

Exploring Diet Qualities among Nebraska's Young Children: A Comparative Analysis by Race, Ethnicity, and Immigration Status



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Summary

Young Children from immigrant households exhibit lower dietary quality compared to non-immigrant, non-Hispanic White, non-Hispanic African American and non-Hispanic American Indian and Native Hawaiian households in Nebraska ($p < 0.05$).

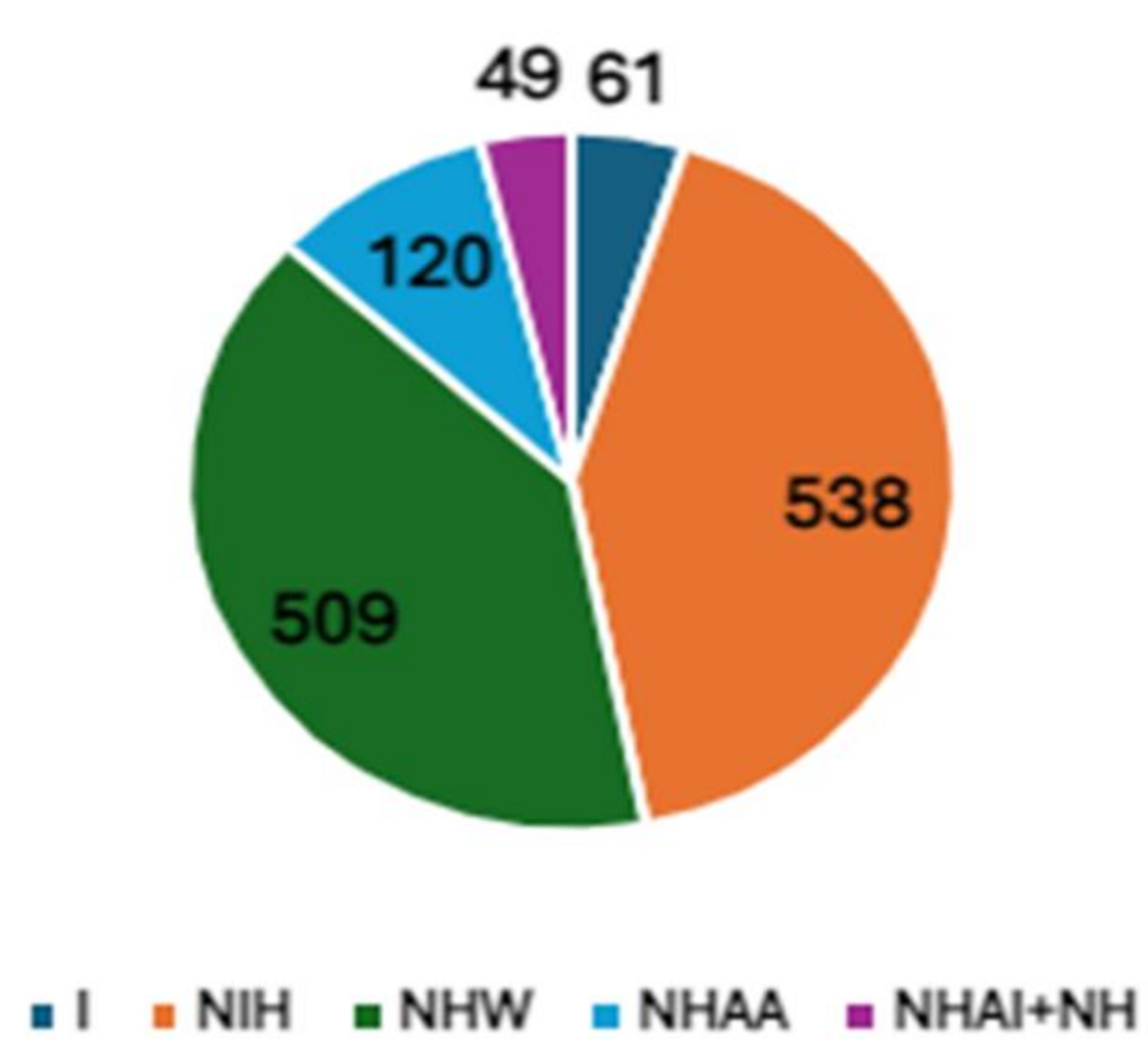
Background

- Diet quality among Americans is poor and is a major risk factor for adverse health outcomes (Stanaway et al., 2018).
- The racial/ethnic differences in diet quality have major policy and programming implications to prevent diet-related chronic health conditions (Thomson et al., 2019).

Research Gap. Limited studies have examined differences in children's diet quality in context of their parents' racial/ethnic identities and immigration statuses especially across Nebraska.

Objective. To evaluate and compare 2–6-year-old children's diet quality from first-generation immigrant, Hispanics (NIH), non-Hispanic White (NHW), non-Hispanic African-American (NHAA) and non-Hispanic American Indian and Native Hawaiian (NHAI+NH) households.

Categories Based on Racial, Ethnic and Immigrant Status



Methods

This cross-sectional study collected parent-reported survey data from Nebraska households with at least one 2-6-year-old child ($n=1277$) was collected using Qualtrics. Children were categorized into five distinct groups based on parents' race, ethnicity and immigration status:

- First-generation immigrants ($n=61$),
- Non-immigrant Hispanics ($n=538$),
- Non-immigrant non-Hispanic Whites ($n=509$)
- Non-immigrant non-Hispanic African-American ($n=120$)
- Non-Hispanic American Indians and Native Hawaiians ($n=49$).

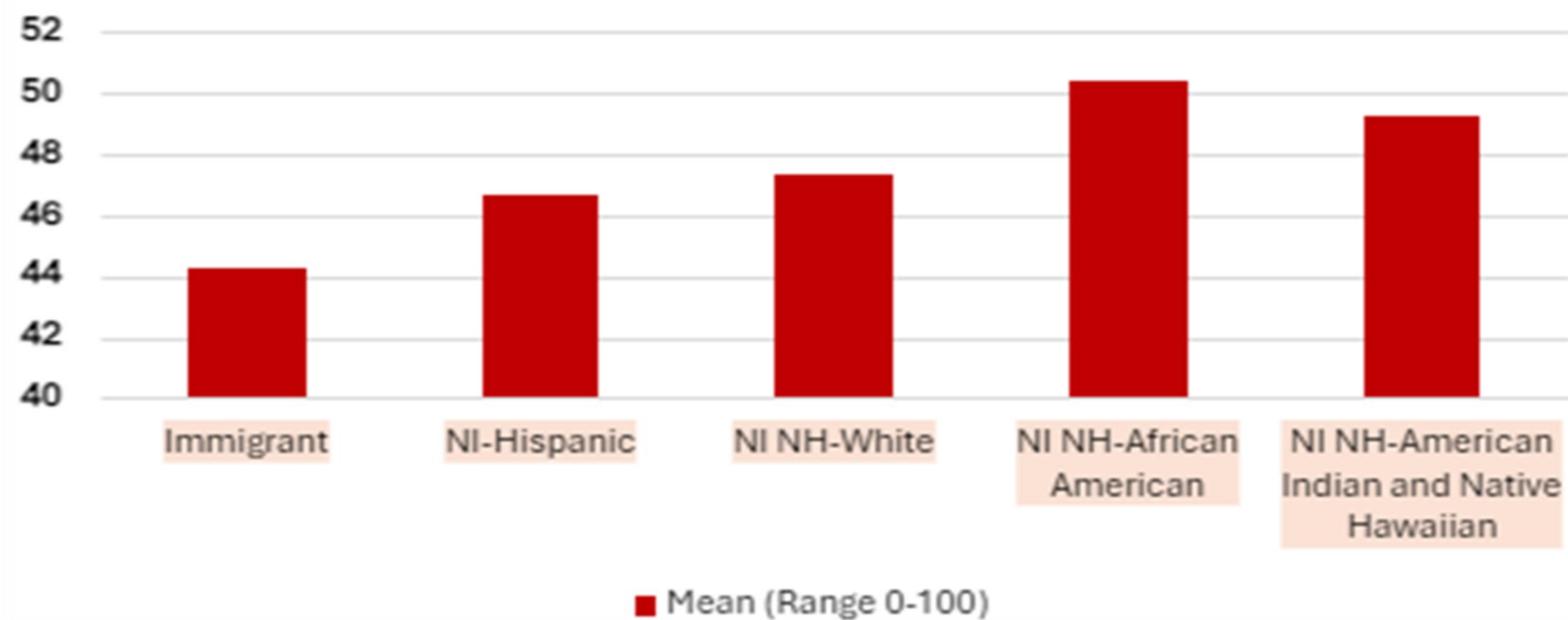
Measurable Outcome

Diet Quality: Children's diet quality score was measured using the short Healthy Eating Index (sHEI range 0-100).

Data Analysis:

- ANOVA tests using IBM SPSS v.27.0 to compare children's mean sHEI scores controlling for household income, education, geographical location and federal program participation (SNAP, WIC and HeadStart).
- Benjamini-Hochberg correction for running multiple tests.
- Pairwise comparisons to identify variations in diet quality scores between groups.

Estimated Marginal Means of Total sHEI Score Across Five Groups



Results & Discussions

- Overall Diet Quality was low with a mean sHEI score of 47.7 out of 100. Mean sHEI score differed significantly for children among the five groups, $F(4,973) = 5.21$, $p < .001$.
- Children from Immigrant group (44.3, $SE = \pm 1.3$) have significantly lower diet quality as compared to non-Hispanic White (47.3, $SE = \pm .55$), non-Hispanic African American (50.4, $SE = \pm .92$) and non-Hispanic American Indians (49.2, $SE = \pm 1.35$).
- Children from the Immigrant group had higher added sugar consumption than non-Hispanic White ($p=0.017$) and non-Hispanic American Indian and Native Hawaiian ($p=0.012$) groups.
- Children from non-Immigrant Hispanic group had lower scores for total fruit compared to Immigrant ($p=0.001$), non-Hispanic African American ($p < 0.001$), and non-Hispanic American Indian and Native Hawaiian ($p=0.018$) groups. They also had lower whole fruit and dairy scores than Immigrant ($p < 0.001$ and $p=0.015$, respectively) and non-Hispanic African American ($p < 0.001$) groups.
- Young Children from Immigrant and Hispanic household having the lower diet quality scores emphasize the need for culturally supportive multi-level nutrition interventions in households and educational settings.
- Future research is suggested to explore the association of child diet quality with culturally appropriate healthy food access in families with diverse backgrounds.

For references and questions, please email at nbhatti2@huskers.unl.edu