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### **Visual Screening in illiterate students from Brazilian Northeastern Rural areas.**

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**Purpose:** To determine the prevalence of visual acuity deficit and refractive errors in adult students enrolled in a 6-month reading and writing teaching program ( Programa Alfabetização Solidária).

**Methods:** Visual acuity (VA) was measured in each eye, using the printed tumble "E" Snellen chart for distance, by previously trained local teachers in 17 small villages from the states of Alagoas (N=15) e Paraiba (N=2). Ophthalmologic exam including VA measurement, cyclopedic retinoscopy, auto refraction, external eye exam and indirect funduscopy was performed in selected participants according to one or more of the following referral conditions: VA of 20/50 or worse in the best eye, age of 40 years or more, abnormal appearance of the eye and/or severe visual complaints.

**Results:** VA was assessed in 2021 students (53.3% males, age range 18 to 86 years, mean: 35#13). Out of this initial group, 744 (36.8%) were selected to undergo ophthalmologic exam, 38% due to VA deficit and 62% due to age at risk for presbyopia. Glasses were prescribed for 484 patients (23.9%). The following prevalence's were found: presbyopia – 22.4%; hyperopia – 9.2%; astigmatism – 12.8% myopia – 0.5%.

**Conclusions:** Visual acuity deficit was found in 14.1% of these populations. The prevalence of presbyopia was considerably high mainly because older adults were very motivated to be taught to read and write. The presbyopia optical correction has provided for these patients the opportunity to read and write comfortably. As expected, myopia was the less prevalent refractive error in these rural workers.