CHIA
CHRONICLES OF HEALTH IMPACT ASSESSMENT
Improving community health through health impact assessments

October 2016 VOLUME 1, ISSUE 1

SOCIAL LEARNING THROUGH STAKEHOLDER ENGAGEMENT: NEW PATHWAYS FROM PARTICIPATION TO HEALTH EQUITY IN U.S. WEST COAST HIAS

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While some contend that extensive public engagement activities are necessary to meet Health Impact Assessment (HIA) practice standards, other work suggests that an HIA of any type hasthe potential to inform decision-making in ways that embody HIA's value of democracy (Cole & Fielding, 2007; Harris-Roxas et al., 2012; Negev, 2012). These divergent perspectives on how to realize democracy through public participation represents an area of evolving debate in the ongoing development of HIA practice in the US. Looking to the relatively diverse HIA practice on the west coast of the US, we explore the interplay between engagement strategies and HIA values in completed HIAs. We locate each HIA on Harris-Roxas's (2011) typology of HIAs – mandated, decision-support, advocacy, and community-led – and assess the type(s) and extent of participation activities conducted. This sample incorporates a variety of both HIA types, target policy/program decisions in different sectors, and HIAs conducted by seasoned and novice practitioners.

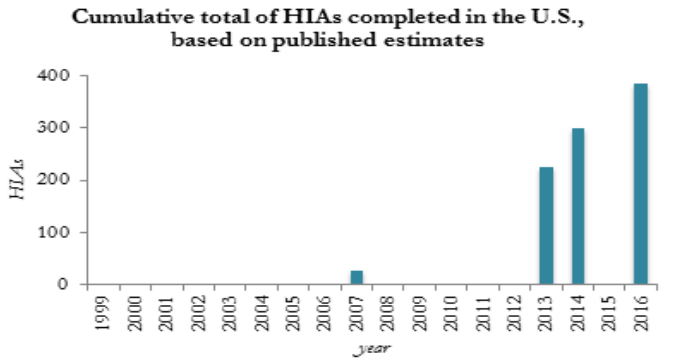
This analysis reveals gains in health equity resulting from all types of HIAs and engagement strategies. We argue that in addition to the empowerment of affected groups that occur through direct participation, social learning (Bandura, 1977) is a mechanism for advancing health equity through the moral development of the participating stakeholders. Additionally, we found that HIAs which employed direct participation and benefited from vibrant leadership by community organizations did not necessarily realize HIA's health equity goals. Just as analytical strategies vary given different purposes, engagement strategies vary depending on the goals of an HIA. We argue that overly rigid definitions of participation elide the contributions made by HIAs that take a different form than the archetypal community-led HIA. This elision is problematic given the institutional infrastructure that can be built through more technocratic decision-support HIAs and the relative dearth of truly community-led HIAs. We propose eschewing a singular "optimal" participation paradigm as a way to both acknowledge the potential of all types of HIA to contribute to health-supporting policy and to maintain the idealistic frame for HIA to advance health equity.

Introduction

Given the flexibility of the HIA technique and the rapid growth in its application in the US (see Figure 1), the practice community is in a dynamic phase of establishing standards and norms. A significant area of concern for many HIA practitioners is the importance of stakeholder participation for fostering health equity, defined as "attainment of the highest level of health for all people" in the federal government's Healthy People 2020 benchmarking program (Office of Disease Prevention and Health Promotion, n.d.). Public health practitioners adopting HIA in an effort to influence policy and programs in the US have cited the values of the Gothenburg Consensus (European Centre for Health Policy, 1999) – democracy, equity, sustainable development, ethical use of evidence, and a comprehensive approach to health – as guiding principles. Yet there has been little critical evaluation of whether HIAs routinely support democracy, which is defined in the Gothenburg document as "the right of people to participate in a transparent process for the

formulation, implementation, and evaluation of policies that affect their life, both directly and through the elected political decision makers."

Figure 1. Since the completion of the first US HIA by the San Francisco Department of Public Health in 1999, the use of HIA has rapidly increased.



Sources: Bourcier, Charbonneau, Cahill, & Dannenberg (2015); Health Impact Project (2016); Rhodus, Fulk, Autrey, O'Shea, & Roth (2013).

The practical challenges of engaging stakeholders (the time and resources necessary to build trust and capacity) coexist with aspirational notions of social change through direct participation; yet the choice of engagement strategies in a given HIA are often driven by expediency (Heller, Malekafzali, Todman, & Wier, 2013) and resource limitations. In reality, many HIAs use engagement strategies that follow a stakeholder engagement paradigm – inviting diverse interests to deliberate together – rather than direct participation that "centers the margins" by foregrounding the experience and leadership of directly affected and historically marginalized groups. So while the value of democracy explicitly adopted by HIA practitioners has generally been interpreted to mean facilitating engagement in decision-making through direct participation of affected parties (Baker et al., 2012; Kemm, 2005), the US experience to date does not provide clear evidence this relationship is operational (Iroz-Elardo, 2014a).

We aim to enrich the conversation about democracy and equity by exploring participation (i.e., how HIA practitioners operationalize democracy) and health equity impacts of HIAs in the context of the relatively diverse practice on the west coast of the US. Our analysis shows the dominance of a stakeholder engagement paradigm for participation despite a wide range of engagement strategies (i.e., ways of participating). Further, we demonstrate that HIAs which entail little direct participation are still able to foster social learning (Bandura, 1977) – the generation of new knowledge through intergroup interaction - that directly contribute to advancing health equity through moral development and improved policy decisions. Consequently, we argue that the emphasis on direct participation may be unnecessary to, and may even in some cases detract from, realizing other HIA values such as equity. Applying these perspectives to HIA practice, we suggest that practitioners expand our conception of pathways to equity and more clearly articulate our visions for advancing health equity, given the diversity of participation paradigms and engagement strategies employed in the field.

Background

Concern for health equity is a distinguishing characteristic of HIA (Harris-Roxas & Harris, 2011) and the connection between democracy and equity comes from the notion, as articulated by the World Health Organization (n.d.), that "to be effective and sustainable, interventions that aim to redress inequities must typically go beyond remedying a particular health inequality and also help empower the group in question." Current Adopted Minimum Elements for HIA (Bhatia et al., 2014) also establish that HIAs should involve and engage "stakeholders affected by the proposal, particularly vulnerable populations." This operationalizes the value of democracy and shows how HIA anticipates a higher level of participation than generally occurs under the environmental impact assessment (EIA) procedures conducted under the U.S. federal National Environmental Protection Act (NEPA).[1]

Many leading US HIA practitioners (e.g., Heller et al., 2013) interpret the equity value as a call to use the HIA process to empower historically disadvantaged populations through the decision-making process, as mapped in Figure 2. This interpretation suggests that HIAs should privilege participatory strategies that shift power to citizens most likely to be affected by the target decision, lifting up voices that have not been heard in previous decades of decision-making.

Figure 2: Presumed pathway from participation to health equity

Participation, which is generally understood as the mechanics or expression of democracy, is universally seen as desirable but can be difficult to define (Glucker, Driessen, Kolhoff, & Runhaar, 2013; Mahoney, Potter, & Marsh, 2007).[2] *Engagement strategies* is a term for the techniques used by a facilitator (in this case, the HIA practitioner) to solicit information from participants. Some engagement strategies provide more power and control over the analytical process than others; thus the engagement strategies shape the type of participation – or democracy – that occurs within an HIA. Accordingly, we use the term participat*ion* to signify

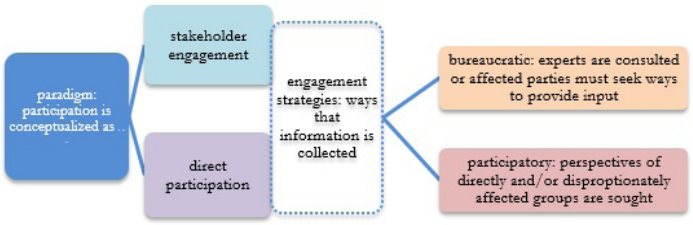
[1] While NEPA's implementation varies across federal agencies, public input generally comes in the form of comments submitted to and then rebutted by the federal agency (or their consultants).

[2] Glucker et al. (2013) discuss the challenges of defining participation within EIA while Mahoney et al (2007) suggest the lack of rigor and clarity in defining "community participation" is a significant barrier to understanding its appropriate role in HIA.

general involvement in an HIA and participat*ory* to describe the use of engagement strategies that provide more direct roles for and control by affected community members, such as collecting data and making decisions.

We distinguish two paradigms for participation: direct participation and stakeholder engagement. Where possible, these terms are qualified with descriptors that signify *who* is participating. For example, we distinguish between a *directly affected community* (understood as a smaller subset of people, often members of socially marginalized groups, who stand to bear the likely negative impacts of a decision) and *stakeholders* more generally, which would include the directly affected community alongside other parties with a vested interest in the outcome (e.g., businesses, landowners, neighboring communities) (Kahane, Loptson, Herriman, & Hardy, 2013). Depending on the type of engagement strategies used, participation can be bureaucratic (e.g., commenting on administrative documents) or participatory (e.g., conducting the assessment and interpreting the results). These distinctions are illustrated by the schematic in Figure 3.

Figure 3: Conceptual framework



Relationships among participation, democracy, and equity

At least four rationales for citizen participation are found within scholarly literature. First, philosophers argue that citizen participation is intrinsically valuable because it develops human capacity (à la Aristotle) and forces individuals to be socially responsible for the collective well-being (per Rousseau and Mill) (Day, 1997). Another argument is that citizen participation in public decisions develops a more responsive government because citizen needs are more likely to be articulated well and early; urban planning theorists suggest that such participation is more likely to accurately identify the public interest and minimize implementation delays (Day, 1997). Others view participation as a means for those without power to exercise strength and change the social order (Arnstein, 1969/2005). Specific to impact assessment, Glucker and colleagues (2013) suggest that the various rationales classify participation as *normativ*ely desirable, *substantive* in terms of gathering information, or *instrumental* in reducing conflict or generating legitimacy.

The prevailing consensus in contemporary urban planning theory (Forester, 1999; Healey, 1996/2003; Innes & Booher, 2010) points toward collaborative, deliberative participation processes – i.e., stakeholder engagement – as the way to pursue these rationales. This consensus has arisen as a result of the "communicative turn" in planning, which is based on the idea that participation should incorporate direct identification of interests "under conditions of rational deliberation and choice (Connolly) . . . [and] relative personal autonomy (Lukes)" – a decidedly more social approach to participation (Taylor, 1998, p. 68). Yet in HIA practice, democracy has generally been understood to suggest direct participation, reflecting the normative value within public health that views community engagement, organizing, and empowerment as essential in promoting individual and community health (Kemm, 2013).

In the context of HIA, equity is generally understood to mean reducing health inequities, or disparate and avoidable health burdens among social groups. In the US, these groupings are often based on racialized categories and socioeconomic status. Mechanisms for reducing health inequities include preventing the implementation of policies that will produce disparate burdens (Minkler, Wallerstein, & Wilson, 2008) as well as broader deliberation over "social constructionist or structuralist" understandings of health inequity through the HIA process (Harris-Roxas et al., 2012).

Operating practices in U.S. HIA

Consequently, direct participation and participatory engagement strategies are highly prized in US HIA practice. For example, a recent white paper by prominent innovators in the field (Heller et al., 2013) outlines eight principles for promoting equity in HIA practice, the first two of which emphasize direct participation and participatory engagement strategies (see Table 1). The operating assumption seems to be that adherence to democracy necessitates direct participation, which leads to empowerment of members of the most affected community, which in turn leads to equity gains when these empowered community members pursue their interests in the policy arena (as diagrammed in Figure 2).

Table 1: Strategies for promoting equity in HIA (from Heller et al., 2013)

A. Ensure community leadership, ownership, oversight, and participation early and throughout an HIA
B. Support authentic participation of vulnerable populations in the decision-making process
C. Target the practice of HIA towards proposals that are identified by, or relevant to, vulnerable populations
D. Ensure that a central goal of the HIA is to identify and understand the health implications for populations most vulnerable
E. Ensure the HIA assesses the distribution of health impacts across populations wherever data are available
F. Identify recommendations that yield an equitable distribution of health benefits
G. Ensure that findings and recommendations of the HIA are well communicated to vulnerable populations most likely to be impacted
H. Ensure that the actual impacts of the decision are monitored

However, just as different types of HIAs are appropriate to different decision-making contexts, certain participation paradigms and engagement strategies may align with different HIA types. Harris-Roxas and Harris' (2011) typology of HIAs is especially valuable as we interrogate the role of participation in realizing HIA values. They argue that engagement strategies generally match the purpose of the HIA, as summarized in Table 2.

Table 2: HIA typology and typical participation format

HIA type	Purpose	Participation
Mandated	meet statutory requirement	limited - consultants may do outreach
Voluntary decision-support	minimize health harms and maximize health benefits	stakeholder engagement, generally with bureaucratic engagement strategies
Advocacy	promote group values to decision-making body	direct participation, often with bureaucratic engagement strategies
Community-led	increase community power through participating in an HIA that bring health concerns into a decision-making process	direct participation, with participatory engagement strategies

A rigid interpretation of their typology might suggest that it is difficult to achieve health equity through less participatory HIAs. Further, the extent of deliberation and/or stakeholder power and control in HIA practice overall are unclear (UCLA School of Public Health, 2014), particularly since these aspects of the process are not always well documented in HIA reports. For example, only a small proportion of HIAs – 18.5 percent in a recent study by the U.S. Environmental Protection Agency (Rhodus, Fulk, Autrey, O'Shea, & Roth, 2013) – robustly engage stakeholders through an advisory committee. Further, the same study also found that only one-quarter of stakeholder advisory committees "actually oversaw or guided the HIA process and were engaged as decision-makers in equal partnership with the HIA team or as the primary decision-makers" (Rhodus et al., 2013).

One potential explanation for the shortcomings in direct participation in US HIAs is that participatory processes are difficult to sustain. Stakeholder engagement has become the alternative to direct participation in the urban planning world because it ostensibly is efficient at surfacing a variety interests with minimal resources invested. While advisory committees may be considered "second-best" to direct ownership of an assessment or decision-making process, they are a pragmatic and heavily used engagement strategy. Thus, understanding their capacity to further health equity is critical for advancing HIA practice.

Methods/approach

This paper analyzes 12 recent HIAs from the US west coast in terms of HIA purpose, participation paradigm, engagement strategies, and health equity outcomes. We use this diverse, geographically bounded subset to elucidate how the participation paradigm of a given HIA affects its contributions to health equity, with the purpose of informing the challenging and resource-intensive fulfillment of HIA's democracy value. This analysis extends Iroz-Elardo's (2014b) study of three[3] comprehensive HIAs that varied in general nature, specific objectives and goals, and scale of the project. In the present paper, those cases are augmented by three comprehensive HIAs completed by Oregon Health Authority (OHA) and five rapid HIAs conducted in Oregon by county health departments with OHA pass-through funding from the Centers for Disease Control and Prevention. The comprehensive OHA HIAs related to climate planning; the first author was the technical lead for two (Iroz-Elardo, Hamberg, Main, Early-Alberts, & Douglas, 2014; Iroz-Elardo, Hamberg, Main, Haggerty et al., 2014). The rapid HIAs addressed a variety of locally identified issues.

For each case, we identified HIA type, participation paradigm, and engagement strategies. We analyzed how democracy and equity were understood by the project participants – as represented in project documents and our personal knowledge of the HIA. We also interviewed a former HIA Program Coordinator at Oregon Health Authority on two different occasions, asking her to discuss the 15 different HIAs (five of which are mentioned below) that were initiated at the county level between 2009-2015. For this paper, we paid particular attention to including discrepant cases, or situations where the HIA produced unexpected results, following the qualitative research tradition (Maxwell, 2005) that seeks to explicate phenomena through exploring perceived outliers. An overview of the study cases is presented in Table 3.

This sample represents a wide breadth of participation paradigms and engagement strategies as well as a large proportion of HIAs completed on the US west coast, where the presence of early adopters and training patterns resulted in a spatially clustered and regionally distinct HIA practice. We selected only cases with which we had sufficient information to comment on the analytical processes that are not always captured in HIA reports. The sample includes no fully community-led HIAs, as we are not aware of any such projects taking place during our study period. Our interpretation of the data occurs through the lens of our personal experiences in many different roles within the professional community we are discussing. For the past five years or so, both authors have been active participants in the HIA community – within Portland, Oregon, as well as at the regional and national levels. The first author of this paper conducted dissertation research on HIA (Iroz-Elardo, 2014a, 2014b), teaches graduate-level HIA courses,

[3] One of the three in-depth HIA evaluations looked at a two-part project, presented as two HIAs in the table accompanying this article.

and is an HIA practitioner. The second author developed a graduate-level HIA course and worked for five years as an HIA analyst at a large urban health department where she collaborated on HIAs and other "HIA-inspired" analyses (Clapp & McGrath, 2012; McGrath, Clapp, Maher, Oxman, & Manhas, 2013; McGrath & Lyons-Eubanks, 2011; White & McGrath, 2012). Both have served on steering committees, planning committees, and workgroups for the Northwest Regional HIA Network, HIA of the Americas, and Society of Practitioners of Health Impact Assessment. These experiences both enrich and bias our interpretation of the information presented in this paper.

Table 3: Overview of cases

Project	Lead organization	HIA type	Participation paradigm	Engagement strategies
Clark County Bike/Ped Plan HIAs	Clark County Public Health (WA)			
Rapid HIA: Clark County Bicycle and Pedestrian Master Plan (Haggerty, 2010)		Decision-support	None	None
Comprehensive HIA: Clark County Bicycle and Pedestrian Master Plan (Haggerty, et al., 2010)		Decision-support	Stakeholder engagement	Consulted existing target plan's advisory group
Climate HIAs	Oregon Health Authority			
Climate Smart Communities Scenarios (Green, et al., 2013)		Decision-support	Stakeholder engagement	Several large (37-person) meetings
Community Climate Choices (Iroz-Elardo, Hamberg, Main, Early-Alberts, et al., 2014)		Decision-support	Stakeholder engagement	Several large meetings augmented by small topic meetings
Climate Smart Strategy (Iroz-Elardo, Hamberg, Main, Haggerty, et al., 2014)		Decision-support	Stakeholder engagement	Several large meetings augmented by small topic meetings
County HIAs – funded by Oregon Health Authority				
Augusta Lane Bike-Pedestrian Bridge (Washington County Public Health Division, 2014)	Washington County	Decision-support	Stakeholder engagement with selected direct participation activities	Public meetings, partnering with culturally-specific organizations
Barrett Park (Mejia, 2011)	Hood River County	Decision-support	Stakeholder engagement	Public meetings, partnering with culturally-specific organizations
Tumalo Community Plan (Madrigal & Wells, 2010)	Deschutes County	Decision-support	Stakeholder engagement	Informal outreach to stakeholders
McLoughlin Blvd. Road Safety Audit (White & Thorstenson, 2014)	Clackamas County/ Oregon Public Health Institute	Decision-support	Stakeholder engagement	Informal outreach to stakeholders including joint data collection
Housing Supply Upgrade Initiative (Klinefelter, 2013)	Curry County	Decision-support	Stakeholder engagement with selected direct participation activities	Consulted advisory group created for different purposes, conducted interviews with directly affected community
I-710 Corridor (Human Impact Partners, 2011)	Human Impact Partners	Mandated	Stakeholder engagement	External technical experts on advisory committee; HIA author not in control of advisory committee composition
Lake Merritt BART Station Area Plan (Harris, Purciel-Hill, Gilhuly, & Babka, 2012)	Human Impact Partners	Advocacy	Stakeholder engagement with strong leadership by directly affected populations	Participatory in that CBO controlled most aspects of HIA

Cases

Overall, we found that the participatory nature, robust community outreach, and significant community control seen in some early HIAs (e.g., the Eastern Neighborhoods Community HIA in San Francisco, as discussed in Corburn, 2009) is an exception rather than a rule. As illustrated in the vignettes below, the HIAs provided limited opportunities for citizens to directly participate in the assessments or target decisions, and in only one HIA did community representatives control the scope and content of the HIA. Engagement strategies varied widely, including: a community-led advisory committee that had control over nearly every decision in the HIA (Lake Merritt); consulting stakeholder groups established as part of the targeted planning decisions rather than creation of their own advisory committee (Clark County, Curry County); a highly technical stakeholder advisory committee of which the HIA facilitator had little control (I-710 Corridor); and ad hoc informal outreach (multiple county health department HIAs). A small number of HIAs engaged non-English speaking communities directly, using a public meeting format and partnering with other organizations well positioned to engage such communities (Washington and Hood River counties), and one HIA used interviews with residents to collect data (Curry County). We present these cases below, in the groupings described above, discussing relationships between participation and health equity.

Clark County, Washington Bicycle-Pedestrian HIAs

In early 2009 in response to a state mandate, Clark County, Washington initiated an update of its Bicycle and Pedestrian Master Plan governing unincorporated areas (Clark County Community Planning, 2010). Planning in this quickly suburbanizing community is challenging due to relatively conservative social ideology combined with large geographic gaps in municipal services. Clark County planners were pleased to partner with Clark County Public Health in support of the Bike-Ped Plan in 2010. Public Health professionals first performed a rapid HIA (Haggerty, 2010) to provide input on the concept plan; this was followed by a full HIA with more detailed analysis of impacts and greater stakeholder input (Haggerty, Melnick, Hyde, & Lebowsky, 2010). While this HIA did not maintain a separate community or stakeholder engagement strategy, it *was* able to influence the stakeholder engagement process of the larger plan, primarily through the technical contributions of the HIA's lead author, who used his knowledge of the active transportation literature to advocate for the equity advances.

The rapid HIA was produced on a short timeline with no input from potentially affected parties. However, the document was shared with Clark County planning staff and the plan's Bike-Ped Advisory Committee – the membership of which was split between government bureaucrats and "self-selected and old-school, mainly male, Caucasian, older" residents who initially focused on recreational cycling. The rapid HIA sparked a social learning (Bandura, 1977) process, where the Bike-Ped Advisory Committee and county planning staff showed increased awareness of how the general public experienced active transportation and the health equity implications of bike and pedestrian infrastructure. These perspectives were integrated into the comprehensive HIA. Comparison of the final Plan with the preliminary Plan shows broader consideration of all road and path users (e.g., utilitarian cyclists and pedestrians, groups more likely to be living in poverty, recent immigrants, children and older adults, and people with disabilities).

The final Plan prioritized access to health-supporting resources such as healthy food and addressed concerns about dangers to children using active transportation by emphasizing the health benefits. The most tangible evidence of HIA effectiveness was the incorporation of 20 public health points in a 100-point scoring criteria used to select locations to add sidewalks. The points system identified areas were walking rates could be increased and where amenities would benefit residents of lower socioeconomic status.

Oregon Health Authority Climate HIAs

The climate HIAs conducted by the Oregon Health Authority (OHA) were a suite of decision-support HIAs completed as part of a climate planning process convened by Metro – Portland, Oregon's metropolitan planning organization. A response to a state legislative mandate, the HIAs were named the Climate Smart Communities Scenarios HIA (April 2013), the Community Climate Choices HIA (March 2014), and the Climate Smart Strategy HIA (September 2014). To account for social co-benefits of climate action planning, the HIAs used the quantitative Integrated Transport Health Impact Model (Centre for Diet and Activity Research, 2013) to analyze pathways between transportation and health impacts. The model was refined with the input of a 37-person stakeholder advisory committee made up largely of public employees, supplemented with a few academics, a couple of HIA practitioners from the local non-profit sector, and several elected officials from the region; notably, there was no direct community representation. An OHA HIA Program staff member convened the committee, on average, twice per HIA – generally for scoping and to review the results of the analysis. Topic-specific subcommittees met for work sessions on a few occasions, a handful of advisory members served as peer reviewers of HIA report drafts, and all committee members evaluated the HIA process and the report recommendations via online surveys.

The work sessions – which arose when some stakeholders had serious reservations about the analytical strategy – created a venue for social learning. Largely attended by a subset of members most interested in the topic at hand, these meetings brought together members from different agencies and sectors. This helped improve understanding of various agencies' needs and responsibilities as well as different stakeholders' health equity concerns, fostering intersectoral understanding through interpersonal interaction. These

conversations and relationships proved transformative for some; for example, an agency staffer reported a transition within her agency in thinking about how health intersects with their regulatory approach to air quality. These fledgling relationships led to the formation of the Transportation and Health Subcommittee of the Oregon Modeling Steering Committee, institutionalizing consideration of environmental justice and health equity by the state's transportation modeling community.

Oregon Health Authority HIA Program-funded HIAs – "county HIAs"

Starting in 2009, the Oregon Health Authority's Public Health Division provided mini-grants[4] to county health departments in an effort to increase local HIA capacity; fifteen rapid HIAs in eleven different counties were completed. Because local governments author them and public employees cannot engage in political advocacy, these HIAs were by necessity decision-support HIAs. The small dollar value of the grants ($10,000-15,000) also limited the extent of possible engagement strategies. However, OHA required that grantees invite stakeholders to scoping training sessions and encouraged ongoing involvement through the assessment and recommendation stage. Most grantees chose a stakeholder engagement paradigm and used bureaucratic engagement strategies – literally inviting representatives of government bureaus to comment on their work. For example, the McLoughlin Blvd. Road Safety Audit HIA (White & Thorstenson, 2014) convened representatives of public health, planning, state and local departments of transportation, and a neighborhood organization. They then added a one-day evaluation of social determinants of health metrics to a traditional road safety audit (Federal Highway Administration, n.d.) along the roadway corridor. In Curry County, the health department took the approach of Clark County, WA (above) and worked closely in parallel with an Oregon Solutions[5] project that was engaging local, state (Oregon Housing), and federal (HUD) stakeholders and decision-makers.

Other counties recognized a need for direct participation by citizens who might be affected by the local decisions. For example, Deschutes County asked citizens in a public meeting for the Tumalo Community Plan to draw what a healthy, happy community would look like. This information led to an HIA that focused on "sense of place" in addition to physical activity and traffic safety in the rural context. Counties that directly engaged members of vulnerable populations conducted limited, but effective, outreach by partnering closely with community-based organization, particularly when trying to reach linguistically isolated populations. For example, leaders of Hood River County's Barrett Park HIA subcontracted with a Latino-focused organization to host listening sessions associated with their HIA. Similarly, the Center for Intercultural Organizing helped to engage the geographic community most affected by the proposed Augusta Lane Bridge in Washington County.

These strategies led to HIAs that produced health equity benefits by advancing the needs of vulnerable populations. For example, Washington County's targeted public meetings helped the HIA authors advocate for the Augusta Lane Bridge, with its the obvious health benefits of connecting a spatially isolated area to health-promoting resources such as an elementary school, two transit lines, and a green space in the face of concerns about interpersonal safety for children walking to school.

The Curry County HIA (Klinefelter, 2013), which addressed state funding rules about repair and replacement of manufactured housing, eschewed an advisory committee in favor of small contracts with one topic area expert and one HIA expert. The HIA author also worked closely with housing inspectors to gain entrance to sub-standard housing units, where she was able to interview residents and observe housing environments.

Interstate 710 Corridor expansion

In California, the I-710 Corridor HIA was initiated with significant support from a coalition of local, community-based, environmental justice organizations. Approximately 40 percent of US imports travel this highway, which connects the ports of Long Beach and Los Angeles to the greater Los Angeles region. A proposed expansion would increase the freeway from eight to up to 14 lanes. The coalition successfully lobbied the California Department of Transportation (Caltrans) for an HIA to be integrated into the environmental impact assessment (EIR) process.

Though the HIA was community-initiated, the scale of the planning process and the politics and funding structure of the EIR resulted in the HIA being produced with very little input from affected communities. Additionally, the HIA report was unavailable for many months, and then was only released as a "work-product" separate from the Draft Environmental Impact Review (DEIR) report. This tactic by expansion advocates prevented the HIA from obtaining the same legally binding status as EIR documents produced under state and federal statute. Even though area residents had limited involvement while the HIA was being written, the report still reflects residents' concerns; the scope addressed health concerns beyond typical EIR pathways of air pollution and noise. HIA findings appear prominently in public comments, suggesting that area residents and advocacy organizations have found the report to be a useful tool to advocate for health equity despite the publication delays. Further, the Coalition for Environmental Health and Justice used the HIA to bolster their legal assertion that the DEIR

[4] Funded by the Centers for Disease Control and Prevention's National Center for Environmental Health Community Design Initiative.

[5] Oregon Solutions (http://orsolutions.org) is a statewide program that offers facilitation services to convene multiparty problem-solving collaboratives addressing complex sustainability issues.

is inadequate. The EPA also cited the HIA as a factor in their recommendation that Caltrans reject the DEIR/EIS. As a result, Caltrans has instructed that the plan and DEIR be reworked to incorporate elements of a community-defined alternative plan.

Lake Merritt BART

The Lake Merritt HIA was initiated and controlled by six allied advocacy organizations highly committed to social justice in the Oakland Chinatown community. The case, an exemplar of advocacy HIA practice, illustrates how a robust stakeholder advisory committee with complete control over HIA decisions can pursue community interests, even in a planning process where significant competing cultural and economic interests were present. This case also illustrates how social learning can happen with small advisory committees from diverse advocacy backgrounds.

The scoping phase of the HIA took much longer than expected or budgeted because each organization was accustomed to advocating for social justice in vastly different arenas: housing, health services, policy work, transportation, and environmental justice. The group identified health equity as an expression of social justice, a shared value, and used the social determinants of health as a common language to understand each other's interests. Some stakeholders expressed dismay that the HIA did not facilitate more data collection or community organizing yet the final HIA makes a clear case for protecting the current community's concerns, protecting open space, and adopting affordable housing strategies to prevent gentrification.

Discussion

The state of HIA practice on the US west coast shows that direct participation does not have a one-to-one relationship with health equity and that stakeholder engagement can lead to health equity gains through social learning. As illustrated in the cases above, we found that different types of HIAs advanced health equity despite variation in participation paradigms and engagement strategies. Our three main findings about the current state of democracy and equity in this practice are:

- Stakeholder engagement predominates as a participation paradigm, and community-led or -initiated HIAs are few; direct community participation does not automatically lead to empowerment and equity.
- Stakeholder engagement and technical decision-making by public health professionals can be successful in advancing health equity.
- Equity advances can be achieved through social learning that identifies ways to narrow gaps in health-supporting resources among population groups.

Taken together, these findings suggest an expanded view of pathways between participation and equity in HIA.

Revisiting direct participation

Despite HIA practitioners' widespread desire to use participatory methods to directly engage and empower citizens in vulnerable communities, it is difficult to find such strategies in broad use in HIA practice. HIAs, particularly those initiated and/or authored by government agencies, generally adopt a stakeholder participation paradigm with some variation in engagement strategies. Despite the lack of direct participation and participatory engagement strategies, these decision-supported HIAs show evidence of gains in health equity. It appears that social learning fostered by multi-party collaboration assists bureaucratic decision-making which supports narrowing health disparities.

A major strength of HIA is its capacity to assemble and frame a broad array of perspectives on health; yet the mechanics of participation in the HIA process are challenged by the very diversity of knowledge, data, interests, and languages held by various stakeholders (Glucker et al., 2013). Finding common ground between these stakeholders can be generally difficult to impossible (Negev, 2012). However, HIA stakeholder advisory committees of all sizes are potentially democratizing in a number of ways: identifying new health-related information; providing an additional participation opportunity for community representatives to engage the process; supporting the growth of interdisciplinary relationships; and influencing public decisions (Negev, 2012).

While many HIAs encourage social learning, the I-710 Corridor HIA is a very interesting example where empowerment and even social learning were *prevented* in the HIA process, despite the strenuous advocacy for the HIA by seasoned local activists. While community groups whose constituencies would be affected by the port expansion successfully advocated for an HIA with the I-710 Project Committee, that same committee delegated the completion of the HIA to another governing body under a completely separate plan. This was done to save resources. However, the shift of oversight resulted in a loss of control and became a barrier to community input.

For example, the contrast between the Lake Merritt and I-710 cases demonstrate the variety of outcomes that may result from HIAs that strive for direct participation. The Lake Merritt BART HIA clearly shows that community representatives – distinct from members of the general public – can control the HIA via an advisory committee, leading to a community-centered report and recommendations. Yet the I-710 case – an HIA requested by activist citizens and community representatives, but then carried out in large part divorced from those who requested it – suggests that initial community control of the HIA process does not neatly equate to empowerment or health equity. The decision-support HIAs show that stakeholder engagement can support health equity even in the case of limited use of participatory engagement strategies. Consistent with greater planning

theory, stakeholder engagement in HIA elevates the importance of health in policy decisions as a result of deliberation among stakeholders.

Less dramatic examples of this phenomenon include the Hood River and Washington County HIAs. In Hood River County, engaging the Latino community was a response to professional knowledge that Latinos had the least park access in the region. The engagement helped ground the HIA in community concerns. It also offered a population, many undocumented with few official rights to democracy in the US, a way to participate in public decisions. However, engaging the Latino community did not result in a power shift; the community did not control the HIA analysis. A similar assessment can be made of Washington County's direct engagement of citizens who live near the proposed Augusta Lane Bridge. This suggests direct engagement in the form of one or two public meetings dovetails with a broader stakeholder engagement paradigm in HIA by providing additional information to HIA authors. However, public meetings are not enough to shift control of the HIA, much less the target plan, to the community.

Bureaucratic decision-making can contribute to health equity

Finally, HIAs can foster health equity by expanding the issues considered in the decision. Use of a broad, comprehensive definition of determinants of health expanded the interests considered in the Clark County Bike-Ped and McLoughlin Road Safety cases. HIA can be used to more fully understand plans and policies with multiple and often inadvertent disparate impacts. For example, in Curry County, Oregon, housing policies were preventing low-wealth households from improving their housing due to restrictions placed on financing manufactured housing; the HIA advocated for a more healthy approach to managing this important contribution of affordable housing stock in the region. Many of the health equity gains from HIAs can be linked to the role that professional knowledge and discretion of HIA practitioners played in pursuing equitable impacts. The six-step process and core values of HIA explicitly require analysis of the disproportionately impacted populations and vulnerable populations. This prompts HIA practitioners to actively seek information that will elucidate potential disparate even if there is no opportunity to collect new primary data about the affected populations. As professionals, individual actors can articulate health equity concerns through spatial analysis, focus on vulnerable populations, and use the social determinants of health to expand the concerns considered under the target plan.

Social learning creates pathways to health equity

While intersectoral collaboration has long been viewed as a benefit of HIA (Corburn & Bhatia, 2007), our analysis of participation connects this collaboration more directly to health equity by theorizing that social learning provides the pathway for achieving equity. The value of social learning, understood as a process of "cognitive enhancement" and "moral development" (Bandura, 1977) has long been recognized by theorists of negotiation and urban planning (Forester, 1999; Healey, 1996/2003; Innes & Booher, 2010), and social learning has been a documented outcome of engagement strategies in impact assessment projects (Webler, Kastenholz, & Renn, 1995).

The present findings demonstrate that cognitive enhancement – learning about the problem and solutions from both your own and other's perspectives – occurs across HIAs with a broad range of participation methods and strategies. Under the stakeholder engagement paradigm, interdisciplinary learning occurs as members of cities or regions health and planning departments serve on an advisory committee and realize the complementary skill sets of their departments. In the Bike-Ped Plan HIA, public health was able to articulate why urban planners should consider and include access to health-promoting resources within an active transportation plan. As an example from an advocacy HIA, cognitive enhancement occurred in the Lake Merritt HIA when the six community-based organization representatives extended the scoping phase to better understand how their individual advocacy positions fit with the HIA. In the McLoughlin Road Safety HIA, discussion of social determinants of health allowed public health professionals to explain to transportation engineers why an engineering solution did not fully protect, much less maximize, health.

While cognitive enhancement results in better understanding of a problem, moral development is the process of moving toward a more collective approach to problem-solving by setting aside one's narrow personal (or agency) interests. The OHA climate HIA illustrate moral development as sister agencies (Oregon Health Authority and the Oregon Department of Environmental Quality, or DEQ) moved from initial antipathy to shared understanding; OHA's choice of transportation-related air pollution indicators shifted how the DEQ conceptualized the health consequences of airborne particulate matter.

Conclusion

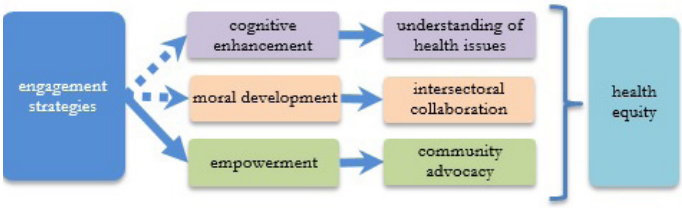
The HIA community's avowal of equity as a guiding value has led to calls for HIA to empower historically disadvantaged populations through participation in public decision-making. When interpreted narrowly, this conception suggests that the ideal HIA is one where disenfranchised citizens initiate and control an HIA in order to articulate and advance community health interests, thereby increasing health equity. However, a growing body of evidence shows that HIA in the US may not be as participatory or empowering as some practitioners wish it might be. At the same time, the evidence presented here suggests that direct participation may not be the only route to realize the democracy and equity in HIA.

While some articulations of equity in HIA (Heller et al., 2013) may view less participatory engagement strategies as undercutting community power, our findings are

consonant with broader literature on public engagement. For example, Quick and Feldman (2011) distinguish *participation*, or increasing the input (or information) for the decision, as distinct from *inclusion,* which increases connections among people and issues. Thus engagement strategies can be highly participatory with many citizens providing information but do little to expand the ability of that community to engage each other or the decision. This distinction is important to HIA practice because poor or misleading participation and engagement quickly becomes tokenism (Arnstein, 1969/2005) and may actually harm the very communities the project hopes to engage (Quick & Feldman, 2011).

In this way, HIA practice today seems reminiscent of the era of advocacy planning (Davidoff, 1965/2003) equity planning (Krumholz & Forester, 1990) in US cities through the 1960s and 1970s. Just as advocate planners provided technical assistance to groups who had been excluded from the "rational planning" process and had little capacity to shift power relations, HIA practitioners can provide technical information about determinants of health. This information can be incorporated into the dominant decision-making processes and turned over to affected communities to do their own advocacy, creating multiple pathways to promote health equity, as represented in the schematic in Figure 4.

Figure 4: Democracy is realized through new pathways between participation and equity



However, scholars of urban planning and social change have struggled to understand the complexity of these relationships between state agencies, citizen empowerment, and equity. Both advocacy and equity planning have been criticized as mechanisms for placating the aggrieved and diverting precious energy of communities with limited resources, thereby abetting the status quo (Piven, 1970). Avoiding this type of cooptation of HIA practice require that practitioners articulate participation norms in ways that are more concrete than a blanket preference for direct participation. Piven's critique of participatory planning indeed suggests HIA practitioners be open to the idea that generating technical information to be used in advocacy by affected populations could provide benefits which would not occur in the same way through an extensive participatory process.

Just as analytical strategies within HIAs vary given different purposes, participation should vary depending on the goals of an HIA (Baker et al., 2012; Harris-Roxas & Harris, 2011). Overly rigid definitions of participation elide the contributions made by HIAs that take a different form than the archetypal community-led HIA. This elision is problematic given the institutional infrastructure that can be built through more technocratic decision-support HIAs.

We suggest that a more complete view of HIA practice incorporates both the value of direct participation along with the contributions of less participatory HIAs to foster health in all policies and health equity. That is, the democratizing elements of HIA are less about participatory data gathering or community control of the HIA and more about expanding the publics and health pathways considered in public decisions. We have illuminated multiple pathways to pursuing health equity and as a result propose that democracy in HIA practice be a pragmatic mix-and-match process of aligning goals, assessment methods, and participation in order to move toward the ultimate goal of health equity.

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ACKNOWLEDGEMENTS
The authors are grateful to Andrea Hamberg for generously sharing her time to discuss the history of the Oregon Health Authority HIA Program and to the anonymous reviewers for their critique.

Chronicles of Health Impact Assessment Vol. 1, No. 1 (2016) DOI: 10.18060/21351