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The Health Impact Assessment (HIA) Resource and Tool Compilation: A Comprehensive Toolkit for New and Experienced HIA Practitioners in the U.S.





Office of Research and Development National Exposure Research Laboratory

The Health Impact Assessment (HIA) Resource and Tool Compilation: A Comprehensive Toolkit for New and Experienced HIA Practitioners in the U.S.

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Notice

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Executive Summary

Health Impact Assessment (HIA) is a relatively new and rapidly emerging field in the U.S. An inventory of available HIA resources and tools was conducted, with a primary focus on resources developed in the U.S. The resources and tools available to HIA practitioners in the conduct of their work were identified through multiple methods and compiled into a comprehensive list. The compilation includes tools and resources related to the HIA process itself and those that can be used to collect and analyze data, establish a baseline profile, assess potential health impacts, and establish benchmarks and indicators for monitoring and evaluation. These resources include literature and evidence bases, data and statistics, guidelines, benchmarks, decision and economic analysis tools, scientific models, methods, frameworks, indices, mapping, and various data collection tools. Understanding the data, tools, models, methods, and other resources available to perform HIAs will help to advance the HIA community of practice in the U.S., improve the quality and rigor of assessments upon which stakeholder and policy decisions are based, and potentially improve the overall effectiveness of HIA to promote healthy and sustainable communities.

Disclaimer

The HIA Resource and Tool Compilation is not an endorsement of the resources and tools listed within. The Compilation contains hundreds of resources and tools developed by government agencies, nonprofits, and public and private organizations, addressing a wide variety of topics, and it was beyond the scope of this undertaking for EPA to review each resource and tool. Therefore, EPA cannot guarantee the validity of every resource and tool included in the Compilation; however, many of the resources and tools were included in the Compilation based on suggestions from HIA professionals or because they were used in completed HIAs. Users of the HIA Resource and Tool Compilation should keep in mind that some resources and tools were developed for specific locations and/or particular topics and may or may not be adaptable to other locales and/or similar topics.

Foreword

The U.S. Environmental Protection Agency's (EPA's) National Exposure Research Laboratory (NERL) conducts human and ecological exposure research that provides the tools necessary for EPA to carry out its mission. Critical to the success of the NERL research program is communication and utility of its research to influence and impact decisions aimed towards protecting human health and the environment.

Health impact assessments (HIAs) are becoming a more commonly used tool in the U.S. for incorporating health considerations into the decision-making process of plans, projects, programs, and policies. This inventory was conducted to identify the types of data, tools, models, and methods currently used in HIAs and promote existing EPA tools, methods, and models that can be used in HIA.

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Introduction

The Health Impact Assessment (HIA) Resource and Tool Compilation is a comprehensive list of resources and tools that can be utilized by HIA practitioners with all levels of HIA experience to guide them throughout the HIA process. The HIA Resource and Tool Compilation is a preliminary effort that will eventually be integrated into an HIA Roadmap in the U.S. Environmental Protection Agency's (EPA's) Community-Focused Exposure and Risk Screening Tool (C-FERST). C-FERST is an online community mapping, information access, and assessment tool designed to help assess risk and assist in decision making within communities. More information on C-FERST can be found online at the <u>EPA C-FERST website</u>.

HIA Resource and Tool Compilation Development

The HIA resources and tools contained in this Compilation were identified through:

- the "HIA Information Toolkit: Data, Methods, and Models from the HIA Community of Practice" Working Group at the Inaugural National Health Impact Assessment Meeting in Washington D.C. in 2012;
- o an inventory of EPA tools, databases, and other resources relevant to HIA;
- data sources, tools, and methods identified in the EPA report, A Review of Health Impact Assessments in the U.S.: Current State-of-Science, Best Practices, and Areas for Improvement;
- a general online search; and
- o an extensive, although not comprehensive, inventory of tools used in completed HIAs.

HIA Resource and Tool Compilation Methodology

Categorization

The resources and tools in the Compilation are organized into the primary categories and subcategories listed in Table 1. The Primary Category is the general classification of the tool or resource, while the Subcategory provides more detailed information on the format of the tool or resource (e.g., guidelines, scientific models, GIS-based mapping, etc.) or the sector to which the relevant data in the tool or resource pertains (e.g., built environment, health and healthcare, transportation, population statistics, etc.). The resources and tools fall into two groupings: those relating to the HIA process itself (i.e., the 'HIA Process Resources' primary category) and those that can be used in certain HIA steps to collect and analyze data, establish a baseline profile, assess potential health impacts, and establish benchmarks and indicators for recommendations and monitoring (i.e., all other primary categories). The resources and tools in these other primary categories include literature and evidence bases, data and statistics, guidelines, benchmarks, decision and economic analysis tools, scientific models, methods, frameworks, indices, mapping, and various qualitative and quantitative data collection tools, such as surveys.

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Certain resources and tools, like those

in the 'Databases,' 'Guidance Documents,' and 'Mapping Tools' categories can be used to build baseline profiles of existing conditions. Others, such as those listed in 'Data Collection Tools,' can be used to collect new quantitative and qualitative data. Resources and tools from the 'Guidance Documents,' 'Analysis Tools,' 'Models,' and 'Mapping Tools' categories can guide HIA practitioners in impact characterization.

For those resources and tools for which it is relevant, Topic(s) are provided detailing the sectors or topic areas to which that particular resource or tool pertains. These topics correspond to the subcategories used for 'Databases' and are intended to provide further descriptive information on the resource or tool and to assist HIA practitioners in searching through the hundreds of resources and tools listed in the Compilation.

Topics include:

- o Agriculture
- o Built Environment
- Business and Industry
- o Crime
- Economics
- Education
- o Environment
- o Health and Healthcare
- Housing
- Labor and Workplace
- Population
- Transportation

Primary Category	Subcategory
	– General HIA Information
	– HIA Trainings and Webinars
	– Screening Step
	– Scoping Step
	– Assessment Step
HIA Process	– Recommendations
Resources	 Reporting Step
	– Monitoring & Evaluation Step
	– HIA Communication
	– Community Participation,
	Partnerships, and Equity
	– Literature/Evidence Bases
	 – General Data Warehouses
	 Multi-Topic Databases
	– Agriculture
	 Built Environment
	 Business and Industry
	– Crime
Databases	– Economics
	– Education
	– Environment
	 Health and Healthcare
	– Housing
	 Labor and Workplace
	 Population
	 Transportation
Guidance	– Guidelines
Documents	– Benchmarks
Analysis Tools	– Decision Analysis
Analysis Tools	– Economic Analysis
	 Scientific Models
Models	 Methods
Models	 Frameworks
	– Indices
Mapping Tools	 – GIS-Based Mapping
	– Map Data Viewers
Data Collection	– Qualitative
Tools	– Quantitative
10013	 Mixed Methods

Table 1. HIA Resource and Tool Compilation Organization

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Inclusion and Exclusion Criteria

Resources and tools developed in the U.S. were the primary focus of this Compilation. A comprehensive inventory of international HIA tools and resources was beyond the scope of this project due to resource limitations. Any domestic or international HIA resources and tools that are not found in the Compilation were not excluded as a result of the resources and tools being poorly designed or of little value to HIA practitioners.

There are many useful resources and tools available at the local, county, and state levels for HIA practitioners. A comprehensive list of these resources and tools is beyond the scope of this Compilation, as there are thousands of these types of products available throughout the U.S. However, it is important that HIA practitioners are aware that these resources and tools exist; that similar ones may be available for their study area; and that in some cases, although developed for a particular area, these resource and tools may be adapted to fit the needs of other locales. For these reasons, generic "State, County, and Local" dataset and tool entries have been provided in the Compilation and include a general description of the type of data and/or tools that may be available, some specific example(s) of these types of data or tools, keywords, and the names of departments, agencies, or organizations from which these resources and tools could potentially be obtained. These tools may be very useful for HIAs with smaller geographic scopes.

Resource and Tool Spotlight

A number of resources and tools from the Compilation that are commonly used in HIA and/or provide HIA best practices are spotlighted below:

- Health Impact Project
- o Human Impact Partners' Tools & Resources
- UCLA HIA Clearinghouse Learning & Information Center (UCLA HIA-CLIC)
- Minimum Elements and Practice Standards for Health Impact Assessment, Version 3
- o Equity Metrics for Health Impact Assessment Practice
- o Census Bureau
- Data.gov
- Behavioral Risk Factor Surveillance System (BRFSS)
- National Environmental Public Health Tracking Network
- County Health Rankings & Roadmaps
- The San Francisco Indicator Project [formerly the Sustainable Communities Index (SCI)]
- Health Economic Assessment Tool (HEAT)
- o Eco-Health Relationship Browser
- EnviroAtlas
- The National Map
- EJSCREEN

Using the HIA Resource and Tool Compilation

Intended Audience

The Compilation was developed for use by anyone interested in conducting HIAs, including experienced HIA practitioners; local, state, regional, or federal agencies working in public health, transportation, planning, or any other sector interested in the health consequences of a proposed action; and local community-based organizations concerned with the potential health effects of local decisions. The Compilation provides resources and tools that can be used by individuals with all levels of HIA experience, from those who are interested in conducting their first HIA and need information on what an HIA is and how to conduct one, to those who have conducted many HIAs and are looking for new assessment tools.

Practical Application

The Compilation may look overwhelming, especially to someone new to the field of HIA, with its hundreds of resources and tools; however, not all of these resources and tools will be applicable to each HIA. The Primary Category, Subcategory, and Topic(s) columns help to guide the HIA practitioner to the resources and tools that may be relevant in their HIA.

A good place to start is to first review the primary categories of the Compilation. If someone is new to HIA, then they may want to start with the 'General HIA Information' and 'HIA Trainings and Webinar' resources listed in the 'HIA Process Resources' category to familiarize themselves with the HIA process. Those new to the practice may need to spend some time going through the different categories of resources and tools to see which may be most applicable to their HIA. The experienced HIA practitioner, who is familiar with the tasks and documentation tools available at each step, may want to skip the 'HIA Process Resources' and begin examining the remaining categories in the Compilation. The Subcategory and Topic(s) columns will help users narrow down the search for resources and tools to those relevant to the HIA being performed. Searching for keywords throughout the Compilation is also a quick and easy way to locate resources and tools related to a topic of interest.

The two-part example that follows offers practical guidance on how to use the Compilation and demonstrates:

- A. How someone new to the practice of HIA could locate resources on the HIA process; and
- B. How someone could locate data sources and tools to conduct an HIA.

Example

A local community organization wants to assess how the construction of a transitway through a low-income neighborhood will impact their community. They're interested in using HIA as a tool to assess these impacts and present to City Council, the Metropolitan Transit Authority, and other stakeholders who will be voting on the project.

Part A

The local community organization wants to learn more about what an HIA is, what the process entails, and how they can use it to meet their communities' needs.

For those new to the HIA process, like the organization in this scenario, the 'HIA Process Resources' is a good starting point for learning about the HIA process and the principles that guide it.

To learn more about the HIA process, how to conduct an HIA, and how to decide whether HIA is the right approach for this effort (i.e., perform the screening step), individuals can search the 'HIA Process Resources' category of the Compilation and find resources and tools, such as those shown in Figure 1. Individuals may also want to review Appendix A, which provides answers to frequently asked questions (FAQs) about HIA and directs readers to relevant resources and tools in the Compilation, as needed.

In addition, a useful activity for any group undertaking an HIA is to identify and review, early in the HIA process, HIAs that have been conducted on similar decisions. This can help the HIA team to identify relevant health determinants, health outcomes, and assessment methods. The HIA team may do a preliminary review of the literature included in these HIAs before conducting their own literature review so as to familiarize themselves with the relevant literature on the topic and inform the scoping process. In progress and completed HIAs are indexed in the Health Impact Project's 'HIA in the United States' web tool and on the University of California Los Angeles HIA Clearinghouse Learning and Information Center (UCLA HIA-CLIC) website. Both of these resources are listed under the 'General HIA Information' subcategory of the 'HIA Process Resources'.

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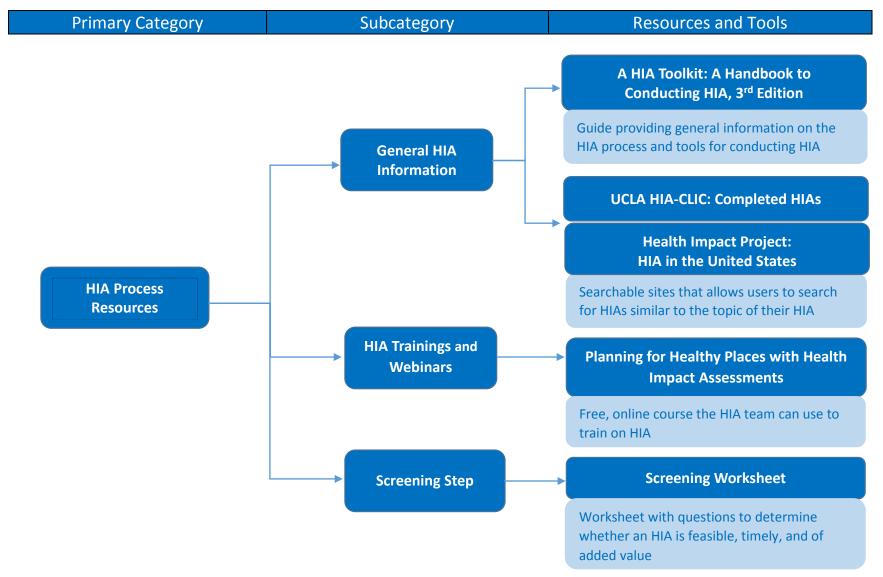


Figure 1. Examples of available 'HIA Process Resources'.

Part B

The local community organization decides to conduct an HIA. The organization forms an HIA Team responsible for conducting the HIA. The team is looking for:

- o possible health determinants and outcomes to examine;
- literature on low-income housing and residents and the effects of transitway colocation;
- local community data on demographics, housing, employment/unemployment, transportation options, environmental health data, health conditions, and healthcare services; and
- methods of data collection, possibly to survey residents living in the apartment complex near the path of the transitway and/or interview relevant stakeholders.

Now that the HIA Team is familiar with the HIA process and has completed the screening step of the HIA process (i.e., decided that an HIA would be feasible, timely, and of added value), the team will move on to the second step of the process – scoping – and begin to plan the assessment step of the HIA. The HIA Team may look to the rest of the HIA Resource and Tool Compilation for resources and tools to use at this point.

To learn more about the data, tools, and methods that could be used in conducting the HIA, individuals can search the Primary Categories of the Compilation and find resources and tools applicable to their HIA, such as those shown in Figure 2.

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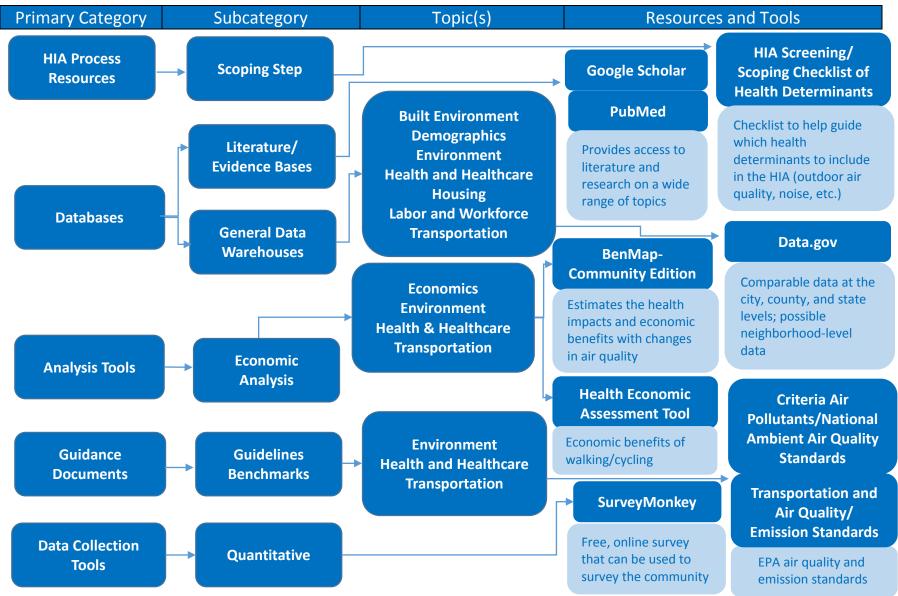


Figure 2. Examples of resources and tools available for conducting HIA.

Searching in the Compilation

On the following pages, you will find the HIA Resource and Tool Compilation. The Compilation follows the layout of the primary categories and subcategories listed in Table 1. Remember that the primary category is the general classification of the tool or resource, while the subcategory provides more detailed information on the format of the tool or resource or the sector to which the relevant data in the tool or resource pertains. For those resources and tools for which it is relevant, the Topic(s) column details the sector or topic area to which that particular resource or tool pertains. The Subcategory and Topic(s) columns will help users narrow down the search for resources and tools to those relevant to the HIA being performed. Most of the resources and tools in the Compilation are free, but when there is an associated cost, it is noted in the Description column with the symbol **\$**.

The Compilation is a lengthy list of hundreds of resources and tools, but keyword searches are a quick and easy way to locate resources and tools related to a topic of interest. The Compilation can be easily searched using keywords through two methods. Holding down the Control button while pressing the F key will bring up the Find search box, where the user can search by keywords or phrases. The Find function can also be found in the PDF menu bar, under the Edit tab.

Primary Category	Subcategory	Topic (s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
HIA Process Resources	General HIA Information	N/A	Health Impact Project	A national initiative designed to promote the use of HIA as a decision-making tool for policymakers. Provides summaries and links to a wide variety of HIA research, toolkits, resources, case studies, and news.	N/A	Robert Wood Johnson Foundation, Pew Charitable Trust	http://www.pewtrusts.o rg/en/projects/health- impact-project
HIA Process Resources	General HIA Information	N/A	HIA in the United States	A web tool that provides a map view and list of in- progress and completed HIAs in the U.S. Users can search by organization type, decision-making level, sector, grant type, and state. Provides a general summary of each HIA and a link to any related information (e.g. HIA report, website, etc.).	N/A	Health Impact Project; Centers for Disease Control Healthy Community Design Initiative	http://www.pewtrusts.o rg/en/multimedia/data- visualizations/2015/hia- map
HIA Process Resources	General HIA Information	N/A		Website that includes a comprehensive list of in- progress and completed HIAs in the U.S., with options to help narrow down the search, and important information on HIA methodology and resources.		University of California Los Angeles HIA Clearinghouse Learning & Information Center (UCLA HIA- CLIC)	http://www.hiaguide.or g/
HIA Process Resources	General HIA Information	N/A	Minimum Elements and Practice Standards for Health Impact Assessment, Version 3	Updated HIA minimum elements and practice standards developed by a working group of experienced HIA practitioners released in 2014.		Society of Practitioners of Health Impact Assessment (SOPHIA)	https://sophia.wildapric ot.org/resources/Docu ments/HIA-Practice- Standards-September- 2014.pdf
HIA Process Resources	General HIA Information	N/A	Society of Practitioners of Health Impact Assessment (SOPHIA)	An organization for HIA practitioners in North America and worldwide.	N/A	Society of Practitioners of Health Impact Assessment (SOPHIA)	https://sophia.wildapric ot.org/
HIA Process Resources	General HIA Information	N/A	World Health Organization (WHO) Health Impact Assessment	Website of information on HIA methodology, evidence, tools, policies, news, and events. Offers information and examples of HIAs conducted internationally.	N/A	World Health Organization (WHO)	http://www.who.int/hia /en/

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
HIA Process Resources	General HIA Information	N/A		Offers a basis for why we need health informed policies and decision-making; outlines the elements of an HIA, including criteria that define an HIA and conclusions regarding the practice; identifies current issues and challenges in HIA; and highlights structures and policies for promoting HIA.	N/A	Committee on HIA; National Research Council	http://www.nap.edu/cat alog.php?record_id=13 229
HIA Process Resources	General HIA Information	N/A	Human Impact Partners	Human Impact Partners is one of the few organizations in the U.S. conducting health-based analyses with an explicit focus on uncovering and then addressing the policies and practices that make communities less healthy and create health inequities. HIA is one of their main tools for conducting this work.	N/A	Human Impact Partners	http://www.humanimp act.org/
HIA Process Resources	General HIA Information	N/A	Healthy Places: Health Impact Assessment	Webpage with information on the role HIA plays in the Centers for Disease Control and Prevention's (CDC) Healthy Community Design Initiative and HIA information and resource links.	N/A	Centers for Disease Control and Prevention (CDC)	http://www.cdc.gov/he althyplaces/hia.htm
HIA Process Resources	General HIA Information	N/A		Provides good practice guidance for conducting an HIA to determine potential impacts on community health as a result of project development. This guidance supports International Finance Corporation's (IFC) Performance Standards on Social and Environmental Sustainability. This document has three objectives: (1) To present methodological approaches to assess and address potential community health impacts that might typically be encountered in the development or review of existing or future industrial projects; (2) To assist in the development of the terms of reference (TOR) that may be needed to conduct the HIA; and (3) To help ensure inclusion of health impact aspects in the social and environmental impact assessment process.	N/A	International Finance Corporation (IFC) World Bank Group (WBG)	http://www.ifc.org/wps /wcm/connect/a0f1120 048855a5a85dcd76a65 15bb18/healthimpact.p df?mod=ajperes

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
HIA Process Resources	General HIA Information	N/A	A Guide for Health Impact Assessment	Provides a brief background on HIA, an outline of essential and common tasks in the HIA process, discussion of common issues and challenges encountered in HIA, and examples of and links to resources for practice. It also provides suggestions for integrating health analysis within the regulatory environmental impact assessment process, obtaining inclusion from diverse stakeholders, and evaluating the HIA process.	N/A	California Department of Public Health	http://www.cdph.ca.go v/pubsforms/Guideline s/Documents/HIA%20 Guide%20FINAL%20 10-19-10.pdf
HIA Process Resources	General HIA Information	N/A	A Health Impact Assessment Toolkit: A Handbook to Conducting HIA, 3rd Edition	A hands-on teaching guide for how to conduct health impact assessment. The Toolkit provides an introduction to HIA, walks the reader through the step-by-step process of conducting HIA, provides helpful tools for conducting HIA, and contains information on common community health indicator.	N/A	Human Impact Partners	http://www.humanimp act.org/downloads/hia- toolkit-2011/
HIA Process Resources	General HIA Information	N/A	HIA Summary Guides	Provides brief, two-page guides on each step of the HIA process outlining the step's objective, essential tasks, key points, tools, and resources.	N/A	Human Impact Partners	http://www.humanimp act.org/downloads/hia- steps/
HIA Process Resources	General HIA Information	N/A	The Merseyside Guidelines for Health Impact Assessment	Some of the first guidelines that provided the foundation for HIA internationally. Covers HIA procedures, methodology, core values, conceptual and methodological issues, and tools.	N/A	International Health IMPACT Assessment Consortium	http://www.apho.org.u k/resource/item.aspx?R ID=44256
HIA Process Resources	General HIA Information	N/A	Health Impact Assessment: A Practical Guide	Provides a practical approach to undertaking HIA. Based on the findings of an HIA project in the United Kingdom, the aim is to encourage greater consideration of health and well-being through the use of HIA within project, program, and policy development in HIA anywhere.	N/A	Centre for Health Equity Training, Research and Evaluation part of the University of New South Wales (UNSW)Research Centre for Primary Health Care and Equity	http://hiaconnect.edu.a u/wp- content/uploads/2012/0 5/Health_Impact_Asse ssment_A_Practical_G uide.pdf

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
HIA Process Resources	General HIA Information	N/A	Health Impact Assessment: Concepts and Guidelines for the Americas	Provides information on the development of impact assessments in general and HIA in particular, in the U.S. and abroad. The guide also covers the methodology of HIA and examples from HIAs conducted in the U.S. and internationally.	N/A	Pan American Health Organization (PAHO)	http://www.paho.org/h q/index.php?option=co m_docman&task=doc_ download&gid=23890 &Itemid=270⟨=en
HIA Process Resources	General HIA Information	N/A	Health Impact Assessment: Quick Guide	Covers what an HIA is, how it can be used, the value of HIA and its challenges, the different steps of HIA, and the different types of HIA.	N/A	National Association of County and City Health Officials (NACCHO)	http://activelivingresea rch.org/files/NACCHO _HIAQuickGuide_0.pd f
HIA Process Resources	General HIA Information	N/A	Health Impact Assessment: A Guide for Practice	A complementary guide to other HIA resources that is designed to provide a history of HIA in the U.S., information on each step of the HIA process, illustrative examples from practice, as well as suggestions for stakeholder participation and the integration of health analysis in the environmental impact assessment process.	N/A	San Francisco Department of Public Health; Human Impact Partners	http://www.humanimp act.org/downloads/hia- guide-for-practice/
HIA Process Resources	General HIA Information	N/A	About HIA	Webpage of general information on HIA, including a glossary of related terms.	N/A	HIA Connect	http://hiaconnect.edu.a u/resources/about-hia/
HIA Process Resources	General HIA Information	N/A	Examples of HIA	Webpage providing links to HIAs of varying levels of assessment conducted worldwide for a wide variety of sectors including housing, mining, gender, waste, water, culture, and tourism, to name a few.	N/A	World Health Organization (WHO)	http://www.who.int/hia /examples/en/
HIA Process Resources	General HIA Information	N/A	FAQs about Integrating HIA into EIA (Environmental Impact Assessment)	Answers frequently asked questions raised when considering integrating HIA into EIA. FAQs cover topics like the benefits of conducting HIA, a comprehensive health impacts analysis under the National Environmental Policy Act (NEPA), and how HIA can fit into the EIA process.	N/A	Human Impact Partners	http://www.humanimp act.org/downloads/faqs- about-integrating-hia- into-environmental- impact-assessment-2/

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
HIA Process Resources	General HIA Information	N/A	A Guide to Health Impact Assessments in the Oil and Gas Industry	Defines and outlines the purpose and value of HIAs within the oil and gas industry.	N/A	Concervation	https://www.internatio nalsos.com/foundation/ ~/media/1a1ecdfa8c95 405e8a619d782fe4594 0.ashx
HIA Process Resources	General HIA Information	N/A	Health Impact Assessment: Summary of the Good Practice Guidance (Mining and Metal Operations)	Introduces the concept of HIA and how mining companies can evaluate the health and well-being effects that mining operations have on the local communities in which they operate.	N/A	International Council on Mining and Metals (ICMM)	http://www.icmm.com/ document/977
HIA Process Resources	General HIA Information	N/A	Health Impact Assessment (Mining and Metals Operations)	Sets out an overview of how mining and metals operations can affect the health and well-being of local communities, describes typical HIA processes, and outlines a methodology for undertaking a rapid assessment so that in-house practitioners are involved from the start. Provides an overview of how mining and metal operations affect community health and describes how the HIA methodology can be used for a rapid assessment. Recognizes that it is imperative to integrate health impact assessment with environmental and social impact assessments and provides the reader with management tools to achieve this.	N/A	International Council for Mining and Metals (ICMM)	http://www.icmm.com/ document/792
HIA Process Resources	General HIA Information	N/A	Assessment: International Best	List of international HIA best practice principles intended to promote HIA, lead to better consideration of the health implications of decisions, and render decisions more sustainable.	N/A		http://www.iaia.org/upl oads/pdf/SP5_3.pdf

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
HIA Process Resources	General HIA Information	N/A	HIA Case Studies	Webpage that provides synopses and links to HIA case studies completed around the nation.	N/A	Health Impact Project	http://www.pewtrusts.o rg/en/projects/health- impact-project/health- impact- assessment/case- studies
HIA Process Resources	General HIA Information	N/A	HIA Case Stories	Webpage that provides synopses and links to HIA case stories, Health in All Policies projects, and other health projects completed by Human Impact Partners.	N/A	Human Impact Partners	http://www.humanimp act.org/projects/hia- case-stories/
HIA Process Resources	General HIA Information	N/A	Sample HIA Policies	Webpage that provides links to state and federal policies requiring or recommending the use of HIA in regulatory processes at the state and federal levels.	N/A	Human Impact Partners	http://www.humanimp act.org/capacity- building/hia-tools-and- resources/#samplepolic ies
HIA Process Resources	General HIA Information	N/A	Healthy Community Design Checklist Toolkit	This toolkit can help planners, public health professionals, and the general public include health in the community planning process. The toolkit is comprised of four components: 1) Healthy Community Design Checklist; 2) Healthy Community Design PowerPoint Presentation; 3) Creating a Health Profile of Your Neighborhood; and 4) Planning for Health Resources Guide.	N/A	Centers for Disease Control and Prevention (CDC)	http://www.cdc.gov/he althyplaces/toolkit/
HIA Process Resources	General HIA Information	N/A	More Than a Statement of the Crushingly Obvious: A Critical Guide to HIA	Focuses on the aims of HIA rather than the process, while serving as a practical guide that can steer people through doing an HIA.	N/A	West Midlands Public Health Observatory	http://healthimpactasse ssment.pbworks.com/f/ Critical+guide+to+HIA +more+than+a+statem ent+of+the+crushingly +obvious- +WMPHO+England+- +2008.pdf

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
HIA Process Resources	General HIA Information	N/A	HIA Connect	Australian website providing HIA resources, publications, guides, news, and events.	N/A	University of New South Wales (UNSW) Research Centre for Primary Health Care and Equity	http://hiaconnect.edu.a u/
HIA Process Resources	General HIA Information	N/A	HIA Gateway	Website that provides access to resources and information on HIA for those new to HIA, practitioners of HIA, and those wishing to commission HIAs or some other impact assessment process (e.g., Integrated Impact Assessment, Mental Well-being Impact Assessment and health-related Strategic Environmental Assessment).	N/A	Public Health England	http://www.apho.org.u k/default.aspx?QN=P_ HIA
HIA Process Resources	General HIA Information	N/A	Human Impact Partners' Tools and Resources	Inventory of HIA tools and resources compiled by Human Impact Partners.	N/A	Human Impact Partners	http://www.humanimp act.org/capacity- building/hia-tools-and- resources/
HIA Process Resources	General HIA Information	N/A	Methods (Used in HIA)	Information on different methodologies that can be used in health impact assessment. Links to other websites with more in-depth information also provided.	N/A	UCLA HIA- Clearinghouse Learning & Information Center (CLIC)	http://www.hiaguide.or g/methods- resources/methods
HIA Process Resources	General HIA Information	N/A	National Association of County and City Health Officials (NACCHO): Health Impact Assessment	Website with HIA resources, including webinars, HIA examples, publications, and a map of local health departments that have conducted or are currently conducting HIA (with links to those departments).	N/A	National Association of County and City Health Officials (NACCHO)	http://www.naccho.org /programs/community- health/healthy- community- design/health-impact- assessment
HIA Process Resources	General HIA Information	N/A	NACCHO HIA Mentorship Project 2013-2014 Toolkit	Provides a basic primer on HIA and a number of resources on the topic; it is not meant to be comprehensive.	N/A	National Association of County and City Health Officials (NACCHO)	http://www.naccho.org /topics/environmental/ health-impact- assessment/upload/NA CCHO-HIA- Mentorship-Project- Toolkit_FINAL.pdf

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
HIA Process Resources	General HIA Information	N/A	New Papid HIA	A model (for conducting an HIA in a short time frame with limited financial resources and an overview look at health impacts, while maintaining a high level of stakeholder engagement in the process; based on an HIA case study.	N/A	Human Impact Partners	http://www.humanimp act.org/capacity- building/hia-tools-and- resources/#newrapidhi a
HIA Process Resources	General HIA Information	Environment Health and Healthcare	Health Impact	Provides information on the relationship between health and parks and trails, and tools for the development of HIAs with park and trail components.	N/A	Centers for Disease Control and Prevention (CDC)	http://www.cdc.gov/he althyplaces/parks_trails /default.htm
HIA Process Resources	General HIA Information	N/A	Rapid Health Impact	Provides information and tools for conducting a participatory workshop rapid HIA, including the HIA Rapid Assessment Workshop Checklist.	N/A	Design for Health	http://designforhealth.n et/wp- content/uploads/2012/1 2/BCBS_Rapidassess ment_011608.pdf
HIA Process Resources	General HIA Information	N/A	A Review of Health Impact Assessments in the U.S.: Current State- of-Science, Best Practices, and Areas for Improvement	Provides the results of a systematic review of health impact assessments (HIAs) from the U.S. that aimed to identify the state of the HIA practice in the U.S., best practices in HIAs, and potential areas for improving the HIA community of practice. The review was focused on HIAs from the four sectors that the U.S. Environmental Protection Agency's (EPA's) Sustainable and Healthy Communities Research Program has identified as target areas for empowering communities to move toward more sustainable states. These four sectors are Transportation, Housing/Buildings/Infrastructure, Land Use, and Waste Management/Site Revitalization.	N/A	U.S. Environmental Protection Agency (EPA)	https://www.epa.gov/h ealthresearch/hia- review-synthesis-report
HIA Process Resources	General HIA Information	Health and Healthcare Transportation	Transportation Health Impact Assessment Toolkit	Provides a framework for public health departments, city planners, project managers, and other stakeholders to conduct HIAs on proposed transportation projects, plans, and policies.	N/A	Centers for Disease Control and Prevention (CDC)	http://www.cdc.gov/he althyplaces/transportati on/hia_toolkit.htm

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
HIA Process Resources	HIA Trainings and Webinars	N/A	HIA Training Slides	Extensive training slides introducing the user to HIA, going into detail for each step of the HIA process, and providing background information on the relationship between land use, public policy, and health/health determinants.	N/A	Human Impact Partners	http://www.humanimp act.org/downloads/hia- training-slides-aug- 2013/
HIA Process Resources	HIA Trainings and Webinars	N/A	Planning for Healthy Places with Health Impact Assessments	Online course sponsored by the Centers for Disease Control and Prevention (CDC) that explains the value of conducting an HIA and the steps involved. Throughout the course, examples of HIAs are highlighted and discussed.	N/A	National Association of County and City Health Officials (NACCHO); American Planning Association	http://advance.captus.c om/Planning/hia2/hom e.aspx
HIA Process Resources	HIA Trainings and Webinars	N/A	UCLA HIA Training Manual	Seven module HIA training program that offers an introduction to HIA, the steps in the HIA process, case studies, and a review of barriers to the practice.	N/A	University of California Los Angeles (UCLA)	http://www.hiaguide.or g/training/training- guides/ucla-hia- training-manual
HIA Process Resources	HIA Trainings and Webinars	N/A	HIA Training	Webpage providing links to HIA training guides and opportunities from a variety of organizations.	N/A	University of California Los Angeles HIA Clearinghouse & Information Center (UCLA HIA- CLIC)	http://www.hiaguide.or g/training
HIA Process Resources	HIA Trainings and Webinars	N/A	Health Impact Assessment Resources: A Six-Part Training Course	Provides summaries and links to a six module training course on HIA, complete with a case study as well as introductory materials and resources.	N/A	Active Living Research	http://activelivingresea rch.org/health-impact- assessment-resources
HIA Process Resources	HIA Trainings and Webinars	N/A	Implementing Equity in Health in All Policies and Health Impact Assessments: From Concept to Action	Webinar focused specifically on why equity is critical to Health in All Policies (HiAP) and HIAs, and specific strategies to implement and ensure equity. Speakers discuss principles and frameworks for the inclusion of equity, as well as present examples of the principles in practice.	N/A	PolicyLink; National Association of County and City Health Officials (NACCHO)	https://cc.readytalk.co m/cc/playback/Playbac k.do?id=4wr7jg

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HIA Process Resources	HIA Trainings and Webinars	N/A	Tracking Webinar Series - Part II: Incorporating Environmental Public Health Tracking into Health Impact Assessments	The second in a three-part series of Environmental Public Health Tracking Program webinars. Speakers discussed opportunities for intersection between HIA and tracking data and also provided participants with a national perspective on the use of HIAs and the Tracking Network.	N/A	Association of State and Territorial Health Officials (ASTHO); American Public Health Association (APHA); National Association of County and City Health Officials (NACCHO)	http://wpc.0948.edgeca stcdn.net/000948/webi nar/PH_Tracking/2/lib/ playback.html
HIA Process Resources	Screening Step	N/A	The HIA Procedure: Screening	Webpage describing the Screening step of the HIA process, with an international HIA example.	N/A	World Health Organization (WHO)	http://www.who.int/hia /tools/process/en/
HIA Process Resources	Screening Step	N/A	HIA Readiness Questions	Presents questions to consider with prospective HIA partners to determine their preparedness for launching an HIA.	N/A	Human Impact Partners	http://www.humanimp act.org/downloads/hia- readiness-questions/
HIA Process Resources	Screening Step	N/A	Health Impact Assessment Level 1: Preliminary Checklist	A simple two-page form that enables planners to assess whether a project is significant enough in size and scope and has enough potential health effects to warrant an HIA.	N/A	Design For Health	http://designforhealth.n et/wp- content/uploads/2012/0 2/BCBS_HIAPrelimina ryChecklis2.1_061107. pdf
HIA Process Resources	Screening Step	N/A	Deciding if a Health Impact Assessment is Required (Screening for HIA)	Information based on the real-world, practical experience of HIA practitioners, leading academics, policy makers and commissioners involved in a variety of HIAs across the United Kingdom.	N/A	Health Development Agency	http://www.impactsant e.ch/pdf/NHS_HDA_D eciding%20if%20HIA %20is%20required_% 202003
HIA Process Resources	Screening Step	N/A	Screening White Paper: Considerations for the Selection of Appropriate Policies, Plans, or Projects for Analysis using Health Impact Assessment	Provides criteria to assist people with selecting a policy, program, plan, or project on which to conduct HIA.	N/A	Human Impact Partners	http://www.humanimp act.org/downloads/hia- screening-whitepaper/

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HIA Process Resources	Screening Step	N/A	Screening Worksheet	Sample worksheet to guide HIA screening.	N/A	Human Impact Partners	http://www.humanimp act.org/downloads/hia- screening-worksheet/
HIA Process Resources	Screening Step	N/A	Health Impact Assessment Generic Screening Tool	Generic tool to be used during the Screening step in an HIA.	N/A	Minnesota Department of Health	http://www.apho.org.u k/resource/view.aspx? RID=44898
HIA Process Resources	Screening Step	N/A	Leadership Team, Steering Committee, Technical and Community Advisory Committees - Definition, Purpose and Internal Process	Summarizes the purpose, roles, and functions of the various types of committees involved in HIAs.	N/A	Human Impact Partners	http://www.humanimp act.org/downloads/lead ership-team-steering- committee-technical- and-community- advisory-committees/
HIA Process Resources	Screening Step	N/A	to Guide Decisions on	Provides a visual aid in the form of a decision algorithm that helps guide analysts' discussions about whether to proceed with an HIA. It may not be possible to come up with definitive answers for the different decision points in the algorithm; nonetheless, the algorithm can help structure, standardize, and document the decision process.	N/A	B.L. Cole, et al. 2005. Methodologies for Realizing the Potential of Health Impact Assessment. American Journal of Preventitive Medicine 28(4):382-389. (Figure 1)	http://www.healthedpar tners.org/ceu/hia/hia02 /02_01_methodologies _realizing_potential_hi a_2005.pdf
HIA Process Resources	Scoping Step	N/A	Scoping Exercise	Guides the user through determining health determinants, potential pathways, geographic area, impact research questions, data sources, and methods.	N/A	Human Impact Partners	http://www.humanimp act.org/downloads/hia- training-scoping- exercise/
HIA Process Resources	Scoping Step	N/A	The HIA Procedure: Scoping	Webpage describing the Scoping step of the HIA process.	N/A	World Health Organization (WHO)	http://www.who.int/hia /tools/process/en/index 1.html

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
HIA Process Resources	Scoping Step	N/A	Example of an HIA Scope	Draft scope for an HIA conducted in 2008 that demonstrates the elements of a comprehensive HIA scope. Covers health determinants, key health issues, project/plan objectives, HIA framing questions, HIA research methods and tasks, and data sources.	N/A	Human Impact Partners	http://www.humanimp act.org/downloads/draf t-scope-of-the-concord- naval-weapons-station- hia/
HIA Process Resources	Scoping Step	N/A	Health Effects Assessment Tool (HEAT): An Innovative Guide for HIA in Resource Development Projects	Introduces an innovative process for high-value HIA implementation that helps anticipate the types of health effects commonly associated with resource development projects. For each component of a research and development project, this tool presents links to commonly associated health determinants and health outcomes, as well as important contextual and project- specific factors that need to be taken into account. Practical guidance and recommendations are also provided.	N/A	Habitat Health Impact Consulting; Environmental Resources Management (ERM)	http://static1.squarespa ce.com/static/562c532f e4b079eaf38b7ed0/t/5 6327fbbe4b0ee8fa833 5103/1446150075297/ HealthEffectsofResour ceDevelopmentProjects oilgas.pdf
HIA Process Resources	Scoping Step	N/A	Report on Mental Health in Health Impact Assessment: A Resource for Health Impact Assessment Practitioners	Provides basic information for practitioners who are considering including mental health in their HIA. Systematically reviews and maps the inclusion of mental health in completed health impact assessment reports.	N/A	Habitat Health Impact Consulting	https://sophia.wildapric ot.org/resources/Docu ments/MHinHIA_Lucy k.pdf
HIA Process Resources	Scoping Step	N/A	Social Determinants of Health: Know What Affects Health	Webpage on social determinants of health (SDOH), with links on SDOH data, tools for action, programs, policy options, frequently asked questions, and other resources.	N/A	Centers for Disease Control and Prevention (CDC)	http://www.cdc.gov/so cialdeterminants/
HIA Process Resources	Scoping Step	N/A	Social Determinants of Health	Webpage on information, news, documents and publications, methodologies, tools, and other resources on the social determinants of health.	N/A	World Health Organization (WHO)	http://www.who.int/soc ial_determinants/en/
HIA Process Resources	Scoping Step	N/A	The Determinants of Health	World Health Organization's (WHO) webpage on the determinants of health and the evidence base for seven of those determinants.	N/A	World Health Organization (WHO)	http://www.who.int/hia /evidence/doh/en/

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HIA Process Resources	Scoping Step	N/A	Determinants of Health	Webpage presents Healthy People 2020 information on the range of personal, social, economic, and environmental factors that influence health status, known as determinants of health.	N/A	U.S. Department of Health and Human Services (DHHS) Healthy People 2020	http://www.healthypeo ple.gov/2020/about/D OHAbout.aspx
HIA Process Resources	Scoping Step	N/A	HIA Screening/ Scoping Checklist of Health Determinants	Guides HIA practitioners through considering which health determinants to include in the HIA and the determinants' potential impact, including levels of likelihood and magnitude.	N/A	University of California Los Angeles (UCLA) Health Impact Assessment Project	http://www.ph.ucla.edu /hs/health- impact/training/pdfs/U CLA_HIA_checklist.p df
HIA Process Resources	Scoping Step	N/A	Sectors and Causal Pathways	Webpages that provide background information on the connections between different types of policies and projects and their downstream health effects. This general information combined with local data provides a foundation for HIA analysis.	N/A	University of California Los Angeles HIA Clearinghouse Learning & Information Center (UCLA HIA- CLIC)	http://www.hiaguide.or g/sectors-and-causal- pathways
HIA Process Resources	Scoping Step	N/A	Pathway Diagram Examples	Sample pathways diagrams connecting various issues to health for use in the HIA scoping step.	N/A	Human Impact Partners	http://www.humanimp act.org/downloads/exa mples-of-pathway- diagrams-linking- projects-plans-and- policies-to-health- outcomes/
HIA Process Resources	Scoping Step	N/A	Workplans: A Program Management Tool	A guide for creating work plans in your projects. Work plans can be helpful for the HIA process in general, as well as for work with stakeholders during the HIA.	N/A	Centers for Disease Control and Prevention (CDC)	http://www.cdc.gov/ora lhealth/state_programs/ pdf/workplans.pdf
HIA Process Resources	Scoping Step	N/A	Work Plan Templates	Downloadable basic and enhanced work plan templates that can guide the development of the HIA work plan.	N/A	Centers for Disease Control and Prevention (CDC)	http://www.cdc.gov/ch ronicdisease/about/foa/ work-plan-temp.htm

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HIA Process Resources	Assessment Step	N/A	Health Impact	A detailed spreadsheet-based assessment that uses a point-based scoring system to assess achievement across a wide variety of planning-related topics, including accessibility, air quality, environment and housing quality, food, mental health, physical activity, safety, social capital, and water.	N/A	Design for Health	http://designforhealth.n et/wp- content/uploads/2012/1 2/BCBS_HIAThreshol d4.0_063008.pdf
HIA Process Resources	Assessment Step	N/A	1	A template within the Assessment section of the HIA Report Guide for documenting the direction, extent, likelihood, and distribution of impacts for each health outcome/health determinant, and the quality of evidence on which the assessment was based.	N/A	Human Impact Partners	http://www.humanimp act.org/downloads/hia- report-guide-dec-2010- 2/
HIA Process Resources	Assessment Step	N/A	The HIA Procedure: Appraisal	Webpage describing the Assessment step of the HIA process.	N/A	World Health Organization (WHO)	http://www.who.int/hia /tools/process/en/index 2.html
HIA Process Resources	Assessment Step	N/A	Using Evidence Within HIA	Webpage that provides information on the ethical use of evidence in the HIA process.	N/A	World Health Organization (WHO)	http://www.who.int/hia /tools/evidenceuse/en/
HIA Process Resources	Assessment Step	N/A	A Guide to Quantitative Methods in Health Impact Assessment	Based on well-known methods from health economic evaluation, but adapted for more general use across public health-, this is intended as an introduction to quantitative methods within HIA. Readers who need to deepen their knowledge in quantitative evaluation methodologies are referred to the literature in the field or to experts in the field.	N/A	Swedish National Institute of Public Health	http://www.folkhalsom yndigheten.se/pagefiles /12223/R2008-41- Quantitative-Methods- in-HIA.pdf
HIA Process Resources	Assessment Step	N/A	A Guide to Reviewing	Provides a step-by-step framework to assist practitioners in reviewing literature for use in HIA. As there may be limited time and resources available, this guide presents both essential components that must be included, even in a brief literature review, and additional elements than can be included when resources (including time and skills) permit, for more comprehensive literature reviews.	N/A	The London Health Observatory	http://www.lho.org.uk/ download.aspx?urlid=1 0846&urlt=1

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HIA Process Resources	Assessment Step	N/A	A Guide to Using Qualitative Research Methodology	Helps the user think about all the steps that need to be taken to ensure that a good quality piece of work is produced. Provides an introduction to qualitative research methods, developing qualitative research designs, methods for obtaining data, and data management and analysis.	N/A	Medecins Sans Frontieres	http://fieldresearch.msf .org/msf/bitstream/101 44/84230/1/Qualitative %20research%20meth odology.pdf
HIA Process Resources	Assessment Step	N/A	HIA Data Sources	Provides a list of commonly used data sources in HIA grouped into the categories of: Demographics & Background on Health Determinants, Health Data, and Health Benchmarks & Indicators.	N/A	Human Impact Partners	http://www.humanimp act.org/downloads/hip- hia-data-sources-nov- 2012/
HIA Process Resources	Assessment Step	N/A	Design for Health Comprehensive Plan Review Checklists	Designed for use in reviewing comprehensive land use plans, transportation plans, and neighborhood plans, and is appropriate for different locations. Elements examined include land use, transportation, water resources, parks and open space, and urbanization/redevelopment/ economic development.	N/A	Design for Health	http://designforhealth.n et/wp- content/uploads/2012/1 2/BCBS_CompCheckli st_092607WithIntro.pd f
HIA Process Resources	Assessment Step	N/A	Qualitative Research Methods: A Data Collector's Field Guide, Module 1- Qualitative Research Methods Overview	Introduces the fundamental elements of a qualitative approach to research.	N/A	Family Health International	http://www.ccs.neu.edu /course/is4800sp12/res ources/qualmethods.pd f
HIA Process Resources	Recommendations Step	N/A	A Health Impact Assessment Toolkit A Handbook to Conducting HIA, 3rd Edition, Chapter 6. Recommendations	Provides information on the objective of developing HIA recommendations, essential tasks, key points, criteria, and challenges and responses in developing HIA recommendations.	N/A	Human Impact Partners	http://www.humanimp act.org/downloads/hia- toolkit-2011/

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HIA Process Resources	Recommendations Step	N/A	Health Impact Assessment: A Guide for Practice, Section 2.4 Recommending Mitigation and Alternatives	Gives a brief overview of the objectives and criteria to consider when developing HIA recommendations.	N/A	Rajiv Bhatia	http://www.humanimp act.org/downloads/hia- guide-for-practice/
HIA Process Resources	Recommendations Step	N/A	Impact Assessment,	Pages 68-70 provide information on and practical examples of the various types of HIA recommendations that can be developed and the development process.	N/A	National Research Council	http://www.nap.edu/cat alog.php?record_id=13 229
HIA Process Resources	Reporting Step	N/A		Provides a basic structure for your HIA report, including the types of information that, at a minimum, should be included.	N/A	Human Impact Partners	http://www.humanimp act.org/downloads/hia- report-guide-dec-2010- 2/
HIA Process Resources	Reporting Step	N/A	Model HIA Reports	A living library of model HIA reports, intended to showcase examples of high quality HIA reporting practice.	N/A	Society of Practitioners of Health Impact Assessment (SOPHIA)	https://sophia.wildapric ot.org/Model-HIA- Reports
HIA Process Resources	Reporting Step	N/A	The HIA Procedure: Reporting	Provides information on reporting an HIA.	N/A	World Health Organization (WHO)	http://www.who.int/hia /tools/process/en/index 3.html
HIA Process Resources	Reporting Step	N/A	A Review Package for Health Impact Assessment Reports of Development Projects	Focuses on criteria to be used to reach an opinion on the quality of completed development project HIA reports prepared in the United Kingdom, but can be modified to reflect criteria consistent with the decision-making contexts and HIA practice in other countries. The questions in the review package are intended to cover key areas in HIA and to ensure that the assessment picks up on critical issues for public health.	N/A	Ben Cave Associates	http://hiaconnect.edu.a u/wp- content/uploads/2012/0 5/hia_review_package. pdf

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HIA Process Resources	Monitoring Step	N/A	The HIA Procedure: Monitoring	Webpage describing the Monitoring step of the HIA process.	N/A	World Health Organization (WHO)	http://www.who.int/hia /tools/process/en/index 4.html
HIA Process Resources	Monitoring Step	N/A	Example HIA Monitoring Plan (Hawaii County Ag Development Plan HIA)	Sample monitoring plan from an HIA conducted by the Kohala Center.	N/A	Human Impact Partners	http://www.humanimp act.org/downloads/koh ala-center-health- impact-assessment-in- hawaii/
HIA Process Resources	Evaluation Step	N/A	Evaluating Your HIA	Webpage that provides information on the Evaluation step of the HIA process.	N/A	World Health Organization (WHO)	http://www.who.int/hia /evidence/eva/en/
HIA Process Resources	Evaluation Step	N/A	HIA Evaluation Sample Questions	Sample questions for evaluating an HIA process.	N/A	Human Impact Partners	http://www.humanimp act.org/downloads/hia- evaluation-sample- questions/
HIA Process Resources	Evaluation Step	N/A	The HIA Evaluation Cookbook	Webpage with summaries and links to activity on HIA evaluation.	N/A	World Health Organization (WHO)	http://www.who.int/hia /evidence/cookbook/en /
HIA Process Resources	Evaluation Step	N/A	Hyghigting Hogith	Aims to help practitioners decide what aspects of an HIA should be evaluated and how. Uses examples of how different HIA teams have approached evaluation and explains the particular issues associated with evaluating HIA.	N/A	Health Development Agency	http://www.who.int/hia /evidence/en/practice.p df
HIA Process Resources	HIA Communication	N/A	Communicating about Health Impacts	Presents practical ideas for presenting information about the HIA process and the findings of HIA studies to a variety of audiences.		Design for Health	http://designforhealth.n et/wp- content/uploads/2012/1 2/BCBS_Communicat eHIA_100207.pdf
HIA Process Resources	Community Participation, Partnerships, and Equity	N/A	Communicating about Equity in Health Impact Assessment: A Guide for Practitioners	Serves as a guide to aid HIA practitioners in their efforts to communicate about equity as an essential step towards advancing equity through practice.		Society of Practitioners of Health Impact Assessment (SOPHIA) Equity Working Group	https://sophia.wildapric ot.org/resources/Docu ments/Communicating _Equity_in_HIA_Final .pdf

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
HIA Process Resources	Community Participation, Partnerships, and Equity	N/A	Equity Metrics for Health Impact Assessment Practice	A set of process and outcome metrics related to promoting equity through HIA developed through a consensus process. These metrics provide more detail to the <i>Minimum Elements and Practice Standards for</i> <i>HIA, Version 3</i> regarding the incorporation of equity into HIA practice.	N/A	Society of Practitioners of Health Impact Assessment (SOPHIA) Equity Working Group	https://sophia.wildapric ot.org/resources/Docu ments/EquityMetrics_F INAL.pdf
HIA Process Resources	Community Participation, Partnerships, and Equity	N/A	-	Public participation' means to involve those who are affected by a decision in the decision-making process. It promotes sustainable decisions by providing participants with the information they need to be involved in a meaningful way, and it communicates to participants how their input affects the decision. The practice of public participation is a spectrum that ranges from Informing to Empowering.	N/A	International Association for Public Participation	http://c.ymcdn.com/sit es/www.iap2.org/resou rce/resmgr/imported/IA P2%20Spectrum_verti cal.pdf
HIA Process Resources	Community Participation, Partnerships, and Equity	N/A	Promoting Equity through the Practice of Health Impact Assessment	Serves as a primer to demonstrate: 1) how HIA practitioners and equity advocates can ensure that the practice of HIA maintains a strong focus on promoting equity; and 2) how HIA can be used as a tool to support equitable decision-making processes and outcomes. Describes the centrality of equity in HIA implementation in order to advance just and fair outcomes, and presents a set of principles for guidance in HIA practice. Also provides specific strategies for implementing each principle, identifies key challenges to this work, as well as suggestions for overcoming the challenges.	N/A	PolicyLink; Adler School of Professional Psychology; Human Impact Partners; San Francisco Department of Public Health (SFDPH)	http://www.policylink. org/sites/default/files/P ROMOTINGEQUITY HIA_FINAL.PDF
HIA Process Resources	Community Participation, Partnerships, and Equity	N/A	through Health Impact Assessment	Highlights and explains the issues associated with addressing inequalities through HIA and offers advice and guidance based on ways in which other practitioners have overcome challenges and achieved success. Identifies other sources of information on general aspects of addressing inequalities and suggests some lessons that can be learned from other areas of public health practice.	N/A	Health Development Agency	http://www.impactsant e.ch/pdf/NHS_HDA_A dressing%20inequalitie s%20through%20HIA_ %202003

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HIA Process Resources	Community Participation, Partnerships, and Equity	N/A	Alameda County Public Health	Case study of how one health department transformed its culture and practice to focus on non-traditional policies that impact health inequities while continuing to provide traditional and essential public health services and programming.	N/A	Human Impact Partners	http://www.humanimp act.org/downloads/tack ling-the-root-causes-of- health-inequities-how- the-alameda-county- public-health- department-is- addressing-the-social- determinants-of-health/
HIA Process Resources	Community Participation, Partnerships, and Equity	N/A	Understanding: The	Deals with the issues of how the public can participate in planning for health and which Design for Health tools can be used in participation processes or modified for such use.	N/A	Design for Health	http://designforhealth.n et/wp- content/uploads/2012/1 2/BCBS_PublicPart_0 91007.pdf
HIA Process Resources	Community Participation, Partnerships, and Equity	N/A	Guidance and Best Practices for Stakeholder Participation in Health Impact Assessments	Distills stakeholder participation techniques, case studies, and guiding principles from various fields of expertise, including HIA, environmental and social impact assessment, land use and transportation planning, community-based participatory research, and public health. Provides a Stakeholder Analysis worksheet for identifying potential stakeholders, their interest in the issue, what they can bring to the HIA, their potential role and power of influence, and ideal ways to engage them.	N/A	Stakeholder Participation Working Group of the 2010 HIA of the Americas Workshop	https://sophia.wildapric ot.org/resources/Docu ments/guide-for- stakeholder- participation.pdf
HIA Process Resources	Community Participation, Partnerships, and Equity	N/A	Participation Compass	Website that provides practical information for those working to involve people in projects, including methods, cases, library resources, news, and experts.	N/A	Bertelsmann Stiftung; Involve	http://participationcom pass.org/
HIA Process Resources	Community Participation, Partnerships, and Equity	N/A	Superfund Community Involvement	A website that provides resources to advocate and strengthen early and meaningful community participation during Superfund cleanups. Includes technical assistance, tools and resources, community advisory groups, trainings, and more.	N/A	U.S. Environmental Protection Agency (EPA)	https://www.epa.gov/su perfund/superfund- community- involvement

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HIA Process Resources	Community Participation, Partnerships, and Equity	N/A	Engaging with Intercultural Communities: Building the	Identifies principles of good practice in community engagement, participatory urban planning, and development and how participatory planning and development can contribute to community cohesion. Provides strategies and actions for capturing the diversity of and managing conflict in intercultural community planning and development.	N/A		http://www.apho.org.u k/resource/view.aspx? RID=92343
HIA Process Resources	Community Participation, Partnerships, and Equity	N/A	Public Participation Guidelines for Stakeholders in the Mining Industry	Provides guidance to stakeholders in the mining industry on how to extract the greatest benefit from public participation. In particular, the document provides guidance on the scale and extent of public participation for different types of projects, from short-duration, inexpensive processes to long, complex, costly processes.	N/A	Chamber of Mines of South Africa; Consultative Forum on Mining and the Environment	http://commdev.org/us erfiles/files/725_file_C MSA_PPGuide.pdf
HIA Process Resources	Community Participation, Partnerships, and Equity	N/A	()nnortunities for	Provides information on opportunities for stakeholder engagement in each step of the HIA process, examples of these-roles collaborators can play, and potential collaborators.	N/A	Human Impact Partners	http://www.humanimp act.org/downloads/opp ortunities-for- stakeholder- engagement/
HIA Process Resources	Community Participation, Partnerships, and Equity	N/A	Stakeholder Analysis Worksheet	A worksheet that can be used to document potential stakeholder groups, their representatives, the information or expertise they hold, the role that they can play, their interests or concerns about the HIA or project, any power to influence the project, and opportunities to communicate.	N/A	1	http://www.humanimp act.org/wp- content/uploads/Stakeh older-Analysis.pdf
HIA Process Resources	Community Participation, Partnerships, and Equity	N/A		Provides practical tools for planning and budgeting for various activities to involve stakeholders, including decision makers, community members, and others who might be impacted by a decision; and build meaningful stakeholder engagement into their HIA budgets upfront.	N/A	Society of Practitioners of Health Impact Assessment (SOPHIA) Equity Working Group	https://sophia.wildapric ot.org/resources/Docu ments/SEBudgetResou rce.pdf

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HIA Process Resources	Community Participation, Partnerships, and Equity	N/A	Example HIA Stakeholder Engagement Plan (Healthy Hough HIA)	An example Stakeholder Engagement Plan, which was used to steer the Hough Health Impact Assessment through the various interactions with stakeholders. It laid out the landscape of stakeholders that the Project would engage with and identified the different mechanisms of effectively interacting with them.	N/A	Design for Public Interest	http://www.humanimp act.org/wp- content/uploads/Exam ple-Stakeholder- Engagement-Plan.pdf
HIA Process Resources	Community Participation, Partnerships, and Equity	N/A	Talking about Health, Place, and Policy - Tree Exercise	This exercise provides a useful framework to discuss how health outcomes are a product of social determinants.	N/A	Human Impact Partners	http://www.humanimp act.org/wp- content/uploads/Tree- Exercise.pdf
HIA Process Resources	Community Participation, Partnerships, and Equity	N/A	BiodivERsA Stakeholder Engagement Handbook	Provides best practice guidelines for stakeholder engagement, addressing when and why stakeholders should be engaged, how to identify stakeholders, planning stakeholder engagement, methods of engagement and how to match those methods with the level of engagement, managing stakeholder conflict, and monitoring and evaluating engagement.	N/A	BiodivERsA	http://www.biodiversa. org/705/download
HIA Process Resources	Community Participation, Partnerships, and Equity	N/A	The Stakeholder Engagement Manual, Volume 2: The Practitioner's Handbook on Stakeholder Engagement	Provides a valuable step-by-step guide through the processes of engaging with stakeholders.	N/A	AccountAbility	http://www.accountabil ity.org/images/content/ 2/0/208.pdf
HIA Process Resources	Community Participation, Partnerships, and Equity	N/A	Public Participation: International Best Practice Principles	Promotes a meaningful practice of public participation amongst impact assessment (IA) practitioners. This document collates the principles for a state-of-the-art public participation practice.	N/A	International Association for Impact Assessment (IAIA)	http://www.iaia.org/upl oads/pdf/SP4.pdf
HIA Process Resources	Community Participation, Partnerships, and Equity	N/A	The Community Planning Website	Rich website resource providing principles, scenarios, and case studies on incorporating community planning into a project process. The catalogue of featured methods for community planning is a particularly useful resource, providing descriptions and details on getting community members involved in planning and design.	N/A	Community Planning	http://www.community planning.net/ http://www.community planning.net/methods/ methods_a-z.php

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HIA Process Resources	Community Participation, Partnerships, and Equity	N/A	How to Develop a Memorandum of Understanding	Provides information, resources, and a sample Memorandum of Understanding (MOU).	N/A	University of Illinois at Urbana- Champaign	https://web.extension.il linois.edu/cook/factshe ets/fs1162.html
HIA Process Resources	Community Participation, Partnerships, and Equity	N/A	Sample Template Memorandums of Understanding (MOU)	A template for drafting an MOU agreement with HIA partners.	N/A	County Health Rankings	http://www.countyhealt hrankings.org/resource s/memorandum- understanding
HIA Process Resources	Community Participation, Partnerships, and Equity	N/A	Sample Memorandums of Understanding Template	A template for drafting an MOU agreement with HIA partners.	N/A	Centers for Disease Control and Prevention (CDC)	www.cdc.gov/cancer/n cccp/doc/SampleMOA Template.doc
Databases	Literature/ Evidence Databases	Built Environment Environment Health and Healthcare Transportation		Website that provides research addressing the root causes of childhood obesity and physical inactivity, with a focus on communities, active transportation, schools, and parks and recreation. Resources include research papers and articles, tools, measures, research briefs, policy and practice impact stories, and more.	N/A	Active Living Research	http://activelivingresea rch.org/
Databases	Literature/ Evidence Databases	Health and Healthcare	American Cancer Society	Website that provides comprehensive cancer information on all types of cancer, including facts, statistics, prevention, detection, treatments, side effects, and more.	N/A	American Cancer Society	http://www.cancer.org/
Databases	Literature/ Evidence Databases	Health and Healthcare	American Heart Association	Website that provides information on common health conditions, such as arrhythmia, cholesterol, congenital defects, diabetes, heart attack, heart failure, high blood pressure, and more.	N/A	American Heart Association	http://www.heart.org/H EARTORG/
Databases	Literature/ Evidence Databases	Health and Healthcare	American Lung Association	Website that provides information on lung diseases, including lung cancer, asthma, Chronic Obstructive Pulmonary Disease (COPD), influenza, and more. Also provides data and reports on lung disease, tobacco control, air quality, health disparities research, and more.	N/A	American Lung Association	http://www.lung.org/
Databases	Literature/ Evidence Databases	Health and Healthcare	The Cochrane Library	A collection of databases containing medicine and healthcare-related information.	N/A	The Cochrane Collection	http://www.thecochran elibrary.com/view/0/in dex.html

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Databases	Literature⁄ Evidence Databases	Environment Health and Healthcare	Eco-Health Relationship Browser	Illustrates scientific evidence for linkages between human health and ecosystem services (i.e., benefits supplied by Nature). Provides information about several of our nation's major ecosystems, the services they provide, and how those services, or their degradation and loss, may affect people. Designed so that users can easily explore the services ecosystems provide and how those services affect human health and well-being. The research summarized in this tool represents a broad selection of recent evidence.	N/A	U.S. Environmental Protection Agency (EPA)	http://enviroatlas.epa.g ov/enviroatlas/Tools/E coHealth_Relationship Browser/index.html https://www.epa.gov/e nviroatlas/enviroatlas- eco-health-relationship- browser
Databases	Literature⁄ Evidence Databases	N/A	WorldCat	Online literature search database that allows users to search library collections around the world for an item of interest (full-text articles, electronic books and journals, digitized special collections, etc.) and then locate a nearby library that owns it.		Online Computer Library Center, Inc. (OCLC)	http://www.worldcat.or g/
Databases	Literature⁄ Evidence Databases	N/A	Google Scholar	Online literature search database from Google that allows you to search for articles, theses, books, abstracts, and court opinions, from academic publishers, professional societies, online repositories, universities, and other web sites. Lists related articles, articles with citation, and will automatically format citations in APA, MLA, and Chicago style.	N/A	Google	http://scholar.google.co m/
Databases	Literature⁄ Evidence Databases	Built Environment Environment Health and Healthcare	Green Cities: Good Health	Online research website offering summaries and reference links to over 1,800 research publications focused on the scientific evidence behind the relationship and benefits provided to human health and well-being from urban forestry and urban greening.	N/A	University of Washington, School of Environmental and Forest Sciences	http://depts.washington .edu/hhwb/
Databases	Literature/ Evidence Databases	N/A	JSTOR	A digital library of more than 2,300 academic journals, books, and primary sources.	N/A	ITHAKA	http://www.jstor.org/
Databases	Literature/ Evidence Databases	N/A	LexisNexis Academic	Provides access to government and legal information, including government and political news, legal news, law reviews, and state and federal statutes and case law. \$	N/A	LexisNexis	https://www.lexisnexis. com/hottopics/lnacade mic/

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Databases	Literature/ Evidence Databases	Health and Healthcare	Ovid/Ovid MEDLINE	Provides access to biomedical databases, journals, books, and other collections related to the health sciences. \$	N/A	Wolters Kluwer	http://www.ovid.com/s ite/index.jsp
Databases	Literature⁄ Evidence Databases	Health and Healthcare	MEDLINE/PubMed	A literature site that is comprised of more than 24 million citations for biomedical literature from MEDLINE, life science journals, and online books. Citations may include links to full-text content from PubMed Central and publisher web sites.	N/A	National Center for Biotechnology Information; U.S. National Library of Medicine	http://www.nlm.nih.go v/pubs/factsheets/pub med.html
Databases	Literature/ Evidence Databases	N/A	ProQuest (formerly CSA Illumina)	Provides citations and abstracts for peer-reviewed journal articles, books, chapters, essays, dissertations, and more. Users can select a subject area or search across all subjects. \$	N/A	ProQuest LLC	http://www.proquest.co m/
Databases	Literature/ Evidence Databases	Health and Healthcare	PsycINFO	An abstracting and indexing database of peer-reviewed literature in the behavioral sciences and mental health. \$	N/A	American Psychological Association	http://www.apa.org/pu bs/databases/psycinfo/i ndex.aspx
Databases	Literature/ Evidence Databases	N/A	Science Direct	A full-text scientific database offering access to journal articles and book chapters.	N/A	Elsevier	http://www.sciencedire ct.com/
Databases	Literature/ Evidence Databases	N/A	Scopus	World's largest abstract and citation database of peer reviewed literature. Includes tools that track, analyze, and visualize research. \$	N/A	Elsevier	http://www.scopus.co m/
Databases	Literature/ Evidence Databases	N/A	SpringerLink	Literature database that searches journals, books, reference works, and protocols in all disciplines. \$	N/A	Springer	http://link.springer.co m/
Databases	Literature/ Evidence Databases	Transportation	TRID	An integrated database that combines the records from the Transportation Research Board's (TRB's) Transportation Research Information Services (TRIS) Database and the Organisation for Economic Cooperation and Development's (OECD's) International Transport Research Documentation (ITRD) Database. Provides access to transportation research worldwide.	N/A	Transportation Research Board of the National Academies	http://trid.trb.org/

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Databases	Literature/ Evidence Databases	N/A	(formerly Web of Knowledge)	Online research platform that allows users to access journal articles, patents, websites, conference proceedings, and Open Access materials in the sciences, social sciences, arts, and humanities.	N/A	Thomson Reuters	http://apps.webofknowl edge.com/
Databases	General Data Warehouses	Business and Industry Crime Demographics Economics Education Housing Labor and Workplace Population Transportation	American FactFinder	the Island Areas from multiple U.S. Census Bureau censuses and surveys, including: Decennial Census, American Community Survey (ACS), American Housing Survey (AHS). Economic Census, Census of	State County City Town Zip Code		http://factfinder2.censu s.gov/
Databases	General Data Warehouses	Agriculture Built Environment Business and Industry Crime Demographics Economics Education Environment Health and Healthcare Housing Labor and Workplace Population Transportation	Community Commons	An interactive mapping, networking, and learning utility for the broad-based healthy, sustainable, and livable communities' movement. Provides data, maps, and tools by geographic location and topics. Topics include economy, education, environment, equity, food, and health.	Varies	Research and	http://www.community commons.org/maps- data/

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Databases	General Data Warehouses	Agriculture Built Environment Business and Industry Crime Demographics Economics Education Environment Health Housing Labor and Workplace Population Transportation	Data.gov	Houses the U.S. Government's open data on a wide range of topics. Users can find federal, state, and local data, tools, and resources to conduct research, build apps, design data visualizations, and more.	Varies	General Services Administration	www.data.gov
Databases	General Data Warehouses	Demographics Housing Population	Decennial Census	Provides demographic, population, and housing data at state, county, city, zip code, census tract, block group, and block levels, every 10 years.	Varies	U.S. Census Bureau	https://www.census.go v/programs- surveys/decennial- census.html
Databases	General Data Warehouses	Business and Industry Economics	Economic Census	Provides business and economic data at the national, state, county and local levels. The various data are collected at intervals ranging from monthly to every five years.	Varies	U.S. Census Bureau	http://www.census.gov/ econ/census/
Databases	General Data Warehouses	Business and Industry Demographics Economics Education Housing Labor and Workplace Population	Easy Stats	Provides quick and easy access to selected statistics collected by the U.S. Census Bureau through the American Community Survey, including detailed demographic and economic statistics made available for every year. Users can search different geographies, including states, counties, incorporated places (towns/cities) and census designated places (CDP). With Easy Stats, users can view detailed racial, age, and sex breakdowns and much more.	Varies	U.S. Census Bureau	http://www.census.gov/ easystats/

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Databases	General Data Warehouses	Agriculture Built Environment Business and Industry Crime Demographics Economics Education Environment Health and Healthcare Housing Labor and Workplace Population Transportation	FedStats	Provides access to the full range of official statistical information produced by the Federal Government without having to know in advance which Federal agency produces which particular statistic. Includes convenient searching and linking capabilities for more than 100 agencies that provide data and trend information on such topics as economic and population trends, crime, education, health care, aviation safety, energy use, farm production, and more.	Varies	FedStats	http://fedstats.sites.usa. gov/
Databases	General Data Warehouses	Agriculture Built Environment Business and Industry Crime Demographics Economics Education Environment Health and Healthcare Housing Labor and Workplace Population Transportation	GeoPlatform	Provides a one-stop shop to free shared and trusted geospatial data, services, and applications that allow governmental, academic, private, and public data and applications to be visualized together to inform and address issues at various geographic scales.	Varies	Federal Geographic Data Committee (FGDC)	https://www.geoplatfor m.gov/
Databases	General Data Warehouses	Business and Industry Education Demographics Housing Population	QuickFacts	A quick data search tool that provides basic Census data on people, business, and geography.	State County City	U.S. Census Bureau	http://quickfacts.censu s.gov/qfd/index.html

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Databases	Multi-Topic Databases	Agriculture Built Environment Environment	Major Land Uses (MLU)		Nation Region State	U.S. Department of Agriculture (USDA) Economic Research Service	http://www.ers.usda.go v/data-products/major- land-uses.aspx
Databases	Multi-Topic Databases	Built Environment Demographics Environment	Compliance History Online (ECHO)	A data search website that provides a snapshot of a regulated facility's environmental record, including permit data, inspection data, violations, enforcement actions, toxic releases, and penalties. Users can perform a location-based search, a targeted facility search, create maps, and analyze trends. Detailed facility reports also identify facility location by watershed and provide a demographic profile of the surrounding area.	EPA Region State County City Zip code Facility name or ID Watershed	U.S. Environmental Protection Agency (EPA)	https://echo.epa.gov/
Databases	Multi-Topic Databases	Built Environment Demographics Housing Labor and Workplace Population Transportation	Smart Location	A nationwide geographic data resource for measuring location efficiency. Includes more than 90 attributes summarizing characteristics such as housing density, diversity of land use, neighborhood design, destination accessibility, transit service, employment, and demographics. Most attributes are available for every census block group in the U.S. Users are able to download data or view data in an interactive map viewer.	All	U.S. Environmental Protection Agency (EPA)	https://www.epa.gov/s martgrowth/smart- location-mapping#SLD
Databases	Multi-Topic Databases	Built Environment Environment Health and Healthcare	MyEnvironment	Provides a cross-section of environmental information for the user's location, including information on air quality, water resources and water quality, climate, energy statistics, and health data, including related pollutants, toxic and hazardous waste sites, and environmental reports.	State County Zip code City Waterbody Park name Address	U.S. Environmental Protection Agency (EPA)	https://www3.epa.gov/ enviro/myenviro/

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Databases	Multi-Topic Databases	Built Environment Transportation	Walk Score Data	Walk Score data is available upon request and can be provided for individual addresses or larger geographic areas like postal codes. Data is available in a variety of formats including shapefiles, spreadsheets, and via an application programming interfaces (APIs). Data products include walk score, transit score, bike score, travel time, analysis, pedestrian friendliness metrics, public transit data, points of interest, and care and bike shares.	City Local Zip code Address	Walk Score Professional	http://www.walkscore. com/professional/resea rch.php
Databases	Multi-Topic Databases	Business and Industry Economics Education Housing Labor and Workplace Population	Innovation Data Browser	A datafinder tool that allows you to view and download	Nation State County Metropolitan and micropolitan statistical area Combined statistical area Economic Development District	Purdue Center for Regional Development; Indiana Business Research Center at Indiana University's Kelley School of Business	http://www.statsameric a.org/innovation/anyda ta/
Databases	Multi-Topic Databases	Business and Industry Labor and Workplace	Quarterly Workforce Indicators (QWI) Explorer	Through charts and interactive tables, users can	State County Metropolitan areas Workforce investment areas	U.S. Census Bureau	http://qwiexplorer.ces.c ensus.gov/
Databases	Multi-Topic Databases	Demographics Economics Environment Health and Healthcare	EnviroAtlas	A collection of tools and resources that provides geospatial data, maps, research, and analysis on the relationships between nature, people, health, and the economy. Contains information on the status of the benefits that humans receive from nature, the ecosystems that provide and protect them, and related health and economic impacts. Two primary spatial scales are featured in EnviroAtlas. The national component is based on 30-meter resolution land cover data and summarized by subwatersheds (in 12-digit hydrologic unit codes) for the contiguous United States.	Nation State County Select cities	U.S. Environmental Protection Agency (EPA)	http://www.epa.gov/en viroatlas https://www.epa.gov/si tes/production/files/20 14- 06/documents/enviroatl as-fact-sheet.pdf https://www.epa.gov/e nviroatlas/enviroatlas- communities

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Databases	Multi-Topic Databases	Demographics Economics Housing Transportation	Sustainable Communities HotReport	Provides information on how well a community is performing on a variety of sustainability indicators in the area of transportation, housing, economic development, income, and equity.	Nation State County	Partnerships for Sustainable Communities	http://thedataweb.rm.ce nsus.gov/TheDataWeb _HotReport2/EPA2/EP A_HomePage2.hrml?S TATE=37&COUNTY =2123
Databases	Multi-Topic Databases	Economics Housing Transportation	Location Affordability Portal	Provides estimates of household costs, housing, and transportation. Features two cutting edge tools - the My Transportation Cost Calculator and Location Affordability Index (LAI) - and provides access to resources on the combined housing and transportation cost burden bore by families in the U.S	Local	U.S. Department of Housing and Urban Development (HUD); U.S. Department of Transportation (DOT); U.S. Environmental Protection Agency (EPA)	http://www.locationaff ordability.info/lai.aspx ?url=download.php
Databases	Multi-Topic Databases	Economics Health and Healthcare	Supplemental Nutrition Assistance Program (SNAP) Data System	Provides time-series data on state- and county-level estimates of SNAP participation and benefit levels, combined with area estimates of total population, the number of persons in poverty, and select socio- demographic characteristics of the population.	State County	U.S. Department of Agriculture	http://www.ers.usda.go v/data- products/supplemental- nutrition-assistance- program-(snap)-data- system.aspx
Databases	Multi-Topic Databases	Economics Health and Healthcare	U.S. Department of Agriculture (USDA) Food and Nutrition Service	Provides access to various nutrition and hunger studies, information resources, and data, including data on food security, food assistance and nutrition programs, Supplemental Nutrition Assistance Program (SNAP) and Summer Food Service Program (SFSP) participation rates and economic benefits.	Nation State	U.S. Department of Agriculture (USDA) Food and Nutrition Service	http://www.fns.usda.go v/get-involved/access- data
Databases	Multi-Topic Databases	Education Health and Healthcare	Bridging the Gap (BTG)	A Robert Wood Johnson Foundation (RWJF) funded, nationally-recognized research program dedicated to improving the understanding of how policies and environmental factors influence diet, physical activity, and obesity among youth, as well as youth tobacco use.	Varies	Robert Wood Johnson Foundation	http://www.bridgingthe gapresearch.org/

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Databases	Multi-Topic Databases	Education Health and Healthcare	School Health Policies and Practices Study (SHPPS)	Provides data from a national survey periodically conducted to assess school health policies and practices at the state, district, school, and classroom levels.		Centers for Disease Control and Prevention (CDC)	http://www.cdc.gov/he althyyouth/shpps/index .htm
Databases	Multi-Topic Databases	Education Health and Healthcare	Associated with	Website that uses two policy classification systems to score state-level codified laws for physical education (PE) and nutrition in schools. Scoring criteria for these systems are based on current public health research and national recommendations and standards for PE and nutrition in schools. Data, maps, and profiles can be used to compare PE and nutrition laws from all 50 states and the District of Columbia against national standards and medians, allowing users to assess differences across states and changes over time. Data are currently available for download from 2003-2012; after 2008, policies are coded every two years.	State	National Cancer Institute	http://class.cancer.gov/ http://class.cancer.gov/ download.aspx
Databases	Multi-Topic Databases	Environment Health and Healthcare	Community-Focused Exposure and Risk Screening Tool (C- FERST)	An online information access and community mapping tool that communities can use to learn more about environmental, health and socioeconomic issues in their community. The tool includes local maps and reports, fact sheets, links to other public health decision-making tools, information about promising sustainable community solutions, and structured community guides that can help communities assess environmental conditions in their communities.	Local	U.S. Environmental Protection Agency (EPA)	https://www.epa.gov/h ealthresearch/communi ty-focused-exposure- and-risk-screening-tool- c-ferst
Databases	Multi-Topic Databases	Environment Health and Healthcare	Health Tracking	Provides links to 25 state and 1 city public health tracking system websites that feed into the national tracking network.	Select states Select city	Centers for Disease Control and Prevention (CDC)	http://ephtracking.cdc. gov/showStateTracking .action

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Databases	Multi-Topic Databases	Environment Health and Healthcare	Consolidated Human Activity Database (CHAD)	A master database that provides access to other human activity databases using a consistent format. Contains data obtained from pre-existing human activity studies that were collected at city, state, and national levels. Intended to be an input file for exposure/intake dose modeling and/or statistical analysis.	Nation State City	U.S. Environmental Protection Agency (EPA)	https://www.epa.gov/h ealthresearch/consolida ted-human-activity- database-chad-use- human-exposure-and- health-studies-and
Databases	Multi-Topic Databases	Environment Health and Healthcare	Integrated Risk Information System (IRIS)	Identifies and characterizes the health hazards of chemicals found in the environment. Each IRIS assessment can cover a chemical, a group of related chemicals, or a complex mixture and provides toxicity values for health effects resulting from chronic exposure to chemicals.		U.S. Environmental Protection Agency (EPA)	http://www.epa.gov/iris /
Databases	Multi-Topic Databases	Environment Health and Healthcare	Tribal-Focused Environmental Risk and Sustainability Tool (T-FERST)	An online information and mapping decision-support tool designed to provide tribes with easy access to the best available human health and ecological science. Assists tribal communities with identifying priority issues, compiling data, addressing risks, and assessing impacts of actions taken. Provides easy access to maps, information, and location-specific environmental data and estimated human exposures and risks.	Tribal communities	U.S. Environmental Protection Agency (EPA)	https://www.epa.gov/h ealthresearch/tribal- focused-environmental- risk-and-sustainability- tool-t-ferst https://www.epa.gov/si tes/production/files/20 13-12/documents/tribal- ferst-fact-sheet.pdf
Databases	Multi-Topic Databases	Environment Health and Healthcare	TRI-Chemical Hazard Information Profiles (TRI-CHIP)	Allows easy access to toxicity information from multiple data sources for chemicals in the Toxic Release Inventory (TRI) list. This downloadable Microsoft Access database allows you to customize searches across a single chemical, a set of specific chemicals, or a TRI chemical category of interest.	N/A	U.S. Environmental Protection Agency (EPA)	http://www2.epa.gov/to xics-release-inventory- tri-program/tri- chemical-hazard- information-profiles

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Databases	Multi-Topic Databases	Environment Health and Healthcare	National Environmental Public Health Tracking Network	A system of integrated health, exposure, and hazard information and data from a variety of national, state, and city sources. Users can view maps, tables, and charts with data about: chemicals and other substances found in the environment, some chronic diseases and conditions, and the area where they live. Also includes content and tools that illustrate how Tracking Network data can be used in HIAs.	Nation State County	Centers for Disease Control and Prevention (CDC)	http://ephtracking.cdc. gov/showHome.action
Databases	Multi-Topic Databases	Health and Healthcare Labor and Workplace	State Occupational Injuries, Illnesses, and Fatalities	State data presenting the number and frequency of work- related injuries, illnesses, and fatal injuries available from two U.S. Bureau of Labor Statistics (BLS) programs. Nonfatal cases of work-related injuries and illnesses that are recorded by employers under the Occupational Safety and Health Administration's (OSHA's) recordkeeping guidelines are available for 46 states and territories from the BLS Survey of Occupational Injuries and Illnesses (SOII). Fatal cases of work-related injuries are available for all states, territories, and New York City under a separate program, the BLS Census of Fatal Occupational Injuries (CFOI).	State	U.S. Bureau of Labor Statistics (BLS)	http://www.bls.gov/iif/ oshstate.htm
Databases	Agriculture	N/A	U.S. and State Farm Income and Wealth Statistics	1 1 /	Nation State	U.S. Department of Agriculture (USDA) Economic Research Service	http://www.ers.usda.go v/data-products/farm- income-and-wealth- statistics.aspx

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Databases	Agriculture	N/A	State, County, and Local Agriculture Data	Data may be available on agricultural production, commodities, economics, land cover, and more. Available data will vary place to place. Examples include: • New York Farm Bureau • Illinois Department of Agriculture	State County City Local	Possible data sources may include: State, County, or City Department of Agriculture; Agricultural Associations; Farm Bureau	
Databases	Built Environment	N/A	State, County, and Local Planning, Development, Zoning Permits, and Building Data	Data may be available on topics such as planning, development, zoning, permits, and building data. Available data will vary place to place. Examples include: • Butler County Department of Development Building and Zoning • San Francisco Planning Department	State County City Local	Possible data sources may include: State, County, and City Planning Departments; Departments of Building Inspection; Departments of Building and Zoning; Departments of Planning and Development; Bureaus/Departme nts of Planning and Building; Department of Community Development; Zoning Administration	N/A

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Databases	Built Environment	N/A	State, County, and Local Property and Parcel Data		State County City Local	Possible data sources may include: State, County, and City Auditors or Assessors; Departments of Revenue	N/A
Databases	Business and Industry	N/A	State, County, and Local Business and Industry Data	Data and statistics may be available on existing businesses and industries in an area. Available data will vary place to place. Examples include: • Kansas Business and Industry Data Center • Loudoun County (VA) Department of Economic Development • City of Cleveland Department of Economic Development	State County City Local	Possible data sources may include: State, County, and City Departments or Centers of Business and Industry; Chambers or Associations; Secretaries of State; Departments of Business Development and Retention; Departments of Economic Development	N/A
Databases	Business and Industry	N/A	State, County, and Local Sales Tax Data	Data may be available on sales tax revenue, tax rates, tax distributions, tax by industry, and property taxes. Available data will vary place to place. Examples include: • Commonwealth of Pennsylvania Department of Revenue	State County City Local	Possible data sources may include: State, County, and City Department of Taxation or Department of Revenue	N/A

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Databases	Crime	N/A	U.S. Bureau of Justice Statistics (BJS)	Website housing statistics on a wide range of justice- related topics, including crime type, victims, law enforcement, courts, and corrections, in addition to others.	Varies	U.S. Bureau of Justice Statistics (BJS)	http://www.bjs.gov/ http://www.bjs.gov/ind ex.cfm?ty=dca
Databases	Crime	N/A	National Prisoner Statistics (NPS) Program	Produces annual national and state-level data on the number of prisoners in state and federal prison facilities. Aggregate data are collected on race and sex of prison inmates, inmates held in private facilities and local jails, system capacity, noncitizens, and persons under age 18. Findings are released in the Prisoners series. Data are from the 50 state department of corrections, the Federal Bureau of Prisons, and until 2001, from the District of Columbia.		U.S. Bureau of Justice Statistics (BJS)	http://www.bjs.gov/ind ex.cfm?ty=dcdetailⅈ d=269
Databases	Crime	N/A	Uniform Crime Reporting Statistics	Website allowing users to search for statistics on violent and property crimes nationally, by state, and by agency, between 1960 and 2012.	Nation State	Department of Justice (DOJ) Federal Bureau of Investigation (FBI)	http://www.ucrdatatool .gov/Search/Crime/Cri me.cfm
Databases	Crime	N/A	State, County, and Local Crime Data	Data may be available on crimes, including a variety of violent and non-violent criminal offenses. Crime reporting is not uniform across national, regional, state, county, and city departments and agencies. Available data will vary place to place. An example of local crime data: • Denver Police Department Crime Statistics	State County City Local	Possible data sources may include: State, County, or City Offices of Criminal Justice Services; Police Departments; Sheriff Departments; Departments of Public Safety	N/A
Databases	Economics	N/A	Consumer Price Index (CPI)	Provides monthly data on changes in the prices paid by urban consumers for a representative basket of goods and services.	Nation	U.S. Bureau of Labor Statistics (BLS)	http://www.bls.gov/cpi /
Databases	Economics	N/A	EconData.net	Website that provides links to socioeconomic data sources, arranged by subject and provider; points to premiere online data collections; and lists the ten best sites for finding regional economic data.	Region State County Zip Code Census Tract	Impresa, Inc., Andrew Reamer & Associates	http://econdata.net/

Primary Category	Subcategory	Topic (s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Databases	Economics	N/A	Living Wage	Estimates the cost of living for a select location. Lists typical expenses and living wage by twelve different family compositions, as well as typical annual salaries for the location.	State County Metro Area City	Massachusetts Institute of Technology	http://livingwage.mit.e du/
Databases	Economics	N/A	State, County, and Local Trade,	Data may be available for domestic and international trade, import and export statistics, industry, business licensing, economic trends, performance measures, travel, and tourism. Available data will vary place to place. An example include: • Minnesota Department of Employment and Economic Development Data Tools	City Local Zip code Address	Possible data sources may include: State, County, and City Departments related to Commerce, or Trade and Development, or Trade and Economic Development	N/A
Databases	Education	N/A	Common Core of Data (CCD)	A program of the U.S. Department of Education's National Center for Education Statistics that annually collects fiscal and non-fiscal data about all public schools, public school districts, and state education agencies in the United States. Includes information that describes schools and school districts, including name, address, and phone number; descriptive information about students and staff, including demographics; and fiscal data, including revenues and current expenditures.	State Public school district Public school name Public/private elementary and secondary schools Address	National Center for Education Statistics	http://nces.ed.gov/ccd/
Databases	Education	N/A		Provides information on a variety of educational topics, from educational attainment and school enrollment to school costs and financing. Topic areas include: educational attainment, school enrollment, public school system finances, school districts, and educational services.	Varies	U.S. Census Bureau	http://www.census.gov/ topics/education.html
Databases	Education	N/A	National Center for Education Statistics Data Tools	Provides a list of data search tools that allow users to search for data on colleges, public and private schools, public libraries, and public school districts.	Varies	National Center for Education Statistics	http://nces.ed.gov/datat ools/index.asp

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Databases	Education	N/A	State, County, and Local Education Data	5 I I		Possible data sources may include: State Education Department/Agenc y; County Office of Education; School Districts	N/A
Databases	Environment	N/A	Agency for Toxic Substances and Disease Registry (ATSDR) Public Health Assessments and Health Consultations	evaluations is to find out if people are being exposed to hazardous substances and, if so, whether that exposure	State County City Local	Centers for Disease Control and Prevention (CDC)	http://www.atsdr.cdc.g ov/hac/pha/index.asp
Databases	Environment	N/A	Agency for Toxic Substances and Disease Registry (ATSDR) Toxic Substances Portal	Information about toxic substances and how they affect health. Searchable by alphabetic list, health effect, chemical class, or by audience.	N/A	Centers for Disease Control and Prevention (CDC)	http://www.atsdr.cdc.g ov/substances/index.as p
Databases	Environment	N/A	AirCompare	Provides air quality information based on specific health conditions of interest, such as asthma or other lung disease, heart disease, older adults and children, active outdoors, and general population. Results are based on the Air Quality Index, which considers several principal air pollutants. The number of unhealthy days based on the levels of these pollutants is reported for locations of interest and summarized monthly, providing a basis for comparing air quality. Historical data are also available.	State County		http://www.epa.gov/air compare/

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Databases	Environment	N/A	AirData	annual concentration data AOI data and speciated	State County City	U.S. Environmental Protection Agency (EPA)	http://www.epa.gov/air data/
Databases	Environment	N/A		Presents the trends in the nation's air quality, including status and trends of key air pollutants.	Nation	U.S. Environmental Protection Agency (EPA)	https://www.epa.gov/ai r-trends https://gispub.epa.gov/ air/trendsreport/2016/
Databases	Environment	N/A	Compensation, and	Retrieves Superfund data for specific facilities by using any combination of facility name and geographic location.	State County City Zip code Address Facility name	U.S. Environmental Protection Agency (EPA)	https://www.epa.gov/e nviro/cerclis-search

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Databases	Environment	N/A	Digital Coast	Provides coastal data, tools, training, and information to meet the needs of the coastal management community. Content comes from many sources, all of which are vetted by NOAA. Data sets range from economic data to satellite imagery, and the site contains visualization and predictive tools, as well as tools that make the data easier to find and use. Information is organized by focus area or topic, including Climate Adaption, Coastal and Ocean Economy, Coastal Land Cover, Coastal Storms, Ecosystem Services, Green Infrastructure, Ocean Planning, and Water Quality. Some of the tools include the Sea Level Rise Viewer, Land Cover Atlas, Coastal Resilience Mapping Portal, and more.	Varies	National Oceanic and Atmospheric Administration (NOAA)	https://coast.noaa.gov/ digitalcoast/
Databases	Environment	N/A		Helps users determine who is discharging, what pollutants they are discharging and how much, and where they are discharging. Calculates pollutant loadings from permit and DMR data from U.S. Environmental Protection Agency's (EPA's) Integrated Compliance Information System for the National Pollutant Discharge Elimination System (ICIS-NPDES).	Nation National estuaries Watersheds EPA Region State County City Zip code Watershed ID	U.S. Environmental Protection Agency (EPA)	http://cfpub.epa.gov/d mr/ http://cfpub.epa.gov/d mr/ez_search.cfm
Databases	Environment	N/A	Emissions & Generation Resource Integrated Database (eGRID)	characteristics of almost all electric power generated in the U.S., including emissions data and rates with electric	Nation Region State Facility name		https://www.epa.gov/e nergy/egrid

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Databases	Environment	N/A	Envirofacts	A one-stop shop for multiple U.S. Environmental Protection Agency (EPA) databases, including: the Hazardous Waste Report Biennial Report (BR), Brownfields/Cleanups, the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS), Enforcement and Compliance History Online (ECHO), Facility Registry System (FRS), Greenhouse Gas, Integrated Compliance Information System (ICIS), Integrated Grants Management System (IGMS), Permit Compliance System (PCS), Radiation Information Database (RADINFO), RadNet, the Resource Conservation and Recovery Act Information (RCRAInfo), the Safe Drinking Water Information System (SDWIS), Substance Registry Services (SRS), Toxic Release Inventory (TRI), Toxic Substances Control Act (TSCA), and Ultraviolet (UV) Index. Also includes mapping functions of certain data.	EPA Region Tribe State County City Zip code Address Facility name	U.S. Environmental Protection Agency (EPA)	http://www3.epa.gov/e nviro/
Databases	Environment	N/A	Envirofacts Multisystem Search	Searches multiple environmental databases for facility information, including toxic chemical releases, water discharge permit compliance, hazardous waste handling processes, Superfund status, and air emission estimates. Search options include facility name, geography, facility industrial classification, or pollutant.	Tribe State County City Zip code Address Facility Name	U.S. Environmental Protection Agency (EPA)	http://www.epa.gov/en viro/facts/multisystem. html
Databases	Environment	N/A	Facility Registry Service (FRS)	Identifies facilities, sites, or places subject to environmental regulations or of environmental interest. Query Form allows users to retrieve selected facility data from 17 national systems.	EPA Region Tribe State County City Zip code Address Facility name	U.S. Environmental Protection Agency (EPA)	https://www.epa.gov/e nviro/facility-registry- service-frs

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Databases	Environment	N/A	Hazardous Waste Biennial Report (BR) Search	interest. Provides detailed data on the generation of hazardous waste from large quantity generators and data on waste management practices from treatment storage	State County City Zip code Address Facility name or ID	U.S. Environmental Protection Agency (EPA)	http://www.epa.gov/en viro/br-search
Databases	Environment	N/A	Climate Data Online (CDO)	Center's (NCDC) archive of global historical weather and climate data in addition to station history information. These data include quality controlled daily, monthly, seasonal, and yearly measurements of temperature precipitation wind and degree days as	Nation State County City Zip code Station name	National Oceanic and Atmospheric Administration (NOAA) National Climatic Data Center (NCDC)	http://www.ncdc.noaa. gov/cdo-web/
Databases	Environment	N/A	Water Quality Portal (WQP)	Sustaining The Earth's Watersheds - Agricultural Research Database System (STEWARDS), as well as	Nation State County Hydrologic Unit Code (HUC) 8	U.S. Geological Survey; U.S. Environmental Protection Agency (EPA); National Water Quality Monitoring Council (NWQMC)	http://waterqualitydata. us/portal/
Databases	Environment	N/A	(RADINFO) Search	Protection Agency (EPA) regulates for radiation or radioactivity. Search options include facility name, geographic location, and radiation regulation.	Address	U.S. Environmental Protection Agency (EPA)	http://www.epa.gov/en viro/facts/radinfo/searc h.html

Primary Category	Subcategory	Topic (s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Databases	Environment	N/A	RADNET Search	network of more than 200 stations that regularly sample the nation's air, precipitation, drinking water, or	State	U.S. Environmental Protection Agency (EPA)	http://iaspub.epa.gov/e nviro/erams_query_v2. simple_query
Databases	Environment	N/A	Resource Conservation and Recovery Act (RCRA)	Provides identification and location data for specific hazardous waste handlers, and information on treatment, storage, and disposal facilities regarding permit/closure status, compliance with federal and state regulations, and cleanup activities	Address City	U.S. Environmental Protection Agency (EPA)	http://www.epa.gov/en viro/facts/rcrainfo/sear ch.html
Databases	Environment		Safe Drinking Water Information System	their violations of the U.S. Environmental Protection		U.S. Environmental Protection Agency (EPA)	http://www.epa.gov/en viro/facts/sdwis/search. html
Databases	Environment	N/Δ	Warehouse	The U.S. Environmental Protection Agency's (EPA) repository of the water quality monitoring data collected by water resource management groups (states, tribes, watershed groups, industry, other federal agencies, volunteer groups and universities) across the country.	Site name Alias/Alternative site name EPA ID Superfund Site ID Address City County State Region Zip code Congressional district Federal Agency Indian Entity	U.S. Environmental	http://www.epa.gov/sto ret/dw_home.html

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Databases	Environment	N/A	Substance Registry Services (SRS)	Central system for information about substances that are tracked or regulated by the U.S. Environmental Protection Agency (EPA) or other sources. Contains basic information about chemicals, biological organisms, and other substances of interest. Identifies which EPA data systems, environment statutes, or other sources have information about a substance and which terminology is used by that system or statute.	N/A	U.S. Environmental Protection Agency (EPA)	http://iaspub.epa.gov/s or_internet/registry/sub streg/searchandretrieve /substancesearch/searc h.do
Databases	Environment	N/A	Superfund Site Information	and U.S. territories including location, contaminants, and cleanup actions taken. Includes information on sites being assessed under the Superfund program, hazardous waste sites, and potential hazardous waste sites. National Priorities List (NPL) sites (i.e., sites proposed to the NPL, currently on the final NPL, or deleted from the final NPL) are displayed in a standardized site progress profile format. Each profile includes information such as the current status of cleanup efforts, what cleanup milestones have been reached, and how much liquid and solid-based media have been treated	Site name Alias/Alternative site name EPA ID Superfund Site ID Address City County State Region Zip code Congressional district Federal Agency Indian Entity (Tribe)	U.S. Environmental Protection Agency (EPA)	https://cumulis.epa.gov /supercpad/CurSites/sr chsites.cfm
Databases	Environment	N/A	Surf Your Watershed	Links to watershed-related environmental data, assessment information, organizations, activities, and websites.		U.S. Environmental Protection Agency (EPA)	http://cfpub.epa.gov/su rf/locate/index.cfm

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Databases	Environment	N/A	Integrated Compliance Information System (ICIS)-Air Search	pollution in the United States. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information	EPA Region State County City Zip code Facility name or ID	U.S. Environmental Protection Agency (EPA)	https://www.epa.gov/e nviro/icis-air-search
Databases	Environment	N/A	The Permit Compliance System- Integrated Compliance Information System (PCS-ICIS)	Provides information on companies which have been issued permits to discharge waste water into rivers, including information on when a permit was issued and expires, how much the company is permitted to discharge, and the actual monitoring data showing what the company has discharged.	State County City Zip code Facility name or ID	U.S. Environmental Protection Agency (EPA)	http://www.epa.gov/en viro/facts/pcs- icis/search.html
Databases	Environment	N/A	Toxics Release Inventory (TRI) Search	releases to land, underground injections, and transfers to off-site locations. Provides information from the Risk Screening Environmental Indicator (RSEI) tool, which provides a quantitative, relative estimate of risk posed by the facility. Search options include facility name,	EPA Region Tribe State County City Zip code Facility name or ID	U.S. Environmental Protection Agency (EPA)	https://www.epa.gov/e nviro/tri-search
Databases	Environment	N/A	TRI Explorer	Generates reports based on facilities, chemicals, geographic areas, or industry type/North American Industry Classification System (NAICS) code at the zip code, county, state, regional, and national level. It provides information for on- and off-site disposal or other releases, transfers off-site, and other waste management data.	Nation EPA Region State County Zip code	U.S. Environmental Protection Agency (EPA)	http://iaspub.epa.gov/tr iexplorer/tri_release.ch emical
Databases	Environment	N/A	TRI Form R Search	Retrieves facility and chemical information for each chemical submitted on a Form R to EPA. Search options include reporting year, facility selection, and geography search.	Tribe State County City Zip code Facility name or ID	U.S. Environmental Protection Agency (EPA)	http://www.epa.gov/en viro/facts/tri/form_r_se arch.html

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Databases	Environment	N/A	TRINET	Neighborhood feature), drill down to retrieve additional details about the search results, obtain trend information, find EPA reports for the facilities in the search, apply other data layers relating to environmental justice, chemical toxicity, and tribal and U.S Mexico	EPA Region State County City Zip code Address Facility name or ID	U.S. Environmental Protection Agency (EPA)	https://www.epa.gov/to xics-release-inventory- tri-program/trinet
Databases	Environment	N/A	Toxics Substances Control Act (TSCA) Search		EPA Region State County City Zip code Facility name or ID	U.S. Environmental Protection Agency (EPA)	http://www.epa.gov/en viro/facts/tsca/tsca_sea rch.html
Databases	Environment	N/A	Urban Forest Data	and local community or place-levels. Users are	State County County subdivision Local Place	U.S. Department of Agriculture (USDA) Forest Service	http://www.nrs.fs.fed.u s/data/urban/
Databases	Environment	N/A	U.S. Drought Portal	Provides drought and climate-related data, maps, data viewers, forecasting, and various other tools.	Global Nation Region State Zip code	The National Integrated Drought Information System (NIDIS)	http://www.drought.go v/drought/
Databases	Environment	N/A	UV Index Search	Provides a daily forecast of the expected intensity of ultraviolet (UV) radiation from the sun. Predicts the ultraviolet radiation levels on a 1-11+ scale.	State City Zip code	U.S. Environmental Protection Agency (EPA)	http://www.epa.gov/en viro/uv-index-search

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Databases	Environment	N/A	Watershed Assessment, Tracking & Environmental	Unites water quality information previously available only from several independent and unconnected databases. Available information includes but is not limited to: designated use(s) of a waterbody, water quality monitoring results, assessments of water quality, causes and sources of impaired waters, public beach closures, and locations of dischargers.	City Address	U.S. Environmental Protection Agency (EPA)	http://www.epa.gov/wa terdata/waters- watershed-assessment- tracking-environmental- results-system
Databases	Environment	N/A	State, County, and Local Environmental	A variety of data may be available for a number of topics, including water and air quality, environmental health indicators, greenhouse gas emissions, climate change, and energy use. Available data will vary place to place. Examples of these data sources include: • Oregon Department of Environmental Quality (DEQ) Environmental Databases and Mapping Applications • MERGANSER (MERcury Geo-Spatial Assessments for the New England Region)	State County City Local	Possible data sources may include: State, County, and City Department of Environmental Quality; Department of Environmental Health; Department of the Environment; Office of Environment & Sustainability; Environmental Protection Department; Environmental Management Department	N/A

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Databases	Environment	N/A	State, County, and Local Parks, Recreation, and Wildlife Data	will vary place to place.	State County City Local	Possible data sources may include: State, County, and City Departments of Parks and Recreation; Parks and Wildlife	N/A
Databases	Health and Healthcare	N/A	500 Cities Project: Local Data for Better Health	The purpose of the 500 Cities project is to provide city- and census tract-level small area estimates for chronic disease risk factors, health outcomes, and clinical preventive service use for the largest 500 cities in the United States. These small area estimates allow cities and local health departments to better understand the burden and geographic distribution of health-related variables in their jurisdictions, and help them plan public health interventions.	Select cities Census tract	Centers for Disease Control and Prevention (CDC); Robert Wood Johnson Foundation; CDC Foundation	https://www.cdc.gov/5 00cities/
Databases	Health and Healthcare	N/A	Cancer Facts and Statistics		Nation State	American Cancer Society	http://www.cancer.org/ research/cancerfactssta tistics/index

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Databases	Health and Healthcare	N/A	Area Health Resources Files (AHRF)	Contains information on health facilities, health care professions, measures of resource scarcity, hospital utilization, health status, economic activity, health training programs, and socioeconomic and environmental characteristics. Provides current and historic data for more than 6,000 variables for each of the nation's counties. In addition, the basic file contains geographic codes and descriptors, which enable it to be linked to many other files and to aggregate counties into various geographic groupings.	Nation State County	U.S. Department of Health and Human Services (DHHS) Health Resources and Services Administration (HRSA)	http://ahrf.hrsa.gov/
Databases	Health and Healthcare	N/A	Behavioral Risk Factor Surveillance System	The nation's premier system of health-related telephone surveys that collect state data about U.S. residents regarding their health-related risk behaviors, chronic health conditions, and use of preventive services. BRFSS collects data in all 50 states, as well as the District of Columbia and three U.S. territories. BRFSS completes more than 400,000 adult interviews each year, making it the largest continuously-conducted health survey system in the world.	Nation State County City Metropolitan/ micropolitan statistical areas (MMSAs)	Centers for Disease Control and Prevention (CDC)	http://www.cdc.gov/brf ss/
Databases	Health and Healthcare		Behavioral Risk Factor Surveillance System Selected Metropolitan/ Micropolitan Area Risk Trends (BRFSS SMART): City and County Data	Uses BRFSS data to provide prevalence rates for selected conditions and behaviors for select metropolitan and micropolitan statistical areas with 500 or more respondents. This localized health information can help public health practitioners identify local emerging health problems, plan and evaluate local responses, and efficiently allocate resources to specific needs. Data are only available for 2002 and after; additional years of data will be added as they become available.	Select metropolitan/ micropolitan statistical areas (MMSAs)	Centers for Disease Control and Prevention (CDC)	http://www.cdc.gov/brf ss/smart/smart_data.ht m

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Databases	Health and Healthcare	N/A	CDC WONDER (Wide-ranging Online Data for Epidemiologic Research)	Provides a single point of access to a wide variety of public health documentation, data, and tools categorized by topic, including environmental health, chronic conditions, communicable diseases, occupational health, health practice and prevention, injury prevention, nationally notifiable conditions, and reference data, such as demographics, morbidity, and mortality. Users can query CDC datasets and access various CDC tools.	Varies	Centers for Disease Control and Prevention (CDC)	http://wonder.cdc.gov/ WelcomeT.html
Databases	Health and Healthcare	N/A	Chronic Disease Indicators	Surveillance indicators that enable public health professionals and policymakers to retrieve uniformly defined state and selected metropolitan-level data for chronic diseases and risk factors that have a substantial impact on public health.	State Select metro areas	Centers for Disease Control and Prevention (CDC)	http://www.cdc.gov/cdi //
Databases	Health and Healthcare	N/A	Community Health Needs Assessment (CHNA)	A web-based platform designed in response to the IRS requirement outlined in the Affordable Care Act. Built to assist hospitals and organizations seeking to better understand the health needs and assets of communities and to make measurable improvements in community health and well-being. Allows users to identify vulnerable populations and health disparities in a community at the Census tract and run an indicator report to assess the determinants of health and current health status of a community at the county or more local (city or zip code) level.	County City Zip code Census tract	Institute for People, Place, and Possibility (IP3); Center for Applied Research and Environmental Systems (CARES); Community Initiatives	http://assessment.com munitycommons.org/C HNA/
Databases	Health and Healthcare	N/A	County Health Rankings & Roadmaps	Annual county rankings that measure vital health factors, including high school graduation rates, obesity, smoking, unemployment, access to healthy foods, the quality of air and water, income, and teen births in nearly every county in America. The annual rankings provide a revealing snapshot of how health is influenced by where we live, learn, work and play. Ranking data are available for download or mapping by state.		Robert Wood Johnson Foundation; University of Wisconsin Population Health Institute	http://www.countyhealt hrankings.org/

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Databases	Health and Healthcare	N/A	DATA2020	An interactive data tool that allows you to explore health data and technical information related to the Healthy People 2020 objectives, from a large number of sources.	Nation	U.S. Department of Health and Human Services (DHHS)	http://healthypeople.go v/2020/Data/default.as px
Databases	Health and Healthcare	N/A	Food Access Research Atlas (formerly Food Desert	Provides a spatial overview of food access indicators for low-income and other census tracts using different measures of supermarket accessibility; provides food access data for populations within census tracts; and pinpoints the location of food deserts (low-income communities that lack ready access to healthy food).	Census tract	U.S. Department of Agriculture (USDA	http://www.ers.usda.go v/data-products/food- access-research- atlas.aspx
Databases	Health and Healthcare	N/A	Health Indicators Warehouse	Provides a single, user-friendly, source for national, state, and community health indicators, links indicators with evidence-based interventions, and serves as the data hub for the HHS Community Health Data Initiative. Indicators are categorized by topic, by geography and by initiative.	Varies	U.S. Department of Health and Human Services (DHHS)	http://www.healthindic ators.gov/
Databases	Health and Healthcare	N/A	Health Professional Shortage Areas (HPSA) Find / Find Shortage Areas by Address	service area, city, zip), demographic (low income population) or facility (comprehensive health center,	State County Service area (metro, nonmetro, frontier) Street address Facility HPSA ID	U.S. Department of Health and Human Services (DHHS); Health Resources and Services Administration (HRSA)	http://hpsafind.hrsa.go v/ http://datawarehouse.hr sa.gov/tools/analyzers/ geo/ShortageArea.aspx
Databases	Health and Healthcare	N/A	Services Administration (HRSA) Data	A publically-available enterprise repository for HRSA's data. Integrates HRSA data with external sources, such as the U.S. Census Bureau, enabling users to gather relevant and meaningful information about health care programs and the populations they serve	Nation HHS Region State County Congressional district Zip code	U.S. Department of Health and Human Services (DHHS); Health Resources and Services Administration (HRSA)	http://datawarehouse.hr sa.gov/

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Databases	Health and Healthcare	N/A	National Center of	Provides access to data, documentation, and questionnaires for various national health surveys, such as the National Health Interview Survey (NHIS), National Health and Nutrition Examination Survey (NHANES), provider surveys and historical surveys; vital records; statistics by topic; data tools, analysis aids, and visualizations; and health publications.	Varies	Centers for Disease Control and Prevention (CDC)	http://www.cdc.gov/nc hs/
Databases	Health and Healthcare	N/A	National Health and Nutrition Examination Survey (NHANES)	Provides access to data, documentation, and questionnaires from a program of studies designed to assess the health and nutritional status of adults and children in the United States through a combination of interviews and physical examinations. The NHANES interview includes demographic, socioeconomic, dietary, and health-related questions. The examination component consists of medical, dental, and physiological measurements, as well as laboratory tests administered by highly trained medical personnel.	Nation (1999- present) Region (prior to 1999) [Finer resolution geographic data available, but only through purchase from the Research Data Center (http://www.cdc.gov/ rdc/)]	Centers for Disease Control and Prevention (CDC)	http://www.cdc.gov/nc hs/nhanes.htm
Databases	Health and Healthcare	N/A	National Health Interview Survey (NHIS)	questionnaires on a broad range of health topics collected through these personal household interviews. For over 50 years, the U.S. Census Bureau has been the data collection agent for the NHIS. Survey results have been instrumental in providing data to track health status, health care access, and progress toward achieving	Nation Census Region [Finer resolution geographic data available, but only through purchase from the Research Data Center (http://www.cdc.gov/ rdc/)]	Centers for Disease Control and Prevention (CDC)	http://www.cdc.gov/nc hs/nhis.htm

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Databases	Health and Healthcare	N/A		preventative services. This site compiles data from various published CDC and federal sources into a format that allows users to view sort, and analyze data	Nation Federal Region Territory State	Centers for Disease Control and Prevention (CDC)	http://wwwn.cdc.gov/s ortablestats/
Databases	Health and Healthcare	N/A	National Program of Cancer Registries (NPCR)	outcomes. Data from cancer registries can be used to identify high-risk groups, increase screening in	Nation Census Region State County	Centers for Disease Control and Prevention (CDC)	http://www.cdc.gov/ca ncer/npcr/
Databases	Health and Healthcare	N/A	Surveillance, Epidemiology, and End Results (SEER)	that monitor cancer trends and provide timery, accurate,	Nation State Select metro areas	National Cancer Institute	http://seer.cancer.gov/
Databases	Health and Healthcare	N/A	State Cancer Profiles		Nation State County	National Cancer Institute; Centers for Disease Control and Prevention (CDC)	http://statecancerprofil es.cancer.gov/

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Databases	Health and Healthcare	N/A	Trends in Lung Disease: Data and Statistics	Provides trends in lung disease and reports on lung disease mortality, prevalence, hospitalization, economic costs, and risk factors based on analyses of raw data from government surveys available through the National Center for Health Statistics and other agencies. Trend Reports are data-rich and intended for professional audiences, as they provide more in-depth statistics than other lung disease reports.	State	American Lung Association Epidemiology & Statistics Unit	http://www.lung.org/ou r- initiatives/research/mo nitoring-trends-in-lung- disease/
Databases	Health and Healthcare	N/A		Shows United States cancer incidence and mortality data from 1999–2013 in a dynamic format.	State	Centers for Disease Control and Prevention (CDC)	https://nccd.cdc.gov/D CPC_INCA/
Databases	Health and Healthcare	N/A	Web-based Injury Statistics Query and	(YPLL) reports I sers can view data and create reports	State	Centers for Disease Control and Prevention (CDC)	http://www.cdc.gov/inj ury/WISQARS/
Databases	Health and Healthcare	N/A	Youth Risk Behavioral	Monitors six types of health-risk behaviors that contribute to the leading causes of death and disability among youth and adults and measures the prevalence of obesity and asthma and other priority health-related behavior among youth and young adults. Also includes a national school-based survey conducted by CDC and state, territorial, tribal, and local surveys conducted by state, territorial, and local education and health agencies and tribal governments.	Nation State Some cities/ districts	Centers for Disease Control and Prevention (CDC)	http://www.cdc.gov/he althyyouth/data/yrbs/in dex.htm

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Databases	Health and Healthcare	N/A	State, County, and Local Public Health Data		State County City Local	Possible data sources may include: State, County, and City Departments of Public Health; Health Inter- views/Health Surveys; Department of Health and Vital Statistics; Birth/ Death Registries; Community Health Profiles; Health Atlas	N/A
Databases	Housing	N/A	American Housing Survey (AHS)	Provides current information on a wide range of housing subjects, including size and composition of the nation's housing inventory, vacancies, fuel usage, physical condition of housing units, characteristics of occupants, equipment breakdowns, home improvements, mortgages and other housing costs, persons eligible for and beneficiaries of assisted housing, home values, and characteristics of recent movers. Also includes topical supplements on public transportation, emergency and disaster preparedness, community involvement, neighborhood characteristics, and doubled-up households	Nation Select metro areas	U.S. Census Bureau	http://www.census.gov/ programs- surveys/ahs.html
Databases	Housing	N/A	Fair Market Rents (FMRs)	Gross rent estimates that include the shelter rent plus the cost of all tenant-paid utilities, except telephones, cable or satellite television service, and internet service. FMRs are used to determine how much rent should be covered through Section 8 for individuals with low income.	State County Select metro areas	U.S. Department of Housing and Urban Development (HUD)	http://www.huduser.or g/portal/datasets/fmr.ht ml

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Databases	Housing	N/A	Department of Housing and Urban Development (HUD) USER	Provides access to a vast array of housing research, data, and policy analysis published by HUD's Office of Policy Development and Research (PD&R).	Varies by data set from local to national	U.S. Department of Housing and Urban Development (HUD)	https://www.huduser.g ov/portal/home.html
Databases	Housing	N/A	Out of Reach	on the Housing Wage- the hourly wage a full-time worker must earn to afford a modest and safe rental	Nation State County Metropolitan area Combined non- metro area	National Low- Income Housing Coalition	http://nlihc.org/oor
Databases	Housing	N/A	Special Tabulations of Households	Produces tabular statistical summaries of counts of households by tenure, income intervals, age of householder, size of household, and housing conditions, for select geographic areas in the United States. Users can extract this data to conduct a longitudinal analysis of changes in a particular area.	Nation State County Core based statistical area (CBSA)	U.S. Department of Housing and Urban Development (HUD)	http://www.huduser.or g/portal/datasets/specta bs.html
Databases	Housing	N/A		Provides detailed data and reports on Section 8 and Section 515 federally-assisted housing. Section 8 data includes contracts expiring over the next five years and reports information about property location, housing subsidy expiration date, physical inspection scores, ownership, management, and mortgage terms (if the mortgage is HUD insured). Section 515 data includes state reports of properties with USDA Section 515 loans.	State	National Housing Trust	http://www.nhtinc.org/ housing_data.php

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Databases	Housing	N/A	State, County, and Local Housing Data	A variety of data may be available, including data on housing permits, home values, housing affordability, market rates, and more. Available data will vary place to place. Examples of local sources of data include: • Miami-Dade County Public Housing and Community Development Department	State County City Local	Possible data sources may include: State, County, and City Departments of Public Housing, Housing, or Community Development	N/A
Databases	Labor and Workplace	N/A	County-Level Oil and Gas Production in the U.S.	County-level data from oil and/or natural gas producing states—for onshore production in the lower 48 states only—are compiled on a state-by-state basis. Most states have production statistics available by county, field, or well, and these data were compiled at the county-level to create a database of county-level production, annually for 2000 through 2011. Raw data for natural gas is for gross withdrawals, and oil data almost always include natural gas liquids.		U.S. Department of Agriculture (USDA) Economic Research Service	http://www.ers.usda.go v/data-products/county- level-oil-and-gas- production-in-the- us.aspx
Databases	Labor and Workplace	N/A	U.S. Bureau of Labor Statistics (BLS)	Maintains databases, tables, maps. and calculators on essential economic information, such as inflation and prices, employment and unemployment, pay and benefits, spending and time use, productivity, workplace injuries, and employment projections. Data are available at regional, state, county, and sometimes smaller geographic scales.	Varies	U.S. Bureau of Labor Statistics (BLS)	www.bls.gov
Databases	Labor and Workplace	N/A	Local Area Unemployment Statistics (LAUS)	Provides monthly estimates of employment, unemployment, and labor force data for approximately 7,500 areas.	Region State County Metropolitan statistical area (MSA) City and town	U.S. Bureau of Labor Statistics (BLS)	http://www.bls.gov/lau/
Databases	Labor and Workplace	N/A	Overview of BLS Wage Data by Area and Occupation	industry	Nation Region State Metropolitan area	U.S. Bureau of Labor Statistics (BLS)	http://www.bls.gov/bls/ blswage.htm

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Databases	Labor and Workplace	N/A	State, County, and Local Labor Market Data	Data may be available on state, county, and local labor markets, employment, and unemployment. Available data will vary place to place. An example of state and local labor market data includes: • Oregon Labor Market Information System	State County City Local	Possible data sources may include: State, County, and City Departments related to Employment, Economic Development, Job and Family Services, Labor, or similar departments	N/A
Databases	Population	N/A	American Community Survey (ACS)	• •	Nation Region Division State County City Metropolitan area Census tract Block group	U.S. Census Bureau	http://www.census.gov/ programs-surveys/acs/
Databases	Population	N/A	Vital Records	Provides addresses and webpage links to state and territory departments providing vital statistics records, including birth, death, marriage and divorce records.	State Territory	Centers for Disease Control and Prevention (CDC) National Center for Health Statistics	http://www.cdc.gov/nc hs/w2w/index.htm
Databases	Population	N/A	2010 Population Finder	A quick tool to help you find demographic data down to the city and town-level.	State County City Census-designated place American Indian and Alaska Native Areas Census tracts	U.S. Census Bureau	http://www.census.gov/ popfinder/index.php

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Databases	Population	N/A	DataFerret	A data analysis and extraction tool to customize federal, state, and local data to suit your requirements. Users can develop an unlimited array of customized spreadsheets and turn those spreadsheets into graphs and maps.	Nation State Local	U.S. Census Bureau	http://dataferrett.census .gov/
Databases	Population	N/A		Data may be available on vital statistics including birth and death records. Available data will vary place to place. An example of state and local labor market data includes: • District of Columbia Department of Health, Vital Records Division	State County City Local	Possible data sources may include: State, County, and City Departments of Public Health; Department of Health and Vital Statistics; Birth/Death Registries	N/A
Databases	Transportation	N/A	Bureau of Transportation Statistics	Contains transportation-related data and statistics on modes of transportation, vehicles, passengers, safety, infrastructure, energy and the environment, freight, and economics.	Nation State Local	U.S. Department of Transportation (DOT)	http://www.rita.dot.gov /bts/data_and_statistics /index.html
Databases	Transportation	N/A	Crash Modification Factors Clearinghouse	A comprehensive web-based database of crash modification factors (CMFs) and crash reduction factors (CRFs), frequently asked questions, star quality ratings, crash type, crash severity, area type, and the evidence article reference, as well as an extensive list of resources.	Urban areas Rural areas	DOT Federal Highway Administration (FHWA)	http://www.cmfclearin ghouse.org/
Databases	Transportation	N/A	Fatality Analysis Reporting System (FARS)	Offers data, charts, maps, and trends on traffic crashes, traffic fatalities, and other traffic-related data back to 1994.	Nation State County	National Highway Traffic Safety Administration (NHTSA)	http://www- fars.nhtsa.dot.gov/Mai n/index.aspx
Databases	Transportation	N/A		Repository of data about the financial, operating, and asset conditions of American transit systems. It contains information such as agency funding sources, inventories of vehicles and maintenance facilities, safety event reports, measures of transit service provided and consumed, and data on transit employees.	Nation Urbanized area City State NTD ID	Federal Transit Administration (FTA)	http://www.ntdprogram .gov/ntdprogram/

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Databases	Transportation	N/A	National Household Travel Survey (NHTS) [formerly Nationwide Personal Transportation Survey (NPTS)]	information on the purpose and means of travel, travel	Nation State Select metropolitan areas	U.S. Department of Transportation (DOT) Federal Highway Administration (FHWA)	http://nhts.ornl.gov/ind ex.shtml
Databases	Transportation	N/A	Transit Oriented Database (TOD)	Provides economic and demographic information for every existing and proposed fixed guideway transit station in the U.S.	Transit region Transit shed Transit zone	Center for Transit- Oriented Development	http://toddata.cnt.org/
Databases	Transportation	N/A	State, County, and Local Traffic	Available data will vary place to place.	State County City Local	Possible sources of data may include: State, County, and Local Sheriff Highway Patrol, Police Department, Department of Public Safety	N/A
Databases	Transportation	N/A	State, County, and Local Transportation	Examples of state and local transportation data include:	Region County Metropolitan areas City Local	Possible data sources may include: Department of Transportation & Engineering; Transportation Agency/Authority; Transit Department/Autho rity	N/A

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Guidance Documents	Guidelines	Health and Healthcare	Physical Activity Guidelines for Americans	Describes the major research findings on the health benefits of physical activity and provides guidelines on the types and amounts of physical activity for children and adolescents, adults, older adults, adults with disabilities, pregnant and postpartum women, and people with chronic medical conditions.	N/A	U.S. Department of Health and Human Services (DHHS) Office of Disease Prevention and Health Promotion	http://www.health.gov/ paguidelines/ http://www.cdc.gov/ph ysicalactivity/everyone /guidelines/index.html
Guidance Documents	Guidelines	Built Environment Environment Health and Healthcare	A Citizen's Guide to Radon	An informational guide that covers radon in the home and contains info and guidance on detection and mitigation.	N/A	U.S. Environmental Protection Agency (EPA)	https://www.epa.gov/ra don/citizens-guide- radon-guide-protecting- yourself-and-your- family-radon
Guidance Documents	Guidelines	Built Environment Environment Health and Healthcare Housing Transportation	Active Design Guidelines	Provides a manual of strategies for creating healthier buildings, streets, and urban spaces, based on the latest academic research and best practices in the field, and supplements for Community Groups, Safety, Affordable Housing, Shaping the Sidewalk Experience, and more.	City Local	New York City Departments of Design and Construction, Health and Mental Hygiene, Transportation, and City Planning	https://centerforactived esign.org/guidelines/
Guidance Documents	Guidelines	Built Environment Health and Healthcare Transportation	Fixing the Mobility Crisis Threatening	Report on the mobility challenges older adults face today. Report includes metropolitan rankings, implications for federal policy, case studies, and best practices for improving accessibility.	N/A	Transportation for America	http://t4america.org/do cs/SeniorsMobilityCris is.pdf
Guidance Documents	Guidelines	Environment Health and Healthcare	Air Pollution and Health Risk	A short primer on air toxics and public exposure and risk assessment.	N/A	U.S. Environmental Protection Agency (EPA)	http://epa.gov/ttn/atw/3 _90_022.html

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Guidance Documents	Guidelines	Environment Health and Healthcare	Air Toxics Risk Assessment (ATRA)	A reference library for conducting air toxics analyses and modeling at the facility and community scale. Provides information on the fundamental principles of risk-based assessment for air toxics and how to apply those principles in different settings as well as strategies for reducing risk at the local level.		U.S. Environmental Protection Agency (EPA)	https://www.epa.gov/fe ra/risk-assessment-and- modeling-air-toxics- risk-assessment-and- modeling
Guidance Documents	Guidelines	Built Environment Health and Healthcare	Asbestos	Brings together all of the U.S. Environmental Protection Agency's (EPA) recent research relating to asbestos and provides a framework for identifying, evaluating, and reducing risk to human health from asbestos exposure in schools, buildings, Superfund sites, and more.	N/A	U.S. Environmental Protection Agency (EPA)	http://www.epa.gov/as bestos/
Guidance Documents	Guidelines	Built Environment Environment Housing	Building American Cities Toolkit	Compilation of strategies and tools to improve the land, buildings, neighborhoods and other areas that make up a city's built environment. Also includes case studies highlighting communities that have used these strategies and tools. Strategies and tools are identified for four elements: Dealing with problem property owners, Building stronger neighborhoods, Reusing vacant properties, and Taking control of and managing problem properties.	City Local	Center for Community Progress	http://www.community progress.net/toolkit- home-page-pages- 292.php
Guidance Documents	Guidelines	Built Environment Environment Health and Healthcare Housing Transportation	Building Healthy Places Toolkit	Provides evidence-supported recommendations for enhancing health through changes in approaches to buildings and built environment projects. Recommendations are provided for physical activity, healthy food/drinking water, and healthy environment/social well-being.	City Local	Urban Land Institute	https://centerforactived esign.org/buildinghealt hyplacestoolkit
Guidance Documents	Guidelines	Built Environment Environment Health and Healthcare	Community Cumulative Assessment Tool (CCAT)	A computerized, guided process that informs users of the steps involved in local-scale cumulative risk assessment (CRA), such as problem formulation, conceptual model development, and the consideration of multiple stressors; it is based strongly on EPA CRA recommendations.	Local	U.S. Environmental Protection Agency (EPA)	http://www2.epa.gov/si tes/production/files/20 15- 09/documents/shc_201 5_ccat_poster.pdf

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Guidance Documents	Guidelines	Built Environment Environment Health and Healthcare	Community-Based Environmental Protection: A Resource Book For Protecting Ecosystems and Communities	Offers information on how communities can protect ecosystems by setting goals, assessing conditions, and developing and evaluating strategies. Includes case study examples, tools, and resources to learn more about certain topics.	Local	U.S. Environmental Protection Agency (EPA)	https://www.epa.gov/c ommunityhealth/comm unity-based- environmental- protection-resource- book-protecting- ecosystems-and
Guidance Documents	Guidelines	Health and Healthcare	Health Risks	This document quantifies risk factor exposure and effects for 26 major health risks and identifies population exposure distributions, evidence for causality, and estimates of disease-specific hazards associated with each level of exposure. Health risks range from anemia and high blood pressure to physical inactivity and smoking, and even air pollution and global warming.	N/A	World Health Organization (WHO)	http://www.who.int/he althinfo/global_burden _disease/cra/en/
Guidance Documents	Guidelines	Built Environment Crime	Crime Prevention Through Environmental Design (CPTED) Guidebook	A multi-disciplinary approach to deterring criminal behavior through environmental design implementations in the built environment.	N/A	National Crime Prevention Council	http://www.ncpc.org.sg /images/media/CPTED .pdf
Guidance Documents	Guidelines	Health and Healthcare	Ambient Air Quality	Under the Clean Air Act, the U.S. Environmental Protection Agency (EPA) is responsible for setting standards, also known as national ambient air quality standards (NAAQS), for pollutants which are considered harmful to people and the environment and ensuring that these air quality standards are met, or attained through national standards and strategies to control pollutant emissions from automobiles, factories, and other sources.		U.S. Environmental Protection Agency (EPA)	https://www.epa.gov/cr iteria-air-pollutants https://www.epa.gov/cr iteria-air- pollutants/naaqs-table

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Guidance Documents	Guidelines	Built Environment Population	Dealing with Neighborhood Change: A Primer on Gentrification and Policy Choices	A primer on how to view the complex issue of gentrification, including nationally-recognized indicators to measure whether gentrification is occurring. Shows the wide range of ways that gentrification pressures play out in three very different cities and one multi-city region, and suggests policies and strategies that can be used to advance equitable development by optimizing the benefits of neighborhood change and minimizing or eliminating the downsides.	N/A	Brookings Institution Center on Urban and Metropolitan Policy; PolicyLink	http://www.brookings.e du/~/media/research/fil es/reports/2001/4/metr opolitanpolicy/gentrific ation.pdf
Guidance Documents	Guidelines	Health and Healthcare		Provides 23 key recommendations for the general population and 6 additional key recommendations for specific population groups, such as pregnant women, meant to help people choose an overall healthy diet.	N/A	U.S. Department of Agriculture (USDA); U.S. Department of Health and Human Services (DHHS)	http://www.health.gov/ dietaryguidelines/dga2 010/DietaryGuidelines 2010.pdf http://www.health.gov/ dietaryguidelines/2010. asp
Guidance Documents	Guidelines	Built Environment Environment Health and Healthcare	EPA Exposure Methods, Models, Tools, and Databases	Warehouse of U.S. Environmental Protection Agency (EPA) methods, models, tools, and databases covering air, climate change, ecosystems, health, homeland security, human health risk assessment, land and waste management, safer chemicals, and water.	Varies	U.S. Environmental Protection Agency (EPA)	https://www.epa.gov/re search/methods-models- tools-and-databases
Guidance Documents	Guidelines	Built Environment Environment Health and Healthcare	EPA Risk Assessment Guidance and Tools	Provides links to various risk assessment resources (guidance, models, databases) used by U.S. Environmental Protection Agency (EPA) scientists to assess risks, including human health risks and ecological risks.	Varies	U.S. Environmental Protection Agency (EPA)	http://www.epa.gov/ris k/guidance.htm
Guidance Documents	Guidelines	Built Environment Economics Environment Health and Healthcare Housing	Development Toolkit	Online toolkit that includes 27 tools to reverse patterns of segregation and disinvestment, prevent displacement, and promote equitable revitalization.	Local	PolicyLink	http://www.policylink. org/equity- tools/equitable- development- toolkit/about-toolkit

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Guidance Documents	Guidelines	Built Environment Environment Health and Healthcare Transportation	Guidebook for Developing Pedestrian	Designed to help communities develop performance measures that can fully integrate pedestrian and bicycle planning in ongoing performance management activities. It highlights a broad range of ways that walking and bicycling investments, activity, and impacts can be measured and documents how these measures relate to goals identified in a community's planning process. It discusses how the measures can be tracked and what data are required, while also identifying examples of communities that are currently using the respective measures in their planning process.	Region State County Local	Federal Highways Administration (FHWA)	https://www.fhwa.dot.g ov/environment/bicycle _pedestrian/publication s/performance_measur es_guidebook/pm_guid ebook.pdf
Guidance Documents	Guidelines	Agriculture Built Environment Economics Environment	Essential Smart Growth Fixes for Rural Planning, Zoning, and Development Codes	Provides policy options that can help rural communities strengthen their economies while preserving rural character. These policies can help rural communities ensure that their development is fiscally sound, environmentally responsible, and socially equitable. Topics include fiscal impact analysis, commercial development, wastewater infrastructure, rural roads, efficient development patterns, and protection of agricultural and natural lands.	Local	U.S. Environmental Protection Agency (EPA)	https://www.epa.gov/s martgrowth/essential- smart-growth-fixes- communities#Rural_Pl anning_Zoning_and_D evelopment_Codes
Guidance Documents	Guidelines	Built Environment Economics Environment	Essential Smart Growth Fixes for Urban and Suburban Zoning and Development Codes	Provides eleven "essential fixes" to the most common barriers local governments face in implementing smart growth strategies. Topics include mixing land uses, fixing parking requirements, modernizing street standards, managing stormwater, and adopting smart annexation policies. Each essential fix describes a problem or barrier and the actions the community could take to overcome it. These actions are organized as modest adjustments, major modifications, or wholesale changes.	Local	U.S. Environmental Protection Agency (EPA)	https://www.epa.gov/s martgrowth/essential- smart-growth-fixes- communities#Urban_a nd_Suburban_Zoning_ Codes
Guidance Documents	Guidelines	Environment	Evaluating Exposures to Toxic Air Pollutants: A Citizen's Guide	A short primer on air toxics and public exposure and risk assessment.	N/A	U.S. Environmental Protection Agency (EPA)	http://epa.gov/ttn/atw/3 _90_023.html

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Guidance Documents	Guidelines	Built Environment Environment Health and Healthcare	Exposure Factors Handbook	Provides information on various physiological and behavioral factors commonly used in assessing exposure to environmental chemicals. Each chapter presents recommended values for the exposure factors covered in the chapter, as well as a discussion of the underlying data used in developing the recommendations. Factors include: drinking water consumption, soil ingestion, inhalation rates, dermal factors including skin area and soil adherence factors, consumption of fruits and vegetables, fish, meats, dairy products, homegrown foods, human milk intake, human activity factors, consumer product use, and building characteristics.	N/A	U.S. Environmental Protection Agency (EPA)	http://ofmpub.epa.gov/ eims/eimscomm.getfile ?p_download_id=5229 96
Guidance Documents	Guidelines	Built Environment Environment Health and Healthcare		Provides an overview of noise evaluation methodologies and metrics, health effects, and airport noise policy recommendations.	N/A	Federal Interagency Committee on Noise	https://fican1.files.wor dpress.com/2015/10/re ports_noise_analysis.p df
Guidance Documents	Guidelines	Environment	(FEGS) Classification	Provides a foundation for measuring, quantifying, mapping, modeling, and valuing ecosystem services or the benefits supplied by nature.	N/A	U.S. Environmental Protection Agency (EPA)	http://gispub4.epa.gov/ FEGS/ http://cfpub.epa.gov/si/ si_public_record_Repo rt.cfm?dirEntryId=257 922&CFID=13972040 5&CFTOKEN=593035 49&jsessionid=cc303f 3c529fb2342dd56e52d 7c80353e2a2
Guidance Documents	Guidelines	Built Environment Environment Health and Healthcare	Guidelines for	Consolidates scientific knowledge on the health impacts of community noise and provides noise management guidance to environmental health authorities and professionals trying to protect people from the harmful effects of noise in non-industrial environments.	Local	World Health Organization (WHO)	http://whqlibdoc.who.i nt/hq/1999/a68672.pdf

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Guidance Documents	Guidelines	Built Environment Health and Healthcare Housing	Healthy Home Rating System (HRRS) – Operating Guidance	Provides guidelines for understanding and using the HHRS. HHRS is an American adaptation of the British Housing Health and Safety Rating System, developed to allow assessment of all the main potential housing- related health and safety hazards. By focusing on potential hazards, it places the emphasis directly on the risk to health or safety, rather than cosmetic or physical conditions alone.	N/A	U.S. Department of Housing and Urban Development (HUD)	http://portal.hud.gov/h udportal/documents/hu ddoc?id=operating_gui dance_hhrs_v1.pdf
Guidance Documents	Guidelines	Health and Healthcare	Health in All Policies: A Guide for State and Local Governments	Reflects a wide variety of approaches to Health in All Policies. Geared toward state and local government leaders who want to use intersectoral collaboration to promote healthy environments. Provides a broad range of perspectives and examples of ways to support intersectoral collaboration for health.	N/A	Public Health Institute; American Public Health Association	http://www.phi.org/upl oads/files/Health_in_A Il_Policies- A_Guide_for_State_an d_Local_Governments. pdf
Guidance Documents	Guidelines		Healthy Indoor Environment Protocols for Home Energy Upgrades	Provides guidance on better integrating health protections into home energy efficiency programs, including guidance on improving or maintaining indoor air quality and indoor environments during home energy upgrades, retrofits, and remodels. This first-of-its-kind guidance document will provide the home energy industry the ability to identify, manage, and reduce health risks during home energy upgrades, retrofits, or remodels.	N/A	U.S. Environmental Protection Agency (EPA)	http://web.mit.edu/cron /project/EESP- Cambridge/Articles/He alth/epa_healthy%20en ergy%20retrofit_protoc ols%20Final%2011- 11.pdf
Guidance Documents	Guidelines	Environment	Indoor Air Quality (IAQ)	Website providing information on pollutants and sources of indoor air pollution in homes, schools, and larger buildings, as well as tools for improving IAQ in schools via a comprehensive IAQ management program. Publications and resources provide guides, fact sheets, models, studies, and tools for a variety of IAQ-related topics including mold, secondhand smoke, carbon monoxide, IAQ building assessment, IAQ health impacts, air duct and ventilation safety studies and guides, and more.	N/A	U.S. Environmental Protection Agency (EPA)	https://www.epa.gov/in door-air-quality-iaq

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Guidance Documents	Guidelines	Built Environment Environment Transportation	Voluntary Evaluation Sustainability Tool (INVEST)	A web-based self-evaluation tool designed to help transportation agencies and planning organizations integrate sustainability into their programs (policies, processes, procedures and practices) and projects. The tool is made up of voluntary sustainability best practices that cover the full lifecycle of transportation services (e.g., system planning, project planning, design, construction, operations, and maintenance).	Varies	Federal Highways Administration (FHWA)	https://www.sustainabl ehighways.org/
Guidance Documents	Guidelines	Built Environment	Integrating Health into Comprehensive Planning	Guidance on integrating health into community design and the links between urban planning and health.	N/A	Design For Health	http://designforhealth.n et/integrating-health- into-comprehensive- planning/
Guidance Documents	Guidelines	Built Environment Environment Health and Healthcare Housing Transportation	Measuring Sprawl 2014	An update and refinement of the research behind the 2002 "Measuring Sprawl and Its Impact" study, which has been widely used by researchers to examine the costs and benefits of sprawling development. Provides a Sprawl Index score for 221 metropolitan statistical areas (MSAs) and 994 metropolitan counties based on four primary factors - residential and employment density; neighborhood mix of homes, jobs and services; strength of activity centers and downtowns; and accessibility of the street network	County Metropolitan areas	Smart Growth America	http://www.smartgrowt hamerica.org/measurin g-sprawl
Guidance Documents	Guidelines	Economics Housing	Income Energy Assistance Programs Through a Home Energy Insecurity	The extent to which an energy assistance program improves the energy self-sufficiency of a low-income household can be captured through the use of the Home Energy Insecurity Scale. The Scale can be used to quantitatively measure outcomes for home energy assistance programs using a set of thresholds and indicators that measure energy self-sufficiency.	N/A	U.S. Department of Health and Human Services (DHHS) Administration for Children & Families	http://www.acf.hhs.gov /sites/default/files/ocs/ measuring_outcome_0. pdf

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Guidance Documents	Guidelines	Environment Health and Healthcare	Naturally Occurring Asbestos: Approaches for Reducing Exposure	Nine page factsheet on approaches for reducing exposures to naturally occurring asbestos (NOA).	N/A	U.S. Environmental Protection Agency (EPA)	https://nepis.epa.gov/E xe/ZyNET.exe/P1005H TF.txt?ZyActionD=Zy Document&Client=EP A&Index=2006%20Th ru%202010&Docs=& Query=&Time=&EndT ime=&SearchMethod= 1&TocRestrict=n&Toc =&TocEntry=&QField =&QFieldYear=&QFie IdMonth=&QFieldDay =&UseQField=&IntQF ieldOp=0&ExtQFiel
Guidance Documents	Guidelines	Built Environment	Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare With an Adequate Margin of	Covers the requirements of the Noise Control Act of 1972 and the impacts of noise on public health, and identifies noise levels necessary to protect public health and welfare against hearing loss, annoyance and activity interference. Note: In 1981, the primary responsibility for noise control policy and noise regulation was transferred from EPA to state and local governments, but the federal noise control acts still are in effect today (but are essentially unfunded).	N/A	U.S. Environmental Protection Agency (EPA)	http://www.nonoise.org /library/levels74/levels 74.htm
Guidance Documents	Guidelines		Parks, Trails, and Health Workbook	Provides an outline and quick guide for incorporating public health considerations in the development of a park or trail.	N/A	National Park Service (NPS); U.S. Centers for Disease Control and Prevention (CDC)	https://www.nps.gov/p ublic_health/hp/hphp/p ress/Parks_Trails_and_ Health_Workbook_508 _Accessible_PDF.pdf

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Guidance Documents	Guidelines	Environment Business and Industry	RCRA in Focus (RIF)	A series of publications providing an overview of the Resource Conservation and Recovery Act (RCRA) regulations affecting specific industry sectors. Presents the lifecycle of a typical waste for each industry and focuses on recycling and pollution prevention options. Each issue contains a hazardous waste table of RCRA requirements for small businesses and answers frequently asked questions.	N/A	U.S. Environmental Protection Agency (EPA)	https://www.epa.gov/h wgenerators/resource- conservation-and- recovery-act-rcra-focus- hazardous-waste- generator-guidance
Guidance Documents	Guidelines	Built Environment Environment Health and Healthcare	Reducing Air Toxics	Four page brochure on how communities can identify and reduce air toxics, what EPA is doing to reduce air toxics, and examples of community-based projects.	Local	U.S. Environmental Protection Agency (EPA)	http://nepis.epa.gov/Ex e/ZyPDF.cgi/2000HG X1.PDF?Dockey=2000 HGX1.PDF
Guidance Documents	Guidelines	Built Environment Environment Health and Healthcare	Near Source Air Pollution	Provides research that has been conducted to assess near- source impacts for single source and complex multi- source environments and better understand factors influencing adverse health effects attributed to near- source impacts. Includes models and tools developed to quantify near-source emissions and exposures and mitigation strategies to reduce emissions, exposures and health effects.	N/A	U.S. Environmental Protection Agency (EPA)	https://www.epa.gov/ai r-research/research- near-roadway-and- other-near-source-air- pollution
Guidance Documents	Guidelines	Built Environment Environment Health and Healthcare	Risk Assessment for Toxic Air Pollutants: A Citizen's Guide	A short primer on air toxics and public exposure and risk assessment.	N/A	U.S. Environmental Protection Agency (EPA)	http://epa.gov/ttn/atw/3 _90_024.html
Guidance Documents	Guidelines	Built Environment Environment Health and Healthcare	Risk Assessment Guidance for Superfund (RAGS)	· · · · · · · · · · · · · · · · · · ·	Local Site-specific	U.S. Environmental Protection Agency (EPA)	https://www.epa.gov/ri sk/risk-assessment- guidance-superfund- rags-part
Guidance Documents	Guidelines	Built Environment Environment			Local Site-specific	U.S. Environmental Protection Agency (EPA)	http://www.epa.gov/sc hools/school-siting- guidelines

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Guidance Documents	Guidelines	Built Environment Environment Health and Healthcare Transportation	Smart Congestion Relief	A comprehensive evaluation of traffic congestion costs and congestion reduction strategies. Describes various factors that affect congestion cost estimates and the evaluation of potential congestion reduction strategies, including analysis scope, baseline speeds, travel time valuation, accident and emission impact analysis, induced travel analysis, and consideration of co-benefits. And provides best practice recommendations by experts.	Varies	Victoria Transport Policy Institute	http://www.vtpi.org/co ng_relief.pdf
Guidance Documents	Guidelines	Built Environment Environment Health and Healthcare Housing Transportation	Smart Growth Tools	Provides smart growth strategies and tools to help communities grow in ways that expand economic opportunity while protecting human health and the environment. Includes a smart growth assessment for rural communities, a web-based tool for communities to determine how well they are performing on a variety of sustainability indicators, smart growth guidelines for sustainable design and development, and more.	N/A	U.S. Environmental Protection Agency (EPA)	https://www.epa.gov/s martgrowth/smart- growth-tools
Guidance Documents	Guidelines	Built Environment Environment Health and Healthcare Housing Transportation	Smart Growth Implementation Toolkit	A set of practical tools to help communities grow smarter. These tools provide a step-by-step guide for how to examine the policies, codes, zoning regulations and development requirements that can impact how a community grows. The tools are intended to be templates and can be customized for a community's needs.	Local	Smart Growth America	http://www.smartgrowt hamerica.org/leadershi p- institute/implementatio n-tools
Guidance Documents	Guidelines	Built Environment Environment Health and Healthcare Housing Transportation	Smart Growth Scorecards	A website with various smart growth scorecard assessment tools meant to help view development and projects through a smart growth lens. The scorecards fall under three different categories: municipal-level, project- specific, and component (bikeability and walkability).		U.S. Environmental Protection Agency (EPA)	https://www.epa.gov/s martgrowth/smart- growth-scorecards

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Guidance Documents	Guidelines	Built Environment Environment Health and Healthcare	Sustainable Design and Green Building Toolkit for Local Governments	A toolkit designed to help local governments and communities identify and remove barriers to sustainable design and green building in their permitting processes. The toolkit addresses local codes and ordinances that affect the design, construction, renovation, and operation and maintenance of a building and its immediate site. The toolkit contains an assessment tool, a resource guide, and a guide to developing an action plan for implementing changes to the permitting process.	Local	U.S. Environmental Protection Agency (EPA)	https://www.epa.gov/s martgrowth/sustainable- design-and-green- building-toolkit-local- governments
Guidance Documents	Guidelines	Environment	The Community Air Screening How To Manual	Presents and explains step-by-step, the process that a community can follow to organize, identify and inventory local sources of air pollutants, analyze the potential health risks to the community, and set priorities and develop a plan for improving outdoor air quality.	Local	U.S. Environmental Protection Agency (EPA)	https://www.epa.gov/si tes/production/files/20 15- 09/documents/commun ity_air_screening_how _to_manual.pdf
Guidance Documents	Guidelines	Built Environment Economics Environment	Infrastructure: A Guide to Recognizing Its Economic, Social and Environmental	Quantifies the economic value of green infrastructure's benefits to help inform decision-makers and planners about the multiple benefits green infrastructure provides to communities and guide communities in valuing potential green infrastructure investments	N/A	Center for Neighborhood Technology (CNT); American Rivers	http://www.cnt.org/rep ository/gi-values- guide.pdf

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Guidance Documents	Guidelines	Environment Health and Healthcare	Quality/ Emission Standards for On- Road and Nonroad	The U.S. Environmental Protection Agency (EPA) protects public health and the environment by regulating air pollution from motor vehicles, engines, and the fuels used to operate them, and by encouraging travel choices that minimize emissions. These "mobile sources" include cars and light trucks, heavy trucks and buses, nonroad engines, equipment, and vehicles. The Emission Standards Reference Guide provides federal emission standards for on-road and nonroad vehicles and engines, and related fuel sulfur standards. Each table includes the standards, useful life, warranty period, and the availability of averaging, banking, and trading (ABT).	N/A	U.S. Environmental Protection Agency (EPA)	https://www3.epa.gov/ otaq/ https://www.epa.gov/e mission-standards- reference-guide
Guidance Documents	Guidelines	Built Environment Health and Healthcare Transportation	Transportation Research Board / National Cooperative Highway Research Program Crash Reduction Factors	Summarizes the current status of crash reduction factors for a variety of treatments and provides a summary of the best available crash reduction factors.	N/A	National Cooperative Highway Research Program	http://onlinepubs.trb.or g/onlinepubs/nchrp/nc hrp_rrd_299.pdf
Guidance Documents	Guidelines	Built Environment Environment Health and Healthcare	Urban Air Toxics	Identifies the air toxics facing urban areas, their sources, and the associated health effects, as well as ways to effectively reduce the risk of these toxics.	Urban areas	U.S. Environmental Protection Agency (EPA)	https://www.epa.gov/ur ban-air-toxics
Guidance Documents	Guidelines	Built Environment Environment		A guide to help local governments identify opportunities to better protect water quality by removing barriers; revising and creating codes, ordinances, and incentives; and ensuring codes and ordinances across multiple municipal departments work together to support a green infrastructure approach to storm water management. Intended for municipalities, neighborhoods, and sites in rural, suburban, and urban settings, including those that have combined sewers, municipal separate storm sewers, or limited or no existing stormwater infrastructure.	City Local Site-specific	U.S. Environmental Protection Agency (EPA)	https://www.epa.gov/s martgrowth/water- quality-scorecard

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Guidance Documents	Guidelines	Environment Health and Healthcare		Presents evidence on the health effects of four common air pollutants - PM, O3, NO2 and SO2 -and their relative importance with regard to current and future health effects in each of the WHO regions, and implications for air quality guidelines.	All	World Health Organization (WHO)	http://whqlibdoc.who.i nt/hq/2006/WHO_SDE _PHE_OEH_06.02_en g.pdf
Guidance Documents	Guidelines	Environment Health and Healthcare	WHO Health Topics	Inventory of evidence, statistics, initiatives, strategies, and guidelines for various health and development topics.	Varies	World Health Organization (WHO)	http://www.who.int/top ics/en/
Guidance Documents	Benchmarks			The American Heart Association (AHA) has dietary recommendations for infants, children and adolescents to promote cardiovascular health.	N/A	American Heart Association (AHA)	http://www.heart.org/H EARTORG/GettingHe althy/Dietary- Recommendations-for- Healthy- Children_UCM_30388 6_Article.jsp
Guidance Documents	Benchmarks	Environment	Clean Power Plan	(for new modified and reconstructed power plants) - to	Nation State		https://www.epa.gov/cl eanpowerplan

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Guidance Documents	Benchmarks	Health and Healthcare	American Heart Association (AHA) Diet and Lifestyle Recommendations	Provides recommendations for fighting cardiovascular disease through reduced caloric intake, a diet of nutritious foods, limiting certain food and beverages, not smoking tobacco, and avoiding secondhand smoke.	N/A	American Heart Association (AHA)	http://www.heart.org/H EARTORG/GettingHe althy/NutritionCenter/ HealthyEating/The- American-Heart- Associations-Diet-and- Lifestyle- Recommendations_UC M_305855_Article.jsp
Guidance Documents	Benchmarks	Health and Healthcare	American Heart Association (AHA) Recommendations for Physical Activity in Adults	Provides adult physical activity recommendations for overall cardiovascular health.	N/A	American Heart Association (AHA)	http://www.heart.org/H EARTORG/GettingHe althy/PhysicalActivity/ FitnessBasics/America n-Heart-Association- Recommendations-for- Physical-Activity-in- Adults_UCM_307976 _Article.jsp
Guidance Documents	Benchmarks	Health and Healthcare	American Heart Association (AHA) Recommendations for Physical Activity in Children	Provides physical activity recommendations for children to avoid the risk factor of physical inactivity when they become adults.	N/A	American Heart Association (AHA)	http://www.heart.org/H EARTORG/GettingHe althy/HealthierKids/Ac tivitiesforKids/The- AHAs- Recommendations-for- Physical-Activity-in- Children_UCM_30405 3_Article.jsp
Guidance Documents	Benchmarks	Environment Health and Healthcare	America's Children and the Environment (ACE)	A report presenting data on children's environmental health. ACE brings together information from a variety of sources to provide national indicators and related information on the environment and children's health.	N/A	U.S. Environmental Protection Agency (EPA)	http://www.epa.gov/ac e/index.html

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Guidance Documents	Benchmarks	01		The report provides analysis and reporting of recent trends and ongoing variations in health disparities and inequalities for selected social and health indicators. The report highlights health disparities and inequalities across a wide range of diseases, behavioral risk factors, environmental exposures, social determinants, and health-care access by sex, race and ethnicity, income, education, disability status and other social characteristics.	Nation	Centers for Disease Control and Prevention (CDC)	http://www.cdc.gov/mi norityhealth/CHDIRep ort.html
Guidance Documents	Benchmarks	Environment Health and Healthcare	EPA's Report on the Environment (ROE)	The ROE shows how the condition of the environment and human health in the United States is changing over time. Presents the best available indicators of national trends in air, water, land, human exposure and health, and ecological condition.	Nation	U.S. Environmental Protection Agency (EPA)	http://cfpub.epa.gov/ro e/
Guidance Documents	Benchmarks	Environment Health and Healthcare	Noise Pollution and Federal Noise Regulations	Under the Clean Air Act, federal noise regulations have also been set, which cover standards for transportation equipment, motor carriers, low-noise-emission products, and construction equipment.	N/A	U.S. Environmental Protection Agency (EPA)	https://www.epa.gov/cl ean-air-act- overview/title-iv-noise- pollution
Guidance Documents	Benchmarks	Environment Health and Healthcare	Health-Based Screening Levels (HBSLs) for Evaluating Water- Quality Data	Provides non-enforceable water-quality benchmarks that can be used to (1) supplement U.S. Environmental Protection Agency (EPA) Maximum Contaminant Levels (MCLs) and Human Health Benchmarks for Pesticides (HHBPs), (2) determine whether contaminants found in surface-water or groundwater sources of drinking water may indicate a potential human-health concern, and (3) help prioritize monitoring efforts.	N/A	U.S. Geological Survey (USGS)	http://cida.usgs.gov/hb sl/apex/f?p=hbsl:home: 3526777841372:::::
Guidance Documents	Benchmarks	Health and Healthcare	Healthy People 2020	A set of science-based, ten-year objectives for improving the health of all Americans.	N/A	U.S. Department of Health and Human Services (DHHS)	https://www.healthype ople.gov/2020/About- Healthy-People

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Guidance Documents	Benchmarks	Health and Healthcare	Adult BMI Calculator	Calculates the Body Mass Index (BMI) and the corresponding BMI weight status category for individuals 20 years old and older.	N/A	Centers for Disease Control and Prevention (CDC)	http://www.cdc.gov/he althyweight/assessing/ bmi/adult_bmi/english _bmi_calculator/bmi_c alculator.html
Guidance Documents	Benchmarks	Health and Healthcare	BMI Percentile Calculator for Child and Teen	Calculates the Body Mass Index (BMI) and the corresponding BMI-for-age percentile on a CDC BMI-for-age growth chart. Use for children and teens, age 2 - 19 years.	N/A	Centers for Disease Control and Prevention (CDC)	http://nccd.cdc.gov/dn pabmi/Calculator.aspx
Guidance Documents	Benchmarks	Built Environment Environment	Green Values® Stormwater Toolbox	Provides technical information on what green infrastructure is and does, how the use of green infrastructure saves money, the costs and benefits of using green infrastructure to mitigate the need for different types of built water infrastructure, and a comprehensive bibliography. Also includes Green Values® Calculators for comparing the performance, costs, and benefits of green infrastructure, or low impact development (LID), to conventional stormwater practices.	Varies	Center for Neighborhood Technology	http://greenvalues.cnt.o rg/
Guidance Documents	Benchmarks	Environment Transportation	Household Carbon Footprint Calculator	Gives a rough "ballpark" estimate of a person's or household's carbon footprint in three areas - home energy, transportation, and waste - based on their location, habits, and personal choices.	Household	U.S. Environmental Protection Agency (EPA)	https://www3.epa.gov/ carbon-footprint- calculator/
Guidance Documents	Benchmarks	Health and Healthcare Transportation		Consists of a number of questions designed to provide those with Highway Safety Improvement Program (HSIP) management responsibilities the information necessary to assess their programs, policies, and procedures against many of the recommended HSIP practices in use today. Can be used to benchmark and track progress towards improving the effectiveness of the HSIP over the long term and generate strategies to improve HSIP-related practices.	State	Federal Highways Administration (FHWA)	http://safety.fhwa.dot.g ov/hsip/resources/fhwa sa11043/

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Guidance Documents	Benchmarks	Built Environment Environment Housing	Leadership in Energy & Environmental Design (LEED) Green Certification Program - Buildings and Neighborhoods	A green building certification program that recognizes best-in-class building strategies and practices. To receive LEED certification, building projects satisfy prerequisites and earn points to achieve different levels of certification. Prerequisites and credits differ for each rating system, and teams choose the best fit for their project. LEED certifications are available for buildings (i.e., new construction and complete renovations, interior design and construction projects, existing building operation and maintenance, and individual homes) and neighborhood development or redevelopment projects. Neighborhoods are rated according to four categories for certification: smart location and linkage; neighborhood pattern and design; green infrastructure and buildings; and innovation and design process.	N/A	U.S. Green Building Council	http://www.usgbc.org/l eed
Guidance Documents	Benchmarks	Built Environment Environment Housing	STAR Community	Helps communities identify, validate, and support implementation of best practices to improve sustainable community conditions. STAR integrates economic, environmental, and social aspects of sustainability and provides communities with a menu-based system to customize their approach based on local conditions and priorities. The rating system is organized by goals, objectives, and evaluation measures and is intended to align with local government processes and standard practice.	Local	STAR Communities	http://www.starcommu nities.org/rating- system/
Analysis Tools	Decision Analysis	Built Environment Economics Environment	Decision Analysis for Sustainable Environment, Economy and Society (DASEES)	An open-source, web-based decision analysis framework that can help evaluate complex environmental issues and decisions by characterizing environmental, social, and economic trade-offs to the decision alternatives.		U.S. Environmental Protection Agency (EPA)	http://nepis.epa.gov/Ex e/ZyPDF.cgi?Dockey= P100DSGE.txt http://nepis.epa.gov/Ex e/ZyPDF.cgi?Dockey= P100ECOI.txt

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Analysis Tools	Decision Analysis	Environment Transportation	The Energy and Emissions Reduction Policy Analysis Tool	Assists state transportation agencies with analyzing greenhouse gas reduction scenarios and alternatives for use in the transportation planning process, developing state climate action plans, scenario planning exercises, and measuring the reduction potential of various transportation strategies to meet state greenhouse gas reduction goals and targets.	State	Federal Highways Administration (FHWA)	http://www.planning.d ot.gov/FHWA_tool/
Analysis Tools	Decision Analysis	Built Environment Environment Health and Healthcare	Healthy School Environments Assessment Tool (HealthySEATv2)	Helps school districts evaluate and manage their school facilities for key environmental, safety and health issues. It can be customized and used by district-level staff to conduct completely voluntary self-assessments of their school (and other) facilities and to track and manage information on environmental conditions school by school.	Site-specific	U.S. Environmental Protection Agency (EPA)	http://epaschools- stage.icfwebservices.co m/guidelinestools/healt hySEAT/index.html http://epaschools- stage.icfwebservices.co m/guidelinestools/healt hySEAT/downloads1.h tml
Analysis Tools	Decision Analysis	Built Environment Environment	Municipal Solid Waste Decision Support Tool (MSW DST)	environmental objectives, such as those designed to	County City	U.S. Environmental Protection Agency; RTI International	https://mswdst.rti.org/

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Analysis Tools	Decision Analysis	Economics Environment Health and Healthcare	Benefits Mapping and Analysis Program (BenMAP) -	An open-source software program that estimates the number and economic value of air pollution-related deaths and illnesses. Incorporates a database that includes many of the concentration-response relationships, population files, and health and economic data needed to quantify health impacts resulting from changes in air quality - specifically, ground-level ozone and fine particles.	Nation State County City Local		https://www.epa.gov/b enmap
Analysis Tools	Decision Analysis	Health and Healthcare	Pedestrian and Bicycle Crash Analysis Tool (PBCAT)	A crash typing software product intended to assist state and local pedestrian/bicycle coordinators, planners, and engineers with improving walking and bicycling safety through the development and analysis of a database containing details associated with crashes between motor vehicles and pedestrians or bicyclists.	State County City Local	Pedestrian and Bicycle Information Center	http://www.pedbikeinf o.org/pbcat_us/
Analysis Tools	Decision Analysis	Built Environment Environment Health and Healthcare	Sustainable Management Approaches and Revitalization Tools - electronic (SMARTe)	An open-source, web-based, decision support system for developing and evaluating future reuse scenarios for potentially contaminated land. SMARTe contains resources and analysis tools for all aspects of the revitalization process including planning, environmental, economic, and social concerns.	Site-specific	U.S. Environmental Protection Agency (EPA); U.S German Bilateral Working Group	http://www.smarte.org/ smarte/home/index.xml
Analysis Tools	Economic Analysis	Economics Health and Healthcare Transportation	Treatment of the	Provides guidance on valuing reduction of risk for fatalities and injuries by transportation regulations or investments. These are values used in Department of Transportation analyses.	N/A	U.S. Department of Transportation (DOT)	http://www.dot.gov/off ice- policy/transportation- policy/guidance- treatment-economic- value-statistical-life
Analysis Tools	Economic Analysis	Economics Health and Healthcare Transportation	Health Economic Assessment Tool (HEAT)	Helps in conducting an economic assessment of the health benefits of walking or cycling by estimating the value of reduced mortality that results from specified amounts of walking or cycling.	N/A	World Health Organization (WHO)	http://www.heatwalkin gcycling.org/ http://www.euro.who.i nt/HEAT

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Analysis Tools	Economic Analysis	Business and Industry Economics	Retail Trade/Gap Analysis	A technique for identifying the strengths and weaknesses of an economy's retail sector. Quantifies retail surplus and leakage (i.e., the extent to which the corridor is capturing the spending potential of households residing in the area).	Local	Oklahoma State University	http://agecon.okstate.e du/retailtrade/ http://agecon.okstate.e du/faculty/publications /3282.pdf
Analysis Tools	Economic Analysis	Agriculture Built Environment Business and Industry Crime Demographics Economics Education Environment Health and Healthcare Housing Labor and Workplace Population Transportation	@Risk	This software performs risk analysis using Monte Carlo simulation to show users many possible outcomes in an Excel spreadsheet model—and tells users how likely they are to occur. It mathematically and objectively computes and tracks many different possible future scenarios, then tells the probabilities and risks associated with each different one. \$	Varies	Palisade	http://www.palisade.co m/risk/
Analysis Tools	Economic Analysis	Transportation	Transportation Cost and Benefit Analysis	Techniques, estimates, and implications for quantifying the full costs and benefits of different transportation modes.	Varies	Victoria Transport Policy Institute	http://www.vtpi.org/tca /
Models	Scientific Models	Environment	AERMOD	An air dispersion model that takes into account both meteorological and terrain aspects to model dispersion of air pollutants.	N/A	U.S. Environmental Protection Agency (EPA)	http://www3.epa.gov/tt n/scram/dispersion_pre frec.htm#aermod

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Models	Scientific Models	Environment Health and Healthcare	Age Related Morbidity And Death Analysis (ARMADA)	A computer model that assesses the health impacts of proposed development projects due to changes in the environment. The model takes into account environmental factors, population demographics and dynamics, and the timescale of the project to estimate age-related patterns of morbidity and mortality within the local population. ARMADA was specifically developed for use in HIA.	Local	Utley, et al. 2003. ARMADA – A Computer Model of the Impact of Environmental Factors on Health. <i>Health Care</i> <i>Management</i> <i>Science</i> , 6(3), 137- 146.	http://link.springer.co m/article/10.1023%2F A%3A1024411417521
Models	Scientific Models	Agriculture Built Environment Business and Industry Crime Demographics Economics Education Environment Health and Healthcare Housing Labor and Workplace Population Transportation	Analytica Free 101	Builds models with up to 101 variables and other user objects, reviews and runs models of any size, and allows users to change input values and generate results as graphs and tables.	N/A	Lumina Decision Systems	http://www.lumina.co m/products/free101/
Models	Scientific Models	Built Environment	Bioretention, Permeable Pavement, Green Roof, and Rainwater Harvesting Models	An inventory of models on the function and impacts of stormwater management, such as swales, bioretention areas, green roofs, stormwater wetlands, permeable pavements, water harvesting systems, and other innovative treatment practices.	Varies	North Carolina State University Biological and Agricultural Engineering	https://stormwater.bae. ncsu.edu/resources/ Downloads Tab

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Models	Scientific Models	Environment Transportation	CALINE3/CAL3QHC/ CAL3QHCR	Pollutant dispersion models used for predicting carbon monoxide (CO) and particulate matter (PM) dispersion from traffic. CAL3QHCR is a more refined version that requires local meteorological data. Inputs for the models include roadway geometry, receptor locations, meteorological conditions, vehicular emission rates, and others.	Local	U.S. Environmental Protection Agency (EPA)	https://www3.epa.gov/t tn/scram/dispersion_pr efrec.htm#caline3
Models	Scientific Models	Environment Transportation	CALRoads View	An air dispersion modeling package that combines the CALINE4, CAL3QHC, and CAL3QHCR air dispersion models into one seamless integrated graphical interface. Used for predicting air pollution concentrations of carbon monoxide (CO), nitrogen dioxide (NO2), and particulate matter (PM) from traffic. \$	Local	Lakes Environmental Software	http://www.weblakes.c om/products/calroads/? AspxAutoDetectCooki eSupport=1
Models	Scientific Models	Built Environment Environment	CAMEO software suite	A system of software applications used widely to plan for and respond to chemical emergencies. It is a tool to assist front-line chemical emergency planners and responders. The CAMEO system integrates a chemical database and a method to manage the data, an air dispersion model, and a mapping capability.	Local	U.S. Environmental Protection Agency (EPA); National Oceanic and Atmospheric Administration (NOAA)	https://www.epa.gov/ca meo/what-cameo- software-suite http://www.epa.gov/ca meo/cameo-software
Models	Scientific Models	Environment Health and Healthcare Labor and Workplace	Chemical Screening Tool for Exposures and Environmental Releases (ChemSTEER)	Estimates workplace exposures and environmental releases for chemicals manufactured and used in industrial/commercial settings. Estimates occupational inhalation and dermal exposure to a chemical during industrial and commercial manufacturing, processing, and use operations; and releases of a chemical to air, water, and land that are associated with industrial and commercial manufacturing, processing, and use of the chemical.	Site-specific	U.S. Environmental Protection Agency (EPA)	http://www.epa.gov/tsc a-screening- tools/chemsteer- chemical-screening- tool-exposures-and- environmental-releases

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Models	Scientific Models	Economics Environment Health and Healthcare	Co-Benefits Risk Assessment (COBRA)	Estimates the health and economic benefits of air quality policies. Allows users to estimate and map the air quality, human health, and related economic benefits (excluding energy cost savings) of clean energy policies or programs; and approximate the outcomes of clean energy policies that change emissions of particulate matter 2.5 (PM2.5), sulfur dioxide (SO2), nitrogen oxides (NOX), ammonia (NH3), and volatile organic compounds (VOCs) at the county, state, regional, or national level.	Nation State County Local	U.S. Environmental Protection Agency (EPA)	https://www.epa.gov/st atelocalclimate/co- benefits-risk- assessment-cobra- screening-model
Models	Scientific Models	Health and Healthcare		Estimates the epidemiology of a disease. It exploits the fact that disease incidence, prevalence, remission, case fatality, and mortality are not independent variables.	N/A	Epi Gear International; World Health Organization (WHO)	http://www.epigear.co m/index_files/dismod_ ii.html
Models	Scientific Models	Health and Healthcare		Quantifies the health impact of policies influencing health determinants. It is adaptable to the health determinants and outcomes relevant for the policy in question and has been applied throughout the European Union.	N/A	DYNAMO-HIA	http://www.dynamo- hia.eu/
Models	Scientific Models Methods Frameworks Indices	Built Environment Environment Economic	Environmental Tools to Support Sustainable Decision Making	Provides access to a large number of models, methods, tools, and databases that can be used to promote sustainability. Users can search by the type of tool or one of the three pillars of sustainability - environment, economy, or society.	Varies	U.S. Environmental Protection Agency (EPA)	https://www.epa.gov/re search/environmental- tools-support- sustainable-decision- making
Models	Scientific Models	Health and Healthcare		An Excel add-in with several functions, including calculating population risk exposure and converting odds ratios to relative risks and back (given the disease risk and the risk factor prevalence).	N/A	Epi Gear International	http://www.epigear.co m/Products/EpigearXL /epigearxl.html
Models	Scientific Models	Economic Health and Healthcare	Ersatz	A bootstrap add-in for Microsoft Excel for Windows. It allows to do uncertainty analysis (aka 'risk analysis', 'Monte Carlo simulation', 'probabilistic sensitivity analysis', 'bootstrapping'), microsimulation, and probabilistic bias quantification in Excel. \$	N/A	Epi Gear International	http://www.epigear.co m/index_files/ersatz.ht ml

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Models	Scientific Models	Environment Health and Healthcare	Exposure and Fate Assessment Screening Tool (E-FAST)	Provides screening-level estimates of the concentrations of chemicals released to air, surface water, landfills, and consumer products. Estimates provided are potential inhalation, dermal and ingestion dose rates resulting from these releases. Modeled estimates of concentrations and doses are designed to reasonably overestimate exposures for use in screening level assessment.	N/A	U.S. Environmental Protection Agency (EPA)	http://www.epa.gov/tsc a-screening-tools/e-fast- exposure-and-fate- assessment-screening- tool-version-2014
Models	Scientific Models	Environment Health and Healthcare	Exposure Analysis Modeling System (EXAMS)	An interactive software application for formulating aquatic ecosystem models and rapidly evaluating the fate, transport, and exposure concentrations of synthetic organic chemicals including pesticides, industrial materials, and leachates from disposal sites.	Aquatic ecosystems	U.S. Environmental Protection Agency (EPA)	http://www2.epa.gov/e xposure-assessment- models/exams-version- index
Models	Scientific Models	Built Environment Health and Healthcare Transportation	FHWA Traffic Noise Model (TNM) (formerly STAMINA)	A Windows-based model for predicting and analyzing highway traffic noise. Inputs for the model include data on the roadway, receivers, barriers, building rows, terrain lines, ground zones, tree zones, contour zones, traffic etc. Replaces the previous STAMINA 2.0/OPTIMA Model.	Local	U.S. Department of Transportation (DOT) Federal Highway Administration (FHWA)	http://www.fhwa.dot.g ov/environment/noise/t raffic_noise_model/
Models	Scientific Models Methods Frameworks Indices	Built Environment Environment Economic	Green Infrastructure Wizards (GIWiz)	An interactive online tool designed to provide communities with fast and easy access to information about EPA's publicly available Green Infrastructure tools and resources. Find green infrastructure tools and resources from a range of categories including general information, community specific projects, and ideas for designing and assessing projects or choose from a variety of categories and attributes to identify resources that meet specific needs and interests.	N/A		https://cfpub.epa.gov/g iwiz/

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Models	Scientific Models	Health and Healthcare	Health Disparities Calculator (HD*Calc)	Generates multiple summary measures to evaluate and monitor health disparities (HD). Supports the use of a range of health disparities measures, allowing researchers to select and apply different measures to their data. Created as an extension of SEER*Stat, it allows the user to import SEER data or other population- based health data and calculate any of eleven disparity measurements.	N/A	National Cancer Institute	http://seer.cancer.gov/h dcalc/index.html
Models	Scientific Models	Built Environment Environment Health and Healthcare Transportation	Predictive Function	Used to predict excess traffic-attributable particulate matter 2.5 (PM2.5) mortality, changes in noise-related annoyance, and noise-attributable cases of myocardial infarction.	Local	San Francisco Department of Public Health (SFDPH); Road Pricing HIA, Appendices B & C	http://www.pewtrusts.o rg/~/media/assets/2011 /09/01/sfroad_pricing_ fullreport.pdf?la=en Appendices B & C
Models	Scientific Models	Economics Business and Industry Labor and Workplace	Huff Model	A model integrated into geographic information systems (GIS) that calculates gravity-based probabilities of consumer behavior among competing retail shopping locations. Can be used to delineate probability-based markets for store locations, model the economic impact of adding stores, and forecast sales potential. \$	All	Esri	https://www.arcgis.co m/home/item.html?id= f4769668fc3f486a992 955ce55caca18
Models	Scientific Models	Environment Health and Healthcare	Human Exposure Model (HEM-3)	Designed to predict risks associated with chemicals emitted into the ambient air (i.e., in the vicinity of an emitting facility but beyond the facility's property boundary) via the inhalation pathway of exposure. Provides ambient air concentrations, as surrogates for lifetime exposure, for use with unit risk estimates and inhalation reference concentrations to produce estimates of cancer risk and noncancer hazard, respectively, for the air toxics modeled.	Facility	U.S. Environmental Protection Agency (EPA)	https://www.epa.gov/fe ra/risk-assessment-and- modeling-human- exposure-model-hem

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Models	Scientific Models	Environment Health and Healthcare	Human Exposure Modeling - Hazardous Air Pollutant Exposure Model (HAPEM)	calculation routines, makes use of ambient air concentration data, indoor/outdoor microenvironment concentration relationship data, population data, and human activity pattern data to estimate an expected	Nation Region State County City Local	U.S. Environmental Protection Agency (EPA)	https://www.epa.gov/fe ra/human-exposure- modeling-hazardous- air-pollutant-exposure- model-hapem
Models	Scientific Models	Built Environment Environment	Impervious Surface Growth Model (ISGM)	Designed to help communities estimate and compare the likely impervious surface impacts of proposed housing and commercial development scenarios. Well suited for sketch planning applications when more detailed and site-specific stormwater runoff analysis is not possible, but can also be integrated with other tools for more detailed studies of stormwater and water quality impacts. The ISGM spreadsheet tool is pre-loaded with baseline data for all Census block groups, so communities can use ISGM without the need for additional baseline data or calibration for the local area of analysis.	Consus block group	U.S. Environmental Protection Agency (EPA)	http://www.epa.gov/sm artgrowth/impervious- surface-growth-model
Models	Scientific Models	Built Environment Environment Health and Healthcare Transportation	Integrated Transport and Health Impact Modeling (ITHIM) Tool	Provides integrated health impact assessment of transport through changes in physical activity, road traffic injury risk, and exposure to fine particulate matter (PM2.5) air pollution. Can either be used as a stand- alone model or linked to other transport and health models for development of scenarios, for estimation of changes in exposures, and for modelling health outcomes.	Nation Urban		http://www.cedar.iph.c am.ac.uk/research/mod elling/ithim/

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Models	Scientific Models	Environment	Exposure Modeling System/Chemical	A web-based suite of U.S. Environmental Protection Agency (EPA) modeling programs and many of the environmental data needed to run them. Includes models and data for ambient air, surface water, soil, and ground water, and makes the models much easier to use than their stand-alone counterparts. Includes a new GIS module- Chemical Safety Mapper (CSM)- for displaying environmental modeling results and chemical monitoring informations on various GIS layers.	Local	U.S. Environmental Protection Agency (EPA)	http://www.epa.gov/tsc a-screening- tools/igemscsm- internet-geographical- exposure-modeling- systemchemical-safety- mapper
Models	Scientific Models	Environment	i-Tree	A state-of-the-art, peer-reviewed software suite that provides urban and rural forestry analysis and benefits assessment tools. Helps communities of all sizes to strengthen their forest management and advocacy efforts by quantifying the structure of trees and forests and the ecosystem services and benefit values of community trees and forests at multiple scales. Articulates the significance of trees and forests in terms of pollution mitigation, storm water run-off reduction, carbon sequestration and storage and more.	Varies	USDA Forest Service	https://www.itreetools. org/
Models	Scientific Models	Business and Industry Economics Labor and Workplace	Development Impact (JEDI) Models	include the number of jobs and economic impacts to an	State Local	National Renewable Energy Laboratory (NREL)	http://www.nrel.gov/an alysis/jedi/about_jedi.h tml

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Models	Scientific Models	Built Environment Environment Health and Healthcare Transportation	Land-use Regression Models for Characterizing Intraurban Air Pollution Exposure	Utilizes monitored levels of the pollutant of interest as the dependent variable and variables such as traffic, topography, and other geographic variables as the independent variables in a multivariate regression model to characterize air pollution exposure and health effects that vary spatially.	Nation Local	Ryan and LeMasters. 2007. A Review of Land- use Regression Models for Characterizing Intraurban Air Pollution Exposure. <i>Inhalation</i> <i>Toxicology</i> , 19(Sup1), 127- 133.	http://www.tandfonline .com/doi/full/10.1080/ 08958370701495998
Models	Scientific Models	Built Environment Environment Transportation	Latent Demand Score (LDS)	LDS estimates the latent and potential demand for bicycle and pedestrian travel. This GIS-based analysis is a probabilistic gravity model that determines the probability that someone will walk or bike to identified trip attractors from various distances.	Local	Landis, B. W. 1996. Bicycle system performance measures. <i>ITE</i> <i>Journal</i> , 66(2), 18- 26.	http://citeseerx.ist.psu. edu/viewdoc/download ?doi=10.1.1.233.1981 &rep=rep1&type=pdf
Models	Scientific Models	Built Environment	Location Allocation	Site analysis techniques in GIS using location allocation to determine potential locations for retail that optimize proximity and the optimal allocation of demand to the facilities. \$	Local	Esri	http://desktop.arcgis.co m/en/desktop/latest/too ls/network-analyst- toolbox/solve-location- allocation.htm
Models	Scientific Models		Log-Linear Risk Model of Population Exposure - Particulate Matter (PM)	Forecasts the mortality effects of exposure to PM for a population.	City	World Health Organization (WHO)	http://www.who.int/pu blications/cra/chapters/ volume2/1353- 1434.pdf
Models	Scientific Models		Long-Term Hydrological Impact Analysis (L-THIA) Models	Estimates changes in recharge, runoff, and nonpoint source pollution resulting from past or proposed development and land use changes. It gives long-term average annual runoff for a land use configuration, based on long-term climate data for that area.	State County Local	Purdue University	https://engineering.pur due.edu/mapserve/LTH IA7/documentation/LT HIAFactSheet2.htm

Primary Category	Subcategory	Topic (s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Models	Scientific Models	Built Environment Environment	L-THIA Low Impact Development (LID) Spreadsheet	A screening tool that evaluates the benefits of LID practices. Estimates the average annual runoff and pollutant loads for land use configurations based on more than 30 years of daily precipitation data, soils, and land use data for an area.	2	Purdue University	https://engineering.pur due.edu/mapserve/LTH IA7/lthianew/lidIntro.p hp
Models	Scientific Models	Health and Healthcare	MetaXL	Microsoft Excel add-in that supports all major meta- analysis methods, plus, uniquely, the inverse variance heterogeneity and quality effects models. Output is in table and graphical formats.	N/A	Epi Gear International	http://www.epigear.co m/index_files/metaxl.h tml
Models	Scientific Models	Built Environment Environment Transportation	Mixed-Use Trip Generation Model	Estimates the trip-generation impacts of a new mixed- use development and predicts trips by walking and transit and estimates the daily vehicle miles of travel associated with the development.	Local	U.S. Environmental Protection Agency (EPA)	https://www.epa.gov/s martgrowth/mixed-use- trip-generation-model
Models	Scientific Models	Environment Transportation	MOVES (Motor Vehicle Emission Simulator)	Estimates emissions for mobile sources at the national, county, and project level for criteria air pollutants, greenhouse gases, and air toxics. MOVES 2014 incorporated the NONROAD Model (nonroad engines, equipment, and vehicles) and replaces MOBILE Model (on-road vehicles) as the EPA's official model for estimating emissions from cars, trucks, and motorcycles.	Nation County Local Project	U.S. Environmental Protection Agency (EPA)	http://www.epa.gov/ota q/models/moves/index. htm
Models	Scientific Models	Built Environment Environment Health and Healthcare Housing	Multi-Chamber Concentration and Exposure Model (MCCEM)	Estimates average and peak indoor air concentrations of chemicals released from products or materials in houses, apartments, townhouses, or other residences. The data libraries contained in MCCEM are limited to residential settings; however, the model can be used to assess other indoor environments (e.g. schools, offices) if the user can supply the necessary inputs. Estimates inhalation exposures to these chemicals, calculated as single day doses, chronic average daily doses, or lifetime average daily doses.	Site-specific	U.S. Environmental Protection Agency (EPA)	https://www.epa.gov/ts ca-screening- tools/approaches- estimate-consumer- exposure-under- tsca#chamber

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Models	Scientific Models	Environment	National Stormwater Calculator	A desktop application that estimates the annual amount of rainwater and frequency of runoff from a specific site anywhere in the United States (including Puerto Rico). Estimates are based on local soil conditions, land cover, and historic rainfall records.	Site-specific	U.S. Environmental Protection Agency (EPA)	https://www.epa.gov/w ater-research/national- stormwater-calculator
Models	Scientific Models	Built Environment Environment Health and Healthcare Transportation	Noise Annoyance	Formulas are used to define populations a little annoyed, annoyed, or highly annoyed by aircraft, road traffic, and railway noise.	Local	Miedema, H. M., & Oudshoorn, C. G. 2001. Annoyance from Transportation Noise: Relationships with Exposure Metrics DNL and DENL and Their Confidence Intervals. Environmental Health Perspectives, 109 (4), 409.	https://www.scienceop en.com/document_file/ 5591ebf7-4f42-43fa- a619- a70f2637439b/PubMe dCentral/5591ebf7- 4f42-43fa-a619- a70f2637439b.pdf
Models	Scientific Models	Environment Health and Healthcare	Models and Databases Used in Pesticide Risk Assessment	Models used to assess the risk of a pesticide to human health or the environment (i.e., aquatic, terrestrial, atmospheric, and health effects models) that consider the toxicity of the pesticide as well as the amount of pesticide to which a person or the environment may be exposed. Also includes database resources about environmental effects, environmental fate, health effects, and regulatory information.	Varies	U.S. Environmental Protection Agency (EPA)	https://www.epa.gov/p esticide-science-and- assessing-pesticide- risks/models-and- databases-used- pesticide-risk- assessment
Models	Scientific Models	Health and Healthcare	Prevent Plus	A multiple risk factor, multiple disease dynamic population model that allows the user to evaluate the benefits of risk factor interventions.	N/A	Epi Gear International	http://www.epigear.co m/index_files/prevent. html

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Models	Scientific Models	Built Environment Environment	Recarga Model	Used for evaluating the performance of bioretention facilities, rain gardens, and infiltration basins. Simulates the movement of water, records the soil moisture and volume of water in each water budget term (infiltration, recharge, overflow, underdrain flow, evapotranspiration, etc.) at each time step and summarizes the results. Can be used to size facilities to meet specific performance objectives, such as reducing runoff volume or increasing recharge, and for analyzing the potential impacts of varying the design parameters.	Site-specific	University of Wisconsin- Madison	http://dnr.wi.gov/topic/ Stormwater/standards/r ecarga.html
Models	Scientific Models	Built Environment Environment Health and Healthcare Transportation	RISKCURVES - Software for Quantitative Risk Assessment	A quantitative risk assessment (QRA) software that can quantify risks and easily identify the highest risk activities. It can be used for mitigating these high risk activities, urban planning and complying to criteria required by legislation. Also produces a "societal risk map", a geographical presentation of societal risk.	Varies	TNO	https://www.tno.nl/en/f ocus- area/urbanisation/envir onment- sustainability/public- safety/riskcurves- software-for- quantitative-risk- assessment/
Models	Scientific Models	Built Environment Transportation	SmartGAP	A scenario planning software tool to evaluate smart growth policies and determine their impact on travel demand. Synthesizes households and firms in a region and determines their travel demand characteristics based on their built environment and transportation policies.	Region	Transportation Research Board of the National Academies	http://www.trb.org/mai n/blurbs/168842.aspx
Models	Scientific Models	Agriculture Built Environment Environment	Soil and Water Assessment Tool (SWAT)	A small watershed to river basin-scale model that simulates the quality and quantity of surface and ground water and predicts the environmental impact of land use, land management practices, and climate change. Widely used in assessing soil erosion prevention and control, non-point source pollution control, and regional management in watersheds.	River basin Watershed	U.S. Department of Agriculture (USDA) Agricultural Research Service (USDA-ARS); Texas A&M AgriLife Research	http://swat.tamu.edu/

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Models	Scientific Models	Environment Built Environment Health and Healthcare Transportation	SoundPLAN Noise Model	A noise modeling software that can predict, analyze, and graphically display traffic noise, occupational noise indoors and outdoors, general industrial noise, and aircraft noise. A standards-based program that can provide road noise calculations in accordance with various international standards, including the FHWA's STAMINA/Traffic Noise Model. \$	Local	SoundPLAN GmbH	http://www.soundplan. eu/deutsch/produkte/so undplan-software/
Models	Scientific Models	Health and Healthcare	Spectrum Policy Modeling System	A system of models that support analysis, planning, and advocacy for health programs. Used to project future needs and examine the effects of policy options.	N/A	U.S. Agency for International Development (USAID)	http://www.healthpolic yinitiative.com/index.c fm?id=software&get=S pectrum http://www.healthpolic yinitiative.com/Publica tions/Groups/group_16 /16_SpectrumManualE .pdf
Models	Scientific Models	Health and Healthcare	Stochastic Human Exposure and Dose Simulation (SHEDS) Models	Probabilistic models that estimate chemical exposures people face in everyday activities through four exposure pathways: inhalation, skin contact, and dietary and non- dietary ingestion. Able to generate predictions of aggregate and cumulative exposures over time.	N/A	U.S. Environmental Protection Agency (EPA)	http://www.epa.gov/ch emical- research/stochastic- human-exposure-and- dose-simulation-sheds- estimate-human- exposure
Models	Scientific Models	Built Environment Environment	Storm Water Management Model (SWMM)	A dynamic hydrology-hydraulic-water quality simulation model used for planning, analysis and design related to stormwater runoff, combined and sanitary sewers, and other drainage systems. Simulates runoff quantity and quality from subcatchments within primarily urban areas. Can also model the hydrologic performance of specific types of low impact development (LID)/green infrastructure controls.	Urban areas	U.S. Environmental Protection Agency (EPA)	https://www.epa.gov/w ater-research/storm- water-management- model-swmm

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Models	Scientific Models	Environment Health and Healthcare	Total Risk Integrated Methodology (TRIM) [TRIM.FaTE, TRIM.Expo,	TRIM includes three individual modules - an Environmental Fate, Transport, and Ecological Exposure module (TRIM.FaTE); a (human) Exposure-Event module (TRIM.Expo); and a Risk Characterization module (TRIM.Risk). TRIM.Risk integrates the exposure received from TRIM.FaTE (for ecological receptors) or TRIM.Expo (for human receptors) with information on dose-response to develop risk characterizations.	N/A	U.S. Environmental Protection Agency (EPA)	https://www.epa.gov/fe ra/total-risk-integrated- methodology-trim- general
Models	Scientific Models	Health and Healthcare Transportation	Vehicle-Cyclist Injury Collision Predictive Model Equation	Used to estimate future vehicle-cyclist injury collisions and percent change in vehicle-cyclist collisions. Model inputs are the number of motor vehicles and the number of cyclists in the different study scenarios.		Elvik R. 2009. The non-linearity of risk and the promotion of environment-ally sustainable transport. Accident Analysis and Prevention 41(4):849-855.	http://www.sciencedire ct.com/science/article/ pii/S00014575090008 76
Models	Scientific Models Methods Indices	Environment Health and Healthcare	U.S. Climate	Provides access to tools from all across the U.S. federal government that help explore climate threats and vulnerabilities and help guide users in building climate resilience.	Varies	National Oceanic and Atmospheric Administration (NOAA)	https://toolkit.climate.g ov/#tools

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Models	Scientific Models Methods	Built Environment Environment Health and Healthcare Transportation	State, County, and Local Location- Specific Models	Models specific to a certain region, state, or smaller locale may be available to cover a wide range of topics, including the environment, health, and traffic and transportation. Model availability will vary place to place. Examples of location-specific models include: • California Air Resources Board Urban Emissions Model (URBEMIS) • Puget Sound Clear Air Agency Greenhouse Gas (GHG) Emissions Modeling • San Francisco Department of Public Health Vehicle-Pedestrian Injury Collision Model • CALINE4 (CAlifornia LINE Source Dispersion Model) • EMission FACtor Model (EMFAC)/State Emissions Inventory Model • SF-CHAMP Travel Forecasting Model (San Francisco Bay Area regional travel demand model)	State County City Local	Possible data sources may include: State, County, and City Departments of Transportation; Department of Public Health; Department of the Environment Models may also be available from local/ private consulting firms and academic institutions.	N/A
Models	Methods			Provides information on World Health Organization's (WHO) Comparative Risk Assessment methodology, defined as the systematic evaluation of the changes in population health which result from modifying the population distribution of exposure to a risk factor or a group of risk factors.	Nation Region Local	World Health Organization (WHO)	http://www.who.int/qu antifying_ehimpacts/m ethods/en/wsh0007an4. pdf
Models	Methods	Built Environment Transportation	Guidebook on Methods to Estimate Non-Motorized Travel	Describes and compares the various methods and tools that can be used to forecast non-motorized travel demand or that otherwise support the prioritization and analyses of bicycle and pedestrian facilities. The guidebook is intended to be used by bicycle and pedestrian planners, technical staff, researchers, advocates, and others who may wish to estimate bicycle and pedestrian travel demand or to prioritize bicycle and pedestrian projects.	Region State County City Local	Federal Highways Administration (FHWA)	http://safety.fhwa.dot.g ov/ped_bike/docs/guid ebook1.pdf http://safety.fhwa.dot.g ov/ped_bike/docs/guid ebook2.pdf

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Models	Methods	Environment	Methods for Calculating Forest Ecosystem and Harvested Carbon with Standard Estimates for Forest Types of the United States (Carbon Sequestration Estimates)	Provides a methodology for determining possible sequestration ability of local forest cover.	Region	U.S. Department of Agriculture (USDA) Forest Service	http://www.fs.fed.us/ec osystemservices/pdf/est imates-forest-types.pdf
Models	Methods	Economics Housing Transportation	My Transportation Cost Calculator	Provides customized estimates of an individual or household's transportation costs, how much they would vary in different locations, and how much they are impacted by individual choices, allowing users to make more informed decisions about where to live and work. Users enter basic information about their families' income, housing, cars, and travel patterns and the tool calculates annual housing and transportation costs and provides a comparison to the costs for a similar household in the same location.	County City Local Zip code Address	U.S. Department of Housing and Urban Development (HUD); U.S. Department of Transportation (DOT); U.S. Environmental Protection Agency (EPA)	http://www.locationaff ordability.info/tcc.aspx
Models	Methods	Environment Health and Healthcare	Site Assessment Tool	A suite of on-line calculators that provide methods and data for common calculations used in assessing transport and impacts of environmental contaminants in the subsurface.	Site-specific	U.S. Environmental Protection Agency (EPA)	http://www3.epa.gov/c eampubl/learn2model/ part-two/onsite/
Models	Methods	Built Environment Education	Care Supply and Demand in the	A methodology for determining childcare supply and demand in a community, and can also be used to determine childcare demand created by new development.	Local	The Enterprise Foundation	http://www.enterprisec ommunity.com/resourc es/resourceDetails?ID= 19705.pdf#
Models	Frameworks	Environment Health and Healthcare		Identifies the basic elements of the Cumulative Risk Assessment (CRA) process and is intended to foster consistent approaches to cumulative risk assessment, identify key issues, and define terms used in these assessments.	Nation Region Local	U.S. Environmental Protection Agency (EPA)	http://www.epa.gov/ris k/framework- cumulative-risk- assessment

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Models	Frameworks	Environment	Watershed Approach Framework	Provides information on watershed approaches, guiding principles, the need for and benefits of these approaches, how to implement the guiding principles through State and Tribal watershed approaches, U.S. Environmental Protection Agency (EPA) support, and FAQs.	Watershed	U.S. Environmental Protection Agency (EPA)	http://www.epa.gov/sit es/production/files/201 5- 06/documents/watershe d-approach- framework.pdf
Models	Indices	Environment Health and Healthcare	Air Quality Index (AQI): A Guide to Air Quality and Your Health	An index for reporting daily air quality. It indicates how clean or unhealthy the air is and what associated health effects might be a concern. Focuses on health effects you may experience within a few hours or days after breathing unhealthy air. Calculated for four major air pollutants regulated by the Clean Air Act: ground-level ozone, particle pollution, carbon monoxide, and sulfur dioxide. National air quality standards are established for each of these pollutants to protect public health.	State	U.S. Environmental Protection Agency (EPA)	https://www.airnow.go v/index.cfm?action=aq ibasics.aqi http://www.airnow.gov /
Models	Indices	Built Environment Environment Health and Healthcare Transportation	BikeScore™	(lanes, trails, etc.), hills, destinations and road	City Local	Walk Score	https://www.walkscore. com/bike-score- methodology.shtml

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Models	Indices	Crime Health and Healthcare	Crime Indexes	Contains statistics about major categories of personal and property crime. Undated annually, the Crime Index	Nation State County Census tract Block group Place Zip code Census subdivision (CSD) Core based statistical area (CBSA) Designated market area (DMA) Congressional district	Esri	http://doc.arcgis.com/e n/esri- demographics/data/cri me-indexes.htm
Models	Indices	Built Environment Health and Healthcare Transportation	Dangerous by Design 2014	area, and state. Interactive maps provide geolocated pedestrian fatalities, comparisons of state summaries, and regional data. The Pedestrian Danger Index (PDI) shows the relative likelihood in a given area of a person	Nation Region State Local Zip code Address	Smart Growth America	http://www.smartgrowt hamerica.org/research/ dangerous-by- design/dbd2014/nation al-overview

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Models	Indices	Demographics Population	Diversity Index	different race or ethnic groups. Ranges from 0 (no diversity) to 100 (complete diversity). Provides Diversity Index (expressed as a percentage) and population counts by race and ethnicity for the selected location. Available down to the block group level.	Nation State County Census tract Block group Place Zip code Census subdivision (CSD) Core based statistical area (CBSA) Designated market area (DMA) Congressional district	Esri	http://www.arcgis.com/ home/item.html?id=ff5 8e236068b42909e670 8e5a6c60bff http://downloads.esri.c om/esri_content_doc/d bl/us/J10170_US_Dive rsity_Index.pdf
Models	Indices		Frank and Sallis Geographic Information Systems (GIS)- Based Walkability Index	A combined measure of net residential density, road network connectivity, retail floor area ratio, and land use mix. Can be calculated using archival GIS data rather than by means of intensive primary data collection efforts.		Frank LD, Sallis J, et al. 2010. The development of a walkability index: application to the Neighborhood Quality of Life Study. British Journal of Sports Medicine 43:924- 933.	N/A

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Models	Indices	Economics Housing Transportation	Housing + Transportation (H+T®) Affordability Index	Provides a comprehensive view of affordability that includes both the cost of housing and the cost of transportation for a select location and sets the benchmark at no more than 45% of household income. Allows users to view housing and transportation data as maps, charts and statistics for 917 metropolitan and micropolitan areas—covering 94% of the US population. Costs can be seen from the regional down to the neighborhood level.	Region County City Local Census block group	The Center for Neighborhood Technology	http://htaindex.cnt.org/
Models	Indices	Economics Education Health and Healthcare Social Environment	Human Wellbeing	Living Standards, Safety and Security, and Social	Nation Region State County Local	U.S. Environmental Protection Agency (EPA)	http://www.mdpi.com/ 2071- 1050/6/6/3915/pdf http://nepis.epa.gov/Ex e/ZyPURL.cgi?Dockey =P100GRUA.txt
Models	Indices	Economics Housing Transportation	Location Affordability Index (LAI)	Gives estimates of the percentage of a family's income dedicated to the combined cost of housing and transportation in a given location. Because what is affordable is different for everyone, users can choose among eight different family profilesdefined by household income, size, and number of commutersand see the affordability landscape for each one in a neighborhood, city, or region. Provides a more complete understanding of the costs of living in a given location by accounting for variations between households, neighborhoods, and regions, all of which impact affordability.	County City Local Zip code Address	U.S. Department of Housing and Urban Development (HUD); U.S. Department of Transportation (DOT); U.S. Environmental Protection Agency (EPA)	http://www.locationaff ordability.info/lai.aspx

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Models	Indices	Environment Housing	Measuring the Outcomes of Low- Income Energy Assistance Programs through a Home Energy Insecurity Scale	The Home Energy Insecurity Scale is a tool used to quantitatively measure the extent to which an energy assistance program improves the energy self-sufficiency of a low-income household.	N/A	U.S. Department of Health and Human Services (DHHS)	http://www.acf.hhs.gov /sites/default/files/ocs/ measuring_outcome_0. pdf
Models	Indices	Built Environment Environment Health and Healthcare Housing Transportation	Metropolitan Sprawl Index	Measures and evaluates metropolitan sprawl based on four factors: residential density; neighborhood mix of homes, jobs, and services; strength of activity centers and downtowns; and accessibility of the street network. Sprawl Index scores have been calculated for 221 metropolitan statistical areas (MSAs) and 994 metropolitan counties.	Metropolitan counties Metropolitan statistical areas (MSAs)	Smart Growth America	http://www.smartgrowt hamerica.org/measurin g-sprawl
Models	Indices	Built Environment Business and Industry Crime Economics Education Environment Health and Healthcare Housing Labor and Workplace Population Transportation	of Life and Health	Represents a multi-attribute Quality of Life and Health data compilation that assesses neighborhood level, place- based amenities and the state of community wellbeing. Data is grouped into a Neighborhood Quality of Life (NQoL) Index, Neighborhood Health (NH) Index, and Socioeconomic Conditions (SEC) Index. Although implemented in Atlanta, a major objective of the project was to create a replicable format for other localities to follow. Most of the data was collected from public data sources available nationwide, such as the U.S. Census Bureau and American Community Survey.	Local	Georgia Tech Center for Geographic Information Systems	http://www.cgis.gatech .edu/NQOLH/
Models	Indices	Built Environment Demographics Environment Population	ParkScore® Index	Measures how well the 100 largest U.S. cities meet the need for parks. Using advanced GIS, identifies neighborhoods and demographics that are underserved by parks and the number of people able to reach a park within a ten-minute walk. Also provides in-depth data to guide local park improvement efforts.	City	The Trust for Public Land	http://parkscore.tpl.org/

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Models	Indices		Road Connectivity	Can be used to quantify how well a roadway network connects destinations. Indices can be measured separately for motorized and nonmotorized travel, taking into account nonmotorized shortcuts, such as paths that connect cul-de-sacs, and barriers such as highways and roads that lack sidewalks. Several different methods can be used and are listed on the source's webpage.	Local	Victoria Transport Policy Institute	http://www.vtpi.org/td m/tdm116.htm
Models	Indices	Crime Economics Education Environment Health and Healthcare Housing Labor and Workplace	The San Francisco Indicator Project [formerly the Sustainable Communities Index (SCI) and the Health Development Measurement Tool (HDMT)]	An online framework and data repository that examines how San Francisco neighborhoods perform across eight dimensions of a vision for a healthy, equitable community. The eight community well-being dimensions in the SF Indicator Project include: environment, transportation, community cohesion, public realm, education, housing, economy, and health systems. Contains over 100 indicators or measures to track objectives for each of the eight dimensions. Indicators were chosen because of their importance to the objective and their connection to health. The measurement methods in the SF Indicator Project have been used and adapted by a number of other regions, cities, and communities.	Region City	San Francisco Department of Public Health (SFDPH)	http://www.sfindicator project.org/
Models	Indices	Health and Healthcare	Easing the Burden: Traffic Congestion Burden Index	Quantifies the combined effect of congestion and the degree to which people are exposed to it. Considers measures of rush-hour traffic and travel rates with figures for the portion of commuters who are subject to that congestion because they drive to work.	City	Surface Transportation Policy Project	http://transact.org/wp- content/uploads/2014/0 4/Easing_The_Burden. pdf

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Models	Indices	Environment Health and Healthcare	UV Index	Provides a forecast of the expected risk of overexposure to UV radiation from the sun on a 1-11+ scale. The National Weather Service calculates the UV Index forecast for most ZIP codes across the U.S., and the U.S. Environmental Protection Agency (EPA) publishes this information. Also includes recommendations for sun protection and information on the health effects of UV radiation.	State City Zip code	U.S. Environmental Protection Agency (EPA)	https://www.epa.gov/su nsafety/uv-index-1
Models	Indices	Built Environment Environment Health and Healthcare Transportation	Walk Score®	A public access walkability index that assigns a numerical walkability score to any address. Analyzes hundreds of walking routes to nearby amenities and measures pedestrian friendliness by analyzing population density and road metrics such as block length and intersection density. The Walk Score is a number between 0 (car dependent) and 100 (walker's paradise).	City Local Zip code Address	Walk Score	http://www.walkscore. com/
Models	Indices	Built Environment Environment Health and Healthcare Transportation	Transit Score®	A public access transit index that measures how well a location is served by public transit. Measures transit accessibility on a scale from 0 (minimal transit) to 100 (rider's paradise). Calculates distance to closest stop on each route, analyzes route frequency, and type.	City Local Zip code Address	Walk Score	https://www.walkscore. com/transit-score- methodology.shtml
Mapping Tools	GIS-Based Mapping	Economics Environment Health and Healthcare Transportation	20-Minute Neighborhood Analysis	A GIS analysis of walkability and local access to services that takes into account both the presence of local destinations, as well as factors that impact the ability to access these destinations (e.g., street connectivity, sidewalks, transit service, and topography). Although developed by the City of Portland, this methodology can be applied in any city.	City Local	City of Portland Oregon	http://efiles.portlandore gon.gov/webdrawer.dll /webdrawer/rec/43762 18/ view/PP%2020- min%20neighborhood %20analysis.PDF
Mapping Tools	GIS-Based Mapping	Housing Labor and Workplace Population Transportation	Access to Jobs and Workers Via Transit Tool	A free geospatial data resource and web mapping tool for comparing the accessibility of neighborhoods via public transit service. Indicators summarize accessibility to jobs, as well as accessibility by workers, households, and population. Coverage is limited to metropolitan regions served by transit agencies that share their service data in a standard format.		U.S. Environmental Protection Agency (EPA)	https://www.epa.gov/s martgrowth/smart- location- mapping#Trans45

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Mapping Tools	GIS-Based Mapping	N/A	ArcGIS/ArcGIS Explorer Desktop	A geographic information system (GIS) for working with maps and geographic information. Users can create and use maps, compile geographic data, analyze mapped information, share and discover geographic information, use maps and geographic information in a range of applications, and manage geographic information on a database. \$ ArcGIS Explorer Desktop is a free GIS viewer that provides more limited ability to create and use maps, compile geographic data, perform spatial analyses, and more.	All	Esri	http://www.esri.com/so ftware/arcgis http://www.esri.com/so ftware/arcgis/explorer- desktop
Mapping Tools	GIS-Based Mapping	Demographics Housing	Choice Neighborhoods Program Mapping Tool	Created for program grant applicants, but can be used for other applications as well. After creating an account and drawing the exact location of your target neighborhood, the tool will then calculate the number of housing units, the average poverty rate, and the vacancy rate of the area drawn and send an email back to you within 24 hours. Also includes a map data viewer that shows tracts, block groups and poverty rates without creating an account.	State County City Zip code Address	U.S. Department of Housing and Urban Development (HUD)	https://www.huduser.g ov/portal/maps/CN/ho me.html
Mapping Tools	GIS-Based Mapping	N/A	Community Commons: Make a Map	An interactive mapping platform that allows you to view maps others have made and make your own maps for a geographic location, using available built environment, civic/social, economic, education, environment, and health data.	Varies	Institute for People, Place, and Possibility (IP3); Center for Applied Research and Environmental Systems (CARES); Community Initiatives	http://maps.community commons.org/viewer/

Primary Category	Subcategory	Topic (s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Mapping Tools	GIS-Based Mapping	Built Environment	CommunityViz	A GIS-based software (ArcGIS extension) that provides tools for visualization, analysis, and communication that can improve the land use decision process, including growth projections, economic-environmental-social impact analysis, land use priorities, build-out and suitability analyses, and more. \$		Placeways	http://placeways.com/c ommunityviz/index.ht ml
Mapping Tools	GIS-Based Mapping	Environment	EJSCREEN (replaces EJView)	and the tool then provides demographic and environmental information for that area. Includes 11 environmental indicators, 6 demographic indicators, and	County City Town Zip code Census block group Address Latitude and Longitude coordinates	U.S. Environmental Protection Agency (EPA)	http://www.epa.gov/ejs creen
Mapping Tools	GIS-Based Mapping	Environment	EnviroMapper	Allows users to map various types of environmental information from the EPA's Envirofacts database, including waterbodies, transportation, facilities, air releases, drinking water, toxic releases, hazardous wastes, water discharge permits, Superfund sites, and more. Users can create maps at various geographic levels and link them to environmental text reports.	Nation State Park name Waterbody County City Zip code Address	U.S. Environmental Protection Agency (EPA)	http://www.epa.gov/em efdata/em4ef.home
Mapping Tools	GIS-Based Mapping	Built Environment Demographics Environment Transportation	Envision	assessments. Provides a platform for integrating a variety of spatially explicit models of landscape change	Regional State County City Local	Oregon State University	http://envision.bioe.ors t.edu/

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Mapping Tools		Environment		An open-access land-use scenario planning software tool that allows users to "paint" development scenarios on the landscape, and compare scenario outcomes in real time. Scenario comparisons include a comprehensive range of indicators relating to land use, housing, demographics, economic growth, development feasibility, fiscal impacts, transportation, environmental factors, and quality of life. ET+ provides a quick, sketch- level glimpse of the possible impacts of policies, development decisions, and current growth trajectories.	Varies	University of Utah – Metropolitan Research Center (MRC); Fregonese Associates of Portland, OR	http://www.arch.utah.e du/cgi-bin/wordpress- etplus/
Mapping Tools	GIS-Based Mapping	Built Environment Environment	Facility Level Information on GreenHouse Gases Tool (FLIGHT)	Provides access to greenhouse gas (GHG) data reported to EPA by large emitters, facilities that inject CO2 underground, and suppliers of products that result in GHG emissions when used in the United States. Allows users to view data in several formats including maps, tables, charts and graphs for individual facilities or groups of facilities. Users can search the data set for individual facilities by name or location or filter the data set by state or county, fuel type, industry sectors and sub- sectors, annual facility emission thresholds, and greenhouse gas type. Users can also compare emission trends over time and download data generated as a product of your analyses.	Varies		http://ghgdata.epa.gov/ ghgp/main.do
Mapping Tools	GIS-Based Mapping	Environment	GeoPlatform Map Viewer	Allows users to map the data available through the GeoPlatform (see Databases).	Varies	U I	https://www.geoplatfor m.gov/

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Mapping Tools	GIS-Based Mapping	Built Environment Business and Industry Transportation	Google Map/Google Earth	A web mapping application that offers street maps; a route planner for traveling by foot, car, bike, or with public transportation; and a locator for urban businesses in numerous countries around the world. Google Earth combines maps and geographic information with satellite and aerial photography, allowing the user to view 3D imagery, terrain, and buildings. Note that Earth View is a feature in Google Maps that allows users to see the same high-resolution imagery, terrain, and 3D buildings that are available in the desktop version of Google Earth.		Google	http://maps.google.com / http://www.google.com /earth/index.html
Mapping Tools	GIS-Based Mapping	Business and Industry Crime Demographics Economics Environment Transportation	MapInfo Pro	A desktop-based GIS mapping software providing data on retail, government, public safety, natural resources, and geosciences. \$	All	Pitney Bowes Software	http://www.pitneybowe s.com/us/location- intelligence/geographic- information- systems/mapinfo- pro.html
Mapping Tools	GIS-Based Mapping	Built Environment Crime Demographics Economics Education Environment Health and Healthcare Housing Labor and Workplace Population Transportation	PolicyMap	Offers easy-to-use online mapping of thousands of data indicators, including data on demographics, income and spending, housing, lending activity, quality of life, economy, education, health, federal guidelines, and more across the U.S. at various geographic scales. \$	Varies	PolicyMap	https://www.policymap .com/

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Mapping Tools	GIS-Based Mapping	Environment	Hydrography Event Management (HEM) Tool and EPA Add- ons Toolbar	A set of ArcGIS tools that can be used to create National Hydrography Dataset (NHD) events for both state and EPA programs. These events link water-related information, such as water quality assessments, to the underlying NHD surface water features. EPA has developed a supplemental set of indexing functions for HEM, which are available through the HEM EPA Add-Ons toolbar. This toolbar allows users to create, edit and manage custom point, line and area events and includes functionality that was previously a part of the PC based Reach Indexing Tool (PC-RIT), such as Find Overlapping Waterbodies, Extract from EPA Program Events, and a post processing tool to aid in preparing events for submission to the EPA's Reach Address Database (RAD).	Varies	Bureau of Land Management (BLM); U.S. Environmental Protection Agency (EPA); U.S. Geological Survey (USGS)	http://nhd.usgs.gov/too ls.html#hem
Mapping Tools	GIS-Based Mapping	Business and Industry Demographics Economics Health and Healthcare Housing Labor and Workplace	SimplyMap	technical and advanced users to quickly create professional thematic maps and reports using powerful demographic, business, and marketing data. Currently offer more than 75,000 data variables related to demographics, employment, housing, market segments, businesses, consumer spending, brand preferences, public health, and more.	Region State Congressional districts County City Zip code Census tract Block group	Geographic Research, Inc.	http://geographicresear ch.com/simplymap/
Mapping	GIS-Based Mapping Map Data Viewers	Built Environment Environment Population		Provides spatial extracts from the Census Bureau's MAF/TIGER database, containing features such as roads, railroads, rivers, as well as legal and statistical geographic areas, and select demographic and economic data. Several file types (shapefiles, databases, geodatabases, and kml) and an online mapping application are available.	Varies	U.S. Census Bureau	https://www.census.go v/geo/maps- data/data/tiger.html

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Mapping Tools	GIS-Based Mapping	N/A	State, County, and Local Mapping Data	 GIS databases housing geographic data for a variety of topics, interactive mapping tools using multiple layers of data, and guidelines for using mapping may be available in particular areas. Available data will vary place to place. Examples of state, county, and local mapping data sources include: MassGIS NYSGIS Clearinghouse Benton County Maps and GIS Repository City of Austin GIS Data Sets Cincinnati Area Geographic Information System (CAGIS) Mapping Susceptibility to Gentrification: The Early Warning Toolkit 	State County City Local	Possible data sources may include: State, County, and City Government GIS websites; Departments of Planning and/or Permitting; Office of Geographic Information; GIS Clearinghouses	N/A
Mapping Tools	Map Data Viewers	Environment Transportation	Abogo		Nation Region State County City Zip Code Census Tract Address	Center for Neighborhood Technology	http://abogo.cnt.org/
Mapping Tools	Map Data Viewers	Environment	AirData Interactive Map	Allows users to see where air quality monitors are located, get information about the monitors, and download monitor data. Select which monitoring networks to display.	All	U.S. Environmental Protection Agency (EPA)	http://www.epa.gov/air data/ad_maps.html
Mapping Tools	Map Data Viewers	Agriculture Demographics Labor and Workplace		A web-based map data viewer that maps data for over 60 socioeconomic indicators to better understand the economic, demographic, environmental, and social forces affecting rural regions and communities. Indicators are provided in four main categories: people, jobs, veterans, and county classifications.	Nation Region State County	U.S. Department of Agriculture (USDA) Economic Research Service (ERS)	http://www.ers.usda.go v/data-products/atlas- of-rural-and-small- town-america/go-to-the- atlas.aspx

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Mapping Tools	Map Data Viewers	Environment Health and Healthcare	Area Health Resources Files (AHRF) Mapping Tool	5 1 7	State County	U.S. Department of Health and Human Services (DHHS) Health Resources and Services Administration (HRSA)	http://ahrf.hrsa.gov/arf dashboard/ArfGeo.asp x
Mapping Tools	Map Data Viewers	Health and Healthcare	Behavioral Risk Factor Surveillance System (BRFSS) GIS Data and Maps	statistical areas (MMSA) level. Features include multiple data classification methods, map panning and zooming, related prevalence tables, downloadable map	State Territory Metropolitan & micropolitan statistical areas	Centers for Disease Control and Prevention (CDC)	http://www.cdc.gov/brf ss/gis/gis_maps.htm
Mapping Tools	Map Data Viewers	Education Health and Healthcare	Classification of Laws Associated with School Students (C.L.A.S.S.) Data Map	A website providing maps or C.L.A.S.S. scoring data on state-level codified laws for physical education (PE) and nutrition in schools. The scoring criteria for these systems are based on current public health research and national recommendations and standards for PE and nutrition in schools. Data, maps, and profiles can be used to compare PE and nutrition laws from all 50 states and the District of Columbia against national standards and medians, allowing users to assess differences across states and changes over time.	State	National Cancer Institute	http://class.cancer.gov/ map_pe.aspx

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Mapping Tools	Map Data Viewers		Cleanups in My Community	Enables users enables users to map and list hazardous waste cleanup locations and grant areas, and drill down to details about those cleanups and grants and other, related information.	Nation EPA Region EPA Facility Registry ID EPA Program ID Cleanup name Tribal land Watershed Congressional District Latitude/ Longitude State Territory City Zip code	U.S. Environmental Protection Agency (EPA)	http://ofmpub.epa.gov/ apex/cimc/f?p=cimc:6 3:0:::::
Mapping Tools	Map Data Viewers	Health and Healthcare	Community Health Needs Assessment (CHNA) Health Indicators Map Gallery	A report and map generating web-based platform to better understand the health needs and assets of communities and to collaborate to make measurable improvements in community health and well-being. Assesses the determinants of health and current health status of communities, the identification of community resources, and the fostering of public dialogue and collective action.	Census tract	Institute for People, Place, and Possibility (IP3); Center for Applied Research and Environmental Systems (CARES); Community Initiatives	http://assessment.com munitycommons.org/C HNA/MapGallery.aspx

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Mapping Tools	Map Data Viewers	Demographics Economics Environment Health and Healthcare	EnviroAtlas Interactive Map	EnviroAtlas is a collection of tools and resources that provides geospatial data, maps, research, and analysis on the relationships between nature, people, health, and the economy. EnviroAtlas contains information on the status of the benefits that humans receive from nature, the ecosystems that provide and protect them, and related health and economic impacts. Two primary spatial scales are featured in EnviroAtlas- national and community. The national component summarizes data by 12-digit hydrologic unit codes for the contiguous United States. The community component summarizes data by census block groups, for select cities development of the community component is currently underway for 50 cities and towns of varying sizes, locations, demographic makeups, and environmental and health risks.	Nation State County Select cities	U.S. Environmental Protection Agency (EPA)	http://www.epa.gov/en viroatlas/enviroatlas- interactive-map
Mapping Tools	Map Data Viewers	Health and Healthcare	Food Environment Atlas	A web-based mapping tool that displays statistics on food environment indicators and provides a spatial overview of a community's ability to access healthy food and its success in doing so.	Nation State	U.S. Department of Agriculture (USDA) Economic Research Service (ERS)	http://www.ers.usda.go v/data-products/food- environment- atlas/.aspx
Mapping Tools	Map Data Viewers	Demographics Economics Education Environment Health and Healthcare Housing Labor and Workplace Population	HealthLandscape	An interactive web atlas that brings together various sources of health, socio-economic and environmental information in a convenient, central location to help answer questions about and improve health and healthcare. Includes a Med School Mapper, Health Workforce Mapper, Hospital Readmissions Explorer, Nursing Home Star Ratings Explorer, Children's Health and Education Mapping Tool, Population Health Mapper, Social Determinants of Health Mapper, Community and International Data Portals, and more.	Varies	American Academy of Family Physicians	http://www.healthlands cape.org/live- Applications.cfm

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Mapping Tools	Map Data Viewers	Environment	National Land Cover Database (NLCD)	A national land cover product created by the Multi- Resolution Land Characteristics (MRLC) Consortium. Provides - for the first time - the capability to assess wall- to-wall, spatially explicit, national land cover changes and trends across the United States from 2001 to 2011. Data is also available from 2006, 2001, and 1922.	All	Multi-Resolution Land Characteristics Consortium	http://www.mrlc.gov/nl cd2011.php
Mapping Tools	Map Data Viewers	Labor and Workplace	Unemployment	Offers maps of select statistics from the U.S. Bureau of Labor Statistics (BLS), including rates of change of total employment and unemployment.	State County	U.S. Bureau of Labor Statistics (BLS)	http://data.bls.gov/map /MapToolServlet?surve y=la
Mapping Tools	Map Data Viewers	Agriculture Built Environment Environment Transportation	The National Map	Includes orthoimagery (aerial photographs), elevation, geographic names, hydrography, boundaries, transportation, structures, and land cover. Other types of geographic information can be added within the viewer or brought in with The National Map data into a Geographic Information System to create specific types of maps or map views.	All	U.S. Geological Survey (USGS)	http://nationalmap.gov/
Mapping Tools	Map Data Viewers	Agriculture Built Environment Environment Transportation	The National Man	Makes a collection of small-scale datasets originally developed for the National Atlas (which was retired in September 2014), available to users. Offers 197 small- scale datasets for download and access to the small-scale web map and feature services. Also continues to offer the Set of Dynamic Topographic Maps Illustrating Physical Features and hundreds of printable maps developed for the National Atlas.	Varies	U.S. Geological Survey (USGS)	http://www.nationalatla s.gov/atlasftp.html

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Mapping Tools	Map Data Viewers	Business and Industry Demographics Labor and Workplace Population	OnTheMap	An online mapping and reporting application showing where workers are employed and where they live, with companion reports on worker characteristics, and optional filtering by age, earnings, or industry groups. It provides an easy-to-use interface for creating, viewing, printing and downloading workforce related maps, profiles, and underlying data.	State Tribal land County Local Zip code Address Core based statistical area (CBSA) Census tract Census block groups Workforce investment areas (WIA)	U.S. Census Bureau	http://onthemap.ces.ce nsus.gov/
Mapping	Map Data Viewers	Built Environment Demographics Housing Labor and Workplace Population Transportation	Smart Location Database Map Viewer	An interactive map viewer that provides a sample of variables from EPA's Smart Location Database, a consolidated geographic data resource for measuring location efficiency. The Smart Location Database has over 90 different variables characterizing the built environment, accessibility to destinations, employment, and demographics for every census block group in the United States.	All	U.S. Environmental Protection Agency (EPA)	http://www.arcgis.com/ home/webmap/viewer. html?webmap=137d4e 512249480c980e0080 7562da10
Mapping	Map Data Viewers	Demographics Health and Healthcare	Sortable Stats (Sortable Risk Factors and Health Indicators) Map View	A map viewer that displays the thirty-three risk factors and health indicators in the CDC's Sortable Stats database.	Nation Federal Region Territory State	Centers for Disease Control and Prevention (CDC)	http://sortablestats.cdc. gov/#/map
Mapping	Map Data Viewers	Built Environment Demographics Health and Healthcare Transportation	USDA Food Access Research Atlas Map Viewer	An internet-based mapping tool that provides a spatial overview of food access indicators for low-income and other census tracts using different measures of supermarket accessibility, provides food access data for populations within census tracts, and pinpoints the location of food deserts (low-income communities that lack ready access to healthy food).	Census tract	U.S. Department of Agriculture (USDA)	http://www.ers.usda.go v/data-products/food- access-research- atlas/go-to-the- atlas.aspx

Primary Category	Subcategory	Topic (s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Mapping	Map Data Viewers	Built Environment Environment	Discharge Monitoring Report (DMR) Pollutant Loading Tool Data Explorer	A tool that maps facility, pollutant, or industry data from the DMR as counts or percentage by state.	State	U.S. Department of Agriculture (USDA)	http://cfpub.epa.gov/d mr/data_explorer.cfm
Data Collection Tools	Qualitative	Built Environment Environment	Active Neighborhood Checklist	An observational tool designed to assess key street-level features of the neighborhood environment that are thought to be related to physical activity behavior. The data collected can be used to generate descriptive statistics about an area or route, to raise community awareness about the role of the environment in supporting or discouraging physical activity, and/or to mobilize community members to advocate for change.	Local	Saint Louis University School of Public Health	http://www.activeforlif e.info/generations/Reso urces/Toolkits/Active% 20Neighborhood%20C hecklist.pdf
Data Collection Tools	Qualitative	Built Environment Crime Environment Health and Healthcare Housing Transportation	Livable Communities: An Evaluation Guide	An evaluation guide that evaluates how livable communities are for older adults and helps residents determine how to make communities more livable for older adults. Self-assessment survey tools measure walkability, transportation, health services, shopping, housing, safety and security, caring community, and recreation and cultural activities.	Local	AARP Public Policy Institute	http://assets.aarp.org/rg center/il/d18311_com munities.pdf
Data Collection Tools	Qualitative	N/A	Participatory Photography Project Guide From Community Assessment to Political Action	Provides a framework for individuals and groups conducting a participatory photography (PP) project as a tool for social change.	N/A	Oregon Public Health Institute (OPHI)	http://www.ophi.org/do wnload/PDF/healthy_p lanning_pdfs/ophi%20 photovoice%20guide_ 0916.pdf
Data Collection Tools	Qualitative	N/A	PhotoVoice	A website dedicated to participatory photography and digital storytelling methods, including a comprehensive manual outlining what photovoice is and consists of, project design, equipment needed, monitoring and evaluation, and photovoice workshop facilitation.	N/A	PhotoVoice	http://www.photovoice. org/photovoice- manual/

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Data Collection Tools	Qualitative	Built Environment Health and Healthcare Transportation	Toolkit for the Assessment of Bus Stop Accessibility and Safety	Toolkit offering information on the principles of designing accessible and safe bus stops and conducting a bus stop inventory. Can be used to determine minimum ADA requirements, enhance bus stop accessibility through universal design, inventory bus stops, develop a strategic plan for system-wide accessibility, and advocate for improvements.	Local Site-specific	Easter Seals Project Action (ESPA)	http://www.pedbikeinf o.org/pdf/PlanDesign_ Tools_Audits_EasterSe alsBusStopAccess2006 .pdf
Data Collection Tools	Quantitative	Built Environment Health and Healthcare Transportation	<i>.</i>	A quantitative observational survey to assess the bicycle environment on roadways and evaluate what streetscape improvements could be made to promote bicycling. Examines physical and environmental factors in five main categories: Intersection Safety, Vehicle Traffic, Street Design, Safety, and Land Use.	Local	San Francisco Department of Public Health (SFDPH)	http://www.sfhealthequ ity.org/elements/24- elements/tools/102- bicycle-environmental- quality-index
Data Collection Tools	Quantitative	Built Environment Environment Health and Healthcare Transportation	Bikeability Checklist	A short seven-question checklist (or survey) that evaluates the biking environment, including perceptions of safety and personal information and produces a score for the community. For each question, short- and long- term recommendations for improvement are provided.	Local	National Highway Traffic Safety Administration (NHTSA); Pedestrian and Bicycle Information Center; U.S. Department of Transportation (DOT)	http://www.lmb.org/im ages/stories/Advocacy_ Toolkit/Documents/bik abilitychecklist.pdf
Data Collection Tools	Quantitative	Built Environment Environment	Flood Resilience Checklist	A checklist that serves as the first step in assessing how well a community is positioned to avoid and/or reduce flood damage and to recover from floods. This checklist can help communities identify opportunities to improve their resilience to future floods through policy and regulatory tools and non-regulatory programs.	Local	U.S. Environmental Protection Agency (EPA)	https://www.epa.gov/si tes/production/files/20 14-07/documents/flood- resilience-checklist.pdf

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Data Collection Tools	Quantitative	Built Environment Environment	I ID Quicksheet	An Excel spreadsheet that allows the user to quickly evaluate various low impact development (LID) features on a development site to meet detention requirements. The Unit Release Rate method is utilized for these analyses. LID features include rain gardens, rain barrels, green roofs, cisterns, and permeable pavement. Can evaluate 2-year and 100-year, 24 hour storm events. \$	Site-specific	Milwaukee Metropolitan Sewerage District	http://www.mmsd.com /- /media/MMSD/Docum ents/Rules%20and%20 Regs/Manuals/Appendi x_L.pdf
Data Collection Tools	Quantitative	Built Environment Crime Environment Health and Healthcare Transportation	Neighborhood Environment Walkability Scale (NEWS)	A survey that assesses residents' perception of neighborhood design features related to physical activity, including residential density, land use mix (including both indices of proximity and accessibility), street connectivity, infrastructure for walking/cycling, neighborhood aesthetics, traffic and crime safety, and neighborhood satisfaction.	Local	James F. Sallis, University of California San Diego	http://sallis.ucsd.edu/m easure_news.html
Data Collection Tools	Quantitative	Built Environment Environment Transportation	Path Environment Audit Tool (PEAT)	A computer-based instrument that allows trained observers to assess physical characteristics of community trails and paths, including design, amenity, and aesthetics/maintenance items. Has acceptable inter- observer reliability and validity for most of its primary items and can be used by researchers and practitioners.	Site-specific	Purdue University Department of Health and Kinesiology	http://activelivingresea rch.org/node/10652
Data Collection Tools	Quantitative	Built Environment Environment Transportation		An audit instrument that measures environmental features related to walking in varied environments in the U.S.	Local	University of Maryland; University of North Carolina	http://planningandactiv ity.unc.edu/RP1.htm
Data Collection Tools	Quantitative	Built Environment Health and Healthcare Transportation	Pedestrian Environmental Quality Index (PEQI)	An observational survey that quantifies street and intersection factors empirically known to affect people's travel behaviors and is organized into five categories: intersection safety, traffic, street design, land use and perceived safety.	Local	San Francisco Department of Public Health (SFDPH)	http://www.sfhealthequ ity.org/elements/24- elements/tools/106- pedestrian- environmental-quality- index

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Data Collection Tools	Quantitative	Built Environment Environment Transportation	Systematic Pedestrian and Cycling Environmental Scan (SPACES) Instrument	An audit instrument that measures physical environmental factors that influence walking and cycling in local neighborhoods. The instrument is used in combination with additional tools based on Geographical Information Systems (GIS).	Local	The University of Western Australia	http://activelivingresea rch.org/systematic- pedestrian-and-cycling- environmental-scan- spaces-instrument
Data Collection Tools	Quantitative	N/A	SurveyMonkey	A free, online survey website that allows users to design and distribute original surveys. Automatically provides descriptive analytics for survey results.	N/A	SurveyMonkey	https://www.surveymo nkey.com/
Data Collection Tools	Mixed Methods	Built Environment Health and Healthcare	•	A survey instrument designed to evaluate parks for their potential to promote physical activity.	Site-specific	Arnold School of Public Health, University of South Carolina	http://activelivingresea rch.org/community- park-audit-tool-cpat
Data Collection Tools	Mixed Methods	Varies	Community Tool Box: Assessing Community	A virtual tool box that provides resources and tools to help people work together to build healthier communities and assess community needs and resources, including information on conducting surveys and interviews, Needs Assessment Surveys, SWOT (Strengths, Weaknesses, Opportunities, and Threats) Analysis, GIS Analyses, and more.	Local	Kansas University Work Group for Community Health and Development	http://ctb.ku.edu/en/tab le-of- contents/assessment/as sessing-community- needs-and-resources
Data Collection Tools	Mixed Methods	Built Environment Environment Health and Healthcare Population Transportation	Design for Health Tools	Provides tools for active transport measurement, food security assessment, GIS participatory methods, noise mapping, obesity measures, pedestrian and bicycling surveys, photographing and other visual tools, rural health mapping, surveillance, and more.	Local	Design For Health	http://designforhealth.n et/tools/tools-a-z/
Data Collection Tools	Mixed Methods	Built Environment Demographics Education Environment Health and Healthcare Population Transportation	Assessment (RALA)	Tools to assess the physical environment features and amenities, town characteristics, community programs, and policies that can affect physical activity among residents in rural communities. The tools using GIS and surveys to gather data for analysis.	Town Local	Maine Rural Health Research Center, University of Southern Maine	http://activelivingresea rch.org/rural-active- living-assessment-rala- tools

Primary Category	Subcategory	Topic(s)	Name	Description	Geographic Scope	Source(s)	Web Link(s)
Data Collection Tools	Mixed Methods	Built Environment Health and Healthcare	Walking & Biking Related Items from Physical Activity Questionnaires	A webpage that contains survey questions and a list of validation studies for standardized survey questions concerning walking and biking from multiple national and international physical activity surveys and questionnaires (PAQs). Provides easy access to a large number of questions assessing duration and frequency of walking and bicycling in the non-disabled adult population. The results of validation studies identified for some of the PAQs are briefly reviewed.	Varies	National Cancer Institute	http://appliedresearch.c ancer.gov/paq/reflist.ht ml
Data Collection Tools	Mixed Methods	Economics Education Environment	Walk Friendly Communities - Community Assessment Tool	An assessment tool that provides a framework for communities seeking to improve their walkability. Recognizing that there are many ways to achieve this outcome, the range of questions in this tool attempts to capture the variety of factors that affect walkability. Resources are provided throughout the tool to assist in gathering relevant data.	Local	Pedestrian and Bicycle Information Center; UNC Highway Safety Research Center; Federal Highway Administration (FHWA); FedEx	http://www.walkfriendl y.org/WalkFriendlyCo mmunitiesAssessment Tool.pdf

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Appendix A. Health Impact Assessment Frequently Asked Questions

This Appendix provides answers to frequently asked questions (FAQs) about HIA and directs readers to relevant resources and tools in the HIA Resource and Tool Compilation, if applicable.

What is an HIA?

HIA is a flexible decision-support tool that the National Research Council defines as "a systematic process that uses an array of data sources and analytic methods, and considers input from stakeholders to determine the potential effects of a proposed policy, plan, program, or project on the health of a population and the distribution of those effects within the population. HIA provides recommendations on monitoring and managing those effects."¹ HIA is a six-step process:

- 1. Screening
- 2. Scoping
- 3. Assessment
- 4. Recommendations
- 5. Reporting
- 6. Monitoring and Evaluation

More information on the HIA process can be found in the HIA Resource and Tool Compilation's 'HIA Process Resources' category.

What is the purpose of an HIA?

The purpose of an HIA is to inform affected communities and decision makers on the potential health effects of a proposed decision (i.e., program, policy, project or plan) at the federal, regional, state, and/or local level and support the decision-making process.

Who initiates an HIA?

An HIA can be initiated by any organization, agency, or individual concerned about the potential health impacts of a proposed decision or whether health will be adequately addressed in the decision-making process. HIAs have been initiated by community residents, public health agencies, federal agencies, community advocates, academic institutions, non-health public agencies, policy makers, and more. HIAs may also be facilitated by state laws; policy, program, plan, or project-specific legislation; or environmental regulations.

¹ National Research Council. 2011. Improving Health in the United States: The Role of Health Impact Assessment. Washington, DC: The National Academies Press.

What topics does an HIA cover?

HIA has been used for programs, policies, plans, and projects covering a wide variety of health and non-health related topics including the environment, land use, housing, transportation, education, incarceration, employment, economics, labor, and more.

Who conducts an HIA?

HIAs can be conducted by anyone. They have been conducted by nonprofit health organizations, public health agencies, non-health public agencies, community-based organizations, federal agencies, private businesses, academic institutions, community residents, and more.

When should an HIA be conducted?

HIAs inform the decision-making process of a proposed decision and therefore should be conducted prospectively. HIAs should ideally occur before the program, policy, plan, or project decision is made, so that the HIA can inform the decision.

How do I know whether I should conduct an HIA?

To determine whether an HIA is needed, an HIA should be screened (during the Screening Step of the HIA process) to determine whether health is already being considered in the decision, whether the HIA can adequately inform and/or influence the decision-making process, whether the timing is appropriate, and whether stakeholders have the interest and capacity to participate in the HIA. More resources and tools for screening an HIA can be found in the HIA Resource and Tool Compilation primary category 'HIA Process Resources', subcategories 'General HIA Information', 'HIA Trainings and Webinars', and 'Screening Step'.

How long does it take to conduct an HIA?

HIA timeframes vary greatly and are highly dependent on resources available and the timeframe of the decision-making process. HIAs can range from a few weeks, for rapid HIAs that may only look at existing data and have minimal stakeholder participation, to years, for comprehensive HIAs that collect new data and have extensive stakeholder engagement.

How much does it cost to conduct an HIA?

The cost of conducting an HIA also varies greatly. Human Impact Partners estimates that the cost of conducting an HIA can range from \$10,000 to \$150,000 depending on the rigor of the HIA. This cost is dependent on the funding and staff availability, the depth of the level of analysis, research methods employed, and the level of stakeholder engagement.

Where can I find funding for an HIA?

A number of entities provide funding for HIAs around the U.S.:

- Centers for Disease Control and Prevention (CDC)
- Robert Wood Johnson Foundation (RWJF)
- Association of State and Territorial Health Officials (ASTHO)
- The California Endowment
- Health Impact Project
- Human Impact Partners
- National Association of County and City Health Officials (NACCHO)
- Blue Cross/Blue Shield
- National Network of Public Health Institutes (NNPHI)
- Northwest Health Foundation (NWHF)
- The Annie E. Casey Foundation
- The Kresge Foundation
- The Jacob & Valeria Langeloth Foundation
- Liberty Hill Foundation
- Marin Community Foundation
- The W.K. Kellogg Foundation
- Communities Putting Prevention to Work
- Federal Transportation Authority
- HUD/DOT/EPA Partnership for Sustainable Communities grants, assistance, and programs

What are the benefits of conducting an HIA?

HIA offers a number of benefits to affected communities, the public health field, and the decision-making process. HIA benefits include:

- Empowering affected communities by engaging them in the HIA process and decisions that affect them.
- Facilitating interdepartmental, interagency, and cross-sectoral collaborations and relationship and capacity building within the community.
- Raising awareness of health and health-related issues among decision makers and the public.
- Bringing health into decisions outside traditional health-related fields.
- Promoting and protecting public health by considering the beneficial and adverse health impacts of proposed decisions.
- Advancing health equity by considering impacts across the population (paying specific attention to vulnerable groups) and recommending ways to improve proposed decisions for affected groups.
- Building support for positive health outcomes early in the decision-making process.

• Providing a transparent process to inform decision-making.

What challenges could I face in conducting an HIA?

Challenges in conducting an HIA could include the availability of financial, time, and human resources; the availability of adequate data; working within the constraints of the decision-making timeframe; identifying vulnerable groups that could potentially be impacted; and views of HIA as a time-consuming process that slows down progress or is just another bureaucratic checklist; among others.

Who should be on the HIA team?

A team of individuals should be assembled who possess expertise and knowledge in the specific fields that will be evaluated in the assessment (e.g., housing, transportation, planning, land use, etc.), as well as skills and experience in areas such as public health, communication, stakeholder engagement, and research and analysis. There should be representation from a variety of organizations and agencies, including decision-makers, community groups, advocacy organizations, public health departments, and other stakeholders.

Roles	Skills Needed
Community Liaison	Team member with knowledge of the community and has access to the community social and formal networks (e.g., community leader, historian, member of a community representative organization, long-time resident).
Public Health Researcher	Team member with knowledge of basic public health principles and mediating factors that influence health (e.g., public health professional, physician, health educator).
Project Leader	Team member who is well versed and has experience managing teams with multiple skills/fields of expertise, leading meetings and discussions, organizing action items and establishing project goals, framework, timeline and a communication plan.
HIA Technical Advisor	Team member of advisor who has extensive knowledge and experience conducting and evaluating HIAs, including best practices and lessons learned (e.g., representative from Human Impact Partners, Georgia Health Policy Center, Oregon Public Health Institute, and UCLA HIA program, CDC National Center for Environmental Health).
Researcher(s)	Team member(s) with experience planning and conducting research who can perform literature reviews, risk assessments, and develop test research questions/hypotheses (e.g., epidemiologist, community health researcher, etc.).
Writer/Editor	Team member with experience writing and evaluating scientific papers and producing reports and materials for different audiences.

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Roles	Skills Needed
Subject Matter Expert(s)	Member(s) with experience and knowledge about the specific fields of
(usually members of	expertise that will be evaluated in the assessment (e.g., housing,
steering or advisory	transportation, watershed management, ecology, engineering or
committee)	architecture, public and community health, etc.).

For example, an HIA evaluating an education policy may want to include as stakeholders – Board of Education members, School Board members, students, parents of students, teachers/professors, representatives from minority advocacy organizations, public health professionals, and education policy analysts.

What stakeholders should be included in the HIA?

Stakeholders are individuals and organizations with a vested interest in and potentially affected by the proposed decision, including the decision makers themselves. HIAs should include as many stakeholders related to the decision as possible, especially vulnerable populations and/or their representatives. In total, the stakeholders should comprise a diverse group of participants. Diversity in the stakeholders participating in an HIA allows for a more comprehensive understanding of the community and political context surrounding the proposed decision and can help illuminate issues of concern for those affected by the decision, as well as community health and other existing conditions that may not be readily apparent to those outside the community. Examples of potential stakeholders include:

- Residents from the potentially affected community
- Community representatives from community-based organizations
- Community advocates and/or advocacy organizations
- Decision makers
- Service providers
- Elected officials at the municipal, regional, state/provincial, or federal levels
- Small businesses
- o Industry, developers, and big business
- Public agencies (e.g., public health, planning, economic development)
- o Statewide or national advocacy organizations
- o Academic, learning, and research institutions
- HIA consultants
- School districts
- Regulatory agencies (e.g., EPA)

Levels of stakeholder involvement vary from HIA to HIA, although engagement of stakeholders in each step of the HIA process is ideal. More information can be found in the HIA Resource and Tool Compilation primary category 'HIA Process Resources', subcategory 'Community Participation, Partnerships, and Equity'.

How will I know whether or not my HIA had any impact?

Monitoring and evaluation can help determine whether your HIA had an impact on the decision, decision-making process, and decision-making climate in general, as well as any impacts of decision implementation on health. HIA best practices include an evaluation of the HIA process (process evaluation), an evaluation of the impact the HIA had on the decision-making process and final decision (impact evaluation), and monitoring and evaluation of the health outcomes and health determinants affected by the decision (outcome evaluation). Monitoring and evaluation resources can be found in the HIA Resource and Tool Compilation primary category 'HIA Process Resources', subcategory 'Monitoring and Evaluation Step'.

Where can I find HIA consultants to help with my HIA project?

The Regional Capacity Building Committee Working Group of the Society of Practitioners of Health Impact Assessment (SOPHIA) created a map and list of organizations providing HIA technical assistance throughout the U.S. The list can be found online at: <u>https://sophia.wildapricot.org/resources/Documents/Regional-Capacity-Building-Maps.pdf</u>.

Where can I find HIAs similar to the one I am conducting?

In-progress and completed HIAs are available online on the following websites:

- UCLA HIA-CLIC: <u>http://www.hiaguide.org/hias</u>
 - This comprehensive list of in-progress and completed HIAs can be searched by keywords, sectors, pathways, methods, and health effects. Links to HIA documents are provided.
- HIA in the United States: <u>http://www.pewtrusts.org/en/multimedia/data-visualizations/</u> 2015/hia-map
 - This web tool provides a map view and list of in-progress and completed HIAs in the U.S. that users can search by organization type, decision-making level, sector, grant type, and state. Provides a general summary of each HIA and a link to any related information (e.g. HIA report, website, etc.).

Both of these websites are listed in the HIA Resource and Tool Compilation primary category 'HIA Process Resources'.