PRELIMINARY RESULTS FOR BRAZIL COVID-19 DATASET

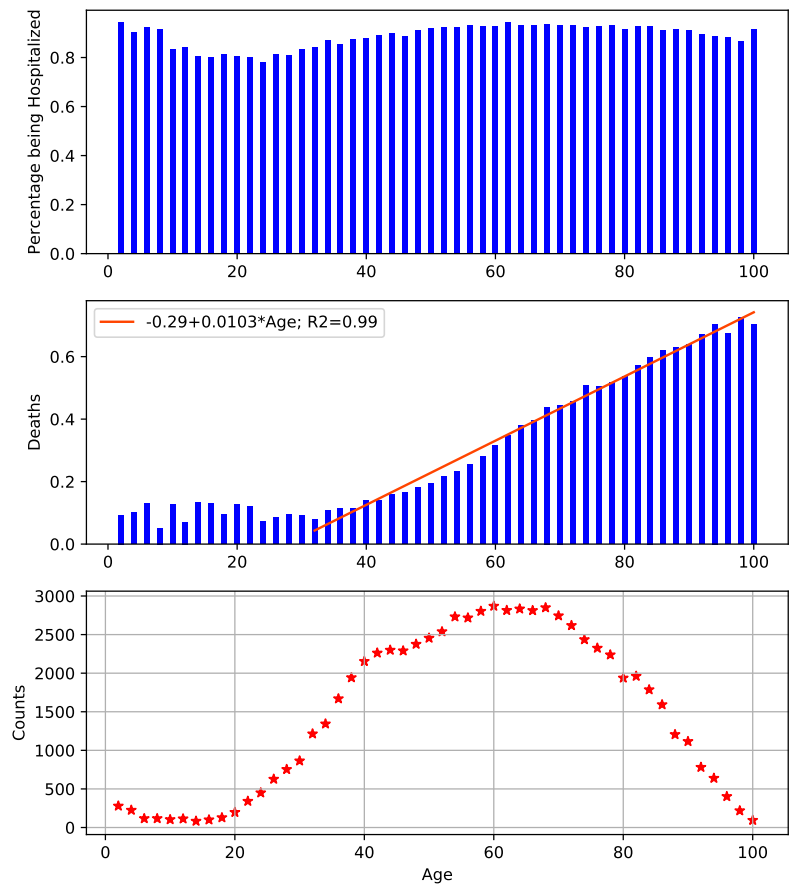**Salomon Wollenstein-Betech, Christos G. Cassandras, Ioannis Ch. Paschalidis, Amanda Batista, Julia Fleck**

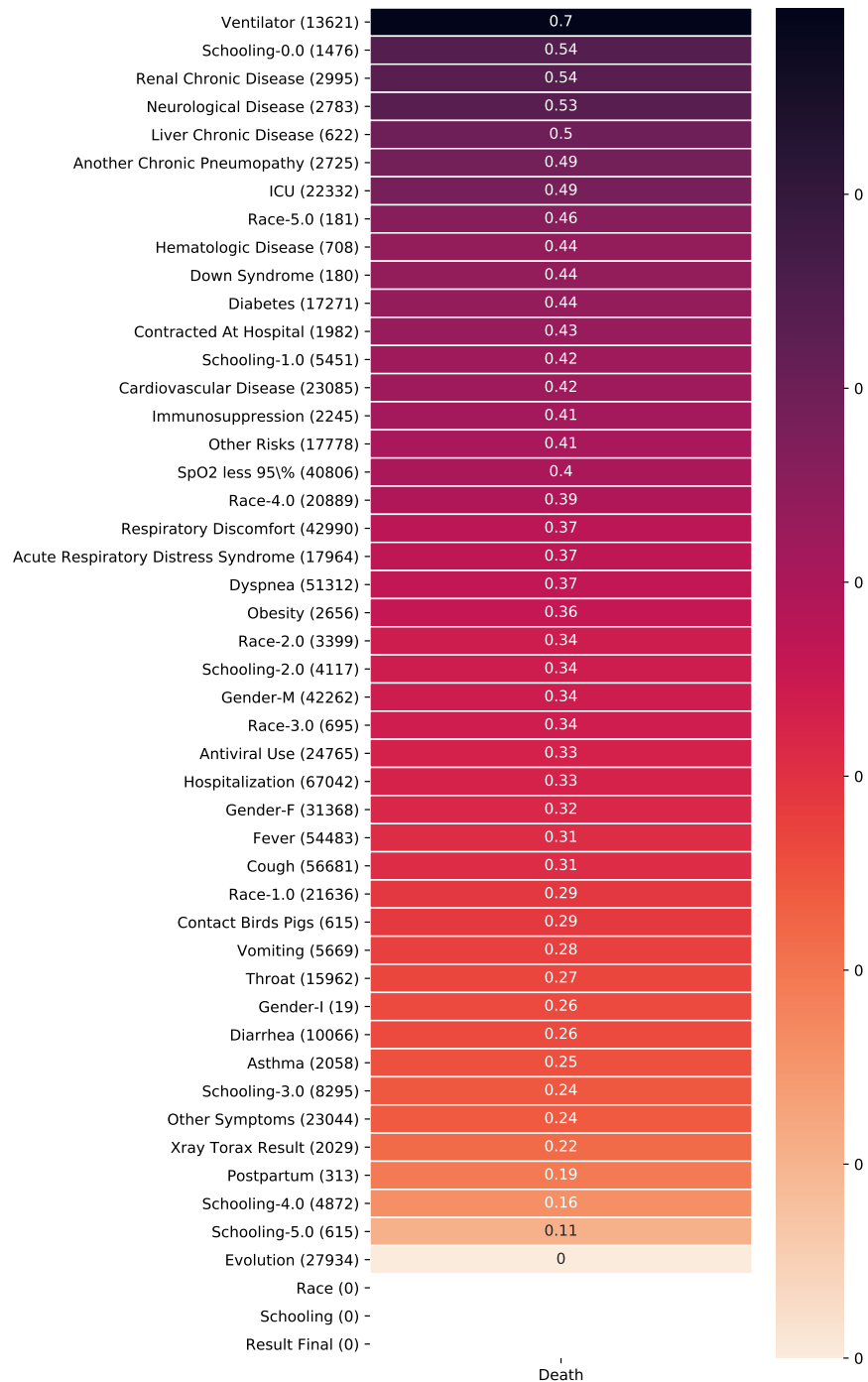# 1   Basic Analytics

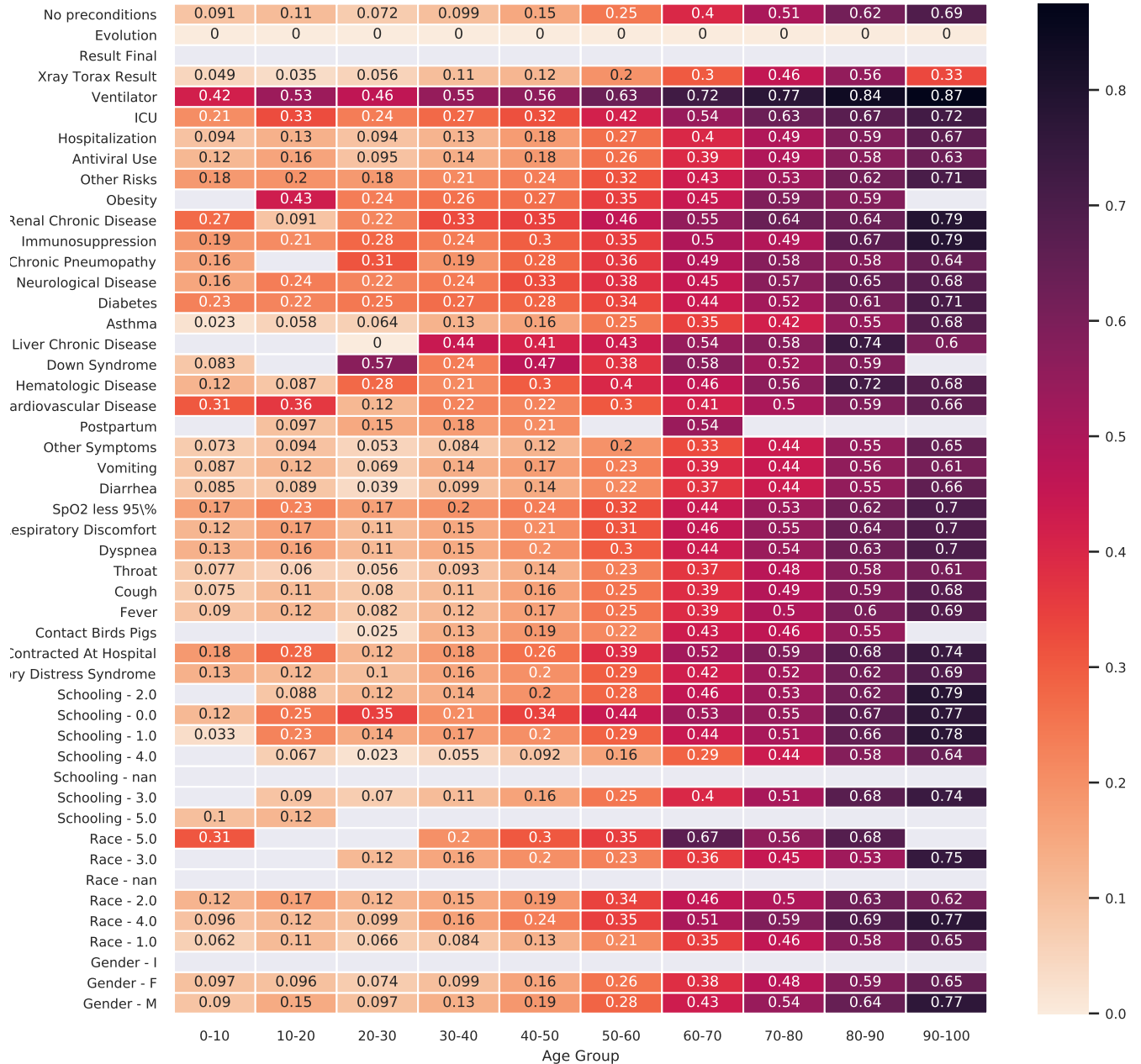|	0
N	73649
N_Hosp	67042
N_Death	24524
Female	31368
Male	42262
Race	21636
Schooling	5451
Acute Respiratory Distress Syndrome	17964
Contracted At Hospital	1982
Contact Birds Pigs	615
Fever	54483
Cough	56681
Throat	15962
Dyspnea	51312
Respiratory Discomfort	42990
SpO2 less 95\%	40806
Diarrhea	10066
Vomiting	5669
Other Symptoms	23044
Postpartum	313
Cardiovascular Disease	23085
Hematologic Disease	708
Down Syndrome	180
Liver Chronic Disease	622
Asthma	2058
Diabetes	17271
Neurological Disease	2783
Another Chronic Pneumopathy	2725
Immunosuppression	2245
Renal Chronic Disease	2995
Obesity	2656
Other Risks	17778
Antiviral Use	24765
Hospitalization	67042
ICU	22332
Ventilator	13621
Xray Torax Result	2029
Result Final	0
Evolution	27934

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

Characteristic	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100
No preconditions	0.091	0.11	0.072	0.099	0.15	0.25	0.4	0.51	0.62	0.69
Evolution	0	0	0	0	0	0	0	0	0	0
Result Final										
Xray Torax Result	0.049	0.035	0.056	0.11	0.12	0.2	0.3	0.46	0.56	0.33
Ventilator	0.42	0.53	0.46	0.55	0.56	0.63	0.72	0.77	0.84	0.87
ICU	0.21	0.33	0.24	0.27	0.32	0.42	0.54	0.63	0.67	0.72
Hospitalization	0.094	0.13	0.094	0.13	0.18	0.27	0.4	0.49	0.59	0.67
Antiviral Use	0.12	0.16	0.095	0.14	0.18	0.26	0.39	0.49	0.58	0.63
Other Risks	0.18	0.2	0.18	0.21	0.24	0.32	0.43	0.53	0.62	0.71
Obesity		0.43	0.24	0.26	0.27	0.35	0.45	0.59	0.59	
Renal Chronic Disease	0.27	0.091	0.22	0.33	0.35	0.46	0.55	0.64	0.64	0.79
Immunosuppression	0.19	0.21	0.28	0.24	0.3	0.35	0.5	0.49	0.67	0.79
Chronic Pneumopathy	0.16		0.31	0.19	0.28	0.36	0.49	0.58	0.58	0.64
Neurological Disease	0.16	0.24	0.22	0.24	0.33	0.38	0.45	0.57	0.65	0.68
Diabetes	0.23	0.22	0.25	0.27	0.28	0.34	0.44	0.52	0.61	0.71
Asthma	0.023	0.058	0.064	0.13	0.16	0.25	0.35	0.42	0.55	0.68
Liver Chronic Disease			0	0.44	0.41	0.43	0.54	0.58	0.74	0.6
Down Syndrome	0.083		0.57	0.24	0.47	0.38	0.58	0.52	0.59	
Hematologic Disease	0.12	0.087	0.28	0.21	0.3	0.4	0.46	0.56	0.72	0.68
Cardiovascular Disease	0.31	0.36	0.12	0.22	0.22	0.3	0.41	0.5	0.59	0.66
Postpartum		0.097	0.15	0.18	0.21		0.54			
Other Symptoms	0.073	0.094	0.053	0.084	0.12	0.2	0.33	0.44	0.55	0.65
Vomiting	0.087	0.12	0.069	0.14	0.17	0.23	0.39	0.44	0.56	0.61
Diarrhea	0.085	0.089	0.039	0.099	0.14	0.22	0.37	0.44	0.55	0.66
SpO2 less 95\%	0.17	0.23	0.17	0.2	0.24	0.32	0.44	0.53	0.62	0.7
Respiratory Discomfort	0.12	0.17	0.11	0.15	0.21	0.31	0.46	0.55	0.64	0.7
Dyspnea	0.13	0.16	0.11	0.15	0.2	0.3	0.44	0.54	0.63	0.7
Throat	0.077	0.06	0.056	0.093	0.14	0.23	0.37	0.48	0.58	0.61
Cough	0.075	0.11	0.08	0.11	0.16	0.25	0.39	0.49	0.59	0.68
Fever	0.09	0.12	0.082	0.12	0.17	0.25	0.39	0.5	0.6	0.69
Contact Birds Pigs			0.025	0.13	0.19	0.22	0.43	0.46	0.55	
Contracted At Hospital	0.18	0.28	0.12	0.18	0.26	0.39	0.52	0.59	0.68	0.74
Respiratory Distress Syndrome	0.13	0.12	0.1	0.16	0.2	0.29	0.42	0.52	0.62	0.69
Schooling - 2.0		0.088	0.12	0.14	0.2	0.28	0.46	0.53	0.62	0.79
Schooling - 0.0	0.12	0.25	0.35	0.21	0.34	0.44	0.53	0.55	0.67	0.77
Schooling - 1.0	0.033	0.23	0.14	0.17	0.2	0.29	0.44	0.51	0.66	0.78
Schooling - 4.0		0.067	0.023	0.055	0.092	0.16	0.29	0.44	0.58	0.64
Schooling - nan										
Schooling - 3.0		0.09	0.07	0.11	0.16	0.25	0.4	0.51	0.68	0.74
Schooling - 5.0	0.1	0.12								
Race - 5.0	0.31			0.2	0.3	0.35	0.67	0.56	0.68	
Race - 3.0			0.12	0.16	0.2	0.23	0.36	0.45	0.53	0.75
Race - nan										
Race - 2.0	0.12	0.17	0.12	0.15	0.19	0.34	0.46	0.5	0.63	0.62
Race - 4.0	0.096	0.12	0.099	0.16	0.24	0.35	0.51	0.59	0.69	0.77
Race - 1.0	0.062	0.11	0.066	0.084	0.13	0.21	0.35	0.46	0.58	0.65
Gender - I										
Gender - F	0.097	0.096	0.074	0.099	0.16	0.26	0.38	0.48	0.59	0.65
Gender - M	0.09	0.15	0.097	0.13	0.19	0.28	0.43	0.54	0.64	0.77

Age Group

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

2 Results

2.1 Mortality (previous)

	Coef	2.5	97.5	Odds Ratio	2.5	97.5	Avg-0	Avg-1	KS-pv	pvalue
Age 0-30	-1.335	-1.471	-1.198	0.263	0.230	0.302	0.480	0.154	0.000	0.000
Race Indigenous	1.027	0.459	1.596	2.794	1.583	4.933	0.461	0.687	0.002	0.000
Age 70-100	0.943	0.885	1.001	2.567	2.423	2.721	0.347	0.711	0.000	0.000
Age 30-50	-0.873	-0.937	-0.809	0.418	0.392	0.445	0.547	0.228	0.000	0.000
Cough	-0.648	-0.710	-0.587	0.523	0.492	0.556	0.580	0.429	0.000	0.000
Schooling Superior	-0.581	-0.701	-0.461	0.559	0.496	0.630	0.475	0.252	0.000	0.000
Renal Chronic Disease	0.581	0.455	0.706	1.787	1.576	2.026	0.450	0.695	0.000	0.000
Liver Chronic Disease	0.544	0.281	0.806	1.722	1.324	2.240	0.460	0.638	0.000	0.000
SpO2 less 95\%	0.529	0.473	0.584	1.697	1.605	1.794	0.337	0.545	0.000	0.000
Other Symptoms	-0.517	-0.572	-0.462	0.596	0.565	0.630	0.507	0.356	0.000	0.000
Contracted At Hospital	0.511	0.347	0.675	1.667	1.414	1.965	0.456	0.643	0.000	0.000
Postpartum	0.456	0.072	0.841	1.578	1.075	2.318	0.462	0.303	0.001	0.020
Race Brown	0.450	0.387	0.513	1.568	1.472	1.670	0.429	0.545	0.000	0.000
Neurological Disease	0.448	0.315	0.581	1.566	1.370	1.788	0.451	0.702	0.000	0.000
Contact Birds Pigs	-0.405	-0.680	-0.131	0.667	0.506	0.878	0.462	0.340	0.000	0.004
Throat	-0.361	-0.424	-0.297	0.697	0.654	0.743	0.484	0.378	0.000	0.000
Immunosuppression	0.359	0.217	0.500	1.431	1.242	1.649	0.458	0.561	0.000	0.000
Fever	-0.350	-0.408	-0.292	0.705	0.665	0.747	0.557	0.431	0.000	0.000
Race White	-0.334	-0.397	-0.271	0.716	0.672	0.762	0.492	0.391	0.000	0.000
Hematologic Disease	0.334	0.082	0.585	1.396	1.086	1.795	0.460	0.625	0.000	0.009
Dyspnea	0.329	0.269	0.388	1.389	1.309	1.474	0.363	0.497	0.000	0.000
Asthma	-0.289	-0.443	-0.135	0.749	0.642	0.874	0.465	0.356	0.000	0.000
Respiratory Discomfort	0.277	0.220	0.333	1.319	1.247	1.396	0.386	0.508	0.000	0.000
Diarrhea	-0.268	-0.345	-0.191	0.765	0.708	0.826	0.475	0.372	0.000	0.000
Diabetes	0.267	0.208	0.326	1.306	1.231	1.385	0.421	0.580	0.000	0.000
Gender F	-0.233	-0.283	-0.183	0.792	0.754	0.833	0.468	0.452	0.038	0.000
Schooling Medium 1-3	-0.224	-0.310	-0.137	0.800	0.733	0.872	0.475	0.345	0.000	0.000
Other Risks	0.217	0.161	0.274	1.243	1.174	1.315	0.435	0.535	0.000	0.000
Race Black	0.185	0.061	0.308	1.203	1.063	1.361	0.460	0.497	0.040	0.003
Another Chronic Pneumopathy	0.166	0.039	0.292	1.180	1.040	1.339	0.454	0.631	0.000	0.010
Cardiovascular Disease	0.101	0.046	0.157	1.107	1.047	1.170	0.406	0.570	0.000	0.000
Acute Respiratory Distress Syndrome	0.085	0.028	0.142	1.089	1.028	1.152	0.448	0.502	0.000	0.004
Vomiting	-0.027	-0.126	0.071	0.973	0.882	1.074	0.466	0.401	0.000	0.587
Schooling Elem 1-5	-0.009	-0.104	0.086	0.991	0.902	1.090	0.453	0.562	0.000	0.858
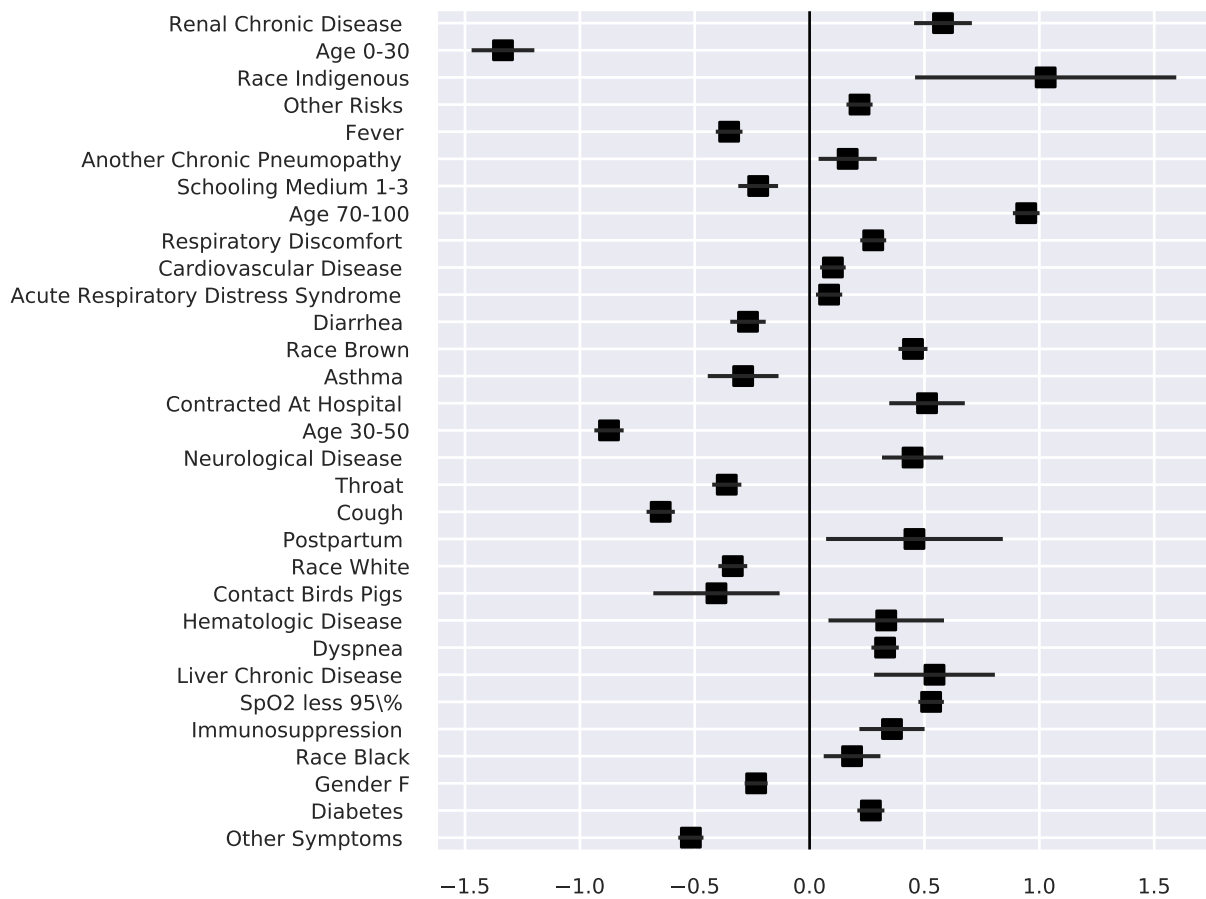
Recursive Feature Elimination:
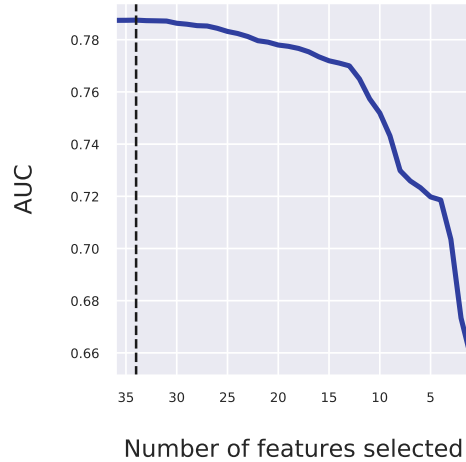
Performance:

	SVM-l1	LR-l1	RF	XGBoost
Accuracy	0.688	0.686	0.667	0.687
F1w	0.687	0.686	0.664	0.687
AUC	0.755	0.755	0.742	0.756
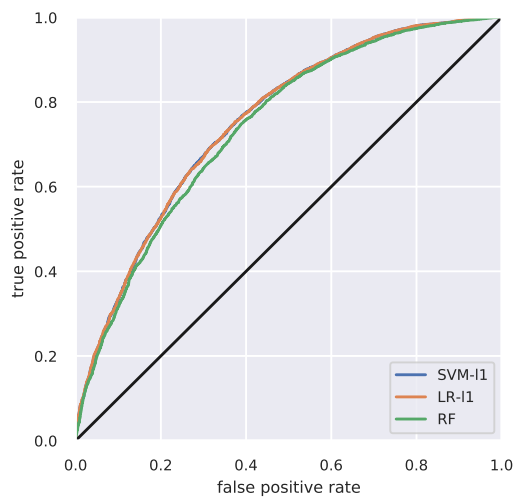
Coefficients:

	SVM-l1	LR-l1
Age 70-100	0.932	0.767
Race Indigenous	0.906	0.766
Renal Chronic Disease	0.505	0.461
SpO2 less 95\%	0.466	0.427
Liver Chronic Disease	0.470	0.421
Contracted At Hospital	0.442	0.414
Race Brown	0.414	0.375
Neurological Disease	0.370	0.350
Postpartum	0.324	0.327
Dyspnea	0.311	0.288
Immunosuppression	0.309	0.286
Hematologic Disease	0.274	0.259
Respiratory Discomfort	0.256	0.229
Diabetes	0.247	0.218
Other Risks	0.201	0.184
Race Black	0.193	0.170
Another Chronic Pneumopathy	0.149	0.130
Cardiovascular Disease	0.098	0.092
Acute Respiratory Distress Syndrome	0.083	0.076
Schooling Elem 1-5	0.000	-0.004
Vomiting	-0.024	-0.018
Gender F	-0.168	-0.160
Schooling Medium 1-3	-0.186	-0.171
Diarrhea	-0.221	-0.206
Asthma	-0.247	-0.222
Fever	-0.265	-0.236
Race White	-0.254	-0.237
Throat	-0.306	-0.287
Contact Birds Pigs	-0.341	-0.299
Other Symptoms	-0.411	-0.381
Schooling Superior	-0.451	-0.444
Cough	-0.505	-0.466
Age 30-50	-0.720	-0.650
Age 0-30	-1.000	-1.000

2.2 Mortality (previous) small

	Coef	2.5	97.5	Odds Ratio	2.5	97.5	Avg-0	Avg-1	KS-pv	pvalue
Age 0-30	-1.573	-1.703	-1.442	0.208	0.182	0.236	0.479	0.153	0.0	0.000
Race Indigenous	1.473	0.897	2.049	4.363	2.452	7.763	0.459	0.718	0.0	0.000
Age 30-50	-1.114	-1.174	-1.055	0.328	0.309	0.348	0.546	0.224	0.0	0.000
Age 70-100	0.899	0.847	0.952	2.458	2.332	2.591	0.346	0.709	0.0	0.000
Fever	-0.688	-0.734	-0.642	0.503	0.480	0.526	0.558	0.428	0.0	0.000
Race Brown	0.558	0.504	0.612	1.748	1.656	1.844	0.426	0.550	0.0	0.000
Respiratory Discomfort	0.389	0.342	0.435	1.475	1.408	1.546	0.381	0.509	0.0	0.000
Immunosuppression	0.361	0.225	0.497	1.435	1.253	1.645	0.457	0.553	0.0	0.000
Hematologic Disease	0.320	0.080	0.560	1.377	1.083	1.751	0.459	0.587	0.0	0.009
Vomiting	-0.307	-0.399	-0.215	0.735	0.671	0.806	0.466	0.384	0.0	0.000
Schooling Medium 1-3	-0.274	-0.354	-0.193	0.760	0.702	0.824	0.473	0.354	0.0	0.000
Diabetes	0.240	0.186	0.295	1.272	1.205	1.343	0.420	0.579	0.0	0.000
Other Risks	0.141	0.087	0.194	1.151	1.091	1.215	0.433	0.538	0.0	0.000
Acute Respiratory Distress Syndrome	0.067	0.012	0.122	1.069	1.012	1.129	0.446	0.502	0.0	0.017

Recursive Feature Elimination:

Coefficients:

	SVM-l1	LR-l1
Race Indigenous	1.000	0.977
Age 70-100	0.864	0.741
Race Brown	0.453	0.435
Respiratory Discomfort	0.378	0.366
Immunosuppression	0.311	0.294
Hematologic Disease	0.267	0.247
Diabetes	0.249	0.229
Other Risks	0.165	0.159
Acute Respiratory Distress Syndrome	0.091	0.086
Schooling Medium 1-3	-0.173	-0.169
Vomiting	-0.191	-0.186
Fever	-0.347	-0.331
Age 30-50	-0.733	-0.689
Age 0-30	-0.958	-1.000
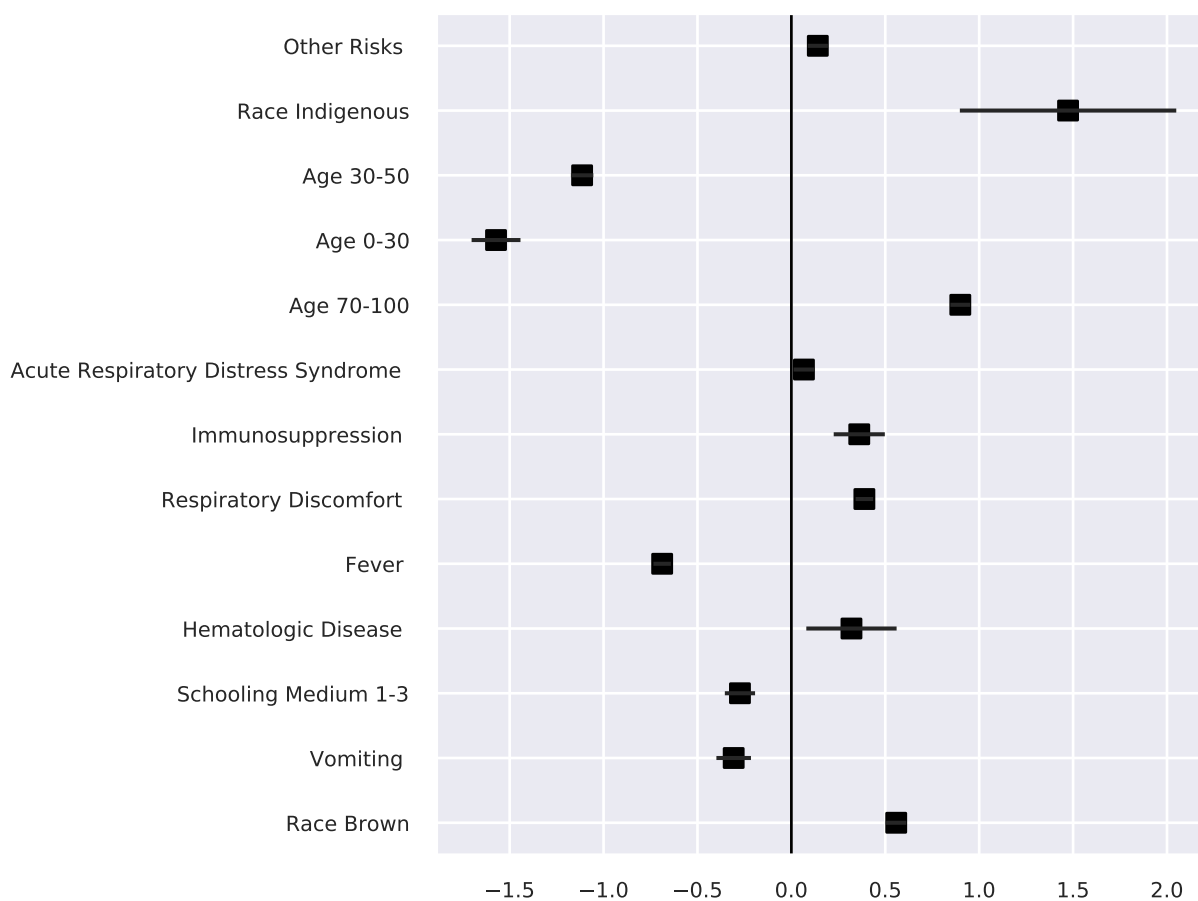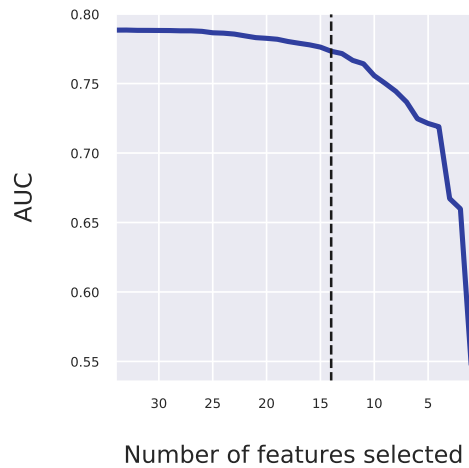
Performance:

	SVM-l1	LR-l1	RF	XGBoost
Accuracy	0.660	0.661	0.653	0.662
F1w	0.660	0.661	0.649	0.662
AUC	0.714	0.714	0.713	0.716
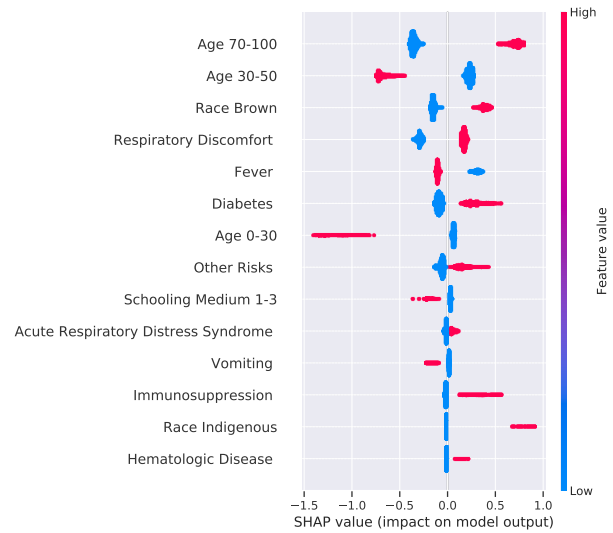
2.3 Mortality (advanced)

Include variables: Antiviral, ICU, Ventilator

	Coef	2.5	97.5	Odds Ratio	2.5	97.5	Avg-0	Avg-1	KS-pv	pvalue
Ventilator Invasive	2.191	2.105	2.277	8.943	8.209	9.743	0.343	0.857	0.000	0.000
Age 0-30	-1.467	-1.625	-1.309	0.231	0.197	0.270	0.479	0.153	0.000	0.000
Race Indigenous	1.273	0.682	1.863	3.571	1.978	6.444	0.460	0.711	0.000	0.000
Age 70-100	1.074	1.008	1.139	2.926	2.741	3.123	0.346	0.712	0.000	0.000
Age 30-50	-0.918	-0.991	-0.845	0.399	0.371	0.430	0.549	0.223	0.000	0.000
Down Syndrome	0.720	0.193	1.247	2.055	1.213	3.479	0.460	0.609	0.035	0.007
Schooling Superior	-0.671	-0.806	-0.537	0.511	0.447	0.585	0.474	0.248	0.000	0.000
Renal Chronic Disease	0.606	0.469	0.744	1.833	1.598	2.104	0.449	0.706	0.000	0.000
Neurological Disease	0.602	0.461	0.743	1.826	1.586	2.102	0.449	0.715	0.000	0.000
Race Brown	0.593	0.524	0.661	1.809	1.689	1.937	0.426	0.548	0.000	0.000
Other Symptoms	-0.545	-0.607	-0.483	0.580	0.545	0.617	0.506	0.355	0.000	0.000
BMI 30-35	-0.510	-0.663	-0.357	0.601	0.515	0.700	0.522	0.459	0.017	0.000
Contracted At Hospital	0.477	0.297	0.657	1.611	1.345	1.929	0.455	0.643	0.000	0.000
Asthma	-0.442	-0.616	-0.268	0.643	0.540	0.765	0.464	0.345	0.000	0.000
ICU	0.440	0.373	0.506	1.552	1.452	1.658	0.357	0.660	0.000	0.000
Cough	-0.427	-0.498	-0.356	0.652	0.608	0.700	0.571	0.430	0.000	0.000
Liver Chronic Disease	0.392	0.106	0.677	1.480	1.112	1.969	0.459	0.636	0.000	0.007
Antiviral Use	-0.381	-0.439	-0.323	0.683	0.644	0.724	0.469	0.447	0.001	0.000
SpO2 less 95\%	0.368	0.307	0.429	1.445	1.359	1.536	0.331	0.547	0.000	0.000
Immunosuppression	0.352	0.197	0.506	1.421	1.218	1.659	0.456	0.577	0.000	0.000
Race White	-0.304	-0.373	-0.236	0.738	0.689	0.790	0.492	0.389	0.000	0.000
Fever	-0.294	-0.360	-0.227	0.746	0.697	0.797	0.557	0.429	0.000	0.000
Contact Birds Pigs	-0.269	-0.576	0.038	0.764	0.562	1.039	0.461	0.365	0.011	0.086
Throat	-0.240	-0.309	-0.170	0.787	0.734	0.843	0.482	0.383	0.000	0.000
Diabetes	0.237	0.172	0.302	1.268	1.188	1.353	0.419	0.584	0.000	0.000
Dyspnea	0.226	0.159	0.293	1.254	1.172	1.341	0.366	0.494	0.000	0.000
Hematologic Disease	0.226	-0.047	0.499	1.253	0.954	1.646	0.459	0.589	0.000	0.105
Respiratory Discomfort	0.224	0.162	0.287	1.252	1.176	1.332	0.381	0.510	0.000	0.000
Diarrhea	-0.211	-0.295	-0.126	0.810	0.745	0.881	0.475	0.371	0.000	0.000
Gender F	-0.178	-0.235	-0.122	0.837	0.791	0.885	0.470	0.447	0.001	0.000
Another Chronic Pneumopathy	0.171	0.034	0.309	1.187	1.034	1.362	0.452	0.649	0.000	0.015
Other Risks	0.137	0.074	0.200	1.147	1.076	1.221	0.434	0.535	0.000	0.000
Schooling Medium 1-3	-0.131	-0.225	-0.037	0.877	0.799	0.963	0.473	0.354	0.000	0.006
Schooling Elem 1-5	0.092	-0.010	0.194	1.097	0.990	1.214	0.452	0.560	0.000	0.076
Xray Torax Result Consolidation	-0.087	-0.249	0.074	0.916	0.780	1.077	0.459	0.508	0.017	0.290
Cardiovascular Disease	0.057	-0.004	0.118	1.059	0.996	1.126	0.404	0.571	0.000	0.068
Acute Respiratory Distress Syndrome	0.057	-0.006	0.120	1.059	0.994	1.127	0.446	0.503	0.000	0.076
Postpartum	-0.027	-0.515	0.462	0.974	0.597	1.587	0.461	0.277	0.000	0.915
Vomiting	0.022	-0.087	0.130	1.022	0.917	1.139	0.466	0.396	0.000	0.694
Gestational Age	-0.009	-0.034	0.016	0.991	0.967	1.017	0.571	0.000	0.033	0.496

Recursive Feature Elimination:

Number of features selected
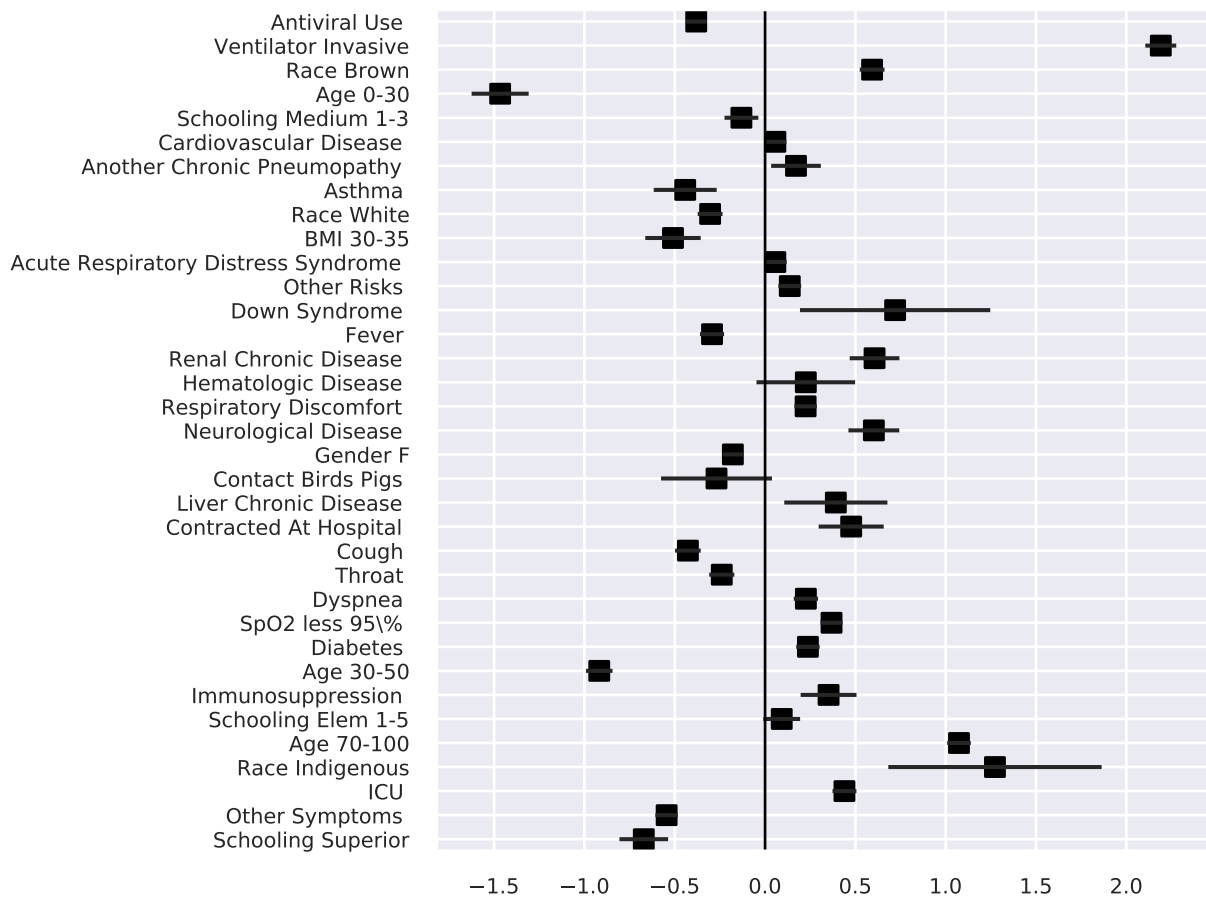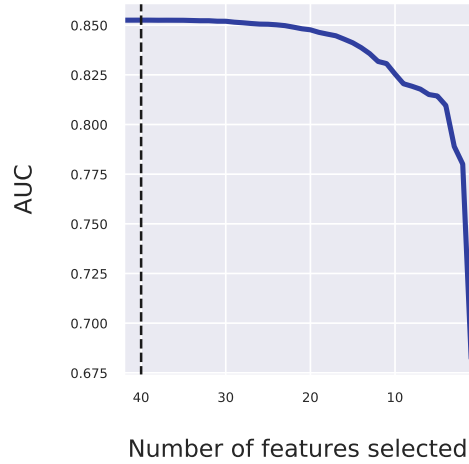
Performance:

	SVM-l1	LR-l1	RF	XGBoost
Accuracy	0.754	0.753	0.746	0.755
F1w	0.754	0.752	0.746	0.755
AUC	0.831	0.831	0.816	0.833
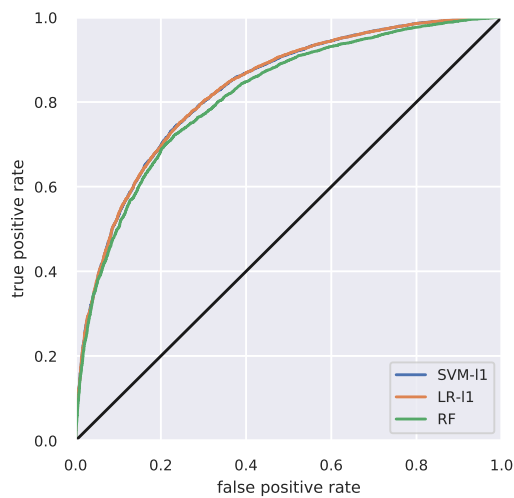
Coefficients:

	SVM-l1	LR-l1
Ventilator Invasive	1.000	1.000
Race Indigenous	0.587	0.540
Age 70-100	0.548	0.492
Down Syndrome	0.306	0.297
Renal Chronic Disease	0.285	0.276
Neurological Disease	0.293	0.273
Race Brown	0.271	0.271
Contracted At Hospital	0.218	0.215
ICU	0.200	0.201
Liver Chronic Disease	0.187	0.171
SpO2 less 95\%	0.166	0.169
Immunosuppression	0.159	0.160
Diabetes	0.110	0.109
Dyspnea	0.102	0.104
Respiratory Discomfort	0.105	0.103
Hematologic Disease	0.087	0.096
Another Chronic Pneumopathy	0.084	0.076
Other Risks	0.061	0.063
Schooling Elem 1-5	0.045	0.042
Cardiovascular Disease	0.024	0.027
Acute Respiratory Distress Syndrome	0.026	0.026
Vomiting	0.007	0.009
Gestational Age	0.000	0.001
Postpartum	-0.014	0.000
Xray Torax Result Consolidation	-0.037	-0.037
Schooling Medium 1-3	-0.057	-0.058
Gender F	-0.075	-0.078
Diarrhea	-0.092	-0.095
Throat	-0.105	-0.109
Contact Birds Pigs	-0.112	-0.110
Fever	-0.132	-0.132
Race White	-0.131	-0.138
Antiviral Use	-0.170	-0.173
Cough	-0.192	-0.193
Asthma	-0.184	-0.197
BMI 30-35	-0.192	-0.198
Other Symptoms	-0.233	-0.247
Schooling Superior	-0.265	-0.304
Age 30-50	-0.378	-0.417
Age 0-30	-0.554	-0.665
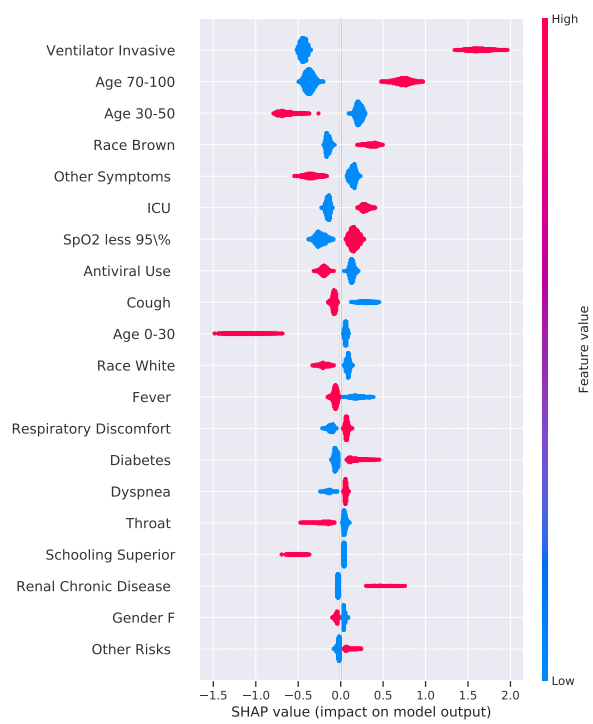
2.4   Mortality (advanced) small

Include variables: Antiviral, ICU, Ventilator

	Coef	2.5	97.5	Odds Ratio	2.5	97.5	Avg-0	Avg-1	KS-pv	pvalue
Ventilator Invasive	2.209	2.127	2.291	9.107	8.392	9.883	0.343	0.859	0.000	0.000
Age 0-30	-1.970	-2.115	-1.826	0.139	0.121	0.161	0.480	0.153	0.000	0.000
Age 30-50	-1.450	-1.515	-1.385	0.235	0.220	0.250	0.547	0.227	0.000	0.000
Race Brown	0.579	0.516	0.643	1.785	1.675	1.902	0.429	0.546	0.000	0.000
Liver Chronic Disease	0.571	0.307	0.835	1.770	1.360	2.304	0.459	0.635	0.000	0.000
ICU	0.527	0.466	0.589	1.694	1.593	1.802	0.354	0.664	0.000	0.000
Hematologic Disease	0.419	0.169	0.669	1.521	1.185	1.952	0.460	0.579	0.000	0.001
Fever	-0.386	-0.445	-0.327	0.680	0.641	0.721	0.559	0.430	0.000	0.000
Antiviral Use	-0.324	-0.378	-0.270	0.723	0.685	0.764	0.470	0.446	0.000	0.000
Diabetes	0.282	0.223	0.341	1.326	1.250	1.407	0.420	0.584	0.000	0.000
Immunosuppression	0.271	0.127	0.415	1.311	1.136	1.514	0.458	0.552	0.000	0.000
Schooling Medium 1-3	-0.264	-0.353	-0.175	0.768	0.703	0.839	0.475	0.349	0.000	0.000
Race White	-0.256	-0.318	-0.193	0.774	0.728	0.824	0.492	0.391	0.000	0.000
Acute Respiratory Distress Syndrome	0.135	0.076	0.194	1.144	1.079	1.214	0.447	0.503	0.000	0.000
BMI 30-35	-0.095	-0.159	-0.031	0.910	0.853	0.970	0.515	0.460	0.045	0.004
Vomiting	-0.084	-0.182	0.015	0.920	0.834	1.015	0.466	0.407	0.000	0.095
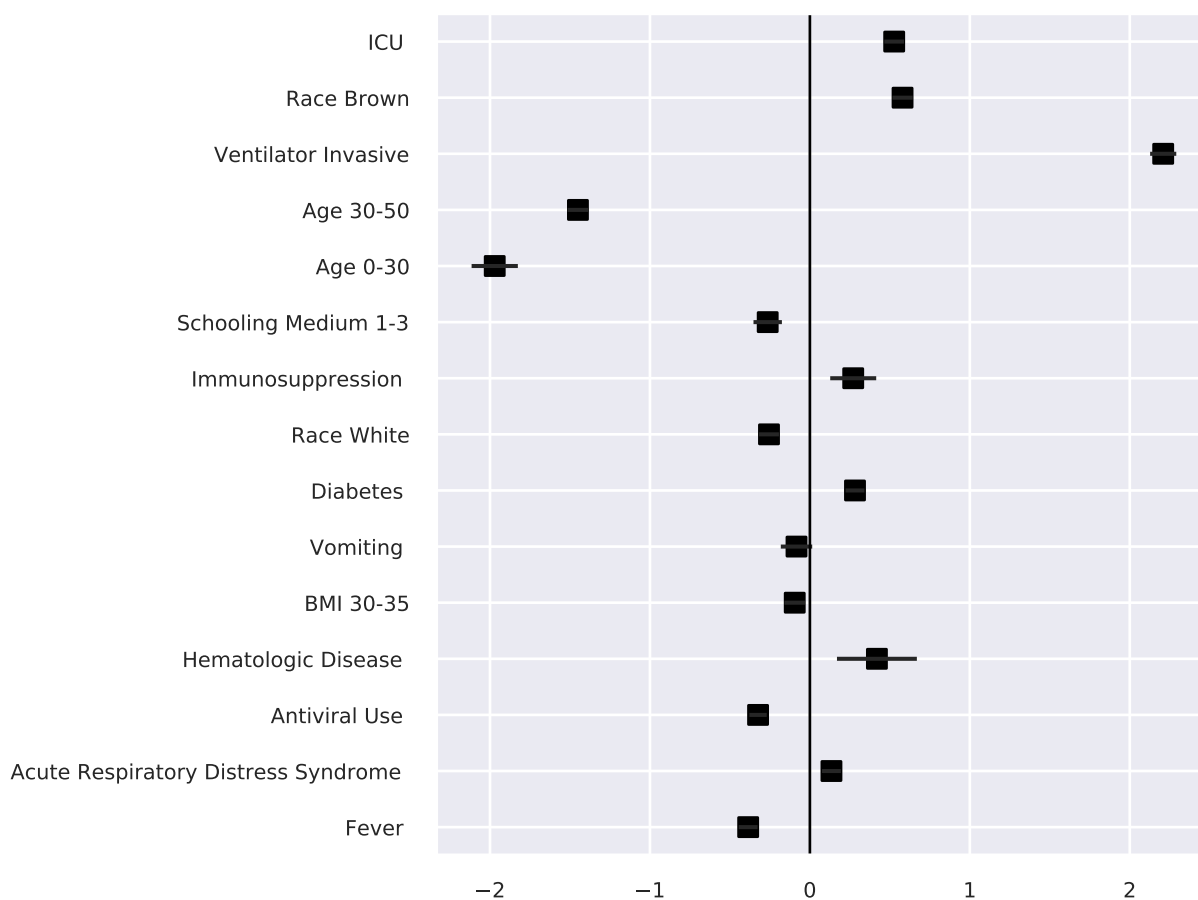
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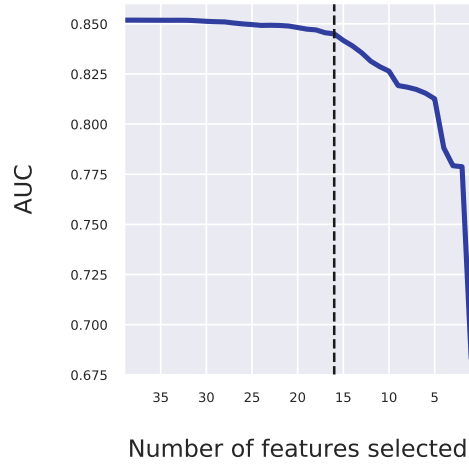
Performance:

	SVM-l1	LR-l1	RF	XGBoost
Accuracy	0.712	0.712	0.700	0.714
F1w	0.710	0.710	0.689	0.713
AUC	0.799	0.799	0.795	0.800
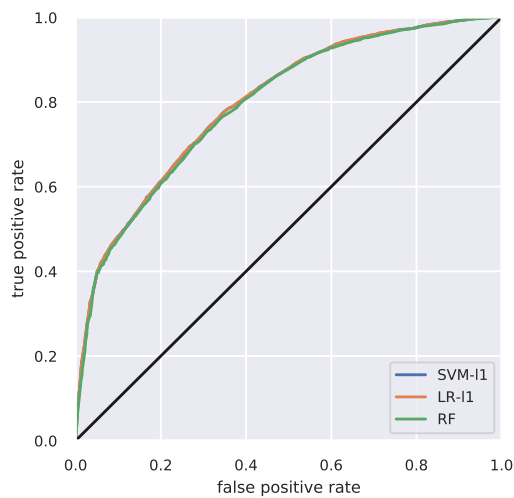
Coefficients:

	SVM-l1	LR-l1
Ventilator Invasive	1.000	1.000
Race Brown	0.266	0.259
Liver Chronic Disease	0.268	0.250
ICU	0.244	0.236
Hematologic Disease	0.190	0.182
Diabetes	0.130	0.124
Immunosuppression	0.120	0.120
Acute Respiratory Distress Syndrome	0.061	0.058
Vomiting	-0.036	-0.038
Race White	-0.112	-0.120
Schooling Medium 1-3	-0.115	-0.120
BMI 30-35	-0.124	-0.131
Antiviral Use	-0.147	-0.149
Fever	-0.185	-0.181
Age 30-50	-0.650	-0.660
Age 0-30	-0.811	-0.894
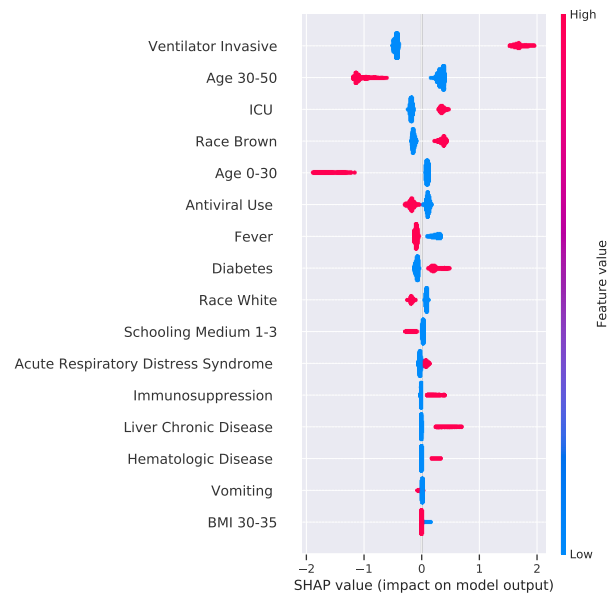
2.5 ICU

	Coef	2.5	97.5	Odds Ratio	2.5	97.5	Avg-0	Avg-1	KS-pv	pvalue
Race Indigenous	-1.200	-1.885	-0.515	0.301	0.152	0.597	0.345	0.152	0.014	0.001
BMI 30-35	-0.784	-0.953	-0.614	0.457	0.386	0.541	0.466	0.342	0.000	0.000
Schooling Elem 1-5	-0.516	-0.612	-0.420	0.597	0.542	0.657	0.351	0.274	0.000	0.000
Xray Torax Result Consolidation	0.492	0.363	0.620	1.635	1.438	1.859	0.340	0.478	0.000	0.000
SpO2 less 95\%	0.433	0.380	0.487	1.542	1.462	1.627	0.269	0.397	0.000	0.000
Contracted At Hospital	0.372	0.229	0.514	1.450	1.258	1.672	0.342	0.465	0.000	0.000
Throat	-0.359	-0.421	-0.297	0.698	0.656	0.743	0.366	0.269	0.000	0.000
Other Risks	0.338	0.284	0.391	1.401	1.329	1.478	0.319	0.419	0.000	0.000
Cough	-0.329	-0.388	-0.270	0.720	0.679	0.764	0.407	0.328	0.000	0.000
Renal Chronic Disease	0.319	0.209	0.429	1.376	1.232	1.536	0.339	0.476	0.000	0.000
Antiviral Use	0.315	0.266	0.364	1.370	1.305	1.439	0.314	0.395	0.000	0.000
Race Brown	-0.298	-0.353	-0.243	0.742	0.703	0.784	0.364	0.295	0.000	0.000
Schooling Elem 6-9	-0.296	-0.402	-0.189	0.744	0.669	0.827	0.348	0.296	0.000	0.000
Age 0-30	-0.295	-0.445	-0.146	0.744	0.641	0.864	0.351	0.249	0.000	0.000
Age 30-50	-0.254	-0.372	-0.137	0.776	0.690	0.872	0.370	0.277	0.000	0.000
Cardiovascular Disease	0.243	0.190	0.296	1.275	1.209	1.344	0.308	0.418	0.000	0.000
Another Chronic Pneumopathy	0.221	0.108	0.335	1.247	1.114	1.397	0.340	0.461	0.000	0.000
BMI 40-100	-0.189	-0.480	0.101	0.827	0.619	1.107	0.344	0.487	0.000	0.202
Gender F	-0.184	-0.233	-0.136	0.832	0.792	0.873	0.356	0.329	0.000	0.000
Schooling Medium 1-3	-0.160	-0.240	-0.081	0.852	0.787	0.922	0.350	0.299	0.000	0.000
Immunosuppression	0.159	0.028	0.290	1.173	1.029	1.337	0.343	0.410	0.000	0.017
Diabetes	0.155	0.100	0.211	1.168	1.105	1.235	0.322	0.413	0.000	0.000
Dyspnea	0.151	0.093	0.210	1.164	1.098	1.233	0.297	0.362	0.000	0.000
BMI 35-40	-0.117	-0.362	0.128	0.890	0.696	1.137	0.344	0.458	0.000	0.350
Diarrhea	-0.113	-0.186	-0.040	0.893	0.831	0.961	0.351	0.308	0.000	0.002
Respiratory Discomfort	0.095	0.042	0.149	1.100	1.043	1.161	0.313	0.364	0.000	0.000
Age 50-70	-0.076	-0.189	0.038	0.927	0.828	1.038	0.338	0.355	0.017	0.190
Fever	-0.072	-0.129	-0.015	0.930	0.879	0.985	0.377	0.334	0.000	0.013
Acute Respiratory Distress Syndrome	0.071	0.017	0.125	1.073	1.017	1.133	0.339	0.362	0.003	0.010
Vomiting	-0.066	-0.159	0.027	0.936	0.853	1.028	0.348	0.308	0.001	0.166
Age 70-100	0.047	-0.071	0.165	1.048	0.931	1.180	0.316	0.408	0.000	0.435
Neurological Disease	-0.029	-0.145	0.088	0.972	0.865	1.092	0.342	0.413	0.000	0.632
Gestational Age	0.000	-0.024	0.024	1.000	0.976	1.025	0.714	0.150	0.043	0.978

Recursive Feature Elimination:

Number of features selected

Coefficients:

	SVM-l1	LR-l1
Xray Torax Result Consolidation	0.540	0.462
SpO2 less 95\%	0.443	0.414
Contracted At Hospital	0.412	0.352
Other Risks	0.366	0.324
Renal Chronic Disease	0.358	0.302
Antiviral Use	0.327	0.300
Cardiovascular Disease	0.266	0.234
Another Chronic Pneumopathy	0.252	0.206
BMI 40-100	0.201	0.162
Dyspnea	0.157	0.153
Diabetes	0.169	0.150
Immunosuppression	0.169	0.150
Age 70-100	0.162	0.143
BMI 35-40	0.153	0.129
Respiratory Discomfort	0.107	0.093
Acute Respiratory Distress Syndrome	0.073	0.068
Gestational Age	0.034	0.034
Age 50-70	0.027	0.026
Neurological Disease	-0.022	-0.019
Fever	-0.063	-0.056
Vomiting	-0.063	-0.057
Diarrhea	-0.111	-0.105
Age 30-50	-0.138	-0.137
Schooling Medium 1-3	-0.145	-0.139
Gender F	-0.162	-0.150
Age 0-30	-0.153	-0.168
Schooling Elem 6-9	-0.288	-0.270
Race Brown	-0.293	-0.276
Cough	-0.332	-0.297
BMI 30-35	-0.341	-0.298
Throat	-0.341	-0.337
Schooling Elem 1-5	-0.508	-0.479
Race Indigenous	-1.000	-1.000

Performance:

	SVM-l1	LR-l1	RF	XGBoost
Accuracy	0.645	0.644	0.626	0.647
F1w	0.594	0.593	0.483	0.588
AUC	0.644	0.644	0.635	0.649
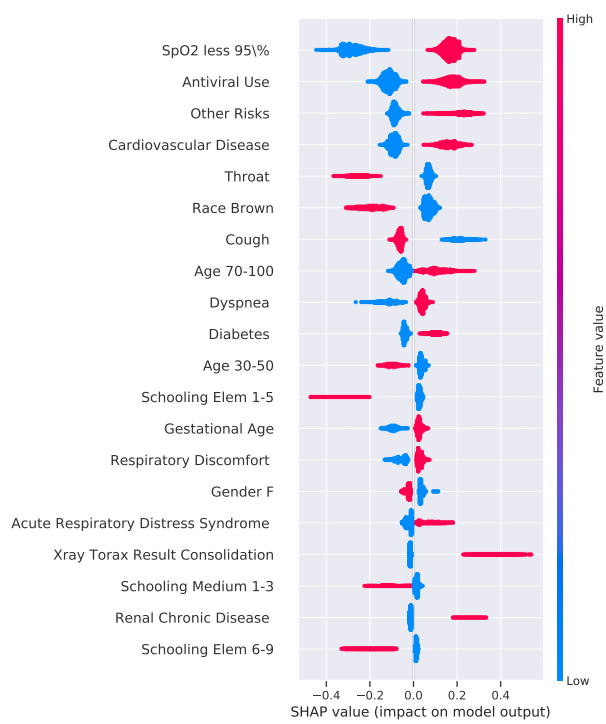
2.6 ICU small

	Coef	2.5	97.5	Odds Ratio	2.5	97.5	Avg-0	Avg-1	KS-pv	pvalue
Cough	-0.799	-0.843	-0.754	0.450	0.430	0.471	0.400	0.328	0.000	0.000
Race Brown	-0.439	-0.492	-0.387	0.644	0.612	0.679	0.362	0.296	0.000	0.000
Throat	-0.425	-0.484	-0.366	0.654	0.616	0.694	0.363	0.272	0.000	0.000
Renal Chronic Disease	0.393	0.284	0.502	1.481	1.328	1.652	0.337	0.477	0.000	0.000
Schooling Elem 1-5	-0.392	-0.485	-0.299	0.676	0.616	0.742	0.348	0.287	0.000	0.000
SpO2 less 95\%	0.342	0.295	0.388	1.407	1.343	1.475	0.265	0.396	0.000	0.000
Liver Chronic Disease	0.237	0.002	0.471	1.267	1.002	1.602	0.342	0.452	0.001	0.048
Other Risks	0.201	0.149	0.253	1.223	1.161	1.288	0.318	0.418	0.000	0.000
Antiviral Use	0.199	0.152	0.246	1.221	1.165	1.279	0.314	0.391	0.000	0.000
Contracted At Hospital	0.194	0.053	0.334	1.214	1.054	1.397	0.340	0.465	0.000	0.007
Age 50-70	-0.122	-0.171	-0.072	0.885	0.843	0.930	0.336	0.355	0.004	0.000
Neurological Disease	-0.023	-0.138	0.093	0.978	0.871	1.097	0.340	0.415	0.000	0.702
Age 70-100	0.016	-0.037	0.069	1.016	0.964	1.072	0.315	0.405	0.000	0.550
Immunosuppression	0.014	-0.113	0.142	1.014	0.893	1.153	0.341	0.416	0.000	0.826

Recursive Feature Elimination:

Number of features selected

Coefficients:

	SVM-l1	LR-l1
SpO2 less 95\%	1.000	1.000
Renal Chronic Disease	0.869	0.793
Age 70-100	0.716	0.706
Contracted At Hospital	0.758	0.686
Liver Chronic Disease	0.657	0.597
Antiviral Use	0.597	0.583
Other Risks	0.614	0.579
Age 50-70	0.419	0.435
Immunosuppression	0.271	0.250
Neurological Disease	0.059	0.048
Cough	-0.500	-0.478
Race Brown	-0.525	-0.528
Throat	-0.623	-0.649
Schooling Elem 1-5	-0.699	-0.701
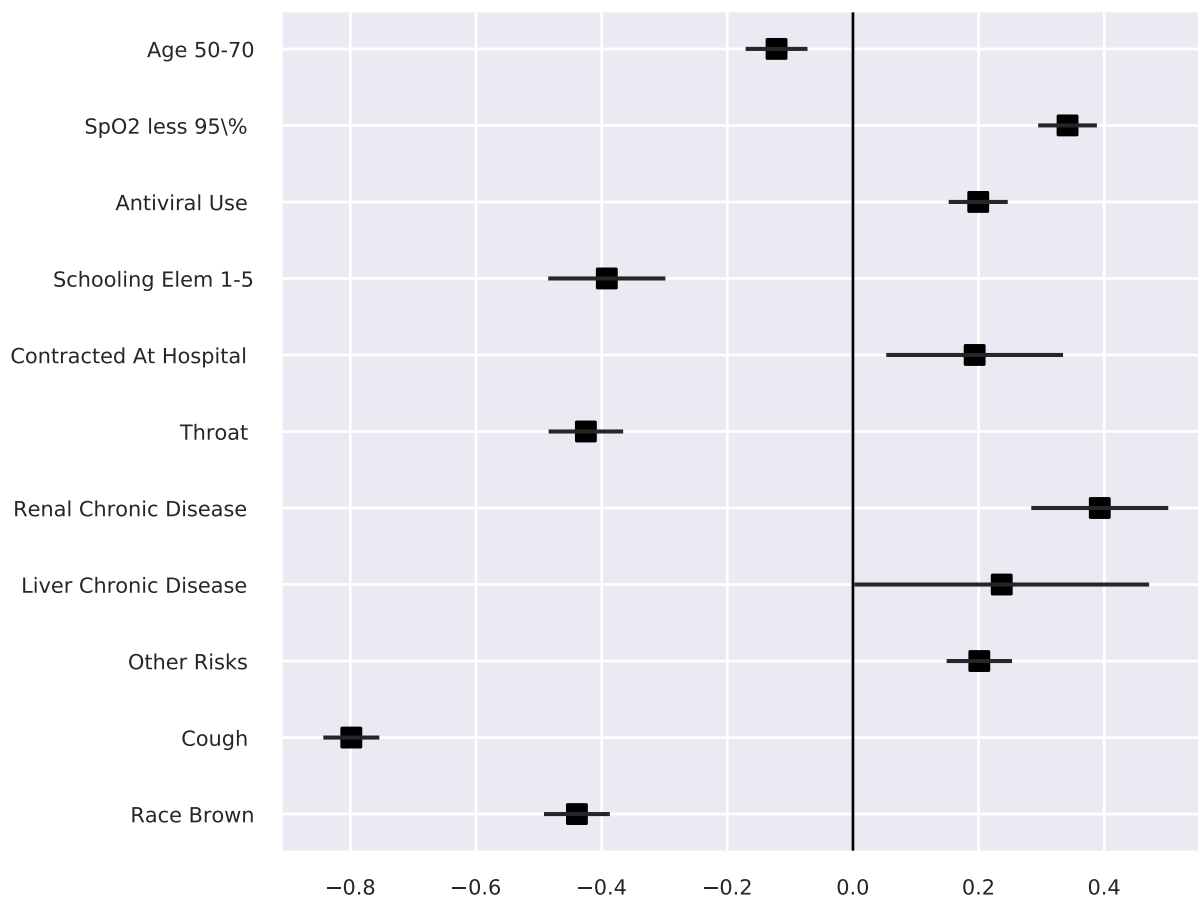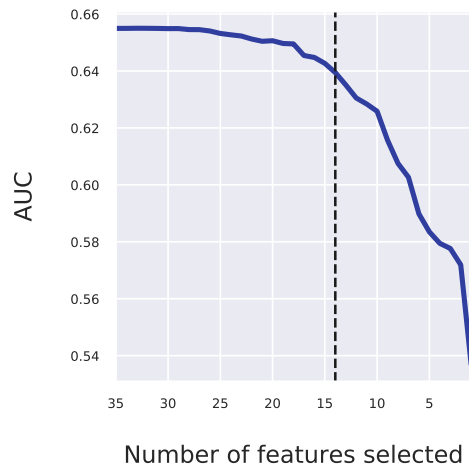
Performance:

	SVM-l1	LR-l1	RF	XGBoost
Accuracy	0.642	0.642	0.628	0.640
F1w	0.578	0.578	0.487	0.567
AUC	0.628	0.628	0.626	0.633

29
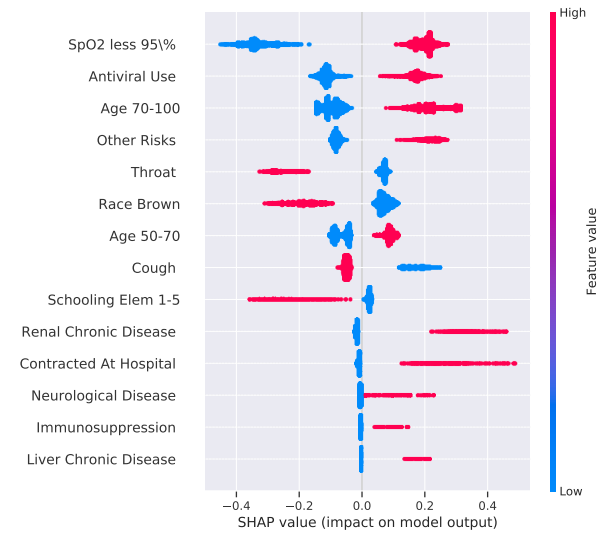
2.7 Ventilator

	Coef	2.5	97.5	Odds Ratio	2.5	97.5	Avg-0	Avg-1	KS-pv	pvalue
BMI 30-35	-1.212	-1.335	-1.089	0.298	0.263	0.336	0.337	0.224	0.000	0.000
Age 30-50	-0.844	-0.972	-0.716	0.430	0.378	0.489	0.256	0.142	0.000	0.000
Age 0-30	-0.752	-0.928	-0.576	0.471	0.395	0.562	0.231	0.135	0.000	0.000
SpO2 less 95\%	0.640	0.576	0.704	1.897	1.779	2.023	0.132	0.289	0.000	0.000
Cough	-0.523	-0.589	-0.457	0.593	0.555	0.633	0.286	0.209	0.000	0.000
Xray Torax Result Consolidation	0.438	0.298	0.578	1.550	1.347	1.783	0.223	0.322	0.000	0.000
Age 50-70	-0.389	-0.511	-0.267	0.678	0.600	0.766	0.212	0.247	0.000	0.000
Throat	-0.365	-0.437	-0.292	0.694	0.646	0.747	0.240	0.176	0.000	0.000
Respiratory Discomfort	0.355	0.292	0.419	1.427	1.339	1.520	0.159	0.267	0.000	0.000
Dyspnea	0.332	0.261	0.403	1.394	1.299	1.497	0.147	0.254	0.000	0.000
Age 70-100	-0.299	-0.426	-0.172	0.741	0.653	0.842	0.198	0.286	0.000	0.000
Antiviral Use	0.297	0.241	0.353	1.346	1.273	1.423	0.201	0.266	0.000	0.000
Other Risks	0.293	0.233	0.352	1.340	1.262	1.422	0.205	0.286	0.000	0.000
Contracted At Hospital	0.289	0.134	0.445	1.335	1.143	1.560	0.223	0.322	0.000	0.000
Renal Chronic Disease	0.269	0.150	0.387	1.308	1.162	1.472	0.220	0.341	0.000	0.000
Diarrhea	-0.258	-0.346	-0.171	0.772	0.707	0.843	0.233	0.178	0.000	0.000
Diabetes	0.251	0.190	0.313	1.286	1.209	1.367	0.201	0.300	0.000	0.000
Race White	-0.245	-0.312	-0.178	0.783	0.732	0.837	0.234	0.207	0.000	0.000
Gender F	-0.238	-0.293	-0.182	0.788	0.746	0.833	0.236	0.211	0.000	0.000
Immunosuppression	0.188	0.045	0.331	1.207	1.046	1.393	0.224	0.285	0.001	0.010
Another Chronic Pneumopathy	0.174	0.050	0.298	1.190	1.051	1.347	0.222	0.322	0.000	0.006
Liver Chronic Disease	0.168	-0.085	0.420	1.182	0.918	1.523	0.225	0.307	0.028	0.194
Other Symptoms	-0.160	-0.222	-0.098	0.852	0.801	0.907	0.239	0.195	0.000	0.000
Fever	-0.154	-0.218	-0.090	0.858	0.804	0.914	0.259	0.215	0.000	0.000
Cardiovascular Disease	0.146	0.086	0.205	1.157	1.090	1.228	0.197	0.283	0.000	0.000
Schooling Medium 1-3	-0.143	-0.239	-0.048	0.867	0.788	0.954	0.231	0.183	0.000	0.003
Vomiting	-0.122	-0.236	-0.008	0.885	0.790	0.992	0.229	0.183	0.000	0.035
Acute Respiratory Distress Syndrome	0.095	0.034	0.156	1.100	1.035	1.169	0.217	0.252	0.000	0.002
Schooling Superior	-0.048	-0.175	0.079	0.953	0.840	1.082	0.229	0.178	0.000	0.458
Race Brown	-0.009	-0.075	0.056	0.991	0.928	1.058	0.219	0.244	0.000	0.780

Recursive Feature Elimination:

Number of features selected
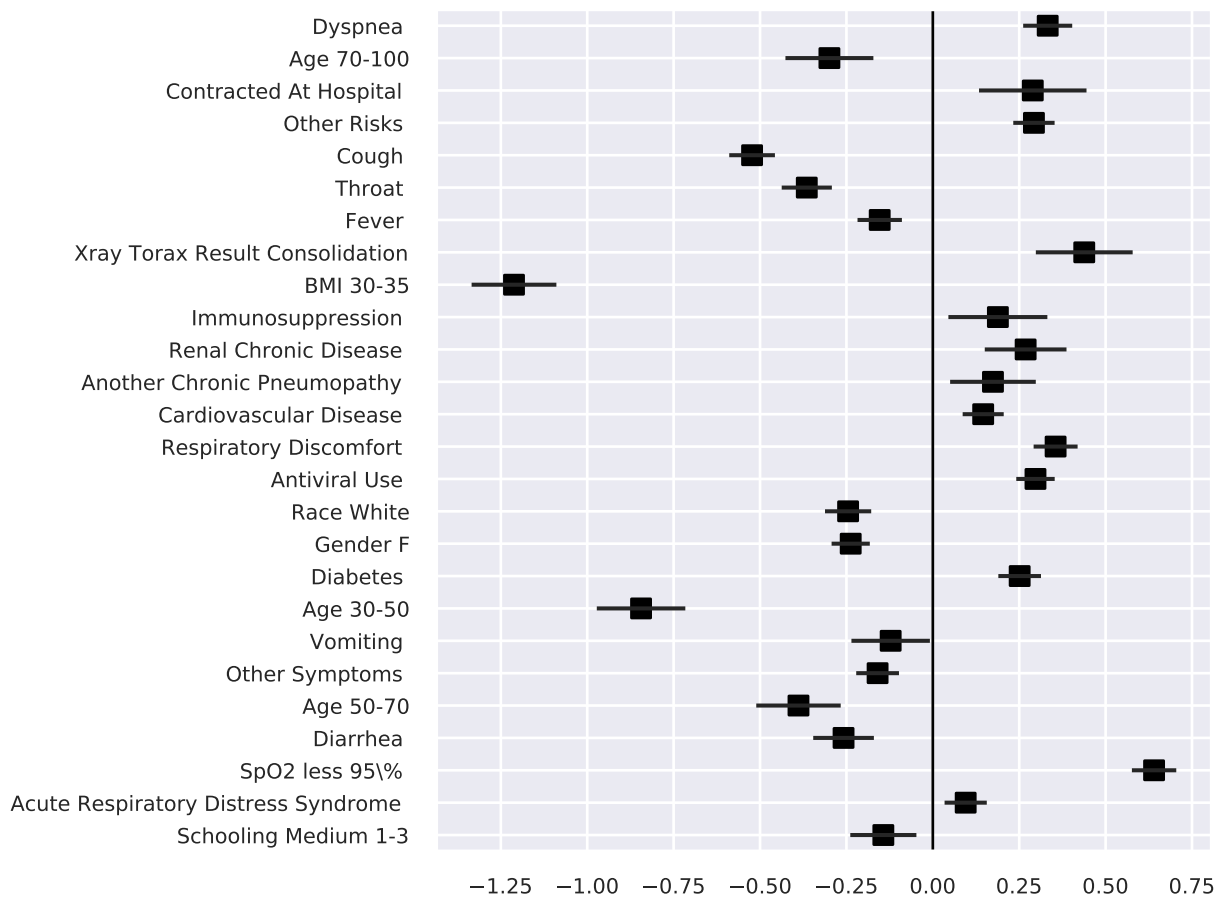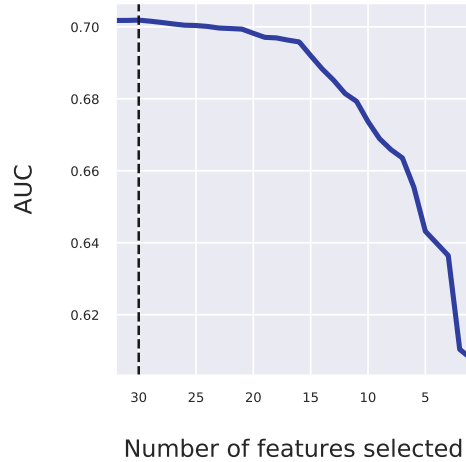
Performance:

	SVM-l1	LR-l1	RF	XGBoost
Accuracy	0.738	0.738	0.739	0.740
F1w	0.658	0.657	0.628	0.652
AUC	0.672	0.673	0.663	0.676
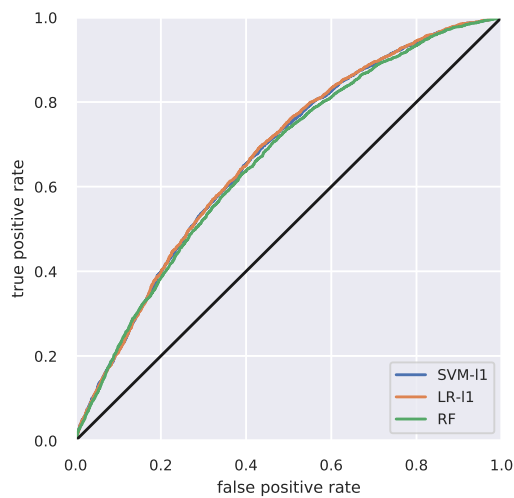
Coefficients:

	SVM-l1	LR-l1
SpO2 less 95\%	1.000	1.000
Xray Torax Result Consolidation	0.799	0.658
Dyspnea	0.569	0.576
Respiratory Discomfort	0.613	0.559
Other Risks	0.529	0.465
Contracted At Hospital	0.583	0.459
Antiviral Use	0.485	0.452
Renal Chronic Disease	0.554	0.419
Diabetes	0.471	0.397
Immunosuppression	0.319	0.274
Another Chronic Pneumopathy	0.348	0.252
Cardiovascular Disease	0.279	0.250
Age 70-100	0.284	0.249
Liver Chronic Disease	0.299	0.236
Acute Respiratory Distress Syndrome	0.181	0.163
Age 50-70	0.118	0.116
Race Brown	0.029	0.022
Schooling Superior	-0.010	-0.043
Fever	-0.201	-0.161
Vomiting	-0.186	-0.175
Schooling Medium 1-3	-0.186	-0.184
Other Symptoms	-0.196	-0.185
Gender F	-0.314	-0.299
Race White	-0.324	-0.311
Age 0-30	-0.279	-0.364
Diarrhea	-0.377	-0.367
Age 30-50	-0.466	-0.526
Throat	-0.559	-0.551
Cough	-0.819	-0.707
BMI 30-35	-0.995	-0.824
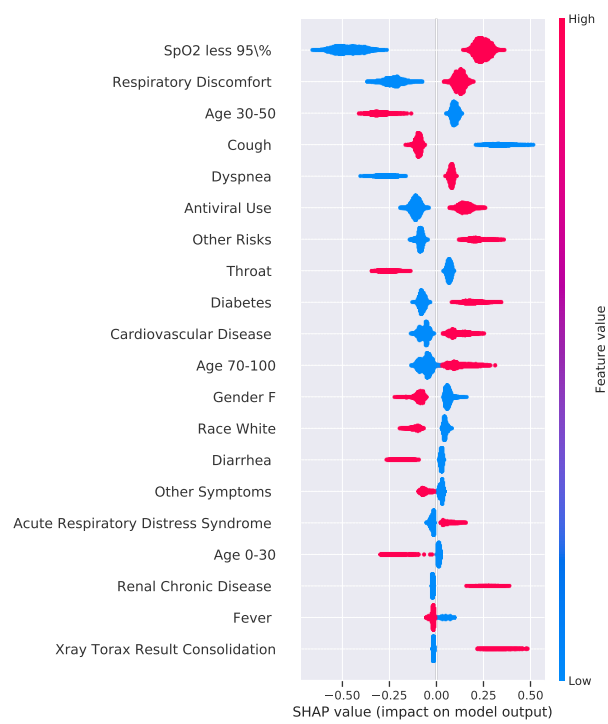
2.8 Ventilator small

	Coef	2.5	97.5	Odds Ratio	2.5	97.5	Avg-0	Avg-1	KS-pv	pvalue
Age 30-50	-0.981	-1.051	-0.912	0.375	0.350	0.402	0.258	0.142	0.000	0.000
Cough	-0.752	-0.810	-0.694	0.471	0.445	0.499	0.283	0.212	0.000	0.000
Fever	-0.461	-0.516	-0.405	0.631	0.597	0.667	0.262	0.216	0.000	0.000
Age 50-70	-0.361	-0.414	-0.309	0.697	0.661	0.734	0.213	0.248	0.000	0.000
Throat	-0.296	-0.365	-0.227	0.744	0.694	0.797	0.240	0.180	0.000	0.000
Neurological Disease	-0.291	-0.416	-0.167	0.747	0.659	0.847	0.225	0.268	0.013	0.000
Schooling Superior	-0.271	-0.394	-0.147	0.763	0.674	0.863	0.230	0.174	0.000	0.000
Renal Chronic Disease	0.249	0.136	0.362	1.283	1.146	1.436	0.222	0.340	0.000	0.000
Antiviral Use	0.213	0.161	0.266	1.238	1.174	1.305	0.204	0.264	0.000	0.000
Dyspnea	0.209	0.155	0.263	1.232	1.168	1.300	0.146	0.256	0.000	0.000
Another Chronic Pneumopathy	0.184	0.064	0.304	1.202	1.066	1.355	0.222	0.333	0.000	0.003
Contracted At Hospital	0.086	-0.066	0.238	1.090	0.937	1.269	0.225	0.319	0.000	0.265
Immunosuppression	0.085	-0.053	0.223	1.089	0.949	1.249	0.225	0.293	0.000	0.227

Recursive Feature Elimination:

Number of features selected

Coefficients:

	SVM-l1	LR-l1
Dyspnea	1.000	1.000
Renal Chronic Disease	0.722	0.552
Contracted At Hospital	0.630	0.506
Antiviral Use	0.517	0.465
Another Chronic Pneumopathy	0.587	0.436
Immunosuppression	0.370	0.305
Neurological Disease	-0.022	-0.017
Age 50-70	-0.052	-0.040
Fever	-0.174	-0.149
Schooling Superior	-0.187	-0.199
Throat	-0.422	-0.412
Cough	-0.617	-0.534
Age 30-50	-0.878	-0.892
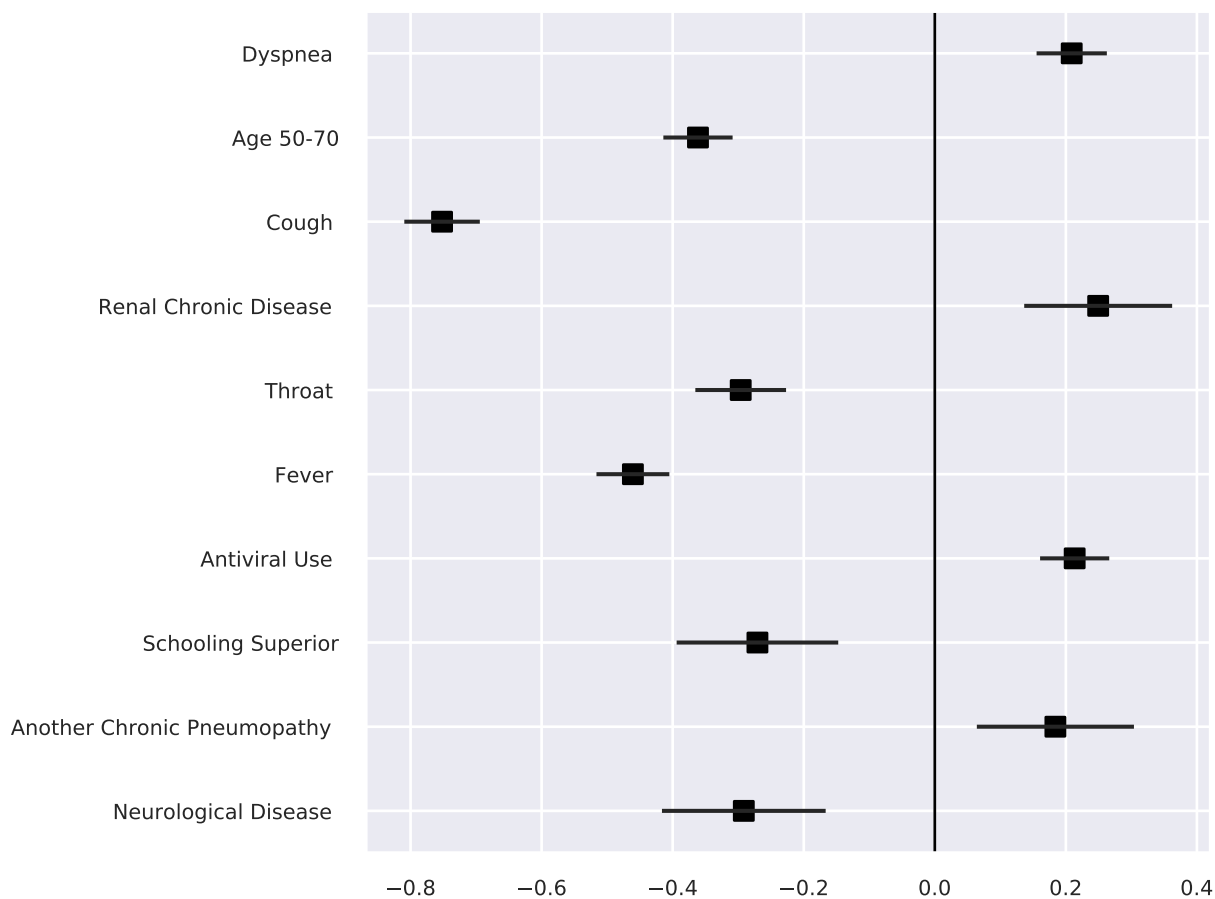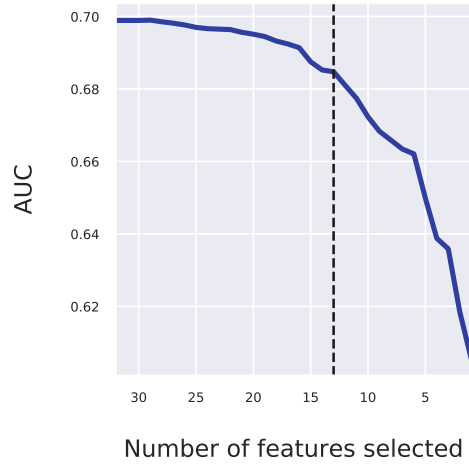
Performance:

	SVM-l1	LR-l1	RF	XGBoost
Accuracy	0.744	0.744	0.745	0.745
F1w	0.645	0.642	0.636	0.639
AUC	0.629	0.629	0.627	0.628
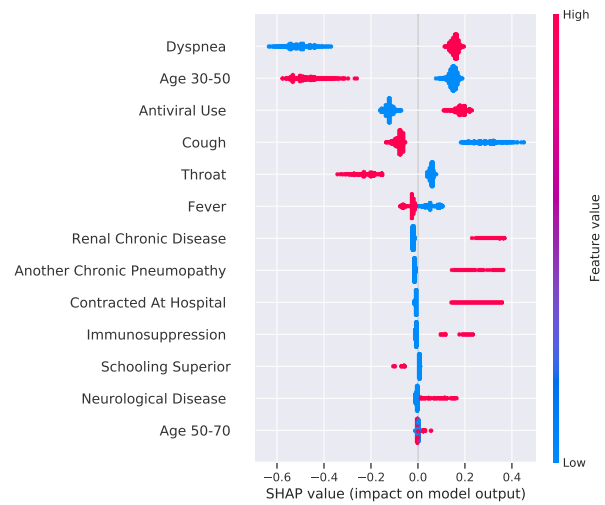
2.9   Ventilator with ICU

	Coef	2.5	97.5	Odds Ratio	2.5	97.5	Avg-0	Avg-1	KS-pv	pvalue
ICU	2.316	2.253	2.379	10.137	9.518	10.796	0.070	0.525	0.000	0.000
Age 0-30	-1.196	-1.356	-1.036	0.302	0.258	0.355	0.231	0.131	0.000	0.000
Age 30-50	-1.176	-1.258	-1.094	0.309	0.284	0.335	0.257	0.142	0.000	0.000
Cough	-0.848	-0.917	-0.778	0.428	0.400	0.459	0.282	0.210	0.000	0.000
Age 50-70	-0.612	-0.676	-0.549	0.542	0.509	0.578	0.212	0.246	0.000	0.000
Fever	-0.582	-0.650	-0.515	0.559	0.522	0.598	0.257	0.215	0.000	0.000
Gender F	-0.536	-0.596	-0.477	0.585	0.551	0.621	0.234	0.213	0.001	0.000
Other Symptoms	-0.505	-0.573	-0.437	0.603	0.564	0.646	0.239	0.195	0.000	0.000
Race White	-0.490	-0.562	-0.417	0.613	0.570	0.659	0.233	0.209	0.000	0.000
Neurological Disease	-0.474	-0.621	-0.327	0.622	0.537	0.721	0.224	0.264	0.030	0.000
Schooling Superior	-0.398	-0.543	-0.252	0.672	0.581	0.777	0.229	0.169	0.000	0.000
SpO2 less 95\%	0.286	0.218	0.355	1.332	1.243	1.426	0.132	0.289	0.000	0.000
Cardiovascular Disease	-0.260	-0.327	-0.194	0.771	0.721	0.824	0.196	0.283	0.000	0.000
Diarrhea	-0.214	-0.311	-0.117	0.808	0.733	0.890	0.232	0.182	0.000	0.000
Respiratory Discomfort	0.196	0.127	0.264	1.216	1.136	1.303	0.160	0.267	0.000	0.000
Vomiting	-0.183	-0.308	-0.058	0.833	0.735	0.943	0.229	0.186	0.000	0.004
Dyspnea	-0.177	-0.249	-0.106	0.837	0.780	0.900	0.147	0.254	0.000	0.000
Contracted At Hospital	-0.145	-0.323	0.033	0.865	0.724	1.034	0.223	0.321	0.000	0.111
Throat	-0.136	-0.216	-0.056	0.872	0.805	0.945	0.239	0.178	0.000	0.001
Xray Torax Result Consolidation	0.133	-0.028	0.295	1.143	0.972	1.343	0.223	0.315	0.000	0.106
Schooling Medium 1-3	-0.132	-0.239	-0.026	0.876	0.787	0.975	0.231	0.184	0.000	0.015
Another Chronic Pneumopathy	-0.118	-0.259	0.023	0.889	0.772	1.023	0.222	0.321	0.000	0.101
Antiviral Use	0.105	0.043	0.168	1.111	1.044	1.183	0.202	0.264	0.000	0.001
Acute Respiratory Distress Syndrome	-0.100	-0.168	-0.032	0.905	0.845	0.968	0.216	0.253	0.000	0.004
Other Risks	-0.098	-0.165	-0.030	0.907	0.848	0.970	0.205	0.285	0.000	0.004
Diabetes	0.072	0.002	0.141	1.074	1.002	1.152	0.202	0.297	0.000	0.043
Immunosuppression	0.061	-0.102	0.224	1.063	0.903	1.251	0.223	0.288	0.000	0.465
Renal Chronic Disease	0.056	-0.079	0.191	1.058	0.924	1.211	0.220	0.350	0.000	0.415
Race Brown	-0.044	-0.116	0.028	0.957	0.890	1.028	0.219	0.244	0.000	0.231
Liver Chronic Disease	0.036	-0.250	0.321	1.036	0.779	1.378	0.225	0.308	0.025	0.807

Recursive Feature Elimination:

Number of features selected
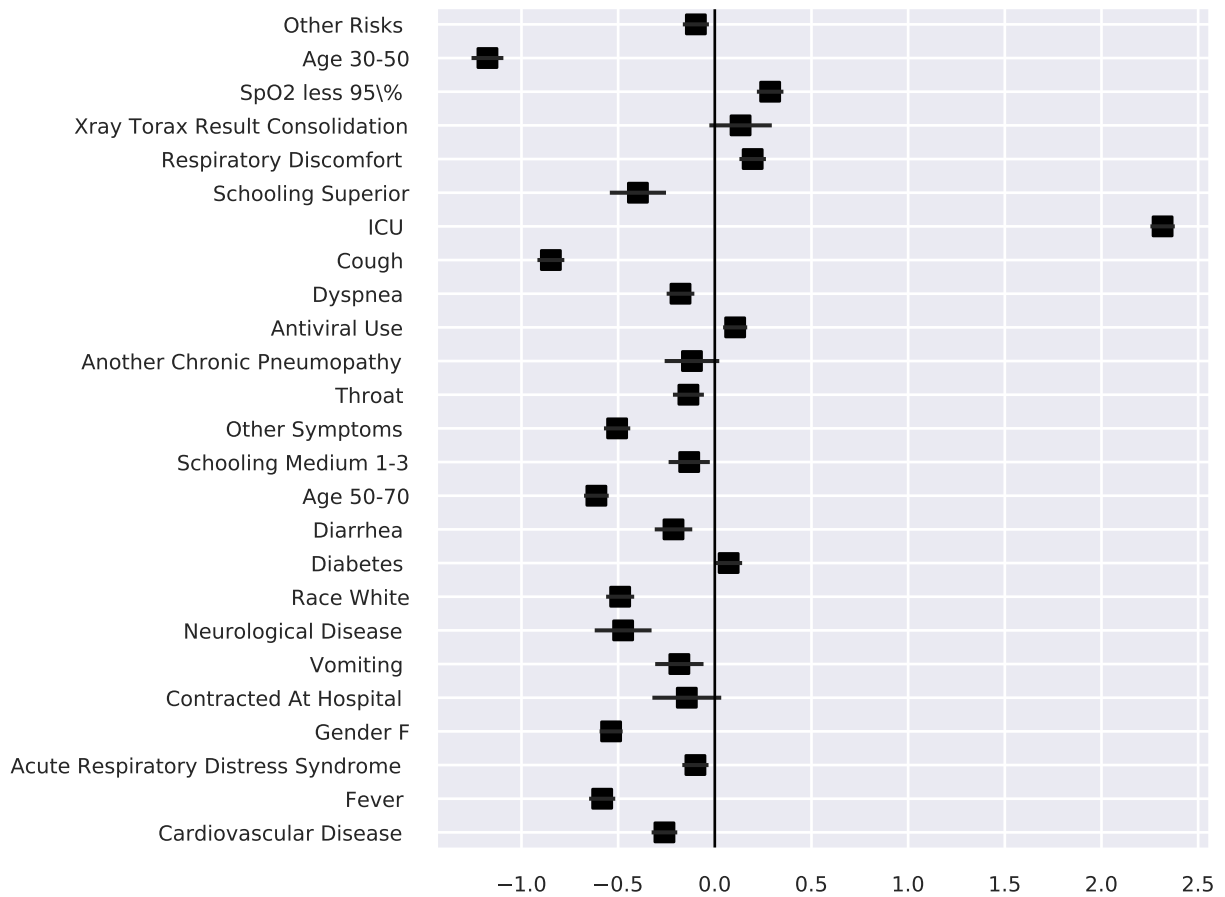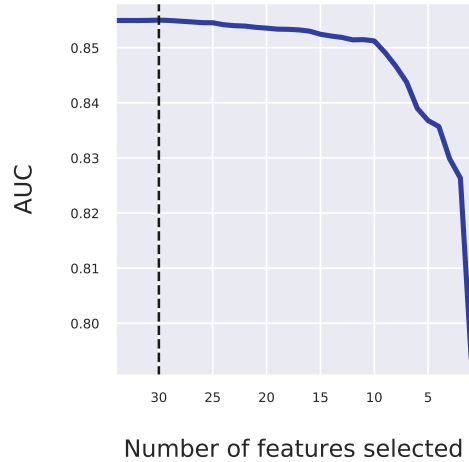
Performance:

	SVM-l1	LR-l1	RF	XGBoost
Accuracy	0.797	0.797	0.740	0.797
F1w	0.793	0.793	0.631	0.793
AUC	0.833	0.834	0.829	0.835
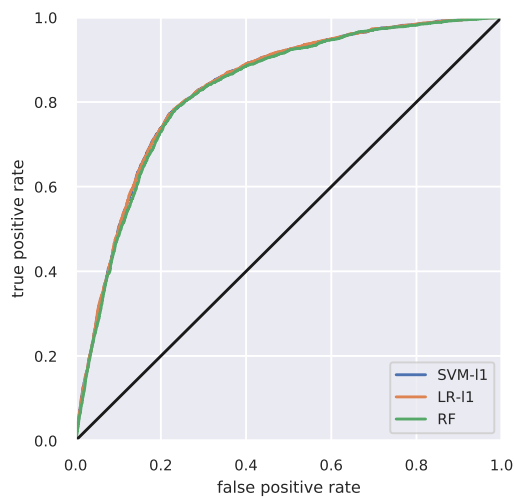
Coefficients:

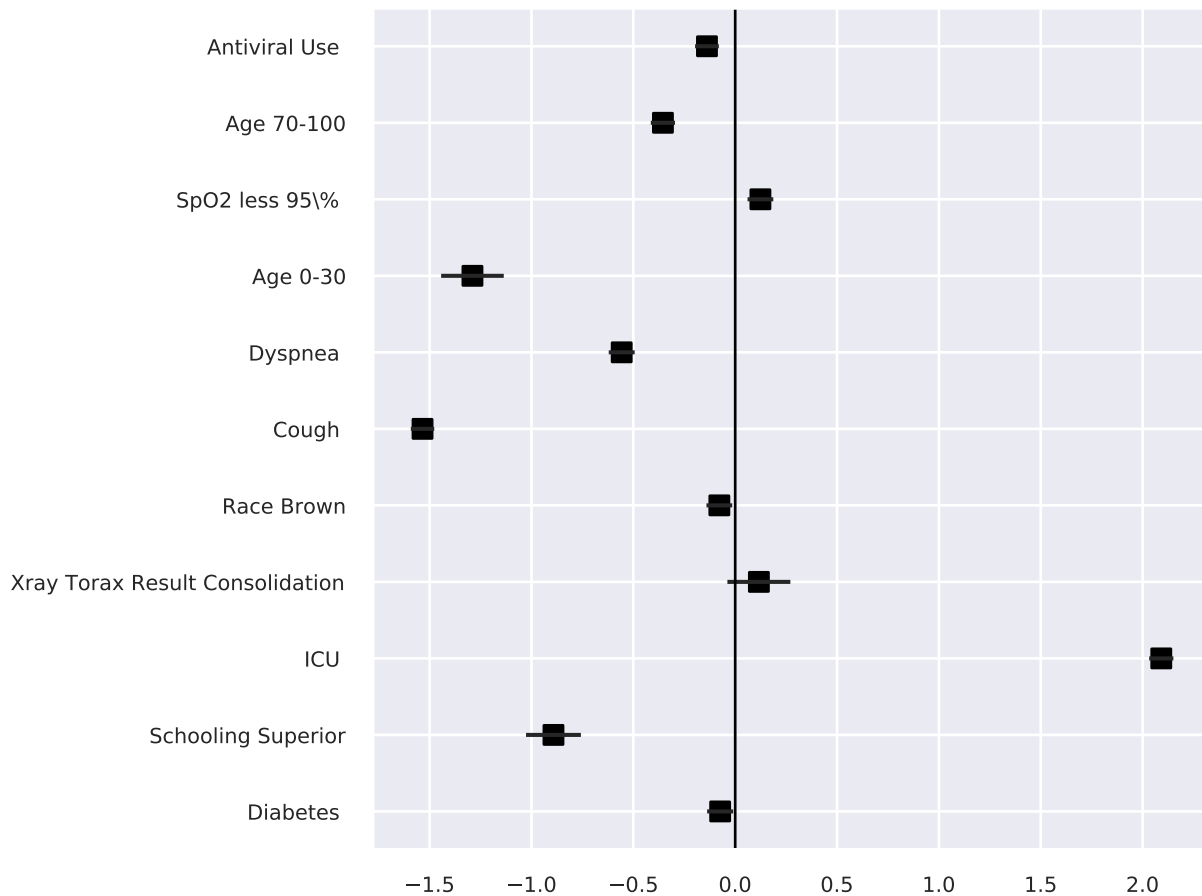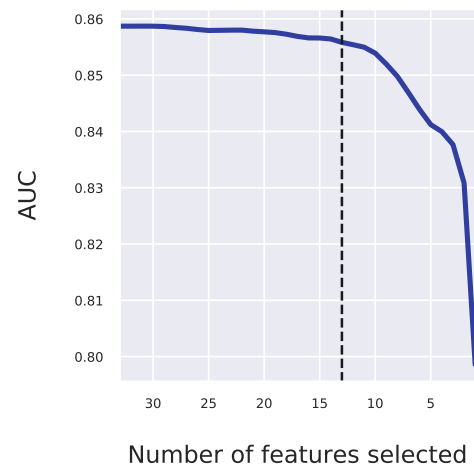|	SVM-l1	LR-l1
ICU	1.000	1.000
SpO2 less 95\%	0.174	0.213
Respiratory Discomfort	0.147	0.161
Dyspnea	0.124	0.141
Race Brown	0.106	0.131
Xray Torax Result Consolidation	0.088	0.083
Renal Chronic Disease	0.083	0.075
Diabetes	0.064	0.074
Antiviral Use	0.058	0.059
Other Risks	0.054	0.055
Immunosuppression	0.051	0.051
Contracted At Hospital	0.062	0.044
Acute Respiratory Distress Syndrome	0.028	0.038
Liver Chronic Disease	0.036	0.037
Cardiovascular Disease	0.015	0.012
Another Chronic Pneumopathy	0.019	0.010
Age 50-70	-0.010	-0.018
Fever	-0.037	-0.036
Gender F	-0.037	-0.042
Vomiting	-0.045	-0.049
Race White	-0.046	-0.052
Neurological Disease	-0.075	-0.064
Diarrhea	-0.057	-0.064
Schooling Medium 1-3	-0.048	-0.065
Other Symptoms	-0.062	-0.069
Throat	-0.064	-0.075
Cough	-0.135	-0.143
Schooling Superior	-0.152	-0.151
Age 0-30	-0.124	-0.164
Age 30-50	-0.172	-0.205
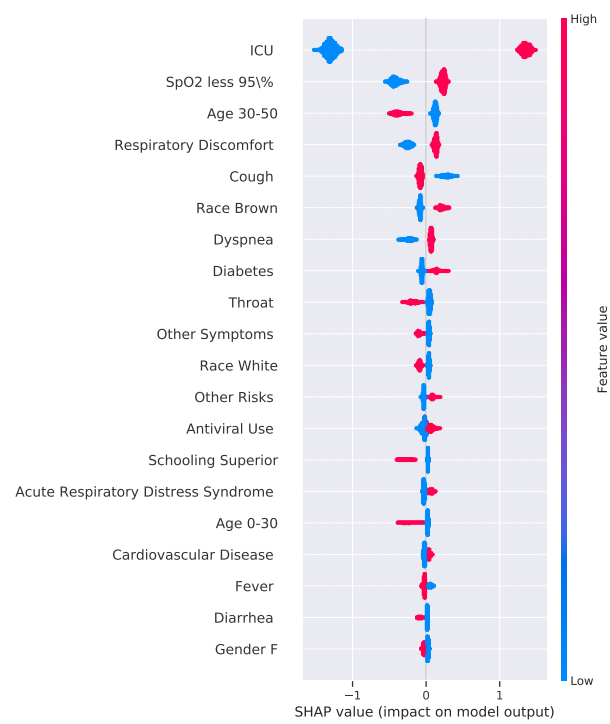
2.10 Ventilator with ICU small

	Coef	2.5	97.5	Odds Ratio	2.5	97.5	Avg-0	Avg-1	KS-pv	pvalue
ICU	2.092	2.032	2.151	8.097	7.630	8.593	0.067	0.531	0.000	0.000
Cough	-1.535	-1.592	-1.477	0.215	0.203	0.228	0.285	0.211	0.000	0.000
Age 0-30	-1.290	-1.443	-1.136	0.275	0.236	0.321	0.233	0.127	0.000	0.000
Schooling Superior	-0.892	-1.027	-0.758	0.410	0.358	0.469	0.230	0.176	0.000	0.000
Diarrhea	-0.601	-0.691	-0.511	0.548	0.501	0.600	0.234	0.181	0.000	0.000
Dyspnea	-0.557	-0.621	-0.494	0.573	0.538	0.610	0.149	0.255	0.000	0.000
Age 70-100	-0.355	-0.414	-0.295	0.701	0.661	0.744	0.197	0.293	0.000	0.000
Antiviral Use	-0.139	-0.197	-0.080	0.871	0.821	0.923	0.203	0.266	0.000	0.000
SpO2 less 95\%	0.124	0.061	0.187	1.132	1.062	1.206	0.134	0.290	0.000	0.000
Xray Torax Result Consolidation	0.116	-0.038	0.271	1.123	0.962	1.311	0.223	0.335	0.000	0.140
Race Brown	-0.078	-0.141	-0.015	0.925	0.868	0.986	0.220	0.244	0.001	0.016
Diabetes	-0.074	-0.138	-0.010	0.929	0.871	0.990	0.203	0.298	0.000	0.024
Respiratory Discomfort	-0.041	-0.103	0.021	0.960	0.902	1.021	0.164	0.267	0.000	0.193

Recursive Feature Elimination:

Number of features selected

Coefficients:

	SVM-l1	LR-l1
ICU	1.000	1.000
SpO2 less 95\%	0.170	0.211
Race Brown	0.119	0.147
Respiratory Discomfort	0.129	0.143
Dyspnea	0.123	0.141
Xray Torax Result Consolidation	0.117	0.121
Age 70-100	0.085	0.105
Diabetes	0.089	0.100
Antiviral Use	0.050	0.052
Diarrhea	-0.087	-0.101
Age 0-30	-0.097	-0.118
Schooling Superior	-0.151	-0.152
Cough	-0.152	-0.160

Performance:

	SVM-l1	LR-l1	RF	XGBoost
Accuracy	0.792	0.792	0.780	0.791
F1w	0.790	0.789	0.741	0.789
AUC	0.817	0.817	0.814	0.818