

Assessing Maternal Risk Factors for Adverse Infant Outcomes in SPA 8

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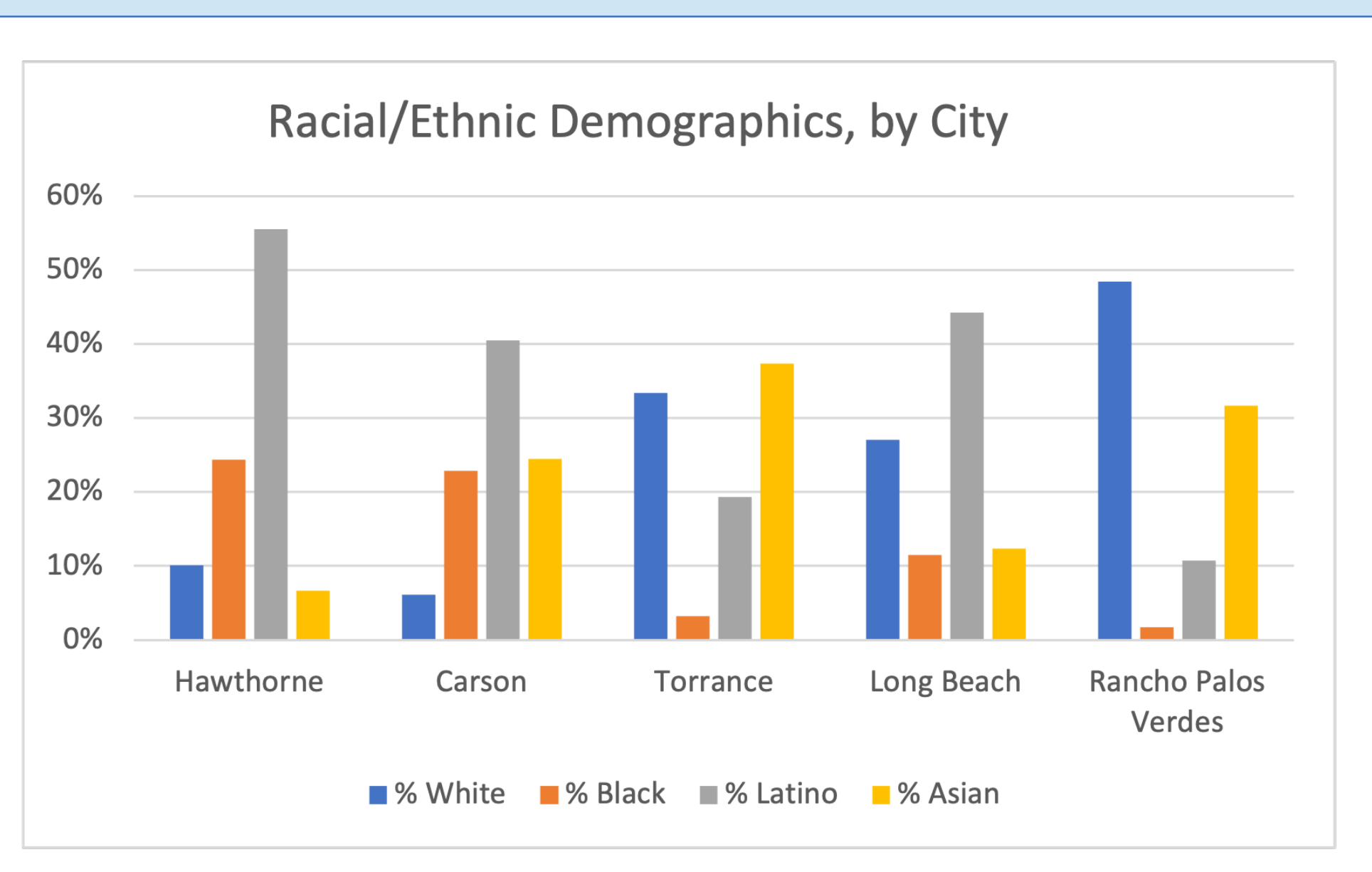
Abstract

- Los Angeles (LA) County has among the highest pregnancy-related mortality ratios in California, with 14.7 deaths per 100,000 live births.¹
- Within LA County, Service Planning Area (SPA) 8, representing the South Bay area, has the highest maternal death rate with a total of 26.5 deaths per 100,000 live births.²
- Despite this high rate, there is a lack of robust recent data assessing risk factors and other related adverse outcomes in LA County, such as infant mortality and low birth weight (LBW).

In alignment with the Life Course framework, it is important to understand potential risk factors for adverse outcomes as they can not only be difficult for parents and infants in the short-term but can have lifelong impacts on an infant's trajectory.³⁻⁵ Assessing these factors in areas of need, such as SPA 8, is essential to facilitate prevention and intervention efforts that improve health outcomes and allow infants to thrive.

Objectives

- Select cities in SPA 8 for analysis and comparison
- Assess data on maternal risk factors, by city
- Assess data on infant outcomes, by city
- Analyze and compare findings to inform understanding of situation and areas of future research

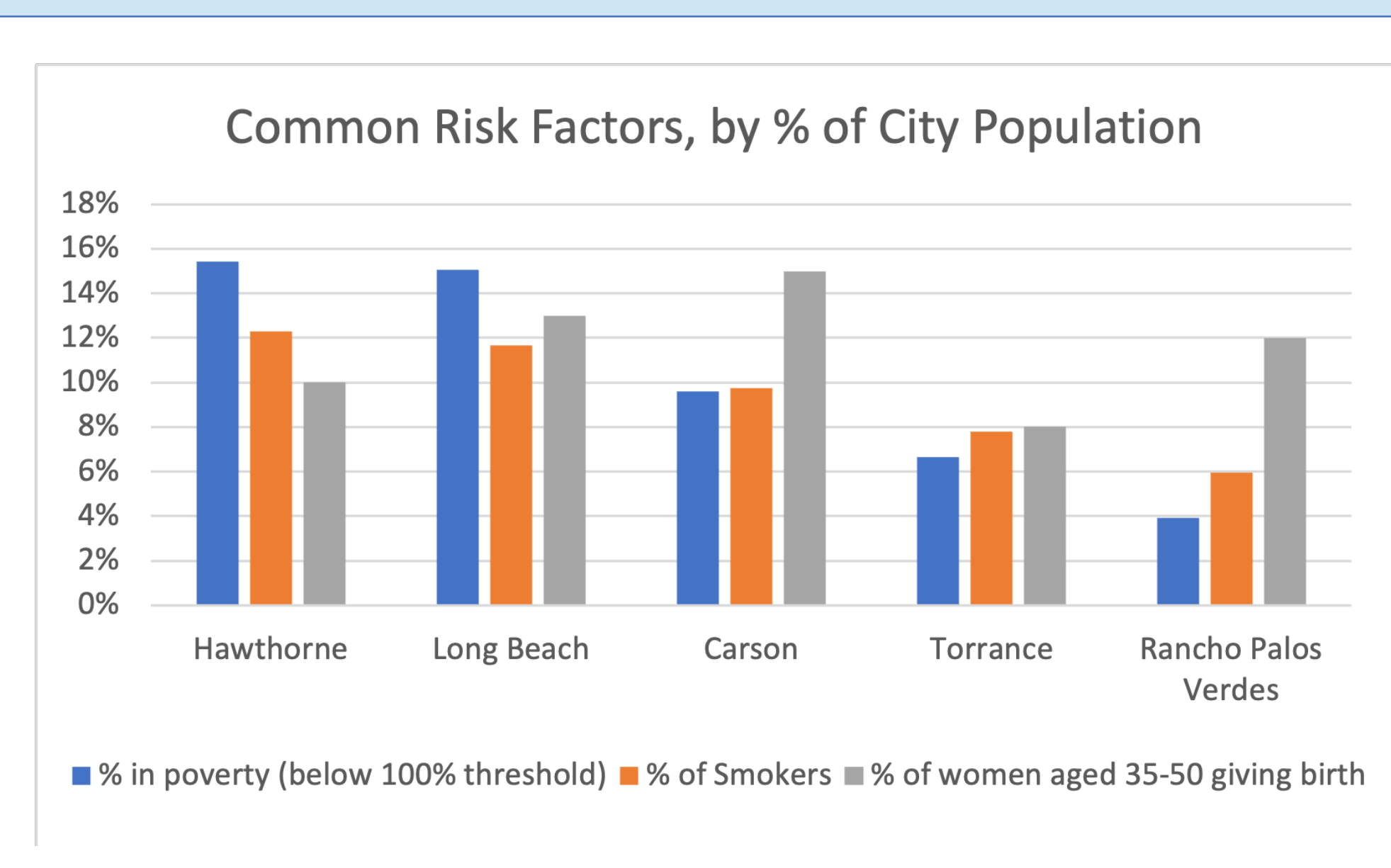


Methods

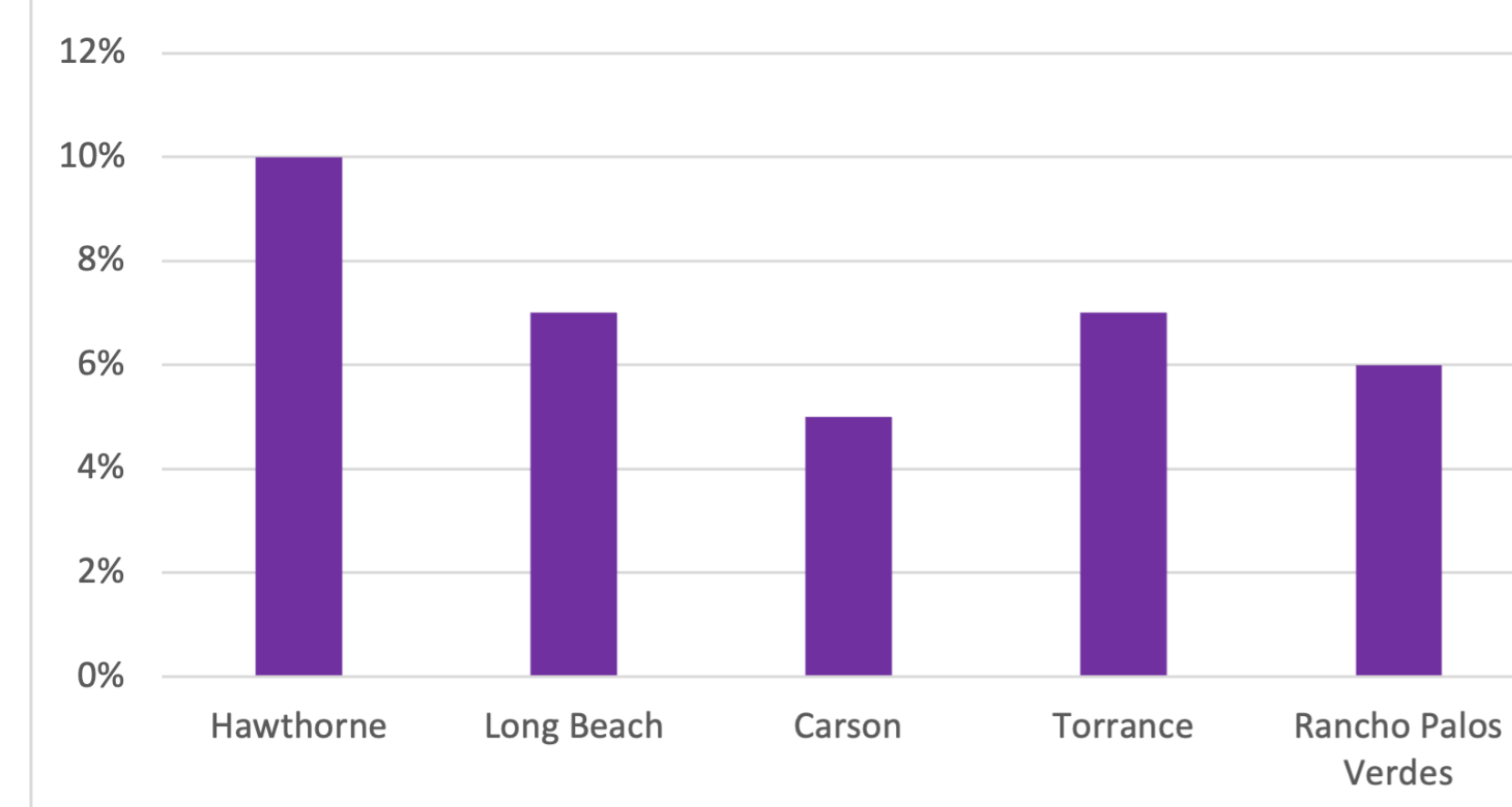
- Select cities in SPA 8 and assess key demographic factors
 - Service Planning Area 8 (SPA 8) is the third largest in Los Angeles County, with an estimated 1,513,402 residents.⁶
 - Hawthorne, Long Beach, Carson, Torrance, and Rancho Palos Verdes selected based on geographic proximity and large populations
 - Despite their close distance, these cities demonstrate great disparities in outcomes including environmental risks, income and overall quality of life. One analysis of all 88 LA communities rated Rancho Palos Verdes among the top 5 for overall human development, with a score over twice that of Hawthorne (9.12 vs. 4.49).⁷

Metrics	Hawthorne	Torrance	Long Beach	Carson	Rancho Palos Verdes
Total Population	89,084	145,366	462,312	93,431	41,770
Median Age	34.7	44.3	36.7	41.8	49.8
Life Expectancy	78.71	82.82	78.40	80.04	84.67
% Immigrant Population	32.68%	30.42%	24.64%	34.45%	26.84%
Median household income	\$76,598	\$111,070	\$83,785	\$104,304	\$169,429

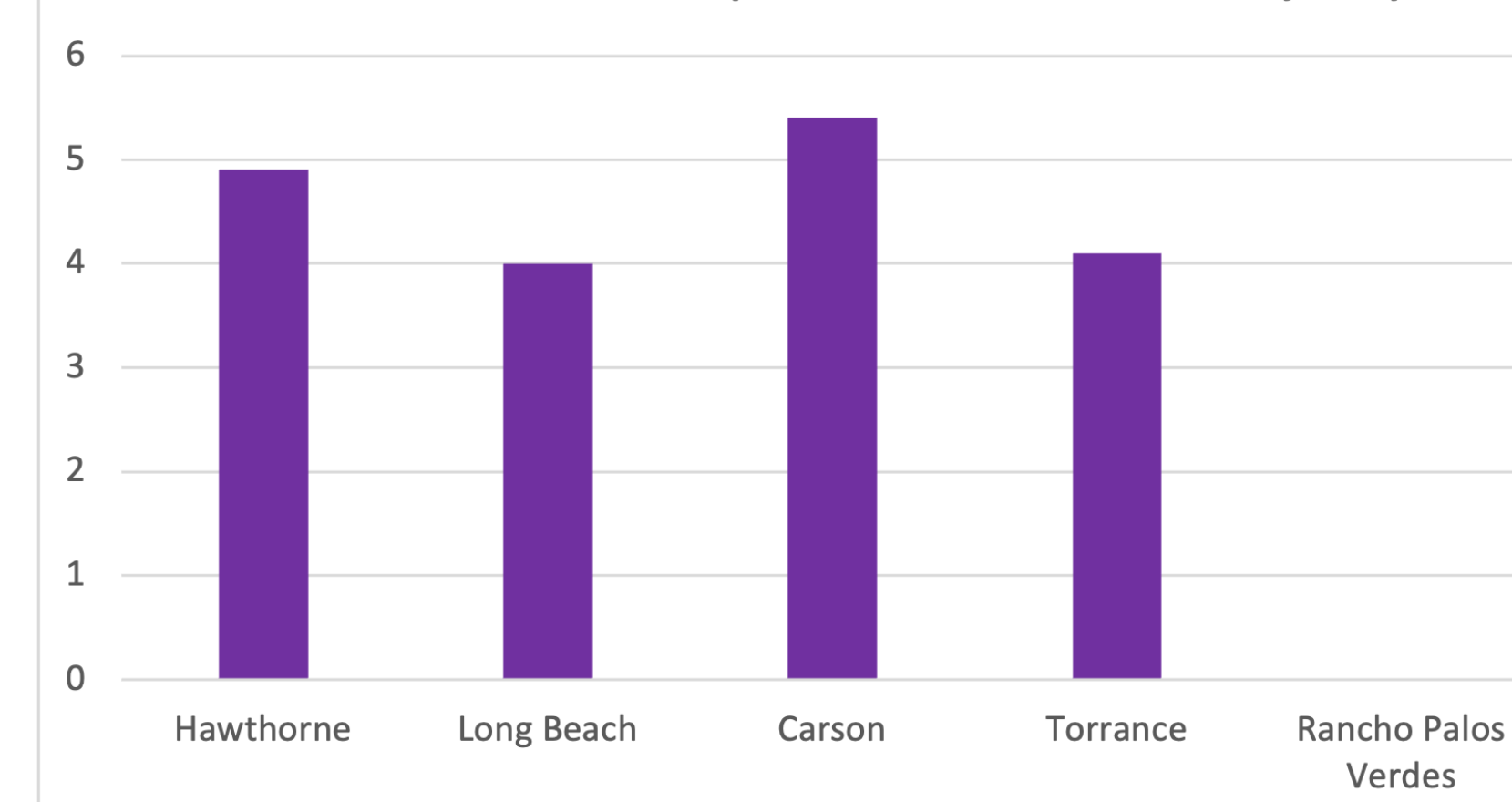
- Assessed maternal risk factors, by city
 - % in poverty (below 100% threshold), 2022
 - % of smokers, 2020
 - % of women aged 35-50 giving birth, 2022
 Poverty and smoking data were retrieved from USC's Neighborhood Data for Social Change⁸; maternal age data were retrieved from Census Reporter.⁹
- Assessed outcomes of interest, by city
 - % of infants with LBW, 2016
 - # of infant deaths per 1,000 live births, 2012-2016
 Outcome data were retrieved from Los Angeles County City and Community Profiles.¹⁰



% of Infants with Low Birth Weight (LBW), by City



Infant Deaths per 1,000 live births, by City



Results

- Cities with lower incomes and life expectancies have higher likelihood of poverty and smoking.
- Rancho Palos Verdes, who had the lowest rates of poverty and smoking, had a similar proportion of women aged 35-50 who gave birth compared to the other cities.
- More socioeconomically disadvantaged cities saw greater proportions of LBW, but infant death rates (which were unavailable for the city of Rancho Palos Verdes), did not follow as clear of a trend.¹⁰
- The highest infant death rate was seen in Carson, but similar rates were seen in Torrance and Long Beach.

This project was supported by the UCLA Maternal and Child Health Center of Excellence, a federally-funded training grant awarded by the Maternal and Child Health Bureau at the Health Resources and Services Administration (HRSA) under award T76MC00014

Conclusions

Most risk factor and adverse outcome data are reported at the SPA, county, state, or regional levels. The data assessed in this project were the only publicly accessible sources at the city level, and many were outdated (nearly eight years old).

Though this analysis was not reflective of all cities in SPA 8, it suggests that general indicators of health and wellbeing may not be sufficient in explaining rates of adverse infant outcomes.

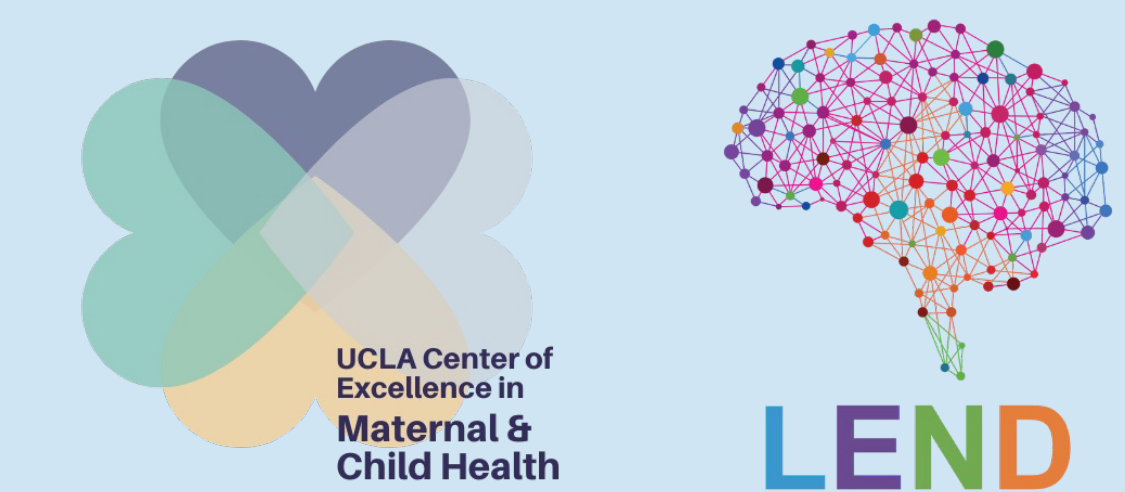
Data must be collected more frequently and thoroughly, including:

- Risk factors & outcomes, by city & community
- Disaggregated by race/ethnicity
- Qualitative data to understand salient factors

Newer and more precise data can inform appropriate and effective prevention and intervention efforts.

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Presented at the UCLA First Annual Neal Halfon Public Health Trainee Symposium in association with the UCLA Maternal and Child Health Center of Excellence and UC-LEND Training Programs on June 7, 2024.