Visual impairment and blindness prevalence in the U.S. to double by 2050 according to study by USC Roski Eye Institute researchers

Key study findings include:
- Growing population of aging baby boomers leads to increase in vision loss and blindness in the U.S.
- Women and minority populations, especially Latinos, carry the largest burden
- Mississippi, Louisiana will top list for blindness; Florida, Hawaii will lead visual impairment

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LOS ANGELES – A study published today by researchers at the University of Southern California (USC) Roski Eye Institute in JAMA Ophthalmology found that the U.S. prevalence in visual impairment (VI) and blindness is expected to double over the next 35 years. By 2050, the number of Americans with a variety of eye disease and impairment issues, including age-related macular degeneration (AMD), glaucoma, diabetic retinopathy (DR) and cataracts, will dramatically increase impacting both individuals and society.

The National Eye Institute (NEI)-funded study, led by principal investigator, Rohit Varma, MD, MPH, interim dean of the Keck School of Medicine of USC and director of the USC Roski Eye Institute, found that by 2050, 16.4 million Americans over age 40 will have VI due to uncorrected refractive error compared to 8.2 million in 2015. In addition, more than 2 million age 40+ will be blind and 6.95 million will have VI by 2050 compared to 1.02 million and 3.22 million respectively from 2015.

The groups most at risk – non-Hispanic whites, older Americans and women – do not change from 2015 data to 2050 projections. However, while African Americans have the highest prevalence of blindness and VI today (15.2 percent today growing to 16.3 percent by 2050), the Hispanic population will become the most at risk minority group for both VI and blindness increasing from 9.9 percent today to 20.3 percent in 2050. The study also examined data state by state and found Mississippi and Louisiana will have the highest per capita prevalence for blindness while Florida and Hawaii will lead the nation for VI per capita.

“This study gives us a GPS for our nation’s future eye health,” said Varma. “Increased education and vision screenings are critical for both younger and older Americans, but especially women and minorities over age 40, to prevent vision impairment that can dramatically worsen their quality of life. The earlier we can diagnose these blinding eye diseases through an annual eye exam and obtain eye care, the more people will have the chance to live longer lives without the physical limitations and emotional challenges of vision loss and blindness.”

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Eyesight loss has both a human and societal toll. Other studies have identified that people who are visually impaired or blind can suffer both physical and mental health decline including an increased risk for chronic health conditions such as diabetes, unintended injuries including a higher risk for falls, social isolation and withdrawal from activities that require driving or independent mobility, depression and even death.

According to Prevent Blindness America the economic burden from vision loss and eye disorders cost the U.S. $139 billion in 2013. When compared to the Centers for Disease Control (CDC) 2010 data on the annual economic impact of chronic conditions such as heart disease/stroke ($315 billion), diabetes ($245 billion) and cancer ($157 billion) – vision impairment and loss is among the costliest health conditions in the nation.

Based on U.S. Census Bureau data, Millennials (born 1982 - 2004) have recently surpassed the Baby Boom generation (born 1946-1964) as the largest age cohort in the U.S., but it is the aging boomers who are driving the increase in vision impairment and blindness over the next 35 years. By 2050, 86.7 million boomers will be over the age of 65 – almost 1 in 5 Americans – when many debilitating eye diseases and vision loss can occur.

The researchers examined six major U.S. population-based studies on VI and blindness and pooled the data from adults age 40 and above. Demographic and geographic variations including reporting by age, gender, race/ethnicity and per capita prevalence by state using U.S. Census projections were analyzed to calculate the study findings.

As one of the world’s leading experts in population-based eye diseases, Dr. Varma has led several NEI-funded studies including the recent largest population-based study of adult Latinos and age-related macular degeneration (AMD) Los Angeles Latino Eye Study (LALES) and the largest study of Chinese Americans and AMD Chinese American Eye Study (CHES). He has also been the principal investigator of many major National Institutes of Health (NIH)-funded studies including the Multi-Ethnic Pediatric Eye Diseases Study (MEPEDS) and the African-American Eye Disease Study (AFEDS). The USC Roski Eye Institute is ranked in the Top 2 of the nation’s top grant recipients from the NEI and has achieved more than $32 million in annual grant funding.

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About the USC Roski Eye Institute
The USC Roski Eye Institute, part of the Keck Medicine of USC university-based medical enterprise, has been a leader in scientific research and innovative clinical treatments for more than 40 years. Among the top two funded academic-based medical centers by the National Eye Institute (NEI) research grants and ranked in the Top 10 ophthalmology programs in U.S. News & World Report’s annual “Best Hospitals” issue for more than 20 years, the USC Roski Eye Institute is headquartered in Los Angeles with clinics in Arcadia, Beverly Hills and Pasadena.

Patients from across the country come to see the USC Roski Eye Institute experts who treat a comprehensive array of eye diseases across the life spectrum from infants to aging seniors. The USC Roski Eye Institute is known for its scientific research and clinical innovation including: creation of the Argus retinal prosthesis implant (also known as the “bionic eye”) for retinitis pigmentosa patients; stem cell therapies for those who have age-related macular degeneration; discovery of the gene that is the cause of the most common eye cancer in children; treatment for eye infections for AIDS patients; inventors of the most widely used glaucoma implant in the world; pioneers of a device for long-term intraocular drug delivery; and the first to use telesurgery to train eye doctors in developing countries. For more information visit: eye.keckmedicine.org.