

Implementation of the Integrated Community Case Management and the Maternal - Child Health Outcomes in Busia County, Kenya



Problem

Kenya still bears a high burden of under-five mortality from preventable causes attributable to common childhood illnesses like pneumonia, diarrhea, and malaria. These conditions are not only preventable, but their appropriate management is one of the most cost-effective interventions for reducing the disease burden. With health workforce challenges continuously affecting service delivery in Kenya, many children continue to die unnecessarily due to poor access to treatment for malaria, pneumonia, and diarrhea.



Solution

The implementation of Integrated Community Case Management (iCCM) is identified as a key opportunity to address the challenge of controlling and managing childhood illnesses at the community level. This evaluation aimed to provide essential evidence on iCCM as a solution to the common leading causes of child mortality in Kenya.

In **Busia County**, the iCCM Project empowered CHWs (commonly referred to as community Health Promoters (CHPs) in Kenya) to deliver iCCM and other Maternal Neonatal and Child Health (MNCH) interventions through a digital platform integrated into their regular service provision. The intervention was based on the DESC (Digitally enabled, Equipped, Supervised, and Compensated) approach, ensuring that CHWs are equipped with digital tools, essential medicines, diagnostic tools, necessary training, supervision for accountability, and adequate compensation to motivate and empower them.

CHWs, equipped with these resources, conduct door-to-door visits in their communities to educate, assess, and treat children under five for malaria, diarrhea, and pneumonia; track and refer them for lifesaving immunizations; and support women of childbearing age in pregnancy care and family planning.

The overall objective was to evaluate the contribution of the iCCM program in increasing coverage, and appropriate treatment of malaria, diarrhoea and pneumonia for children aged below two years, as well as coverage of other key maternal and child health intervention.

CHW Consolata Namukuru educates Gladys about health in pregnancy in Mundulisia village, Busia County.



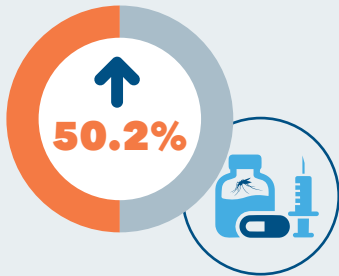


Findings

This Factsheet presents synthesized data and information on ICCM program carried out between 2017 and 2022 in Nambale Sub County, the intervention site and Teso South Sub County, comparison site. The content was drawn through a quasi experimental and trend studies approach.

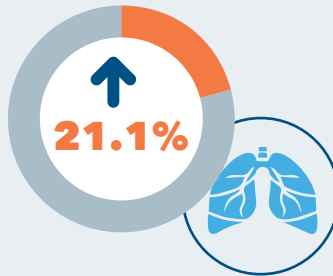
1.

Improved care-seeking and access to appropriate treatment for malaria, pneumonia, and diarrhea:



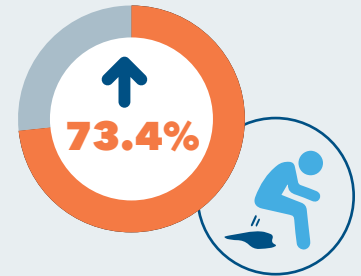
MALARIA

Care-seeking and access to appropriate malaria treatment improved by **50.2%**, with increased prompt care-seeking and rapid diagnosis and treatment on the same day of fever onset. Malaria testing coverage increased by **24%**, with CHWs contributing to **45%** of testing at endline.



PNEUMONIA

The prevalence of cough/pneumonia was significantly lower in the intervention area (**15.4%** vs. **27.6%**). Care-seeking for cough/pneumonia symptoms increased by **21.1%**, with CHWs contributing to **13.2%** of care-seeking.

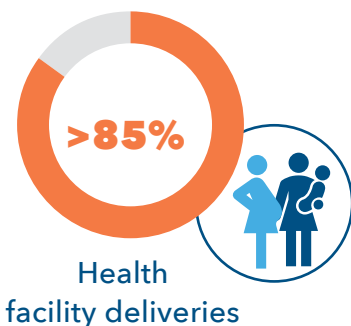


DIARRHEA

The prevalence of diarrhea was lower in the intervention area (**13.1%** vs. **17.4%**). Care-seeking for diarrhea symptoms was significantly higher in the intervention area (**73.4%** vs. **53.9%**). However, some caregivers expressed concerns about occasional stock-outs of iCCM commodities with CHWs.

IN SUMMARY

The implementation of the Integrated Community Case Management (iCCM) program in Busia County, Kenya, has led to improved care-seeking and access to appropriate treatment for common childhood illnesses. The contribution of community health volunteers in service provision and the community's engagement have been critical to these improvements.

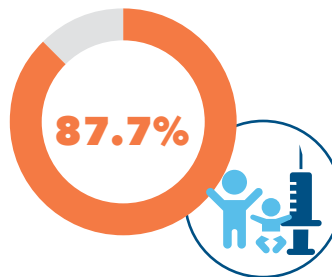


Health facility deliveries

Antenatal care, CHV advice, facility delivery and post-natal care

Most women began ANC visits in the second trimester, with **11.2%** more in the intervention site. The proportion of women with four or more ANC visits was slightly higher in the comparison site (**70.8%** vs. **67.5%**), though not statistically significant.

Health facility deliveries were **above 85%** slightly exceeding the KDHS 2022 findings for Busia County (**83.7%**). CHW visits within 48 hours of birth were significantly higher in the intervention site, nearly tripling (**44.8%** vs. **14.3%**). Qualitative findings from caregivers in the intervention site further highlighted the positive impact of CHWs in providing ANC support, facility delivery, pregnancy visits, and advice on danger signs.







Trends analysis for key maternal and child health outcomes in Nambale, 2017-2022 shows that while ANC attendance for at least one visit remain high throughout the intervention period, the proportion of women who attained the recommended 4+ ANC visits increased midway but fell slightly at the end. However, health facility delivery, malaria prophylaxis during pregnancy, fully immunized status showed progress over the years.

Child immunization

Data on vaccination coverage was obtained from written records, including the mother and child health handbook, and from mothers' verbal reports. A slight variance (2.4%) of vaccination record was observed. Immunization coverage, defined as children aged 12-23 months fully vaccinated according to the national schedule, was at **87.7%** in both sites. Caregivers acknowledged receiving advice from CHWs on the importance of immunization and reminders, contributing to the high proportion of immunized children through health promotion and education.

2. iCCM intervention enhanced CHWs skills and competency using the digital health application

The intervention provided: -

<p>01 </p> <p>Case Management and Decision Support: CHWs were guided by interactive algorithms and decision trees for assessing and treating common childhood illnesses, with real-time guidance and alerts for urgent referrals.</p>	<p>02 </p> <p>Digital Records and Reporting: Electronic health records maintained for each community member, enabling CHWs to track health history, treatments and follow-ups, while automated data collection ensured accurate and timely reporting to health authorities.</p>	<p>03 </p> <p>Training and Educational Resources: CHWs accessed training modules and interactive content to refresh and enhance their skills, with monthly sessions to ensure up-to-date knowledge and adherence to best practices.</p>	<p>04 </p> <p>Target-Based Incentives: The digital health application facilitated a target-based incentives approach, motivating CHWs to achieve their performance goals and fostering a sense of ownership and commitment among them.</p>
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Learnings and best practices from the iCCM intervention

- a) The relevance of the iCCM intervention was demonstrated and it also aligned with the community health strategy and county health priorities. Its role in bridging the gap between community and health services, reducing link facility workloads, and improving health outcomes was affirmed.
- b) Key achievements and best practices from this intervention: Digital reporting; Integrated workflows; Real time data reporting, quality checks and support; Data safety and reduced paperwork bulk; ensured commodity availability: Facilitated Busia County Community Health services Act; Contributed to development and modification of the Electronic Community Health Information System (eCHIS); Consistent CHW monthly refresher training; Remote supervision; Joint support supervision and data reviews; Target based incentives.
- c) Sustainability concerns were highlighted by insufficient ownership from the community and county government, as well as inadequate capacity and resources to maintain iCCM activities and outcomes post-funding. These areas include CHW incentives, digital health applications, consistent supervision, monthly refresher trainings, and commodity supply.
- d) Challenges and missed opportunities included CHW coverage and their allocated household imbalances, some caregivers stated that they had not interacted with a CHW, confirming the imbalance of CHWs and allocated households; CHWs data disparities between LG and KDHS as a result of varying context and lack of synergy among partners.



Conclusion

The iCCM Program in Busia County significantly contributed to community health, particularly in managing childhood illnesses such as malaria, pneumonia, and diarrhea. It demonstrates the profound impact of integrating digital tools into the routine service provision of CHWs, improving access to and quality of care and enhancing CHWs' capabilities and efficiency. It also offers valuable lessons and best practices for similar interventions globally, emphasizing the importance of sustainable, community-centred approaches to health service delivery. However, sustainability remains a critical concern, with the program's impact at risk without sufficient community and government ownership and ongoing resources. ■