

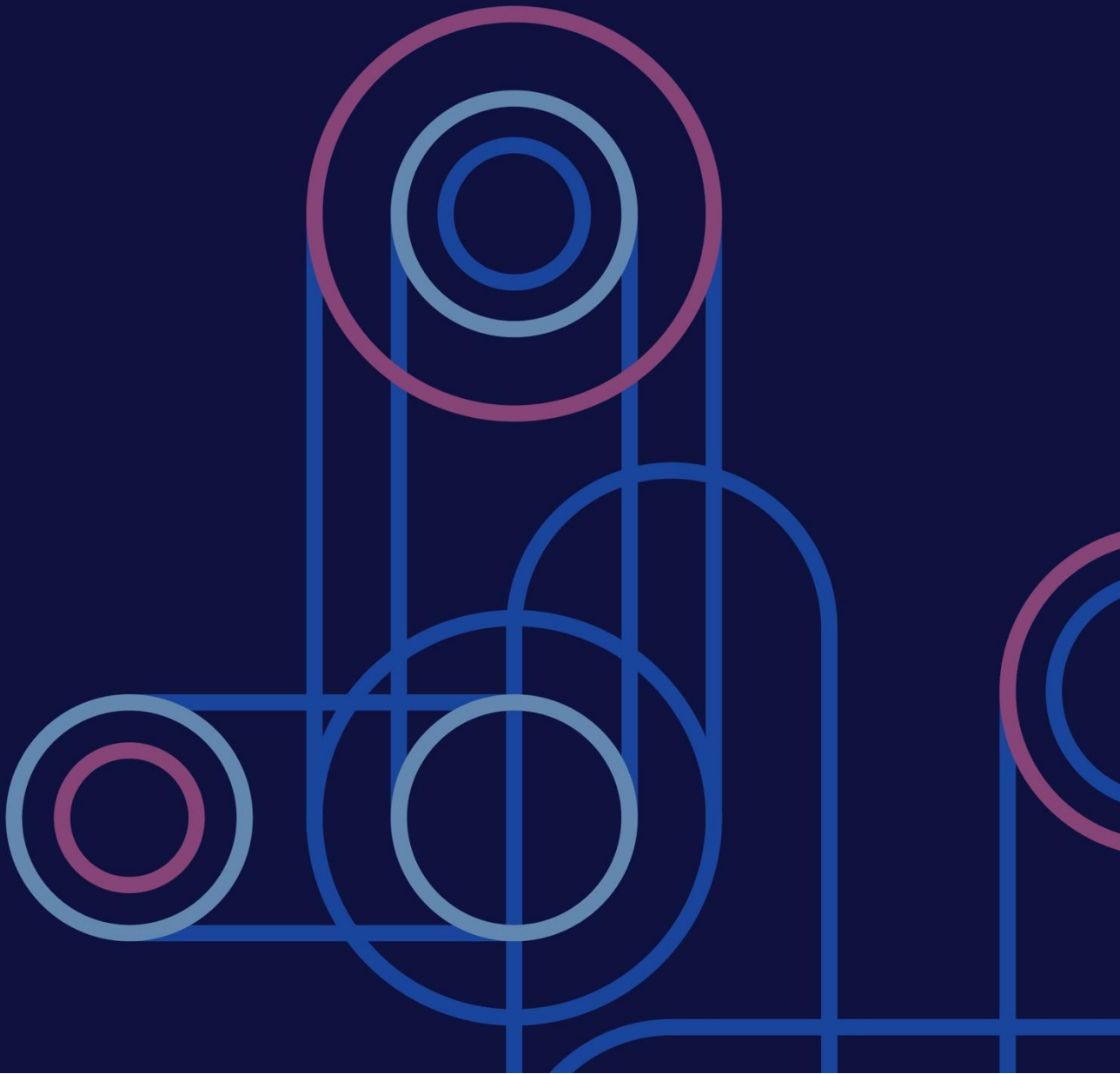


World Health
Organization

CASE STUDY

An innovative, local answer to urban health challenges: How residents of Mathare informal settlement Nairobi implemented a physical addressing system

2026



Basic information

WHO Region	AFRO
City or Country	Mathare (Nairobi), Kenya
Timeline	2019-2023
Type of intervention	Infrastructure
Primary level of implementation	Neighbourhood
Primary sectors involved	Health; urban planning; water; sanitation; solid waste management; emergency management
Primary health outcomes or challenges	Health equity; infectious disease risk; access to essential services; emergency and disaster response

Case description

Mathare is one of Nairobi's oldest and largest informal settlements, with dense housing, limited infrastructure, poor access to services, and high exposure to floods, fires and disease outbreaks. In Kiamutisya, one of Mathare's villages, the absence of a formal physical address system made it difficult for authorities, health workers and community organisations to identify households, plan services or respond rapidly to crises. For example, residents' invisibility in official data complicated efforts to support residents during the COVID-19 pandemic, and raised concerns about fairness and transparency.

Building on long-standing practices of community organising and enumeration, local residents, in collaboration with Slum Dwellers International (SDI) Kenya and Muungano wa Wanavijiji, and with support from the ARISE (Accountability and Responsiveness in Informal Settlements for Equity) research consortium, came together to co-develop a physical address system for Kiamutisya. In 2021, they undertook a comprehensive household enumeration, profiling 2,369 households and approximately 5,500 residents during a week-long community-driven data collection process. Community co-researchers were trained to use digital tools, obtain consent, and collect information on household composition, livelihoods, service access and health, generating a detailed dataset to inform later interventions.

Drawing on this evidence, Kiamutisya's structures were mapped and numbered, with address plates indicating settlement, cluster and structure number. A colour code distinguished residential dwellings, social spaces, places of worship, businesses and toilets, enabling users to quickly understand the function of different buildings and



Installing a physical address in Kiamutisya village, Mathare. Nairobi, Kenya: 2022.

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estimate numbers of residents per structure. Key stakeholders, including Community Health Promoters (CHPs), Community Health Assistants, village elders, local chiefs, churches and the local administration were involved from the outset to ensure that the system met operational needs and would be recognised by authorities. BuildHer, a training initiative for women construction artisans, manufactured and installed the address plates, generating local employment and skills.

The new address system provides a transparent and consistent basis for identifying residents and organising services, allowing CHPs and community leaders to create more accurate lists of households requiring support and reducing conflict over beneficiary selection. Community members use the addresses to navigate the settlement efficiently, while CHPs, local leaders and youth groups draw on the same data to coordinate tasks such as following up absentee schoolchildren, linking families with support services, and organising community improvements and maintain routine services, including solid waste management. The consolidated household information has also informed broader governance efforts, supporting advocacy for Mathare's designation as a Special Planning Area, thereby strengthening the foundation for more inclusive urban planning.

The system has also deepened relationships between residents, local government and other stakeholders. County departments, including health and environment, as well as the local administration, now recognise and use the address system in their work. The initiative has been showcased through learning exchanges with partners from other Kenyan settlements and from Sierra Leone, and has inspired similar physical addressing efforts in Mathare 4B and other communities.

Key enabling factors included strong community federations, experience with prior enumerations, technical expertise in mapping and data management provided by SDI Kenya and Muungano, and flexible, responsive funding from ARISE. Initial concerns about privacy and data misuse were addressed through repeated consultations, clear communication about purposes and safeguards, and visible community leadership. Challenges included the logistical complexity of enumerating and labelling dense, multi-storey structures, securing sustained engagement from over-stretched CHPs, and ensuring that government departments integrated the new system into their own procedures. Ongoing work seeks to maintain and update the address database, extend coverage to other villages in Mathare, and leverage the system more systematically for disaster risk reduction, health information and equitable service planning.

Strategic Highlight

The Kiamutisya experience illustrates how expanding data generation in marginalised places can become a powerful entry point for strategic action on urban health, particularly when catalysed by a widely-felt crisis. Before the intervention, residents of Kiamutisya were largely unregistered in official data systems. This limited their access to health care, social protection and services, and constrained the ability of authorities to plan and respond to emergencies. By leveraging community-led enumeration to create a simple but robust physical addressing system, local actors transformed the information landscape in ways that continue to generate health benefits.

The COVID-19 pandemic exposed the limitations of existing informal systems for identification and authentication of residents in a context where resources were scarce

and trust was fragile. By creating a shared, transparent frame of reference, the Kiamutisya initiative helped ensure that critical support during all types of emergencies could be targeted more efficiently and increased the likelihood that this allocation would be perceived as fair. At the same time, it strengthened relationships between communities, CHPs and authorities, laying the groundwork for longer-term collaboration.

High-quality, community-generated data has also proven its strategic worth well beyond crisis management. Household addresses support routine health promotion and surveillance, as CHPs use them to organise visits, follow up on treatment, and integrate local information into Ministry of Health systems. Youth groups and other community organisations use address-linked data to document gaps in water, sanitation, waste management and other services, enabling more evidence-informed dialogue with county departments. Emergency response systems are reported to be more focused and effective. Furthermore, the enumeration and address database contributed to the Mathare Special Planning Area agenda, demonstrating how local data can shape city-wide planning processes and support recognition of informal settlements in formal governance.

This case highlights how embedding improved data practices and community leadership into everyday governance can lead to durable gains. For decision-makers in other settings, Kiamutisya suggests that investments in expanding data to underserved communities can simultaneously enhance emergency preparedness, strengthen health systems and create new avenues for residents to shape urban development.

Further Information

- ["The system brought beauty to our community": Evaluating the impact of a physical address system in Mathare informal settlement, Nairobi, through ripple effect mapping](#)
- [Impact Case Study: Fostering inclusivity and equitable access to essential services through the household address initiative in Kiamutisya settlement, Nairobi](#)
- [Visual Essay: Scaling the physical address system to Mathare 4B settlement](#)
- [Empowering Communities through Physical Addressing: A Learning Exchange Success Story in Kenya](#)
- [Building Forward Better: Inclusive Livelihood Support in Nairobi's Informal Settlements](#)