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HOW TO GUIDE: HEALTH ASSESSMENT TOOL 1

SCREENING SURVEY OF HEALTH IN PLACE (SSHIP)



Version 1.3

The HEALTH AND PLACES INITIATIVE (HAPI) investigates how to create healthier cities in the future, with a specific emphasis on China. Bringing together experts from the Harvard Graduate School of Design (HGSD) and the Harvard School of Public Health (HSPH), it creates a forum for understanding the multiple issues that face cities in light of rapid urbanization and an aging population worldwide.

Health and Places Initiative
<http://research.gsd.harvard.edu/hapi/>
Harvard Graduate School of Design

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INSTRUCTIONS

USING THIS GUIDE

According to the classic Gothenburg Consensus Paper, Health Impact Assessments (HIA)s are a “combination of procedures, methods, and tools by which a policy, program, or project may be judged as to its potential effects on the health of a population” (European Centre for Health Policy, 1999). We use the broader term health assessment (HA) for this tool, to indicate that it can be used in a variety of situations including evaluating existing places, not only proposed policies, programs, or projects¹.

To help planners and public health officials assess the health of a potential project or existing neighborhood, the Health and Places Initiative (HAPI) has designed three interconnected tools: a screening tool, a checklist, and a workshop format.

This guide was designed for Tool 1: Screening Survey of Health in Place (SSHIP), the first step of a health assessment. It is possible to complete SSHIP if there is basic familiarity with (a) the proposal, (b) urban planning tools and concepts, (c) public health tools and concepts, and (d) the intersections between health and the built environment. For those missing one or more of these areas, this “How To” should provide helpful instruction, particularly detailing the information that is needed to obtain to answer some of the health assessment questions.

The second and third tools, which are more involved, include:

HOC: Health Opportunity Checklist. HOC is the second step in a suite of tools that caters to different stages of the planning and design process. Each step uses different types of information. This is a detailed checklist for reviewing draft plans and proposals as well as existing neighborhoods. HOC covers various aspects of the built environment that relate to health.

HAPI Health Assessment Workshop: The HAPI Health Assessment Workshop is a community exercise, involving relevant stakeholders, where health impacts beyond those found in SSHIP or HOC may be identified. This tool is more involved than SSHIP or HOC, which can essentially be done by an individual with relevant information.

In summary:

	Health Assessment Type	Planning and Design Stage	Data and Analysis Needs	Time
Tool 1: SSHIP	Screening and scoping	Review draft plan or existing area	Proposal data, data on existing area	Short
Tool 2: HOC	Desktop	Review draft plan	Proposal data, data on existing area	Medium
Tool 3: HAPI Health Assessment Workshop	Workshop	Review draft plan or existing area	Proposal data, information about health context, interviews	Medium

The most recent versions of these three health assessment tools—SSHIP, HOC, and HAPI Health Assessment Workshop—are available at <http://research.gsd.harvard.edu/hapi/research/tools/health-impact-assessment-tools/>.

1. For more information on Health Assessments or Health Impact Assessments, a detailed course is available at <http://advance.captus.com/planning/hia2/toc.aspx>.

RESEARCH BRIEFS

In addition to these tools, a set of background research briefs are also available that can provide additional context for the survey questions: <http://research.gsd.harvard.edu/hapi/research/research-briefs/>. You may find it helpful to familiarize yourself with the research briefs, which cover various aspects of health in places, before commencing the health assessment.

Research brief topics include:

Built Environment Qualities/Exposures

1. Air quality
2. Disasters
3. Noise
4. Toxics
5. Water quality
6. Climate change
7. Housing

Connections

8. Accessibility to community resources
9. Geographical access to healthcare
10. Social capital
11. Mobility and universal design

Health-related Behaviors and Outcomes

12. Physical activity
13. Mental health
14. Food options
15. Safety (accidents, crime)

General

16. Physiology and psychology of aging
17. Chinese demographics
18. Global household changes

SCORING

The scoring system used in parts of SSHIP is intended to help you quickly identify plans, proposals, and places where the benefits of completing a health assessment are likely to outweigh the costs. It is a very rough system and is primarily intended to supplement a more qualitative assessment.

PART 1: BASIC DATA

INSTRUCTIONS: Part 1 of SSHIP helps you collect the necessary data to conduct HAs. These basic data can be utilized in the later steps to decide whether a HA should be carried out, depending on potential health impact, interests, and the ability to conduct one.

PART 1A: BASIC DATA FOR A PROPOSAL OR PLAN

TOPIC	Where do you get this information?	Who has this information?
1A.1 Title of Project	Project documents	Proponent, local government
1A.2 Type of Project urban plan, urban development, urban redevelopment, infrastructure, program, other	Project documents	Proponent, local government
1A.3 Physical Area of project in hectares, square miles, or square meters	Project plan	Proponent, local government
1A.4 Number of People directly affected (e.g. living/working in planning area, to live/work in project)	Project plan	Proponent
1A.5 Project Lead Organization + Contact Person	Project documents	Proponent, local government
1A.6 HIA Organizer (if different from project lead)	Project documents	Proponent

PART 1: BASIC DATA

INSTRUCTIONS: Part 1 of SSHIP helps you collect the necessary data to conduct health assessments. These basic data can be used in the later steps to decide whether a health assessment should be carried out, depending on potential health impact, interests, and the ability to conduct one.

PART 1B: BASIC DATA FOR AN EXISTING PLACE

TOPIC		Where do you get this information?	Who has this information?
1B.1	Place name	Local maps	Local government (may have specific boundaries), community groups, GIS mapping department or company
1B.2	Type of place mainly residential, mainly employment, mainly open/green space, mixed use, other	Local maps	Local government, GIS mapping department or company
1B.3	Physical area of place in hectares, square miles, or square meters	Local maps	Local government, GIS mapping department or company
1B.4	Number of people directly affected (e.g. living/working in area)	Census data	Census bureau, local government
1B.5	Demographics of people directly affected (e.g. living/working in area (e.g. by age, income, cultural background, gender)	Census data	Census bureau, local government
1B.6	Specific organizations that could implement changes (e.g. city government, community group)	Local knowledge	Local government, community groups

PART 2: DO I HAVE GOOD REASONS FOR CONSIDERING A HEALTH ASSESSMENT?

INSTRUCTIONS: Part 2 of SSHIP helps you determine if a preliminary health assessment (HA) should be conducted. The questions are designed to help you survey existing capacity and health culture, creating arguments for or against doing a HA.

ISSUES AND CONCERNS		What information is needed?	Where do you get this information?	Who do you get it from?
2.1	<p>Concerns There are professional or community questions about negative health effects inside and outside the project/place, including concerns from the team doing the work.</p>	Health topics raised	Media reports, blogs, minutes of community meetings, team deliberations	Possibly public information and available online, or may need to request from relevant company, organization, or local government
2.2	<p>Benefits There are professional or community interests in the potential health benefits of the proposal or place. Assessing these could help reinforce these benefits.</p>	Health topics raised	Media reports, blogs, minutes of community meetings, team deliberations	Possibly public information and available online, or may need to request from relevant company, organization, or local government
2.3	<p>Affected groups There is some evidence that the project or place has health effects on vulnerable groups such as children, older people, those with low incomes, or those with disabilities.</p>	Demographics, health topics raised	Census data, media reports, blogs, minutes of community meetings, team deliberations	Possibly public information and available online, or may need to request from relevant company, organization, or local government
CAPACITY AND READINESS				
2.4	<p>Institutional capacity to make changes There is interest and/or capacity of local government, nonprofit, and private organizations to address any potential problems—that is, something will get done following the assessment. For example, there is a potential champion of the process AND there is an opportunity to change the plan or the place.</p>	Whether there is time, money, or interest in making the plan or place healthier	Media reports, blogs, minutes of community meetings, team deliberations	Proponent, local government, local experts

PART 2: DO I HAVE GOOD REASONS FOR CONSIDERING A HEALTH ASSESSMENT?

ISSUES AND CONCERNS	What information is needed?	Where do you get this information?	Who do you get it from?
<p>2.5 Institutional capacity to conduct the health assessment There is internal expertise or a capacity to bring in outside experts to complete a health assessment.</p>	Team expertise, available outside expertise	Project documents, team deliberations, resumes	Possibly online, local experts, proponent
<p>2.6 Timeliness The health assessment can be completed within a time frame that is useful for influencing decision-making.</p>	Project timeline and available team resources	Project documents	Proponent
WIDER BENEFITS			
<p>2.7 Beneficial linkages Doing a health assessment would strengthen ties between planners, public health professionals, project stakeholders, and developers.</p>	Existing working culture between different stake holders	Team deliberations, minutes of town meetings	Community groups, proponent, local government
<p>2.8 Awareness raising By conducting a health assessment, health will be more visible as an issue in public and professional discussions.</p>	Project importance in community and existing health culture	Team deliberations, local knowledge, minutes of community meetings, media reports, project documents	Proponent, local government, internet

PART 3: IS IT SIGNIFICANT ENOUGH TO ASSESS?

INSTRUCTIONS: Part 3A of SSHIP helps you determine if the project or plan requires a health assessment. If you are looking at an existing place, then utilize the checklist in part 3B (page 11). Though you may have a desire to do a HA in Part 2, project or place specifics may indicate otherwise. If the project or place is significant enough to assess, proceed to Part 4 for a screening checklist.

PART 3A: IS THE **PROPOSAL** OR **PLAN** SIGNIFICANT ENOUGH TO ASSESS?

ISSUES AND CONCERNS		What information is needed?	Where do you get this information?	Who do you get it from?
3A.1	Geographical extent Does it apply to a geographic area of a full city block or larger? That is, is it a fairly large project?	Area	Project plan, community map	Proponent, local government, local experts
3A.2	Reversibility Will the changes be difficult or expensive to reverse once put in place? That is, might a health assessment head off costly problems?	Scope of proposed/potential changes	Project documents	Proponent, local government
3A.3	Cumulative impact Is it a place where specific local health problems have been identified already (e.g. traffic safety, air quality, lack of healthy foods, contaminated brownfields)?	Personal / environmental health records	Local knowledge, media reports, blogs	Internet, local government, local experts
3A.4	Population size Will it affect a significant number of people? Does it substantially increase (or displace) the population?	Number of people	Census data, local knowledge	Proponent, local government
3A.5	Population distribution Does it affect a population group (e.g. children, seniors, people with low incomes, or people with disabilities)? Are the impacts on the population disproportionate?	Population distribution patterns	Census data, local knowledge	Proponent, local government
3A.6	Land use Does it substantially change the predominant land use (e.g. from residential to commercial)?	Zoning	Local maps, project plan	Local government

ISSUES AND CONCERNS		What information is needed?	Where do you get this information?	Who do you get it from?
3A.7	<p>Environmental impact</p> <p>Will it significantly alter the natural environment even if it does not change land use patterns (e.g. does it increase or reduce water runoff, air quality or noise)?</p>	<p>Water supply maps, infrastructure maps, impermeable surfaces, noise levels</p>	<p>Maps of permeable versus impermeable surfaces, development maps, census data</p>	<p>Internet, local government, local experts</p>

PART 3: IS IT SIGNIFICANT ENOUGH TO ASSESS?

INSTRUCTIONS: Part 3 of SSHIP helps you determine if the specific project OR place requires a health assessment. If you are looking at an existing place, this is the checklist to use. If you are looking at a proposed project then utilize the checklist in part 3A (page 10). Though you may find that there is a desire to do a health assessment in Part 2, project or place specifics may indicate otherwise. If the project or place is significant enough to assess, proceed to Part 4 for a very quick screening checklist to help you figure out if more extensive assessments are needed.

PART 3B: IS THE **EXISTING PLACE** SIGNIFICANT ENOUGH TO ASSESS?

ISSUES AND CONCERNS		What information is needed?	Where do you get this information?	Who do you get it from?
3B.1	Geographical extent Does it apply to a geographic area of a full city block or larger? That is, is it a fairly large project?	Area	Project plan, community map	Proponent, local government, local experts
3B.2	Cumulative impact Is it occurring in a place where specific local health problems have been identified already (e.g. traffic safety, air quality, lack of healthy foods, contaminated brownfield)?	Personal / environmental health records	Local knowledge, media reports, blogs	Internet, local government, local experts
3B.3	Population size Does it include a substantial residential population or workforce?	Number of people	Census data, local knowledge	Proponent, local government
3B.4	Population distribution Does it affect a significant number of people from a vulnerable group (e.g. children, seniors, people with low incomes, or people with disabilities)? Are the impacts on the population disproportionate?	Population distribution patterns	Census data, local knowledge	Proponent, local government
3B.5	Existing knowledge Is there enough evidence, data, or experience regarding this policy, program or place to support a health assessment?	Volume of data on place	Project documents, local knowledge, media reports, minutes of community meetings	Proponent, community groups, internet, local government, local experts

ISSUES AND CONCERNS	What information is needed?	Where do you get this information?	Who do you get it from?
<p>3B.6 Environmental impact Will it significantly alter the natural environment even if it does not change land use patterns (e.g. does it increase or reduce water runoff, air quality or noise)?</p>	<p>Water supply maps, infrastructure maps, impermeable surfaces, noise levels</p>	<p>Maps of permeable versus impermeable surfaces, development maps, census data</p>	<p>Internet, local government, local experts</p>

PART 4: HEALTH EFFECTS OF SPECIFIC ACTIVITIES AND TYPES OF PLACES

INSTRUCTIONS: This section is a screening checklist that covers some basic questions on health and place topics. Using a variety of data, one can quickly analyze the local resources and potential health impacts inherent in the context of the project. If any areas below are of concern, they should be investigated further utilizing either HOC or the HAPI Health Assessment Workshop. Before you begin, read the relevant topics in the HAPI research briefs (<http://research.gsd.harvard.edu/hapi/research/research-briefs/>) to gain a better background understanding of how these topics affect health.

ISSUES AND CONCERNS	What information is needed?	Where do you get this information?	Who do you get it from?
BUILT ENVIRONMENTAL ISSUES			
<p>4.1 Air quality</p> <ul style="list-style-type: none"> • Residences are close to one or more of the following (<500 meters): <ul style="list-style-type: none"> • Highways • Dusty roads • Industry • OR Households use biomass fuels for heating/cooking without proper ventilation 	<p>Location of industries, highways, residences or heating fuels used in houses</p>	<p>Zoning regulations, air quality regulations, observation & experience onsite visit, resident interviews, reports, news articles, websites of local or regional public health organizations, air quality regulations</p>	<p>Local or regional planning agency, environmental agency at any level - local, regional, or national or neighborhood / residents' groups, local or regional government office, health agency at any level, environmental agency at any level: local, regional, or national</p>
<p>4.2 Disasters</p> <ul style="list-style-type: none"> • Formal or informal development is in proximity to one or more of the following: <ul style="list-style-type: none"> • Coastlines • Waterways • Geological hazards • Hazardous industries • Conflict zones • OR There are areas with concentrated population, economic and political activity, and/or poverty, or medically underserved communities (e.g. rural, low-income) 	<p>Locations of development, industries, elevation maps</p>	<p>Disaster preparedness plan, local development plan, zoning regulations, floodplain maps, seismic maps</p>	<p>Meteorological department, local or regional government planning or public works office</p>

PART 4: HEALTH EFFECTS OF SPECIFIC ACTIVITIES AND TYPES OF PLACES

ISSUES AND CONCERNS	What information is needed?	Where do you get this information?	Who do you get it from?
<p>4.3 Noise</p> <ul style="list-style-type: none"> Schools, residences, or workplaces are exposed to noise levels at or above 55–60 dB(A) from sources including either: <ul style="list-style-type: none"> Heavy traffic Airplane flyovers 	<p>Locations of businesses, schools, residences, roads, noise levels, flight paths</p>	<p>Noise meter (many free apps), noise regulations, zoning regulations</p>	<p>Site visits, local or regional planning agencies</p>
<p>4.4 Toxics</p> <ul style="list-style-type: none"> Residences or workplaces are in close proximity to one or more of the following: <ul style="list-style-type: none"> Hazardous waste sites, landfills, incinerators (<2–3k) Heavy industrial sites: e.g. coke works, copper smelters, refineries, nuclear power plants (<5k) Heavily trafficked roads (<500m) Water polluted with agricultural runoff, oil, or mining wastes OR Housing utilizes biomass fuels for heating/cooking without proper ventilation 	<p>Locations of businesses, residences, industries</p>	<p>Local maps, media reports, zoning regulations</p>	<p>Local or regional government planning agency, environmental agency at any level: local, regional, or national, GIS department; or neighborhood / residents' groups, health agency at any level</p>
<p>4.5 Water quality</p> <ul style="list-style-type: none"> Area has one or more of the following issues: <ul style="list-style-type: none"> Does not have centralized drinking water treatment (piped drinking water) or waste sanitation (e.g. sewers, septic tanks) Protected wells and latrines are located more than 1000m from residential area Sources of drinking water are not buffered from: <ul style="list-style-type: none"> Waste sites Agriculture Mining Industry Areas are prone to water shortages 	<p>Sewer locations, water supply maps, infrastructure maps</p>	<p>Local maps, local knowledge, project plan, zoning regulations, water quality regulations, watershed maps</p>	<p>Local or regional planning agency environmental agency at any level: local, regional, or national, GIS department</p>

PART 4: HEALTH EFFECTS OF SPECIFIC ACTIVITIES AND TYPES OF PLACES

ISSUES AND CONCERNS	What information is needed?	Where do you get this information?	Who do you get it from?
<p>4.6 Climate change</p> <ul style="list-style-type: none"> • Areas are vulnerable to urban heat island effect in one or more of the following ways: <ul style="list-style-type: none"> • High ratios of impermeable versus permeable surfaces • Sprawling patterns of urban development with little vegetation • Inadequate housing (e.g. ventilation, structural, or energy efficiency problems) • A lack of air conditioning • High proportions of lower-income people, older adults, or children 	<p>Groundcover density, impermeable surfaces, demographics</p>	<p>Maps of permeable versus impermeable surfaces, development maps, census data</p>	<p>Planning or GIS office, environmental agency at any level: local, regional, or national</p>
<p>4.7 Housing</p> <ul style="list-style-type: none"> • Buildings have one or more of the following: <ul style="list-style-type: none"> • Structural problems • Likely contaminants (chemicals, mold, pests) • Sanitation issues • Crowded units (e.g. overcrowding, multifamily housing, high-rise housing) • OR residential areas are in proximity to either: <ul style="list-style-type: none"> • Highways • Undesirable facilities (e.g. industrial, power plants, waste management) • OR residential areas have either: <ul style="list-style-type: none"> • High crime • Unaffordable rents and mortgages 	<p>Housing data, demographics, land use</p>	<p>Census data, project plan, assessor's data</p>	<p>Local or regional government local housing authority, project developer</p>

PART 4: HEALTH EFFECTS OF SPECIFIC ACTIVITIES AND TYPES OF PLACES

ISSUES AND CONCERNS	What information is needed?	Where do you get this information?	Who do you get it from?
CONNECTEDNESS			
<p>4.8 Geographic access to community resources</p> <ul style="list-style-type: none"> • Residential areas have challenging distances to community resources (e.g. healthcare, recreational facilities, shopping, food, greenspace): <ul style="list-style-type: none"> • Walking (>300–600m) to resources • Cycling (>10k) • Transit is not frequent or within 500m of residences 	Road networks, land use	Local maps, local knowledge, project documents, maps, transportation plan	Local government, local experts, proponent, food policy council, project proponents, local or regional transportation department
<p>4.9 Geographical access to health care: for urban and suburban areas</p> <ul style="list-style-type: none"> • In urban and suburban areas either: <ul style="list-style-type: none"> • Healthcare facilities are more than 30 minutes by any mode of transportation • Dental health facilities are more than 40 minutes away by any mode of transportation • In more rural areas, travel times are more than: <ul style="list-style-type: none"> • 1 hour for emergency services • 2 hours for acute inpatient hospital services • 4 hours for core specialty services • There should be special consideration for those unwilling or unable to drive 	Locations of healthcare spaces, road networks, transportation infrastructure	Local maps, local knowledge, transportation plan	Local or regional transportation department health agency or authority at any level: local, regional, or national

PART 4: HEALTH EFFECTS OF SPECIFIC ACTIVITIES AND TYPES OF PLACES

ISSUES AND CONCERNS	What information is needed?	Where do you get this information?	Who do you get it from?
<p>4.10 Social Capital</p> <ul style="list-style-type: none"> • Areas lack one or more of the following: <ul style="list-style-type: none"> • Opportunities for civic and community involvement • High-quality, affordable, or accessible community resources • Different types of housing or activities • Walkable streets that are well-lit, safe from traffic, or well-maintained • Affordable rentals or home-ownership (to promote length of residency) 	<p>Locations of communal spaces, civic opportunities, housing data, built environment data</p>	<p>Project documents, maps, transportation plan, local knowledge</p>	<p>Local or regional transportation, planning, or GIS department, local experts, proponent</p>
<p>4.11 Mobility and universal design</p> <ul style="list-style-type: none"> • Mobility impaired residents and workers cannot get around except by private car and/or without extensive assistance of others 	<p>Public transportation infrastructure, physical site conditions</p>	<p>Local maps, local knowledge, building codes, websites or reports from local or regional government offices, etc. architectural plans, accessibility ordinance, site visit, street maps, transportation plans</p>	<p>Local government, local experts, proponent, health agency, environmental agency at any level: local, regional, or national, local housing authority, project architects and engineers, local or regional transportation department</p>

PART 4: HEALTH EFFECTS OF SPECIFIC ACTIVITIES AND TYPES OF PLACES

ISSUES AND CONCERNS	Where do you get this information?	Who has this information?	Who do you get it from?
HEALTH-RELATED BEHAVIORS AND OUTCOMES			
<p>4.12 Physical activity</p> <ul style="list-style-type: none"> • Transportation physical activity (PA): areas with one or more of the following: <ul style="list-style-type: none"> • Single land use • Low-density development • Poor street connectivity • OR without sidewalks, or bike lanes on major roads • Recreational PA: areas either: <ul style="list-style-type: none"> • Are more than 500m to a park or trail • Have major roads that lack sidewalks and safe crossings, particularly in locations with children and older people 	Road networks, green space locations, development patterns, demographics	Site visit, street maps, transportation plans project plan, local development plan, local parks plan, maps of the area that include green space, census data	Local or regional transportation department, local or regional government project developer, planning agency, parks and recreation department, GIS departments
<p>4.13 Mental health</p> <ul style="list-style-type: none"> • Areas lack one or more of the following: <ul style="list-style-type: none"> • Street trees • Off-road trails • Park networks • Natural or green spaces that are appropriate for the location and culture 	Vegetative cover, greenspace locations	Zoning maps, site visits, resident interviews, maps of the area that include green space	Local or regional government planning agency, parks and recreation department, local residents, GIS departments, project developer
<p>4.14 Healthy food options</p> <ul style="list-style-type: none"> • Sources of fruits and vegetables are more than 20 minutes away by available transportation • OR The community food system is not considered in the plans or policies for the area 	Market locations, road networks	Project documents, maps, transportation plan	Food policy council, project proponents, local or regional transportation department, planning department
<p>4.15 Safety (accidents, crime)</p> <ul style="list-style-type: none"> • Areas have one or more of the following: <ul style="list-style-type: none"> • High numbers of pedestrian, cyclist, or traffic accidents • Roadways are high-speed and high-volume, no pedestrian or cyclist infrastructure • High rates of violent crime • Low street lighting 	Location of street lamps, crime statistics, transportation accident data	Site visit, resident interviews, transportation plan, public safety officials	Local or regional government health agency, planning agency, environmental agency at any level: local, regional, or national, public safety officials, emergency medical services

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