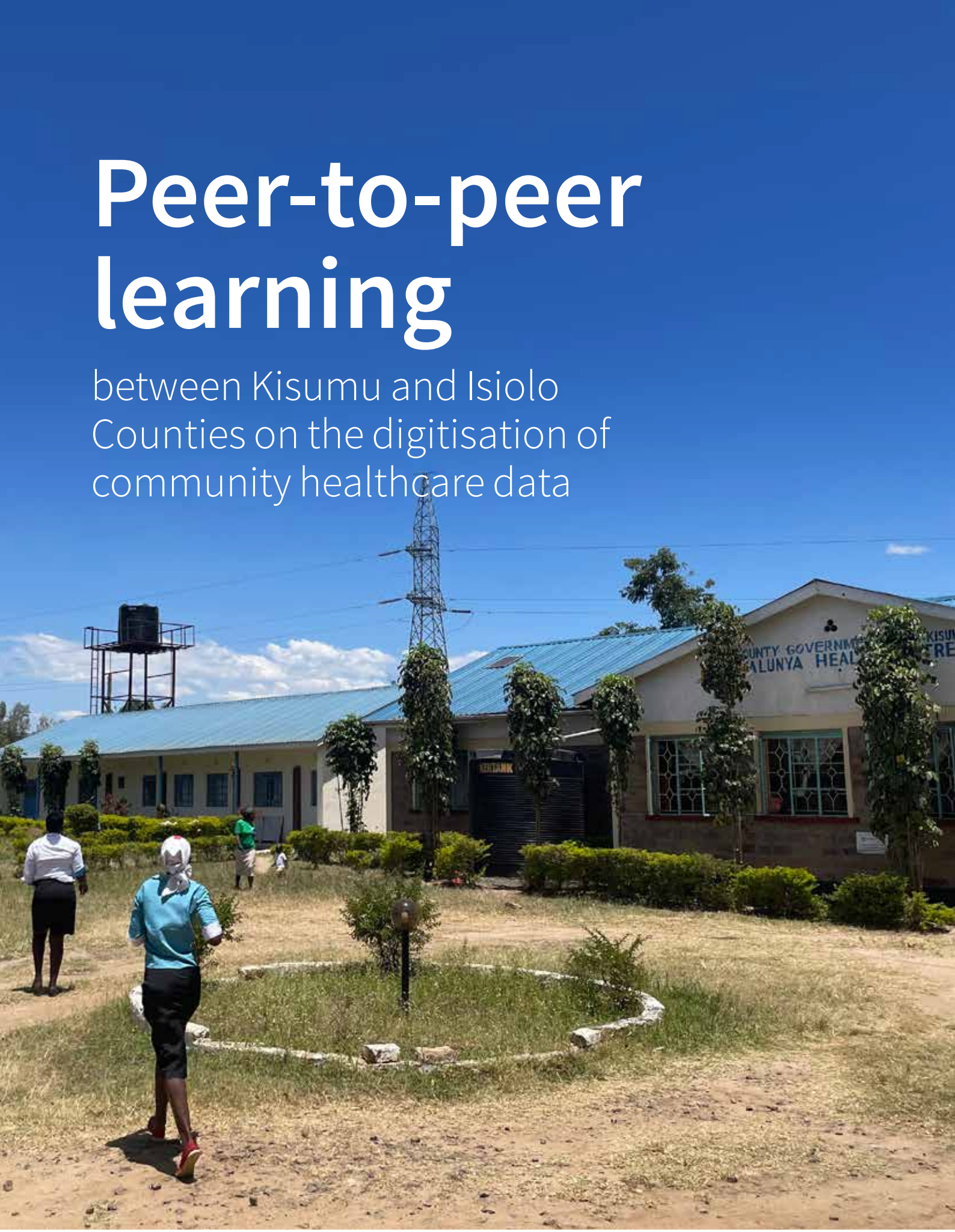
Peer-to-peer learning

between Kisumu and Isiolo Counties on the digitisation of community healthcare data



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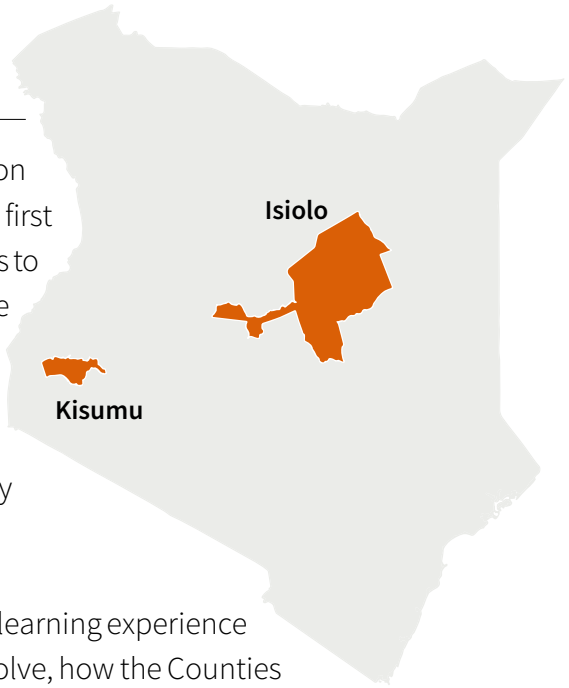
Results & Summary



Kisumu County, Kenya successfully digitised the collection of community healthcare data after learning of a practice first implemented in Isiolo. This has resulted in improved access to referral services for beneficiaries with preliminary evidence suggesting improved health outcomes regarding community health awareness, environment health as well as decreased infant and maternal mortality. This reform also facilitated health profiling and planning for the County Government.

This note presents the process of this peer-to-peer (P2P) learning experience explaining the context, problem(s) the peers sought to solve, how the Counties went about this, lessons learnt, and preliminary results of the reform.

Acknowledgement

We gratefully thank the County Governments of Isiolo and Kisumu who took the time to answer our questions. We are specifically indebted to Maureen Opiyo (County Community Health Services Coordinator – CCHSC – Kisumu), Siad Guyo (CCHSC, Isiolo), Rosebella Amihanda (Head of Primary Health Care, Kisumu), Asha Diba (Deputy Director, Preventive and Promotive Health, Isiolo), Jillo Hapana (Health Records Information Officer, Isiolo) and Sallo Guyo (County Nursing Officer, Isiolo).

Background

The policy architecture established by the Constitution of Kenya (2010) devolved a wide range of administrative, political, and financial functions to the 47 Counties. In the health sector, essential health service delivery, including community health services, is assigned to County Governments, while the National Government retains health policy, technical assistance to Counties, and management of national referral health facilities.

According to the 2017 Kenya Health Act, Level 1 of Kenya's healthcare system refers to community health services that are expected to deliver "primary healthcare services, which includes promotive, preventive and rehabilitative healthcare, including treatment of minor ailments and referrals" (MoH, 2021a: p.12). The adoption of a community-based approach to healthcare was formalised through the 2006 Community Health Strategic Plan as articulated in the National Health Sector Strategic Plan (NHSSP II: 2005-2010).

The World Health Organization (WHO) acknowledges primary healthcare as the gateway to achieving universal health care (UHC). The renewed focus on a people-centred approach in delivery of healthcare will be realised by strengthening community health systems as the first level of the health system. The basic level for administering community health in Counties is the community unit (CU) under the responsibility of a sub-county health management team (SCHMT). According to the standards suggested in the Kenya Community Health Strategy (2020-2025), each CU should cover a population of around 5,000 people, be assigned a Community Health Assistant (CHA) and 10 Community Health Volunteers (CHVs) (MoH, 2021a: p.ii).

CHVs undertake household visits with the aim of "disease prevention and control to reduce morbidity, mortality and disability; provision of family health services to expand family planning, maternal, child and youth services; and promotion of environmental hygiene and sanitation" (McCollum et al., 2016), and provide basic curative tasks for common ailments. Consequently, they refer patients to health facilities and conduct follow-up visits. As CHVs' title indicates, they are volunteers, often incentivized through monthly or quarterly stipends, although specific amounts (if any) differ by County. By acting as intermediaries between "their community and the formal health system" (McCollum et al., 2016), CHVs play a crucial role in engaging communities to provide information and encourage public participation. The CHAs supervise the CHVs in their CUs, motivate them daily, and are responsible for checking healthcare data submitted by CHVs before it is sent to the SCHMT and national health information management system.

While community health is accorded strategic importance in the national policy context, several gaps remain unaddressed. A 2018 evaluation revealed a coverage gap of 41% for CUs, 85% for CHAs, and 17% for CHVs (MoH, 2021b: p.2). At the same time, a high level of geographic heterogeneity exists among Counties in terms of community healthcare coverage and service delivery (MoH, 2021b).

This case study looks at a peer-to-peer (P2P) learning exchange through which Kisumu County, Kenya, digitised the collection of community health data with support from Living Goods (LG)[1] after learning about this practice from Isiolo County. Digitisation of this data constitutes one objective of the Kenya Community Health Strategy (2020-2025), with the final aim being that all 47 Counties digitise the collection of their community health information.

Challenges of using an analogue system

In most Counties, CHVs collect data manually by using an analogue system, which involves a household registration tool, a referral tool, and a logbook that CHVs carry during their household visits. This system presents several challenges.

- **The manual system was unreliable, leading to imprecise data** collection due to lack of monitoring of how CHVs worked and delays in timely data submission. This led to instances of CHVs 'cooking up' data to meet targets. In Isiolo County, some health indicators deteriorated once the first round of digitised data was received, suggesting that data collected prior to the reform was inaccurate.
- **Manual data collection was cumbersome,** as CHVs carried multiple heavy books during their household visits. This also carried a risk of damaging or losing the books. As a result, CHVs often forgot to do household follow-ups, creating gaps in health profiling and making it difficult to verify which households went for their referrals. This lack of regular, person-centric service at the household level meant an increase in preventable conditions, leading to overreliance on curative services which ended up affecting communities' well-being.
- **This system was costly and potentially unsustainable,** given the unpredictable flow of funds to the health department due to ongoing fiscal challenges. The average cost for printing CHV tools is KES 8,674,976 per annum and KES 43,374,880.00 for every five-year cycle.[2] In some instances, the cost is even higher given that Counties have to print multiple tools for each CHV.
- **Community health commodities management was more arduous** as CHAs were unable to accurately track the stock of essential commodities causing supply challenges (e.g., with regard to commodity disbursement and expirations).
- **Health profiling, referrals, follow-up consultations, and planning were difficult** or did not happen in a timely manner due to loss of data or the lack of accurate and timely data. Understanding where, how, and when diseases — communicable or non-communicable — were spreading was difficult.

1 Living Goods is an NGO based in Nairobi that aims to ensure there are digitally empowered community health workers in every community in Kenya.

2 According to the Kenya Literature Bureau Publishers and Printers.

What process did Kisumu County use to learn from Isiolo?

The peer partnership started informally in June 2019, when the Governor of Kisumu County attended a graduation ceremony of over 350 CHVs, held by the County Government of Isiolo with LG and the Ministry of Health (MoH) alongside the Governors of Machakos and Nyeri Counties, which are also pilot Counties for UHC. After this ceremony, a technical team from Kisumu County under the leadership of the County Executive Committee Member (CEC-M) for Health visited Isiolo to explore how the digitisation of data collection could be replicated in Kisumu. Discussions focused on the details of the partnership and its cost implications, the role of CHVs, and how the digital system functions.

In 2020, Kisumu County signed a Memorandum of Understanding (MoU) with LG stipulating the terms of their engagement, including a cost-sharing arrangement in which Kisumu would cover 70% of the budget while LG covers 30%. For comparison, Isiolo County covers 67% while LG covers 33%. This MoU was informed by lessons from Isiolo's experience, the need for greater County ownership and sustainability, and the unique needs of Kisumu County. LG and a team from the MoH supported capacity-building sessions for the Kisumu team in-person and virtually as these occurred during the COVID-19 pandemic. At this point, most learning was done with LG and the National Government rather than with Isiolo County.

Roles and responsibilities in Kisumu County

LG provided phones, tablets and the software (Smart Health app) used on the smartphones by CHVs, monthly dashboards, and the software backend. The Kisumu County Government financed the 12-day training, quarterly payment of KES 2,500/month stipends to CHVs, and provision of CHV kits and commodities.

The reform process in Kisumu

Digitisation of the collection of healthcare data required that CHVs attend a 12-day Integrated Community Case Management training (includes training on the management of stocks and commodities), after which they each get a smartphone and CHV kit containing medicines, a thermometer, a digital tablet, a backpack, and a guidebook. In both Counties, champions were identified among the CHVs so that they could train others who were about to become CHVs, thereby also transmitting their tacit knowledge (e.g., in Isiolo County, some CHVs connected their peers to the Department of Adult Learning, to improve their reading/writing skills). CHVs then went from household to household using the step-by-step instructions on the digital platform. These include when/how to greet families, basic screening for sickness, checking children below age five for under/malnutrition, family planning-related tasks, and when/how to recommend people for referrals. The application also reminds CHVs of their next home visits and instructs them how to give medicines and other commodities. Data from the visits is recorded in real-time in the application and synced monthly, while CHVs' locations are established through geo-localisation.

CHVs update their data in the system[3] monthly, after which CHAs review, check, and correct results for their CU(s) before submitting them to the SCHMT. These are then uploaded to the MoH's electronic community health information system (eCHIS). Once the data is synced, the online platform provides an aggregate analysis of the data through the eCHIS. This dashboard can be viewed remotely, eliminating the need for the CHVs to physically bring the reports to their CHA supervisors. This also allows CHAs to see when their CHVs run out of commodities.

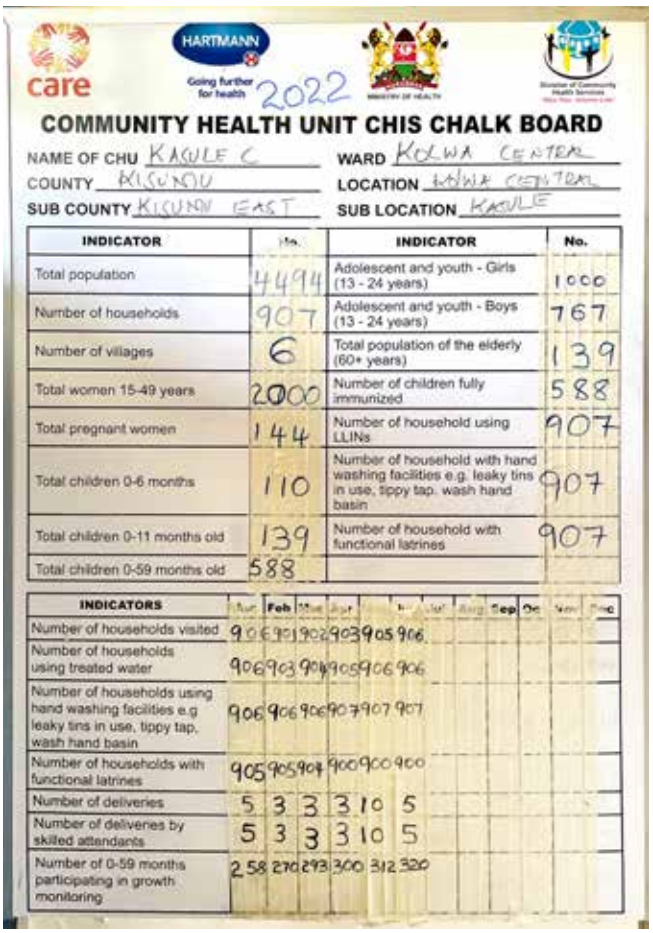
Two-way learning: How Isiolo County learned from Kisumu

Isiolo County benefitted from the P2P exchange with Kisumu by learning about its reform process and observing the characteristics of its CHS programme, including:

- **High motivation among CHVs in Kisumu County,** with volunteers passionate and proud of what they do. This is due to several factors, including CHVs feeling a "calling" (often linked to their religious beliefs) for their work; their enrolment in the National Health Insurance Fund (NHIF), allowing them and their dependents to access health services without out-of-pocket payment; the provision of informal rewards, such as airtime for mobile phones; the carefully thought-out selection process for CHVs; and constant reflection on enhancing their motivation (e.g., Kisumu County is considering providing performance-based incentives for CHVs).

3 Syncing devices in Isiolo County is harder than in Kisumu because network coverage is limited in remote areas due to low population density and security issues, which make telecommunication providers reluctant to invest.

A CHV checking a child for malnutrition in Kisumu



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NAME OF CHU KASULE C
WARD KOLWA CENTRAL
COUNTY KISUMU
LOCATION KOLWA CENTRAL
SUB COUNTY KISUMU EAST
SUB LOCATION KASULE

INDICATOR	No.	INDICATOR	No.
Total population	4494	Adolescent and youth - Girls (13 - 24 years)	1000
Number of households	907	Adolescent and youth - Boys (13 - 24 years)	767
Number of villages	6	Total population of the elderly (60+ years)	139
Total women 15-49 years	2000	Number of children fully immunized	588
Total pregnant women	144	Number of household using LLINs	907
Total children 0-6 months	110	Number of household with hand washing facilities e.g. leaky tins in use, tippy tap, wash hand basin	907
Total children 0-11 months old	139	Number of household with functional latrines	907
Total children 0-59 months old	588		

INDICATORS	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Number of households visited	906	903	902	903	905	906						
Number of households using treated water	906	903	904	905	906	906						
Number of households using hand washing facilities e.g leaky tins in use, tippy tap, wash hand basin	906	906	906	907	907	907						
Number of households with functional latrines	905	905	904	900	900	900						
Number of deliveries	5	3	3	3	10	5						
Number of deliveries by skilled attendants	5	3	3	3	10	5						
Number of 0-59 months participating in growth monitoring	258	270	293	300	312	320						

- **Making CHVs responsible for the phones used for data-collection,** including their loss, repair, and maintenance. This is key as damages to phones and their loss have cost implications for programme rollout and sustainability. After adopting this practice via an agreement made between the County Government and CHVs, Isiolo saw a decrease in damage to and losses of phones.

- **Isiolo also learnt about Kisumu's CHS Act and the gazettement process for this legislation,** which were discussed during regular informal exchanges between CHS Coordinators. This helped spearhead the process in Isiolo County leading to the Act's enactment and implementation. During these exchanges, Isiolo also learnt that CHVs in Kisumu are included in the NHIF, and decided to incorporate this practice in their own CHS Bill. However, a change in the CHS point person in Kisumu affected these exchanges because information had been communicated over the phone without written records, reinforcing the need to create systems that maintain institutional memory.

- **CHV monthly meetings** were another practice incorporated by Isiolo County. These meetings help identify performance challenges, best practices, and provide a platform to discuss points for redress.

Results of the reform

Timeliness and data accuracy have improved health profiling (e.g., disease surveillance) and planning in Kisumu County, as CHS can better monitor the health status of community members in real-time and tailor interventions to community needs. Initial anecdotal evidence from Isiolo County, where there have been improvements in referrals to facilities and environmental health (e.g., open defecation), and decreases in infant/child mortality and health awareness among communities, suggests that these can be attributed in part to digitisation. In the long-term, both Counties suggest it is crucial to ringfence CHS funds by passing legislation (e.g., CHS Act) to ensure that funds allocated for community health are spent in this area.

A randomised control trial comparing County sub-units working with digitised CHVs and those working with non-digitised CHVs is being finalised by LG with the Kisumu County Department of Health. The study assesses the multi-pronged intervention's overall impact on the performance of CHVs and on maternal, new-born, and child health outcomes.

Success factors for institutional reform in Kisumu County

- **High level of political stewardship** in the reform process, including by the Governor, with improvements for CHS (such as the inclusion of CHVs in the rollout of NHIF) featuring in his 2017 election manifesto.[4] Digitisation of CHS also falls under the performance contract of the CEC-M for Health, who is a doctor and technocrat. In addition, a **high level of County ownership** manifested in the partnership with LG in terms of financial commitment and implementation.
- **High absorption capacity for the digitisation reform** into the Kisumu CHS system. This is due to adequate staffing levels and existing capacities as the County has a **high level of coverage by CHVs** (95%) **and health facilities,** which are for the most part within a 5 km radius, close to the WHO recommendation.[5]
- **Low attrition rate of CHVs,** with retention facilitated by a rigorous CHV selection process done jointly by CHAs and the community through public meetings (*barazas*[6]) involving village elders and local chiefs, and selection criteria established by the County Government. Strong community participation in community health is also seen as important.

Other resources for P2P learning about community health[7]

- An AMREF Health Africa-Council of Governors P2P learning event (with presentations from different Counties) and a field visit convened 13 Counties in Kisumu in July 2022 to help in the process of developing a CHS and Facilities Improvement Financing Bill as well as learn about the digitisation of community health services. All have either enacted or are in the process of enacting a CHS and Facilities Improvement Financing Bill to give effect to digitisation and to provide financing for CHS activities. Consequently, the Counties created a WhatsApp group for regular exchanges about best practices in CHS implementation.
- A national WhatsApp group for CHS is used to communicate important information from the MoH to the Head of Community Health Services and all 47 County Community Health Services Focal Persons (CCHSFPs) and Division staff.

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4 "Support CHVs by giving them monthly stipend and paying NHIF contribution for them and their families."

5 Conversely, the average distance between health facilities in Isiolo County is 42 km. Given its low population density, mobile clinics are an innovative potential solution to reach pastoralist communities in Isiolo.

6 *Baraza* is a Kiswahili word meaning a public meeting. In Kenya, these meetings are used as a platform to disseminate information to the community, create awareness, respond to issues, and give citizens the opportunity to identify and propose solutions. Chiefs/assistant chiefs at village level are part of the National Government coordination delivery unit and are tasked with sensitising locals about government programmes.

7 P2P learning done without involvement or facilitation by the Effective Institutions Platform.

- National Forums convened by the Division of Community Health (e.g., showcase on eCHIS).
- The Kisumu County CHS case won an award at the 3rd Community Health Workers symposium in Liberia. Kenya was recognised among 12 countries in Africa with a clear road map towards formalizing and improving community health.
- UNICEF supported Kisumu County to showcase the eCHIS app and how it is used, and highlight lessons learnt and best practices at a Community Health Learning Symposium.

References

Documents

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Effective Institutions Platform

The Effective Institutions Platform (EIP) is an alliance of over 60 countries and organisations that support country-led and evidence-based policy dialogue, knowledge sharing and peer learning on public sector management and institutional reform. The purpose of the EIP is to contribute to the achievement of SDG16 and to advance the aid effectiveness agenda by serving as a global knowledge hub on peer-to-peer (P2P) learning approaches, and alternative and innovative approaches to public sector reform and institutional development.

The Council of Governors (CoG) is a Kenyan intergovernmental relations body established in the context of devolution and the establishment of the 47 County Governments which acts as a forum for sharing information on the performance of Counties in the execution of their functions with the objective of learning and promoting best practice, and where necessary, initiating preventive or corrective action. The Maarifa Centre acts as the knowledge and learning hub of the CoG. It documents and shares best practices emerging from County Governments and facilitates peer learning amongst County Governments on the implementation of their functions.

Effective Institutions Platform 2023