

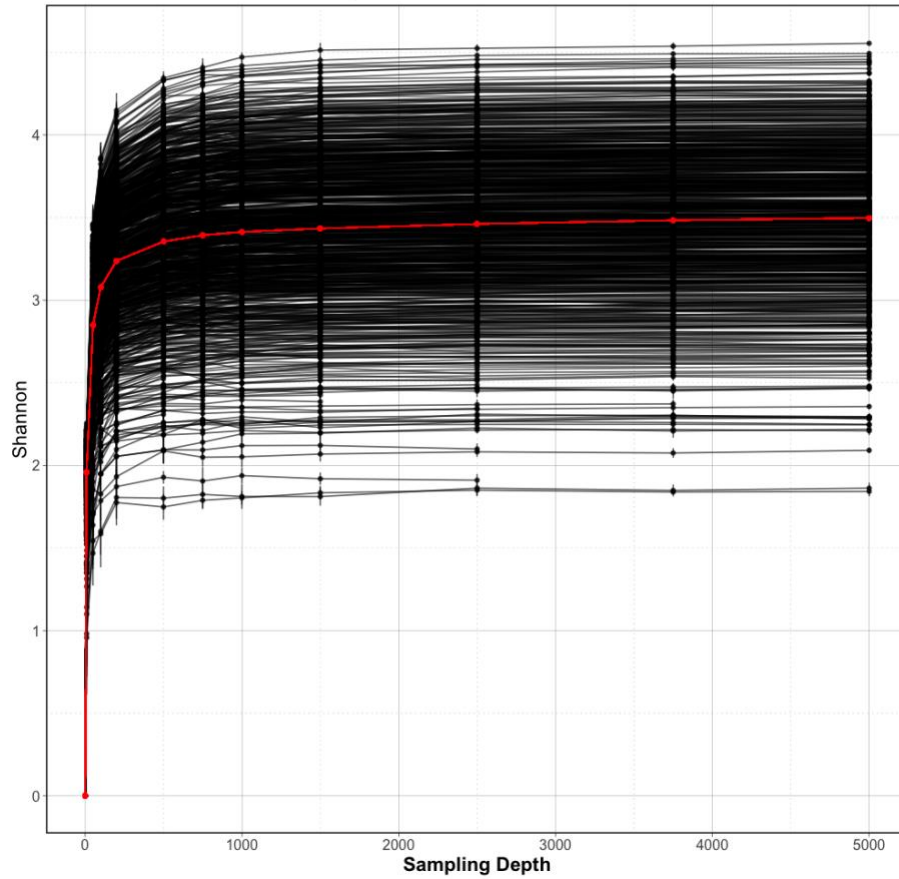
Supplementary Information

Supplementary Table 1. Characteristics of Study Participants by Race/Ethnicity

	NH White (N=311)	NH Asian (N=287)	NH Black (N=89)	Hispanic (N=138)
Age				
Mean (SD) [min, max]	57.6 (10.1) [40, 87]	64.9 (11.6) [40, 91]	54.2 (8.8) [40, 80]	56.3 (9.6) [40, 81]
Sex				
Male	138 (44.4%)	93 (32.4%)	29 (32.6%)	43 (31.2%)
Female	173 (55.6%)	194 (67.6%)	60 (67.4%)	95 (68.8%)
Nativity				
U.S.-born	297 (95.5%)	8 (2.8%)	85 (95.5%)	38 (27.5%)
Foreign-born	14 (4.5%)	279 (97.2%)	4 (4.5%)	100 (72.5%)
Smoking status				
Never	185 (59.5%)	218 (76.0%)	55 (61.8%)	79 (57.2%)
Former	101 (32.5%)	47 (16.4%)	22 (24.7%)	32 (23.2%)
Current	25 (8.0%)	19 (6.6%)	12 (13.5%)	22 (15.9%)
Missing	0 (0%)	3 (1.0%)	0 (0%)	5 (3.6%)
Exercise				
None	30 (9.6%)	41 (14.3%)	7 (7.9%)	34 (24.6%)
1 hr/week	66 (21.2%)	61 (21.3%)	31 (34.8%)	38 (27.5%)
2–3 hr/week	110 (35.4%)	82 (28.6%)	28 (31.5%)	32 (23.2%)
4 hr/week	103 (33.1%)	101 (35.2%)	22 (24.7%)	30 (21.7%)
Missing	2 (0.6%)	2 (0.7%)	1 (1.1%)	4 (2.9%)
Dietary acculturation index				
Mean (SD) [min, max]	0.062 (0.093) [-0.261, 0.292]	-0.089 (0.104) [-0.305, 0.288]	0.026 (0.095) [-0.253, 0.240]	0.024 (0.112) [-0.315, 0.238]
Missing	13 (4.2%)	14 (4.9%)	4 (4.5%)	13 (9.4%)
Body mass index, kg/m²				
Mean (SD) [min, max]	28.4 (6.5) [17.9, 55.0]	23.9 (3.4) [15.5, 40.3]	31.3 (7.4) [15.8, 55.6]	29.7 (6.8) [16.8, 51.0]
Missing	0 (0.0%)	14 (4.9%)	4 (4.5%)	2 (1.4%)
Individual-level SES				
Education				
More than high school graduate	294 (94.5%)	186 (64.8%)	81 (91.0%)	53 (38.4%)
High school graduate or less; Low SES	17 (5.5%)	98 (34.1%)	8 (9.0%)	83 (60.1%)
Missing	0 (0.0%)	3 (1.0%)	0 (0.0%)	2 (1.4%)
OSEI				
Q5 [81.025, 92.782]	85 (27.3%)	30 (10.5%)	10 (11.2%)	7 (5.1%)
Q4 [62.947, 80.919]	89 (28.6%)	20 (7.0%)	18 (20.2%)	8 (5.8%)
Q3 [43.859, 62.573]	49 (15.8%)	40 (13.9%)	12 (13.5%)	19 (13.8%)
Q2 [28.681, 42.994]	54 (17.4%)	69 (24.0%)	25 (28.1%)	20 (14.5%)
Q1 [12.609, 28.645]; Lowest SES	18 (5.8%)	63 (22.0%)	15 (16.9%)	43 (31.2%)
Missing	16 (5.1%)	65 (22.6%)	9 (10.1%)	41 (29.7%)
Neighborhood-level SES				
Income				
Q5 [86302, 209063]	93 (29.9%)	53 (18.5%)	11 (12.4%)	8 (5.8%)
Q4 [63446, 85551]	76 (24.4%)	71 (24.7%)	11 (12.4%)	7 (5.1%)
Q3 [51806, 63036]	66 (21.2%)	63 (22.0%)	17 (19.1%)	19 (13.8%)
Q2 [36250, 51773]	48 (15.4%)	50 (17.4%)	21 (23.6%)	45 (32.6%)
Q1 [11809, 36236]; Lowest SES	28 (9.0%)	50 (17.4%)	29 (32.6%)	59 (42.8%)
SDI score				
Q5 [1, 21]	126 (40.5%)	26 (9.1%)	8 (9.0%)	5 (3.6%)
Q4 [22, 48]	93 (29.9%)	62 (21.6%)	13 (14.6%)	2 (1.4%)
Q3 [49, 74]	53 (17.0%)	69 (24.0%)	25 (28.1%)	13 (9.4%)
Q2 [75, 91]	25 (8.0%)	112 (39.0%)	15 (16.9%)	33 (23.9%)
Q1 [92,100]; Lowest SES	14 (4.5%)	18 (6.3%)	28 (31.5%)	85 (61.6%)

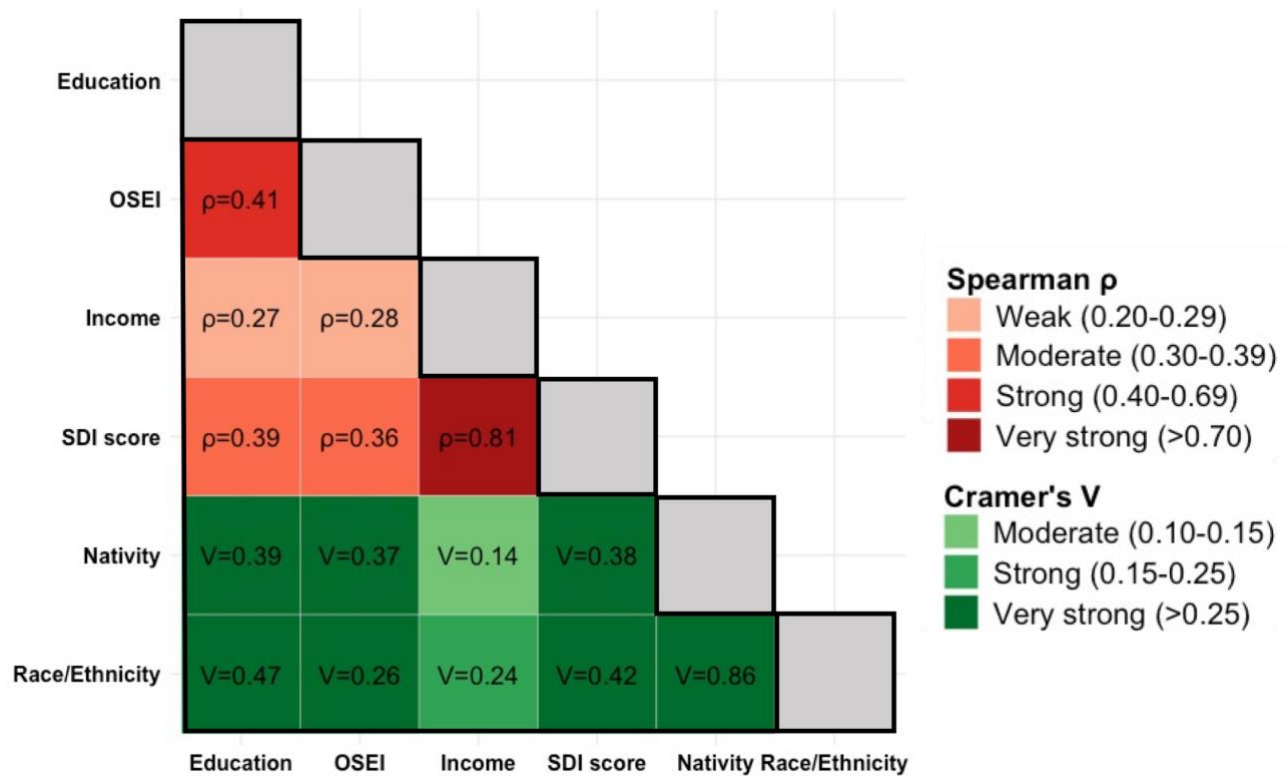
Values are presented as the mean (SD) for continuous variables and as the number of counts and percentages for categorical variables, the range is in the brackets. Income variable was derived using median household income (dollars) in the past 12 months (B19013_001) in the census tract obtained from American Census Survey 2011–2015. NH: Non-Hispanic, OSEI: Occupational Socioeconomic Index, SDI: Social Deprivation Index

Shannon Rarefaction Analysis



Supplementary Figure 1. Rarefaction curves of the Shannon index

The Shannon diversity index were calculated in 100 iterations at different rarefied sequencing depths (from 1 to 5000 sequence reads per sample), and averaged for each subject at each sequencing depth. Each subject is represented by a black line, while the red line represents the average values for all subjects. At the rarefaction depth of 1000 sequences per sample, 23 out of 825 samples (2.8%) were excluded for diversity analysis.



Supplementary Figure 2. Correlation between Socioeconomic Status, Nativity, and Race/Ethnicity

The heatmap provides a visualization of the correlation structure among the variables, employing Spearman correlation for ordinal variables and Cramer's V for nominal variables, respectively. The color intensity reflects the magnitude of the correlation effect size. Data are from the full sample (N=825) of the FAMiLI study. OSEI: Occupational Socioeconomic Index, SDI: Social Deprivation Index