

Table 10.1: Correlations between health indicators and city size, density, availability of key destinations and facilities, and land use types and mix in the sample of small Kansas cities

Categories of Spatial Factors	Spatial Factors	Spearman's rho (N varies between 34 and 36)																						
		Mortality and Morbidity				Physical Health				Mental Health						Social Health								
		General Health Condition (%)	Percentage of People with disability under 65 years (2013-2017)	Death Rate (2016)	Suicide per 100000	Adult Diabetes Rate (%)	Average BMI	Overweight People (%)	Adult Obesity Rate (%)	People Feeling Badly About Themselves (%)	People Who Have Little Interest in Doing Things (%)	People Feeling Down, Depressed, or Hopeless (%)	People having thoughts they would be better off dead (%)	People ever used Marijuana or Hashish	Murders per 100,000 in 2014	Rape per 100,000 in 2014	Robberies per 100,000 in 2014	Assault per 100,000 in 2014	Violent Crime per 100,000 in 2014	Burglaries per 100,000 in 2014	Theft per 100,000 in 2014	Autotheft per 100,000 in 2014	Property Crime per 100,000 in 2014	Age 65+ living alone (%) 2013-2017
City Size	Land Area in Square Miles	-.178	.124	-.373*	.081	-.396*	-.267	-.610**	.232	-.040	.138	-.040	.005	.122	.443**	.237	.615**	.298	.378*	.264	.359*	.448**	.336*	-.065
Density	Census Block Density (Census Block per Square Mile)	-.085	.077	.081	-.256	.043	.227	.029	.131	.001	.048	.098	.006	-.109	-.053	-.012	-.152	-.018	-.030	-.073	-.175	-.109	-.152	-.007
	Housing Density (Houses and Condos per Square Mile)	.283	-.266	-.260	-.130	-.095	.199	.015	-.307	-.060	-.083	-.049	-.102	-.291	-.151	.103	-.048	-.051	-.034	-.383*	-.186	-.218	-.275	-.105
Availability of Key Destinations and Facilities	Healthcare Facilities per 10,000 People	-.202	.306	.473**	-.169	.592**	.231	.467**	.038	.138	-.022	.188	.198	.127	-.160	-.057	-.289	-.030	-.081	.211	.122	-.229	.166	-.024
	Healthcare Facilities per Square Mile	-.022	.015	.215	-.312	.354*	.271	.406*	-.180	.090	-.087	.143	.096	-.154	-.212	-.026	-.336*	-.083	-.136	-.107	-.091	-.446**	-.063	-.084
	Parks per 10,000 People	.012	-.011	.147	.054	.308	.047	.104	.001	.044	.013	-.114	-.049	.406*	-.031	-.280	-.363*	-.173	-.197	.110	-.123	-.041	-.141	-.023
	Parks per Square Mile	.199	-.330	-.236	-.003	-.032	-.075	-.059	-.211	.028	.034	-.181	-.145	.127	-.004	-.260	-.317	-.218	-.233	-.242	-.392*	-.200	-.414*	-.108
	Grocery Stores per 10,000 People	.211	-.037	.481**	.251	.645**	.375*	.740**	-.338*	.119	-.187	.011	.049	-.003	-.317	-.353*	-.362*	-.334*	-.399*	-.008	-.007	-.175	-.059	.083
	Grocery Stores per Square Mile	.348*	-.243	.239	.156	.410*	.323	.613**	-.485**	.027	-.207	-.048	-.032	-.209	-.329*	-.253	-.335*	-.337*	-.390*	-.258	-.191	-.303	-.274	.028
	Convenience Stores per 10,000 People	.107	-.210	.180	.194	.055	.154	.257	-.358*	.073	-.122	.017	-.044	-.123	-.527**	-.356*	-.025	-.344*	-.368*	-.187	-.199	-.049	-.179	.344*
	Convenience Stores per Square Mile	.163	-.195	.153	.166	.026	.178	.261	-.370*	.025	-.166	-.016	-.082	-.190	-.506**	-.352*	-.033	-.334*	-.358*	-.222	-.229	-.048	-.209	.349*
	Convenience Stores with Gas per 10,000 People	.298	.097	.605**	.406*	.569**	.427**	.736**	-.189	-.035	-.336*	-.151	-.110	.059	-.299	-.440**	-.307	-.365*	-.407*	-.017	.069	-.023	.026	.347*
	Convenience Stores with Gas per Square Mile	.467**	-.184	.292	.311	.253	.418*	.564**	-.364*	-.117	-.332*	-.213	-.212	-.175	-.245	-.351*	-.292	-.402*	-.425**	-.354*	-.183	-.193	-.239	.278
	Businesses per 10,000 People	-.368*	.101	.144	.160	.034	-.036	-.132	.366*	.029	.206	.107	-.001	.410*	-.088	.134	.071	.013	.059	.088	.055	.033	.026	.162
	Businesses per Square Mile	-.295	.055	-.493**	-.121	-.497**	-.402*	-.732**	.282	-.051	.286	.042	.014	.131	.392*	.432**	.524**	.391*	.467**	.147	.147	.279	.147	-.233
	Full-Service Restaurants per 10,000 People	.222	-.049	.493**	.262	.507**	.249	.682**	-.160	.075	-.274	-.078	-.042	.020	-.431**	-.462**	-.386*	-.439**	-.499**	-.105	.006	-.198	-.043	.239
	Full-Service Restaurants per Square Mile	.370*	-.334	.192	.178	.231	.244	.515**	-.298	.017	-.258	-.127	-.145	-.172	-.459**	-.401*	-.388*	-.483**	-.526**	-.417*	-.215	-.371*	-.303	.156
	Land Use Types and Mix	Open Area as percentage of Total City Area	.053	.221	.316	-.188	.129	.236	.300	-.020	-.131	-.154	.047	.026	-.203	-.114	-.153	-.172	-.187	-.230	-.160	-.196	-.419*	-.221
Industrial Area as percentage of Total City Area		-.300	.021	-.289	-.204	-.122	-.510**	-.430**	.290	.070	.330*	.167	.161	.073	.204	.311	.247	.171	.226	.123	.049	.029	-.062	-.359*
Residential Area as percentage of Total City Area		.219	-.067	-.140	.037	.210	.060	.133	-.088	.229	-.128	-.141	-.076	-.005	-.119	-.471**	-.178	-.014	-.100	.216	.126	.283	.178	.055
Commercial Area as percentage of Total City Area		-.254	-.053	-.133	-.128	-.213	-.005	-.187	-.059	.098	.203	.198	.096	.113	-.106	.166	.173	.163	.199	-.024	.006	.113	.034	-.146
Institutional and Other City Services as percentage of Total City Area		-.048	.153	.187	.030	.001	.153	-.126	-.026	-.285	-.085	-.094	-.067	.160	.156	.383*	.073	.088	.163	.020	.047	-.056	.027	.028
Land Use Mix		-.349*	.275	.013	-.339*	-.118	-.090	-.281	.143	-.140	.141	.211	.145	.026	.142	.558**	.175	.180	.268	-.001	-.024	-.249	-.106	-.168

\*\*Correlation is significant at the 0.01 level (2-tailed); \*Correlation is significant at the 0.05 level (2-tailed).