

USING INDICATORS TO INFORM HEALTH & HOUSING INITIATIVES



ChangeLab Solutions



“We had new buildings but the same problems, because we didn’t address the underlying economic social and health risks our residents were facing.”

– Lynne Picard, Denver Housing Authority

Many practitioners working at the intersection of health and housing are keen to understand how policies and practices are affecting community outcomes. However, this can be challenging. Even though local public health departments, housing authorities, and hospitals are accustomed to gathering data and evaluating the impacts of their more traditional work, they may be less familiar with using data to both inform health and housing initiatives, and to assess the efficacy of interventions in that arena. Additionally, since many of the policies aimed at improving health and housing conditions are geared toward long-term change, their short-term impact may be hard to measure. Despite the challenges, developing rigorous and meaningful indicators to evaluate the efficacy of health and housing efforts is vital to ensuring that the work is having the desired impact.

What Are Indicators for Action?

“The goal isn’t a report. The real goal is driving change.”

– Alexandra Desautels, program manager,
The California Endowment

Indicators are quantifiable characteristics that can both describe a current state and point the way toward useful interventions. The most effective indicators are ones that describe a particular problem.¹ Traditional health outcome indicators, such as prevalence of chronic disease and rates of low birth weight, describe the existing health status of a population. Other indicators describe the social, environmental, and economic conditions that are important “upstream” drivers of health and equity, such as access to resources and opportunities. Combining health indicators with those that describe community conditions will offer windows into different types of solutions to address identified problems.

Indicators offer a “snapshot” of information at a particular moment. When the same indicators are tracked and measured over time, they can help you see trends and show how progress, if any, is being made. This can help you identify obstacles to change and drive policy action. Because work on healthy housing is often long term, strategic use of indicators can be particularly useful in this context. For some examples of how indicators have informed health and housing practices, see the box on the next page.



The Denver Housing Authority (DHA) began actively rethinking how it could promote and incorporate health into its housing development and programs in 2007. Fueled in part by the growth of the elderly population and a resident survey that indicated a need to address health issues, DHA was interested in understanding how its redevelopments and programs could improve residents' health. This transition reflects the changing needs of public housing residents as well as new thinking and leadership at DHA. As the resident population has grown older and more diverse, meeting the mental and physical health needs of residents has become an increasingly important part of DHA's work.

When DHA was planning its Mariposa redevelopment (for more information see Denver Success Story), it hired a firm to help with community engagement and pre-planning. The firm, Mithun, suggested that DHA conduct a rapid HIA (health impact assessment) and cultural audit. The information gathered as part of the HIA included metrics that informed the built environment but also raised issues that DHA had not known were so important to their residents. The experience led the agency to become more interested in using health metrics for its development process.

DHA decided to use a tool from the San Francisco Public Health Department (formerly the Healthy Development Measurement Tool or HDMT, now known as the San Francisco Indicator Project) and adapted it for its own use. DHA knew that it wanted any indicators it used to align with the priority health outcome goals for the city of Denver, which included a 5% increase in healthy weight for children and a 15% increase in resident access to health care. DHA then tried to assess how well the indicators it was using linked to the health outcomes it was hoping to achieve and how hard it would be to obtain evidence at a relevant scale for the appropriate time frame. Once it had a list of prioritized indicators, it vetted them with a panel of residents and community stakeholders. Each indicator was matched with a partner who would support relevant actions and strategies. The result of this process was the **Mariposa Healthy Living Toolkit** which informed the Mariposa redevelopment process and continues to guide decisions about program needs.



How Do You Develop Indicators for Action?

The idea that data can be used to inform evidence-based decisions will not be new to public housing authorities, health departments, or hospitals. However, building an evidence base for an integrated health and housing practice requires some unique considerations.

Working with Partners

Just as your health and housing work should engage community and institutional partners outside of your own organization, so should your efforts to build an evidence base to support and evaluate that work. You may often find that partner organizations have direct experience working with data relevant to your health and housing practice that might be outside of your organization's typical data practice. This can both shorten the process for determining the right indicators and strengthen the resulting data gathering and evaluation.

Working with partners to develop indicators can:

- Help strengthen relationships with those partners
- Improve responsiveness to community needs and input
- Highlight the role of local public health in addressing upstream determinants of health inequities
- Increase collective investment to measure and track progress

Deciding which partners to engage should be informed by your health and housing goals. Identify your desired outcomes and find other organizations and stakeholders who share them, or those who may be affected by your work. (We offer more information about creating and maintaining successful partnerships in [“Engaging Partner Organizations.”](#)) This includes community members, as your organization's goals should reflect the health goals of your community.

It's also helpful to consider organizational capacity and skills within your institution and in partnerships. For example, many health departments, especially local health departments serving large cities and states, have epidemiologists on staff who possess expertise in evaluation, research, data management, and communications.² They may already be collecting epidemiological data that links housing interventions to health outcomes. Similarly, a city planning department could be a resource for mapping and monitoring access to resources like parks and grocery stores, or neighborhoods at risk of displacement.

Your engagement with partner institutions should come early in the process of building an evidence base to support your health and housing initiatives. When the Denver Housing Authority was figuring out how to monitor the success of its health assessment interventions in and around public housing developments, it worked with the Denver Public Health Department – a natural partner. This relationship has been vital to DHA's evaluation, but as one of the Public Health Department evaluators noted, “DHA are forerunners...but don't have a lot of capacity. We were brought in 7 months after the project started. Our results could be more robust if we had the right setup.” Early involvement is key.



Sometimes consideration of common goals may lead to partnerships that are less obvious. When the Alameda County (California) Department of Public Health (ACDPH) decided to research the health effects of the late 2000s foreclosure crisis in the county, it worked in partnership with Causa Justa :: Just Cause (CJJC), a local grassroots organization that focuses on housing and racial justice advocacy in the San Francisco Bay Area. CJJC's advocacy work complemented ACDPH's research skills and data practice, helping the department interpret findings and develop concrete actions for change based on the data.

Tammy Lee, a community epidemiologist at ACDPH, recounted meetings the department staff would have with CJJC to "look at the data and help us pick out the most important pieces that we want to lift up." CJJC's advocacy orientation helped lead from data to action. "Key to this piece," said Lee, "is what are the recommendations that should come from this? This is where CJJC took the lead. Let's not just look at the data, but what can we do from the data." The collaboration resulted in the report [Development without Displacement](#), which made 11 policy recommendations including right of first refusal, rent control, and inclusionary zoning policies.

ACDPH realized that its research could support CJJC's community organizing and base-building efforts on important housing issues with tremendous health impacts. "As an epidemiologist, I could be a partner in their organizing efforts for justice," said Lee. "The data made sense and jived with what they were trying to accomplish. This was a pivotal moment for me: that as an epidemiologist, we can be a real ally in this work."

ACDPH's partnership with a community advocacy organization was key to ensuring that the research would be used to drive community change. These interactions added an important layer to its work that helped to situate its analysis within a particular social context with the aim of achieving community goals that have important health implications.

Developing Relevant and Actionable Indicators

While engaging partners to develop indicators should be informed by what you are trying to achieve and who will be affected by those outcomes, the goal is to make sure to choose the right indicators for an assessment tool. The indicators you choose should help describe existing conditions in your community, as well as track and measure change in those conditions. Disaggregating data by race, gender, income, and other demographics can provide an understanding of the magnitude and distribution of health risks – such as unsafe, unstable, or unaffordable housing – that undergird leading causes of health disparities. For public health departments, this data can help determine which policy changes should be pursued to improve health equity. For housing authorities, this information can help determine what are the greatest health risks facing housing residents, where to focus programmatic funds, or which populations need particular interventions. For hospitals, it can help guide decisions about community investments beyond the hospital walls.

Mariposa 2012 Indicator Report Card

INDICATOR	CITY OF DENVER BASELINE	MARIPOSA PRE-REDEVELOPMENT BASELINE	MARIPOSA STATUS UPDATE	MARIPOSA TREND	
HEALTHY HOUSING	PERCENT OF POPULATION LIVING BELOW POVERTY LEVEL	14.29%	37.05%	45.05%	▲
	PERCENT OF HOUSEHOLD INCOME SPENT ON HOUSING	28.1%	12.75%	13.44%	▲
	HOUSING INDOOR ENVIRONMENT (AIR QUALITY, TEMPERATURE, HUMIDITY)	n/a	n/a	Monitoring recommended	
SUSTAINABLE AND TRANSPORTATION	AVERAGE TRANSIT COMMUTE TIME IN MINUTES	27	24.60	20.05	▼
	COST OF TRANSPORTATION AND HOUSING AS % OF AVERAGE INCOME	47.4%	26.18%	29.83%	▼
	NUMBER OF TRAFFIC INJURIES/ COLLISIONS/ FATALITIES	n/a	Data Collection in Progress	Data Collection in Progress	
ENVIRONMENTAL SUSTAINABILITY	PERCENT OF RESIDENTS WITH ACCESS TO OPEN SPACE/ NATURE WITHIN NEIGHBORHOOD	n/a	26%	32%	▲
	AIR QUALITY - PARTICULATE MATTER	n/a	n/a	<2.5 mm	
	VMT PER CAPITA PER DAY	33.6	24.4	14.7	▼
SOCIAL COHESION	PROPORTION OF POPULATION WITHIN 1/2 MILE TO COMMUNITY GATHERING SPACES	n/a	100%	100%	—
	TOTAL CRIME RATE PER 1,000 PEOPLE	68.62	247.9	157	▼
	PERCENTAGE OF POPULATION WHO FEEL SAFE ALONE AT NIGHT IN NEIGHBORHOOD	n/a	49%	Recommended survey	
PUBLIC INFRASTRUCTURE	PROPORTION OF POPULATION WITHIN 1/2 MILE KEY RETAIL	60 <small>Walkscore Update 2012</small>	100%	87 <small>Walkscore</small>	—
	NEIGHBORHOOD SCHOOL PERFORMANCE	n/a	n/a	30.8 Greenline Elementary 38 Martinez Middle School	
	% PERSONS AGE 25+ WITH LESS THAN 12TH GRADE EDUCATION	21.11%	38.57%	n/a	
	# OF HEALTHY FOOD OUTLETS WITHIN 1/2 MILE OF NEIGHBORHOOD	n/a	0	1	▲
INDUSTRY ECONOMY	UNEMPLOYMENT RATE	n/a	10.63%	15.2%	▲
	AVERAGE ANNUAL INCOME COMPARED TO THE SELF-SUFFICIENCY WAGE	1.49 / 1.0	1.04 / 1.0	1.06 / 1.0	▲
	NUMBER OF BUSINESSES AND NUMBER OF JOBS/SQ. MI. IN NEIGHBORHOOD	n/a	Data Collection in Progress	551/ 308,205	

Major Considerations When Developing Indicators

Are the indicators connected to community health goals? Indicators work best in catalyzing action when they reflect collective needs and priorities determined by the community.¹ Local context should drive the selection of indicators that are closely linked to overall community health goals. Ultimately, this approach requires a shift from “data first” to “purpose first.”¹ When the Denver Housing Authority was selecting indicators, it looked to priority health goals it had developed based on resident surveys, as well as city and state initiatives, to make sure they were aligned.³ Community health needs assessments (CHNAs) and community health improvement plans (CHIPs) are 2 planning processes that local health departments can use to identify community health goals.^{4,5}

Is the data accessible over time and available at an appropriate scale? Availability and scale of data are important factors to consider when selecting indicators. Data that are inconsistently available may not be optimal, as indicators work best when used to track change in the same place or population over time (“longitudinal” data). The scale of the data

and unit of analysis also matter. If neighborhood comparisons across a city are needed, small-scale data at the neighborhood level or below, such as the census tract or block group, will be required. However, data at these scales are harder to obtain consistently and reliably. Conversely, data may be easily available at a scale that is not useful as an indicator. Don’t mistake availability for appropriateness. For example, if decreasing the disproportionate health impacts from foreclosures is a priority, as it was in Alameda County, health indicators should be selected to track this information over time and identify trends. Foreclosure rates within a city may not be a useful indicator by itself but over time or by neighborhood this indicator may show increased levels that can be addressed.

Is the data going to show change in the short term? Demonstrable changes in health outcomes are almost always difficult to detect in the short term, and may take many years to measure with significance. When determining appropriate indicators for a health and housing practice, it is good to look for some relevant data that may show change at a faster pace. For example, if your goal is to reduce obesity, you may want to data on exercise or access to health



care, knowing that you'll be unlikely to see a direct reduction in obesity rates in the short term. Keep in mind also that indicators may not signal what we think they do in the short term. After DHA implemented programs that increased resident access to health care, it saw an increase in the number of residents whose glucose levels indicated pre-diabetes. However, it saw this as a good sign: It meant residents were getting care before they developed full diabetes.

Are the indicators actionable? Relevant indicators should be identified that can motivate responsible institutions and organizations.⁶ The best indicators drive action and are linked to interventions. Additionally, the greatest opportunities to improve population health reside outside the traditional health sector, and good measures are needed to catalyze action among those sectors. Indicators should help spur action by those organizations with the greatest power to improve neighborhood conditions. They should help answer the question, "Now that we know this, what do we do?" For example, looking at excessive housing cost burden will let you know where households may be suffering from a variety of health risks associated with stress, housing instability, and food insecurity.⁷

Do the indicators help identify populations with specific health needs and vulnerabilities? Health disparities exist in most areas, and general population-based data at any scale may not help distinguish the risk factors for a population. It is therefore helpful to disaggregate data by demographics where feasible. Looking at distinctions by race, gender, and age can provide more information about the need for targeted interventions. For example, a city may have a small number of children who test for high levels of lead in their blood, but disaggregating the data may show that the rates are much higher for children of color, suggesting a need to target that population in addressing lead remediation.

Action, Evaluation, and Iteration

"Our work takes a long time and dynamics change, neighborhoods change. We need to know: Has the landscape changed? Do residents still have the same needs? We have to go back and reassess constantly. It's an iterative process throughout."

– Shaina Burkett, human services program specialist, Denver Housing Authority

Choosing relevant, actionable indicators and creating an assessment tool to evaluate your health and housing practice is one step in what is almost certain to be a long-term, iterative process. The work you do can may take years to fully bear fruit, and monitoring your community and your working environment for changes – both the changes resulting from your work and those that might affect your ability to do it – is vital. Assessment and evaluation are not one-time activities. Your institution will need to track changes over time, remain engaged with your partners and community, and even revisit the appropriateness of your indicators as your work progresses.

Over time, as you gather data about the impacts of your work, you'll find that it also helps inform your consideration of future efforts. Your evidence base, along with more general "best practices" and data from elsewhere, can help you determine which potential strategies and interventions might be most effective in your community. Many other factors, such as funding, political context, and leadership, will also affect the policies, programs, and other initiatives your institution pursues, but a robust, well-considered data practice can be a lodestar that guides you, your colleagues, and your partners.



Learn More

- [Mariposa Healthy Living Tool](#) from the Denver Public Housing Authority
- The [Housing Section of the San Francisco Indicators Project](#) (formerly Healthy Development Measurement Tool) has some good examples of indicators that are relevant to the health and housing practice.⁸
- [The Healthy Communities Index](#), from HUD's Office of Policy Development and Research, ranks city neighborhoods on 40 indicators related to community health.⁹
- [Applying Social Determinants of Health Indicator Data for Advancing Health Equity: A Guide for Local Health Department Epidemiologists and Public Health Professionals](#) provides a broad range of indicators related to the social determinants of health. This was put together by epidemiologists from the Bay Area Regional Health Inequities Initiative (BARHII), a coalition of the San Francisco Bay Area's 11 public health departments committed to advancing health equity, and shows local health department epidemiologists, data analysts, and other professionals how to collect, analyze, and display indicators and frame these data in the context of neighborhood mortality, morbidity, and social conditions.

Endnotes

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