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**Epidemiological Modeling of the
Population Dynamics of Cataracts**
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Although treatable with surgery, cataracts, which give rise to cloudiness or opacity in the normally transparent crystalline lens of the eye, persist as the leading cause of blindness in the world today. In fact, limited resources for cataract surgeries in countries such as Kenya and Ethiopia, leave the population open to blindness deriving from the disease. In this work, we employ statistical inferencing techniques to establish an epidemiological model of the population dynamics for cataracts in an effort to eradicate instances of blindness deriving from the disease. Among the requisite modeling components for disease etiology, we employ sample size, disease duration, age-specific mortality, incidence, and prevalence estimates to establish a modeling platform that serves as a carrier of essential attributes. Given a prescribed population or subgroup, we ultimately establish a dynamic model of the surgical rate, the number of cataract surgeries that should be performed per 1 million people, that eliminates instances of blindness deriving from the disease.