

Health Impact Assessment for Improved Community Design: Continuing to Advance the Practice to Achieve Health & Equity in San Francisco

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I. PROJECT NARRATIVE

IA. Background

San Francisco (SF) is both a city and a county comprised of roughly 840,000 residents. With nearly 18,000 residents per square mile, San Francisco is the second densest city in the country and is the job and culture epicenter for the Bay Area. It is also home to ethnically and financially diverse populations and the highest income inequality in the state. Over the next 25 years, San Francisco is expected to build another 92,000 housing units and acquire 190,000 new jobs. With rapid growth in the technology sector locally, and skyrocketing housing prices, it is imperative that community planning and design efforts consider health and equity to ensure that all current and future residents benefit.

For the past ten years, San Francisco has been an incubator for health impact assessment (HIA) and collaborative, data-informed governance. This has partially been made possible because of San Francisco's unique government structure, where both the city and the county are one entity. Because there are not multiple planning departments and city councils within the county, this enables efficient and effective collaboration between the San Francisco Department of Public Health (SFDPH) and numerous city agencies. SFDPH has sought to create methods and provide technical assistance so that the experience and skills we have developed can be shared and utilized across the country and world. Since 2008, SFDPH has provided the country's most extensive, non-academic training course on HIA each summer, and has trained over 200 HIA practitioners. We have also developed novel tools, such as the San Francisco Indicator Project, an online community indicator system that can be used to conduct baseline conditions assessments for HIAs and generally track progress on healthy community design, which has been replicated in numerous other locales.

Between 2011 and 2014, SFDPH was the recipient of the CDC Health Impact Assessment to Foster Healthy Community Design Grant (CDC-RFA-EH11-1104). During those three years, SFDPH conducted HIAs on emerging topics, grew relationships, trained new HIA practitioners, and created HIA tools that can be shared and used by other practitioners. Among our accomplishments are: 1) a HIA screening matrix for candidate projects or policies, 2) a cost-benefit analysis framework for behavioral and engineering traffic safety investments, 3) new collaborative approaches to scoping and screening developed through our SRO Health Impact Assessment, 4) a model to predict pedestrian injuries at signalized intersections and an accompanying spatial and relational database that ensures its key inputs are kept up-to-date, and 5) 75 new HIA practitioners trained through our four-day HIA course in 2012 and 2013, with 30-50 more trainees anticipated during summer 2014.

IB. Approach

IB.1. Problem Statement

In San Francisco, there is still much work to be done to ensure healthy environments and healthier futures for the city's residents because distinct health inequities exist by both race and geography in the city. For example, African Americans have a mortality rate 1.8 times higher than white residents and 2.9 times higher than Asian residents. Individuals that live in the neighborhoods of Bayview and Downtown/Civic Center have preventable hospitalization rates that are four times higher than the residents who live in the Marina neighborhood. Likewise, there are numerous corridors in geographically concentrated areas of the city where residents are disproportionately being exposed to and injured by vehicle traffic.

To affect the long-term environmental changes needed to reduce these disparities, community design decisions that prioritize health and equity must be made in existing partnerships between SFPDPH the SF Planning Department and the SF Municipal Transportation Agency, and new relationships need to be formed with city agencies that play a critical role in the future design and planning of San Francisco, such as the Office of Economic and Workforce Development and the Office of the Controller. Inter-agency work on HIAs provides the collaborative opportunities to deepen and institutionalize these partnerships, address emerging issues, and to continue to develop cutting-edge HIA tools that support everyday health-informed land-use and transportation decision making locally and nationally.

With the implementation of the Affordable Care Act (ACA), SFPDPH has taken on a comprehensive strategic planning effort to seek accreditation. Our expertise with HIA provides a unique opportunity for us to ensure accountability to our strategic plan and ensure compliance with ACA. Through our strategic planning process we have set numerous goals for improvement of health outcomes, including pedestrian safety, air quality, and healthy eating and physical activity, and we hope to use HIA to assess the most efficient ways to achieve these goals. Recognizing that health is not the sole purview of health departments, SFPDPH has developed some collaborative relationships with other city agencies; however there is still much work to be done to build new collaborations and to institutionalize these relationships so that health considerations are incorporated into everyday policy decisions in San Francisco. Continued support of SFPDPH's HIA work will bring us closer to true institutionalization of HIA in San Francisco and will not only benefit the city, but serve as a model for local health departments, in particular those seeking accreditation and compliance with ACA. Funding from this project will specifically support our teams' capacity to conduct novel HIAs in partnership with agency and community stakeholders, to disseminate HIA findings locally and nationally, to have the resources to continue to be on the leading edge of developing spatial and analytic HIA tools to advance the practice, and to continue our national HIA training for the next generation of HIA practitioners.

IB.2. Purpose

The purpose of San Francisco's HIA project is to inform and support health-aware decision-making at all levels of government and to increase both local level capacity and internal

department capacity to utilize HIA. This will be done by using a multidisciplinary and collaborative approach to address health inequalities and demonstrate health as an intrinsic value in transportation, land use, and community design decisions.

IB.3. Outcomes

Our short-term, intermediate, and long-term project outcomes are illustrated in the attached logic model. San Francisco's HIA project will work with key stakeholders to inform, influence, and support decision-making and address health and equity impacts in diverse settings to achieve our intended outcomes, which include: increased understanding of and facility with HIA among HIA project partners and HIA trainees, new and stronger cross-sector collaboration with government and community partners working on transportation and healthy community design, consideration of health impacts in decision making processes, increased resources to sustain HIA and Health in All Policies (HiAP) work, and HIA tools and analysis methods that can serve as models for other HIA and HiAP practitioners.

IB.4. Strategies and Activities

San Francisco's HIA project will use a multi-pronged approach to implement its HIA program strategy. The strategy will focus on 1) continuing its leadership role in conducting HIAs, providing trainings and technical assistance and maintaining a website; 2) strengthening existing partnerships and collaborations and developing new ones to institutionalize HIA and to develop HIA tools; and 3) advancing and sharing our existing HIA practice and serving as a model for local health departments, including through our nationally attended four-day HIA training.

For year one, we have selected specific decision targets from three ongoing local public policy planning efforts that specifically target strategic planning goals conceptualized as part of our accreditation effort. These decision targets are supported by the strategic directions and priorities of the National Prevention Strategy, Community Guide, and CDC Winnable Battles. HIA analyses for the initial grant cycle will focus on specific strategy elements/decision alternatives within these contexts. Furthermore, each of these policy contexts includes existing processes for outreach and stakeholder communication which can be leveraged for HIA scoping and communication. Key regional, state and national partners that we will engage with for dissemination activities include the Bay Area Regional Health Inequities Initiative, California Department of Public Health, American Public Health Association, the Health Impact Project, National Association of County and City Health Officials, Transportation for America, and the Federal Highway Administration.

IB.4.a. Conducting HIAs

HIA #1 – Vision Zero: Zero Traffic Deaths in San Francisco by 2024

In March 2014, the San Francisco Board of Supervisors adopted a goal of zero traffic deaths on San Francisco streets by 2024. This goal, referred to as Vision Zero, has also been supported by the SF Municipal Transportation Agency and SF Police Department, with SFDPH already having pedestrian injury and fatality reduction goals as a part of its Strategic and Community Health Improvement Plans and recently adopted pedestrian safety as a headline indicator as part of

the accreditation effort. While near-term actions for Vision Zero focus on the completion of 24 engineering projects in 24 months and targeted education and enforcement initiatives, the ambitious zero deaths goal opens a policy window for the consideration of more comprehensive, larger scale, higher impact policy and planning measures to support safer transportation system conditions (e.g., automated enforcement which requires state legislation in California, road and parking pricing, vulnerable user laws, area-wide traffic calming, street closures, citation diversion programs, etc.).

The question of “*What will it take?*” to achieve Vision Zero is one that an HIA can help inform. Co-Principal Investigator Megan Wier Co-Chairs the Citywide Vision Zero Task Force with the SF Municipal Transportation Agency, and this body is in a unique position to screen a menu of potential policy strategies to achieve Vision Zero. The Task Force will support implementation of the HIA that will scope and assess the magnitude of impact of each strategy with respect to pedestrian, cyclist, and vehicle only injuries and deaths in a future scenario in San Francisco considering changes in population and transportation system factors. The HIA will also assess impacts on air quality, noise, active transportation, as well as equity impacts on vulnerable populations – e.g., seniors, low-income, or non-English speaking residents. The close collaboration between the HIA team and the Task Force will ensure that other co-benefits or factors are considered and documented as a part of the HIA.

Key partners for this work include the SF Municipal Transportation Agency and Walk San Francisco. In addition to a detailed methods report to share with the growing field of HIA practitioners, the key public product of this HIA will be a brief handout summarizing the policies and their impacts on traffic injuries by mode, other health effects, equity, and associated co-benefits. Findings will be reported to the Mayor, Board of Supervisors, Citywide Vision Zero Task Force, and other interested local, regional, state and national stakeholders. Findings from this HIA can inform the larger policy discussion of how to achieve Vision Zero, using an objective approach, health data and evidence, and considering equity.

HIA #2 – The Central Market Economic Strategy

The Tenderloin neighborhood in San Francisco is adjacent to and encompassed by the city’s Central Market area, a six block stretch of the city’s defining arterial. The Tenderloin is one of the most densely populated and impoverished neighborhoods in the country. The median income is only \$22,351 and nearly 25% of residents live below the federal poverty level. Forty-three percent of residents speak a language other than English at home and over 10% of residents live in overcrowded housing. Top concerns for this neighborhood include high violent crime rates and drug dealing; vacant storefronts; sidewalk cleanliness; homelessness; lack of access to affordable, healthy retail; lack of safe and clean public space; and pedestrian safety. While the Tenderloin has long been faced with challenges, there is currently significant momentum behind transforming the Tenderloin into a healthy, economically functional neighborhood that supports low income populations. Two entities that are key players in this work are the Mayor’s Office of Economic and Workforce Development (OEWD) Neighborhood Economic Development Division and Saint Francis Memorial Hospital. In 2011, OEWD with the Central Market Partnership Working Group published the Central Market Economic Strategy to

channel significant effort towards revitalizing the Tenderloin's Central Market Corridor. Many lessons were learned in the past three years and OEWD recently reconvened an Interagency Working Group to revise the Central Market Economic Strategy in response to changing needs of the neighborhood and the city due particularly to challenges and tensions of gentrification.

This new planning process dovetails with an effort led by Saint Francis Memorial Hospital and its Foundation, known as the Tenderloin Health Impact Partnership (TLHIP). TLHIP is using a collective impact approach to address the priorities identified by the Community Health Improvement Plan (CHIP): healthy and safe environments, healthy eating and physical activity, and access to health care. TLHIP is an example of a non-profit hospital going above and beyond the typical scope of health care, by taking a place-based, prevention oriented approach. Many of the priorities that are being considered are supported by review documents such as the Community Guide, including: alcohol outlet density and increasing spaces for physical activity and social connections.

These two entities have expressed interest in working with SFDPH to develop metrics and tools to inform where interventions should be implemented to maximize improved health and to track progress over time. The proposed HIA will screen a menu of potential program strategies to achieve healthy and safe environments, healthy eating and physical activity, and access to health care in the Tenderloin through a steering committee comprised of OEWD, St. Francis, and other identified governmental and community stakeholders. The HIA will scope and assess the magnitude of impact of each strategy with respect to crime rates, housing affordability, community connectedness, access to affordable and healthy retail, safe places to be active, and health care connections, considering changes in population and market pressures. The HIA will also assess differential impacts on vulnerable populations (e.g., children, seniors, low-income, immigrants, and those with mental or physical disabilities). The HIA will work with the steering committee to identify strategies that can maximize co-benefits, for example to understand how removal of parking can reduce drug crime and increase pedestrian safety. Key partners for this work include the OEWD, St. Francis, Police, Planning, and the Controller's Office.

This HIA will produce a novel interactive web tool that facilitates collective impact by mapping community vulnerabilities, assets, and areas of current or planned investment to support coordination for future strategy implementation and targeting of strategies. This tool will build off of SFDPH's work on the San Francisco Indicator Project and work by OEWD and the Controller's Office that tracks community investments. Findings and tools from the HIA will be utilized by OEWD to inform the Central Market Economic Strategy, and will be expanded to facilitate tracking of OEWD's citywide Invest in Neighborhoods Program. St. Francis will use the products of this HIA to inform funding and tracking for their TLHIP program. This HIA will address key questions about neighborhood investment in the context of improving quality of life while avoiding displacement of long-time residential and business tenants. A detailed methods report will be shared with the growing field of HIA practitioners, highlighting how this HIA capitalizes on the confluence of investment in the Central Market/Tenderloin area and allows us to advance existing interagency partnerships (such as with the Department of City Planning) and to forge new partnerships with OEWD, St. Francis, and the Controller's Office.

This work will also demonstrate how interagency collaboration with non-profit hospitals can support the objectives of the Affordable Care Act.

HIA #3 – Healthy & Safe Restaurant Environments

San Francisco has a vibrant culinary culture and is known for its restaurants and food trends. In fact, San Francisco has the highest number of restaurants per capita in the United States, and the restaurant industry in San Francisco is projected to have the most job openings over the next four years. Because of this industry's essential role in the city's economy, culture, and neighborhood character, it is imperative that issues of safety, access, and diversity are taken into account. From 2011 – 2013 there was a significant increase in new eating establishments permitted by the SFPDH (321 new eating establishments and 78 new mobile food vendors). The policies, laws and strategies to ensure food safety in new and existing establishments are implemented by SFPDH's Environmental Health Branch, and it is widely accepted that foodborne illness is underreported.

According to the CDC, foodborne illnesses affect tens of millions of people and kill thousands in the United States each year. In 2013, there were a total of 19,056 infections, 4,200 hospitalizations, and 80 deaths reported nationwide, most of which were largely preventable. For most types of foodborne infections, the incidence was above the Healthy People 2020 target and children under the age of five were most vulnerable.

The CDC has identified reducing food borne disease as a “Winnable Battle” and The National Prevention Strategy has recognized food safety as an effective and achievable means for improving health and well-being. HIA can assess new and existing strategies and offer opportunities to better understand how food safety can be improved through community design and partnerships with consumers, social media, and regulatory agencies.

In an effort respond to this information and guide SFPDH as it updates its restaurant permitting and licensing process, and to better understand how community design effects restaurant safety, SFPDH plans to work with The San Francisco Planning Department, Restaurant Owners' Associations, and Yelp to conduct a Health Impact Assessment.

This HIA will screen and scope novel policies and program methods to achieve food safety and healthy environments through community design. Potential policies and/or program methods include: 1) an educational program where all new owners and change of ownership applications would be required to attend a food safety course; 2) posting restaurant inspection data on Yelp; 3) conducting more frequent and/or targeted food safety inspections; and 4) providing an advanced food safety training course for employees. Potential health outcomes to be assessed through this HIA include foodborne illness, food inspection scores and specific food safety indicators such as temperature control, proper storage, presence of vermin, and practices related to communicable disease transmission including handwashing and knowledge of paid sick days law. Findings will inform effective interventions to improve food safety in eating establishments and will be disseminated through outreach and collaborations locally with the

Restaurant Owners' Associations and statewide via SFDPH's participation with the California Conference of Directors of Environmental Health.

HIAs Years Two & Three

During years two and three of the grant, SFDPH will use the screening matrix developed during our past grant cycle to screen for the feasibility, timeliness, and impact of six additional HIAs. We will conduct the HIAs following the procedural steps articulated by the CDC and International Association of Impact Assessment and in conformance with the 2010 Practice Standards for HIA published by the North American HIA Practice Standards Working Group, which are now being updated by SOPHIA. The Project Work Plan in section two of this document illustrates the anticipated timing of HIA activities for years one, two, and three.

HIA Steps

Screening: HIA decision targets for year one are identified in the three active policy contexts (transportation, community improvement, and food safety) as discussed above. Once underway, the project will use the screening process to refine these decision targets with the input of steering committee members. Screening will evaluate the following criteria: 1) The potential for the decision to result in significant effects on population health, particularly those effects that may be avoidable, unequally distributed, involuntary, adverse, irreversible or catastrophic; 2) The demand for and utility of information about health effects in a particular decision context; and 3) The technical capacity of the HIA team to provide useful and valid information in a timely way.

Scoping: In the Scoping process, the research team, in consultation with steering committee members, will: 1) Develop conceptual models linking each decision to health outcomes; 2) Establish demographic, geographical and temporal boundaries for impact analysis and identify existing population vulnerabilities; 3) Prioritize health impacts of concern; 4) Select data, methods, and tools to be used for impacts analysis; 5) Determine roles for stakeholders, experts and key informants; and 6) Develop a plan and timeline for external and public review and dissemination of findings and recommendations. Scoping activities will be informed by the San Francisco Indicator Project, Healthy People 2020 Objectives, the CDC's Environmental Health Indicators, and California Environmental Health Tracking Program Data and Tools. Scoping meetings will be facilitated by HIA Project Leads and the HIA Project Coordinator.

Assessment: The Assessment stage of each HIA will produce two outputs: 1) A description of baseline/existing conditions in the affected population, including health status, health determinants, and vulnerabilities to health effects; and 2) The identification, characterization and likelihood assessment of potential health effects that may result from the decision.

Baseline Conditions Analysis: The profile of existing conditions will enumerate the population affected by the decision; describe their health status, sensitivities, and vulnerabilities; and evaluate the state of health determinants. Baseline conditions analysis will involve synthesis of data from existing local and regional sources including: 1) the SFDPH-maintained San Francisco Indicator Project (formerly Sustainable Communities Index), which provides geographically

refined data for more than 90 indicators of community health and census tract-level socio-demographic and zip-code-level health outcomes data; 2) the California Environmental Health Tracking Program Indicators; 3) the California Health Interview Survey; and 4) other local-level data. Additional analyses will be conducted as needed based on the results of scoping.

Impact Analysis and Characterization: These HIAs will rely on systematic literature reviews and quantitative analysis to characterize effects on health. Each effect will be assessed for the following five characteristics: 1) Likelihood (or the confidence in the cause and effect relationship); 2) Intensity or severity; 3) Magnitude (in qualitative and/or quantitative terms); 4) Size of the population affected; and 5) Permanence. The project team will use peer-reviewed land use and transportation analytic tools and methods developed through our past HIA practice, including the TransBASE spatial database; air pollution, noise, and pedestrian injury modeling; and the Pedestrian and Bicycle Environmental Quality Indexes; in addition to HIA tools developed by other agencies, such as the HEAT Tool. The team has the experience and capacity to develop additional quantitative and spatial tools for effect estimation, if indicated, using techniques of risk assessment and epidemiology. In line with the HIA value of transparency, SFDPH will identify methodological limitations and assumptions, and characterize the overall level of certainty or confidence in the effect characterization.

Recommendations: Following the completion of the assessment stage, SFDPH will identify and propose alternative management strategies and policy recommendations to mitigate identified adverse health impacts. Findings and recommendations will be presented to the steering committees for discussion of feasibility prioritization of recommendations. Each HIA will include a proposed Monitoring Plan to track the outcomes of the decision and its implementation.

Reporting, Communication, and Dissemination: Steering committee members will guide the development and implementation of an outreach and communications strategy for findings from each HIA. Dissemination to partners and decision-makers at the local, regional, state, and national levels will occur through report distribution, public and written testimony, and presentations. SFDPH will document the HIA process in a final report that discusses the scientific evidence, describes data sources and analytic methods, profiles existing conditions, details the analytic results, characterizes the health impacts and their significance, and lists corresponding recommendations for policy, program, or project alternatives, design or mitigations for each health issue analyzed. A draft report will be released for public review and we will respond to comments in a final report. SFDPH will work with steering committee members to develop fact sheets describing the HIA findings in accessible and culturally appropriate language. SFDPH will submit abstracts to at least one state and national conference per year to share specific findings and lessons learned from these HIAs.

IB.4.b. Trainings, Technical Assistance, Conferences & Websites

SFDPH is a national leader in offering HIA training. Over the past seven years, SFDPH has provided training and/or technical assistance on HIA and HIA tools to over 500 individuals representing county health agencies, local, state, national, and international stakeholders in public health, planning, transportation and related fields as well as NGOs. In addition to our

annual four-day mini-course for HIA practitioners, SFDPH has additionally provided local and regional trainings to numerous audiences including community members and staff of elected officials. SFDPH staff frequently participate as invited speakers in webinars and conference panels to speak about HIA and HIA tools such as the San Francisco Indicator Project (formerly the Sustainable Communities Index) and the Pedestrian Environmental Quality Index, and provide technical assistance to interested parties via phone and email. SFDPH staff also regularly provide health and health-related data to stakeholders at local, regional, and state agencies for projects and proposal, via the San Francisco Indicator Project, the program website, and by special request.

As part of this HIA project, SFDPH will continue to provide at least two trainings on HIA per year – the four-day mini-courses for HIA practitioners, and partial-day trainings on the development and application of HIA tools, including TransBASE, the San Francisco Indicator Project, and the Pedestrian Environmental Quality Index, either in person or via webinar. Additionally, as part of the introductory meeting for the specific HIA project steering committee members, an introduction to HIA session will be held. SFDPH will also continue to provide ongoing TA to training attendees and local and regional agencies as they implement HIA and HIA tools.

SFDPH staff will continue to seek out and accept opportunities to share our HIA findings, products and lessons learned with a wide and diverse audience via webinars, conferences, and online meetings. We will submit a session proposal of our findings and lessons learned to at least one state conference each year, and coordinate with the CDC on the development of a session to present at a national conference each year as well. Finally, regularly scheduled grantee calls will be another valuable forum for sharing progress, challenges and lessons learned with HIA peers.

Since 2006, SFDPH has maintained a website for the Program on Health, Equity, and Sustainability (<http://www.sfhealthequity.org/>). This website is the repository for all of SFDPH's informative materials on healthy community design and contains all of the HIA reports and subject matter information that SFDPH has produced over the years and is updated regularly. We propose to enhance the website with a new section for State and National resources, including links to resources from the CDC, the Health Impact Project, and other national leaders in HIA and healthy community design. We also propose to work with the state health department to develop content for their webpage to more widely disseminate HIA resources and materials.

IB.4.c Tool Development

SFDPH has extensive experience developing sophisticated tools that can be used by practitioners with varying levels of experience to conduct their own HIAs (more information here: <http://www.sfhealthequity.org/resources/hia-tools>). As part of this project, we will develop additional cutting edge tools to assess and address health impacts in community design. Specifically, we plan to create a revamped version of the San Francisco Indicator Project and to create a new interactive web tool that maps community vulnerabilities, assets, and areas of current or planned investment as part of our Central Market Economic Strategy HIA. As with

our existing tools, the new tools will be featured on our websites and shared through trainings, technical assistance, conference presentations, and webinars.

IB.4.d. Collaborations - Building Formal and Informal Partnerships

SFDPH’s history of sharing resources, collaborating, and establishing partnerships with local, state, and federal government agencies, nongovernmental organizations, and universities has resulted in our deserved reputation as a go-to source of information on the practice of HIA. SFDPH will continue to share knowledge with CDC and other stakeholders by conducting process evaluation that ensures implementation of program activities and compiles findings, best practices, and lessons learned to serve as a model for other local health departments. Institutionalization of HIA and its concepts is a long-term process that continues to evolve, and with funding from the CDC, SFDPH is committed to strengthening and expanding an effective HIA program to conduct HIAs, provide training and technical assistance, and partner with new agencies and stakeholders. Table A below outlines how some of the current public and private organizational partners will be involved in project activities.

Table A: Public and Private Organizational Partners Engaged in Project and HIAs

Organization/Agency	Vision Zero: Zero Traffic Deaths in San Francisco by 2024	The Central Market Economic Strategy	Healthy & Safe Restaurants	Training, Technical Assistance, & Dissemination
Governmental Agencies				
SF Municipal Transportation Agency	X			
SF Planning	X	X	X	
SF County Transportation Authority	X	X		
SF Office of Economic and Workforce Development		X	X	
SF Controller’s Office	X	X		
SF Department of Public Health – Communicable Disease Control			X	
SF Police Department	X	X		
SF Mayor’s Office of Innovation		X	X	X
CA Environmental Health Tracking Program	X	X	X	X
California Conference of Directors of Environmental Health			X	X
California Department of Public Health				X

Private Organizations				
Health Impact Project				X
Association of State and Territorial Health Officials			X	
Society of Practitioners of Public Health				X
Bay Area Regional Health Inequities Initiative				X
St. Francis Memorial Hospital		X		
Walk SF	X			
Golden Gate Restaurant Association			X	
California Walks	X			
Yelp			X	

In addition to our direct project partners on our HIA, we will reach out to other national technical advisors and relevant federal agencies to solicit feedback to improve and strengthen our program. Our technical advisors and national project partners will include CDC-funded projects such as the Healthy Community Design Initiative and Environmental Public Health Tracking Network, the Health Impact Project, ASTHO, NACCHO, SOPHIA, the California Department of Public Health and the California Conference of Directors of Environmental Health and representatives from academic institutions. We will work closely with all of these partners through regional planning meetings, conferences and professional meetings and will encourage stakeholders to provide feedback and disseminate HIA tools and findings.

Stakeholder Participation and the HIA Steering Committees: To ensure resource-efficiency of the HIAs, community and stakeholder participation will be interwoven into existing processes: the Vision Zero project will utilize the existing partnerships through the Task Force; the Central Market Economic Strategy/TLHIP project will take advantage of the OEWD Working Group and TLHIP Community Advisory Committee; and the Healthy and Safe Restaurants project will leverage the compliance requirements that SFDPH enforces. For each HIA, SFDPH will convene steering committees that will be tasked with final screening of decisions, oversight of scoping and analysis, and communication of HIA results to agency, local, and regional leaders. Members of the steering committees will include city agencies and key external stakeholders, and SFDPH will offer a partial-day “Introduction to HIA” training to orient steering committee members who are new to HIA. To assess the efficacy of this orientation, members of the steering committees will be asked to complete a brief assessment of their HIA knowledge and experience before the “Introduction to HIA” training and following completion of at least one HIA.

IC. Evaluation and Performance Measurement Plan

Through our evaluation efforts, SFDPH aims to ensure that we successfully meet all the short and long term objectives of the grant by adhering to project deadlines and engaging in a process of continuous quality improvement (CQI) in our HIA practice. Additionally, lessons learned from our CQI activities may serve as a model for other cities and municipalities seeking to use HIA to influence healthy community design and transportation policies and programs.

Within the first year of the grant, SFDPH will develop a comprehensive evaluation work plan that will measure short-term process outcomes and project goals, as well as long-term project goals (see attached logic model). Project staff included on this grant have backgrounds in program evaluation and specific training in quality improvement and performance management for public health. Staff are members of the Society of Practitioners of Health Impact Assessment (SOPHIA) and have engaged in workgroups through the HIA of the Americas Meeting since its inception. As part of these workgroups, SFDPH has been engaged in developing best practices for stakeholder engagement and equity in HIA. This deep understanding of the core values and standards of HIA will facilitate in evaluating this project's goals and outcomes.

Each HIA's steering committee will be engaged in the evaluation and performance measurement process by helping to review the full Evaluation and Performance Measurement Plan and helping to complete evaluation activities after each HIA. Below outlines the framework for evaluation activities that will be used for ongoing monitoring and evaluation of effectiveness for CQI. Questions were adapted from Human Impact Partners' Sample HIA Evaluation Questions.

Table B: Public and Private Organizational Partners Engaged in Project and HIAs

Task	Sample Key Evaluation Questions
Screening	Who was involved in screening the HIA and why? Were there others who should have been involved and why?
Scoping	Who was involved in scoping? Were there others who would have been helpful to participate in scoping? Why? Was the completed HIA consistent with the scoping plan?
Assessment	Did the HIA make judgments about positive and negative health effects of the project, plan, or policy? Did the HIA assess long-term effects or disproportionate harms or benefits to vulnerable populations?
Recommendations	Did the HIA identify evidence-based health-promoting design solutions, mitigations, or alternatives? Did the HIA provide analysis of the effectiveness and feasibility of these recommendations? Were efforts to mitigate potentially negative effects of the proposed project, plan, or policy concentrated on the impacts of the largest magnitude? If not, why?

HIA Steering Committee	<p>Was the HIA decision-making process transparent? How so? If not, what do you recommend to ensure transparency?</p> <p>How much time was spent on the HIA? By whom (not just those who conducted HIA)?</p> <p>What were the associated financial costs (e.g., salaries, travel, expenses)?</p> <p>What did those involved think about the process and what changes would they make if they were to do it again?</p> <p>To what extent was the goal of the HIA achieved?</p>
Public Engagement	<p>What efforts were taken to involve affected populations in the HIA process? Were these efforts successful?</p> <p>Do stakeholders feel that the HIA was responsive to their interests or concerns regarding the project, plan or policy?</p> <p>Did the HIA utilize community knowledge and experience as evidence? In what ways?</p>
Reporting	<p>Did the HIA include comprehensive documentation of the HIA process, analysis, and findings?</p> <p>Were stakeholders given an opportunity to review the findings and comment?</p>
Monitoring	Was a monitoring plan developed?
Training	
Four-day HIA Training Course	<p>Did training increase understanding of HIA steps?</p> <p>Do trainees feel more prepared to lead or engage in a HIA?</p>
HIA Tools Trainings	<p>Did training increase participants understanding of how and why the tool was developed?</p> <p>Do trainees feel capable of using the tool in their work?</p>

These questions will provide a foundation for assessing process and outcomes success. Data sources will include a steering committee survey, to be completed at the end of each HIA, as well as assessment of the products produced by the HIA, which will be used to answer key evaluation questions posed for each HIA step. Similarly, pre-and post-surveys will be used in all trainings to assess increased understanding of HIA. For our four day training, participant feedback is collected each day on strengths and things to improve upon the next day. Using the results from our evaluation efforts, SFDPH hopes to continually engage with its stakeholders and communities in a meaningful way, to continue to improve upon partnerships, transparency, research methods, communications, and training.

ID. Organizational Capacity

Organizational Capacity to Execute Approach

San Francisco Department of Public Health, as a large department of the City and County of San Francisco (CCSF), has its own grants and fiscal, information technology support, human resources, and contract units staff, which will provide administrative support to this project. The San Francisco Department of Public Health – Environmental Health Branch (SFDPH-EHB)

will be the lead coordinating agency with responsibility for this project. SFPDPH-EHB is a demonstrated leader in HIA. SFPDPH-EHB has successfully created an HIA Program within their branch with support from the CDC in the first cohort of funding through the three-year Healthy Community Design Initiative grant (CDC-RFA-EH11-1104).

With funding from the CDC, SFPDPH has continued to elevate the practice of HIA together with diverse public and private stakeholders towards achieving healthy, equitable, and sustainable communities. SFPDPH also provided HIA training and technical assistance to local and regional partners; published articles about HIA experiences, analytic tools, and lessons learned; and participated in conference, workshop, and web presentations.

Through the current CDC HIA grant, SFPDPH has completed six HIAs with 3 HIA currently active. The following HIAs are demonstrative of SFPDPH's evolving, strategic, and impactful HIA practice. In the first year of the grant, SFPDPH performed an HIA on examining pedestrian safety for a senior center in a high-traffic corridor. In the second year, a separate HIA developed a Vehicle-Pedestrian Injury Collision Model of Signalized Intersections in San Francisco. This HIA advanced SFPDPH's work to develop and apply innovative quantitative forecasting tools to inform health considerations and health-based recommendations – in this case specifically for pedestrian safety – in planning processes. This model is responsive to San Francisco's urban transportation context and informed by national transportation research recommendations.

Another HIA supported through the current CDC HIA grant, the Central Corridor Plan Analysis, is a key example of “moving the needle” to institutionalize HIA capacity within one city agency, SF Planning. The HIA is profiled on the CDC website. This work applies the San Francisco Indicator Project data, a product of the 2004 Eastern Neighborhoods Community Health Impact Assessment, to highlight community needs and strengths in long-range planning. Some of the other HIAs performed are in nascent and emerging policy areas focusing on buildings, energy efficiency, and climate change. The “Overheating Buildings in Coastal Communities: Homes, Health Risks, and Opportunities for Collaboration” HIA brings attention to broad stakeholders the issue of overheating in residential buildings and related health risks.

SFPDPH deeply values sharing HIA tools and practices, especially by leveraging technology. Over the past two years, over 40 conference sessions, workshops, and webinars have reached over 1,500 persons on topics ranging from institutionalizing HIA to tools for healthy environmental design. To date, SFPDPH has trained over 200 practitioners from multiple sectors through the annual four-day HIA Practitioners Training. Many of these participants have gone on to incorporate HIA and HiAP into their local settings. As a result of these networks developed and continued leadership in HIA practice, SFPDPH continues to provide significant local, regional, and national technical assistance on HIA practice and tools. Currently, SFPDPH staff are on two HIA of the Americas work groups to improve the quality and impact of HIAs, one on peer review practices and the other developing a tool to assess equity in an HIA.

SFPDPH engages at the regional and national (e.g., HIA of the Americas, 2nd National HIA Conference) and local level to ensure HIA is viewed as one of many options, along with other

health promoting public policy tools, to ensure healthy planning and policy decision-making. For example, some City agencies rely on SFDPH for a timely and informative analysis that may not allow for a complete HIA. Explaining our rationale for offering multiple tools (and not exclusively HIA) facilitates institutionalization and sustainability of HIA into local and regional government decision-making because it illustrates the flexibility of our technical assistance. This trend also allows SFDPH to focus HIA on the most strategic and emerging policy issues.

In addition, the growing use of the San Francisco Indicator Project by public and private groups in San Francisco, and its adaptations in seven jurisdictions across the country, is resulting in more data- and health-informed decision-making. Use of the Indicator Project in the design and decision-making process may be reducing the need and demand for more time-consuming HIA processes. At the same time, the Indicator Project is routinely used to provide HIA baseline conditions data. SFDPH now posts Indicator Project data for public use on the city's open government website (<https://data.sfgov.org/>) to enhance collaboration and transparency in decision-making.

Through this process, we have engaged community partners (See Partnerships & Collaborations section) to have a comprehensive approach to HIA and target those communities and populations at highest risk for illness, in order to advance urban health and social and environmental justice.

In order to adapt and respond to emerging public health challenges and opportunities, the San Francisco Department of Public Health's public health division had re-organized into the new Population Health Division (PHD). The Environmental Health Branch is part of the Populations Health Division. Our PHD vision is "To be a community-centered leader in public health practice and innovation," and our mission: "Drawing upon community wisdom and science, we support, develop, and implement evidence-based policies, practices, and partnerships that protect and promote health, prevent disease and injury, and create sustainable environments and resilient communities." The reorganization has (1) integrated health assessment, surveillance, epidemiology, applied research, informatics, and strategic knowledge management to support division, departmental, and citywide efforts; (2) integrated disease prevention and control services; (3) integrated specialists in community engagement, planning, and mobilization; and (4) created a division-wide infrastructure to support professional development, and continuous quality improvement.

The Patient Protection and Affordable Care Act (ACA) has aligned the interests and incentives of public health and health care systems. Under ACA we have the common goal to keep our communities healthy. When we protect and promote health everyone benefits. These aligned interests provide an enormous opportunity to increase and expand the strategic influence of Health Impact Assessments (HIAs). Consequently, the PHD has embraced the creativity, innovation, and leadership from our Environmental Health Branch expertise and experience in HIAs. We have committed to expanding HIA training and implementation throughout the PHD.

As part of public health accreditation and ACA community benefit requirements, we have convened the San Francisco Health Improvement (SFHIP) collaborative to support our citywide Community Health Improvement Plan (CHIP). SFHIP represents diverse stakeholders including UCSF, SFDPH, hospital, health systems, community-based organizations, grantmakers, and city agencies. SFHIP grew out of 10+ years of community health coalition building, and current priorities including promoting healthy and safe environments, and nutrition and physical activity. SFHIP will expand the support and influence of our HIA projects.

Project Management

The San Francisco Department of Public Health's Environmental Health Branch (SFDPH-EHB) will be the lead agency for this project, with the close engagement of local planning and transportation agencies and diverse stakeholder organizations.

Cyndy Comerford is the Manager of Planning and Fiscal Policy in the Environmental Health Branch will serve as the Principle Investigator and Project Director. She will serve as the primary contact for this grant and will have grant administrative responsibilities related to the budget and development of sub-contracts and related scopes of work. Cyndy has been involved for almost ten years in developing San Francisco's practice of HIA, which has included directing HIAs, creating HIA assessment tools, and organizing and facilitating HIA trainings. She has institutionalized a HiAP approach in all of her work as a basis for intersectoral collaboration, and mechanisms to ensure a health lens in decision-making processes. Cyndy will provide project oversight, strategic guidance, and coordinate collaboration with local and regional public agencies and focus efforts on reporting and communications. She holds a Master's Degree in Environmental Policy and Planning and has comprehensive experience planning and developing public health programs and providing technical assistance to incorporate public health considerations into federal, state, and local planning decisions.

Megan Wier, Senior Epidemiologist for the Environmental Health Branch, will serve as Project Director and Co-Principal Investigator. Ms. Wier will oversee the research design, methods and analysis (i.e., scoping, assessment, and reporting) aspects of this project, and is the Lead for Transportation, Health, and Equity for our team. Ms. Wier was a co-author of the primer *Promoting Equity Through the Practice of Health Impact Assessment*, and has eight years of extensive experience conducting HIAs on transportation and land use decisions, developing and applying HIA tools in collaboration with local government agencies and community stakeholders, and training and educating health and non-health professionals on the practice. Ms. Wier was the Co-Principal Investigator of a HIA on road pricing policy funded by the Robert Wood Johnson Foundation's Active Living Research program which has since been acknowledged by the Society of Practitioners of Health Impact Assessment as a "Model HIA." Ms. Wier co-chairs the San Francisco Citywide Vision Zero Task Force, and serves as Secretary of the Transportation Research Board of the National Academies' Subcommittee on Health and Transportation and as a member of the Pedestrian Committee, all important stakeholders to our HIAs. Ms. Wier has an MPH in Epidemiology and Biostatistics from UC Berkeley.

Dr. Tomas Aragon, Health Officer and Director of the Population Health Division (PHD) of SFDPH will also serve as a Co-Principal Investigator. As Health Officer, he exercises leadership and legal authority to protect and promote health and equity. As PHD director, he directs public health services. Dr. Aragon will provide direction and expertise on all phases of the grant. Dr. Aragon will also review and edit reporting documents and facilitate communication and collaboration with public agencies. Dr. Aragon graduated from UC Berkeley (BA, Molecular Biology; DrPH, Epidemiology) and Harvard Medical School (MD, MPH), and completed his clinical and research training at UCSF (SFGH Primary Care Internal Medicine; Clinical Infectious Diseases; and Traineeship in AIDS Prevention Studies, Center for AIDS Prevention Studies).

Megan Wall Shui, Senior Epidemiologist for the Environmental Health Branch, will serve as a Project Manager. Megan Wall Shui will be the screening and scoping specialist and also manage the evaluation portion of this grant. She will work directly with collaborating partners in developing and implementing a comprehensive evaluation work plan. Ms. Wall Shui is the Lead for Land Use Planning and Health for the Environmental Health Branch and manages the San Francisco Indicator Project (formerly the Sustainable Communities Index). Ms. Wall Shui has worked in the field of health and place for the past five years and has extensive experience using HIA tools and working with city agencies to address community needs in long-range planning. She has also been a trainer at the SFDPH's Annual HIA Practitioner's training, teaching sessions on screening, quantitative forecasting, and community indicator systems. Ms. Wall Shui is currently pursuing a Public Health Certificate in Performance Improvement through Arizona State University and is part of the QI team for the Division, helping to write the QI Plan for SFDPH's application for Accreditation. Ms. Wall Shui has a MPH in Global Health from Emory University.

June Weintraub, ScD is Senior Epidemiologist and Acting Manager of Water, Air, Radiation, Noise and Smoking Enforcement Programs for the San Francisco Department of Public Health. Dr. Weintraub's doctorate in Epidemiology is from Harvard School of Public Health; her Master's and Bachelor's degrees in Civil Engineering are from Tufts University. Dr. Weintraub has over 30 years of academic, practice, research, and policy experience in diverse issues related to policy, planning, and administration of programs and projects, development of legislative and policy initiatives and recommendations, and interagency collaboration at the local, regional, state and national levels. Dr. Weintraub has been an instructor for SFDPH's Annual HIA Practitioner's training since its inception; she has been principal author, contributor or technical reviewer on many of the department's HIA's. Dr. Weintraub will continue her role as instructor in the trainings, and she will also provide input and collaborative support into the design and implementation of all the HIAs conducted as part of this project.

The San Francisco Public Health Foundation (SFPHF) will serve as a fiscal intermediary to hire staff for the cooperative agreement. SFPHF has previous experience working with SFDPH and CCSF, public health expertise, experience developing HIAs and assessment skills. The services provided by SFPHF will include:

- Research and Planning Coordinator (1 FTE) - This position will play a key role in maintaining the work plan and will be responsible for researching and writing literature reviews and

reports, coordinating trainings, and other facets of the grant. This position will prepare technical reports and technical documentation, including the reports summarizing health impacts, policy impacts, best practices, and project evaluation. This position will also be responsible for gathering, analyzing, organizing, interpreting, and reporting data related to the HIA projects.

- Health Data and Geospatial Analyst (0.5 FTE) - - This position will perform highly technical aspects of the project related to the analysis of health data and geographical information systems. This includes acquiring, organizing, editing, analyzing, and visualizing data through maps, charts, and graphs for the assessments and project evaluation. This position will also conduct database systems analysis and designs; may perform data normalization tasks; assist in the development of relational databases; assist in the maintenance of data dictionaries.
- Through a consulting services contract with SFPHF, the Communication Specialist will develop a communications strategy, educational materials, and web content. This information will be deployed through multiple venues and media to share information we develop in the course of this project. The Communication Specialist will also create a social media networking site using our existing web resources.

IE. Long-Term Sustainability

SFDPH has established an institutional commitment to conducting HIA and engaging in land use and transportation sectors through general fund support of the activities of its Program on Health, Equity, and Sustainability. These institutional resources allow SFDPH to maintain capacity to conduct HIA and provide some training and technical assistance to local public agencies and community organizations. SFDPH is also starting to establish work orders with the SFMTA for SFDPH support on time-limited transportation studies as well as the development of a comprehensive transportation injury surveillance system. This promising development towards further institutionalization of funding in support of healthy community design was facilitated by the increased capacity of our team to engage in HiAP work and specifically the development of the TransBASE HIA Tool through the 2011-2014 CDC HIA Funding Opportunity. This project will strengthen the ability of our team to continue to conduct novel HIAs in partnership with stakeholders, disseminate HIA findings locally and nationally, have resources to continue to be on the leading edge of developing spatial and analytic HIA tools to advance the practice, and continue our national HIA training for the next generation of HIA practitioners.