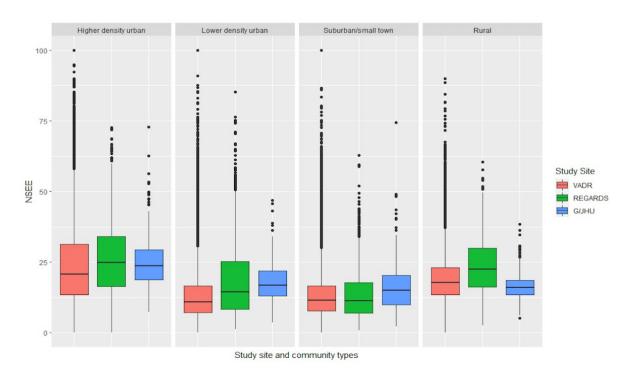
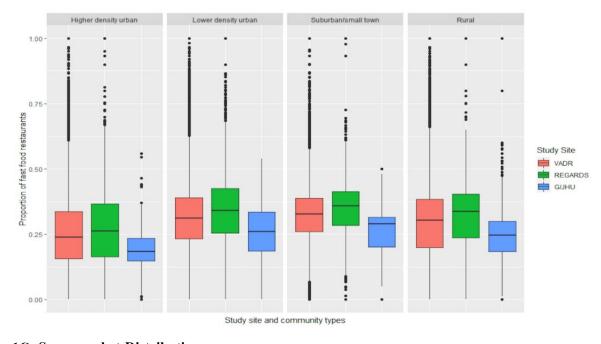
# **Supplementary Figures and Tables**

S-Figure 1: Distribution of Neighborhood Socioeconomic Environment (NSEE) values and relative availability of food environment measures (separately for supermarkets by community type and study site

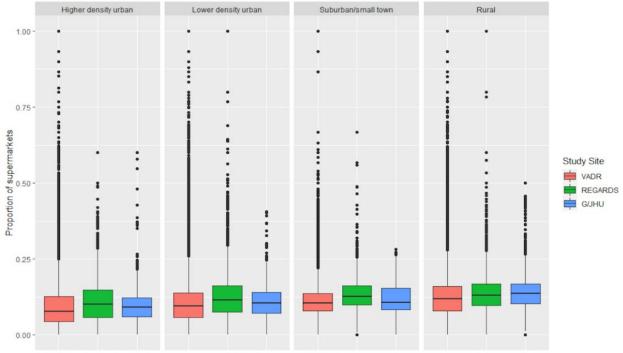
### 1A. NSEE Distributions



## 1B. Fast Food Distributions



# 1C. Supermarket Distributions



Study site and community types

**S-Table 1a:** The effect of availability of fast-food restaurants and supermarkets relative to other food outlets in LEAD community types on risk of T2D. The Diabetes LEAD Network

		Fast-Food Restaurant	ts	Supermarkets			
	VADR	REGARDS	GARDS G/JHU		REGARDS	G/JHU	
	HR (95% CI)	RR (95% CI)	OR (95% CI)	HR (95% CI)	RR (95% CI)	OR (95% CI)	
Higher density urban	1.01 (1.00, 1.02)	1.06 (0.98, 1.14)	0.77 (0.67, 0.88)	0.99 (0.98, 1.00)	1.02 (0.88, 1.17)	1.04 (0.91, 1.19)	
Lower density urban	1.01 (1.01, 1.01)	1.03 (0.98, 1.09)	0.93 (0.87, 1.00)	1.00 (0.99, 1.01)	0.98(0.89, 1.06)	0.95 (0.83, 1.10)	
Suburban/small town	1.02 (1.01, 1.03)	0.99 (0.88, 1.11)	0.92 (0.84, 1.01)	0.97(0.96, 0.99)	0.93 (0.76, 1.13)	1.00 (0.91, 1.11)	
Rural	1.01 (1.01, 1.02)	0.97 (0.90, 1.04)	1.02 (0.98, 1.05)	0.99(0.98, 0.99)	1.08 (0.95, 1.21)	0.99 (0.95, 1.04)	

<u>VADR:</u> Adjusting for baseline age, quadratic baseline age, race/ethnicity, sex, income/disability flag, NSEE, neighborhood land use environment, and percent Hispanic and percent Black. o <u>REGARDS:</u> Adjusting for age, race, sex, income, current smoking, NSEE, neighborhood land use environment, and percent Hispanic and percent Black.

G/JHU: Adjusting for age, sex, race/ethnicity, Medical Assistance, smoking, NSEE, neighborhood land use environment, percent Hispanic, and percent Black. To address non-linearity, the higher density urban model included a quadratic fast-food variable and suburban/small town included quadratic and cubic fast-food variables.

HR, RR, and OR correspond to a 10% increase in the proportion of fast-food restaurants relative to all other restaurants and supermarkets relative to all food stores.

**S-Table 1b:** The effect of availability of fast-food restaurants and supermarkets relative to the other food outlets in LEAD community types on risk of T2D: Replication of findings from G/JHU and REGARDS geographic areas using VADR cohort patients. The Diabetes LEAD Network.

#### **Supermarkets**

	VADR patients in G/JHU Census Tracts*	VADR patients in REGARDS Census Tracts**	VADR patients in G/JHU Census Tracts*	VADR patients in REGARDS Census Tracts**
	HR (95% CI)	HR (95% CI)	HR (95% CI)	HR (95% CI)
Higher density urban	0.99 (0.90, 1.11)	1.01 (0.99, 1.02)	0.99 (0.89, 1.10)	1.00 (0.97, 1.03)
Lower density urban	0.97 (0.91, 1.04)	1.00 (0.99, 1.01)	1.02 (0.94, 1.12)	0.99 (0.98, 1.01)
Suburban/small town	0.93 (0.86, 1.01)	1.02 (1.003, 1.04)	0.94 (0.85, 1.05)	0.99 (0.96, 1.03)
Rural	0.98 (0.95, 1.02)	1.01 (0.99, 1.02)	0.96 (0.91, 1.02)	0.96(0.93, 0.98)

Adjusting for baseline age, quadratic baseline age, race/ethnicity, sex, income/disability flag, NSEE, neighborhood land use environment, and percent Hispanic and percent Black.

HR, RR, and OR correspond to a 10% increase in the proportion of fast-food restaurants relative to all other restaurants and supermarkets relative to all food stores.

<sup>\*</sup>n=62,840

<sup>\*\*</sup>n=660,149

**S-Table 2:** Sensitivity analysis, the mediation effect of neighborhood food environment in the association between neighborhood percent poverty and the risk of T2D.

	Re Total effect (95% CI)	elative Fast-Food Restaurant Average direct effect (95% CI)	ts Average indirect effect (95% CI)	Total effect (95% CI)	Relative Supermarkets Average direct effect (95% CI)	Average indirect effect (95% CI)
High	er Density Urban					
VAD	R (Risk Difference in Percent	t)				
Q2	0.0717 (0.0141 ,0.137)	0.0729 (0.0153 ,0.1383)	-0.0013 (-0.0019, -0.0007)	0.0668 (0.0084, 0.1183)	0.066(0.0078,0.1178)	0.0008(0.0002,0.0017)
Q3	0.0887 (0.0401 ,0.1422)	0.0929 (0.0448 ,0.1478)	-0.0042 (-0.0063, -0.0023)	0.0888 (0.0216, 0.1657)	0.0877 (0.021, 0.1632)	0.0011 (0.0001, 0.0023)
Q4	0.0598 (-0.0378,0.1225)	0.0654 (-0.0313,0.1267)	-0.0056 (-0.0087, -0.0032)	0.0583 (-0.0378, 0.1255)	0.0578 (-0.0383, 0.1254)	0.0005 (-0.0001, 0.0011)
REG	ARDS (Risk Difference in Per	rcent)				
Q2	2.6855 (-3.1774, 8.0999)	2.5957 (-3.2235, 7.7837)	0.0898 (-0.1317, 0.4410)	2.7858 (-2.6626, 7.7810)	2.7953 (-2.4406, 7.7940)	-0.0095 (-0.2282, 0.1587)
Q3	1.2757 (-4.2693, 6.4055)	1.1678 (-4.3955, 6.2065)	0.1079 (-0.0984, 0.4628)	1.2214 (-4.5065, 6.0499)	1.2384 (-4.4506, 6.1156)	-0.0169 (-0.3068, 0.2204)
Q4	3.1177 (-2.9079, 8.7674)	3.0431 (-3.0367, 8.7299)	0.0746 (-0.1757, 0.3918)	3.3238 (-2.4238, 9.0536)	3.3182 (-2.3808, 9.0659)	0.0056 (-0.1574, 0.1877)
G/JH	U (Odds Ratio)					
Q2	1.1133 (0.8699, 1.4692)	0.9872 (0.7750, 1.2950)	1.1277 (1.0034, 1.2692)	1.1138 (0.8537, 1.4709)	1.1191 (0.8586, 1.4789)	0.9953 (0.9631, 1.0268)
Q3	1.0319 (0.8050, 1.3375)	0.9855 (0.7920, 1.2506)	1.0471 (0.9588, 1.1338)	1.0337 (0.7949, 1.3412)	1.0395 (0.7990, 1.3575)	0.9944 (0.9609, 1.0229)
Q4	0.7089 (0.4956, 1.0345)	0.7184 (0.5287, 1.0068)	0.9868 (0.8799, 1.0946)	0.7126 (0.5071, 1.0217)	0.7189 (0.5133, 1.0332)	0.9912 (0.9473, 1.0314)
Low	er Density Urban					
	R (Risk Difference in Percent	i)				
Q2	0.0795 (0.0553, 0.1035)	0.0775 (0.0536, 0.1015)	0.002 (0.0015, 0.0026)	0.0908 (0.0647, 0.1252)	0.0908 (0.0646, 0.1255)	0 (-0.0004, 0.0003)
Q3	0.1418 (0.0981, 0.1769)	0.1381 (0.094, 0.1731)	0.0037 (0.0026, 0.0048)	0.1423 (0.1084, 0.1877)	0.1422 (0.1082, 0.1874)	0.0001 (-0.0003, 0.0007)
Q4	0.0443 (0.0139, 0.0836)	0.0429 (0.0125, 0.0823)	0.0014 (0.0011, 0.0017)	0.0525 (0.0238, 0.0956)	0.0525 (0.0232, 0.0962)	0 (-0.0008, 0.0009)
REG.	ARDS (Risk Difference in Per	rcent)				
Q2	1.1532 (-2.3312, 4.4698)	1.0541 (-2.4412, 4.3866)	0.0991 (-0.0454, 0.3162)	1.3014 (-2.3063, 4.6500)	1.3336 (-2.2594, 4.7736)	-0.0322 (-0.1749, 0.0731)
Q3	2.1089 (-1.9397, 5.5911)	1.8980 (-2.3220, 5.4562)	0.2109 (-0.1506, 0.5922)	2.2168 (-1.6359, 5.5525)	2.2297 (-1.5554, 5.6305)	-0.0129 (-0.1245, 0.0710)
Q4	2.3789 (-1.7865, 6.2562)	2.2544 (-1.9716, 6.2314)	0.1245 (-0.0727, 0.3815)	2.5155 (-1.5415, 6.2061)	2.5225 (-1.5055, 6.1765)	-0.0070 (-0.1298, 0.0786)
	U (Odds Ratio)					
Q2	1.4974 (1.0078, 2.2337)	1.4417 (0.9534, 2.1828)	1.0386 (0.9785, 1.1055)	1.4974 (1.0095, 2.2115)	1.4883 (0.9949, 2.1971)	1.0061 (0.9810, 1.0412)
Q3	1.4116 (1.0714, 1.8461)	1.4449 (1.0943, 1.9019)	0.9769 (0.9099, 1.0445)	1.4113 (1.0744, 1.8260)	1.4009 (1.0497, 1.8162)	1.0074 (0.9685, 1.0625)
Q4	1.3007 (0.9837, 1.7438)	1.337 (0.9992, 1.8197)	0.9729 (0.9081, 1.0390)	1.3008 (0.9831, 1.7264)	1.2895 (0.9600, 1.7174)	1.0088 (0.9687, 1.0627)
Subu	rban/small town					

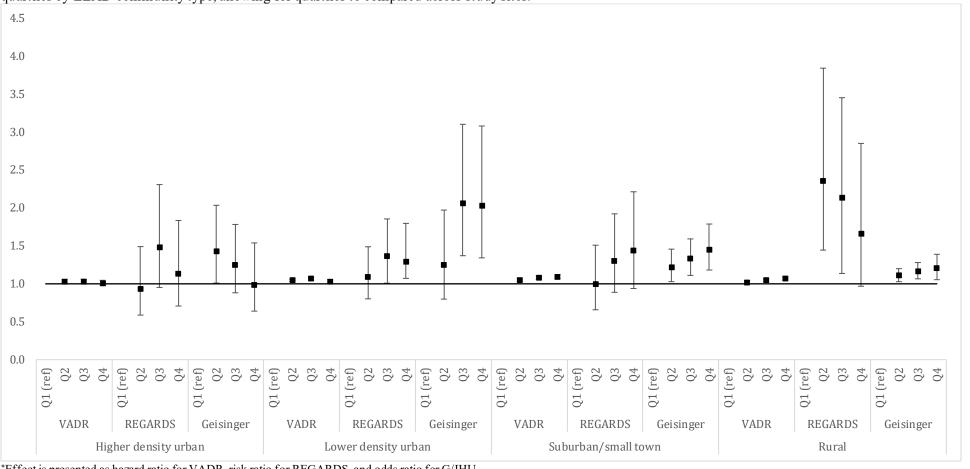
VADR (Risk Difference in Percent)						
Q2	0.1249 (0.0961, 0.1593)	0.1263 (0.0973, 0.1603)	-0.0013 (-0.0018, -0.0008)	0.1337 (0.0979, 0.1716)	0.1345 (0.0988, 0.1723)	-0.0009 (-0.0012, -0.0005)
Q3	0.1922 (0.1554, 0.2559)	0.194 (0.1568, 0.258)	-0.0017 (-0.0025, -0.001)	0.2067 (0.1563, 0.2617)	0.2072 (0.1567, 0.2621)	-0.0005 (-0.0008, -0.0002)
Q4	0.2007 (0.1298, 0.2522)	0.2039 (0.1334, 0.2558)	-0.0032 (-0.0043, -0.0019)	0.2149 (0.1731, 0.2711)	0.2173 (0.1755, 0.2737)	-0.0025 (-0.0034, -0.0018)
REG	ARDS (Risk Difference in Per	rcent)				
Q2	-0.5959 (-5.3580, 3.4657)	-0.5786 (-5.3508, 3.4997)	-0.0174 (-0.2706, 0.2140)	-0.6301 (-5.6317, 3.9431)	-0.6281 (-5.5883, 3.9448)	-0.0020 (-0.1251, 0.1190)
Q3	1.6031 (-3.0479, 5.8357)	1.6259 (-2.9676, 5.7853)	-0.0229 (-0.3791, 0.3043)	1.6273 (-3.2510, 6.1749)	1.7690 (-3.1444, 6.3362)	-0.1417 (-0.6074, 0.3063)
Q4	5.2914 (-0.4256, 10.8763)	5.3254 (-0.4476, 10.9641)	-0.034 (-0.5129, 0.3924)	5.3021 (-0.3645, 11.5867)	5.4465 (-0.2919, 11.6861)	-0.1444 (-0.7450, 0.3509)
G/JH	IU (Odds Ratio)					
Q2	0.9581 (0.8268, 1.1062)	0.9773 (0.8484, 1.1247)	0.9804 (0.9458, 1.0135)	0.958 (0.8311, 1.1042)	0.9606 (0.8332, 1.1076)	0.9973 (0.9788, 1.0159)
Q3	0.9743 (0.8282, 1.1353)	0.9911 (0.8502, 1.1488)	0.983 (0.9496, 1.0139)	0.9745 (0.8301, 1.1372)	0.9763 (0.8315, 1.1363)	0.9981 (0.9833, 1.0161)
Q4	1.1033 (0.9396, 1.2771)	1.118 (0.9580, 1.2909)	0.9869 (0.9546, 1.0164)	1.1038 (0.9405, 1.2797)	1.1056 (0.9411, 1.2833)	0.9984 (0.9827, 1.0140)
Rura	ıl					
VAD	R (Risk Difference in Percent	<b>:</b> )				
Q2	0.035(0.0051,0.0638)	0.0388(0.0087,0.0681)	-0.0039 (-0.0047, -0.0027)	0.0555 (0.0259, 0.0981)	0.0575 (0.0284, 0.1)	-0.002 (-0.0027, -0.0013)
Q3	0.0828 (0.0466, 0.1137)	0.0897 (0.0531, 0.1203)	-0.0069 (-0.0085, -0.0052)	0.0922 (0.0533, 0.1281)	0.0948 (0.0554, 0.1301)	-0.0026 (-0.0035, -0.0012)
Q4	0.0634 (0.0325, 0.0986)	0.0733 (0.0421, 0.1095)	-0.01 (-0.0119, -0.0066)	0.1106 (0.0771, 0.1475)	0.1135 (0.0798, 0.1501)	-0.0029 (-0.004, -0.0022)
REGARDS (Risk Difference in Percent)						
Q2	3.0301 (-1.7388, 7.3972)	3.1053 (-1.6725, 7.4280)	-0.0752 (-0.3597, 0.1492)	2.9866 (-2.0493, 7.4707)	2.8934 (-2.1709, 7.4310)	0.0932 (-0.1093, 0.3586)
Q3	3.0882 (-1.6356, 7.2717)	3.1659 (-1.4880, 7.3443)	-0.0777 (-0.3874, 0.1578)	2.9661 (-2.1010, 7.1781)	2.8169 (-2.2355, 7.0679)	0.1492 (-0.1102, 0.5343)
Q4	1.7231 (-4.0797, 7.0962)	1.7883 (-4.0648, 7.1536)	-0.0652 (-0.3762, 0.1529)	1.8705 (-3.7157, 7.0058)	1.6868 (-3.9801, 6.7087)	0.1837 (-0.1511, 0.5824)
G/JH	IU (Odds Ratio)					
Q2	1.158 (1.0472, 1.2828)	1.1567 (1.0473, 1.2821)	1.0011 (0.9919, 1.0087)	1.158 (1.0544, 1.2812)	1.1581 (1.0535, 1.2825)	0.9999 (0.9942, 1.0057)
Q3	1.1145 (1.0087, 1.2339)	1.1185 (1.0125, 1.2404)	0.9964 (0.9866, 1.0044)	1.1144 (1.0113, 1.2266)	1.1113 (1.0091, 1.2211)	1.0029 (0.9953, 1.0114)
Q4	1.1315 (1.0231, 1.2669)	1.1433 (1.0346, 1.2809)	0.9897 (0.9690, 1.0093)	1.1315 (1.0247, 1.2660)	1.13 (1.0248, 1.2629)	1.0013 (0.9932, 1.0092)

VADR: Adjusting for baseline age, quadratic baseline age, race/ethnicity, sex, income/disability flag, neighborhood land use environment, and percent Hispanic and percent Black.

REGARDS: Adjusting for age, race, sex, income, current smoking, neighborhood land use environment, and percent Hispanic and percent Black.

G/JHU: Adjusting for age, sex, race/ethnicity, Medical Assistance, smoking, neighborhood land use environment, percent Hispanic, and percent Black. To address non-linearity, the higher density urban model included a quadratic fast-food variable and suburban/small town included quadratic and cubic fast-food variables.

S-Figure 2: Sensitivity analyses: Associations of neighborhood socioeconomic environment (NSEE) on risk of developing Type 2 Diabetes using US-based NSEE quartiles by LEAD community type, allowing for quartiles to compared across study sites.\*



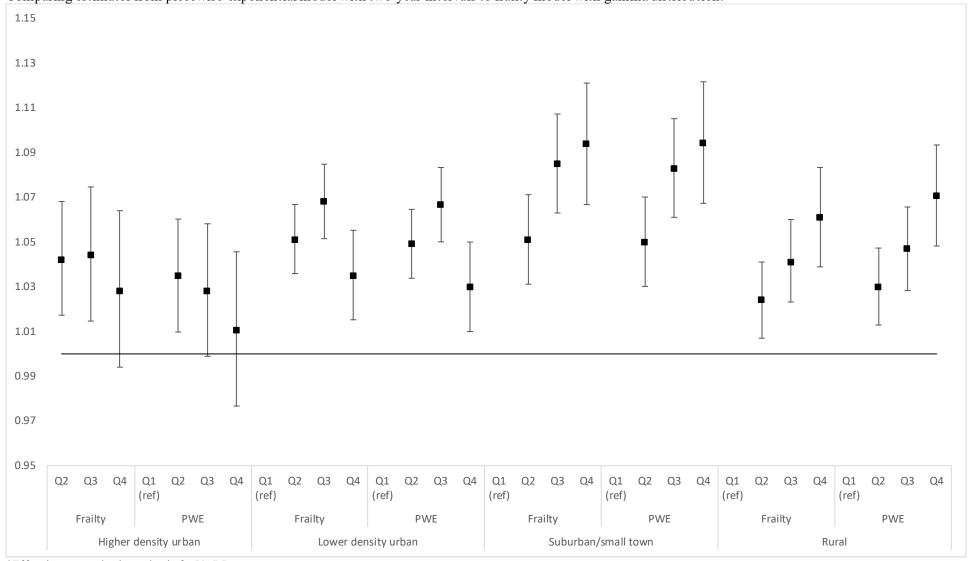
<sup>\*</sup>Effect is presented as hazard ratio for VADR, risk ratio for REGARDS, and odds ratio for G/JHU.

VADR: Adjusting for baseline age, quadratic age, race/ethnicity, sex, income/disability flag, neighborhood land use environment, and percent Hispanic and percent Black.

REGARDS: Adjusting for age, race, sex, income, current smoking, neighborhood land use environment, and percent Hispanic and percent Black.

G/JHU: Adjusting for age, sex, race/ethnicity, Medical Assistance, smoking, neighborhood land use environment, percent Hispanic, and percent Black. To address non-linearity, the higher density urban model included a quadratic fast-food variable and suburban/small town included quadratic and cubic fast-food variables.

**S-Figure 3:** Sensitivity analysis -- Effect of neighborhood social and economic environment (NSEE) on risk of developing Type 2 Diabetes in VADR cohort: Comparing estimates from piecewise exponential model with two-year intervals to frailty model with gamma distribution.\*



<sup>\*</sup>Effect is presented as hazard ratio for VADR

Adjusting for baseline age, quadratic baseline age, race/ethnicity, sex, income/disability flag, neighborhood land use environment, and percent Hispanic and percent Black.

**S-Table 3:** Sensitivity analysis, the mediation effect of neighborhood food environment in the association between neighborhood socioeconomic environment and the risk of T2D, when adjusted for smoking status, from VADR cohort.

**Relative Fast-Food Restaurants** Relative Supermarkets Average direct effect Total effect Average indirect effect Total effect Average direct effect Average indirect effect (95% CI) (95% CI) (95% CI) (95% CI) (95% CI) (95% CI) **Higher Density Urban** 0.1666 (0.058, 0.2703) -0.0003 (-0.001, 0.0005) Q2 0.1664 (0.0575, 0.2699) 0.0002 (-0.0001, 0.0008) 0.1719 (0.0682, 0.2955) 0.1722 (0.0687, 0.2956) Q3 0.179 (0.0656, 0.3178) 0.1821 (0.068, 0.3203) -0.003 (-0.0052, -0.0012) 0.2064 (0.0997, 0.3169) 0.2073 (0.1006, 0.3191) -0.0009 (-0.0031, 0.0006) 0.1714 (0.0241, 0.2978) 0.1752 (0.0265, 0.3004) -0.0038 (-0.007, -0.0004) 0.1789 (0.0437, 0.3086) 0(-0.0003, 0.0002)Q4 0.1789 (0.0437, 0.3088) **Lower Density Urban** Q2 0.0546 (0.0126, 0.1037) 0.0038 (0.0022, 0.0055) 0(-0.0006, 0.0008)0.0584(0.0171, 0.1072)0.054 (0.0111, 0.1113) 0.0541 (0.0104, 0.1116) 0.1006 (0.0687, 0.1507) 0.1008 (0.0686, 0.1506) Q3 0.0927 (0.0516, 0.1466) 0.0872 (0.0456, 0.1397) 0.0055 (0.0024, 0.0081) -0.0002 (-0.001, 0.0008) -0.0109 (-0.0716, 0.0809) Q4 -0.011 (-0.0967, 0.0589) -0.0141 (-0.1012, 0.0557) 0.0032 (0.001, 0.0049) -0.0112 (-0.0717, 0.0809) -0.0003 (-0.0016, 0.0008) Suburban/small town 0.0967 (0.0397, 0.1414) Q2 0.093 (0.031, 0.1841) 0.0939 (0.0318, 0.1849) -0.0009 (-0.0015, -0.0005) 0.0977 (0.0413, 0.1418) -0.001 (-0.0027, 0.0007) Q3 0.2007 (0.1501, 0.2584) 0.2007 (0.1502, 0.2584) 0 (-0.0002, 0.0002) 0.2168 (0.1281, 0.2877) 0.219 (0.1309, 0.29) -0.0022 (-0.0054, 0.0001) -0.0023 (-0.0033, -0.0014) Q4 0.1471 (0.0499, 0.2416) 0.1493 (0.0521, 0.2435) 0.156 (0.0891, 0.2293) 0.1583 (0.0882, 0.2305) -0.0023 (-0.0056, 0.0014) Rural Q2 0.0965 (0.0463, 0.1425) 0.1025 (0.053, 0.1484) -0.0059 (-0.0079, -0.0039) 0.0955 (0.0364, 0.1414) 0.0974 (0.0381, 0.1431) -0.0018 (-0.0031, -0.0004) Q3 0.1147(0.0742, 0.1712)0.1258 (0.0847, 0.1834) -0.011 (-0.0147, -0.0067) 0.1222 (0.0638, 0.1657) 0.1241 (0.0658, 0.1668) -0.0019 (-0.0036, -0.0002)

VADR: Adjusting for baseline age, quadratic baseline age, race/ethnicity, sex, income/disability flag, smoking status, neighborhood land use environment, and percent Hispanic and percent Black.

0.169 (0.1202, 0.246)

0.1722 (0.1249, 0.2487)

-0.0032 (-0.0065, -0.0008)

-0.0159 (-0.0195, -0.0121)

Q4

0.16 (0.1091, 0.2147)

0.1759 (0.125, 0.2275)

**S-Table 4:** Sensitivity analysis, the mediation effect of neighborhood food environment in the association between neighborhood social and economic environment and the risk of T2D only among REGARD's cohort adjusting for region.

				Relative Super man Rees			
	Total effect (95% CI)	Average direct effect (95% CI)	Average indirect effect (95% CI)	Total effect (95% CI)	Average direct effect (95% CI)	Average indirect effect (95% CI)	
Higher	Density Urban						
Q2	4.1722 (-1.0521, 9.4236)	4.1676 (-1.0327, 9.4432)	0.0047 (-0.2350, 0.2353)	4.1210 (-1.2395, 9.0695)	4.1263 (-1.2335, 9.0969)	-0.0053 (-0.1701, 0.1380)	
Q3	5.8535 (0.1626, 11.4342)	5.7992 (0.0798, 11.3770)	0.0543 (-0.1853, 0.3563)	6.0518 (-0.0762, 11.5187)	6.0644 (-0.0634, 11.4845)	-0.0126 (-0.2532, 0.1895)	
Q4	2.8936 (-2.8634, 8.2640)	2.9554 (-2.8283, 8.3233)	-0.0618 (-0.3659, 0.1477)	2.8850 (-3.7476, 8.7336)	2.8808 (-3.6828, 8.7328)	0.0043 (-0.1565, 0.1870)	
Lower	Density Urban						
Q2	0.9136 (-2.6492, 4.0486)	0.8523 (-2.7802, 4.0316)	0.0613 (-0.0518, 0.2257)	0.9885 (-2.2259, 4.1068)	0.9876 (-2.2569, 4.1090)	0.0009 (-0.0581, 0.0578)	
Q3	4.1603 (0.4604, 7.5311)	4.0046 (0.3088, 7.4096)	0.1556 (-0.1295, 0.4987)	4.2976 (0.5469, 7.7090)	4.2932 (0.5683, 7.6683)	0.0044 (-0.0697, 0.0858)	
Q4	3.7291 (-0.4222, 7.8202)	3.6515 (-0.4806, 7.6684)	0.0777 (-0.0894, 0.2954)	3.7733 (-0.7552, 7.7048)	3.7709 (-0.8014, 7.7263)	0.0024 (-0.0839, 0.1097)	
Suburk	oan/small town						
Q2	-0.6656 (-5.3977, 3.7439)	-0.6632 (-5.3792, 3.7870)	-0.0024 (-0.1370, 0.1270)	-0.8663 (-5.6139, 3.3745)	-0.9068 (-5.7150, 3.3290)	0.0405 (-0.1058, 0.2586)	
Q3	1.7458 (-2.9251, 6.2362)	1.7676 (-3.0140, 6.3064)	-0.0217 (-0.2920, 0.2129)	1.6048 (-3.5640, 6.3941)	1.7310 (-3.3703, 6.4617)	-0.1262 (-0.5775, 0.2331)	
Q4	3.7782 (-2.1641, 9.5062)	3.7862 (-2.0846, 9.4755)	-0.0080 (-0.2225, 0.1811)	3.8569 (-2.1546, 9.5289)	4.0193 (-1.8348, 9.9706)	-0.1624 (-0.7624, 0.3434)	
Rural							
Q2	5.5047 (0.9032, 10.3749)	5.5364 (0.9205, 10.4098)	-0.0317 (-0.2245, 0.0981)	5.6965 (0.9143, 10.4433)	5.6166 (0.8098, 10.4563)	0.0799 (-0.0758, 0.3269)	
Q3	3.9516 (-0.6184, 8.3480)	3.9901 (-0.5899, 8.3945)	-0.0384 (-0.2422, 0.0862)	3.9610 (-1.1557, 8.2253)	3.8066 (-1.2809, 8.1380)	0.1544 (-0.1564, 0.5458)	
Q4	3.1525 (-2.0187, 8.2190)	3.1412 (-1.9927, 8.0865)	0.0113 (-0.1360, 0.1888)	3.1772 (-2.3107, 8.2808)	2.9402 (-2.4662, 8.1964)	0.2370 (-0.2144, 0.7712)	

**Relative Supermarkets** 

Adjusting for age, race, sex, income, current smoking, region, neighborhood land use environment, and percent Hispanic and percent Black.

**Relative Fast-Food Restaurants** 

**S-Table 5:** Sensitivity analysis, the mediation effect of neighborhood food environment in the association between neighborhood socioeconomic environment and the risk of T2D only among adults 20 years or older from G/JHU.

**Relative Supermarkets** 

Total effect Average direct effect Average indirect effect Total effect Average direct effect Average indirect effect (95% CI) (95% CI) (95% CI) (95% CI) (95% CI) (95% CI) **Higher Density Urban** 1.2146 (0.9426, 1.5845) Q2 1.1289 (0.8879, 1.4512) 1.0759 (0.9756, 1.1881) 1.2145 (0.9397, 1.5814) 1.2184 (0.9452, 1.5913) 0.9968 (0.9703, 1.0182) Q3 1.1244 (0.8945, 1.4172) 1.0586 (0.8543, 1.3158) 1.0622 (0.9606, 1.1741) 1.1257 (0.8969, 1.4177) 1.1301 (0.9008, 1.4325) 0.9961 (0.9689, 1.0170) 0.7788 (0.5544, 1.1142) 0.7734 (0.5753, 1.0629 0.7819 (0.5667, 1.0997) Q4 1.007 (0.8987, 1.1241) 0.7885 (0.5739, 1.1139) 0.9916 (0.9463, 1.0303) **Lower Density Urban** Q2 1.5398 (1.1575, 2.0377) 1.5031 (1.1385, 2.0056) 1.0245 (0.9391, 1.0999) 1.5396 (1.1613, 2.0449) 1.5328 (1.1505, 2.0549) 1.0045 (0.9469, 1.0609) Q3 1.6512 (1.2406, 2.1868) 1.5697 (1.2118, 2.0453) 1.0519 (0.9528, 1.1488) 1.6512 (1.2529, 2.1858) 1.6432 (1.2511, 2.1814) 1.0048 (0.9434, 1.0637) Q4 1.6857 (1.2764, 2.2374) 1.6467 (1.2768, 2.1783) 1.0237 (0.9295, 1.1047) 1.686 (1.2859, 2.2361) 1.6829 (1.2831, 2.2354) 1.0018 (0.9653, 1.0385) Suburban/small town Q2 1.0538 (0.8803, 1.2637) 1.0619 (0.8919, 1.2667) 0.9924 (0.9683, 1.0170) 1.0539 (0.8942, 1.2583) 1.0524 (0.8908, 1.2554) 1.0015 (0.9848, 1.0215) 1.148 (0.9692, 1.3525) 1.1484 (0.9739, 1.3571) Q3 1.1495 (0.9764, 1.3460) 0.9987 (0.9733, 1.0247) 1.152 (0.9758, 1.3570) 0.9969 (0.9773, 1.0213) 1.2078 (1.0131, 1.4459) 1.0021 (0.9725, 1.0342) 1.2005 (1.0062, 1.4359) 0.994 (0.9645, 1.0226) Q4 1.1996 (0.9881, 1.4438) 1.1971 (0.9860, 1.4386) Rural Q2 1.0424 (0.9378, 1.1577) 1.0444 (0.9395, 1.1618) 0.9981 (0.9882, 1.0066) 1.0424 (0.9393, 1.1576) 1.0431 (0.9399, 1.1593) 0.9993 (0.9930, 1.0050) Q3 1.1534 (1.0547, 1.2606) 1.1518 (1.0532, 1.2608) 1.0014 (0.9916, 1.0096) 1.1534 (1.0567, 1.2594) 1.1574 (1.0603, 1.2617) 0.9965 (0.9787, 1.0164) 0.9931 (0.9758, 1.0098) Q4 1.1661 (1.0502, 1.3069) 1.1743 (1.0562, 1.3186) 1.1662 (1.0580, 1.3054) 1.1689 (1.0617, 1.3071) 0.9977 (0.9851, 1.0102)

Adjusting for age, race, sex, income, current smoking, neighborhood land use environment, and percent Hispanic and percent Blac

**Relative Fast-Food Restaurants** 

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