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# PRELIMINARY RESULTS FOR BRAZIL COVID-19 DATASET

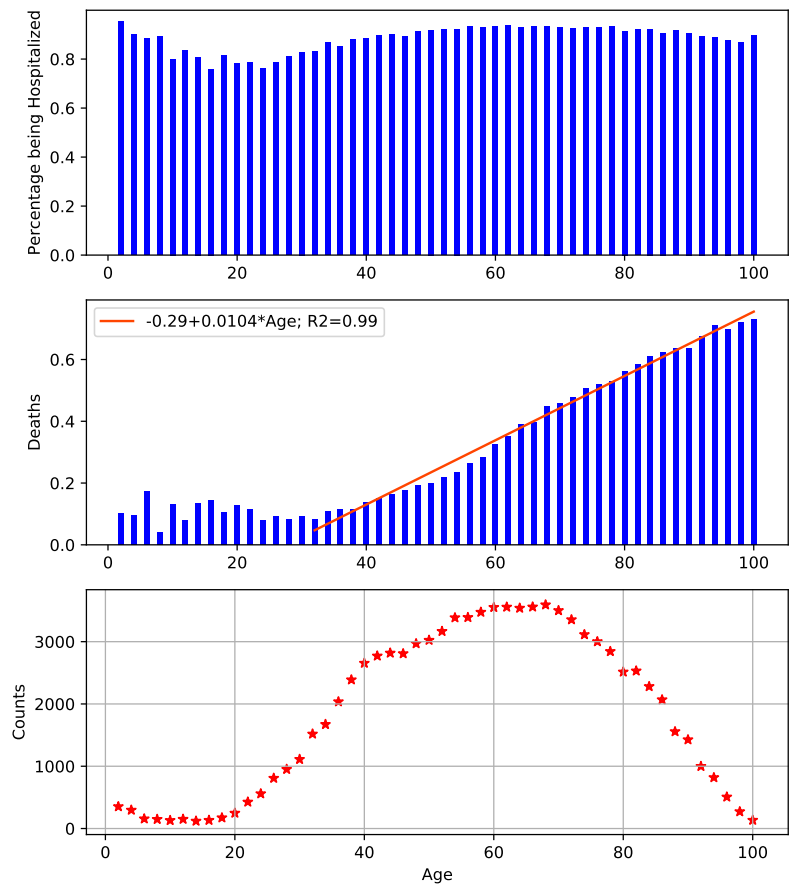
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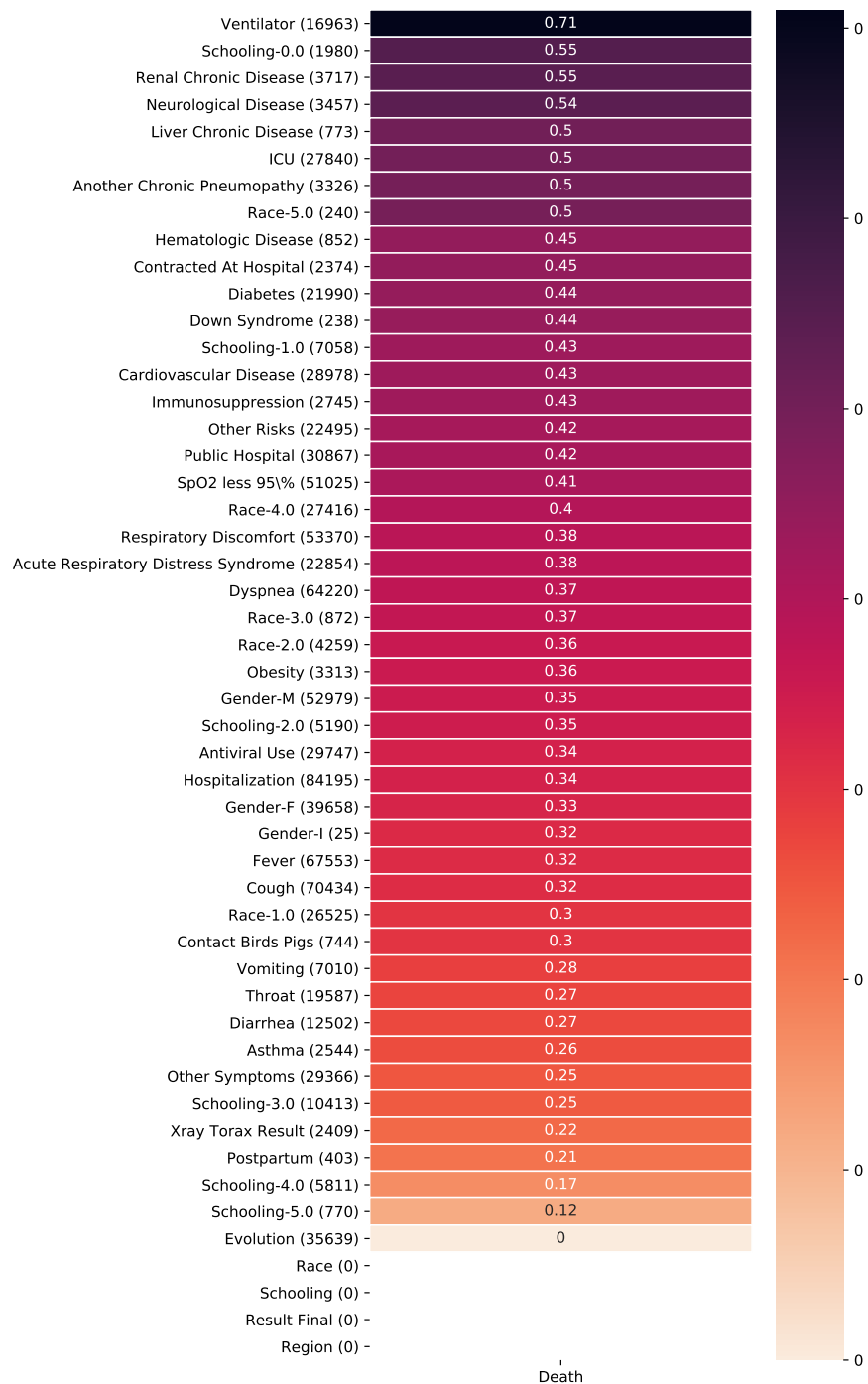
## 1 Basic Analytics

	0
N	92662
N_Hosp	84195
N_Death	31788
Female	39658
Male	52979
Race	26525
Schooling	7058
Acute Respiratory Distress Syndrome	22854
Contracted At Hospital	2374
Contact Birds Pigs	744
Fever	67553
Cough	70434
Throat	19587
Dyspnea	64220
Respiratory Discomfort	53370
SpO2 less 95\%	51025
Diarrhea	12502
Vomiting	7010
Other Symptoms	29366
Postpartum	403
Cardiovascular Disease	28978
Hematologic Disease	852
Down Syndrome	238
Liver Chronic Disease	773
Asthma	2544
Diabetes	21990
Neurological Disease	3457
Another Chronic Pneumopathy	3326
Immunosuppression	2745
Renal Chronic Disease	3717
Obesity	3313
Other Risks	22495
Antiviral Use	29747
Hospitalization	84195
ICU	27840
Ventilator	16963
Xray Torax Result	2409
Result Final	0
Evolution	35639
Public Hospital	30867
Region	0

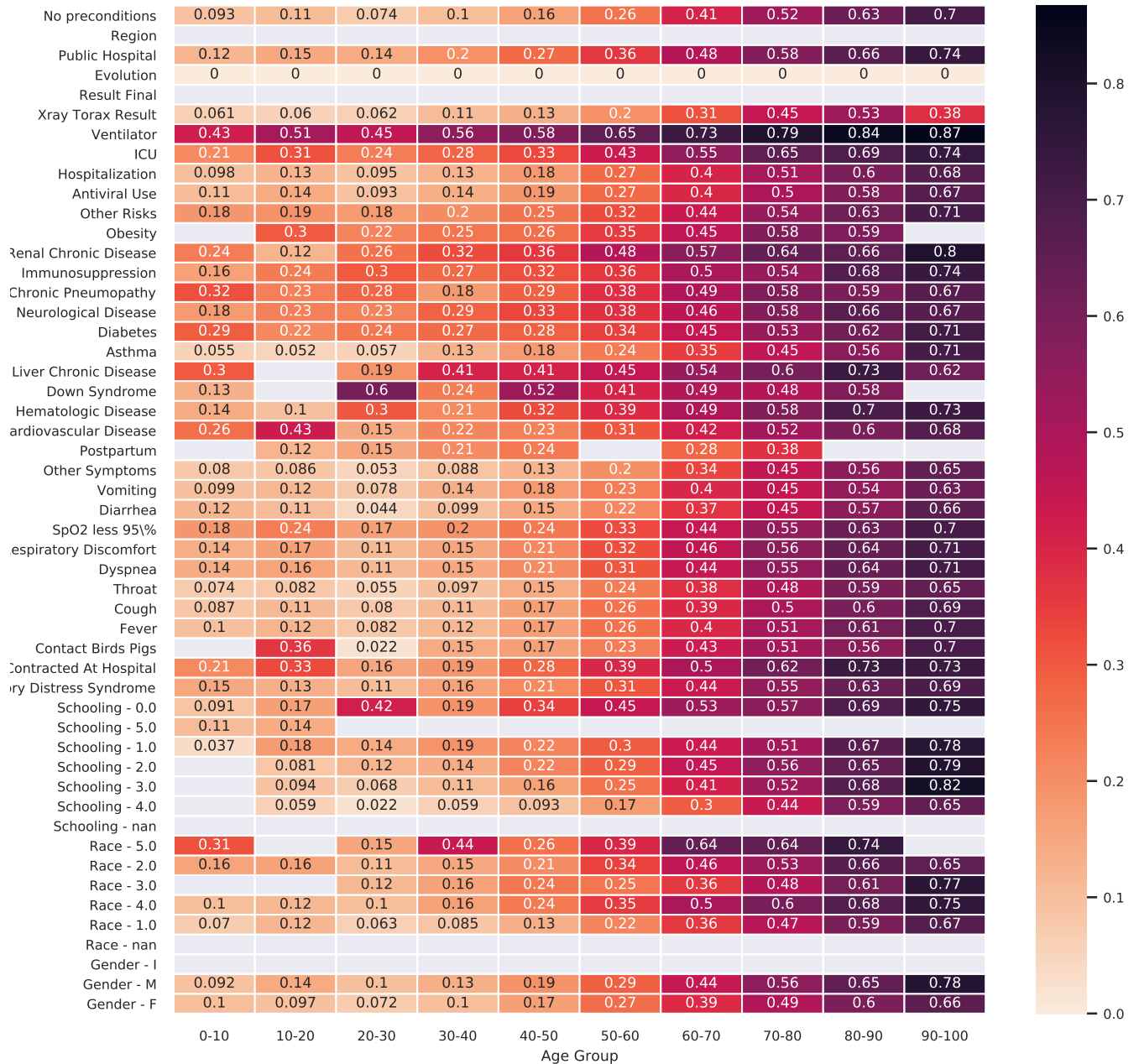
**Table 1:** Number of observations with a specific observation



**Figure 1:** Distribution of hospitalization and deaths by age group



**Figure 2:** Share of hospitalized and deaths patients given characteristics



**Figure 3:** Share of hospitalized and deaths patients given characteristics and age group

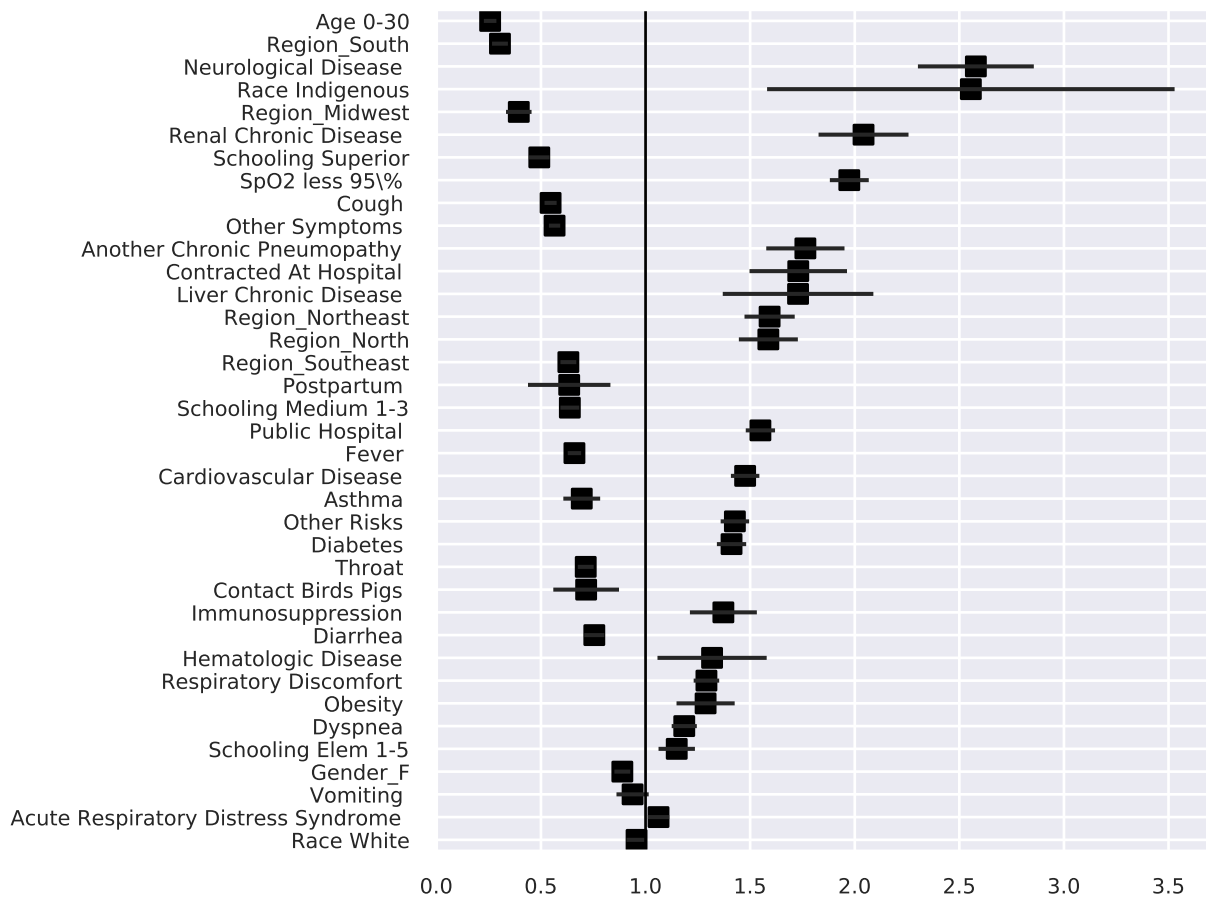
## **2 Results**

### **2.1 Mortality (previous)**

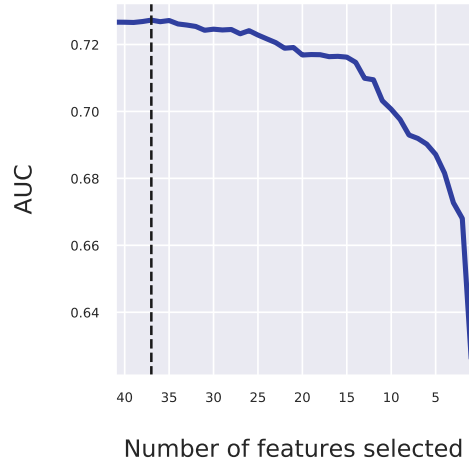


SVM-I1	Coef LR-I1	2.5 err	97.5	Odds Ratio	2.5	97.5	Avg-0	Avg-1	KS-pv	pvalue
Age 0-30	-1.360	-1.481	-1.239	0.257	0.227	0.290	0.480	0.159	0.000	0.000
0.611	0.258	0.030								
Region.South	-1.192	-1.325	-1.059	0.304	0.266	0.347	0.473	0.226	0.000	0.000
0.618	0.294	0.038								
Neurological Disease	0.947	0.834	1.061	2.579	2.302	2.889	0.451	0.706	0.000	0.000
1.466	2.544	0.277								
Race Indigenous	0.938	0.458	1.418	2.555	1.581	4.127	0.461	0.721	0.000	0.000
1.422	2.065	0.974								
Region.Midwest	-0.932	-1.100	-0.764	0.394	0.333	0.466	0.465	0.309	0.000	0.000
0.671	0.385	0.061								
Renal Chronic Disease	0.714	0.603	0.824	2.042	1.827	2.281	0.451	0.698	0.000	0.000
1.332	2.020	0.215								
Schooling Superior	-0.708	-0.813	-0.604	0.492	0.443	0.547	0.474	0.258	0.000	0.000
0.762	0.496	0.049								
SpO2 less 95\%	0.680	0.632	0.728	1.974	1.881	2.071	0.342	0.544	0.000	0.000
1.322	1.964	0.093								
Cough	-0.605	-0.659	-0.552	0.546	0.517	0.576	0.574	0.429	0.000	0.000
0.777	0.541	0.029								
Other Symptoms	-0.572	-0.619	-0.524	0.565	0.538	0.592	0.509	0.355	0.000	0.000
0.791	0.562	0.027								
Another Chronic Pneumopathy	0.568	0.456	0.680	1.764	1.577	1.974	0.454	0.642	0.000	0.000
1.260	1.742	0.187								
Contracted At Hospital	0.548	0.404	0.692	1.730	1.497	1.998	0.457	0.638	0.000	0.000
1.233	1.688	0.233								
Liver Chronic Disease	0.547	0.314	0.781	1.729	1.369	2.183	0.460	0.649	0.000	0.000
1.235	1.646	0.360								
Region.Northeast	0.466	0.387	0.544	1.593	1.473	1.723	0.430	0.619	0.000	0.000
1.189	1.510	0.120								
Region.North	0.462	0.369	0.555	1.587	1.446	1.742	0.445	0.605	0.000	0.000
1.190	1.509	0.141								
Region.Southeast	-0.461	-0.523	-0.399	0.631	0.593	0.671	0.530	0.414	0.000	0.000
0.807	0.601	0.038								
Postpartum	-0.454	-0.825	-0.084	0.635	0.438	0.919	0.463	0.277	0.000	0.016
0.838	0.714	0.197								
Schooling Medium 1-3	-0.449	-0.522	-0.375	0.638	0.593	0.687	0.476	0.341	0.000	0.000
0.835	0.639	0.045								
Public Hospital	0.438	0.391	0.484	1.549	1.479	1.623	0.404	0.557	0.000	0.000
1.199	1.546	0.070								
Fever	-0.415	-0.466	-0.364	0.660	0.628	0.695	0.556	0.430	0.000	0.000
0.839	0.654	0.032								
Cardiovascular Disease	0.390	0.342	0.437	1.476	1.408	1.548	0.411	0.563	0.000	0.000
1.175	1.471	0.068								
Asthma	-0.364	-0.500	-0.229	0.695	0.607	0.795	0.465	0.361	0.000	0.000
0.865	0.707	0.088								
Other Risks	0.356	0.306	0.405	1.427	1.359	1.499	0.434	0.539	0.000	0.000
1.154	1.420	0.068								
Diabetes	0.344	0.293	0.395	1.411	1.341	1.485	0.421	0.582	0.000	0.000
1.154	1.406	0.070								
Throat	-0.336	-0.392	-0.281	0.714	0.676	0.755	0.482	0.386	0.000	0.000
0.872	0.717	0.038								
Contact Birds Pigs	-0.334	-0.581	-0.086	0.716	0.559	0.918	0.463	0.369	0.003	0.008
0.879	0.758	0.157								
Immunosuppression	0.316	0.192	0.440	1.372	1.212	1.552	0.458	0.565	0.000	0.000
1.134	1.357	0.160								
Diarrhea	-0.281	-0.347	-0.214	0.755	0.707	0.807	0.475	0.377	0.000	0.000
0.892	0.757	0.048								
Hematologic Disease	0.276	0.055	0.498	1.318	1.057	1.645	0.461	0.575	0.000	0.014
1.120	1.266	0.261								
Respiratory Discomfort	0.256	0.207	0.304	1.291	1.230	1.355	0.390	0.508	0.000	0.000
1.109	1.283	0.061								
Obesity	0.252	0.138	0.366	1.287	1.148	1.442	0.460	0.498	0.029	0.000
1.108	1.271	0.139								
Dyspnea	0.170	0.118	0.221	1.185	1.125	1.248	0.379	0.492	0.000	0.000
1.067	1.171	0.060								
Schooling Elem 1-5	0.139	0.060	0.218	1.149	1.062	1.244	0.454	0.554	0.000	0.001
1.061	1.141	0.087								
Gender.F	-0.118	-0.161	-0.075	0.889	0.851	0.928	0.471	0.449	0.000	0.000
0.952	0.883	0.038								
Vomiting	-0.064	-0.150	0.021	0.938	0.861	1.021	0.468	0.392	0.000	0.138
0.972	0.941	0.077								
Acute Respiratory Distress Syndrome	0.060	0.011	0.110	1.062	1.011	1.116	0.447	0.505	0.000	0.016
1.024	1.057	0.051								
Race White	-0.044	-0.095	0.007	0.957	0.909	1.007	0.490	0.395	0.000	0.094
0.982	0.953	0.048								



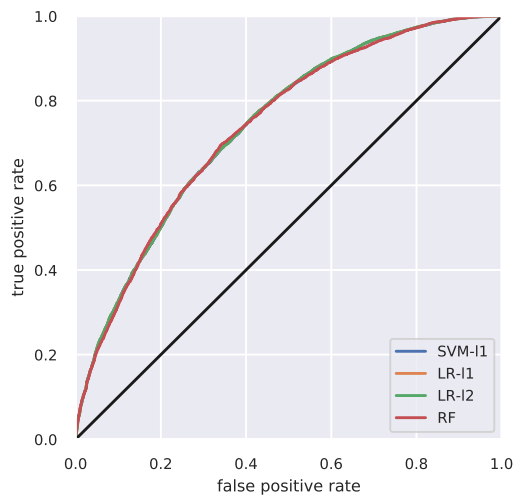


### Recursive Feature Elimination:



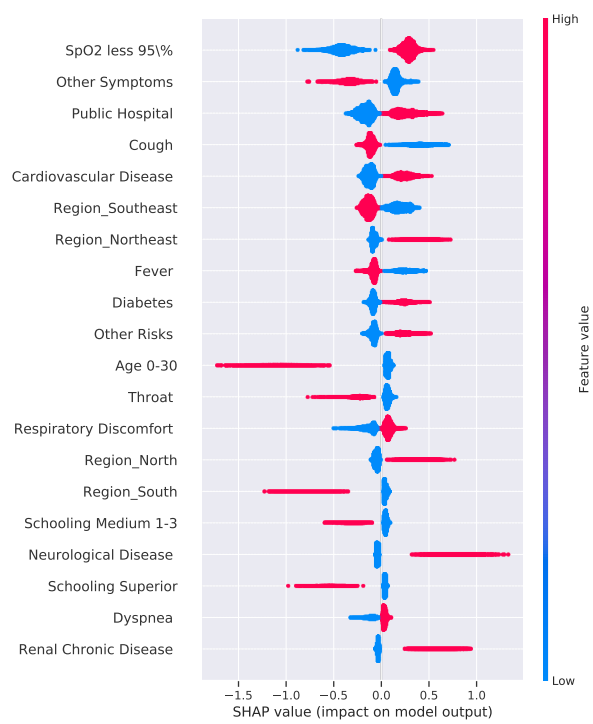
### Performance:

	SVM-l1	LR-l1	LR-l2	RF	XGBoost
Accuracy	0.672	0.672	0.672	0.673	0.676
F1w	0.672	0.671	0.671	0.672	0.676
AUC	0.740	0.741	0.741	0.739	0.746



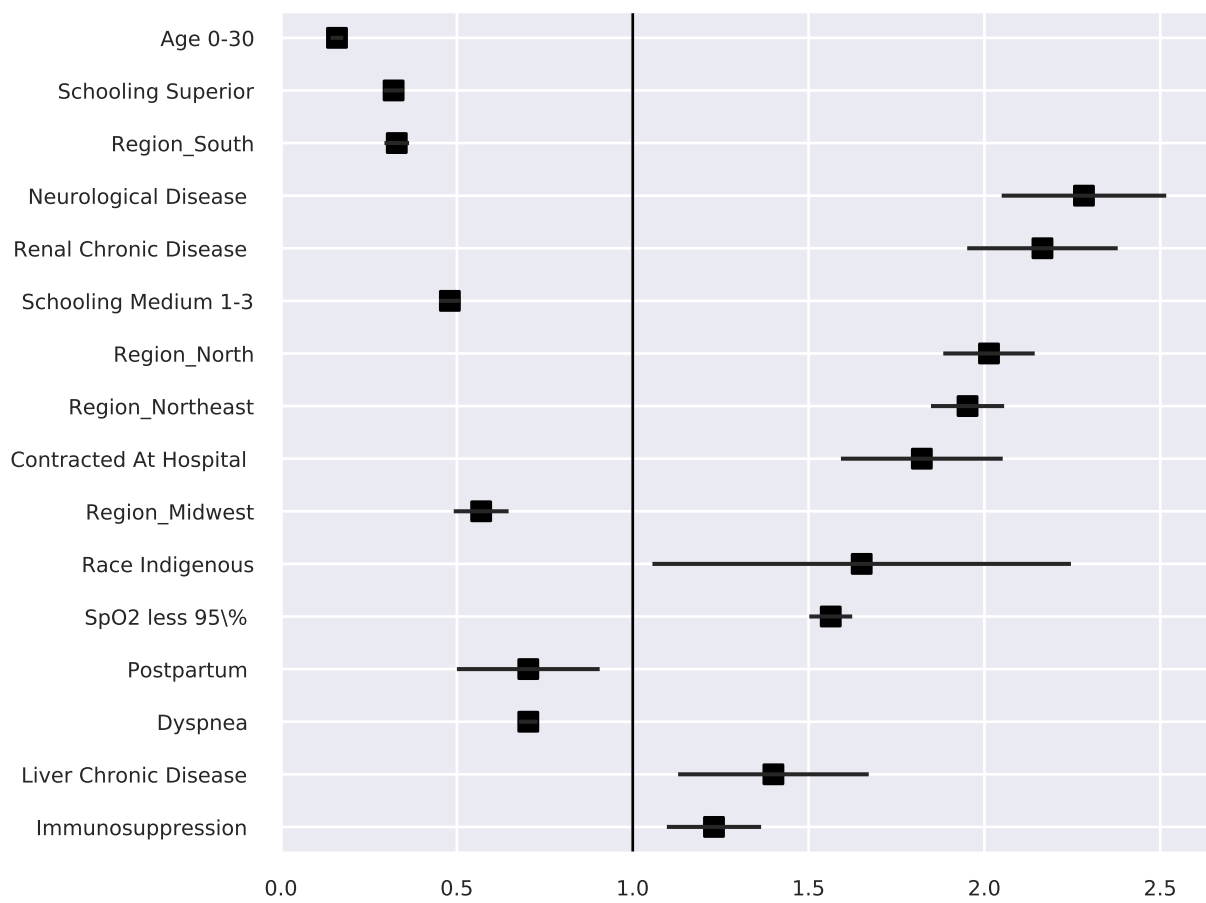
### Coefficients:

	SVM-l1	LR-l1
Age 0-30	0.611	0.258
Region_South	0.618	0.294
Region_Midwest	0.671	0.385
Schooling Superior	0.762	0.496
Cough	0.777	0.541
Other Symptoms	0.791	0.562
Region_Southeast	0.807	0.601
Schooling Medium 1-3	0.835	0.639
Fever	0.839	0.654
Asthma	0.865	0.707
Postpartum	0.838	0.714
Throat	0.872	0.717
Diarrhea	0.892	0.757
Contact Birds Pigs	0.879	0.758
Gender_F	0.952	0.883
Vomiting	0.972	0.941
Race White	0.982	0.953
Acute Respiratory Distress Syndrome	1.024	1.057
Schooling Elem 1-5	1.061	1.141
Dyspnea	1.067	1.171
Hematologic Disease	1.120	1.266
Obesity	1.108	1.271
Respiratory Discomfort	1.109	1.283
Immunosuppression	1.134	1.357
Diabetes	1.154	1.406
Other Risks	1.154	1.420
Cardiovascular Disease	1.175	1.471
Region_North	1.190	1.509
Region_Northeast	1.189	1.510
Public Hospital	1.199	1.546
Liver Chronic Disease	1.235	1.646
Contracted At Hospital	1.233	1.688
Another Chronic Pneumopathy	1.260	1.742
SpO2 less 95\%	1.322	1.964
Renal Chronic Disease	1.332	2.020
Race Indigenous	1.422	2.065
Neurological Disease	1.466	2.544

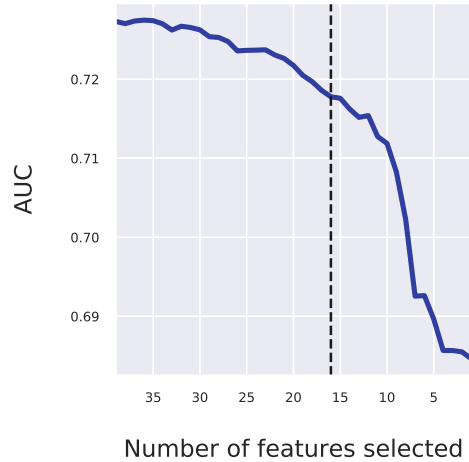


## 2.2 Mortality (previous) small

SVM-11	Coef LR-11	2.5 err	97.5	Odds Ratio	2.5	97.5	Avg-0	Avg-1	KS-pv	pvalue
Age 0-30	-1.839	-1.956	-1.721	0.159	0.141	0.179	0.483	0.146	0.000	0.000
0.552	0.195	0.018								
Schooling Superior	-1.138	-1.234	-1.042	0.320	0.291	0.353	0.476	0.259	0.000	0.000
0.687	0.403	0.029								
Region_South	-1.113	-1.223	-1.003	0.329	0.294	0.367	0.476	0.228	0.000	0.000
0.696	0.407	0.035								
Neurological Disease	0.825	0.717	0.934	2.283	2.049	2.544	0.454	0.698	0.000	0.000
1.516	2.638	0.234								
Renal Chronic Disease	0.772	0.668	0.877	2.165	1.951	2.403	0.453	0.699	0.000	0.000
1.492	2.544	0.214								
Schooling Medium 1-3	-0.734	-0.801	-0.667	0.480	0.449	0.513	0.477	0.351	0.000	0.000
0.789	0.581	0.031								
Region_North	0.700	0.633	0.767	2.013	1.883	2.152	0.447	0.606	0.000	0.000
1.483	2.403	0.130								
Region_Northeast	0.669	0.614	0.724	1.952	1.848	2.062	0.432	0.626	0.000	0.000
1.516	2.536	0.104								
Contracted At Hospital	0.600	0.465	0.735	1.822	1.592	2.085	0.459	0.648	0.000	0.000
1.385	2.179	0.230								
Region_Midwest	-0.563	-0.711	-0.416	0.569	0.491	0.660	0.467	0.327	0.000	0.000
0.866	0.716	0.078								
Race Indigenous	0.501	0.055	0.948	1.651	1.056	2.581	0.464	0.660	0.001	0.028
1.238	1.662	0.595								
SpO2 less 95\%	0.447	0.407	0.487	1.563	1.502	1.627	0.345	0.545	0.000	0.000
1.398	2.130	0.061								
Postpartum	-0.353	-0.693	-0.013	0.703	0.500	0.987	0.465	0.314	0.000	0.042
0.918	0.839	0.203								
Dyspnea	-0.352	-0.391	-0.314	0.703	0.676	0.731	0.376	0.496	0.000	0.000
1.086	1.211	0.027								
Liver Chronic Disease	0.337	0.122	0.552	1.400	1.129	1.736	0.463	0.622	0.000	0.002
1.223	1.609	0.271								
Immunosuppression	0.208	0.093	0.323	1.231	1.097	1.382	0.461	0.563	0.000	0.000
1.155	1.405	0.134								



### Recursive Feature Elimination:

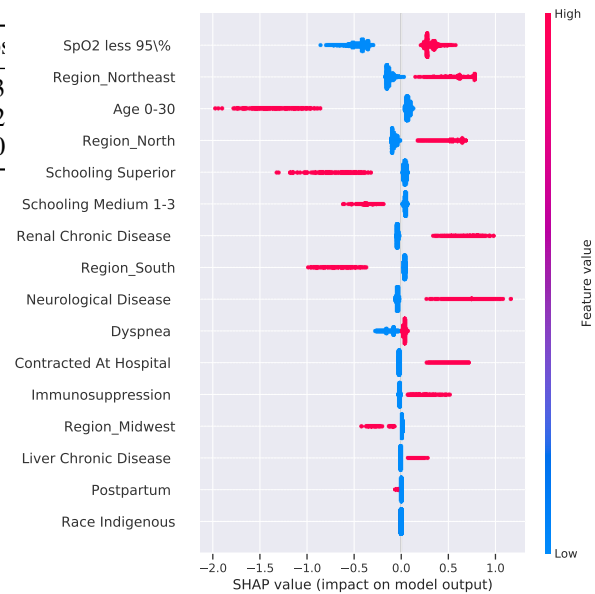
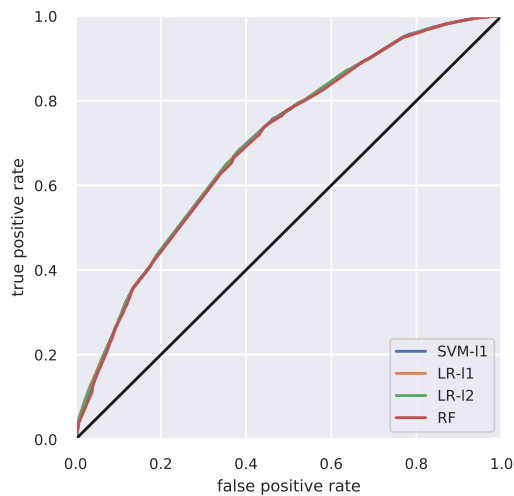


### Coefficients:

	SVM-l1	LR-l1
Age 0-30	0.552	0.195
Schooling Superior	0.687	0.403
Region_South	0.696	0.407
Schooling Medium 1-3	0.789	0.581
Region_Midwest	0.866	0.716
Postpartum	0.918	0.839
Dyspnea	1.086	1.211
Immunosuppression	1.155	1.405
Liver Chronic Disease	1.223	1.609
Race Indigenous	1.238	1.662
SpO2 less 95\%	1.398	2.130
Contracted At Hospital	1.385	2.179
Region_North	1.483	2.403
Region_Northeast	1.516	2.536
Renal Chronic Disease	1.492	2.544
Neurological Disease	1.516	2.638

### Performance:

	SVM-l1	LR-l1	LR-l2	RF	XGBoost
Accuracy	0.647	0.648	0.648	0.645	0.63
F1w	0.648	0.648	0.648	0.645	0.62
AUC	0.702	0.702	0.702	0.699	0.70



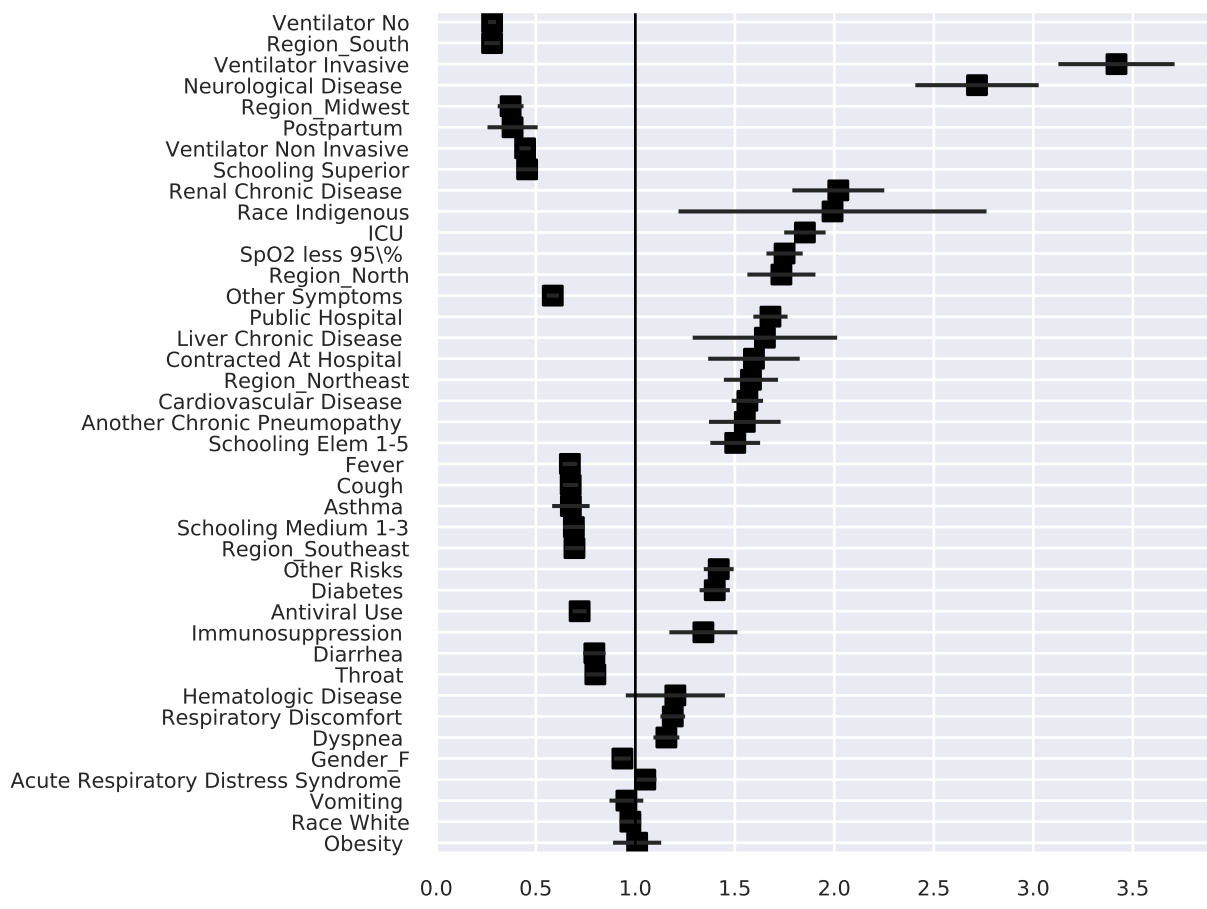
### **2.3 Mortality (advanced)**

Include variables: Antiviral, ICU, Ventilator

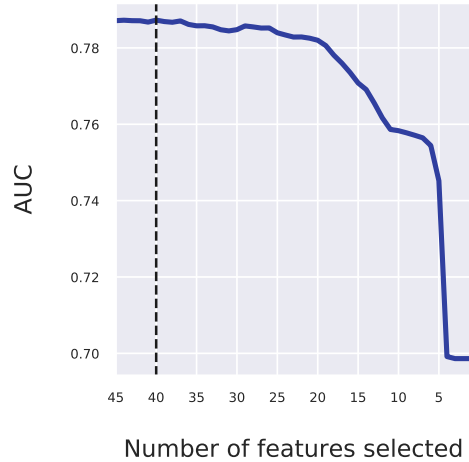




SVM-I1	Coef LR-I1	2.5 err	97.5	Odds Ratio	2.5	97.5	Avg-0	Avg-1	KS-pv	pvalue
Ventilator No	-1.274	-1.347	-1.202	0.280	0.260	0.301	0.550	0.204	0.000	0.000
0.595	0.261	0.020								
Region_South	-1.273	-1.426	-1.120	0.280	0.240	0.326	0.474	0.224	0.000	0.000
0.611	0.231	0.040								
Ventilator Invasive	1.229	1.140	1.319	3.418	3.126	3.738	0.348	0.858	0.000	0.000
1.531	3.276	0.292								
Neurological Disease	0.999	0.878	1.120	2.717	2.407	3.066	0.453	0.694	0.000	0.000
1.463	2.692	0.310								
Region_Midwest	-0.986	-1.179	-0.794	0.373	0.308	0.452	0.465	0.331	0.000	0.000
0.661	0.305	0.065								
Postpartum	-0.959	-1.358	-0.561	0.383	0.257	0.571	0.463	0.284	0.000	0.000
0.722	0.391	0.126								
Ventilator Non Invasive	-0.808	-0.875	-0.741	0.446	0.417	0.476	0.518	0.368	0.000	0.000
0.704	0.425	0.029								
Schooling Superior	-0.785	-0.906	-0.664	0.456	0.404	0.515	0.475	0.250	0.000	0.000
0.768	0.452	0.052								
Renal Chronic Disease	0.703	0.582	0.824	2.020	1.789	2.279	0.451	0.704	0.000	0.000
1.298	2.004	0.231								
Race Indigenous	0.689	0.197	1.181	1.991	1.217	3.257	0.462	0.687	0.000	0.006
1.299	1.873	0.774								
ICU	0.616	0.558	0.674	1.852	1.748	1.962	0.359	0.662	0.000	0.000
1.248	1.825	0.104								
SpO2 less 95\%	0.560	0.506	0.614	1.750	1.659	1.847	0.343	0.545	0.000	0.000
1.219	1.728	0.091								
Region_North	0.551	0.446	0.655	1.734	1.563	1.925	0.446	0.603	0.000	0.000
1.144	1.413	0.171								
Other Symptoms	-0.537	-0.590	-0.484	0.585	0.554	0.617	0.509	0.358	0.000	0.000
0.818	0.570	0.031								
Public Hospital	0.518	0.466	0.570	1.679	1.593	1.768	0.405	0.557	0.000	0.000
1.207	1.676	0.086								
Liver Chronic Disease	0.501	0.253	0.749	1.651	1.288	2.115	0.461	0.639	0.000	0.000
1.200	1.627	0.363								
Contracted At Hospital	0.468	0.312	0.623	1.596	1.366	1.865	0.458	0.639	0.000	0.000
1.176	1.568	0.230								
Region_Northeast	0.458	0.368	0.547	1.581	1.445	1.728	0.432	0.618	0.000	0.000
1.099	1.268	0.136								
Cardiovascular Disease	0.447	0.394	0.499	1.563	1.484	1.648	0.412	0.563	0.000	0.000
1.172	1.549	0.079								
Another Chronic Pneumopathy	0.438	0.315	0.562	1.550	1.370	1.754	0.456	0.633	0.000	0.000
1.173	1.541	0.180								
Schooling Elem 1-5	0.407	0.320	0.494	1.502	1.377	1.639	0.455	0.557	0.000	0.000
1.165	1.489	0.125								
Fever	-0.399	-0.455	-0.343	0.671	0.634	0.709	0.559	0.430	0.000	0.000
0.850	0.641	0.037								
Cough	-0.394	-0.453	-0.334	0.675	0.636	0.716	0.577	0.430	0.000	0.000
0.849	0.642	0.039								
Asthma	-0.392	-0.541	-0.244	0.676	0.582	0.784	0.466	0.360	0.000	0.000
0.874	0.680	0.094								
Schooling Medium 1-3	-0.370	-0.451	-0.289	0.691	0.637	0.749	0.477	0.346	0.000	0.000
0.875	0.686	0.054								
Region_Southeast	-0.365	-0.438	-0.293	0.694	0.646	0.746	0.532	0.415	0.000	0.000
0.808	0.559	0.048								
Other Risks	0.350	0.295	0.405	1.419	1.344	1.499	0.435	0.541	0.000	0.000
1.130	1.405	0.075								
Diabetes	0.336	0.280	0.392	1.399	1.323	1.480	0.423	0.579	0.000	0.000
1.128	1.390	0.076								
Antiviral Use	-0.329	-0.380	-0.277	0.720	0.684	0.758	0.476	0.440	0.000	0.000
0.888	0.722	0.036								
Immunosuppression	0.294	0.158	0.430	1.342	1.171	1.537	0.459	0.558	0.000	0.000
1.107	1.327	0.171								
Diarrhea	-0.231	-0.304	-0.157	0.794	0.738	0.854	0.477	0.370	0.000	0.000
0.920	0.791	0.056								
Throat	-0.225	-0.286	-0.164	0.799	0.751	0.849	0.484	0.383	0.000	0.000
0.922	0.799	0.048								
Hematologic Disease	0.184	-0.049	0.416	1.201	0.952	1.516	0.461	0.579	0.000	0.122
1.063	1.185	0.249								
Respiratory Discomfort	0.172	0.119	0.226	1.188	1.126	1.254	0.393	0.507	0.000	0.000
1.058	1.166	0.062								
Dyspnea	0.145	0.087	0.202	1.156	1.091	1.224	0.377	0.494	0.000	0.000
1.039	1.109	0.065								
Gender_F	-0.067	-0.115	-0.020	0.935	0.892	0.980	0.473	0.448	0.000	0.005
0.965	0.903	0.043								
Acute Respiratory Distress Syndrome	0.048	-0.006	0.103	1.050	0.994	1.108	0.447	0.507	0.000	0.082
1.011	1.038	0.056								
Vomiting	-0.046	-0.139	0.047	0.955	0.870	1.048	0.469	0.387	0.000	0.330
0.979	0.952	0.085								

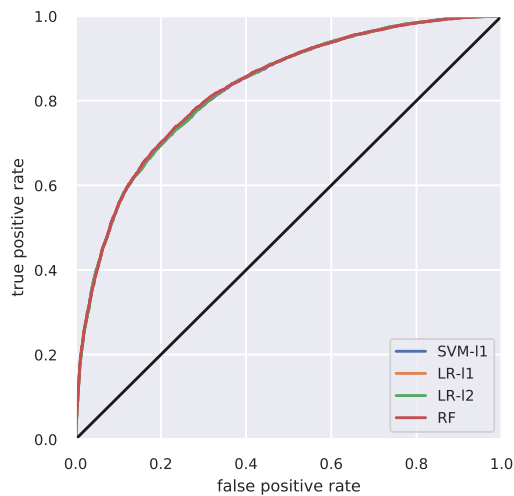


### Recursive Feature Elimination:



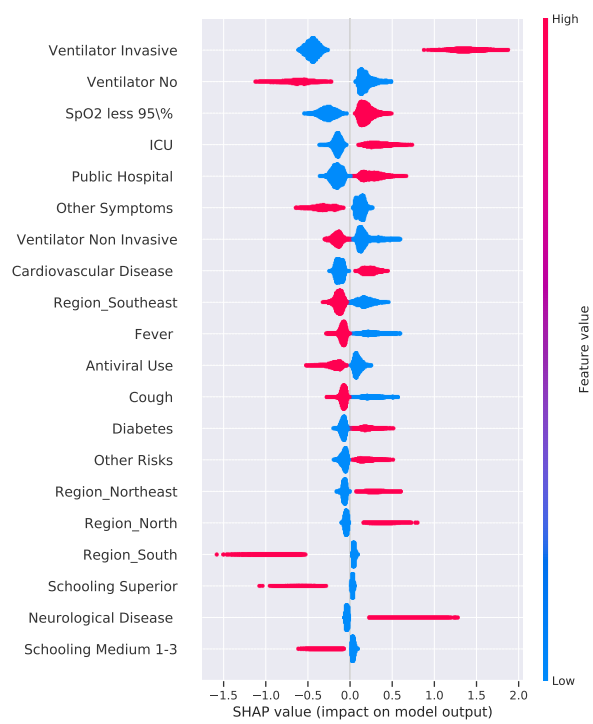
### Performance:

	SVM-l1	LR-l1	LR-l2	RF	XGBoost
Accuracy	0.751	0.752	0.752	0.750	0.758
F1w	0.750	0.751	0.751	0.746	0.757
AUC	0.829	0.829	0.829	0.831	0.835



### Coefficients:

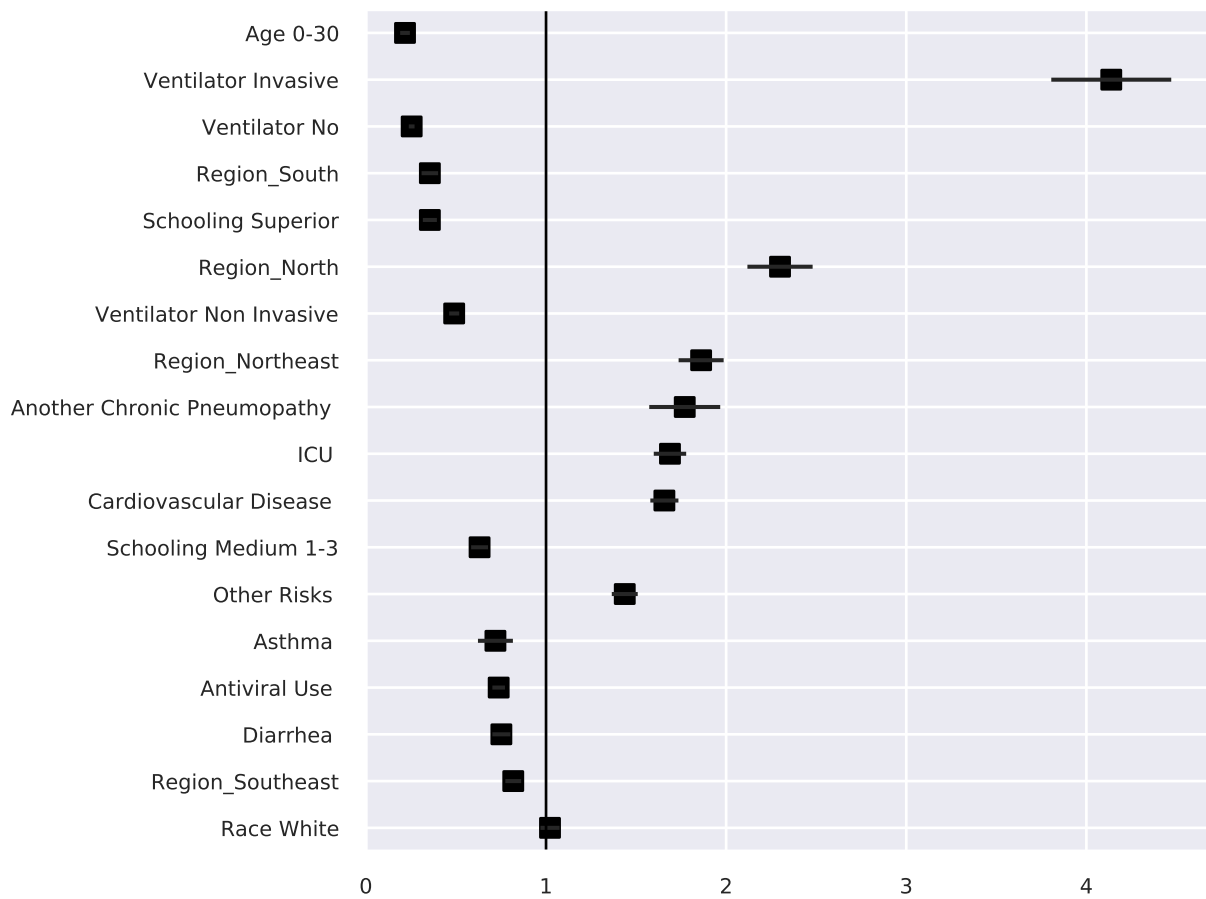
	SVM-l1	LR-l1
Region_South	0.611	0.231
Ventilator No	0.595	0.261
Region_Midwest	0.661	0.305
Postpartum	0.722	0.391
Ventilator Non Invasive	0.704	0.425
Schooling Superior	0.768	0.452
Region_Southeast	0.808	0.559
Other Symptoms	0.818	0.570
Fever	0.850	0.641
Cough	0.849	0.642
Asthma	0.874	0.680
Schooling Medium 1-3	0.875	0.686
Antiviral Use	0.888	0.722
Diarrhea	0.920	0.791
Throat	0.922	0.799
Gender_F	0.965	0.903
Vomiting	0.979	0.952
Race White	0.988	0.960
Obesity	1.008	1.016
Acute Respiratory Distress Syndrome	1.011	1.038
Dyspnea	1.039	1.109
Respiratory Discomfort	1.058	1.166
Hematologic Disease	1.063	1.185
Region_Northeast	1.099	1.268
Immunosuppression	1.107	1.327
Diabetes	1.128	1.390
Other Risks	1.130	1.405
Region_North	1.144	1.413
Schooling Elem 1-5	1.165	1.489
Another Chronic Pneumopathy	1.173	1.541
Cardiovascular Disease	1.172	1.549
Contracted At Hospital	1.176	1.568
Liver Chronic Disease	1.200	1.627
Public Hospital	1.207	1.676
SpO2 less 95\%	1.219	1.728
ICU	1.248	1.825
Race Indigenous	1.299	1.873
Renal Chronic Disease	1.298	2.004
Neurological Disease	1.463	2.692
Ventilator Invasive	1.531	3.276



## **2.4 Mortality (advanced) small**

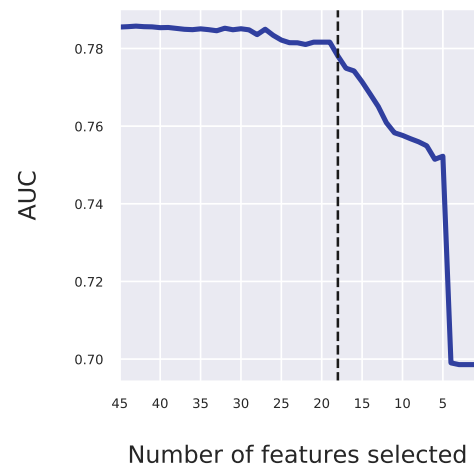
Include variables: Antiviral, ICU, Ventilator

SVM-I1	Coef LR-I1	2.5 err	97.5	Odds Ratio	2.5	97.5	Avg-0	Avg-1	KS-pv	pvalue
Age 0-30	-1.529	-1.660	-1.397	0.217	0.190	0.247	0.481	0.149	0.0	0.000
0.615	0.229	0.027								
Ventilator Invasive	1.420	1.336	1.504	4.138	3.805	4.501	0.348	0.860	0.0	0.000
1.662	4.131	0.333								
Ventilator No	-1.369	-1.436	-1.303	0.254	0.238	0.272	0.550	0.205	0.0	0.000
0.569	0.260	0.016								
Region_South	-1.037	-1.175	-0.898	0.355	0.309	0.407	0.473	0.234	0.0	0.000
0.712	0.380	0.046								
Schooling Superior	-1.036	-1.150	-0.922	0.355	0.316	0.398	0.474	0.255	0.0	0.000
0.701	0.373	0.039								
Region_North	0.832	0.750	0.914	2.299	2.118	2.495	0.445	0.601	0.0	0.000
1.383	2.256	0.181								
Ventilator Non Invasive	-0.714	-0.773	-0.655	0.490	0.462	0.519	0.517	0.369	0.0	0.000
0.728	0.499	0.028								
Region_Northeast	0.621	0.551	0.691	1.861	1.736	1.995	0.431	0.616	0.0	0.000
1.274	1.850	0.125								
Another Chronic Pneumopathy	0.571	0.453	0.689	1.770	1.573	1.991	0.455	0.631	0.0	0.000
1.243	1.689	0.197								
ICU	0.523	0.468	0.578	1.688	1.598	1.783	0.359	0.662	0.0	0.000
1.220	1.674	0.090								
Cardiovascular Disease	0.505	0.457	0.553	1.657	1.579	1.739	0.410	0.564	0.0	0.000
1.213	1.647	0.078								
Schooling Medium 1-3	-0.461	-0.539	-0.384	0.631	0.584	0.681	0.476	0.348	0.0	0.000
0.845	0.646	0.047								
Other Risks	0.363	0.311	0.415	1.437	1.365	1.514	0.435	0.540	0.0	0.000
1.144	1.424	0.072								
Asthma	-0.329	-0.474	-0.184	0.719	0.622	0.832	0.465	0.361	0.0	0.000
0.890	0.769	0.097								
Antiviral Use	-0.305	-0.354	-0.256	0.737	0.702	0.774	0.474	0.442	0.0	0.000
0.892	0.743	0.035								
Diarrhea	-0.285	-0.353	-0.218	0.752	0.702	0.804	0.475	0.377	0.0	0.000
0.901	0.763	0.050								
Region_Southeast	-0.201	-0.256	-0.147	0.818	0.774	0.864	0.532	0.414	0.0	0.000
0.929	0.830	0.044								
Race White	0.022	-0.032	0.076	1.022	0.969	1.079	0.490	0.395	0.0	0.424
1.010	1.000	0.053								



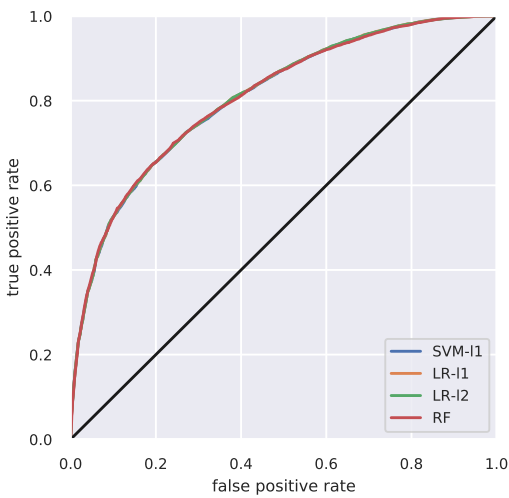


Recursive Feature Elimination:



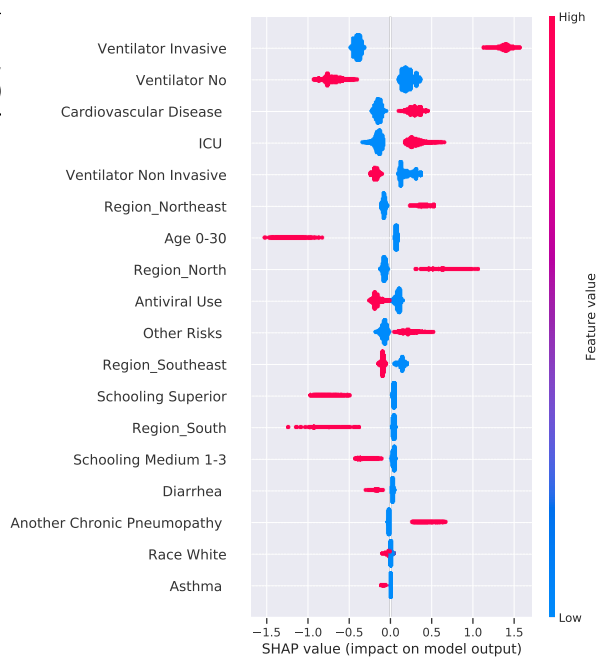
Performance:

	SVM-l1	LR-l1	LR-l2	RF	XGBoost
Accuracy	0.733	0.733	0.734	0.734	0.73
F1w	0.731	0.730	0.731	0.729	0.72
AUC	0.807	0.808	0.808	0.808	0.80



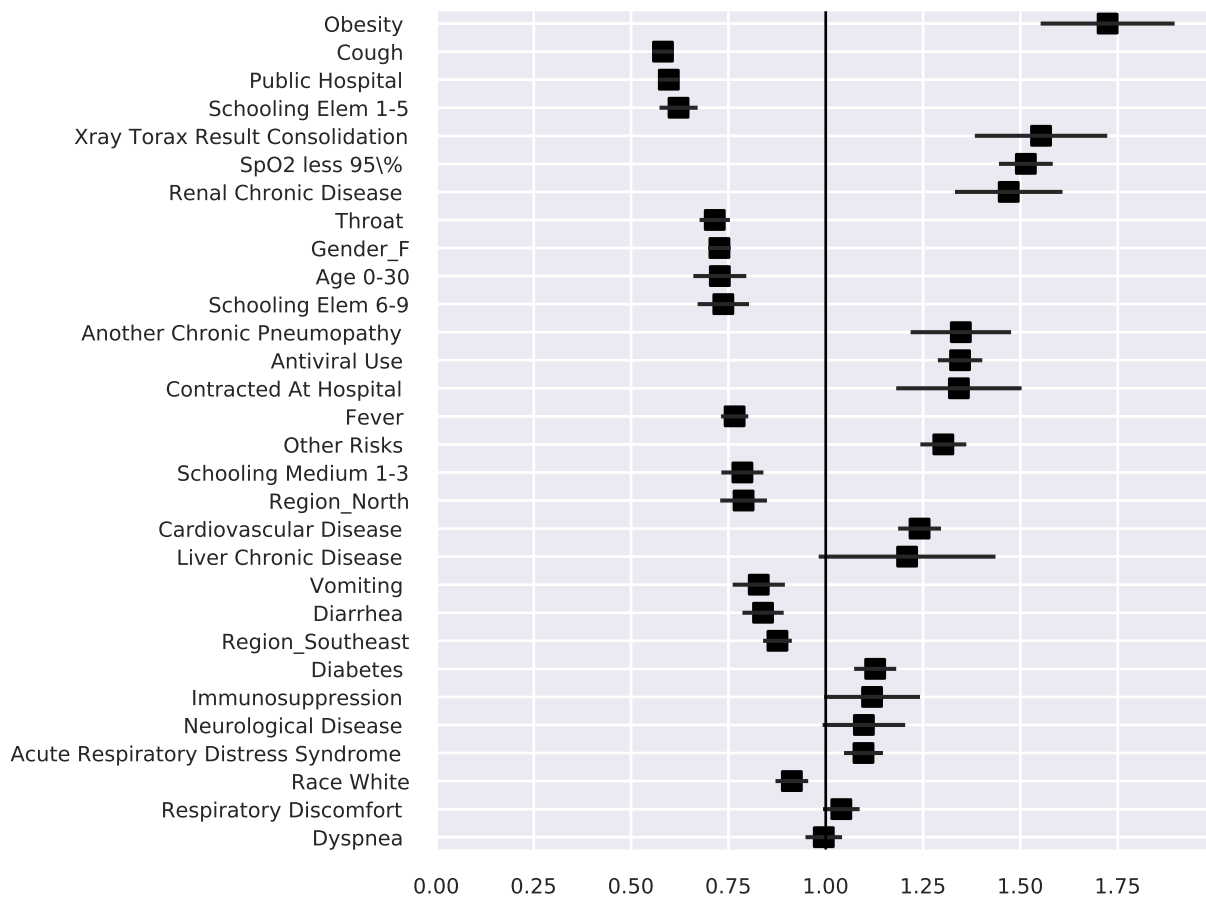
Coefficients:

	SVM-l1	LR-l1
Age 0-30	0.615	0.229
Ventilator No	0.569	0.260
Schooling Superior	0.701	0.373
Region_South	0.712	0.380
Ventilator Non Invasive	0.728	0.499
Schooling Medium 1-3	0.845	0.646
Antiviral Use	0.892	0.743
Diarrhea	0.901	0.763
Asthma	0.890	0.769
Region_Southeast	0.929	0.830
Race White	1.010	1.000
Other Risks	1.144	1.424
Cardiovascular Disease	1.213	1.647
ICU	1.220	1.674
Another Chronic Pneumopathy	1.243	1.689
Region_Northeast	1.274	1.850
Region_North	1.383	2.256
Ventilator Invasive	1.662	4.131

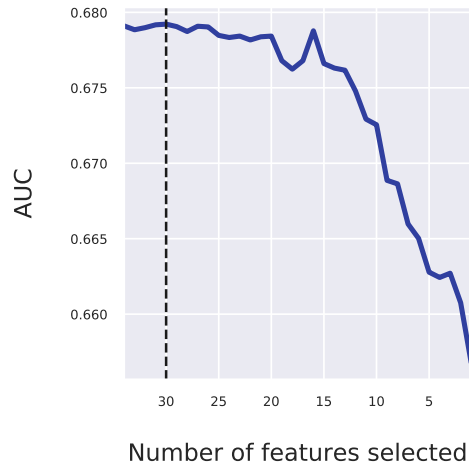


## 2.5 ICU

SVM-I1	Coef LR-I1	2.5 err	97.5	Odds Ratio	2.5	97.5	Avg-0	Avg-1	KS-pv	pvalue
Obesity	0.545	0.439	0.650	1.724	1.552	1.915	0.337	0.488	0.000	0.000
1.264	1.682	0.172								
Cough	-0.542	-0.590	-0.493	0.582	0.554	0.611	0.400	0.326	0.000	0.000
0.863	0.709	0.028								
Public Hospital	-0.516	-0.560	-0.472	0.597	0.571	0.624	0.371	0.295	0.000	0.000
0.841	0.660	0.026								
Schooling Elem 1-5	-0.474	-0.556	-0.392	0.622	0.573	0.676	0.348	0.278	0.000	0.000
0.837	0.647	0.049								
Xray Torax Result Consolidation	0.440	0.324	0.555	1.553	1.383	1.743	0.338	0.469	0.000	0.000
1.241	1.628	0.170								
SpO2 less 95\%	0.415	0.368	0.462	1.514	1.445	1.587	0.265	0.396	0.000	0.000
1.217	1.608	0.069								
Renal Chronic Disease	0.385	0.287	0.484	1.470	1.332	1.623	0.335	0.490	0.000	0.000
1.215	1.534	0.138								
Throat	-0.336	-0.391	-0.281	0.715	0.676	0.755	0.361	0.272	0.000	0.000
0.871	0.703	0.039								
Gender_F	-0.319	-0.360	-0.278	0.727	0.698	0.757	0.355	0.325	0.000	0.000
0.926	0.832	0.029								
Age 0-30	-0.317	-0.415	-0.219	0.728	0.660	0.803	0.348	0.247	0.000	0.000
0.945	0.846	0.068								
Schooling Elem 6-9	-0.305	-0.399	-0.210	0.737	0.671	0.810	0.345	0.301	0.000	0.000
0.897	0.768	0.066								
Another Chronic Pneumopathy	0.298	0.197	0.398	1.347	1.218	1.489	0.337	0.471	0.000	0.000
1.158	1.377	0.129								
Antiviral Use	0.296	0.253	0.340	1.345	1.288	1.405	0.314	0.393	0.000	0.000
1.145	1.381	0.057								
Contracted At Hospital	0.294	0.167	0.421	1.342	1.181	1.524	0.339	0.471	0.000	0.000
1.191	1.474	0.161								
Fever	-0.266	-0.313	-0.220	0.766	0.731	0.803	0.370	0.333	0.000	0.000
0.975	0.944	0.035								
Other Risks	0.264	0.217	0.310	1.302	1.243	1.364	0.316	0.417	0.000	0.000
1.168	1.431	0.059								
Schooling Medium 1-3	-0.241	-0.312	-0.171	0.786	0.732	0.843	0.347	0.301	0.000	0.000
0.924	0.826	0.054								
Region.North	-0.236	-0.316	-0.157	0.789	0.729	0.855	0.351	0.268	0.000	0.000
0.971	0.920	0.060								
Cardiovascular Disease	0.216	0.170	0.262	1.241	1.186	1.299	0.306	0.414	0.000	0.000
1.130	1.328	0.055								
Liver Chronic Disease	0.190	-0.018	0.398	1.209	0.982	1.489	0.341	0.434	0.002	0.073
1.110	1.277	0.227								
Vomiting	-0.188	-0.273	-0.104	0.828	0.761	0.901	0.347	0.289	0.000	0.000
0.939	0.852	0.067								
Diarrhea	-0.176	-0.240	-0.111	0.839	0.786	0.895	0.349	0.301	0.000	0.000
0.946	0.872	0.053								
Region.Southeast	-0.133	-0.175	-0.090	0.876	0.839	0.914	0.315	0.361	0.000	0.000
1.047	1.116	0.037								
Diabetes	0.120	0.071	0.169	1.127	1.073	1.184	0.321	0.406	0.000	0.000
1.074	1.181	0.054								
Immunosuppression	0.112	-0.004	0.229	1.119	0.996	1.257	0.340	0.414	0.000	0.059
1.073	1.175	0.123								
Neurological Disease	0.094	-0.008	0.195	1.098	0.992	1.215	0.339	0.430	0.000	0.070
1.056	1.128	0.106								
Acute Respiratory Distress Syndrome	0.093	0.045	0.140	1.097	1.047	1.150	0.331	0.375	0.000	0.000
1.077	1.194	0.050								
Race White	-0.091	-0.138	-0.043	0.913	0.871	0.957	0.338	0.353	0.039	0.000
0.990	0.975	0.042								
Respiratory Discomfort	0.039	-0.007	0.086	1.040	0.993	1.090	0.309	0.364	0.000	0.098
1.048	1.115	0.047								
Dyspnea	-0.005	-0.054	0.044	0.995	0.948	1.045	0.293	0.360	0.000	0.842
1.075	1.195	0.047								

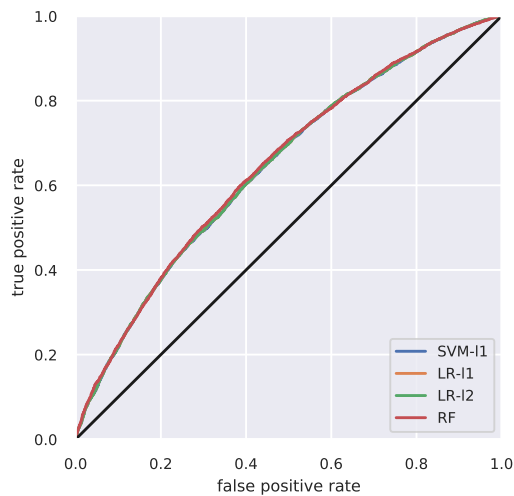


### Recursive Feature Elimination:



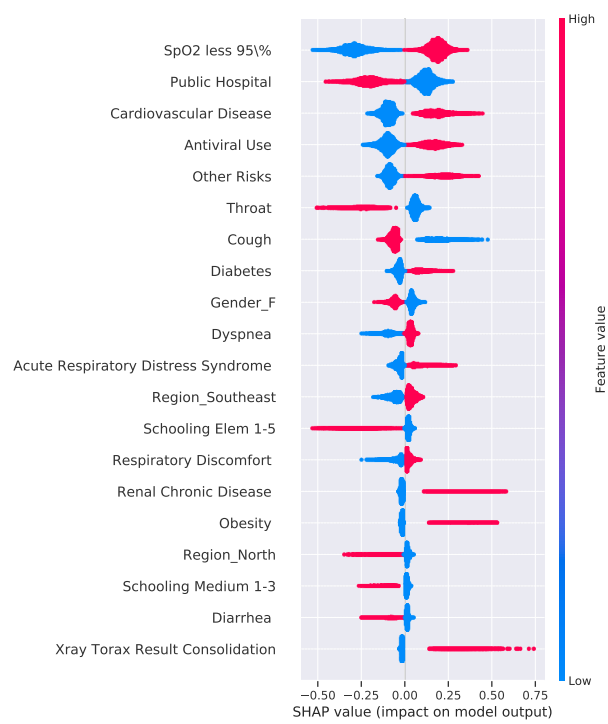
### Performance:

	SVM-l1	LR-l1	LR-l2	RF	XGBoost
Accuracy	0.653	0.653	0.653	0.655	0.655
F1w	0.603	0.604	0.605	0.578	0.600
AUC	0.644	0.645	0.645	0.647	0.647



### Coefficients:

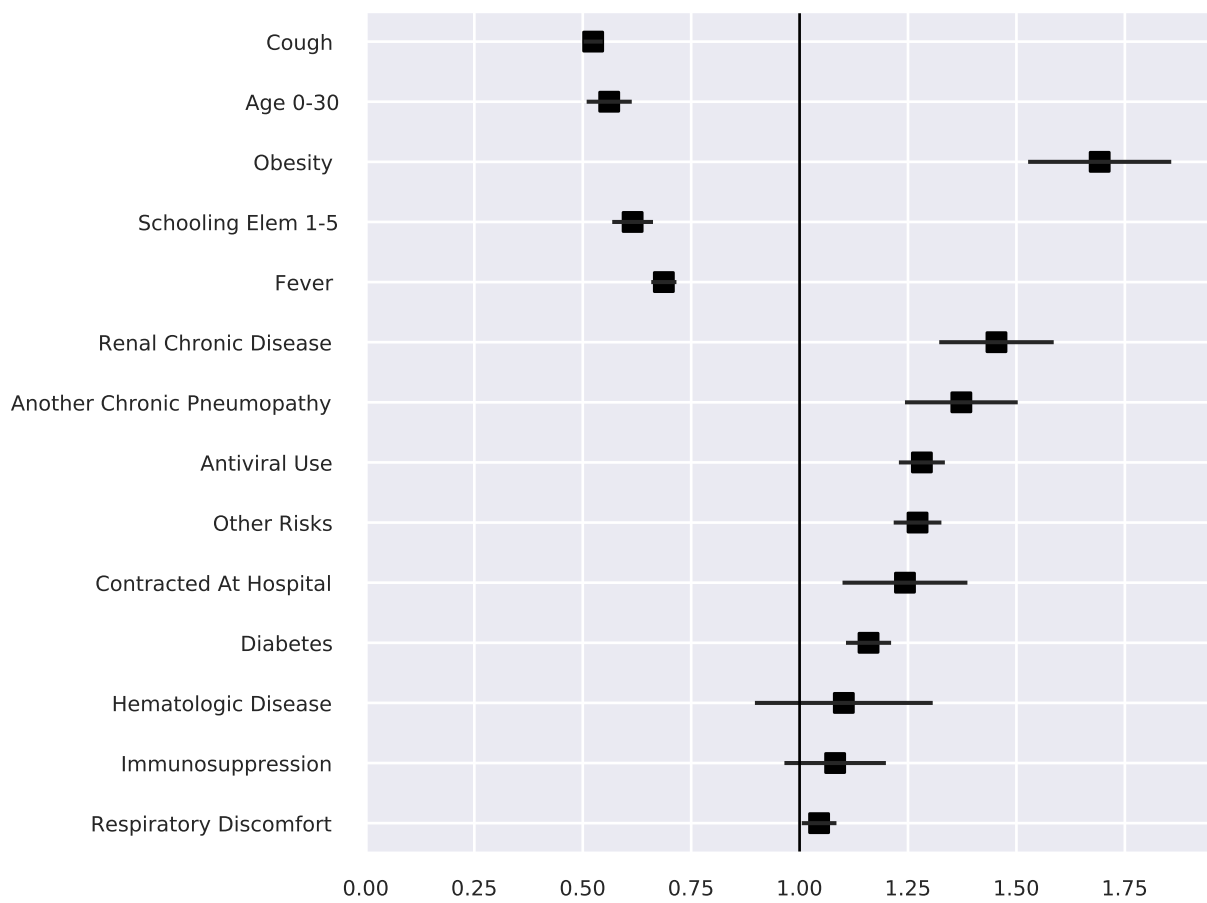
	SVM-l1	LR-l1
Schooling Elem 1-5	0.837	0.647
Public Hospital	0.841	0.660
Throat	0.871	0.703
Cough	0.863	0.709
Schooling Elem 6-9	0.897	0.768
Schooling Medium 1-3	0.924	0.826
Gender_F	0.926	0.832
Age 0-30	0.945	0.846
Vomiting	0.939	0.852
Diarrhea	0.946	0.872
Region_North	0.971	0.920
Fever	0.975	0.944
Race White	0.990	0.975
Respiratory Discomfort	1.048	1.115
Region_Southeast	1.047	1.116
Neurological Disease	1.056	1.128
Immunosuppression	1.073	1.175
Diabetes	1.074	1.181
Acute Respiratory Distress Syndrome	1.077	1.194
Dyspnea	1.075	1.195
Liver Chronic Disease	1.110	1.277
Cardiovascular Disease	1.130	1.328
Another Chronic Pneumopathy	1.158	1.377
Antiviral Use	1.145	1.381
Other Risks	1.168	1.431
Contracted At Hospital	1.191	1.474
Renal Chronic Disease	1.215	1.534
SpO2 less 95\%	1.217	1.608
Xray Torax Result Consolidation	1.241	1.628
Obesity	1.264	1.682



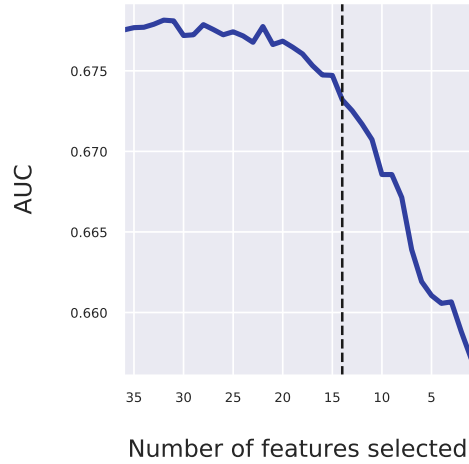
## 2.6 ICU small

SVM-I1	Coef LR-I1	2.5 err	97.5	Odds Ratio	2.5	97.5	Avg-0	Avg-1	KS-pv	pvalue
Cough	-0.645	-0.690	-0.601	0.524	0.502	0.548	0.400	0.326	0.000	0.000
0.860	0.713	0.022								
Age 0-30	-0.578	-0.675	-0.482	0.561	0.509	0.618	0.349	0.242	0.000	0.000
0.848	0.658	0.052								
Obesity	0.526	0.423	0.629	1.692	1.527	1.875	0.337	0.485	0.000	0.000
1.299	1.755	0.165								
Schooling Elem 1-5	-0.486	-0.566	-0.406	0.615	0.568	0.666	0.348	0.282	0.000	0.000
0.843	0.666	0.047								
Fever	-0.376	-0.419	-0.333	0.687	0.658	0.717	0.373	0.333	0.000	0.000
0.959	0.909	0.029								
Renal Chronic Disease	0.375	0.279	0.470	1.454	1.322	1.600	0.336	0.483	0.000	0.000
1.242	1.589	0.132								
Another Chronic Pneumopathy	0.317	0.217	0.417	1.373	1.243	1.518	0.338	0.463	0.000	0.000
1.202	1.486	0.130								
Antiviral Use	0.248	0.206	0.290	1.282	1.229	1.336	0.314	0.393	0.000	0.000
1.158	1.395	0.053								
Other Risks	0.241	0.196	0.286	1.272	1.217	1.331	0.316	0.420	0.000	0.000
1.187	1.463	0.055								
Contracted At Hospital	0.218	0.095	0.341	1.243	1.099	1.406	0.340	0.456	0.000	0.001
1.183	1.442	0.144								
Diabetes	0.147	0.102	0.193	1.159	1.107	1.213	0.321	0.407	0.000	0.000
1.125	1.299	0.052								
Hematologic Disease	0.097	-0.108	0.303	1.102	0.897	1.353	0.342	0.420	0.015	0.354
1.082	1.186	0.205								
Immunosuppression	0.079	-0.035	0.193	1.082	0.965	1.213	0.340	0.421	0.000	0.177
1.076	1.174	0.117								
Respiratory Discomfort	0.044	0.005	0.084	1.045	1.005	1.087	0.309	0.365	0.000	0.028
1.113	1.283	0.040								





### Recursive Feature Elimination:

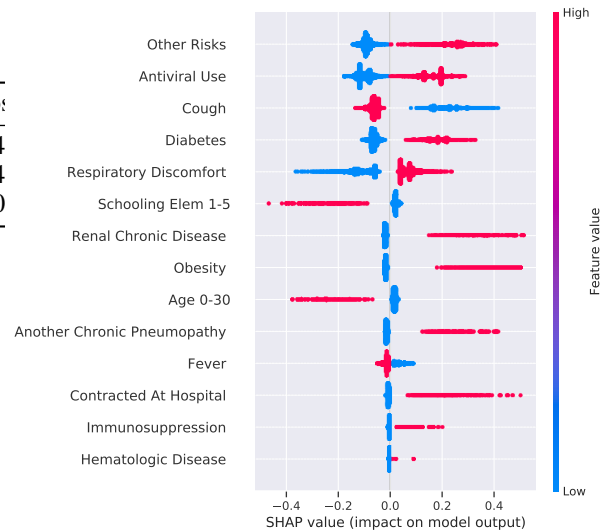
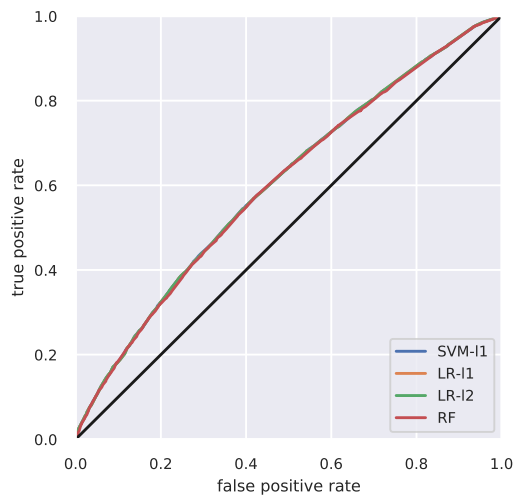


### Coefficients:

	SVM-l1	LR-l1
Age 0-30	0.848	0.658
Schooling Elem 1-5	0.843	0.666
Cough	0.860	0.713
Fever	0.959	0.909
Immunosuppression	1.076	1.174
Hematologic Disease	1.082	1.186
Respiratory Discomfort	1.113	1.283
Diabetes	1.125	1.299
Antiviral Use	1.158	1.395
Contracted At Hospital	1.183	1.442
Other Risks	1.187	1.463
Another Chronic Pneumopathy	1.202	1.486
Renal Chronic Disease	1.242	1.589
Obesity	1.299	1.755

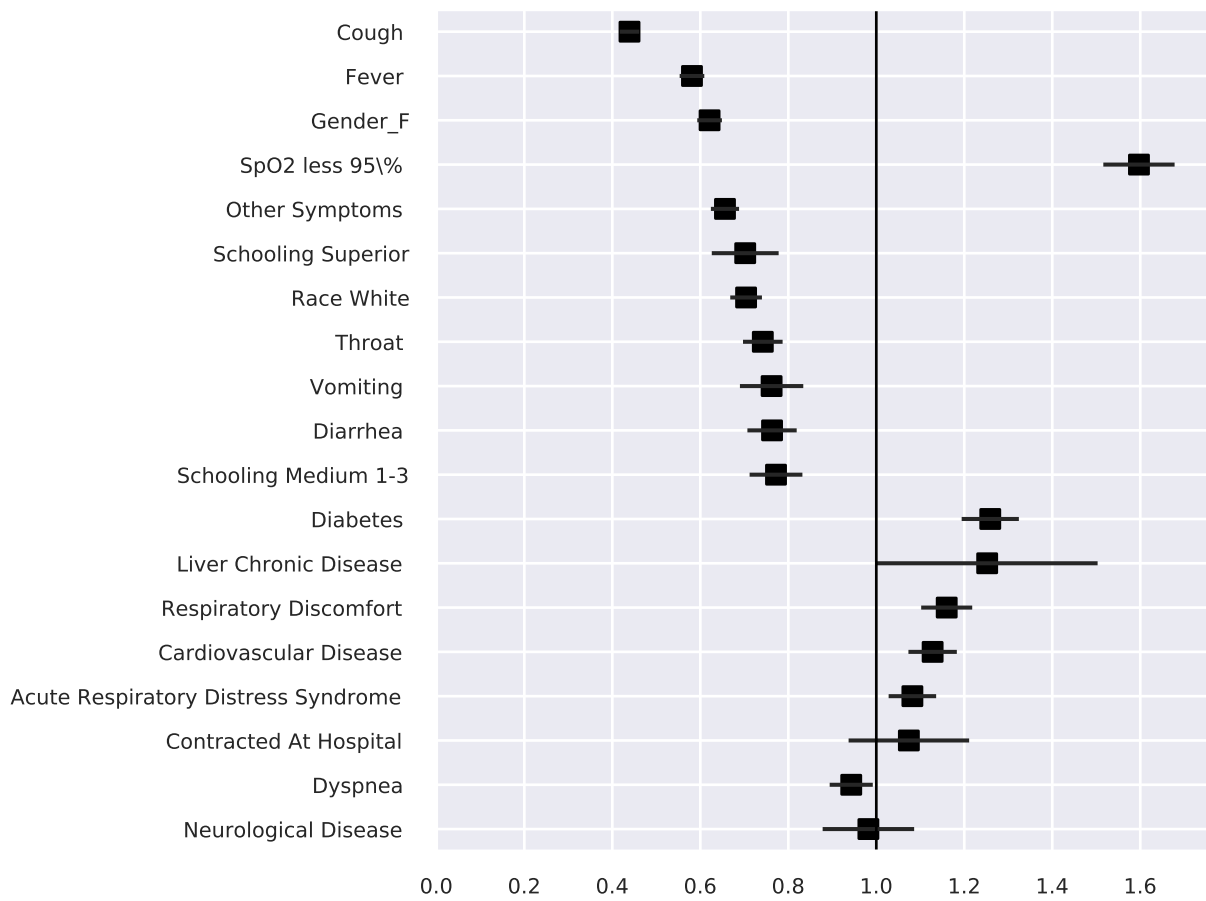
### Performance:

	SVM-l1	LR-l1	LR-l2	RF	XGBoost
Accuracy	0.648	0.648	0.648	0.646	0.64
F1w	0.568	0.567	0.567	0.535	0.54
AUC	0.603	0.603	0.603	0.601	0.60

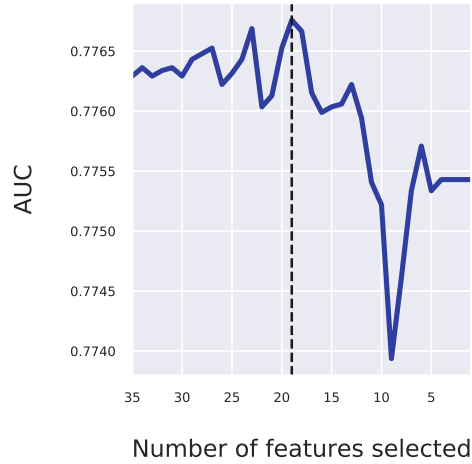


## **2.7 Ventilator**

SVM-I1	Coef LR-I1	2.5 err	97.5	Odds Ratio	2.5	97.5	Avg-0	Avg-1	KS-pv	pvalue
Cough	-0.824	-0.875	-0.773	0.439	0.417	0.462	0.278	0.209	0.000	0.000
0.858	0.649	0.022								
Fever	-0.542	-0.592	-0.493	0.581	0.553	0.611	0.255	0.214	0.000	0.000
0.949	0.868	0.028								
Gender_F	-0.477	-0.522	-0.431	0.621	0.593	0.650	0.235	0.211	0.000	0.000
0.946	0.849	0.028								
SpO2 less 95\%	0.468	0.416	0.520	1.597	1.516	1.682	0.135	0.286	0.000	0.000
1.248	2.043	0.081								
Other Symptoms	-0.421	-0.472	-0.371	0.656	0.624	0.690	0.237	0.197	0.000	0.000
0.973	0.920	0.032								
Schooling Superior	-0.353	-0.469	-0.238	0.702	0.626	0.788	0.228	0.162	0.000	0.000
0.944	0.837	0.076								
Race White	-0.351	-0.403	-0.299	0.704	0.668	0.742	0.233	0.204	0.000	0.000
0.948	0.849	0.036								
Throat	-0.298	-0.361	-0.235	0.742	0.697	0.790	0.237	0.179	0.000	0.000
0.897	0.714	0.045								
Vomiting	-0.272	-0.371	-0.173	0.762	0.690	0.841	0.228	0.179	0.000	0.000
0.939	0.839	0.072								
Diarrhea	-0.270	-0.346	-0.194	0.763	0.707	0.824	0.232	0.179	0.000	0.000
0.936	0.815	0.056								
Schooling Medium 1-3	-0.259	-0.340	-0.179	0.772	0.712	0.836	0.229	0.189	0.000	0.000
0.960	0.889	0.060								
Diabetes	0.231	0.178	0.283	1.259	1.194	1.328	0.201	0.294	0.000	0.000
1.130	1.407	0.065								
Liver Chronic Disease	0.224	0.001	0.448	1.252	1.001	1.566	0.224	0.317	0.002	0.049
1.147	1.233	0.251								
Respiratory Discomfort	0.149	0.097	0.200	1.160	1.102	1.222	0.162	0.265	0.000	0.000
1.124	1.414	0.058								
Cardiovascular Disease	0.120	0.071	0.170	1.128	1.073	1.186	0.197	0.279	0.000	0.000
1.096	1.307	0.055								
Acute Respiratory Distress Syndrome	0.079	0.027	0.131	1.082	1.028	1.140	0.211	0.263	0.000	0.003
1.078	1.239	0.054								
Contracted At Hospital	0.071	-0.065	0.207	1.074	0.937	1.230	0.222	0.316	0.000	0.305
1.142	1.351	0.137								
Dyspnea	-0.059	-0.112	-0.006	0.943	0.894	0.994	0.146	0.253	0.000	0.030
1.133	1.515	0.049								
Neurological Disease	-0.018	-0.130	0.094	0.982	0.878	1.098	0.222	0.277	0.000	0.750
1.023	1.035	0.104								

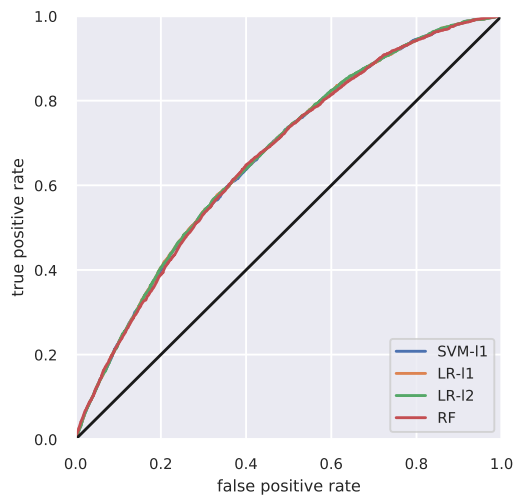


### Recursive Feature Elimination:



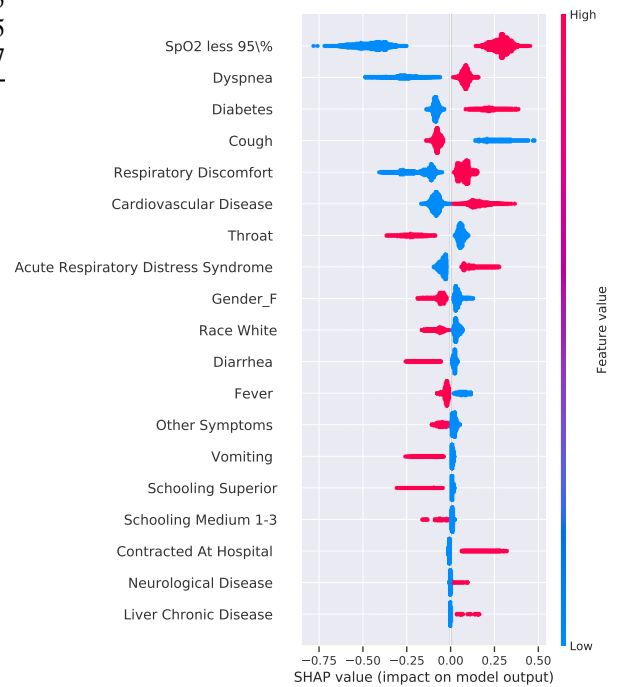
### Performance:

	SVM-l1	LR-l1	LR-l2	RF	XGBoost
Accuracy	0.751	0.750	0.750	0.752	0.757
F1w	0.660	0.656	0.658	0.651	0.65
AUC	0.669	0.670	0.670	0.667	0.67



### Coefficients:

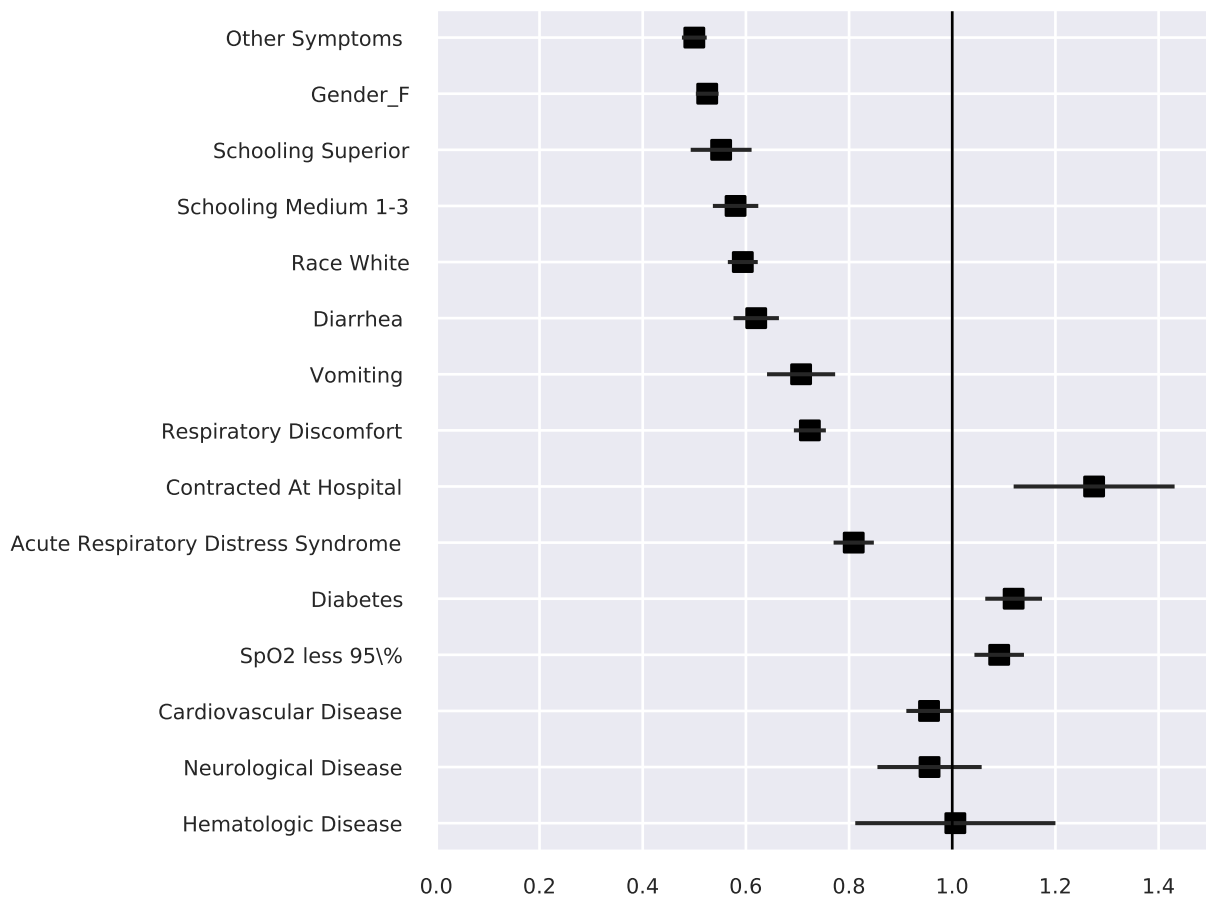
	SVM-l1	LR-l1
Cough	0.858	0.649
Throat	0.897	0.714
Diarrhea	0.936	0.815
Schooling Superior	0.944	0.837
Vomiting	0.939	0.839
Race White	0.948	0.849
Gender_F	0.946	0.849
Fever	0.949	0.868
Schooling Medium 1-3	0.960	0.889
Other Symptoms	0.973	0.920
Neurological Disease	1.023	1.035
Liver Chronic Disease	1.147	1.233
Acute Respiratory Distress Syndrome	1.078	1.239
Cardiovascular Disease	1.096	1.307
Contracted At Hospital	1.142	1.351
Diabetes	1.130	1.407
Respiratory Discomfort	1.124	1.414
Dyspnea	1.133	1.515
SpO2 less 95\%	1.248	2.043



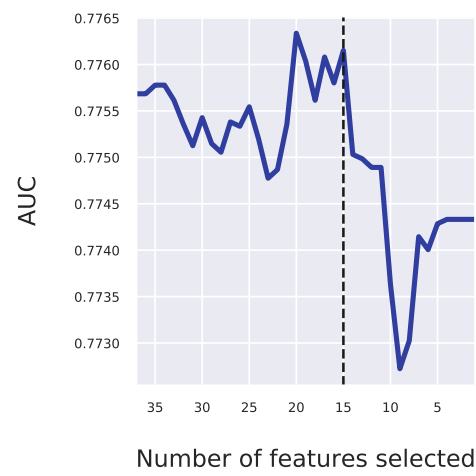
## **2.8 Ventilator small**

SVM-II	Coef LR-II	2.5 err	97.5	Odds Ratio	2.5	97.5	Avg-0	Avg-1	KS-pv	pvalue
Other Symptoms 0.970	-0.693 0.911	-0.741 0.024	-0.645	0.500	0.476	0.525	0.239	0.195	0.000	0.000
Gender_F 0.960	-0.644 0.886	-0.687 0.022	-0.602	0.525	0.503	0.548	0.234	0.214	0.001	0.000
Schooling Superior 0.928	-0.594 0.799	-0.707 0.059	-0.481	0.552	0.493	0.618	0.229	0.167	0.000	0.000
Schooling Medium 1-3 0.939	-0.544 0.834	-0.623 0.044	-0.465	0.580	0.536	0.628	0.230	0.188	0.000	0.000
Race White 0.949	-0.522 0.854	-0.572 0.029	-0.471	0.594	0.565	0.624	0.234	0.206	0.000	0.000
Diarrhea 0.922	-0.478 0.779	-0.552 0.044	-0.404	0.620	0.576	0.668	0.232	0.182	0.000	0.000
Vomiting 0.933	-0.347 0.817	-0.444 0.066	-0.249	0.707	0.641	0.780	0.229	0.181	0.000	0.000
Respiratory Discomfort 1.122	-0.323 1.424	-0.367 0.031	-0.278	0.724	0.693	0.757	0.162	0.267	0.000	0.000
Contracted At Hospital 1.187	0.243 1.506	0.112 0.156	0.373	1.275	1.119	1.452	0.223	0.324	0.000	0.000
Acute Respiratory Distress Syndrome 1.063	-0.212 1.188	-0.262 0.039	-0.163	0.809	0.770	0.850	0.213	0.262	0.000	0.000
Diabetes 1.138	0.113 1.423	0.062 0.055	0.164	1.119	1.064	1.178	0.201	0.297	0.000	0.000
SpO2 less 95\% 1.274	0.087 2.177	0.042 0.048	0.132	1.091	1.043	1.142	0.133	0.289	0.000	0.000
Cardiovascular Disease 1.100	-0.046 1.315	-0.093 0.044	0.002	0.955	0.911	1.002	0.198	0.281	0.000	0.061
Neurological Disease 1.024	-0.045 1.031	-0.156 0.101	0.066	0.956	0.855	1.069	0.224	0.275	0.000	0.429
Hematologic Disease 1.093	0.006 1.100	-0.208 0.194	0.220	1.006	0.812	1.246	0.225	0.292	0.042	0.956





Recursive Feature Elimination:

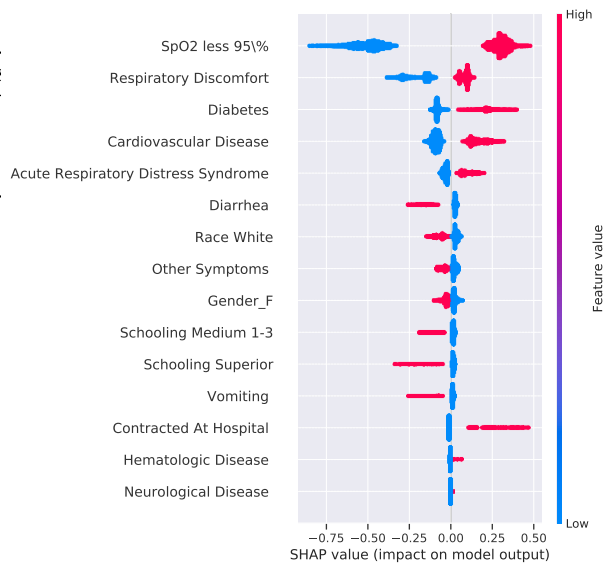
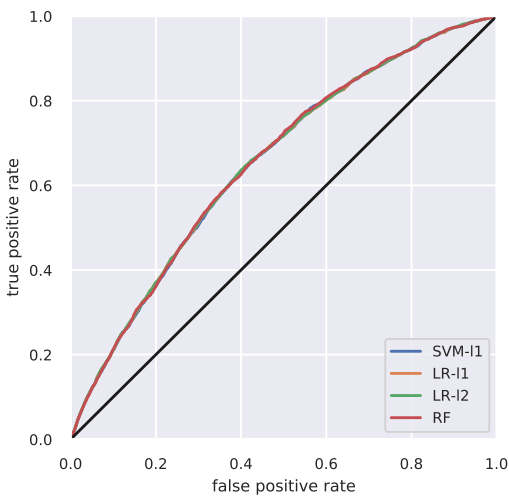


Coefficients:

	SVM-l1	LR-l1
Diarrhea	0.922	0.779
Schooling Superior	0.928	0.799
Vomiting	0.933	0.817
Schooling Medium 1-3	0.939	0.834
Race White	0.949	0.854
Gender_F	0.960	0.886
Other Symptoms	0.970	0.911
Neurological Disease	1.024	1.031
Hematologic Disease	1.093	1.100
Acute Respiratory Distress Syndrome	1.063	1.188
Cardiovascular Disease	1.100	1.315
Diabetes	1.138	1.423
Respiratory Discomfort	1.122	1.424
Contracted At Hospital	1.187	1.506
SpO2 less 95\%	1.274	2.177

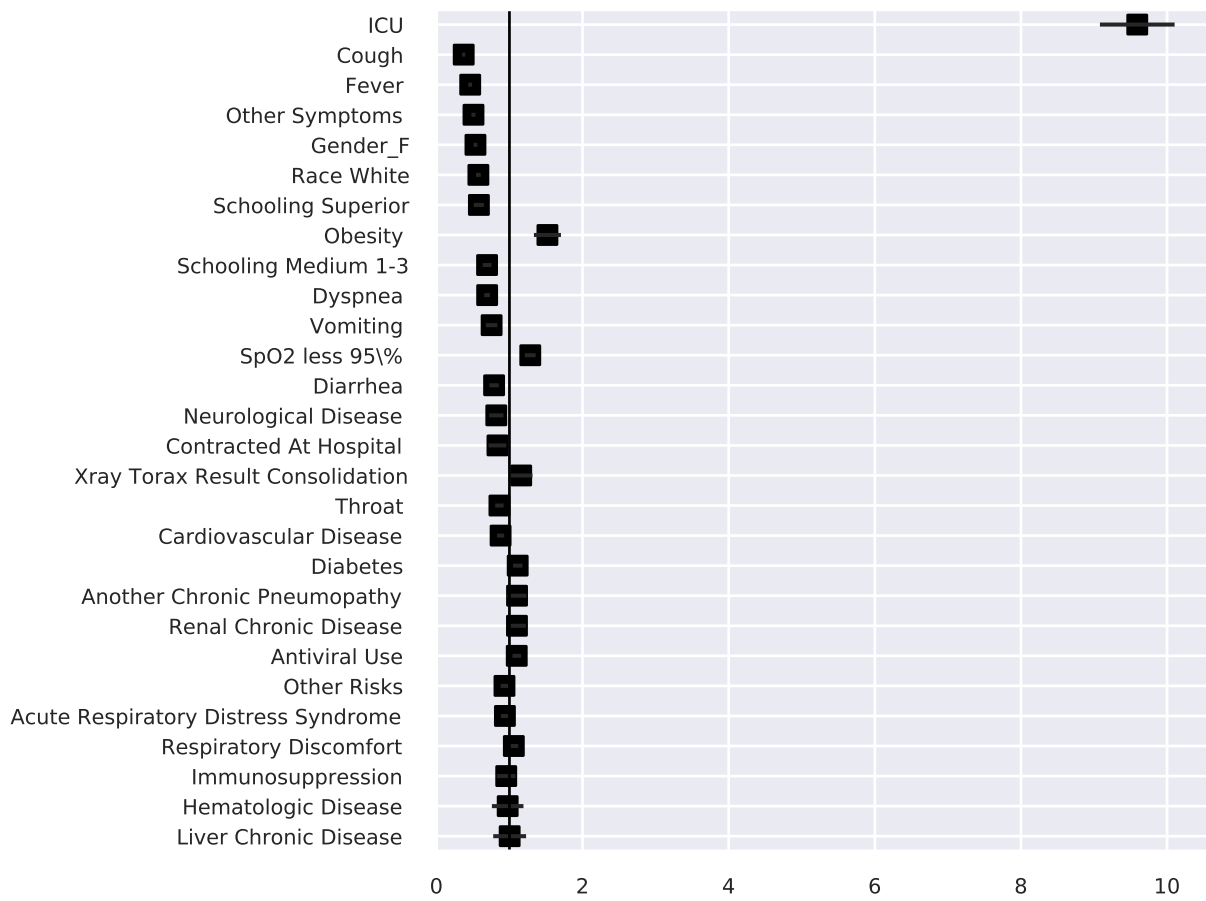
Performance:

	SVM-l1	LR-l1	LR-l2	RF	XGBoost
Accuracy	0.755	0.755	0.755	0.755	0.75
F1w	0.652	0.651	0.651	0.650	0.65
AUC	0.653	0.654	0.654	0.654	0.65

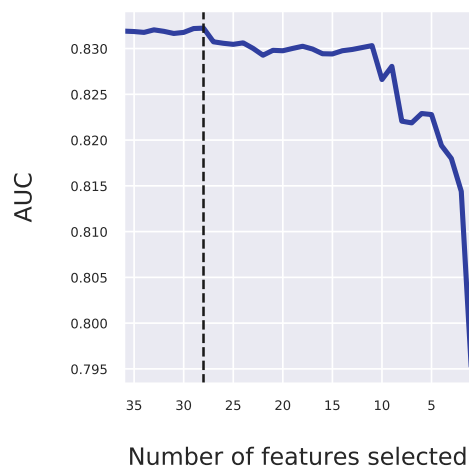


## **2.9 Ventilator with ICU**

SVM-II	Coef LR-II	2.5 err	97.5	Odds Ratio	2.5	97.5	Avg-0	Avg-1	KS-pv	pvalue
ICU	2.261	2.206	2.316	9.592	9.081	10.132	0.067	0.527	0.000	0.000
2.412	14.272	0.511								
Cough	-0.984	-1.042	-0.925	0.374	0.353	0.396	0.277	0.208	0.000	0.000
0.899	0.710	0.021								
Fever	-0.770	-0.827	-0.714	0.463	0.437	0.490	0.251	0.214	0.000	0.000
0.962	0.886	0.026								
Other Symptoms	-0.676	-0.734	-0.618	0.508	0.480	0.539	0.235	0.197	0.000	0.000
0.944	0.819	0.028								
Gender_F	-0.625	-0.676	-0.573	0.535	0.508	0.564	0.234	0.208	0.000	0.000
0.962	0.875	0.027								
Race White	-0.554	-0.613	-0.494	0.575	0.542	0.610	0.231	0.205	0.000	0.000
0.912	0.724	0.033								
Schooling Superior	-0.541	-0.667	-0.415	0.582	0.513	0.661	0.226	0.173	0.000	0.000
0.887	0.693	0.069								
Obesity	0.419	0.289	0.549	1.520	1.335	1.731	0.219	0.343	0.000	0.000
1.111	1.360	0.185								
Schooling Medium 1-3	-0.366	-0.457	-0.274	0.694	0.633	0.760	0.228	0.184	0.000	0.000
0.953	0.832	0.061								
Dyspnea	-0.363	-0.424	-0.303	0.695	0.655	0.739	0.147	0.251	0.000	0.000
1.111	1.443	0.040								
Vomiting	-0.279	-0.391	-0.168	0.756	0.677	0.846	0.227	0.179	0.000	0.000
0.956	0.853	0.079								
SpO2 less 95\%	0.251	0.192	0.309	1.285	1.211	1.362	0.132	0.286	0.000	0.000
1.167	1.806	0.074								
Diarrhea	-0.236	-0.321	-0.151	0.790	0.725	0.860	0.230	0.180	0.000	0.000
0.960	0.857	0.065								
Neurological Disease	-0.198	-0.326	-0.070	0.820	0.722	0.932	0.221	0.274	0.000	0.002
0.979	0.963	0.098								
Contracted At Hospital	-0.179	-0.336	-0.021	0.836	0.714	0.979	0.220	0.330	0.000	0.026
1.070	1.198	0.122								
Xray Torax Result Consolidation	0.149	0.007	0.291	1.161	1.007	1.338	0.220	0.325	0.000	0.039
1.098	1.336	0.154								
Throat	-0.147	-0.217	-0.077	0.863	0.805	0.926	0.235	0.177	0.000	0.000
0.951	0.836	0.058								
Cardiovascular Disease	-0.129	-0.186	-0.072	0.879	0.830	0.930	0.196	0.277	0.000	0.000
1.026	1.102	0.049								
Diabetes	0.107	0.047	0.168	1.113	1.048	1.183	0.199	0.294	0.000	0.001
1.080	1.298	0.065								
Another Chronic Pneumopathy	0.099	-0.026	0.224	1.104	0.974	1.251	0.219	0.331	0.000	0.121
1.061	1.185	0.130								
Renal Chronic Disease	0.098	-0.020	0.217	1.103	0.980	1.242	0.217	0.349	0.000	0.103
1.084	1.282	0.123								
Antiviral Use	0.095	0.040	0.150	1.100	1.041	1.161	0.199	0.266	0.000	0.001
1.058	1.207	0.059								
Other Risks	-0.071	-0.129	-0.012	0.932	0.879	0.988	0.203	0.281	0.000	0.018
1.058	1.207	0.053								
Acute Respiratory Distress Syndrome	-0.064	-0.123	-0.006	0.938	0.884	0.994	0.211	0.259	0.000	0.031
1.046	1.192	0.054								
Respiratory Discomfort	0.058	-0.000	0.116	1.060	1.000	1.123	0.161	0.263	0.000	0.051
1.120	1.480	0.060								
Immunosuppression	-0.045	-0.189	0.099	0.956	0.827	1.105	0.221	0.288	0.000	0.542
1.030	1.097	0.129								
Hematologic Disease	-0.024	-0.275	0.227	0.976	0.760	1.255	0.222	0.306	0.005	0.852
1.035	1.070	0.216								
Liver Chronic Disease	0.003	-0.250	0.257	1.003	0.778	1.293	0.222	0.306	0.006	0.981
1.054	1.219	0.225								

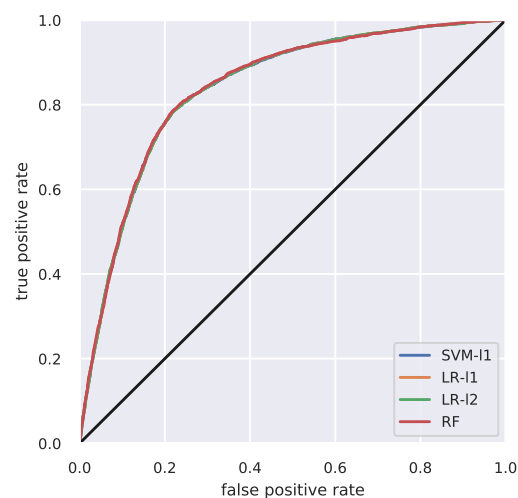


### Recursive Feature Elimination:



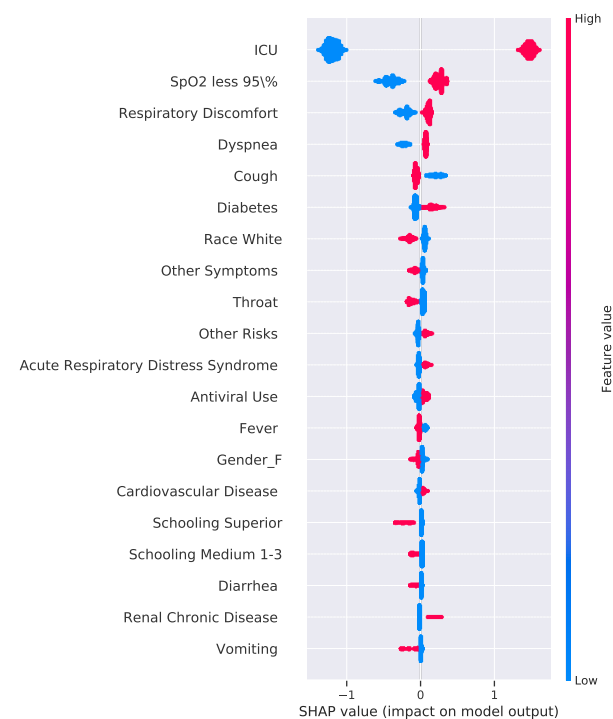
### Performance:

	SVM-l1	LR-l1	LR-l2	RF	XGBoost
Accuracy	0.804	0.805	0.804	0.803	0.806
F1w	0.802	0.801	0.800	0.793	0.802
AUC	0.839	0.839	0.839	0.840	0.840



### Coefficients:

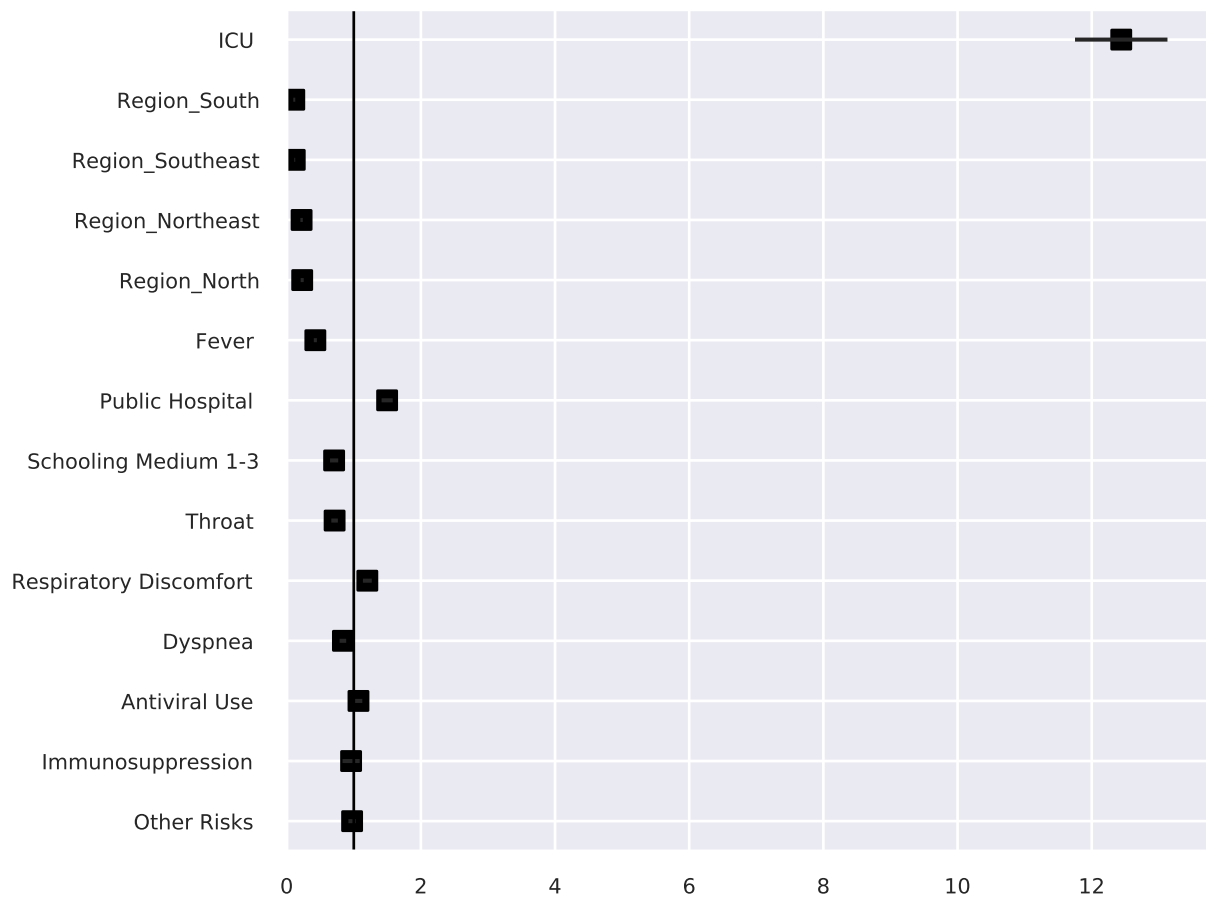
	SVM-l1	LR-l1
Schooling Superior	0.887	0.693
Cough	0.899	0.710
Race White	0.912	0.724
Other Symptoms	0.944	0.819
Schooling Medium 1-3	0.953	0.832
Throat	0.951	0.836
Vomiting	0.956	0.853
Diarrhea	0.960	0.857
Gender_F	0.962	0.875
Fever	0.962	0.886
Neurological Disease	0.979	0.963
Hematologic Disease	1.035	1.070
Immunosuppression	1.030	1.097
Cardiovascular Disease	1.026	1.102
Another Chronic Pneumopathy	1.061	1.185
Acute Respiratory Distress Syndrome	1.046	1.192
Contracted At Hospital	1.070	1.198
Other Risks	1.058	1.207
Antiviral Use	1.058	1.207
Liver Chronic Disease	1.054	1.219
Renal Chronic Disease	1.084	1.282
Diabetes	1.080	1.298
Xray Torax Result Consolidation	1.098	1.336
Obesity	1.111	1.360
Dyspnea	1.111	1.443
Respiratory Discomfort	1.120	1.480
SpO2 less 95\%	1.167	1.806
ICU	2.412	14.272



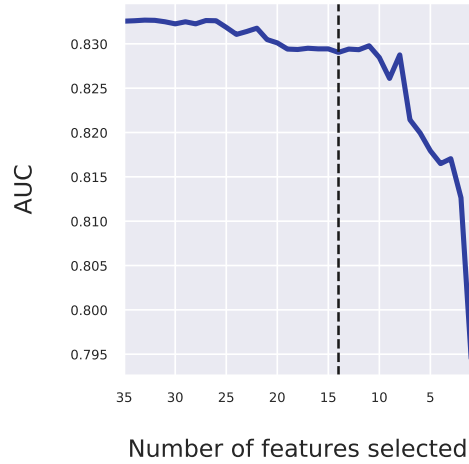
## **2.10 Ventilator with ICU small**

SVM-I1	Coef LR-I1	2.5 err	97.5	Odds Ratio	2.5	97.5	Avg-0	Avg-1	KS-pv	pvalue
ICU	2.521	2.464	2.578	12.440	11.751	13.169	0.068	0.528	0.000	0.000
2.534	17.126	0.689								
Region_South	-2.181	-2.327	-2.034	0.113	0.098	0.131	0.227	0.172	0.000	0.000
0.898	0.678	0.015								
Region_Southeast	-2.117	-2.184	-2.049	0.120	0.113	0.129	0.249	0.208	0.000	0.000
0.928	0.795	0.007								
Region_Northeast	-1.504	-1.589	-1.419	0.222	0.204	0.242	0.210	0.299	0.000	0.000
1.101	1.456	0.018								
Region_North	-1.466	-1.571	-1.362	0.231	0.208	0.256	0.222	0.246	0.018	0.000
1.049	1.282	0.023								
Fever	-0.852	-0.906	-0.797	0.427	0.404	0.451	0.253	0.215	0.000	0.000
0.931	0.799	0.023								
Public Hospital	0.404	0.347	0.461	1.497	1.414	1.585	0.205	0.258	0.000	0.000
1.162	1.731	0.083								
Schooling Medium 1-3	-0.347	-0.437	-0.257	0.707	0.646	0.773	0.229	0.186	0.000	0.000
0.948	0.807	0.061								
Throat	-0.337	-0.408	-0.267	0.714	0.665	0.766	0.237	0.176	0.000	0.000
0.933	0.764	0.049								
Respiratory Discomfort	0.184	0.128	0.240	1.202	1.136	1.271	0.160	0.265	0.000	0.000
1.177	1.734	0.066								
Dyspnea	-0.177	-0.237	-0.118	0.838	0.789	0.889	0.145	0.254	0.000	0.000
1.141	1.600	0.049								
Antiviral Use	0.067	0.013	0.122	1.070	1.013	1.129	0.201	0.265	0.000	0.016
1.054	1.173	0.057								
Immunosuppression	-0.041	-0.184	0.101	0.960	0.832	1.106	0.223	0.278	0.001	0.570
1.039	1.131	0.128								
Other Risks	-0.026	-0.084	0.032	0.975	0.920	1.033	0.204	0.283	0.000	0.383
1.061	1.218	0.055								





### Recursive Feature Elimination:



### Coefficients:

	SVM-l1	LR-l1
Region_South	0.898	0.678
Throat	0.933	0.764
Region_Southeast	0.928	0.795
Fever	0.931	0.799
Schooling_Medium 1-3	0.948	0.807
Immunosuppression	1.039	1.131
Antiviral Use	1.054	1.173
Other Risks	1.061	1.218
Region_North	1.049	1.282
Region_Northeast	1.101	1.456
Dyspnea	1.141	1.600
Public Hospital	1.162	1.731
Respiratory Discomfort	1.177	1.734
ICU	2.534	17.126

### Performance:

	SVM-l1	LR-l1	LR-l2	RF	XGBoost
Accuracy	0.806	0.806	0.806	0.808	0.81
F1w	0.801	0.800	0.800	0.802	0.80
AUC	0.836	0.836	0.836	0.838	0.84

