



NATIONAL LUNG CANCER ROUNDTABLE

UNDERSTANDING THE HISPANIC HEALTH PARADOX IN THE CONTEXT OF LUNG CANCER

Heidi A. Hamann, PhD

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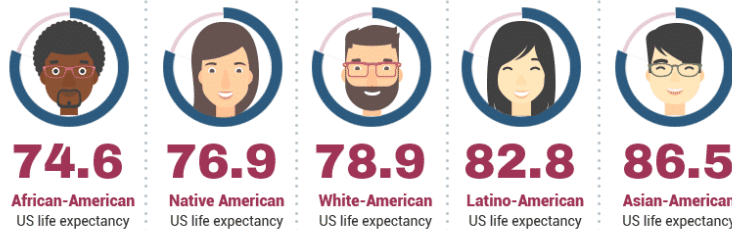
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What is the Hispanic/Latinx Health Paradox?

The epidemiological phenomenon in which Hispanics/Latinos experience *lower mortality* relative to Non-Hispanic Whites despite *disproportionately greater* socioeconomic health risks (e.g., insurance status, education, income, racism).

- Advantages in many aspects of disease incidence and morbidity
 - Meta-analysis of 58 studies: 17.5% lower risk of mortality among Hispanics (Ruiz et al. 2013; AJPH)
- Moderated by age, ethnic background, nativity, neighborhood, acculturation



Source: Centers for Disease Control data for 2016-2017 as presented by Simply Insurance (<https://www.simplyinsurance.com/average-us-life-expectancy-statistics/#section-11>)





Does the Hispanic paradox occur in the context of lung cancer?

OXFORD

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Systematic Review

Ethnic Differences in Survival Among Lung Cancer Patients: A Systematic Review

Sarah N. Price , MA,^{1,*} Melissa Flores , PhD,^{1,2} Heidi A. Hamann , PhD,^{1,3} John M. Ruiz , PhD³

¹Department of Psychology, University of Arizona, Tucson, AZ, USA; ²Center for Border Health Disparities, University of Arizona Health Sciences, Tucson, AZ, USA; and ³Department of Family and Community Medicine, University of Arizona, Tucson, AZ, USA

*Correspondence to: Sarah N. Price, MA, Department of Psychology, University of Arizona, 1503 E. University Blvd, Tucson, AZ 85719, USA (e-mail: sarahnp@arizona.edu)

Abstract

Background: Despite a substantially worse risk factor profile, Hispanics in the United States experience lower incidence of many diseases and longer survival than non-Hispanic Whites (NHWs), an epidemiological phenomenon known as the Hispanic Health Paradox (HHP). This systematic review evaluated the published longitudinal literature to address whether this pattern extends to lung cancer survival. **Methods:** Searches of Medline, PubMed, Embase, Web of Science, and the Cochrane Library were conducted for publications dated from January 1, 2000, to July 18, 2018. Records were restricted to articles written in English, employing a longitudinal design, and reporting a direct survival comparison (overall survival [OS], cancer-specific survival [CSS]) between NHW and Hispanic lung cancer patients. **Results:** A final sample of 29 full-text articles were included, with 28 fully adjusted models of OS and 21 of CSS included. Overall, 26 (92.9%) OS models and 20 (95.2%) CSS models documented either no difference (OS = 16, CSS = 11) or a Hispanic survival advantage (OS = 10, CSS = 9). Both larger studies and those including foreign-born Hispanics were more likely to show a Hispanic survival advantage, and 2 studies of exclusively no-smokers showed a survival disadvantage. A number of reporting gaps were identified including Hispanic background and sociodemographic characteristics. **Conclusions:** Hispanics exhibit similar or better survival in the context of lung cancer relative to NHWs despite a considerably worse risk factor profile. These findings support the HHP in the context of lung cancer. Further research is needed to understand the potential mechanisms of the HHP as it relates to lung cancer.

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Study and Associated Estimate

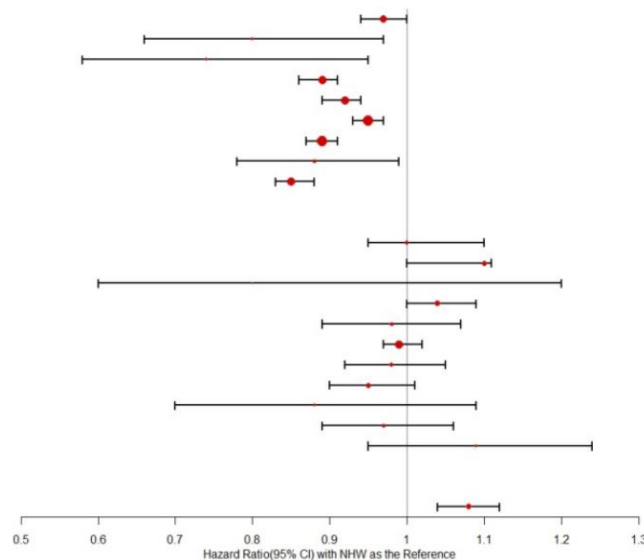
Advantage	HR	95% CI
Aizer et al., 2014	0.97	(0.94, 0.996)
David et al., 2017	0.80	(0.66, 0.97)
David et al., 2015*	0.74	(0.58, 0.95)
Ellis et al., 2018 Female	0.89	(0.86, 0.91)
Ellis et al., 2018 Male	0.92	(0.89, 0.94)
Jemal et al., 2017	0.95	(0.93, 0.97)
Lara et al., 2014	0.89	(0.87, 0.91)
Niu et al., 2010 Female	0.88	(0.78, 0.99)
Patel et al., 2013 Foreign-born	0.85	(0.83, 0.88)

No Difference

Clegg et al., 2002 Female	1.00	(0.95, 1.10)
Clegg et al., 2002 Male	1.10	(1.00, 1.11)
Du et al., 2011	0.80	(0.60, 1.20)
Jemal et al., 2004 Female	1.04	(1.00, 1.09)
Niu et al., 2010 Male	0.98	(0.89, 1.07)
Patel et al., 2013 US-born	0.99	(0.97, 1.02)
Smith et al., 2011	0.98	(0.92, 1.05)
Soneji et al., 2017	0.95	(0.90, 1.01)
Varlotto et al., 2018a ESR*	0.88	(0.70, 1.09)
Varlotto et al., 2018a TS*	0.97	(0.89, 1.06)
Wisnivesky et al., 2005	1.09	(0.95, 1.24)

Disadvantage

Jemal et al., 2004 Male	1.08	(1.04, 1.12)
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Yes. 93-95% of included studies showed either an Hispanic mortality advantage or no difference (OS and CSS; compared to NHW) among individuals diagnosed with lung cancer

What are the potential mechanisms?

- Health behaviors?
 - Tobacco use lower among Hispanics
- Differences in histology and/or oncogenic drivers?
- Differences in cellular aging?



Sociocultural Resilience Hypothesis

Basic hypothesis:

- *Cultural values* promote and maintain strong *social bonds* (network size/integration, cohesion) leading to *health advantages*.



Article

The Hispanic health paradox: From epidemiological phenomenon to contribution opportunities for psychological science

John M. Ruiz,¹ Heidi A. Hamann,¹ Matthias R. Mehl,¹
and Mary-Frances O'Connor¹

Abstract

Similar to non-Hispanic Blacks, Hispanics/Latinos experience a range of psychosocial and physical health challenges, including high rates of poverty, neighborhood segregation, discrimination, poor healthcare access, and high rates of obesity, diabetes, and undiagnosed and late-stage diagnosed diseases. Despite such risks, Hispanics generally experience better physical health and lower mortality than non-Hispanic Whites, an epidemiological phenomenon commonly referred to as the Hispanic or Latino health paradox. With the basic phenomenon increasingly well-established, attention now turns to the sources of such resilience. The current aims are to briefly examine the epidemiological paradox and highlight potential sociocultural resilience factors that may contribute to the paradoxical effects. We conclude with presentation of a framework for modeling sociocultural resilience and discuss future directions for psychological contributions.

Group Processes & Intergroup Relations

1-15

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Ethnicity and Lung Cancer: A test of the Hispanic sociocultural hypothesis (R01CA262719; MPI: Ruiz & Hamann)

Multisite study of 672 individuals with later-stage lung cancer

Study Aims

- Evaluate the degree to which **social integration mediates ethnic differences in survival** outcomes for lung cancer patients in a multisite, longitudinal sample.
- Examine whether **acculturation moderates survival through its effects on social integration** among Hispanic lung cancer patients
- Examine if **daily experiences** (derived from EAR and EMA) statistically **mediate** the effects of social integration on survival outcomes



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Thank you and acknowledgements

Questions?



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