

**Table 1: Descriptive Statistics for Continuous Variables (At the County Level)**

Variable (Per County)	NAs	N	Mean	Std. Dev.	1st Quartile	Median	3rd Quartile
Average Life Expectancy	0	3139	76.32	2	75	76.5	77.7
Population Density	1	3139	250.07	1703.27	17	44	109.75
Population Size	0	3139	94427.06	306520.4	11220	25270	64111
Percent with Age <19	0	3139	24.81	3.28	22.7	24.6	26.4
Percent with Age 19-64	0	3139	60.28	3.35	58.3	60.3	62.3
Percent with Age 65-84	0	3139	12.79	3.33	10.7	12.5	14.7
Percent with Age 85+	0	3139	2.12	0.95	1.5	1.9	2.6
Percent White	0	3139	87.04	16.14	82.8	94.1	97.6
Percent Black	0	3139	8.99	14.55	0.5	2.1	10.3
Percent Native American	0	3139	1.95	7.62	0.2	0.4	0.9
Percent Asian	0	3139	1.12	2.76	0.3	0.5	1
Percent Hispanic	0	3139	7.02	12.47	1.1	2.3	6.3
Death Rate	3	3139	905.64	131.21	814.25	898.6	989.8
Percent with Health Status	662	3139	17.32	6.09	12.9	16.4	20.9
Number of Monthly Unhealthy Days	0	3139	0.019	0.36	0.021	0.025	0.03
Percent not Exercising	933	3139	26.51	6.7	21.9	26	30.8
Percent with Few Fruits or Vegetables	1235	3139	78.92	5.16	75.5	79	82.4
Percent Obese	915	3139	24.15	4.9	21.1	24.3	27.2
Percent with High Blood Pressure	1617	3139	26.48	5.44	22.8	26.2	29.9
Percent Smoking	872	3139	23.11	5.73	19.4	23	26.7
Percent with Diabetes	420	3139	7.81	2.76	5.9	7.5	9.45
Physician Rate	0	3139	57.6	44.78	30.55	50.6	74.7
Dentist Rate	1	3139	32.19	21.5	18.7	30	43.3
Percent Poverty	1	3139	13.35	4.88	9.8	12.6	16.2
Percent Unemployed	543	3139	6.11	1.34	5.2	6	6.8
Percent Uninsured	0	3139	0.14	0.36	0.11	0.13	0.17
Percent Medicare Based on Disability	0	3139	-0.017	0.79	0.017	0.023	0.031
Percent Medicare Based on Elderly Status	0	3139	0.098	0.8	0.11	0.14	0.17
Percent with Major Depression	0	3139	0.061	0.0066	0.056	0.059	0.065
Percent with No High School Diploma	0	3139	0.15	0.058	0.11	0.14	0.19
Percent with Recent Drug Use	0	3139	0.052	0.011	0.045	0.051	0.057
Percent Severely Disabled	0	3139	0.025	0.062	0.02	0.027	0.034

**Table 2: Non-zero Coefficient Estimates Generated from the LASSO**

Term	Coefficient
(Intercept)	76.3507985
Percent Poverty	-0.2536480
Percent with Age 85+	0.0406592
Percent Black	-0.3392134
Percent Asian	0.0104569
Percent Hispanic	0.1109014
Death Rate	-0.9844879
Percent with Poor Health Status	-0.0751028
Percent not Exercise	-0.0916798
Percent with High Blood Pres	-0.1078510
Percent Smoking	-0.1219687
Dentist Rate	0.0726649
Percent Uninsured	-0.1765169

Term	Coefficient
Percent with No High School Diploma	-0.1306445
Percnet with Recent Drug Use	0.0078570

**Table 3: Model Comparison by Root Mean Square Error (RMSE)**

Model	Mean RMSE	Variance RMSE	1st Quantile	Median RMSE	3rd Quantile
LASSO	0.9036	0.0153	0.8276	0.8815	0.9710
MARS	0.9275	0.0354	0.8253	0.8770	0.9864
PCR	0.9340	0.0248	0.8388	0.8862	1.0148
PLS	1.0197	0.1213	0.8570	0.8939	1.0433
Ridge	1.2747	1.2216	0.8526	0.9067	1.0511
Least Squares	1.3862	2.3430	0.8218	0.8839	1.0552
GAM	1.5669	3.3358	0.8615	1.0320	1.2608

Figure 1: Correlation Plot

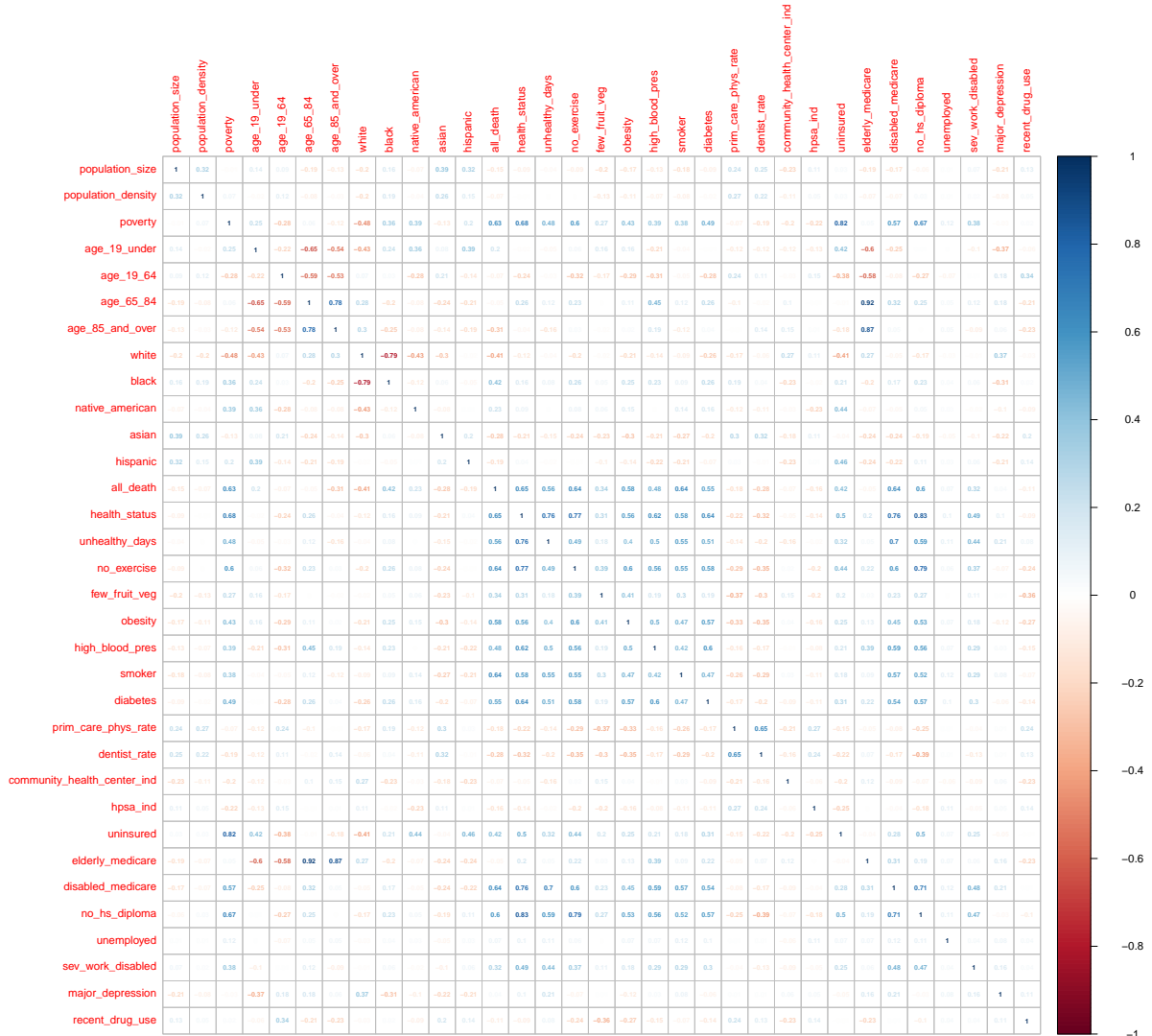
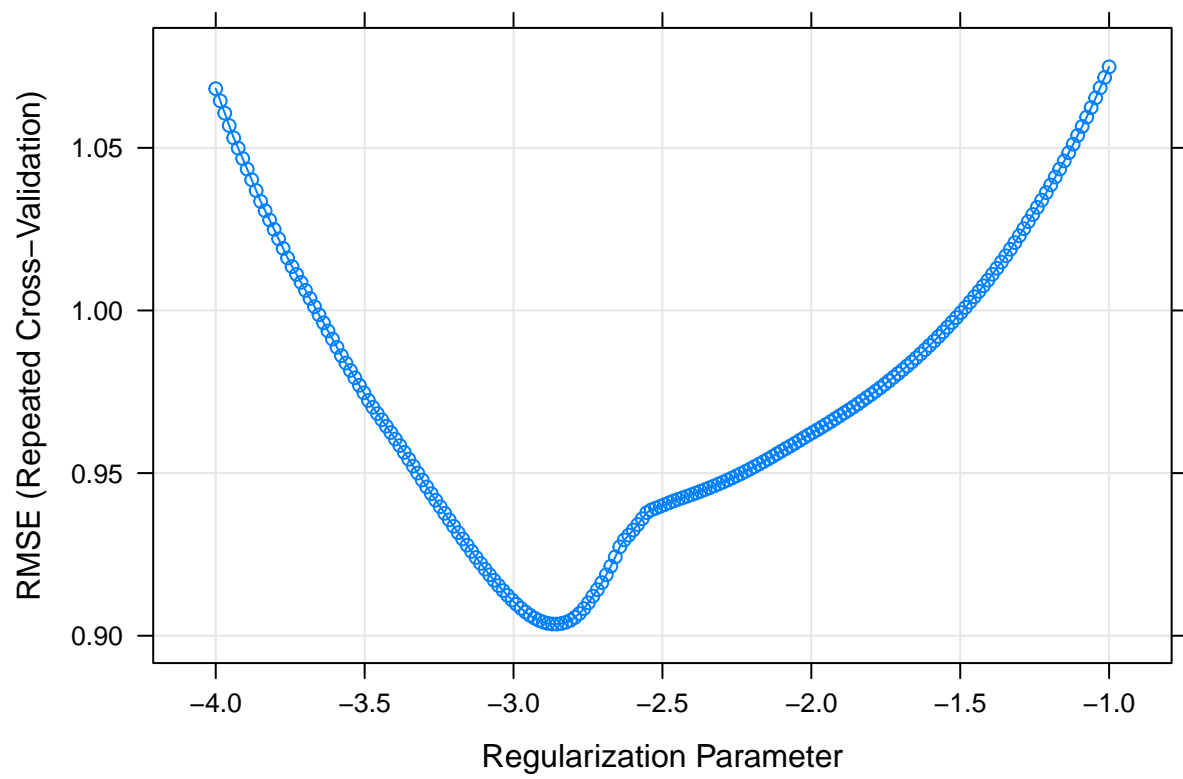


Figure 2: RMSE Predicted by the LASSO Model with Different Tuning Parameters



**Figure 3: Violin Box Plot for Model RMSE Comparison**

