Abstract:

OBJECTIVE: To estimate the incidence of vision-reducing cataract in sub-Saharan Africa and use these data to calculate cataract surgical rates (CSR) needed to eliminate blindness and visual impairment due to cataract. METHODS: Using data from recent population-based, standardized, rapid-assessment surveys, we calculated the age-specific prevalence of cataract (including operated and unoperated eyes) from surveys in 7 "districts" across Africa. This was done at 3 levels of visual acuity. Then we used the age-specific prevalence data to develop a model to estimate age-specific incidence at different visual acuities, taking into account differences in mortality rates between those with cataract compared with those without. The model included development of opacity in the first eye and second eye of people older than 50 years. The incidence data were used to calculate target cataract surgical rates. RESULTS: Incidence and CSR needs varied significantly in different sites and were lower in some than expected. Cataract surgical rates may depend on genetic, environmental, or cultural variations and will vary with population structure, which is not uniform across Africa. CONCLUSION: Africa should not be viewed as homogeneous in terms of cataract incidence or CSR needed. These CSR calculations should be useful for more appropriate planning of human resources and service delivery on the continent. The methodology can be applied to other population-based data as they become available to determine appropriate CSR targets.