has progressed]

However, Seattle's work on the comprehensive plan update seems to have been somewhat of a tipping point for their efforts to integrate racial and social justice and health equity in policies across departments. Building the comprehensive plan on fundamental themes of racial and social justice and health required the City to engage in a wide range of analyses and to develop a suite of reports and plans to work in parallel with the comprehensive plan.

First, in response to feedback received during community outreach, City Council passed Resolution 31577 in May 2015 to confirm that the city's core value of race and social equity is one of the foundations on which the comprehensive plan is built (Office of Planning and Community Development, City of Seattle, 2016). This resolution also required an additional Equity Analysis and Growth & Equity Analysis of the draft comprehensive plan. These analyses identify how the Comprehensive Plan's growth scenario - as presented in the Environmental Impact Statement - could positively or negatively impact marginalized populations. The analyses also include potential strategies to mitigate negative outcomes.

[NOTE re: 5 Key Strategies - It is not uncommon to encounter sticking points in the process of *making a plan*. *Engaging and envisioning*, *convening and collaborating* or, as Seattle did, *tracking and analyzing data* are all strategies that can help get through these sticking points]

Another action that emerged during the comprehensive planning process, the Office of Sustainability & Environment initiated an Equity & Environment Initiative (EEI) in April 2015.[*convene & collaborate*] Many communities negatively impacted by the environment are also underrepresented communities with significant health disparities and poor health outcomes so the City established the EEI to connect the City's race and social justice work with environmental justice. The EEI began by establishing an Equity & Environment Agenda (2015-2016) which sets a framework with goals and strategies to achieve environmental justice in Seattle.[*make a plan*]

The City's RSJI, work on the comprehensive plan update, and the EEI all converged when the City focused on the Duwamish River Valley. In Feb 2015 The City established an interdepartmental Duwamish Valley Action Team. [*convene & collaborate*] The team

was led by the Office of Sustainability & Environment (OSE) and the Office of Planning & Community Development (OPCD) and included 16 other City departments, including Public Health – Seattle & King County (PHSKC) & Seattle Human Services Department (HSD). The team was tasked to better align and coordinate efforts to advance environmental justice, address racial and neighborhood-level disparities, reduce health inequities, build community capacity, create stronger economic pathways and opportunity, and build trust in government among residents of the Duwamish Valley area of the City.

2016 After four years of work involving all City departments, consultants, community groups, residents and stakeholders, two rounds of community engagement as well as an additional growth and equity analysis and a health and equity analysis, the City adopted the Seattle 2035 Comprehensive Plan in October 2016 (City of Seattle, Office of Planning and Community Development, n.d.). The amount of cross-departmental work surrounding the Comprehensive Plan update resulted in significantly increased alignment between departments and increased integration of health and equity in plans and policies. This work resulted in a suite of reports, plans, and policies to implement, build off, or evaluate the comprehensive plan.

For example, The Seattle and King County Public Health Department released a Health & Equity Assessment as part of the King County Public Health and Equity in Comprehensive Planning project.[*track progress*] The objective of the assessment was to identify and analyze health and equity disparities in the City in response to significant population growth and to ensure all residents can reach their full potential. Using the assessment's findings, the Public Health Department provides policy recommendations to reduce inequities among certain populations that negatively impact health, such as access to health care, limited food choices, and home ownership. These recommendations are connected to specific City and County plans, like the Comprehensive Plan, and existing programs and initiatives.

In addition, similar to Minneapolis, the City developed documents to provide more detailed and actionable guidance to implement the comprehensive plan. In April 2016, the City released an Equitable Development Implementation Plan with strategies to prioritize public investments, policies, and programs in locations that will reduce disparities while avoiding displacement. That was followed in June 2016 by an Equitable Development Financial Investment Plan which outlines key initiatives the City is undertaking toward racial equity. [*invest in change*]

[NOTE re: 5 Key Strategies – It is common for comprehensive plans and other planning documents to be supplemented by implementation plans. Implementation plans - such as Seattle's equitable development and equitable financial investment plans - are good ways to ensure the community *invests in the changes* that are committed to in other planning and policy documents]

Equitable Development Financial Investment Plan Outcomes: The plan provides detailed workplans for Equitable Development Projects that have been prioritized by and are driven by the community. These projects are in neighborhoods with high levels of chronic and recent displacement risk as well as a history of disinvestment and are intended to mitigate further displacement and increase access to

opportunity. Each project has been allocated at least $40k from the City with some able to leverage up to multiple millions of dollars of outside funding for activities such as feasibility studies and site acquisition to help these projects proceed.

2017 Growing out of the EEI, the City stablished an Environmental Justice Committee in 2017. [*convene & collaborate*] This committee provides a space for those most-affected by environmental inequities to have ownership of Equity & Environment Agenda implementation. It also provides another opportunity for connections between City departments as well between government and community-based action.

2018 An early action that the Department of Transportation has taken towards implementing the comprehensive plan's goals of health and equity has been to develop a Transportation Equity Program (January 2018). This program is intended to "provides safe, environmentally sustainable, accessible, and affordable transportation" to underrepresented communities, to build healthier communities, and to mitigate racial disparities in the City. Through Resolution No. 31773 (January 2018) the Seattle City Council affirmed its commitment to racial equity and social justice through the work of the Department's Transportation Equity Program.

After three years of work, the Duwamish Interdepartmental Team released its first Duwamish Valley Action Plan in June 2018. This Action Plan builds on the implementation plan of the EEI and works with communities "most affected by inequities and disparities in health, education, opportunity, and access to beautiful green spaces." The Action Plan seeks to coordinate with City efforts to reduce health inequities, which is just one of many other objectives aligning with the RSJI and EEI work.

Duwamish Valley Action Plan Outcomes [*invest in change*]: During the two years the Plan was in development, the City took 50 actions to address community priorities, show responsiveness, and build trust such as through a tree canopy improvement program; $50,000 to convert an underutilized area of an elementary school into a pollinator garden; $23,000 to increase fresh food availability; construction of high priority Shoreline Street End improvement projects; $10,000 to improve parks amenities, and bus service changes and improvements. The Plan also specifies over $26 million of approved funding to take over 130 mid-term actions to pursue 37 opportunities toward a healthy environment, parks and open spaces, community capacity, mobility and transportation, economic opportunity and jobs, affordable housing, and public safety.

In order to track progress toward Seattle's long range planning goals, the City completed an Urban Village Indicators Report in June 2018.[*track progress*] This report monitors growth and progress toward the implementation of the Comprehensive Plan in urban centers and villages. The report is broken into three sections: growth, affordability, and livability. All components of the report further address equitable development to ensure a healthy Seattle. Health specific indicators include access to transportation and parks, because transit is important to a healthy life and access to parks promotes health and wellbeing.

Urban Village Indicators Report Outcomes [*track progress*]: Because this is the first report, it primarily establishes a baseline and not many conclusions can be drawn yet. However,

the report finds that, despite housing and employment growing faster than anticipated during the initial years of the planning period, housing is still a burdensome cost for low-income households.

2019 Some of the most recent information about Seattle's progress can be found in the City's Environmental Progress Report. [*track progress*] This report tracks the City's climate and environmental goals developed to support healthy people, communities, and natural environment. Progress is tracked in the categories of climate change, buildings and energy, transportation, food access, trees and green space, healthy environment, and environmental justice. Specifically, the report presents indicators of the successes of other City agendas in addition to frameworks like the RSJI, how all those frameworks align with broader environmental goals, and areas open for improvement.

Environmental Progress Report Outcomes [*track progress*]: **Food**: Seattle's Fresh Bucks Program was used four times more in 2018 over 2014 and the percent of participants who are people of color increased 23% between 2017 and 2018 - **Transportation:** transit ridership grew by 33% and drive alone rate decreased by 25% between 2010 and 2018; bicycle and pedestrian volumes increased by between 62%-64% from 2011 to 2018 - **Parks:** In priority neighborhoods, the city dedicated 3 new parks in 2018 with 14 more in development.[*invest in change*].

2019 The 2019-2021 RSJI Strategic Plan focuses on further refining, improving, strengthening, and expanding on the work done over the past 10 years of the initiative (Racial & Social Justice Initiative, City of Seattle Office for Civil Rights, n.d.).

[NOTE re: 5 Key Strategies - *Tracking progress* is about more than gathering and analyzing data. Reporting on progress is also important both for accountability and to communicate HiAP successes to elected officials and the general public]

Richmond, California

2005 Unlike Minneapolis and Seattle, Richmond's road to HiAP began by building directly off a General Plan update (aka a comprehensive plan). With a General Plan that dated back to 1994, the Richmond City Council formally launched a general plan update process in 2005 (City of Richmond, n.d.).

From the beginning, the City decided it would supplement the General Plan update with a Community Health and Wellness element. This would make the City the first jurisdiction in California to incorporate a Community Health and Wellness Element (CHWE) into its general plan. The City received grant funding from The California Endowment for this supplemental effort. The City created a Technical Advisory Committee consisting of all City department heads as well as a Technical Advisory Group with academic, community, and public agency representatives including Contra Costa Health Services. [*convene & collaborate*]

2006 The City began analyzing and understanding the needs and conditions surrounding health equity through a series of community meetings.[*engage & envision*] This existing health conditions analysis culminated in an Issues & Opportunities Paper on Community Health and Wellness completed in 2007 (City of Richmond, n.d.).

[NOTE re: 5 Key Strategies - While the 5 key strategies are not always done in a particular

order, *engaging and envisioning* should generally be done early and often when *making a plan.*]

2008 In order to identify promising frameworks and strategies to organize the CHWE, build staff awareness and capacity, draw connections to health with other sections of the General Plan, and build partnerships to ensure effective plan implementation, the City launched a CHWE implementation planning and pilot program team in 2008 (Mclean, Wilson, and Kent, 2011). [*convene & collaborate*] The team identified four strategies for the CHWE to pursue [*make a plan*] 1) operationalize health and equity in the regular processes, daily practices, and ongoing policies of the City of Richmond 2) improve the physical environments in Richmond to improve health choices and outcomes and reduce disparities 3) track and monitor changes in community and health conditions 4) engage the community to ensure relevance and impact.

2009 The team also piloted frameworks and strategies from the in process CHWE to test approaches and build partnerships. This included working with the West Contra Costa Unified School District and engaging the community on safe routes to school in the City's the Iron Triangle and Belding Woods neighborhoods (City of Richmond, 2015), City of Richmond, 2013).

2010 Similar to Seattle, preparing the CHWE required Richmond to engage in a wide range of analyses and to develop a suite of reports and plans to implement the General Plan. Much of this work occurred in parallel with the broader General Plan update. For example, in December 2010 the City adopted a Parks Master Plan and in November 2011 the City adopted a Bicycle Master Plan and Pedestrian Plan. These plans involved a health-oriented parks survey conducted by youth, pedestrian and bicycle safety assessments, community engagement, and cross-department coordination. Each plan is aligned with and informed by the health and equity goals of the CHWE.

2011 The City established an interagency CHWE Implementation Data Working Group, [*convene & collaborate*] to determine how to track CHHWE implementation. The group included staff from the Richmond City Manager's Office, Contra Costa Health Services, and PolicyLink. The CHWE Data Working Group was part of the larger Richmond CHWE Implementation Launch Team, which included staff from the City of Richmond Planning and Building Services, the City of Richmond Redevelopment Agency, Contra Costa Health Services Public Health Division, the University of California at Berkeley, and MIG, Inc. In December 2011 the working group completed a Health in All Policies, Health Data in All Decisions Report. The report includes recommendations on indicators and data collection in order to support tracking progress toward the CHWE's goals. [*track progress*]

[NOTE re: 5 Key Strategies - *Convening and collaborating* is not an independent strategy. Richmond's interagency CHWE Implementation Data Working Group shows how *convening and collaborating* was an integral part of *tracking progress.*]

2012 After nine years of work involving all City departments, consultants, community groups, residents and stakeholders, extensive community engagement, and a set of supplemental plans and reports, the City adopted the Richmond General Plan 2030 including the Community Health and

Figure 2. Community Factors Addresses by the Richmond Health and Wellness Element

Graphic by MIG, Inc.

Wellness Element in April 2012. The CHWE addresses 10 determinants that impact healthy living and how to best support the community to reduce health disparities:

The adopted CHWE immediately began shaping city policy processes and decision-making. For example, in parallel with, but not directly connected to Richmond's General Plan update, the City had been working on Richmond Livable Corridors, a form-based code for several commercial corridors and surrounding areas. From 2012 to 2014, the City worked in coordination with Contra Costa Health Services (CCHS) to prepare Toward a Healthier Richmond. This report presented health issues and preliminary recommendations for the Richmond Livable Corridors Project Area followed by a Health Impact Assessment (HIA) of the code. The report and HIA present recommendations to improve health through topics that will be most directly influenced by the new code. The HIA also found the code may create new health inequities, such as affordability and air quality, which will be critical to track moving forward.

Individual projects such as the Richmond Livable Corridors HIA are important. But in order to more systematically operationalize the vision of health established in the CHWE, the City began developing processes to implement health in policies beyond the comprehensive plan. In March 2012 the City established the Richmond Health Equity Partnership (RHEP).[*convene & collaborate*] The RHEP brings together the City, West Contra Costa Unified School District, Contra Costa Health Services, and community

partners and organizations to advance health equity in the City. The Partnership achieves this goal through three strategies, with one strategy being HiAP.

2013 The RHEP released a Health in All Policies Strategy in 2013.[*make a plan*] This strategy provides guidance for integrating health and equity in city decisions from budgeting to parks and from engineering to partnerships with community-based organizations (City of Richmond, 2014) The RHEP has also prepared a Health Equity Report Card, which establishes a baseline to measure Richmond's progress towards a more equitable city.[*track progress*]

2015 To effectively implement and maintain health in all policies, the City passed Ordinance No. 27-15 N.S. (adopted December 2015). Among other actions, this ordinance establishes an interdepartmental Health in All Policies Team with representatives from every department. [*convene & collaborate*] It also requires a tri-annual report on the status of health, health equity, and progress toward HiAP in the City of Richmond.

[NOTE re: 5 Key Strategies – Early in the process of pursuing HiAP, *convening & collaborating* may be more informal or tied to individual projects. Establishing an official interdepartmental Health in All Policies Team is a good way to ensure early wins lead to sustainable *convening & collaborating* over time.]

The City's first HiAP Report was released in 2015 The report provides an overview of how HiAP is making an impact at the level of City government as well as actions the City has taken to implement the HiAP Strategy.[*track progress*]

HiAP Report Investments [*invest in change*]:

- The City's focus on health through climate change helped it secure $5.1 mill in California Senate Bill No.375 funds for affordable senior housing and creek restoration.
- The HiAP initiative's focus on violence as a health issue has led to a city budget increase for the Office of Neighborhood safety.
- Eight park improvement projects were completed in underserved communities with an additional $6 mill secured for three additional community-driven park projects.
- The City approved $3 mill in social impact bonds to rehabilitate vacant properties for future sale to low-income residents, the City brought the Community Air Monitoring System online.

HiAP Report Outcomes [*invest in change*]:

- The City exceeded its regional housing needs allocation for the past two cycles.
- Homicides in 2014 were the lowest in the City in 40 years. [*track progress*]
- Finally, based on surveys before and after the HiAP ordinance, residents felt City services, such as parks, police, street lighting, affordable and quality housing, and recreation programs, positively impacted health more after the ordinance was adopted. Across ten City services, resident ratings increased between 16% and 33%.

2019 Capital Improvement Program Outcomes [*invest in change*]: Richmond's most recent Capital Improvement Program (CIP) reflects priorities and projects that are a direct result of the City's healthy planning and HiAP initiatives. For example, the CHWE pilot work

done in the Iron Triangle neighborhood in 2009 grew into the Yellow Brick Road: Iron Triangle Walkable Neighborhood Plan, which was adopted in 2015. As of 2019, the City has allocated $7.3 mill in its Capital Improvement Program for projects that are part of this neighborhood plan.

[NOTE re: 5 Key Strategies - HiAP initiatives can make it easier to attract funds to *invest in change.* The funding Richmond received for senior housing and creek restoration is an example of how having a plan and showing coordinated commitment to health and equity can make communities more competitive for various state and federal funding sources.]

Discussion

The communities reviewed reveal the following common themes and lessons about the realities of successfully pursuing HiAP:

HiAP can start anywhere: There are many ways to start down the path toward HiAP. For example, you could start small by convening and collaborating with partners to include health as part of the design of a project such as a streetscape improvement. You could include health as part of the community engagement or envisioning for a project such as a comprehensive plan as was the case for the City of Richmond's initiative. You could gather or analyze community data highlighting health and other inequities like Minneapolis's initiative, which grew out of racial disparities data related to the City of Minneapolis Employment and Training Program. Or you could follow Seattle's approach by passing a resolution committing the community to health and equity in all policies. No matter where you start, it is just the beginning.

HiAP takes ongoing commitment: Achieving health and equity in all policies requires persistence and work long past the initial project. Some policy and decision-making processes can take months, or even years to complete from start to finish (the Minneapolis 2040 Comprehensive Plan took two years to draft and adopt). Then it takes additional time and effort to operationalize that commitment. Over these long timeframes, there will likely be stops and starts. There will be successful and failed pilots. There will be evaluation and refinement. And there will probably be staff and elected official turnover. As a result, it is not uncommon that the community may need to reaffirm its commitment to HiAP at some point (four years into its initiative, Seattle passed a resolution to re-affirm its commitment to racial and social equity).

HiAP requires changing internal protocols and processes: In addition to the ongoing process of integrating health across the spectrum of external-facing policies, communities must also do internal work to operationalize, institutionalize, and systematize health and equity across departments. This includes changes to internal government processes and protocols such as requiring all departments to develop health and equity plans or to submit regular reports about progress made toward identified healthy, equitable outcomes (ten years into its initiative, Richmond passed an ordinance which requires a tri-annual report on the status of health, health equity, and progress toward HiAP). This also includes establishing necessary internal infrastructure such as designating individuals or establishing departments that will oversee HiAP implementation (Minneapolis established a dedicated Division of Race and Equity within the Office of the City Coordinator). Even with new protocols and decisionmakers, staff may require training to understand and be sensitive to health and equity issues, especially when the issues involve racial and social justice (from the beginning, Seattle's initiative included training and education for City employees).

Health and equity disparities analyses are powerful communication tools: Analyzing and illustrating the spatial distribution of health and equity disparities

within a community is important. This type of analysis can help decisionmakers see which neighborhoods have the greatest needs and understand what those needs are. It can also reassure decisionmakers, stakeholders, and the community at large that healthy policies can address those needs and have positive health and equity outcomes (supplemental equity analyses were integral to the City Council's decision to adopt the Seattle 2035 Comprehensive Plan).

Inclusive and meaningful community involvement takes time, but it also makes a difference: One reason achieving HiAP takes time is that community engagement takes time. Large numbers of people must be engaged consistently over time about a wide range of topics. And many of these topics cannot be resolved after a single, short interaction. Inclusive and meaningful community involvement is necessary to identify the community's health needs but especially the needs of structurally disadvantaged neighborhoods and populations (feedback from over 200 participants at the One Minneapolis: A Call to Action conference was an important start to the conversation about how to address disparities in the city). But this engagement can provide more than just data. It can provide stories that are a powerful way to promote HiAP initiatives. And it can build a coalition to support adoption of healthy plans and policies (Richmond partnered with the West Contra Costa Unified School District to pilot community engagement around the safe routes to school). Community engagement can also provide a means of accountability to ensure implementation over time.

Health and equity in comprehensive plans tend to accelerate the process towards HiAP: The process of creating comprehensive plans requires participation from most, if not all community departments. So comprehensive planning is an effective way to engage many departments in health and equity discussions. In addition, comprehensive plans typically guide a wide range of city decisions, investments, and actions across department. So, when health and equity become fundamental guiding principles of major policy documents such as comprehensive plans, health and equity concerns tend to spread to other related plans and policies across departments (comprehensive plans were key milestones for Minneapolis, Seattle, and Richmond's initiatives). *Health and equity in internal protocols increases health and equity-driven decisions:* Health and equity concerns must become fundamental guiding principles in the core documents that guide decision-making in different departments or around specific topics (such as transportation plans, budgets, housing ordinances, etc.). When this occurs, a community's actions and decisions, and the community transformation that results, will also be guided by health and equity (Minneapolis, Seattle, and Richmond all show evidence of policy decisions, investments, and outcomes guided by health and equity as a result of their initiatives).

Conclusion

Communities cannot achieve HiAP overnight. Convening and collaborating, engaging and envisioning, making a plan, investing in change, and tracking progress are processes that occur incrementally and take both time and effort. However, the communities reviewed in this article illustrate that each step taken toward HiAP makes subsequent steps easier. And as more and more policies include health and equity concerns, the entire system does become more effective at improving health and equity outcomes. Finally, these communities show that integrating health and equity across a range of plans and policies does shape decisions, lead to actual community transformation, and improve community health outcomes.

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