Background and Study Objective

Kenya has adopted universal healthcare to ensure that all persons can access essential healthcare services through a single unified benefits package without the risk of financial catastrophe. As part of this commitment, national and county governments have launched several pilot health insurance programs to inform the rollout of universal healthcare at the national level. One such program is Makueni Care, a community-based universal health coverage program launched in 2016 with the goals of improving access to healthcare services for residents and complementing other insurance programs in the county.

In 2019, the county government of Makueni, with the support of the Health Policy Plus (HP+) project funded by the U.S. Agency for International Development (USAID), conducted an evaluation of the Makueni Care program to identify learnings on program performance and implementation challenges and to inform expansion of the program and possible rollout of similar programs in other Kenyan counties. The evaluation aimed to answer these questions:

1. Was Makueni Care effective in increasing program coverage among households in Makueni County?
2. Did Makueni Care improve access to healthcare services for its members?
3. What was the perception of Makueni Care members on the quality of healthcare services provided under the program?
4. Did Makueni Care make hospital services more affordable for its members at the point of access?

Makueni County Health Financing Profile

In fiscal year (FY) 2017/18, Makueni County’s health expenditure from all sources (government, donors, corporations, and households) was 4.9 billion Kenyan shillings (KES) (USD 47.5 million). Makueni County’s per capita health expenditure of KES 4,999 (USD 48.50) was lower than the FY 2018/19 national per capita spending of KES 10,703 (USD 105.8) (MOH, unpublished). The World Health Organization in 2018 recommended per capita expenditure of USD 86 to enable provision of a basic package of care (Rottingen et al., 2014).

Most of the funding for healthcare expenditure in Kenya came from government (49.8 percent) and household out-of-pocket payments (26.1 percent) shown in Figure 1 (Government of Makueni, 2021). While the share of household premiums paid to insurance constitute a small percentage of total health expenditure (1.7 percent in FY 2017/18), total insurance coverage in the county has been slowly increasing.

In 2018, among Makueni County’s population of 987,653 (KNBS, 2019), the Kenya Household Health Expenditure and Utilization Survey found that 16.5 percent of individuals had medical insurance, an increase from 8.8 percent in 2013 (MOH, 2018). Of those covered, 56.6 percent were insured under the National Health Insurance Fund (NHIF) scheme, 33.6 percent under any existing county scheme,¹

¹ The survey did not include an option for respondents to select that they were enrolled in Makueni Care.
and 13.3 percent were covered by a community-based health insurance scheme (MOH, 2018).

The relatively low health insurance coverage and high out-of-pocket expenditure incurred by citizens of Makueni County, plus the money spent on drugs, on inpatient and outpatient care, and on laboratory and radiation procedures, prompted the county government to establish the Makueni Care program. The aim of the program was to reduce direct costs and out-of-pocket expenditure and to increase health coverage for the county’s residents (Government of Makueni, 2016).

About Makueni Care

Makueni Care is a community-based health insurance program launched in October 2016 for residents of Makueni County with the aim of guaranteeing access to health services for its members. The scheme was initially piloted to provide healthcare for all citizens over 65 years of age. Following its success, the county undertook efforts to scale up the program to cover all households in Makueni County (Government of Makueni, 2016). This scheme is meant to complement other existing schemes such as the NHIF. As has been done for most community-based health insurance schemes across Africa, the residents of Makueni County participated in conceptualizing the scheme, identifying the high cost of services as a significant barrier to accessing healthcare.

Contributions to the scheme: An integral aim of the program was to ensure that Makueni Care provides access to quality health services at participating county hospitals at an affordable cost to county residents. Households can access healthcare services at an annual premium of KES 500 (USD 4.87), significantly lower than the monthly premium of KES 500 that households pay to the NHIF. Revenue from program premiums is deposited into the County Social Services Fund, supplementing existing county allocations to health (Government of Makueni, 2016). Enrolled residents can then access high-quality health services, which are paid for by the fund and, for specific services, a member co-pay.

Benefits package: Makueni Care covers a range of outpatient and inpatient services. Family planning and maternal and child health services covered under the NHIF Linda Mama scheme are not included in Makueni Care. Instead, public facilities are encouraged to register expectant women in Linda Mama and to claim a reimbursement from the program through the NHIF scheme (Murira et al., 2019). Services excluded from the Makueni Care benefits package are paid for out of pocket at the point of service. Figure 2 summarizes the benefits package for Makueni Care members.

Population covered: Membership is open to residents of Makueni County and people from other parts of the country who show proof of residing in Makueni County for six continuous months. In 2016, the scheme was piloted to cover citizens over 65 years of age to enable access to healthcare at no cost. Following a successful pilot, the county expanded the scheme with the aim of enrolling 80 percent of households in Makueni County, as indicated in the County Integrated Development Plan 2018–2022. Since FY 2016/17, the program has gradually increased enrollment (see Figure 3).

Makueni Care providers: In FY 2019/20, the Makueni Care program was available in nine public
hospitals: eight level 4 facilities and one level 5 facility. The level 4 facilities (sub-county hospitals) include Kibwezi East, Kilungu, Kisau, Makindu, Matiliku, Mbooni, Sultan Hamud, and Tawa hospitals. The level 5 facility offering Makueni Care services is Makueni County Referral Hospital (Murira et al., 2019).

**Eligibility and registration into the scheme:**
Registration of beneficiaries and their dependents is done in-person at the facilities or during campaigns organized by the County Department of Health. Beneficiaries aged 65 years and above do not pay the annual premium unless they have dependents. Upon registration, households—typically including a principal member; spouse; and, on average, three dependents—receive a unique identification number and a single card with all beneficiaries listed. Membership renewal is not automatic and is renewed upon paying the annual membership fee of KES 500. The process of membership renewal is manual and requires the member to physically visit a facility or renew during enrollment campaigns.

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2 Level 4 facilities offer a wide range of services including curative, rehabilitative, preventive, and promotive health services while providing clinical supervision support to lower-level facilities. Level 5 facilities provide training for health workers, referral services for specialized and curative care, internships, and management and coordination support to lower-level facilities.
Members can seek healthcare services at any in-network Makueni Care facility. After the provision of services covered under the benefits package, the facility generates a bill and stamps it “paid.” The member does not make any payment at the point of service. Facilities then create an invoice for reimbursement and submit it to the county at the end of each month.

Methodology

The Makueni Care evaluation employed a mixed-methods approach, using both qualitative and quantitative methods to obtain data. A study questionnaire was designed and administered to collect data during facility exit interviews with members and non-members of the Makueni Care program. Data were also collected through key informant interviews with county government and facility staff and through the review of facility records.

The evaluation’s target population was drawn from facilities offering Makueni Care services and, for comparison, from public and private peer facilities that did not offer Makueni Care services. Purposive sampling was employed to identify facilities to participate in the evaluation. A sample of 20 facilities (nine Makueni Care providers and 11 non-Makueni Care providers) was selected.

To measure coverage, the study sought to establish the number of households enrolled under Makueni Care relative to the total number of Makueni County households targeted for enrollment. Information on household enrollment in Makueni Care was obtained from published Makueni Care records and published briefs on Makueni Care. In addition, the study reviewed the registration process and asked non-Makueni Care patients their reasons for not enrolling in the scheme.

The study reviewed Makueni Care facility records to measure access to services and identify trends in the use of outpatient and inpatient services. The findings from facility records were corroborated through interviews with key informants and exit interviews with patients to get their perceptions on access.

Quality of care was assessed based on members’ perceptions of the scheme, its services, and its healthcare providers. The study measured perceived healthcare quality in terms of availability of drugs and human resources for health, infrastructure, and hospital equipment. Some of these indicators, such as availability of drugs, have been used as healthcare demand indicators (Mwabu et al., 1993). These selected indicators are also used to assess service readiness in studies that measure quality and availability of healthcare services (MOH, 2019).

To determine perceived affordability, Makueni Care members were asked about costs covered by the scheme (including inpatient services) and barriers to Makueni Care membership renewal.

Ethical consideration approval: Given that the study collected primary data directly from patients, ethical approval of the study protocol was provided by the Kenyatta National Hospital – University of Nairobi Ethics and Research Committee.

Limitations: There was a scarcity of literature due to limited prior research on the Makueni Care program that would have been relevant to the study. The exit surveys were conducted in facilities, meaning that only patients seeking services in facilities were interviewed, leaving room for selection bias. Key informant interviews were conducted with members of the County Health Management Team and staff of Makueni Care facility providers, which may subject the findings to bias.

Key Findings

Was Makueni Care effective in increasing the program’s coverage among households in the county?

Enrollment data show that the program has progressively increased its coverage in the county. Out of a target of 200,000 households, Makueni Care had enrolled about 56.8 percent of households (113,500) in 2022 (Makueni County, n.d.). Interview respondents indicated that registration in the program was simple and efficient, with 83 percent having no difficulties

3 If drugs are unavailable, the member must pay out of pocket at a private pharmacy.
During the process. The 17 percent who reported challenges cited lack of necessary documentation (74 percent), lack of understanding about the registration process (15 percent) and lack of support to guide them through the process (11 percent).

There is overlap in enrollment in Makueni Care and other insurance schemes in the county. While a key objective of the program is to complement other existing programs in the county, data show that about a quarter of Makueni Care members (26 percent) were enrolled under the NHIF and other private and employee-sponsored schemes.

**Did Makueni Care improve access to healthcare services for its members?**

There has been a significant increase in access to and utilization of both outpatient and inpatient services. Analysis of facility records show a four-fold increase in utilization of outpatient services from Makueni Care providers. In contrast, utilization of outpatient services among non-Makueni Care providers decreased during the same time (see Figure 4). Inpatient service utilization in Makueni Care facilities has also increased significantly. Utilization of inpatient services increased by 100 percent year-on-year, reaching a total of 12,248 visits in 2018 (see Figure 5). Interviews with key informants corroborated the findings of the facility records. More than half of respondents (56 percent) reported making increased hospital visits after the introduction of Makueni Care.

Data also show that referral services to Makueni Care facilities increased by 1,176 percent from 2016 to 2018 (see Figure 6), including referrals from traditional birth attendants. The increased referrals, especially from traditional birth attendants, imply increased promotion of Linda Mama, more willingness from lower-level facilities and patients to use hospital-based services, and improved perception of public services that are offered in Makueni Care facilities.

The increase in access to and utilization of health services across Makueni Care facilities is a strong indication that Makueni County
residents are using more hospital services than before. The increase also means that Makueni Care facilities are responding to a significantly higher demand for health services, which may lead to overutilization of services and a corresponding overstretching of existing resources and a probable underutilization of services at lower-level facilities. While empirical evidence was not available to support this assumption, key informants from facilities reported that the introduction of the Makueni Care program has led to an increase in the workload for Makueni Care providers and overstretching of existing facilities. The county has responded to this trend by introducing incentives, such as paid overtime hours for facility staff, hiring additional workers on short-term contracts, and introduction of substitute staff.

Increased access to hospital services has also increased Makueni Care members’ travel distance for care. Interview responses show that members travelled an average of 15 kilometers to reach the nearest Makueni Care hospital, compared to a county average distance of 6 kilometers to the nearest health facility (Government of Makueni County, 2018). Increased travel distance affects the time needed for patients to get to a Makueni Care hospital as well as associated travel costs.

**What is the perception of Makueni Care members on the quality of healthcare services provided under the program?**

The majority (80 percent) of Makueni Care members interviewed believe the quality of care has noticeably improved since the program began operating. Respondents reported increased availability of staff, improved responsiveness to their health needs, reduced wait times, and the availability of required medical equipment and drugs. About 98 percent of Makueni Care members interviewed said they did not pay for drugs prescribed and were able to fill their prescription at no cost at the point of service.

Makueni Care providers reported increased investments in capital infrastructure and equipment since the inception of the program. To improve infrastructure, each facility is required to use 30 percent of its quarterly budget allocation on development and procurement of hospital equipment. Providers interviewed reported that Makueni Care had benefitted hospitals through acquisition of medical equipment, which has enhanced service delivery and improved the quality of care. This finding is supported by the increase in resources spent under the development budget in FY 2017/18 (MOH, 2021).

**Did Makueni Care make hospital services more affordable for its members at the point of access?**

Household out-of-pocket payments were the second-largest contributor to health expenditures in Makueni County, accounting for 26.1 percent of total health expenditure in FY 2017/18 (Government of Makueni, 2021). While this is a decline from 34.9 percent in FY 2013/14, the residents of the county bear a significant financial burden to access health services.

As mentioned previously, Makueni Care was designed in response to households’ high out-of-pocket expenditures. It provides access to both inpatient and outpatient health services at an affordable cost—annual premium of KES 500 (USD 4.87)—that complements the benefits provided by other health insurance schemes such as the NHIF, which has an annual premium of KES 6,000 (USD 58.44). Given that a majority of Makueni residents (73 percent) earn less than KES 10,000 per month, an insurance program that offers access to promotive, preventive, curative, and rehabilitative health services at a low premium rate was perceived as attractive and affordable to county residents.

When asked about noticeable changes in household healthcare spending for inpatient services since enrollment in the Makueni Care program, 97 percent of respondents reported lower spending on health. Nearly 80 percent of the respondents reported that Makueni Care covered all their healthcare costs; 10 percent indicated that part of their bill was paid; and 10 percent were not sure of the amount paid. When asked about the specific amounts the scheme covered, responses varied and ranged from less than KES 2,000 to more than KES 15,000 (see Figure 7), which is more than the average monthly income of a county resident.

Key informants from county government reported that healthcare facilities experienced more delays getting reimbursement from Makueni Care than from the NHIF. However, Makueni Care was more responsive to follow-up on reimbursement
underutilization of services at lower-level facilities. Moreover, increased utilization of hospital services has increased patients’ travel time to an average of 15 kilometers to reach the nearest Makueni Care hospital, compared to an average of 6 kilometers to reach the nearest health facility of any type.

• Members’ perception of quality of care remains positive. Respondents reported noticeable positive changes in the availability of medical personnel, improved responsiveness to their health needs, reduced wait times, and increased availability of medical equipment. This perception is also reflected in the county’s increased investment in capital infrastructure and equipment since the inception of the scheme.

• Members’ perception of quality of care remains positive. While empirical data on affordability of health services was not available during data collection, 80 percent of those interviewed indicated that their health expenditures had been paid by the scheme in full. Data collected from respondents show that the scheme covered medical bills ranging from less than KES 2,000 to more than KES 15,000. However, reimbursement from Makueni Care is relatively slower than from NHIF.

Based on the findings, HP+ makes the following recommendations:

• Despite a considerable increase in Makueni Care’s enrollment, overall insurance coverage in the county remains low. The county health department and administrators of Makueni Care need to put more effort into expanding insurance coverage for hospital services and services provided at lower-level facilities,
where most primary health services are provided.

- The county needs to carefully balance the demand for health service between levels one, two, and three, and between levels four and five. Increased utilization of level 4 and level 5 hospital services is a step forward for health needs that cannot be met by lower-level facilities. However, increased utilization of hospital services for primary healthcare needs is not a cost-effective approach and may create cascading negative effects. Appropriate incentives need to be designed in conjunction with more investment at primary care facilities to ensure efficiency, affordability, and better health outcomes.

- The evaluation has highlighted existing overlaps between Makueni Care coverage and coverage by other insurance programs such as the NHIF. The county needs to clearly define the complementary role of Makueni Care benefits to the NHIF to minimize duplication, fragmentation, and inefficiencies in pooling of resources.

- The Makueni Care provider payment mechanisms should be strengthened to reduce delays in reimbursements for services and to avoid interruptions in health provision.

- The county should invest in an information system to facilitate remote enrollment, remote membership renewal, and data collection and generation for the scheme.

References


Makueni County. n.d. “About Makueni Care.” Available at: https://makuenihealth.go.ke/.


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