Kenya is a country of marked environmental and ethnic diversity. A study of osteogenic sarcoma occurring in Kenya from 1968 to 1978 revealed 251 cases, representing between 89% and 100% of the predicted number. Variations in age, sex and anatomical location were within classical limits. However, the incidence of osteogenic sarcoma amongst the Central Bantu was significantly higher than predicted ($P<0.0001$), whilst the incidence among the Western Bantu was significantly lower ($P<0.002$), despite their similar ethnic origins. Two geographically dissimilar areas likewise exhibited significant differences in incidence. The Eastern province showed a higher incidence ($P<0.02$), whereas the Nyanza Province ($P<0.001$) and the adjacent Western Province ($P<0.005$) showed a lower than predicted incidence. These observations suggest that in Kenya a geomedical variable affects the incidence of osteogenic sarcoma and that genetic variation has no effect on incidence.