

THE EYES OF TEXAS: Eye Disease and Vision Impairment in Texas

Introduction

Nearly 3.3 million (one in 28) Americans aged 40+ years have blindness or low vision.¹ Furthermore the prevalence of vision loss and eye disease is increasing.² The prevalence of vision loss and eye disease is increasing due to the aging of the population and the impact of chronic disease risk factors for eye diseases such as diabetes, hypertension, and tobacco use. The National Association of Chronic Disease Directors Vision and Eye Health Council aims to increase awareness about eye health and promote the integration of vision-related activities into current chronic disease programs.

Methodology

The Behavioral Risk Factor Surveillance System (BRFSS) is a standardized random digit dialed (RDD) telephone survey. Operated and funded through a state/federal partnership, the survey samples adults aged 18+ years (non-institutionalized). The survey is a computer assisted telephone interviewing (CATI) system. It is administered in English and Spanish, and is the primary state-level source of data on adult health indicators, preventative health practices, and risk behaviors.

Results

The number of eye specialists (ophthalmologists and optometrists) licensed in Texas is much lower than the number of primary care physicians (PCP). In Texas the ratio of people to eye specialists is 6,291 to 1 compared to 1,415 population to PCP. Figure 1 is a county level map of the rate of population per eye doctor. The rate is lowest in the largest metropolitan counties, and highest in rural counties. In Figure 2 the rate of cataracts, glaucoma, or age-related macular degeneration among 40+ year olds for 2007 is visualized for the 11 public health regions of Texas. East Texas (Region 5) has the highest rate, and the panhandle and northwest Texas (Regions 1 and 2) have the lowest rates. Figure 3 contains a map of vision impairment, for 40+ year olds. The rate is highest in west Texas (Region 9) and lowest in central Texas (Region 7).

Eye Disease

18% of respondents had eye disease.

The rate increases with age.

No gender differences.

White Texas have a higher prevalence compared to Hispanics.

The rate decreases with education.

The rate decreases with household income.

No difference in metro vs non-metro counties.

No difference in border vs non-border counties.

Vision Impairment for 40+ year olds include:

6.7% of respondents had highly impaired vision.

No differences in age.

Women are more likely than men to report highly impaired vision.

Hispanics are more likely to have highly impaired vision than whites.

Decreases with education.

Decreases with income.

No difference in metro vs non-metro counties.

No difference in border vs non-border counties.

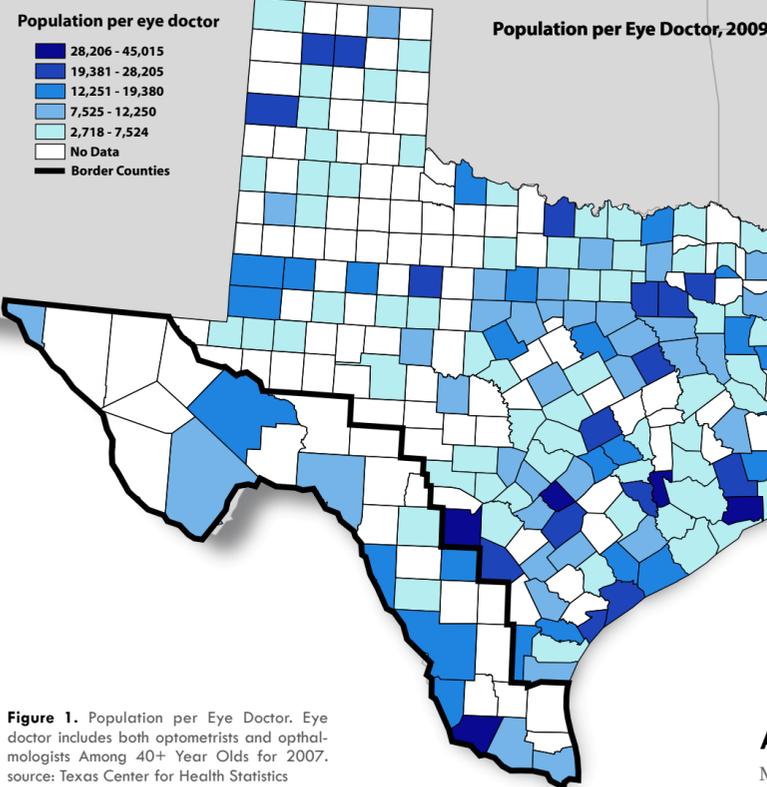


Figure 1. Population per Eye Doctor. Eye doctor includes both optometrists and ophthalmologists Among 40+ Year Olds for 2007. source: Texas Center for Health Statistics

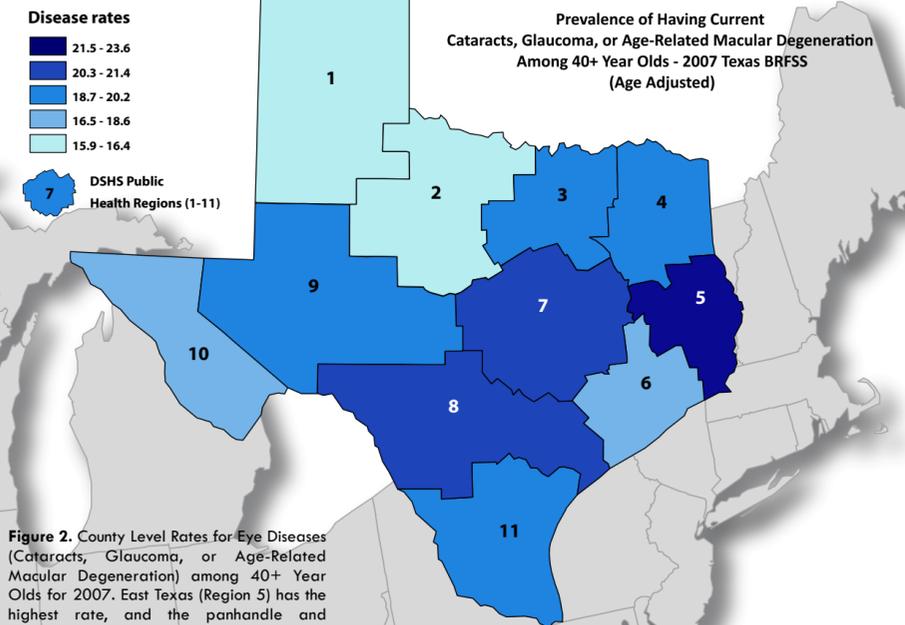


Figure 2. County Level Rates for Eye Diseases (Cataracts, Glaucoma, or Age-Related Macular Degeneration) among 40+ Year Olds for 2007. East Texas (Region 5) has the highest rate, and the panhandle and northwest Texas (Regions 1 and 2) have the lowest rates. source: BRFSS

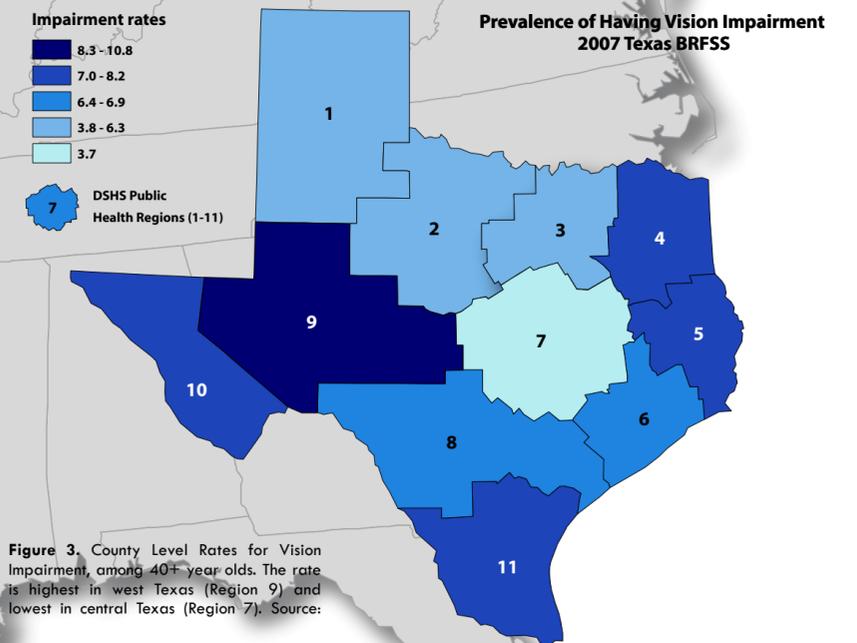


Figure 3. County Level Rates for Vision Impairment, among 40+ year olds. The rate is highest in west Texas (Region 9) and lowest in central Texas (Region 7). Source: BRFSS

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References:

1) The Eye Diseases Prevalence Research Group. 2004. Causes and prevalence of visual impairment among adults in the United States. Arch Ophthalmol. 122: 477-485. <http://archophth.ama-assn.org/cgi/reprint/122/4/477>. (Access date: March 4, 2010.)

2) National Eye Institute (NEI). 2004. Press release: Vision loss from eye diseases will increase as Americans age. Bethesda, MD: Department of Health and Human Services, NEI. <http://www.nei.nih.gov/news/pressreleases/041204.asp>. (Access date: March 4, 2010.)