

Prevalence and secular trends of four causes of blindness and visual impairment in Iran, High-Middle SDI countries and the world (1990-2019): A comparative study based on the Global Burden of Diseases project's data

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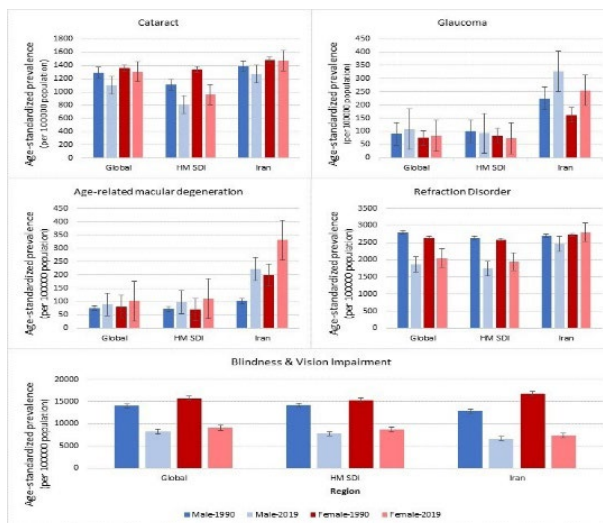
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Statement of the Problem: Of the different causes of blindness and visual impairment (VI), cataracts, refractive errors, glaucoma, and age-related macular degeneration (AMD) are among the most important disorders in terms of prevalence and their influence on patients' lives. The epidemiological evaluation of these disorders in terms of prevalence and temporal trends during the past decades could contribute to a better overview of these challenging ophthalmologic disorders and the effectiveness of various measures taken in eye care services during the preceding years.

Methodology: This study is a secondary analysis of ecological data. We analyzed the most qualified available data provided by the Global Burden of Diseases project, published by the Institute for Health Metrics and Evaluation (IHME), on the prevalence of AMD, cataracts, glaucoma, and refractive disorders for males and females (annual age-standardized and age-specific prevalence estimates) in Iran and high middle socio-demographic development level countries from 1990 to 2019. We also compared the observed patterns with global patterns. Temporal trends of annual prevalence estimates of each of the four causes of blindness and VI from 1990 to 2019 were analyzed, and the annual percentage change and their 95% confidence interval were estimated. Trend analyses were conducted for the age-standardized prevalence estimates per 100,000 populations and for prevalence estimates for different ages.

Findings: In 2019, refractive errors and cataracts were the most common causes of blindness and VI for both genders in Iran, HMSDI countries and the world. Iran had a higher age-standardized prevalence in all four categories of ophthalmologic disorders compared to HMSDI countries and the world for both genders in 2019. However, the rate of reduction for the four ophthalmologic disorders in Iran was higher than in HMSDI and the world for both males and females.

Conclusion: The prevalence of cataracts, refractive errors, AMD, and glaucoma in Iran was higher compared to HMSDI countries in 2019 for both sexes and all age groups, but the trends of prevalence for all four disorders from 1990 to 2019 in Iran had a higher slope of reduction compared to HMSDI countries.



Gender specific, Age-standardized prevalence of blindness and visual impairment, and top four causes of VI in HMSDI countries, Iran and the world, 1990 and 2019

Biography

Kiana Khatami is a medical physician who has been recently graduated from Shiraz University of Medical Sciences. She has been an active researcher in different departments of her university including Health Policy Research Center, Public Health Research Center and Poostchi Ophthalmology Research Center. Being raised in a family with an Ophthalmologist father, she has found a double interest in ophthalmology after being involved in Ophthalmology research projects in Shiraz. She hopes continuing her studies in the specialty of Ophthalmology and broadening her relationships with Community of Ophthalmologists in UK and Europe. She is honored to be an oral representator of the mentioned article which has recently been accepted to be published in International Journal of Ophthalmology.

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