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### **Prevalence of refractive errors in an elderly low-income population of São Paulo city**

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**Purpose:** Uncorrected refractive errors are considered the main cause of visual impairment/blindness in developing countries. The purpose of this study is to estimate the prevalence of refractive errors in an elderly population of a low-income metropolitan area in Brazil.

**Methods:** A total of 801 residents of a low-income neighborhood in Sao Paulo city (Sao Miguel Paulista district), aging 60 years and older (range: 60-90 yrs; mean: 69±6.1yrs; 25.84%-N=207 males and 75.16%-N=594 females) underwent a complete ophthalmologic exam as part of a previous epidemiological survey. Refractometry and visual acuity with best correction were performed. Glasses were prescribed when necessary. Considering spherical equivalent, myopia was defined:  $\leq -1.00$  D and hyperopia:  $\geq +1.00$  D.

**Results:** Refractive errors were assessed in 1513 eyes with 78.23% of the examined eyes with refractive errors between  $-3.00$  SE and  $+2.25$  SE: hyperopic errors (53.14%) were three times more prevalent than myopic (16.65%). Compound hyperopic astigmatism was the most prevalent refractive error (45.57%), followed by mixed astigmatism (15.73%), compound myopic astigmatism (12.55%), hyperopia (12.42%), simple myopic astigmatism (4.81%), myopia (3.06%), emmetropia (2.87%) and simple hyperopic astigmatism (0.05%). Of the 801 participants, 596 (74.41%) received glasses.

**Conclusions:** Refractive errors were highly prevalent in the studied population. Hyperopic errors were more prevalent than myopic, confirming and extending previous reports of low prevalence of myopic errors in low educational level individuals. The most common refractive error was compound hyperopic astigmatism. These findings provide basis for future planning of eyecare policies towards prevention of blindness.