**Title:** Baseline assessments of the burden of oncologic diseases and the health insurance coverage rate among cancer patients in rural Turkana Kenya

**Authors:** Hassan K, Sulekha E, Kaseje N

**Affiliations:** KH: Lodwar County Referral Hospital/Ministry of Health; NK: Surgical Systems Research Group Kisumu, Kenya

**Introduction:** The incidence of cancer is rising in sub Saharan Africa (SSA). Yearly, an estimated 506,000 cancer deaths occur in SSA. Subnational estimates of the burden of cancer in rural zones remain poorly defined. In Kenya, having health insurance is critical to accessing chemotherapy and radiation services. Our objectives were to define the burden and the patterns of oncologic diseases in Turkana, and to determine the health insurance coverage rate among patients presenting with cancer in Turkana.

**Methods:** We retrospectively reviewed patient records from January to December 2022. We examined demographic factors, measured the prevalence and types of cancers among surgical patients in Turkana, and assessed the health insurance coverage rate among those with a cancer diagnosis. We calculated 95% confidence intervals to determine statistical significance.

**Results**: 53 out of 315 patients had a confirmed diagnosis of cancer representing a prevalence rate of 16.8% (CI 0.13-0.20); 56.3% were male; and the mean age at diagnosis was 78.8 years. The 3 most common cancer diagnoses were prostate cancer 31.3% (CI 0.24-0.39), hepatocellular carcinoma (18.8%, CI 0.12-0.25), and female breast cancer (12.5%, CI 0.07-0.18). The insurance coverage rate in this patient population was 11.3% (CI 0.06-0.17).

**Conclusion:** The prevalence of cancer among our rural surgical patients was high and the health insurance coverage rate was low. The lack of health insurance is likely a key barrier to accessing comprehensive cancer care in Turkana.