RESEARCH, DATA & EVIDENCE REPORT

Kenya Household Survey: A Socioeconomic & Wellbeing Study (2022-2026)

Prepared By: Sharon Nyabuto – Research & Data Analyst

Report Date
June 2026

Data Collection Period
January 2022 - December 2025

EXECUTIVE SUMMARY

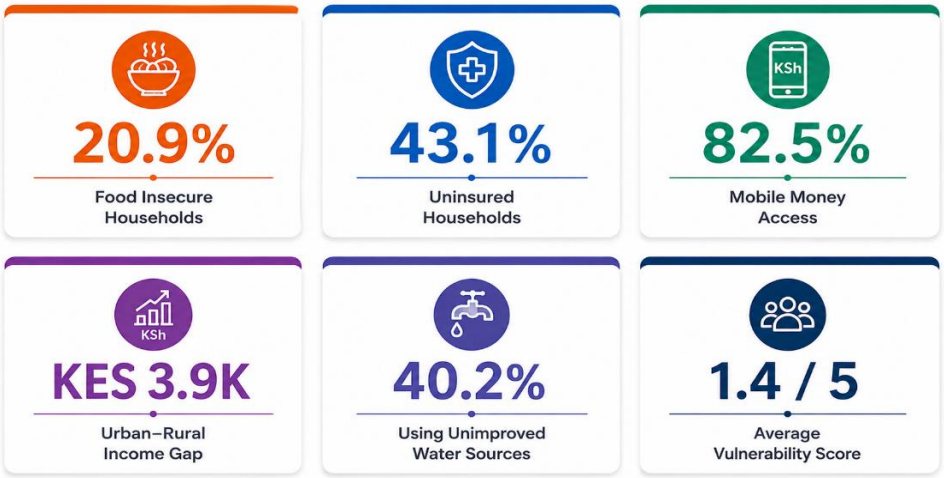
This report presents findings from a household survey conducted across **9,420** households in **12 Kenyan counties**, providing an assessment of household level socioeconomic conditions, service access, financial inclusion, food security and multidimensional vulnerability. The analysis integrates quantitative household data across six thematic domains to identify patterns of inequality and highlight geographic disparities that can inform evidence-based planning, program design and resource allocation.

The survey was undertaken through a complete end-to-end analytical workflow, including questionnaire design, data preparation and analysis, dashboard development and data visualisation. Household outcomes were examined across six thematic domains to identify geographic and socioeconomic disparities affecting household wellbeing.

The findings reveal disparities across counties and residence types, highlighting the need for geographically targeted interventions that address multiple dimensions of household wellbeing simultaneously.

Key Findings at a Glance

The survey identified six headline indicators that summarise household wellbeing across the study area. These metrics provide an overview of the principal socioeconomic challenges and opportunities observed among surveyed households.



Interactive dashboard

This report is accompanied by an interactive Power BI dashboard that provides detailed, filterable analyses across all thematic areas. Readers are encouraged to use the dashboard to explore county-level findings and residence-type comparisons in greater detail.
Dashboard: link

1. STUDY BACKGROUND AND METHODOLOGY

1.1. Background and Rationale

Unlike administrative datasets that often focus on a single sector, household surveys enable integrated analysis of demographic characteristics, livelihoods, income, health, WASH conditions, food security and financial inclusion. This multidimensional perspective supports more effective programme targeting, policy development and monitoring by identifying populations experiencing overlapping forms of disadvantage.

It is against this backdrop that this study analyses data from 9,420 households across 12 Kenyan counties to examine household wellbeing across six thematic domains: demographic profile, economic profile, health and WASH, food security, financial inclusion and multidimensional vulnerability. The findings provide evidence on geographic and socioeconomic disparities while identifying households and counties requiring priority intervention. Through the construction of a Multidimensional Vulnerability Index (MVI), the study further demonstrates how multiple dimensions of deprivation intersect to influence household wellbeing and resilience.

1.2. Study Objectives

i. Describe the demographic and socioeconomic characteristics of surveyed households.
ii. Assess household economic wellbeing through income distribution, livelihoods and employment patterns.
iii. Evaluate access to healthcare and WASH services.
iv. Examine household food security across counties and income groups.
v. Assess levels of financial inclusion using mobile money access and related indicators.
vi. Develop a Multidimensional Vulnerability Index (MVI) to identify households experiencing overlapping socioeconomic disadvantages.

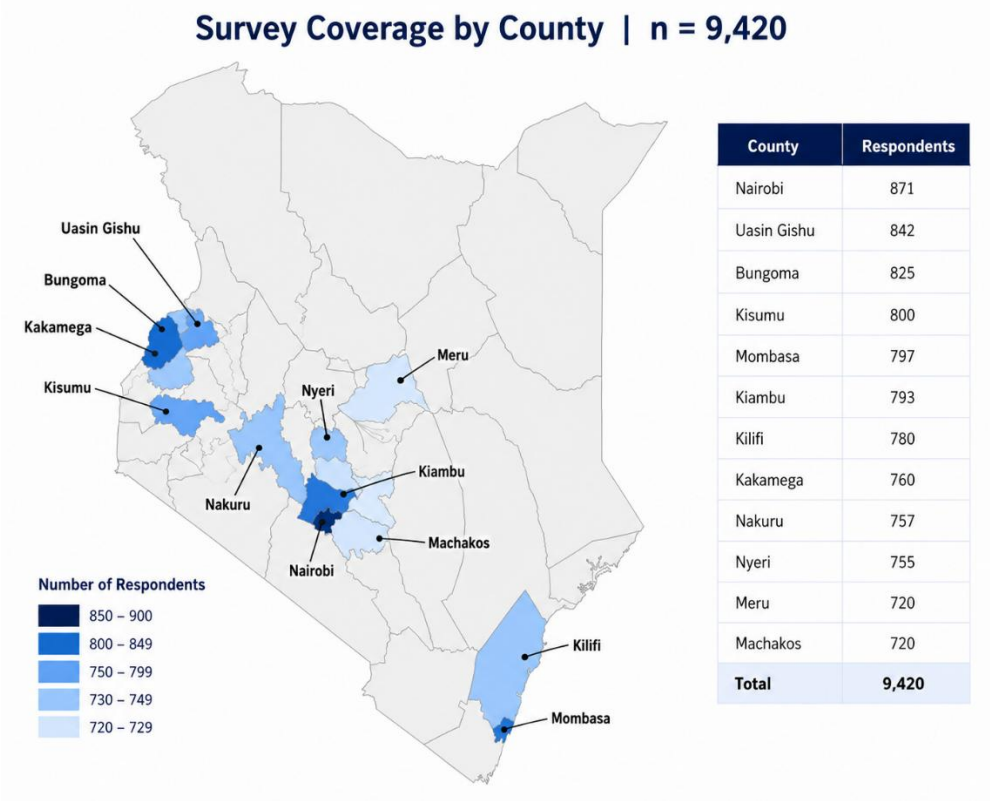
1.3. Study Sample

The analysis was conducted using household survey data from 12 Kenyan counties selected to represent diverse geographic and socioeconomic contexts, including predominantly urban, peri-urban and rural settings.

County sample sizes were maintained at relatively comparable levels, ranging from approximately **720** to **871** households per county. The final dataset achieved an equal distribution of male and female respondents, providing balanced representation for gender-based analysis throughout the study.

The survey period spanned Kenya's transition from the National Health Insurance Fund (NHIF) to the Social Health Authority (SHA) on 1 October 2024. Respondents interviewed before the transition remain classified under NHIF, while those surveyed afterwards may appear under SHA or remain uninsured. No attempt was made to reclassify NHIF records, ensuring that insurance status accurately reflects respondents' reported coverage at the time of data collection.

1.4. Study Area



County	Respondents
Nairobi	871
Uasin Gishu	842
Bungoma	825
Kisumu	800
Mombasa	797
Kiambu	793
Kilifi	780
Kakamega	760
Nakuru	757
Nyeri	755
Meru	720
Machakos	720
Total	**9,420**

Figure 1. Geographic Distribution of Surveyed Counties.

1.5. Methodology

The study adopted a quantitative cross-sectional survey design using structured household data collected from household heads or adult household representatives. Data preparation, analysis and reporting followed an end-to-end analytical workflow involving 5 phases:

Phase	Method/Tool	Description
Data Collection	Kobo Toolbox / ODK	Household-level data were collected using a structured questionnaire administered to household heads or adult representatives.
Data cleaning and preparation	PostgreSQL	Survey data were cleaned by removing duplicates, handling missing values, standardising categorical variables and preparing an analytical dataset for reporting.
Data Analysis	PostgreSQL	Forty analytical SQL queries were developed using Common Table Expressions (CTEs), window functions and conditional aggregation to generate thematic summaries in the form of views
Visualization	Power BI	

		Interactive dashboards were developed using Power BI to present findings through relevant analytical visuals across six thematic sections.
Reporting	Analytical Reporting	Results were synthesised into a structured report highlighting key findings, geographic disparities and evidence-based recommendations.

1.6. Ethical Considerations

- Household information was analysed in aggregate, ensuring that no personally identifiable information was disclosed.
- Survey data were used solely for analytical and reporting purposes.
- Findings are presented at county and household-group level to protect respondent confidentiality.
- The analysis adheres to principles of responsible data management and ethical reporting.

1.7. Study Limitations

This study should be interpreted within the context of several limitations;

1. Some survey variables contained responses recorded as '**Unknown'** for categorical variables and '**Null'** for numeric variables. These records were retained in the analytical dataset but excluded from analyses and visualisations where they could not be meaningfully interpreted.
2. The survey was conducted across twelve selected counties and therefore provides comparative insights into diverse household contexts rather than nationally representative estimates.
3. As a cross-sectional survey, the findings describe household conditions at the time of data collection and should not be interpreted as evidence of causal relationships.

2. FINDINGS AND DISCUSSION

Unless otherwise stated, findings presented in this chapter are based on valid responses for each indicator. Responses recorded as "Unknown" and missing values were excluded from indicator-specific analyses, as described in the methodology.

2.1. Demographic Profile

9,420 households were included in the analysis, with a balanced gender. The median respondent age was **35 years**, while households comprised an average of **4.5 members**, with the largest household consisting of **8 members**.

2.1.1. Age

Among respondents who reported their age, the population was predominantly composed of **working-age adults (35 - 49 years)**, followed by **young adults (25 - 34 years)**. Smaller proportions of respondents were classified as older adults, senior citizens and emancipated minors **(16 - 17 years)**. Although below the legal age of adulthood, these respondents were verified as the heads or primary representatives of their households and were therefore eligible for interview. Their inclusion highlights the presence of households in which caregiving and decision-making responsibilities fall on adolescents.

The available data indicate that the survey largely captured individuals within the economically active segment of the population. This demographic composition suggests that household welfare is closely linked to employment opportunities, income generation and access to essential services.

2.1.2. Education

Educational attainment among respondents with valid responses was dominated by **primary education**, followed by secondary, college and university education. However, educational information was unavailable for a substantial proportion of respondents and was therefore excluded from the analysis. While this limits the completeness of education-related findings, the available data suggest that progression beyond basic education remains comparatively limited across the surveyed households. These differences in educational attainment are likely to influence employment opportunities, earning potential and access to financial services.

2.1.3. Household Dependency

Dependency ratios were classified into **low (0-0.5), medium (0.5-1.0) and high (>1.0)** categories, with several counties recording comparatively higher proportions of households experiencing a **high dependency burden**. These households have relatively fewer working-age members supporting larger numbers of dependants, increasing pressure on household income and potentially reducing resilience to economic shocks.

The demographic profile depicts a relatively young and economically active population living in moderately sized households, but with important differences in educational attainment and dependency burden across counties. These characteristics provide the foundation for understanding the disparities in household income, health access, food security, financial inclusion and multidimensional vulnerability explored in the subsequent sections of this report.

2.2. Economic Profile

The economic profile highlights differences in household income, livelihood patterns and economic opportunity across the surveyed counties. Income data were unavailable for 14.4% of the dataset and

these records were excluded from income-related analyses. Consequently, the findings presented in this section reflect households with valid income information.

2.2.1. Income Distribution

Income distribution was positively skewed, with a median monthly household income of KES 22,030 and an average of KES 30,320, indicating that a relatively small number of high-income households raised the overall mean. This pattern is further illustrated by the wide income range observed in the survey, from KES 1,150 to KES 792,750 per month, reflecting considerable economic inequality among households.

Despite the presence of high-income outliers, the distribution of households across income bands indicates that most households were concentrated within the lower income categories, suggesting that economic vulnerability remains widespread across the study population.

2.2.2. Livelihood Patterns

Among respondents who reported their primary livelihood, **farming, business and trade,** and were the most common sources of income, followed by formal employment. Livelihood composition also varied by income level. Farming accounted for the largest share of households in the lower income bands, whereas the proportion of households engaged in business and formal employment increased progressively among higher income groups. This pattern suggests that diversification into business activities and stable employment is associated with improved household earning potential.

2.2.3. Economic Disparities across regions

Although average incomes were relatively similar across counties, the magnitude of the urban-rural income gap differed considerably. Most counties recorded higher average incomes in urban areas, reflecting greater access to formal employment and business opportunities. However, the size of this gap varied, indicating that the economic advantages associated with urban residence are not uniform across the surveyed counties. In addition, approximately **40%** of households in each county fell within the bottom two national income quintiles, demonstrating that low-income households are widely distributed rather than concentrated in a small number of locations.

These findings indicate that household livelihoods remain heavily dependent on farming and small-scale business activities, while income inequality persists both within and between counties. These economic differences provide an important context for understanding subsequent findings on healthcare access, food security, financial inclusion and multidimensional vulnerability, where household income is likely to influence both access to services and resilience to socioeconomic shocks.

2.3. Health and WASH

Access to healthcare and safe water and sanitation services is a critical determinant of household wellbeing. The findings reveal persistent gaps in both financial access to healthcare and the availability of basic WASH services, with variation across the surveyed counties. These indicators highlight inequalities that may influence health outcomes.

2.3.1. Distance to Health Facility

The average distance to the nearest health facility was 11.46 kilometres, with differences observed between counties. The longest distances travelled were above 22km, in Kakamega, Meru and Kilifi counties, while the shortest fell below 5km, in Nakuru and Kisumu counties. This significant variance suggests unequal physical access to essential health facilities. Greater travel distances may

discourage timely healthcare seeking, increase transport costs and reduce the utilisation of preventive and curative health services, particularly among low-income households.

2.3.2. Healthcare financing

Approximately 43.1% of households reported having no active health insurance, leaving a significant proportion of the population exposed to out-of-pocket healthcare costs. Among insured households, **NHIF** remained the most commonly reported health insurance scheme, reflecting the survey period, which spanned Kenya's transition from the National Health Insurance Fund (NHIF) to the Social Health Authority (SHA). Insurance coverage also varied across residence types, indicating differences in access to employer-sponsored schemes, community-based insurance and public health financing programmes.

2.3.3. WASH Findings

Approximately 40.2% of households relied on unimproved water sources, while **24.7**% reported practising open defecation. **8.2%** of households experienced both conditions simultaneously, placing them at a higher risk of waterborne diseases and sanitation-related health challenges. County-level variation suggests that these challenges are concentrated in specific areas.

The findings indicate that access to essential health and WASH services remains uneven across counties. The combination of limited insurance coverage, long travel distances to health facilities and persistent water and sanitation challenges suggests that many households continue to face multiple barriers to achieving good health.

2.4. Food Security

42.3% of surveyed households were food secure, although food security outcomes varied across counties. Mombasa, Kisumu, and Kiambu recorded the highest levels of food security, with more than **80%** of households classified as food secure. Conversely, **20.9%** of households experienced moderate to severe food insecurity, demonstrating that despite relatively favourable outcomes in some counties, pockets of vulnerability exist.

2.4.1. Food insecurity across regions

Although every county contained both food-secure and food-insecure households, the proportion of households experiencing food insecurity varied considerably. **Kakamega** recorded the **highest overall risk**, reflecting a greater concentration of households facing food insecurity than other counties. These findings demonstrate geographic disparities in food insecurity, and suggest that some counties may require greater attention to programme planning and resource allocation.

2.4.2. Household income and food security outcomes

Lower-income households were more likely to experience moderate, chronic and severe food insecurity, whereas highest income categories recorded the largest proportions of food-secure households. This relationship reinforces the link between household economic wellbeing and food access, suggesting that improvements in household income and livelihood opportunities are likely to contribute to improved food security.

2.4.3. Double Deprivation

The analysis developed a **double deprivation indicator**, defined as households that were **both food insecure and reliant on unimproved water sources**. **8.4%** of households faced simultaneous nutritional and environmental health risks. The distribution of double deprivation varied across

counties, with **Kakamega** recording the highest prevalence **(13.0%)**, followed by Meru and Kilifi. These households represent a particularly vulnerable population because inadequate food access and unsafe water sources can interact to increase susceptibility to poor health outcomes and reduce household resilience.

Food insecurity extends beyond food availability alone and is closely linked to household income, geographic location and access to essential services. The concentration of deprivation within specific counties indicates a need for integrated interventions that combine food security programming with improvements in water and sanitation, rather than addressing these challenges independently.

2.5. Financial Inclusion

Mobile money access data were unavailable for 1,631 households, and these records were excluded from analyses requiring this variable to ensure that reported percentages were based on valid responses.

2.5.1. Mobile Money access

82.5% of households reported access to mobile money services. This high level of adoption reflects the widespread integration of digital financial services into everyday economic activities and highlights the important role of mobile money in facilitating payments, savings, remittances and other financial transactions.

Approximately **17.5% of households** reported having no access to mobile money, indicating that a minority remain excluded from Kenya's increasingly digital financial ecosystem.
Across the study counties, most counties recorded relatively high levels of access **(>84%)**. However, Nakuru and Kilifi exhibited lower levels **(< 80%)** of mobile money use in relation to others, reflecting possible differences in infrastructure, digital literacy or service availability.

2.5.2. Mobile Money Platform Dominance

Among households with access to mobile money, **M-Pesa** was by far the dominant platform, **(54.4%),** far exceeding the use of Airtel Money **(22.9%),** T-Kash and households using multiple platforms **(< 15%).** This finding reinforces the role of M-Pesa in Kenya's digital financial landscape and suggests that digital financial inclusion initiatives can leverage an already well-established platform to reach a broad segment of the population.

2.5.3. Financial Exclusion

To identify households experiencing the greatest financial disadvantage, the study developed a **Financial Exclusion Indicator**, defined as; ***households that simultaneously belonged to the lowest income quintile, had no access to mobile money services*** *and* ***lacked active health insurance coverage****.*

Using this definition, **1.1%** of households were classified as financially excluded. Although this represents a relatively small proportion of the survey population, these overlapping barriers are likely to limit the ability to manage financial shocks, access formal financial services and obtain healthcare without incurring out-of-pocket costs. County-level differences in financial exclusion further indicate that this vulnerability is geographically concentrated rather than uniformly distributed.

Overall, the findings indicate that while digital financial services have become widely accessible, financial inclusion extends beyond mobile money adoption alone. Households experiencing the combined challenges represent a vulnerable group that may benefit most from integrated financial inclusion and social protection interventions.

2.6. Multidimensional Vulnerability

While the preceding sections examined individual dimensions of household wellbeing, the **Multidimensional Vulnerability Index (MVI)** provides an integrated assessment of households experiencing multiple forms of deprivation simultaneously. The index assigns each household a score of 0 to 5, with one point awarded for each of the following deprivation indicators:

Point	Indicator	Threshold
1	Low Income	Household falls in the bottom income quintile **(Q1)**
1	Food Insecurity	Household is Moderately Insecure, Severely Insecure, Chronically Insecure, or Food Insecure
1	No Health Insurance	Household reports health_insurance = **'None'**
1	No Mobile Money	Household reports mobile_money_access = **'No'**
1	Unimproved Water	Household uses River or Rainwater as primary water source

This approach recognises that household vulnerability rarely arises from a single challenge but is instead shaped by the interaction of multiple socioeconomic disadvantages.

2.6.1. Vulnerability Score

The analysis revealed an average score of **1.4 out of 5**, indicating that, on average, households experienced at least one significant form of deprivation. Most of the households were concentrated within the lower vulnerability categories, with progressively fewer households recording higher scores. Approximately **2.4%** of households were classified as **highly vulnerable (scores of 4 or 5)**, representing households simultaneously affected by several overlapping vulnerabilities. Although this proportion is relatively small, these households are likely to face the greatest barriers to improving their wellbeing.

2.6.2. Geographic Differences

Meru recorded the highest proportion of highly vulnerable households **(2.8%)**, followed closely by Kakamega and Nyeri. These findings indicate that certain counties experience a greater concentration of households facing multiple, reinforcing forms of deprivation. The observed variation highlights the importance of geographically targeted programming rather than adopting uniform intervention strategies across all locations.

2.6.3. Characteristics associated with elevated vulnerability

Across counties, highly vulnerable households were characterised by **primary-level education**, livelihoods centred on **farming or informal economic activities** and relatively modest dwelling conditions. While the dominant livelihood and dwelling type varied, the recurring presence of lower educational attainment and agriculture-based livelihoods suggests a close relationship between limited economic opportunities and multidimensional deprivation.

Households experiencing low income, food insecurity, limited financial inclusion, inadequate health coverage and poor access to safe water are substantially more vulnerable than households facing only one of these challenges. More effective outcomes are likely to be realised through integrated programmes that simultaneously strengthen livelihoods, expand financial and health protection, improve WASH services and enhance household resilience.

3. CONCLUSION AND RECOMMENDATIONS

This household survey provides a comprehensive assessment of the socioeconomic conditions affecting households across the surveyed counties. The findings demonstrate that while many households have access to essential services such as mobile money and basic healthcare, inequalities persist in income, food security, health insurance coverage, access to safe water and overall wellbeing. These challenges are not experienced in isolation; they interact to create overlapping forms of vulnerability concentrated within specific counties and population groups.

The Multidimensional Vulnerability Index reinforces this evidence by showing that household vulnerability is driven by the cumulative effect of multiple disadvantages rather than a single indicator alone. Interventions that address only one aspect of deprivation are unlikely to achieve sustained improvements in household wellbeing. Instead, coordinated and integrated approaches that strengthen livelihoods, improve access to healthcare and WASH services, enhance food security and expand financial inclusion are more likely to produce lasting and equitable outcomes.

The findings presented in this report provide an evidence base to support decision-making by county governments, development partners and non-governmental organisations. By identifying where vulnerabilities are concentrated and the factors that contribute to them, the analysis offers practical insights for programme design, resource allocation and the monitoring of development outcomes over time. The following recommendations are proposed to support targeted, evidence-informed interventions that address the priority needs identified through this analysis.

Policy and Program Recommendations

1. **Prioritise integrated support in highly vulnerable counties.**

   2.4% of households fall within the highest vulnerability category, these households experience multiple, overlapping disadvantages. Counties with the highest multidimensional vulnerability (**Meru, Kakamega and Nyeri**) should be prioritised for integrated interventions combining livelihoods, food security, health access, WASH and financial inclusion.

2. **Strengthen economic resilience among low-income households**
   The economic analysis showed that households in the lowest income bands were substantially more likely to experience food insecurity and other forms of deprivation, with farming dominating livelihoods in lower-income groups. Programmes should therefore strengthen livelihood diversification, support small businesses, improve agricultural productivity and expand access to income-generating opportunities, particularly for rural households.

3. **Strengthen food security interventions**
   Food insecurity remains a significant challenge, particularly among lower-income households. With only **42.3%** of the households being food secure, food assistance, climate-resilient agriculture and livelihood diversification programmes should focus on counties with the highest food insecurity and double deprivation (food insecurity and unsafe water access) rates.

4. **Expand health insurance coverage and improve physical access to healthcare**

   More than **43%** of households reported having no active health insurance, while the average distance to the nearest health facility exceeded **11 km**. Community-based enrolment campaigns

for the Social Health Authority (SHA), coupled with investments in primary healthcare facilities and outreach services, would improve both financial and physical access to healthcare.

5. **Invest in WASH infrastructure in high environmental health risk counties**
   Although **40.2%** of households relied on unimproved water sources, **8.2%** experienced the combined burden of food insecurity and unsafe water access. Priority should therefore be given to expanding access to safe water, improving sanitation infrastructure and promoting hygiene behaviour change in counties with the highest levels of WASH vulnerability and double deprivation.

6. **Build on Kenya's strong digital financial ecosystem**
   With **82.5%** of households already using mobile money services, digital financial platforms provide an effective mechanism for expanding financial inclusion. Governments and development partners should leverage established mobile money platforms to deliver social protection payments, savings products and financial literacy initiatives while specifically targeting households that remain digitally and financially excluded.

7. **Use the Multidimensional Vulnerability Index (MVI) as a Monitoring and Evaluation framework**

   The Multidimensional Vulnerability Index should be adopted as a composite Monitoring and Evaluation (M&E) indicator to track changes in household wellbeing over time. Unlike individual sector indicators, the MVI captures the combined effects of income, food security, health insurance coverage, mobile money access and water security, providing a holistic measure of programme impact.

   The household survey establishes a baseline average MVI score of **1.4 out of 5**, with **2.4%** of households classified as highly vulnerable **(scores 4-5).** Future household surveys using the same methodology can assess whether interventions reduce both the average vulnerability score and the proportion of highly vulnerable households.

   Programme monitoring should therefore:
   - Use the current MVI distribution by county and residence type as the baseline.
   - Repeat the household survey at midline and endline using the same methodology.
   - Track reductions in the average MVI score and the proportion of households scoring 4-5.
   - Disaggregate results by county, sex, age group and residence type to ensure equitable programme reach and identify populations that continue to experience persistent vulnerability.