About This Series

Building Healthy Cities (BHC) is a USAID-funded learning project in three Smart Cities across Southeast Asia – Indore, India, Makassar, Indonesia, and Da Nang, Vietnam. BHC is testing how to successfully apply urban planning approaches that improve the social determinants of health in complex systems.

BHC uses exploratory data collection, multisectoral engagement, and citizen participation. This systems approach informs project activities and the prioritization of city-funded workplans. The combined impact should improve the lives of all residents in these three cities and reduce preventable mortality.

BHC is using several tools and processes to create coalitions and organize its approach in each city. One key process is systems mapping to illustrate the key dynamics (patterns underlying problems) and define key entry (or ‘leverage’) points to address social and environmental determinants of health. Another way that BHC is documenting citizen experiences in each city is through Journey Maps.

The Journey Maps apply ‘design thinking’ approaches, which are often used to tailor products to intended customers; citizens are like customers in that they pay taxes or fees to use city services. BHC has adapted this tool to document the experience (or ‘journey’) of citizens who are trying to overcome one service issue in each city, over time, updated on a quarterly basis. The specific topics were identified during the first year of the project and fit within the larger context shown in the systems maps. BHC is using these Journey Maps to track citizen and city official perspectives, and to document change at the neighborhood level.

BHC is training people in each neighborhood to develop and use these Journey Maps and on grassroots advocacy techniques. By bringing the citizen experience directly to city planners, BHC hopes to better align municipal planning with community priorities such as safe water, clean air, hygiene, traffic safety, and other key components of healthy urban living.
YEAR 1 Water is a multi-faceted issue in Makassar – dirty water overflows out of open drains in some neighborhoods, and is often compounded by flooding in the rainy season. Clean water supply is hampered by outages in neighborhoods, and this is often compounded by some network of open stormwater drains. Household behaviors are primarily from domestic wastewater, which is discharged to a network of open stormwater drains. When stormwater drains are blocked, rainwater has nowhere to go, and houses will flood with dirty water. The issue of flooding was a key topic of discussion in the BHC Health Needs Assessment focus groups - they said their biggest complaint regarding city services was with flooding. According to information received from Smart City Makassar, the city had 21 flood-prone areas and 7 critical hotspots for flooding (Technical Team Makassar Smart City 2017). This journey follows one heavily populated area, where the majority are informally employed in service sector and daily labor.

According to one of the residents affected by seasonal flooding in Makassar, “At this rate, I have to evacuate, sir. Inside the house the water is thigh high.” — Economic News, March 2018

“No one dam is leaking, in quantity water debit/supply decrease to 75%, and affect also water quality, so we totally stop the service supply.” E. Lurah, Local government, September 2018

“Street have open drains with a lot of plastic and other junk floating in the dirty drain water.” — Resident, April 2018

“We were involved by neighborhood officers to regularly keep our neighborhood clean including the garbage that potentially clogs the drainage. Due to open drainage, filtering by kids still clogs the drainage.” — Resident, September 2018

“Now, we are safe from flooding. But I ensure that it will still happen in rainy season due to this neighborhood is lowland.” — Resident, September 2018

“Water supply have been available all day but still less volume.” — Resident, September 2018

“Flooding is regularly happening in rainy season. It reaches adult knee. Flooding is caused by garbage that clogs drainage.” — Resident, April 2018

“The sanitary workers alert daily too much garbage and lowland cause garbage clogging.” — Lurah, Local government, April 2018

“in Maccini Sombala, there are 5 drainage workers and 5 sanitary workers with 3-wheel motorcycles that 3 times a week collect garbage of residents.” — Neighborhood officer of Maccini Sombala, September 2018

“We are still working on the leaking dam. Efforts made by PDAM are opening other pipes to ensure affected area including Maccini Sombala still get water supply, but Apologize with less volume.” — Representative of PDAM (Water Supply Management), Makassar, September 2018

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How Does This Story Connect to the Makassar Systems Map?

Systems Map Loop: It’s All Connected

When individuals and communities experience high levels of poverty and inequality, the level of barriers they face to participating in public programs and accessing basic infrastructure is increased. These barriers include cost, transportation, mobile service, stable housing, and a city identification card, to name a few. As a result of low utilization and support, these services are not prioritized for funding and experience increased supply and coverage issues. The deterioration of critical infrastructure and services causes increased instability and barriers to positive growth across the city. This, in turn, undermines government efforts to innovate and foster improvements to health and quality of life.

Example 1: During a focus group discussion with residents of Maccini Sombala, a designated slum area, participants mentioned that people there face significant water supply issues - water service is only provided from midnight to 6am. Many areas of Makassar also experience difficulties in access to clean water supply which has encouraged people to use privately drilled water sources. This decreases utilization of PDAM (water supply provided by the city) which reduces the available resources to support water infrastructure improvement efforts. In addition, these private water sites cost money and are not monitored for water quality, often leading to unsafe conditions.

Example 2: Makassar is home to many local migrants, many of whom live in slum areas. They cannot access a number of service or enroll in subsidized programs because they are not identified as Makassar citizens. They experience many barriers to securing the necessary documentation (a Makassar identification card) to become registered as such. This leads to a decrease in public service utilization in Makassar, but increases demand for “creative” solutions which are often lacking in health and safety measures.

For additional information on the Makassar Systems Map and BHC’s activities, visit jsicom/buildinghealthyCities