

Geospatial mapping of diabetes programs and equity index among Asian Americans in Los Angeles

Dante Anthony **TOLENTINO**, PhD, RN¹; Rey Paolo Ernesto **ROCA III**, MSN, RN¹; Derek **LANCE**¹; Katrina **CARPIZO**, BS¹; Gilkevyn **PALAO**²; Gillkaitlyn **PALAO**²; Matthew **PEÑA**, BS¹; Ava **ADLAO**¹; Ryan **HORNE**¹

1- University of California, Los Angeles; 2- University of Michigan, Ann Arbor

PURPOSE

- To map distributions and relationships between diabetes self-management education/support (DSME/S) programs, Asian American population density, and community health factors in Los Angeles County

BACKGROUND

- **Diabetes epidemic** in the US
 - **Asian Americans disproportionately impacted:** 40% higher diabetes diagnosis and 60% higher end-stage renal disease compared to White adults
- Low engagement/participation (<10%) in DSME/S
 - Hypothesis: **location disparities**, cultural, socio-economic and environmental factors contribute to DSME engagement/participation
- **Gap:** No geospatial resources describing DSME/S program distributions, Asian American population, and community health factors to give critical information for targeted outreach and policy

METHODS

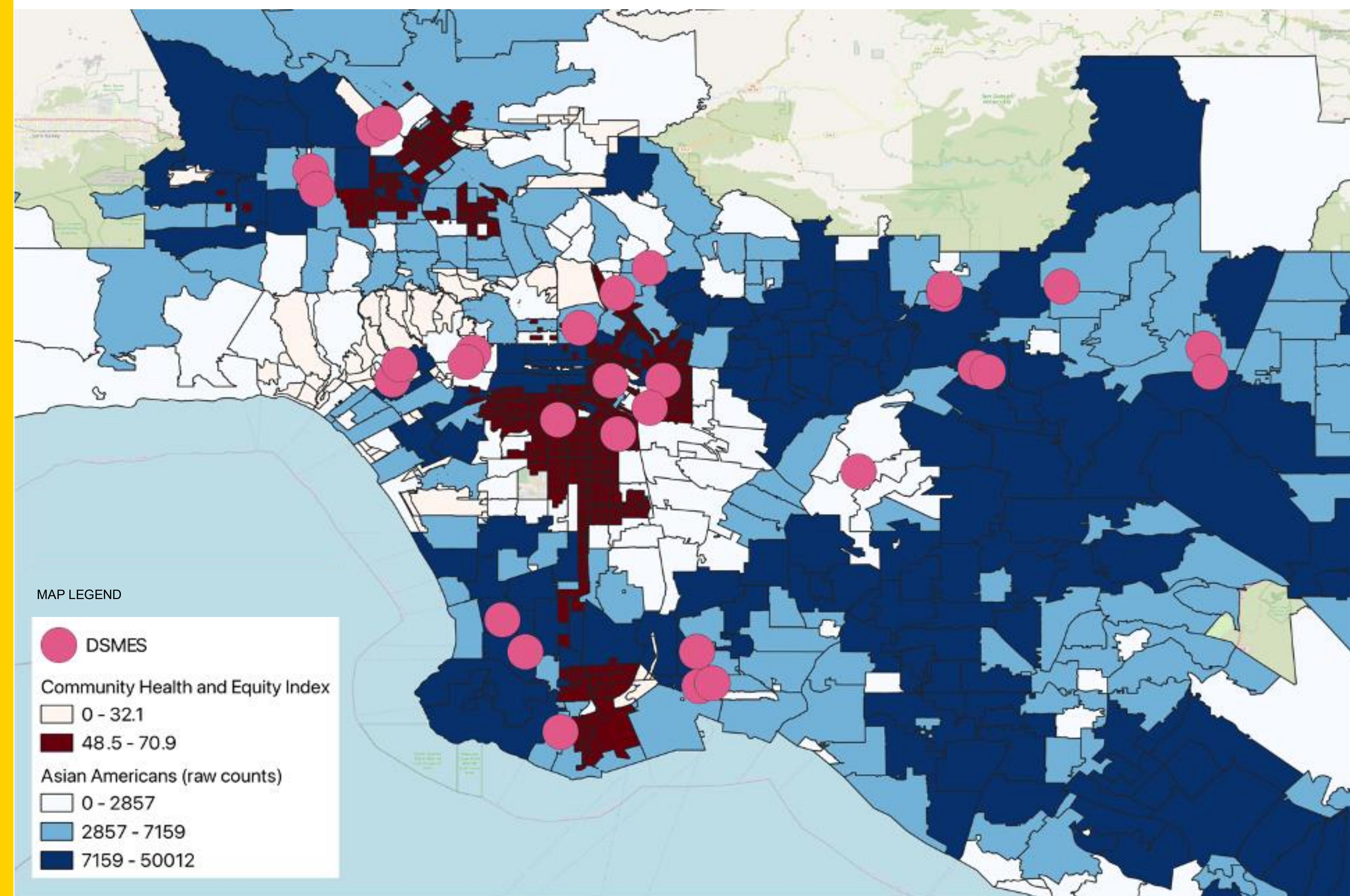
- Geospatial mapping of county-level data from publicly available sources using free software, **QGIS**
 - Data sources: American Diabetes Association website, American Community Survey, Community Health and Equity Index from LA Public Health [CHEI; 0-100; lower = better community health])

CONCLUSION

- Geospatial mapping usage in nursing research
- Future analysis: use of traditional statistics to validate the results of the spatial maps
- Immediate action is imperative to address DSME/S access disparities in LA: 1) expand DSME/S to high CHEI areas, 2) boost education on the use of DSME among Asian Americans, 3) use telenursing, 4) monitoring and evaluation

Immediate action is vital to foster health and equity in changing environmental and social climates

Availability of DSME/S programs in LA County shows clustering rather than equitable distribution, with mixed associations with community health and equity index.



- Central LA has more DSME/S programs than South Bay (southwest of LAC)
- Areas with significant Asian American populations have scarce DSME (San Gabriel Valley-southeast of LAC and in some large areas of the San Fernando Valley -northwest of LAC) both of which have significant Asian American populations
- Mixed association between the number of DSME/S programs and CHEI in some areas.
 - Central Los Angeles with a cluster of DSME/S programs has high scores of CHEI
 - Wealthier areas of the county (e.g., Westwood and Beverly Hills) have lower CHEI but with significant clusters of DSME/S programs

This work is supported through the National Institute on Minority Health and Health Disparities Grant Number **NIH/NIMHD P50-MD017366** as part of **UCLA-UCI UC END DISPARITIES** (Tolentino – Pilot Awardee).