

Policy Brief I October 2026

Valuing Health in Kenya:

An EQ-5D-5L Value Set for Quality Adjusted Life Years (QALY) Estimation

Explanation of key terms

- **EQ-5D-5L:** A tool for describing health across five areas: mobility, self-care, usual activities, pain/discomfort and anxiety/depression.
- **Health-state utility value:** A number showing how good or bad a health state is considered, where 1 usually represents full health and 0 represents death. Some health states can receive negative values, indicating that they are valued as worse than being dead.
- **QALY:** A measure that combines length of life and quality of life. One year lived in full health is equivalent to one QALY. QALYs help compare the health benefits of different interventions.
- **Value set:** A set of locally estimated values used to convert EQ-5D-5L health states into utility values.
- **Valuation interview:** An interview where members of the public are asked to compare and value different health states.
- **Health technology assessment:** An explicit and systematic assessment of the clinical, economic, ethical and social implications of health interventions to inform healthcare policy and resource allocation decisions.

Key messages

- A Kenyan EQ-5D-5L value set has now been developed using the preferences of 1,038 Kenyan adults. This allows health outcomes to be valued using locally relevant evidence rather than relying on values from other countries.
- The value set enables consistent measurement of health gains. It assigns scores to different health states, from 1 (full health) to 0 (equivalent to being dead) which researchers use to calculate quality-adjusted life years (QALYs) and compare health interventions.
- Pain and mobility have the greatest influence on how Kenyans value health. The severity of problems in these dimensions contributes substantially to health scores, making them important considerations when assessing the benefits of interventions.
- The value set can inform health technology assessment and benefit package decisions. The Ministry of Health and the Social Health Authority can consider adopting it as the national reference for calculating QALYs in economic evaluations that inform health financing and coverage decisions.

Introduction

As healthcare needs grow and donor funding declines, Kenya requires a consistent way of comparing different health interventions and determining which ones deliver maximum health gains for the resources available. One approach is to estimate the cost of gaining a quality-adjusted life year (QALY). Calculating QALYs requires a way to measure and value people's health-related quality of life.

The EQ-5D-5L is a widely used instrument that provides this measure by describing health across five areas: mobility, self-care, usual activities, pain or discomfort, and anxiety or depression. The Kenyan value set assigns a score to each possible combination of health problems, reflecting how Kenyans value these health states. A score of 1 represents full health, while 0 represents a state equivalent to being dead. These scores enable the calculation of QALYs and comparison of health interventions using a common measure. Until now, Kenyan economic evaluation analyses have relied on value sets from other countries, whose preferences may differ from those of Kenyans(1).

The Social Health Insurance Act (2023) provides for health technology assessment (HTA) to inform decisions on the revision of the health benefits package (2, 3). As Kenya strengthens these processes, locally relevant evidence is essential. This brief introduces Kenya's first EQ-5D-5L value set and explains how it can support the assessment of health interventions and inform decisions on which services to fund.

Study approach

The study followed the EuroQol Group's international valuation protocol (EQ-VT), the standard method used for national value sets worldwide, so Kenyan values can be compared directly with those of other countries (4).

1. **Study population and geographical coverage:** 1,112 adults aged 18 and over were interviewed between September and October 2025 in ten counties: Mombasa, Kilifi, Isiolo, Meru, Nyeri, Kiambu, Nakuru, Elgeyo-Marakwet, Kakamega and Kisii. Counties were randomly selected across the former provinces to cover different regions and a mix of rural and urban settings. Smaller counties were deliberately oversampled to ensure adequate representation.
2. **Sampling strategy and recruitment:** Community health promoters systematically selected households within their catchment areas. Age and sex quotas were used to reflect the distribution of Kenya's population in the 2019 Census. Interviewer administered face-to-face interviews were conducted in English or Kiswahili.
3. **Health state valuation methods:** Each participant completed two tasks in an interview lasting approximately 45 minutes. In the first (composite time trade-off), they considered how many years in full health they would consider equivalent to ten years living with a particular health condition. In the second (discrete choice experiment), they selected which of two health states they considered better. Together, these tasks captured how people valued different levels of health and illness.
4. **Data quality control.** Two EuroQol officials and three supervisors reviewed interview data weekly and gave feedback to the 13 interviewers. The results remained consistent when interviews flagged for quality concerns were excluded.
5. **Analysis.** Following the loss of 74 interviews due to technical software failures, data from 1,038 participants was analyzed. Responses from both tasks were combined using a statistical model (hybrid model) that accounted for the characteristics of each task and the greater variation in responses for more severe health conditions. The resulting model was used to estimate the Kenyan population's values for different health states.

Findings

Pain and mobility have the greatest influence on how Kenyans value health. At the most severe level, extreme pain or discomfort reduces a person's health value by 0.361, and being unable to walk about by 0.347. Usual activities (0.298), anxiety or depression (0.267) and self-care (0.259) follow.

The table below presents the Kenyan value set. To score any EQ-5D-5L health state, subtract the decrement for each dimension's level from 1. Level 1 (no problems) has no decrement.

Dimension	Level 2	Level 3	Level 4	Level 5
Mobility	0.044	0.080	0.213	0.347
Self-care	0.042	0.063	0.175	0.259
Usual activities	0.040	0.062	0.194	0.298
Pain/discomfort	0.045	0.076	0.279	0.361
Anxiety/depression	0.042	0.070	0.198	0.267

For example, a person with slight problems in self-care and moderate pain (state 12131) scores 1 - (0.042 + 0.076) = 0.882.

Values range from 1 down to -0.532. The mildest impaired state (11121) scores 0.955, and the worst state (55555) scores -0.532, meaning Kenyans regard it as worse than being dead. Other African value sets place the worst state at different points on this scale (5), so borrowing a country's value set would change how much benefit an intervention appears to deliver.

Severe health problems have a much greater reduction in health scores than moderate ones. Decrements roughly triple when moving from moderate (level 3) to severe (level 4) problems across all five dimensions. This means interventions that prevent health conditions from progressing to severe levels may deliver substantially greater health gains.

Policy considerations

1. **Integrate the Kenyan value set into benefit package review and priority-setting.** The Social Health Authority can use QALY estimates based on Kenyan values, alongside costs, affordability and equity considerations, to inform decisions about which health services to cover and prioritize.
2. **Embed the Kenyan value set in national HTA guidelines.** The Ministry of Health might consider incorporating the value set into standard methods for economic evaluation to ensure consistent measurement of health gains across assessments informing public health financing decisions.
3. **Incorporate the Kenyan value set into ongoing health research.** Researchers and research institutions could use Kenyan values when measuring quality of life and calculating QALYs in health studies to generate evidence that better reflects the preferences of the Kenyan population.
4. **Strengthen capacity to apply the value set.** Provide practical training for analysts within the Ministry of Health, Kenya Health Intervention Technology Assessment Program, Benefit Package and Tariffs Advisory Panel, Kenya National Immunization Technical Advisory Group, county health departments and universities to support consistent and accurate application in research and policy decisions.

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About the brief

This policy brief presents Kenya's first EQ-5D-5L value set and explains its relevance for assessing health interventions and informing health financing decisions. It is intended for health policymakers,

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