Spanish-speaking and Homeless: Health Status of a Highly-Marginalized Community in Boston

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BOSTON HEALTH CARE *for the* HOMELESS PROGRAM

Introduction and Methods

Background

Latinos are the largest and fastest growing ethnic minority in the United States (Ennis et al, 2010), giving public health relevance to the health problems affecting this group. While it is thought that Latinos have better health outcomes than other racial/ethnic groups, Latinos in the U.S. face high rates of poverty, low rates of health insurance and language barriers. The homeless disproportionately experience poor health outcomes (O'Connell et al., 2010) and in 2010, the percentage of homeless Latinos closely resembled their overall representation in the U.S. However, little is known about the health of Spanish-speaking homeless individuals.

Aim

Determine whether there are health disparities, within a homeless population, between Spanish-speaking versus English-speaking patients who are engaged in primary care.

Methods

We performed a retrospective matched cohort study based on electronic medical records of 500 adult patients at Boston Health Care for the Homeless (BHCHP), a Federally Qualified Health Center, who identified their preferred language as Spanish, compared with 500 adult patients at BHCHP who identified their preferred language as English (N = 1000). Controls were randomly selected and matched on age and gender. All patients had ≥ 2 office visits with a medical provider (MD, NP or PA) during the two-year study period (12/31/2010-12/31/2012). Cases and controls were evaluated on demographic characteristics, completion of routine health screening exams (i.e. mammograms, colonoscopies, Pap smears), prevalence of chronic diseases (i.e. diabetes, hypertension, asthma), disease management (i.e. Hba1c, blood pressure, BMI) and utilization of services (i.e. number of visits with medical providers, nurses, dentists, behavioral health staff, admission to medical respite, ED visits). IRB approval was obtained through Boston Medical Center. Data analysis was completed using Excel and R (statistical software package).

Demographics

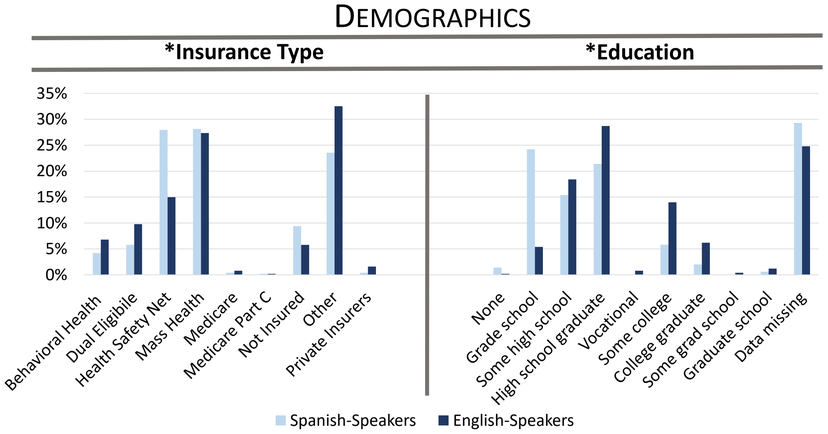
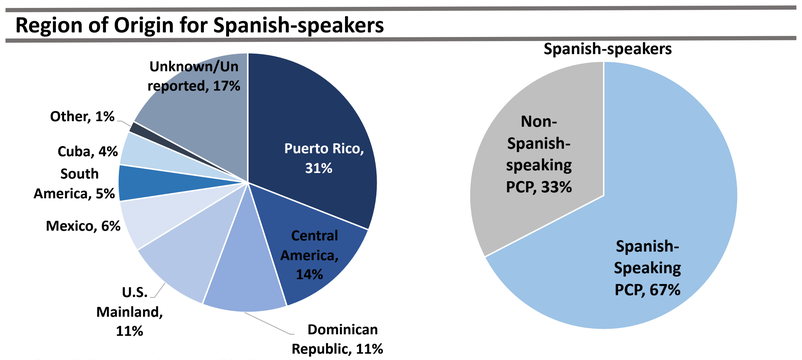


Figure 1. Comparison of insurance coverage and highest level of education attained between Spanish-speaking and English-speaking patients at BHCHP.
*Indicates statistical significance at the 5% level.



Figures 2 and 3. Region of Origin for 501 Spanish-speaking patients and percent of Spanish-speakers with language concordant PCP.

Results

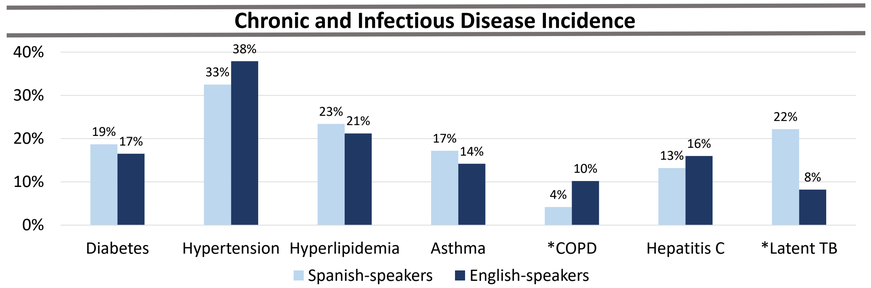


Figure 4. Comparison of chronic and infectious disease incidence between Spanish-speaking and English-speaking patients at BHCHP.
*Indicates statistical significance at the 5% level.

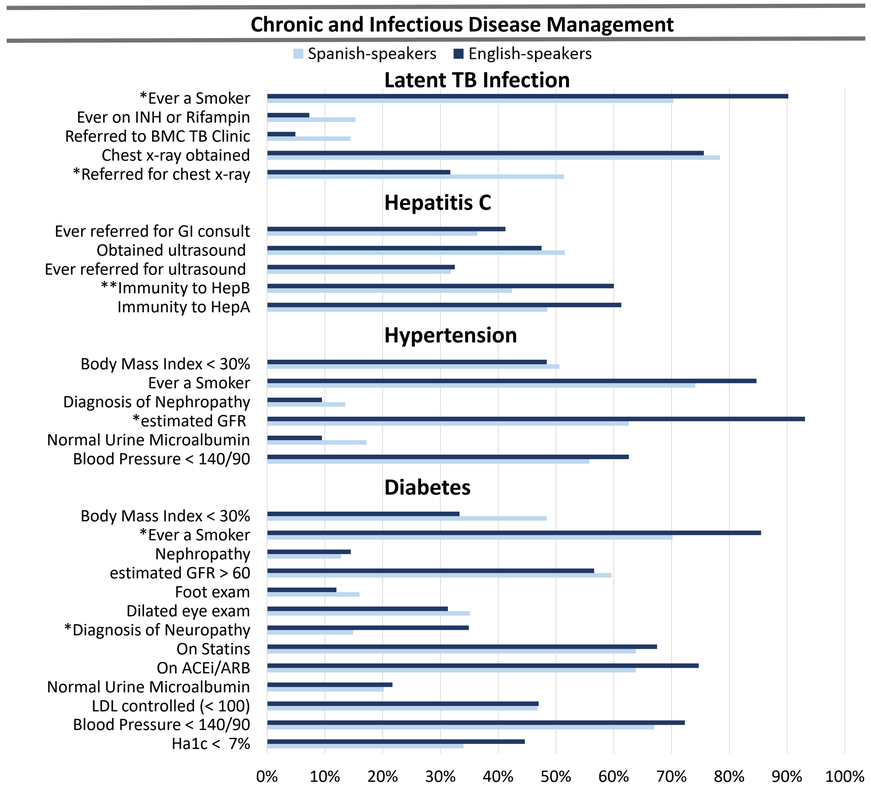


Figure 5. Comparison of chronic and infectious disease management between Spanish-speaking and English-speaking patients at BHCHP.
** Indicates statistical significance at the 10% level. *Indicates statistical significance at the 5% level.

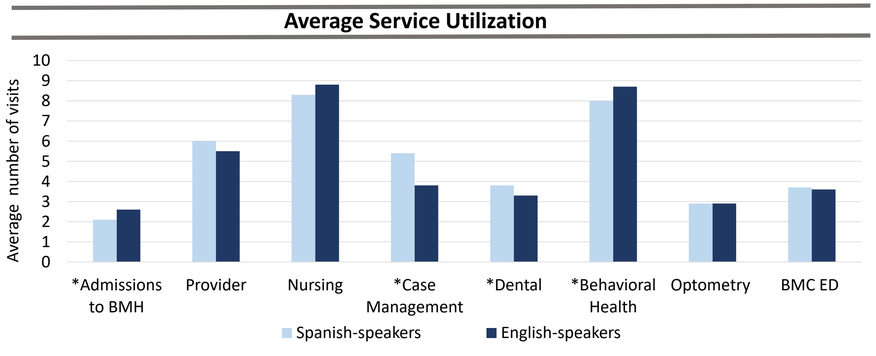


Figure 6. Average number of visits for two year study period by encounter type. *Indicates statistical significance at the 5% level.

Discussion

Results

There was a statistically significant difference in level of education attained between the case and control group ($p < 0.001$). With the exception of the rate of diagnosis of hypertension, which is statistically significant at the 10% level, $p = 0.086$, there were no statistically significant differences in rate of diagnoses of chronic disease across the two groups. There were observed differences in measures of control of chronic diseases, however, few of those observed differences were statistically significant. There were statistically significant differences in service utilization patterns across Spanish-speakers and English-speakers. Fewer Spanish-speakers had ever had an admission to medical respite facility the Barbara McInnis House (BMH) ($p < 0.006$) and, of those who had an admission, the average number of admissions was significantly lower for Spanish-speakers ($p < 0.004$). Fewer Spanish-speakers had an admission to Boston Medical Center Emergency Department during the study period ($p = 0.021$).

Discussion

The lack of significant difference in health outcomes may be attributed to the following:

- Majority of Spanish-speaking patients had language concordant primary care providers
- Massachusetts has had universal health coverage for over 10 years (removes barriers to access)
- The singularity of BHCHP: multi-service program, patient-centered care
- Boston is medically well-resourced, with numerous points of entry to care
- Homeless patients who have at least 2 medical visits may be better connected to care and may, on average, be relatively healthier (selection bias)
- We have no data on length of time our Spanish-speaking patients have been in the U.S. (well known that over time, immigrants' health converges with that of the general U.S. population)

Considerations:

- This is a point-in-time study. We are not able to observe fluctuations over time
- Because BHCHP is a unique health care provider, MA is unique in having universal health care for over 10 years and Boston has many points of access to care, this study many not be generalizable to other homeless populations
- We were unable to assess the fluency of Spanish-speaking PCPs, or whether patients whose preferred language was Spanish were also fluent in English

Conclusions

Adult Spanish-speaking homeless patients at Boston Health Care for the Homeless differ from their English-speaking counterparts in level of education and service utilization. This study did not show significant differences in completion of routine screening tests, or prevalence/management of chronic diseases. In order to care for this highly marginalized population, it will be important to better understand how reductions in certain health disparities were achieved, as well as how to improve access to care.

References and Acknowledgements

O'Connell, J. J., Oppenheimer, S. C., Judge, C. M., Taube, R. L., Blanchfield, B. B., Swain, S. E., & Koh, H. K. (2010). The Boston Health Care for the Homeless Program: a public health framework. *Am J Public Health, 100*(8), 1400-1408. doi: 10.2105/ajph.2009.173609

Ennis, R. S., Rios-Vargas, M. &Albert, G. N. (2010). The Hispanic Population: 2010 Census Briefs. *U.S. Department of Commerce Economics and Statistics Administration U.S. Census Bureau, Issued May 2011*

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