

Title: Magnitude and causes of visual impairment and utilization of eye care services among slum dwellers of Kibera in Nairobi province, Kenya

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Abstract: The Kibera eye survey was conducted between November 2002 and January 2003 to determine the magnitude and causes of visual impairment and blindness among the slum dwellers of Kibera Division, in Nairobi Province, Kenya. A two-stage cluster random sampling design was used to select primary and secondary sampling units. The WHO/PBL/88.1 standardized survey methodology was used, with suitable adaptation. Interviews, visual acuity tests and eye examinations of the study subjects in the sampled households were performed. Blindness was defined as presenting visual acuity of less than 3/60 in the better eye. Visual impairment was defined as presenting visual acuity of less than 6/18 but equal to or better than 3/60 in the better eye. The overall response rate was 90.6%. The prevalence of blindness and visual impairment was 0.6% (95% CI: 0.21 to 1.0), and 6.2% (95% CI: 4.95 to 7.15) respectively. Females had a higher prevalence of visual impairment compared to males (OR=0.305, 95% CI: 0.068-1.364), though this lost significance statistically (2.638, df=1 P=0.104). The prevalence of visual impairment varied from 1.0% to 3.1% in the three locations, though this lost significance statistically (=5.071, df=2, P=0.079). Cataract was the leading cause of blindness (37.5%) followed by refractive errors (25%). Cataract was the leading cause of blindness among the females (58.8%) and 41.2% among the male study subjects. The commonest cause of visual impairment was refractive errors (58.4%) of the total cases. Cataract, corneal scars and optic atrophy accounted for 34.8%, 2.2% and 2.2% respectively. The survey revealed that 62.5% of blind people and 93.4% of people with visual impairment were due to cataract and refractive error, which are readily treatable with good visual restoration by applying existing knowledge and technology. The main barriers to seeking eye care services were lack of money, ignorance and the problem not causing much discomfort to warrant medical attention. The presence of treatable/preventable blindness and VI in the population of Kibera, suggests that the accessibility, availability, distribution of cataract surgical and refractive services, need be addressed. It is hoped that preventable/treatable blindness and VI will be efficiently and effectively eliminated with these interventions by the year 2020.