Appendix 1. Vizient's comparison of different indices considered for health equity applications.

Unlike other indices, the Vizient Vulnerability Index flexes to ensure the index values are location-appropriate. Other indices have a single index algorithm for the whole country, while the Vizient Vulnerability Index adapts to the local relevance of each domain as it correlates to life expectancy. This allows for variation in the weighting of the domains across different geographic areas depending on what's important – the most relevant factors affecting health in Lincoln, Nebraska might not be the most relevant in New York City.

	Area Deprivation Index	Distressed Communities Index	Social Vulnerability Index	Intercity Hardship Index	AHRQ Socioeconomic Status Index	Vizient Vulnerability Index
Data granularity	✗ County ✗ Zip Code ✗ Census Tract ✓ Block Group	✓ County ✓ Zip Code ✗ Census Tract ✗ Block Group	✓ County • Zip Code possible ✓ Census Tract • Block Group possible	• County possible • Zip Code possible • Census Tract possible • Block Group possible	✗ County ✗ Zip Code ✗ Census Tract ✓ Block Group	✓ County ✓ Zip Code ✓ Census Tract ✓ Block Group
Timeliness	Updated in 2015, 2019, and 2020	Updated annually	Updated every two years	Not provided at the national level; algorithm available	Updated in 2015 and 2019	Updated annually
Social Determinants of Health Domains	✓ Income & Wealth ✓ Employment ✓ Education ✓ Housing ✗ Health Systems ✓ Transportation ✓ Social Environment ✗ Physical Environment ✗ Public Safety	✓ Income & Wealth ✓ Employment ✓ Education ✓ Housing ✗ Health Systems ✗ Transportation ✓ Social Environment ✗ Physical Environment ✗ Public Safety	✓ Income & Wealth ✓ Employment ✓ Education ✓ Housing ✗ Health Systems ✓ Transportation ✓ Social Environment ✗ Physical Environment ✗ Public Safety	✓ Income & Wealth ✓ Employment ✓ Education ✓ Housing ✗ Health Systems ✗ Transportation ✓ Social Environment ✗ Physical Environment ✗ Public Safety	✓ Income & Wealth ✓ Employment ✓ Education ✓ Housing ✗ Health Systems ✓ Transportation ✗ Social Environment ✗ Physical Environment ✗ Public Safety	✓ Income & Wealth ✓ Employment ✓ Education ✓ Housing ✓ Health Systems ✓ Transportation ✓ Social Environment ✓ Physical Environment ✓ Public Safety
Health Care Focus	✓ Life Expectancy / Mortality ✗ Chronic Disease Prevalence ✓ Readmissions ✗ ED utilization ✗ Maternal Health	✗ Life Expectancy/ Mortality ✗ Chronic Disease Prevalence ✗ Readmissions ✗ ED utilization ✗ Maternal Health	✗ Life Expectancy / Mortality ✗ Chronic Disease Prevalence ✗ Readmissions ✗ ED utilization ✗ Maternal Health	✗ Life Expectancy / Mortality ✗ Chronic Disease Prevalence ✗ Readmissions ✗ ED utilization ✗ Maternal Health	✓ Life Expectancy / Mortality ✗ Chronic Disease Prevalence ✓ Readmissions ✗ ED utilization ✗ Maternal Health	✓ Life Expectancy / Mortality ✓ Chronic Disease Prevalence ✓ Readmissions ✓ ED utilization ✓ Maternal Health
Measurement Focus	17 components 2 components account for almost all of the variation (income and housing) Intended to predict mortality, but only a moderate fit to life expectancy (r^2 0.40)	7 components 2 components account for almost all of the variation (income and housing) Intended to describe economic differences; poor fit to life expectancy (r^2 0.31)	14 components in 4 domains, 2 components account for almost all of the variation (income and education) Intended for disaster management planning; poor fit to life expectancy (r^2 0.20)	6 components 2 components account for almost all of the variation (income and education) Intended to describe economic differences; poor fit to life expectancy (r^2 0.14)	7 components no serious issues with partial correlations Intended to describe economic factors related to health care access; poor fit to life expectancy ($r^2 = 0.30$)	43 components in 9 domains. All are significant in different locations Intended to describe differences in life expectancy (r^2 0.75)
Geospatial Adjustments	Single index algorithm for the whole country	Single index algorithm for the whole country. Small zip codes excluded.	Single index algorithm for the whole country	Single index algorithm for the whole country	Single index algorithm for the whole country	Index adapts to local relevance of each domain as it correlates with life expectancy

vizient.