Fig 1: Any_Cancer_Response

Created: 2025-06-21 00:12:47
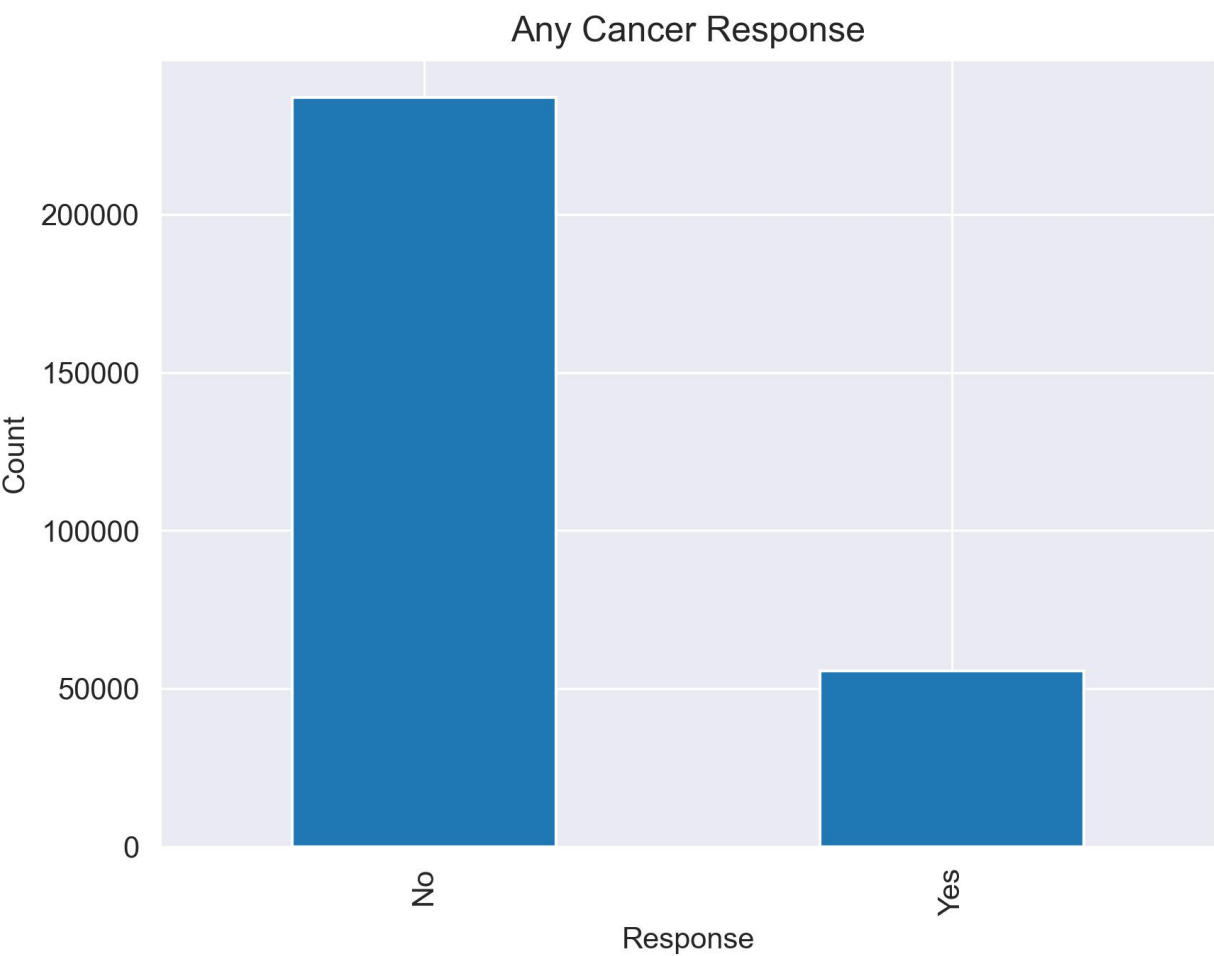

Any Cancer Response

Fig 2: Any_Cardiac_Condition

Created: 2025-06-21 00:12:47

Any Cardiac Condition
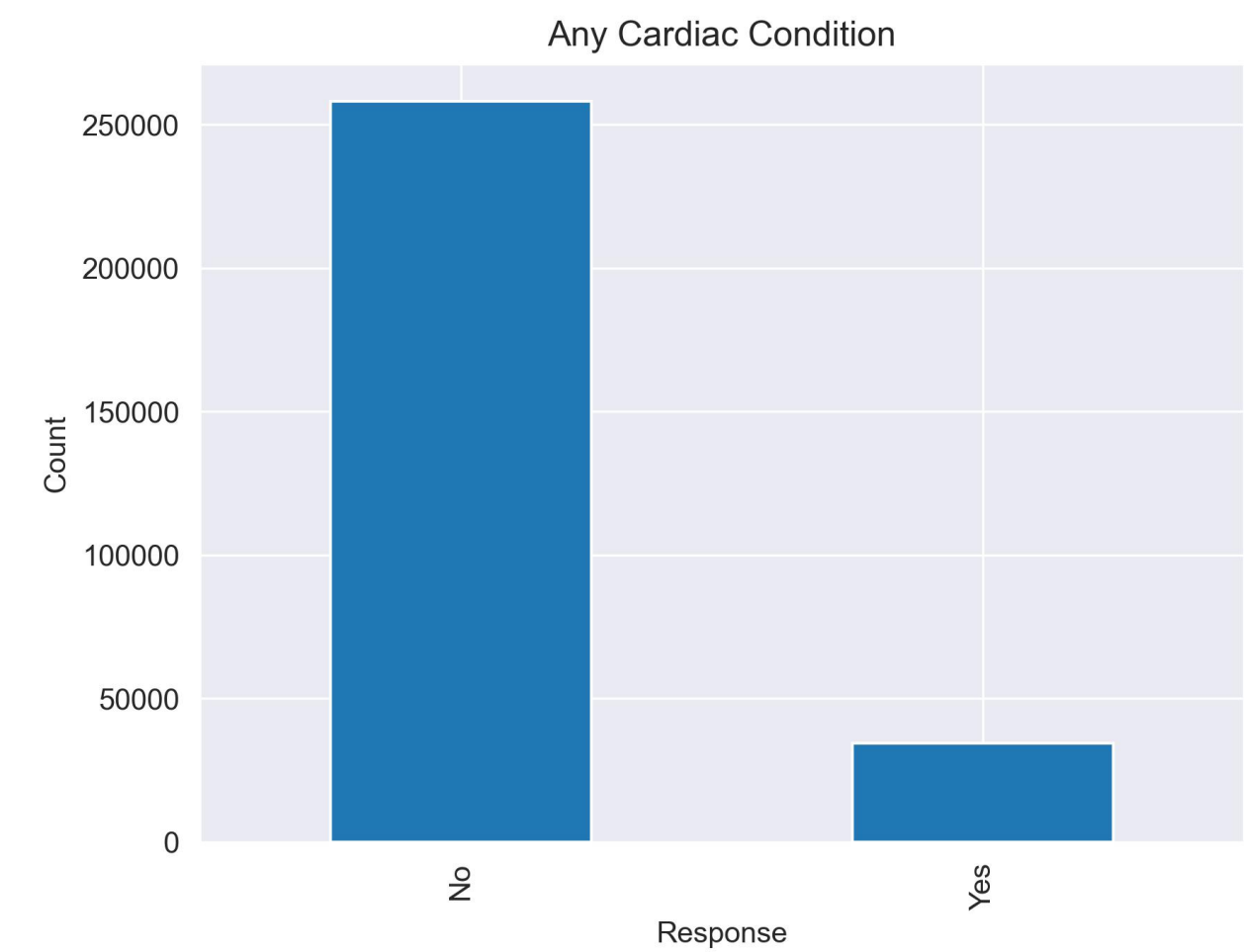
Fig 3: Any_Chronic_Condition

Created: 2025-06-21 00:12:47

Any Chronic Condition
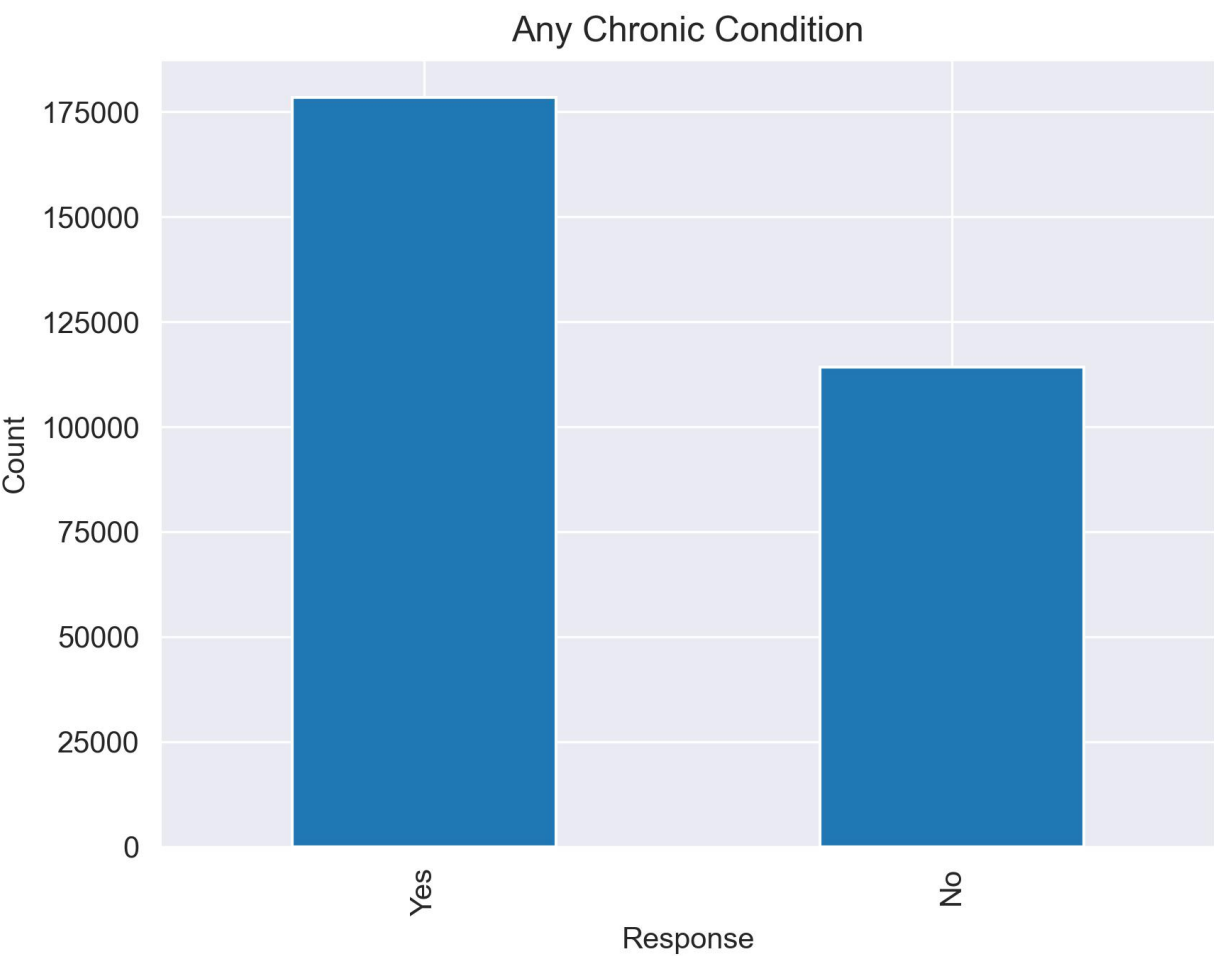
Fig 4: Any_Pulmonary_Response

Created: 2025-06-21 00:12:47

Any Pulmonary Response
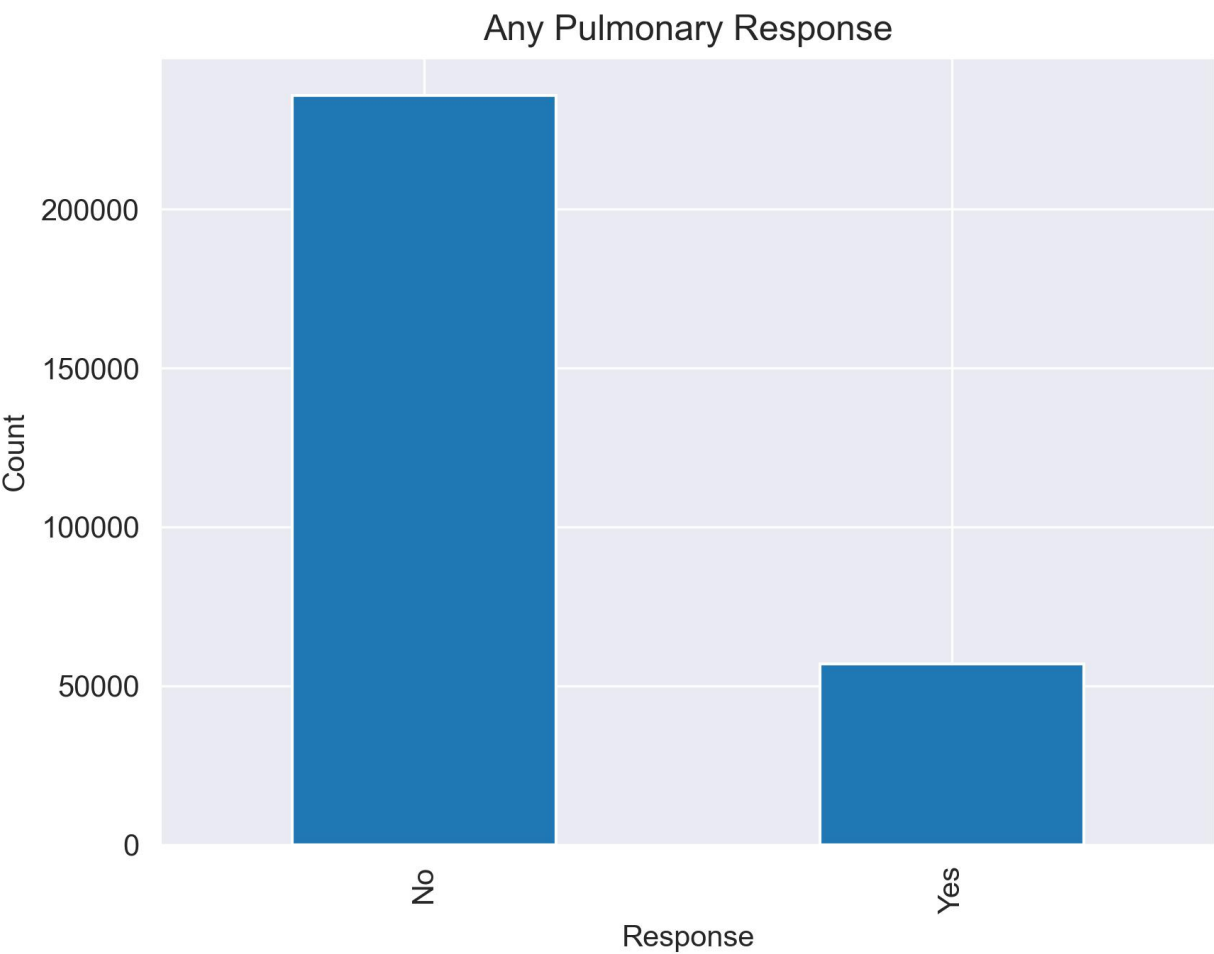
Fig 5: Distribution_of_BLIND

Created: 2025-06-21 00:12:47

Distribution of BLIND
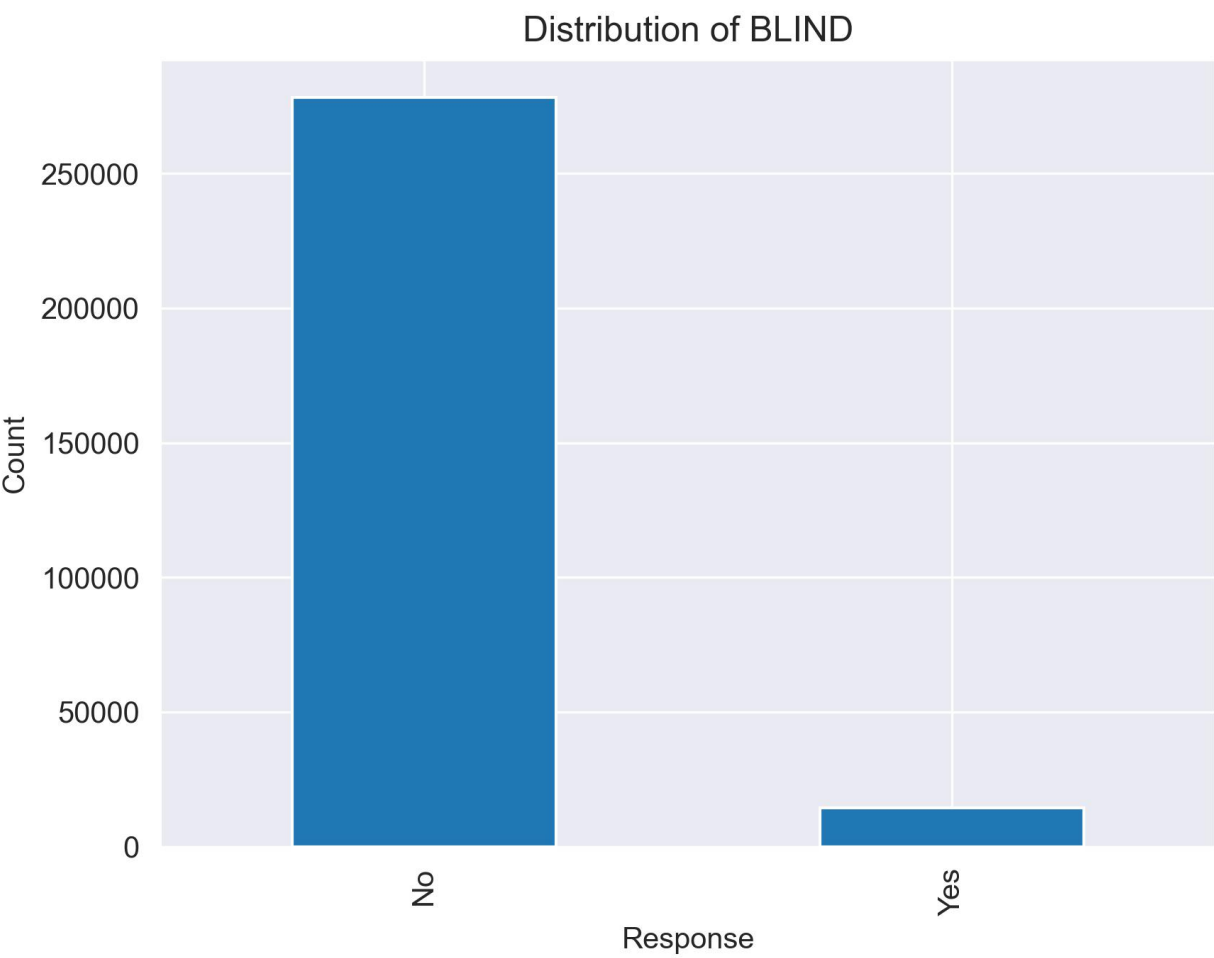
Fig 6: Distribution_of_COVIDPO1

Created: 2025-06-21 00:12:47

Distribution of COVIDPO1
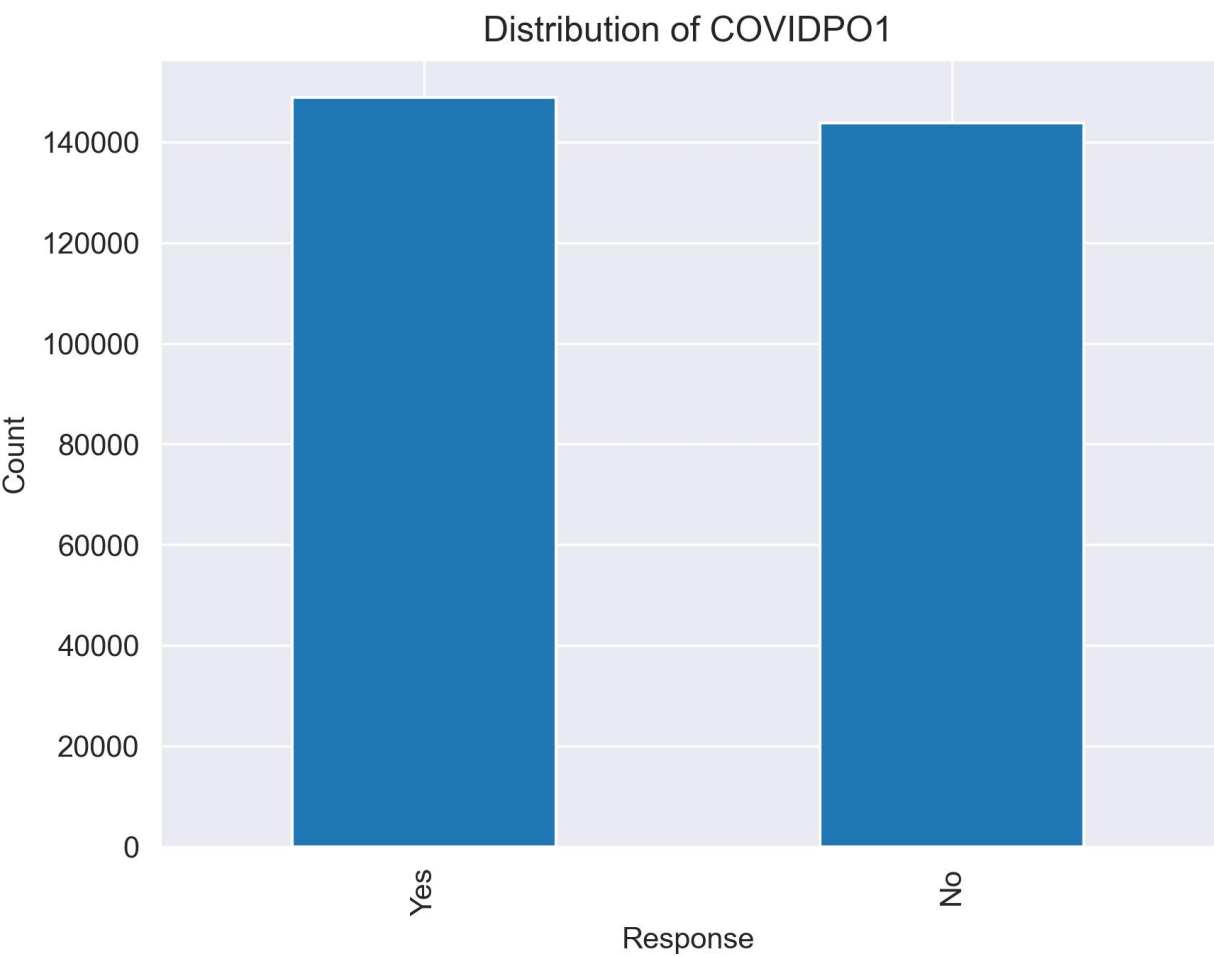
Fig 7: Distribution_of_DEAF

Created: 2025-06-21 00:12:47

Distribution of DEAF
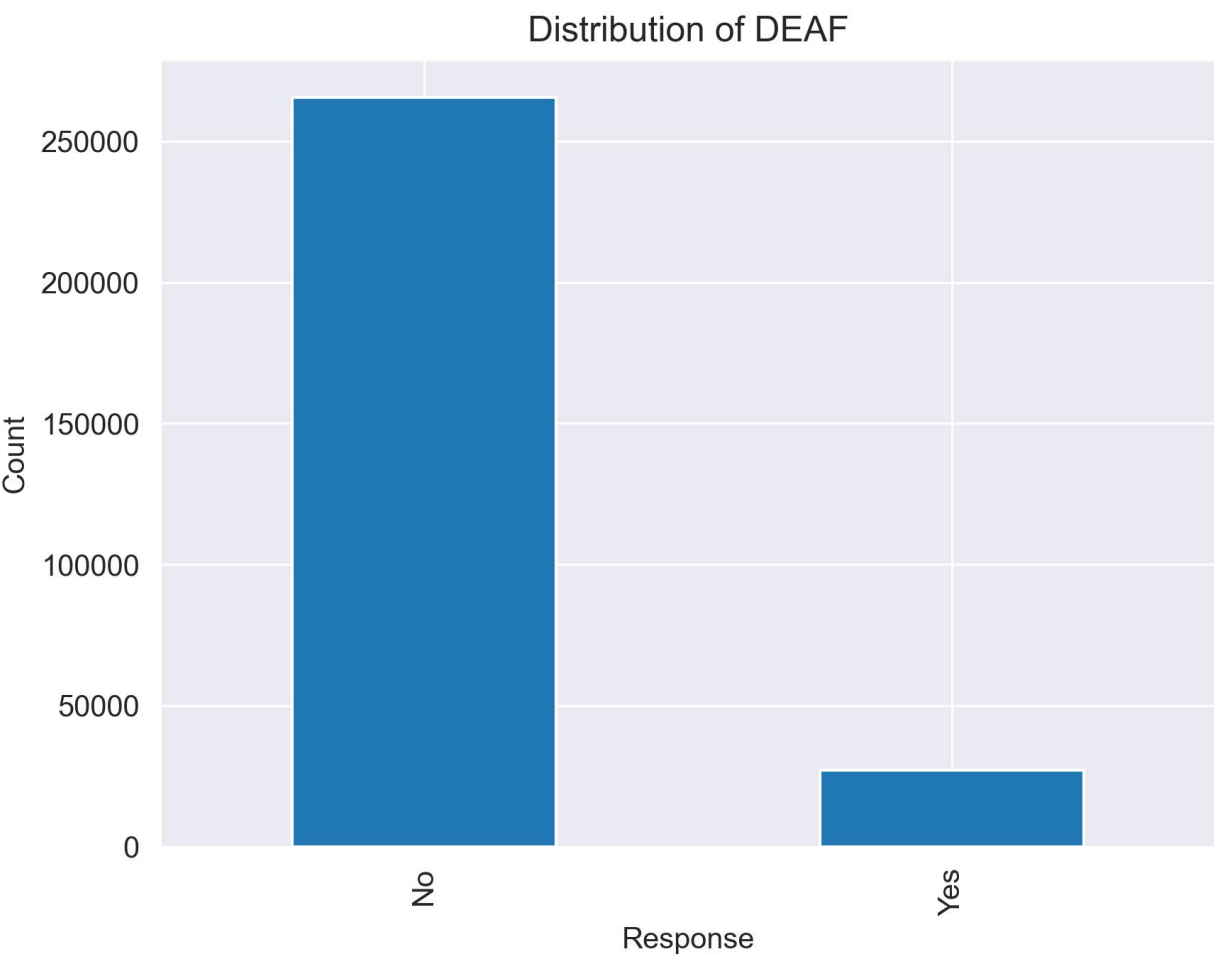
Fig 8: Distribution_of_DECIDE

Created: 2025-06-21 00:12:47

Distribution of DECIDE
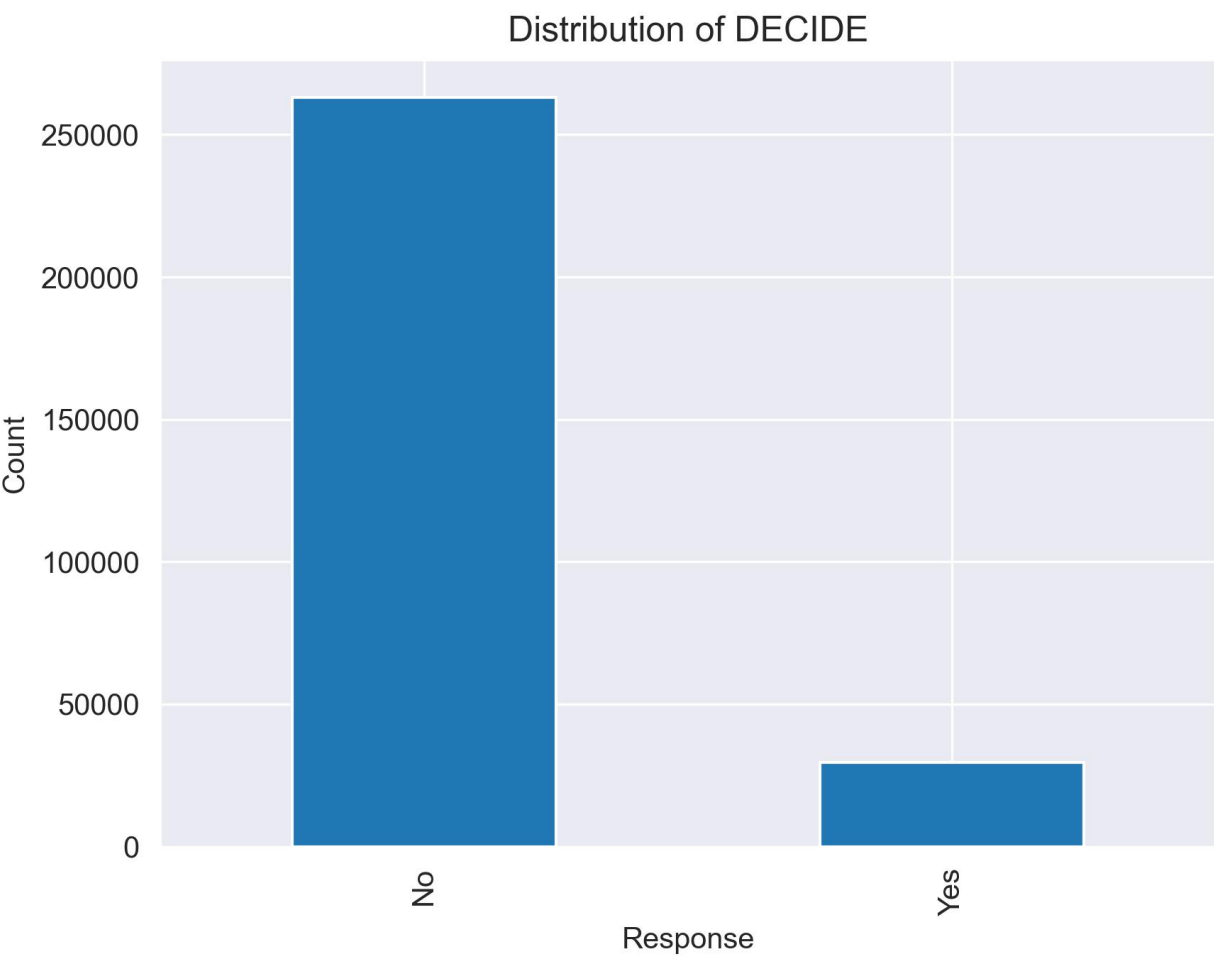
Fig 9: Distribution_of_DIFFALON

Created: 2025-06-21 00:12:47

Distribution of DIFFALON
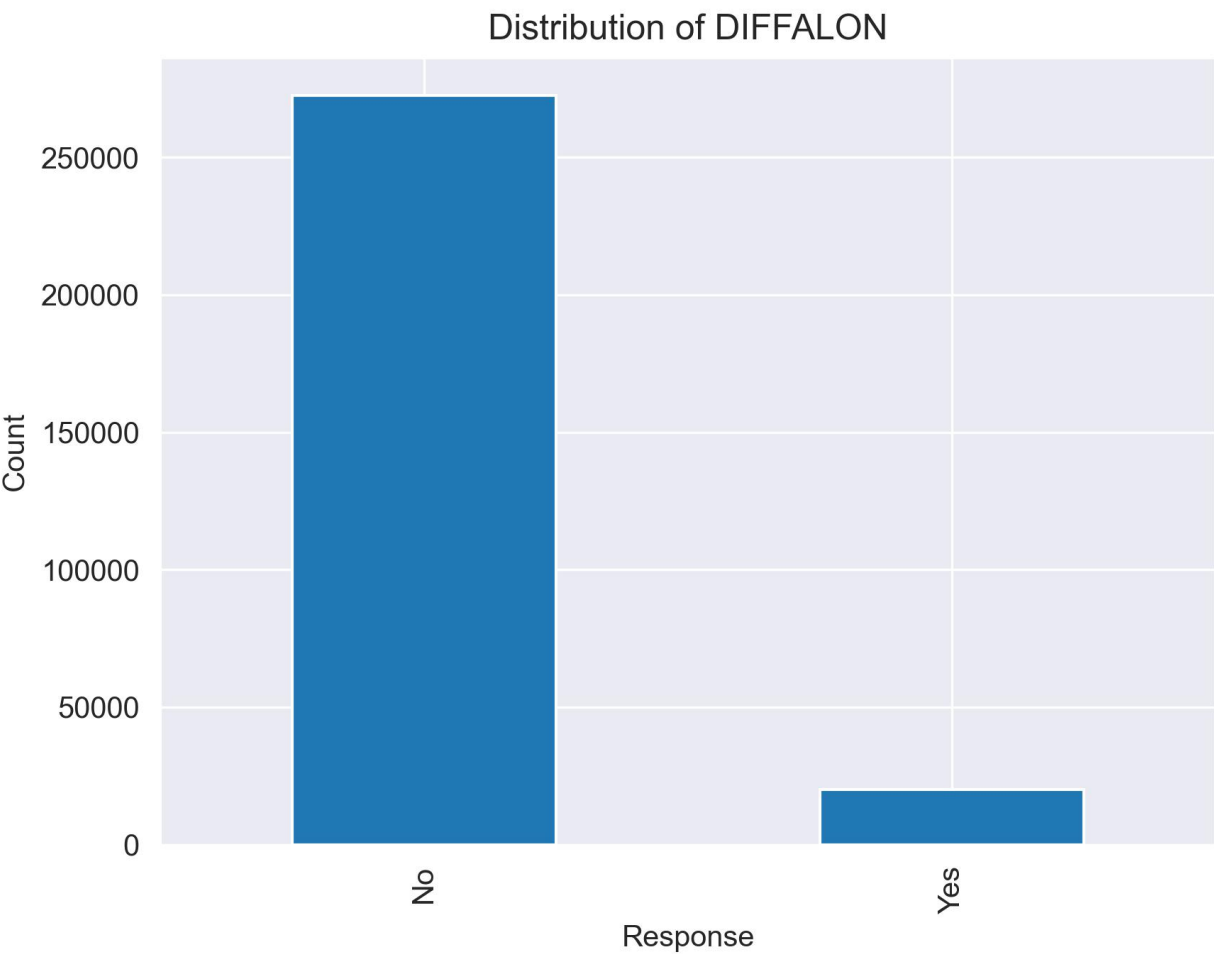
Fig 10: Distribution_of_DIFFDRES

Created: 2025-06-21 00:12:47

Distribution of DIFFDRES
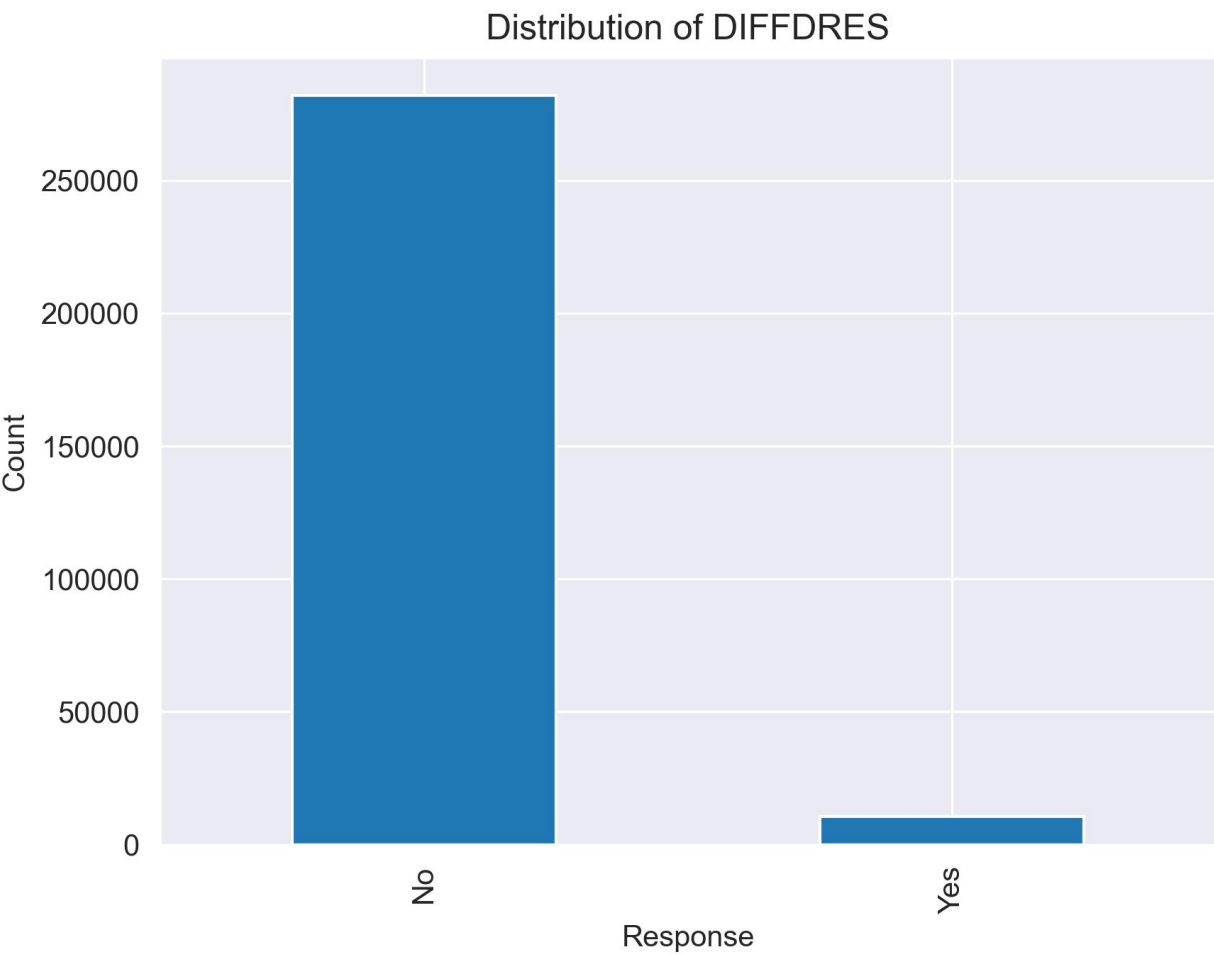
Fig 11: Distribution_of_DIFFWALK

Created: 2025-06-21 00:12:47

Distribution of DIFFWALK
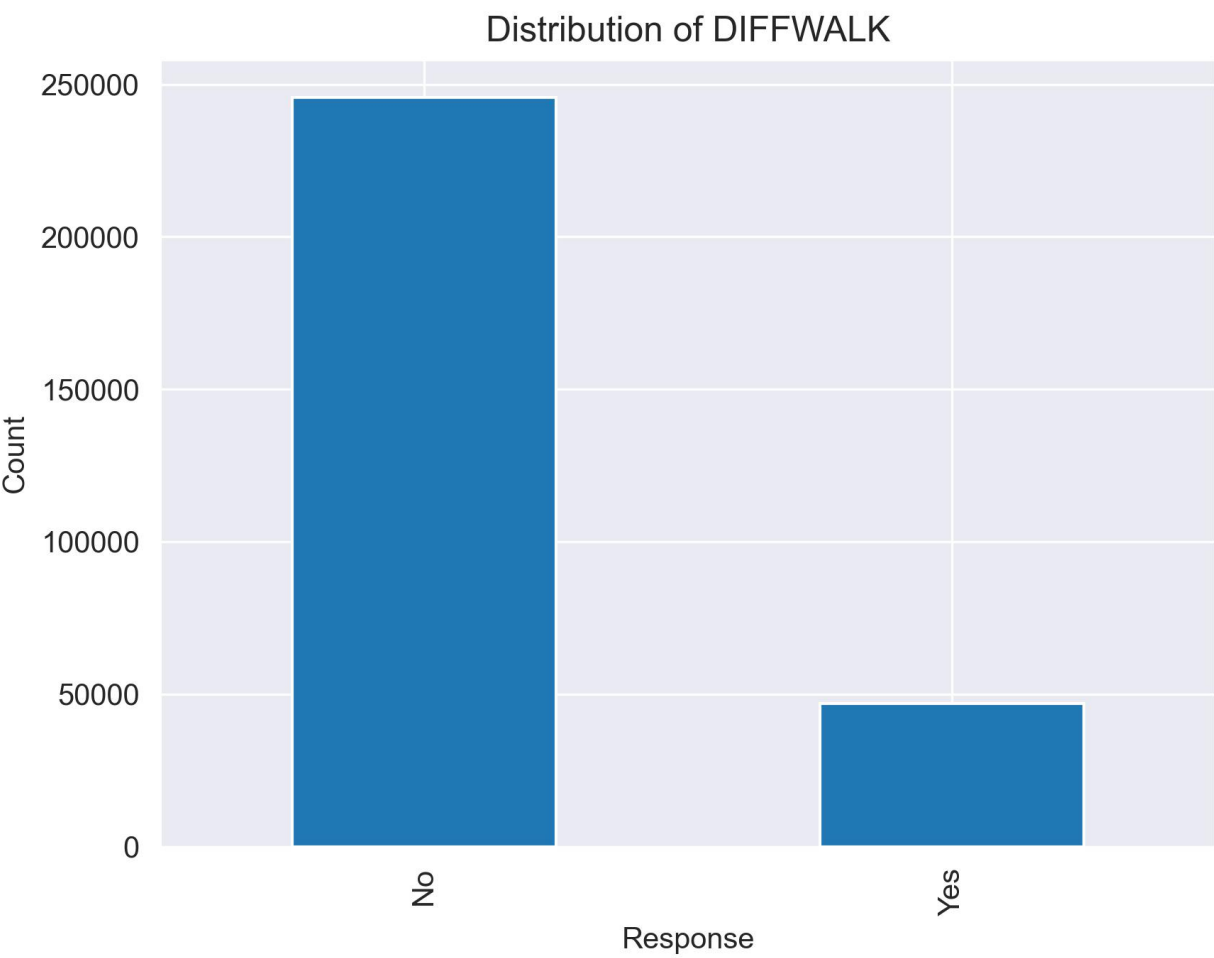
Fig 12: Distribution_of_ECIGNOW2

Created: 2025-06-21 00:12:47

Distribution of ECIGNOW2
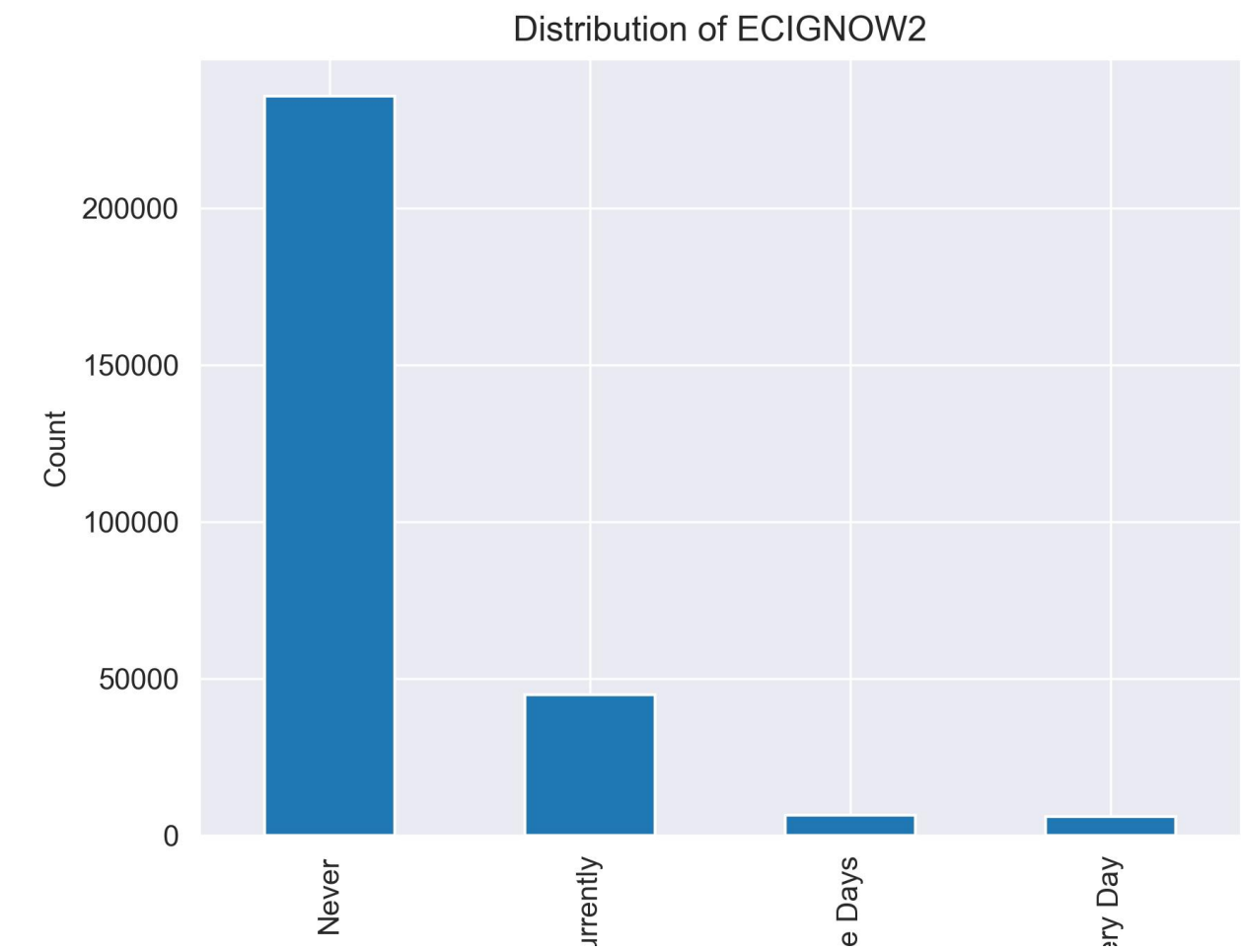
Fig 13: Distribution_of_EDUCA

Created: 2025-06-21 00:12:47

Distribution of EDUCA
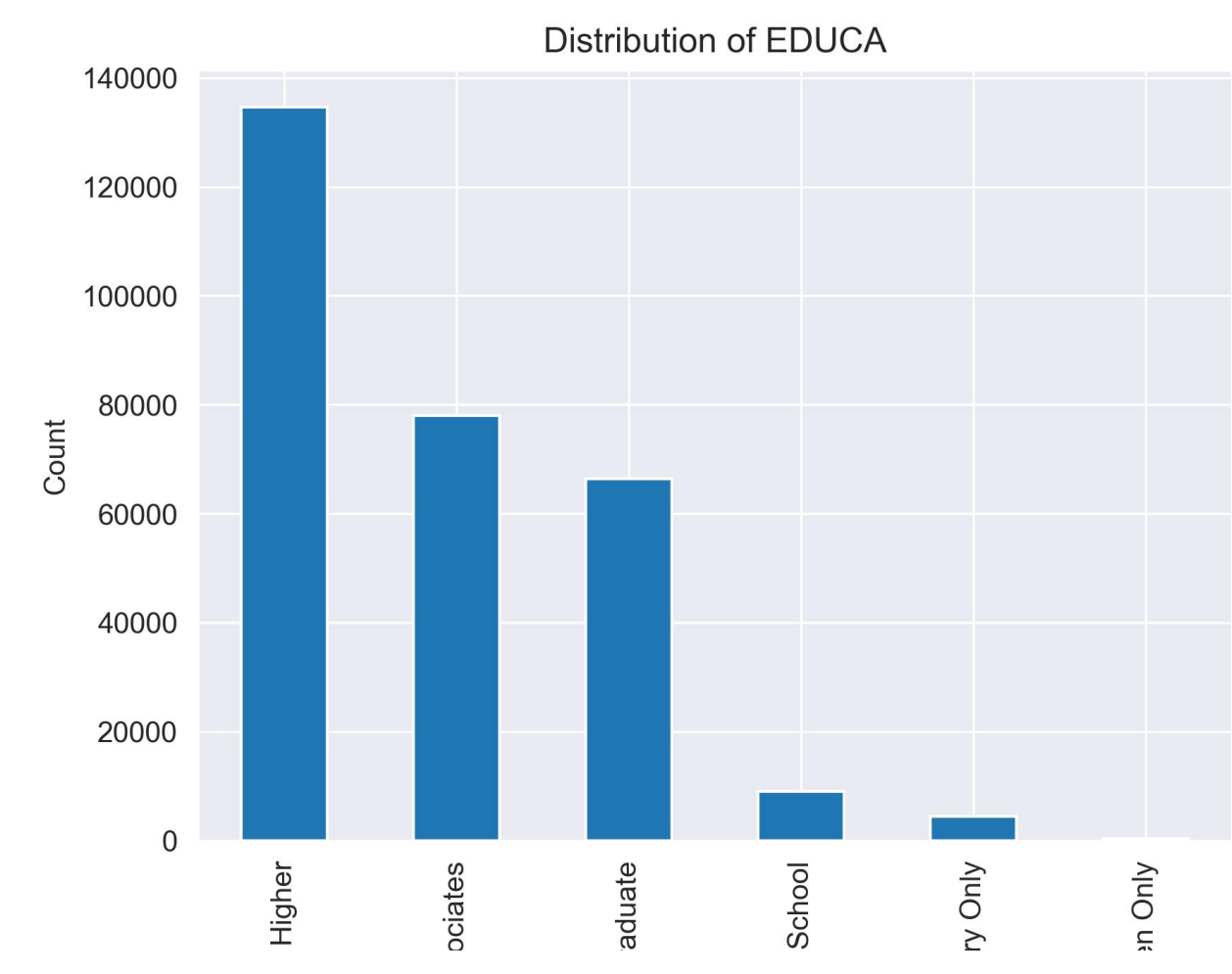
Fig 14: Distribution_of_EXERANY2

Created: 2025-06-21 00:12:47

Distribution of EXERANY2
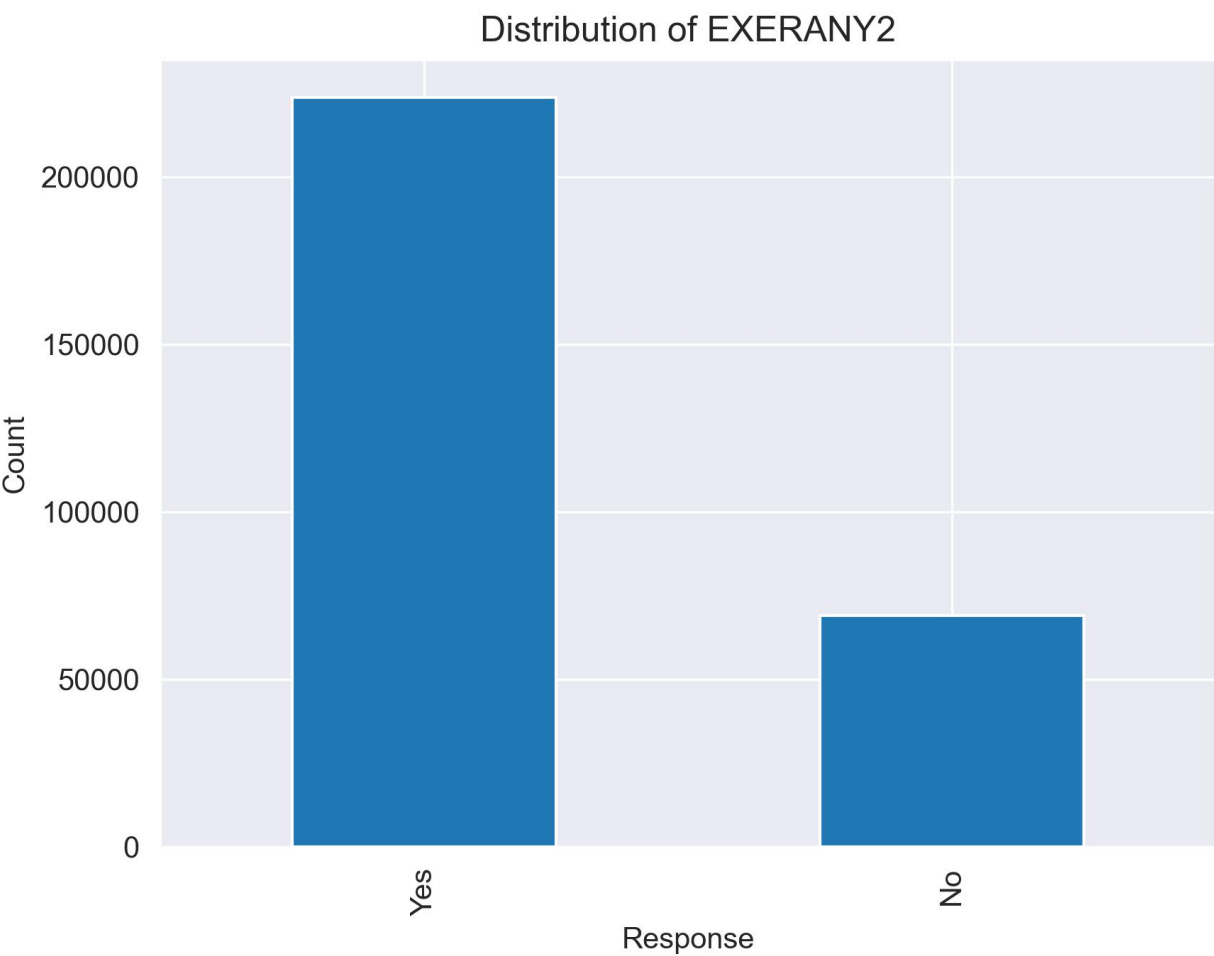
Fig 15: Distribution_of_FLUSHOT7

Created: 2025-06-21 00:12:47

Distribution of FLUSHOT7
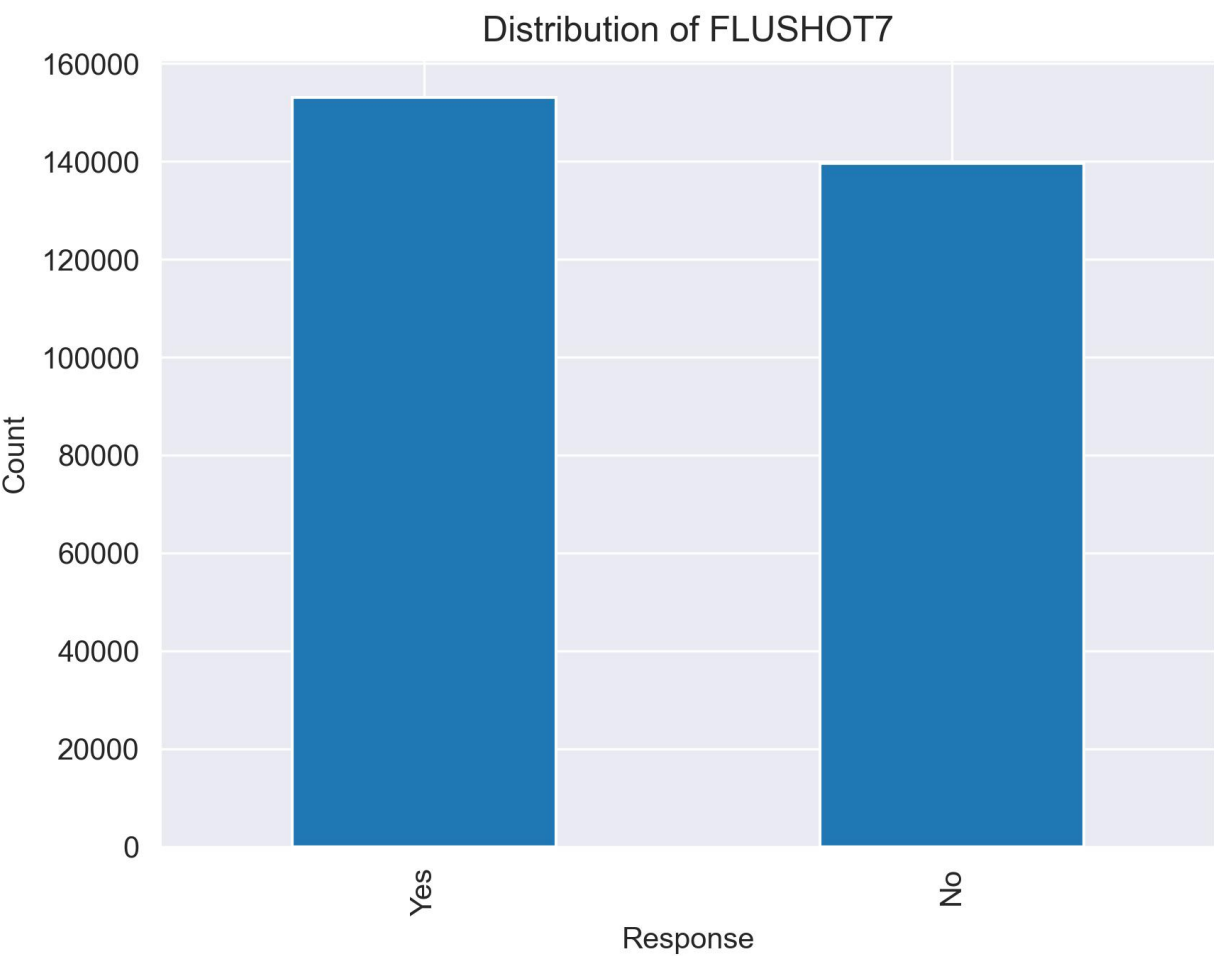
Fig 16: Distribution_of_GENHLTH

Created: 2025-06-21 00:12:47

Distribution of GENHLTH
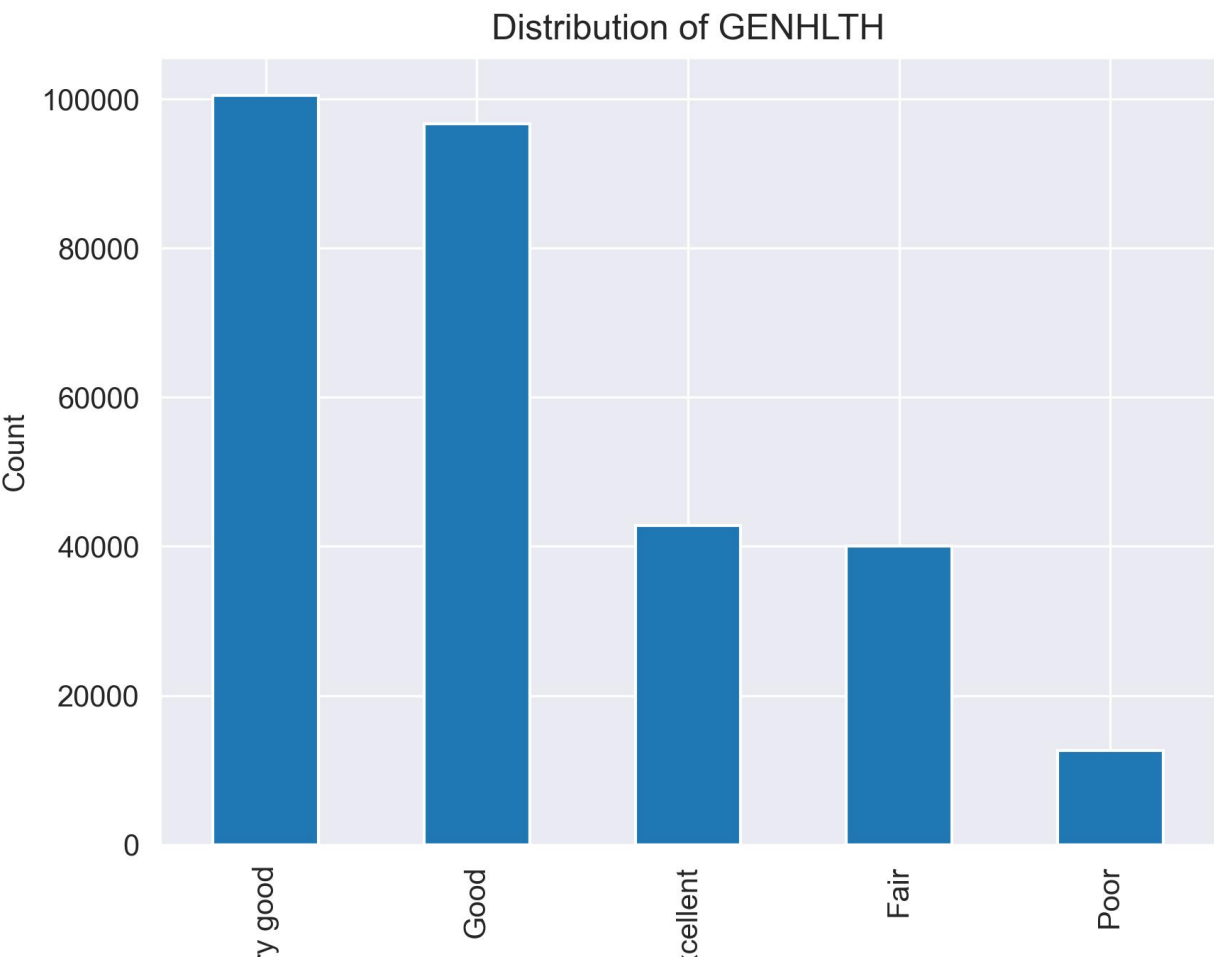
Fig 17: Distribution_of_PNEUVAC4

Created: 2025-06-21 00:12:47

Distribution of PNEUVAC4
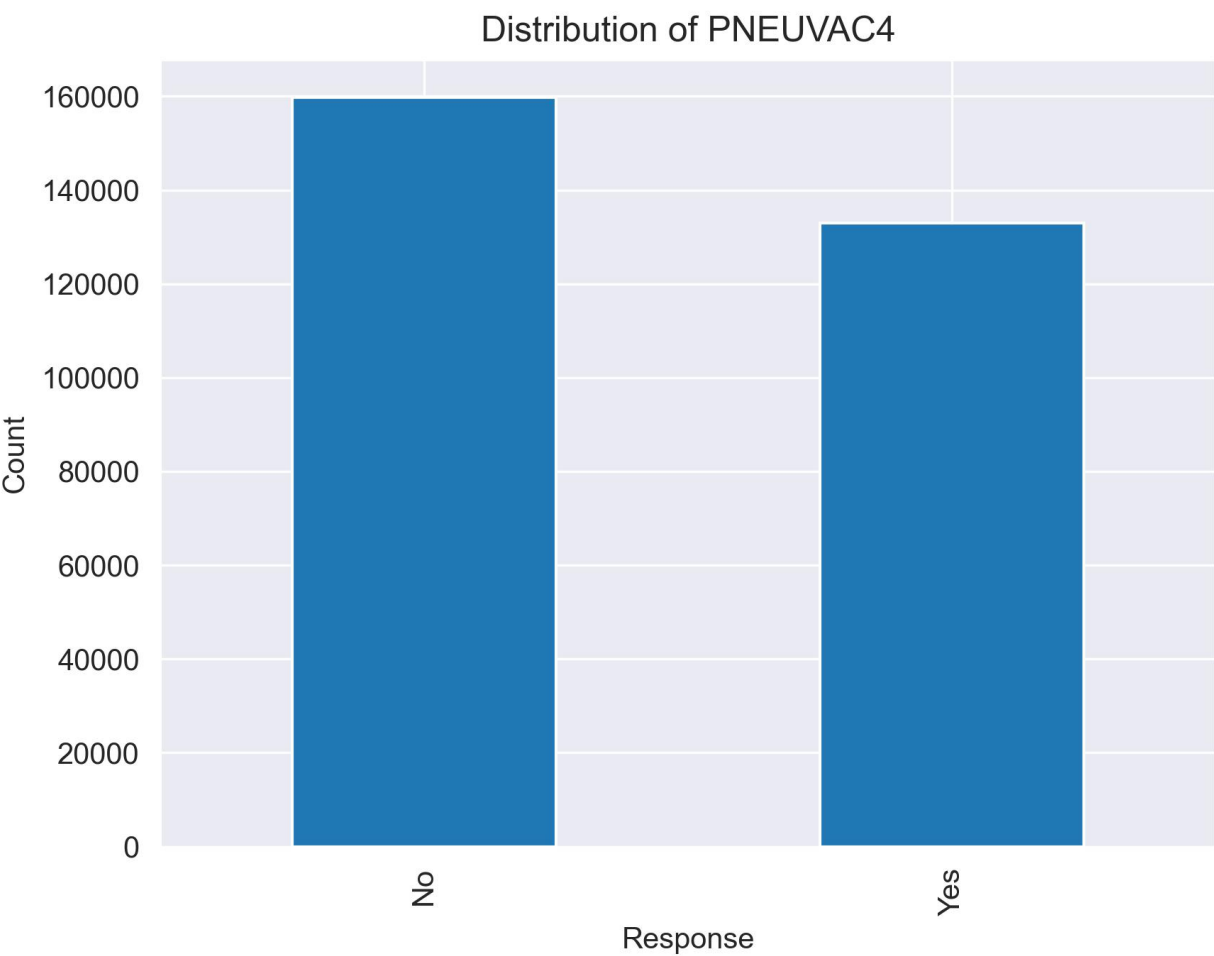
Fig 18: Distribution_of_SEATBELT

Created: 2025-06-21 00:12:47

Distribution of SEATBELT
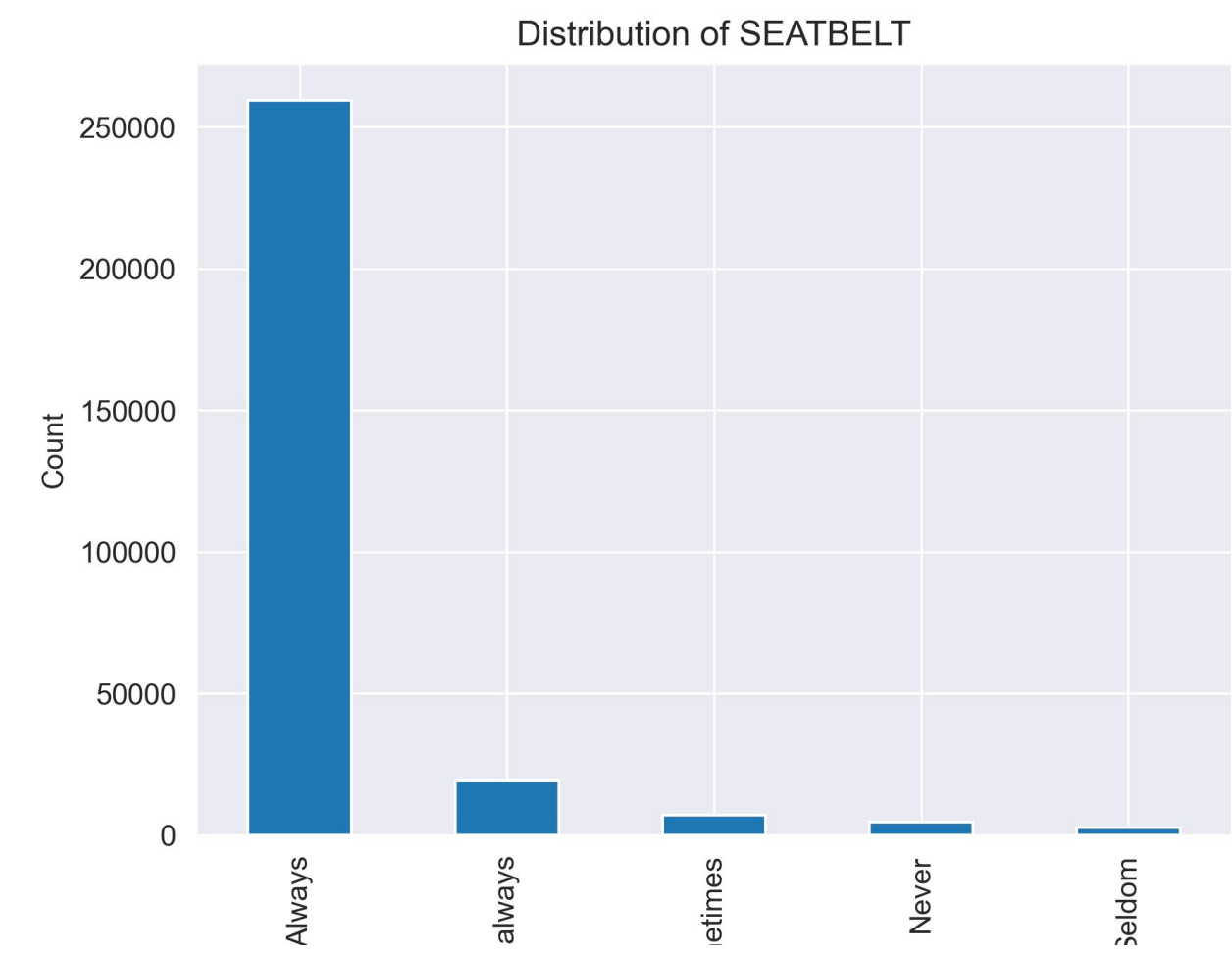
Fig 19: Distribution_of_SMOKE100

Created: 2025-06-21 00:12:47

Distribution of SMOKE100
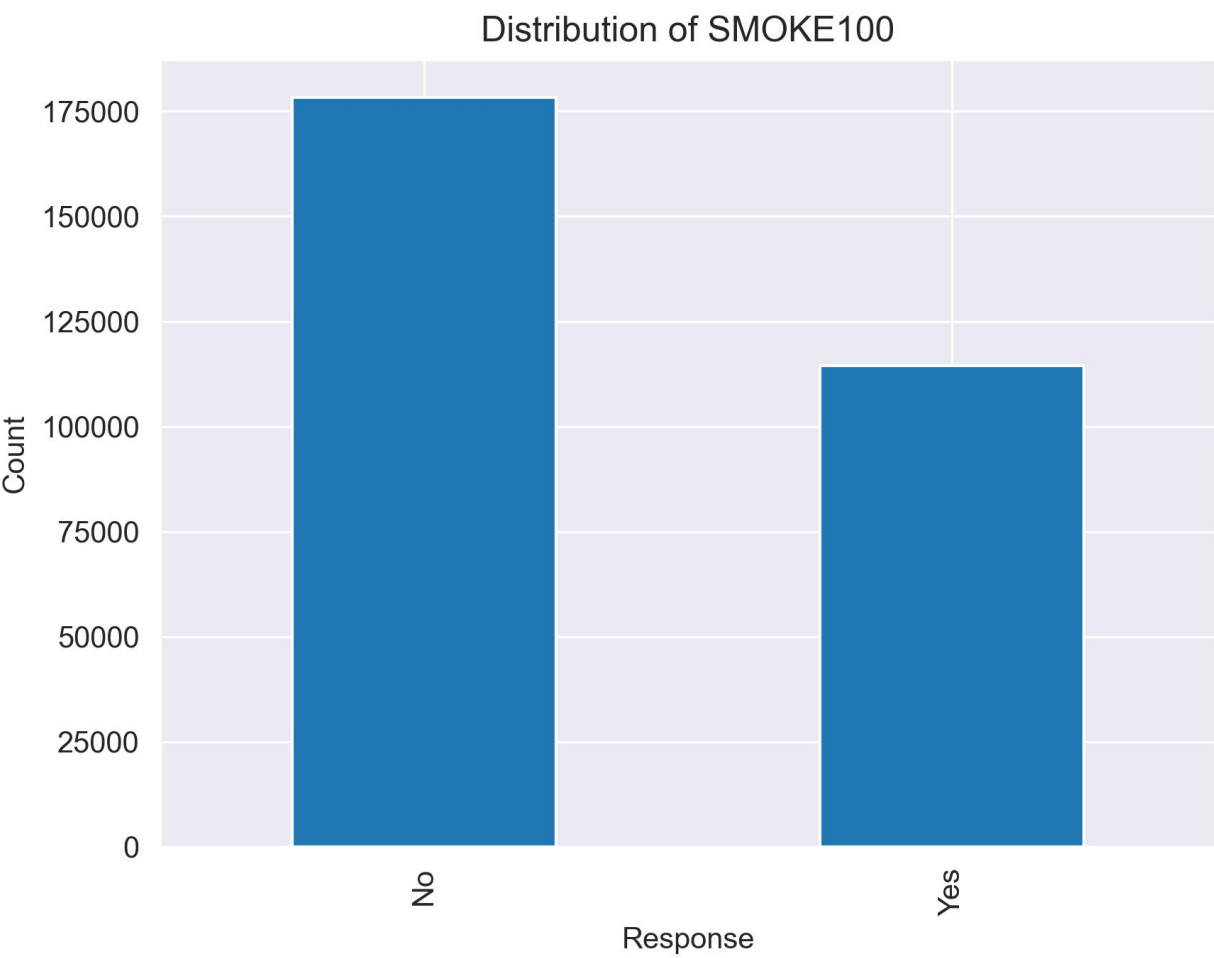
Fig 20: Distribution_of_TOLDHI3

Created: 2025-06-21 00:12:47
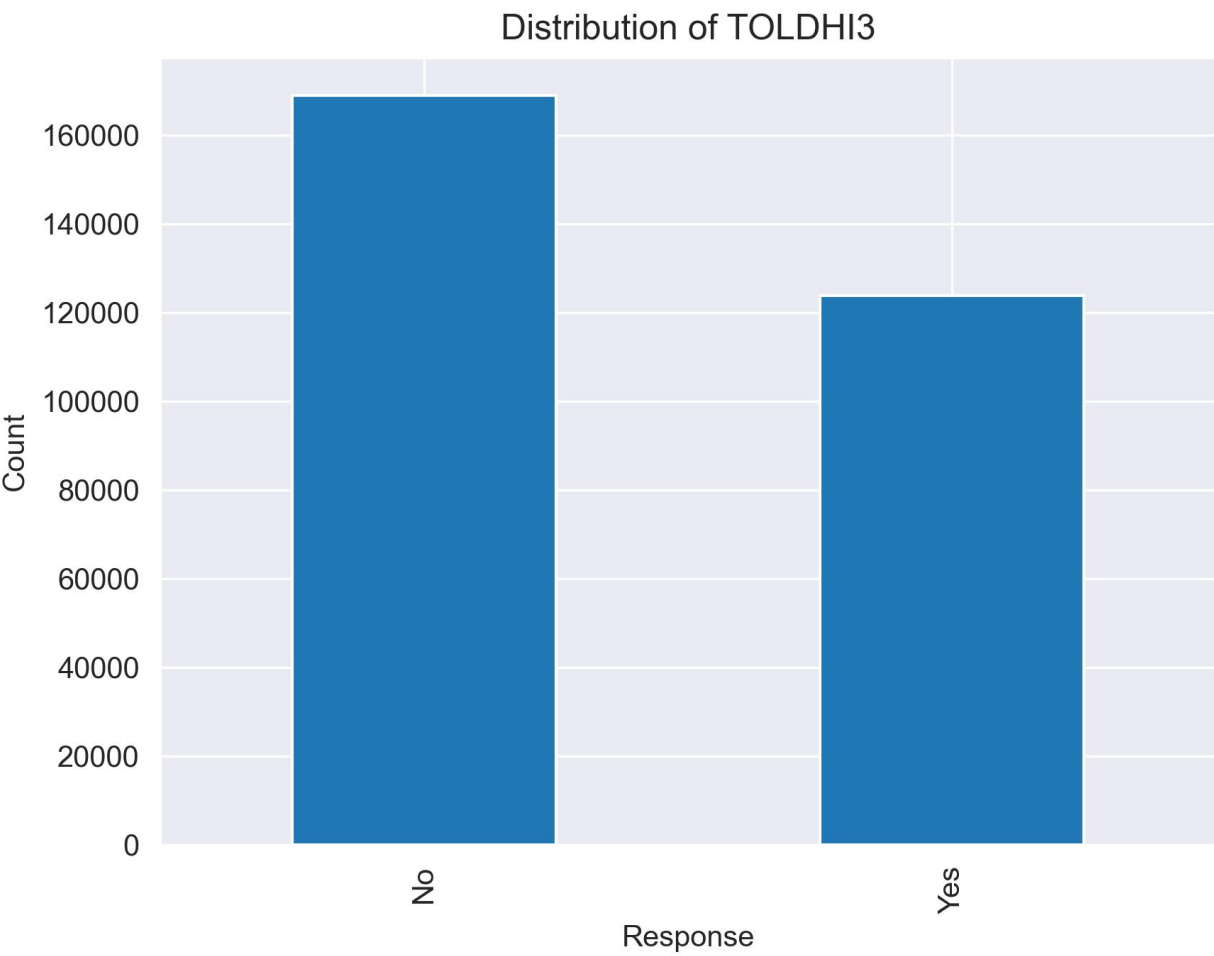
Fig 21: Kmode_elbow

Created: 2025-06-21 00:12:47

Elbow Curve for KModes Clustering
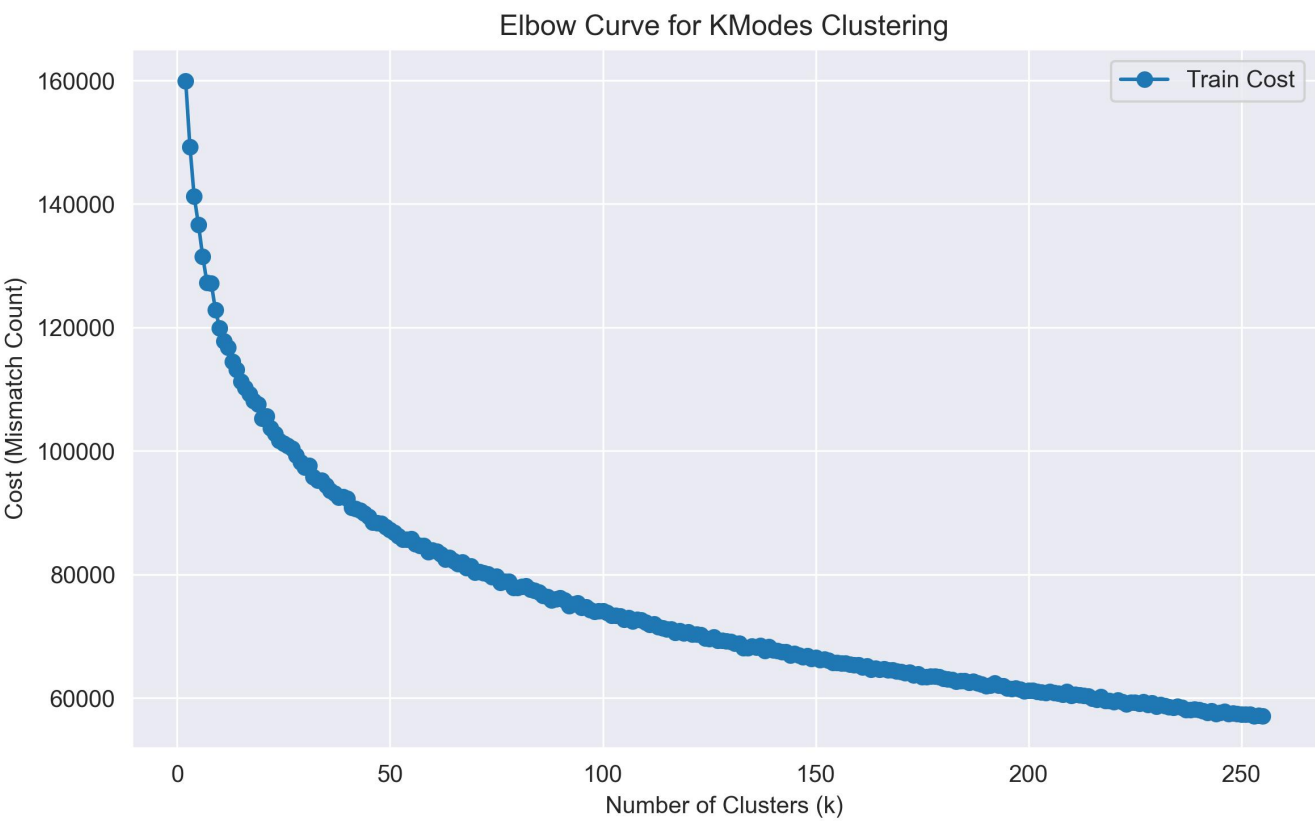
Fig 22: Percentage_of_Yes_Responses_by_Condition

Created: 2025-06-21 00:12:47

Percentage of Yes Responses by Condition
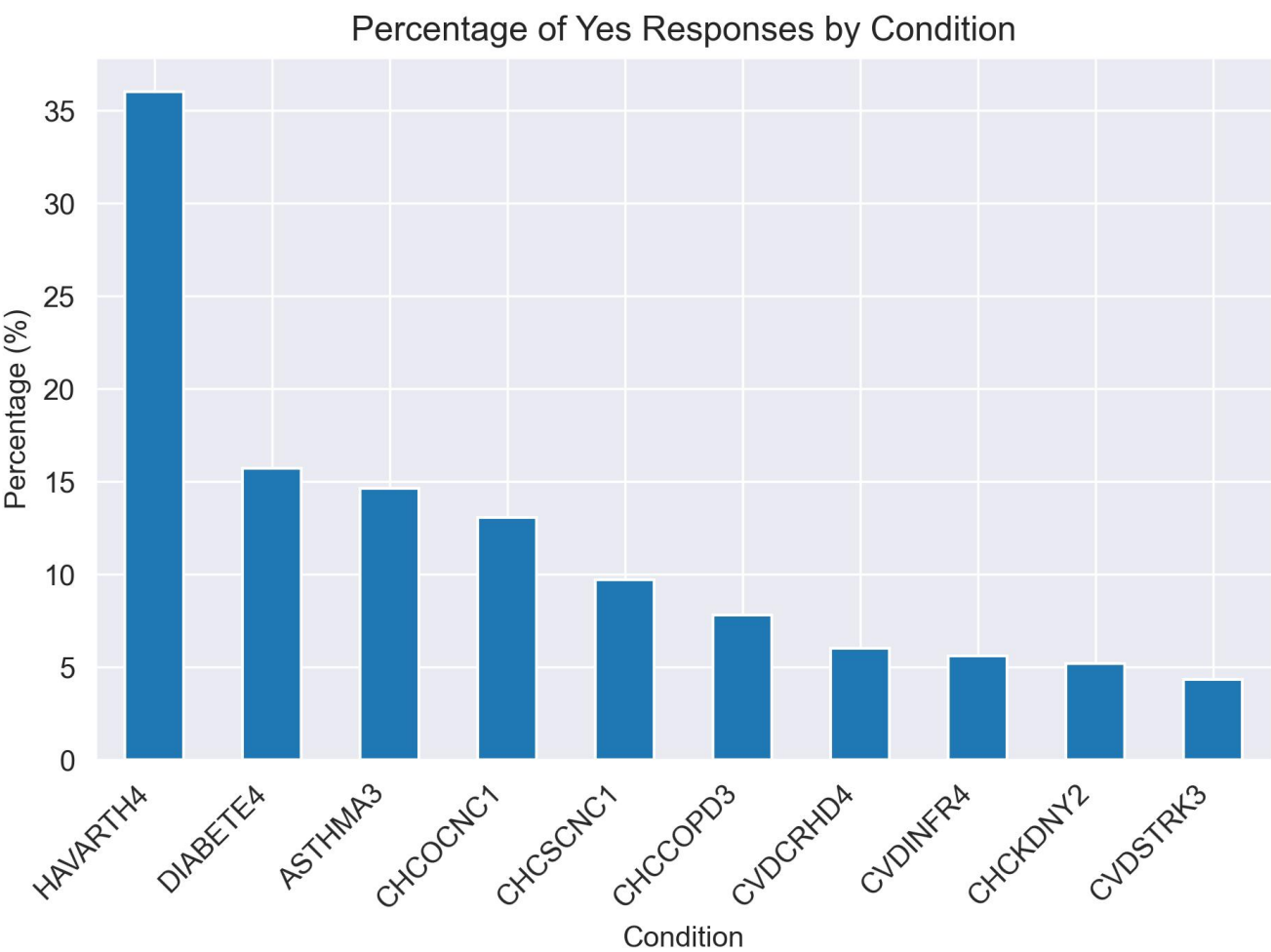
Fig 23: TFLOW_silhouette

Created: 2025-06-21 00:12:47

Average Silhouette Score by Number of Clusters (k)

Fig 24: chronic_condition_heatmap

Created: 2025-06-21 00:12:47

Chronic Condition Rates Among Respondents With Each Reported Risk Factor
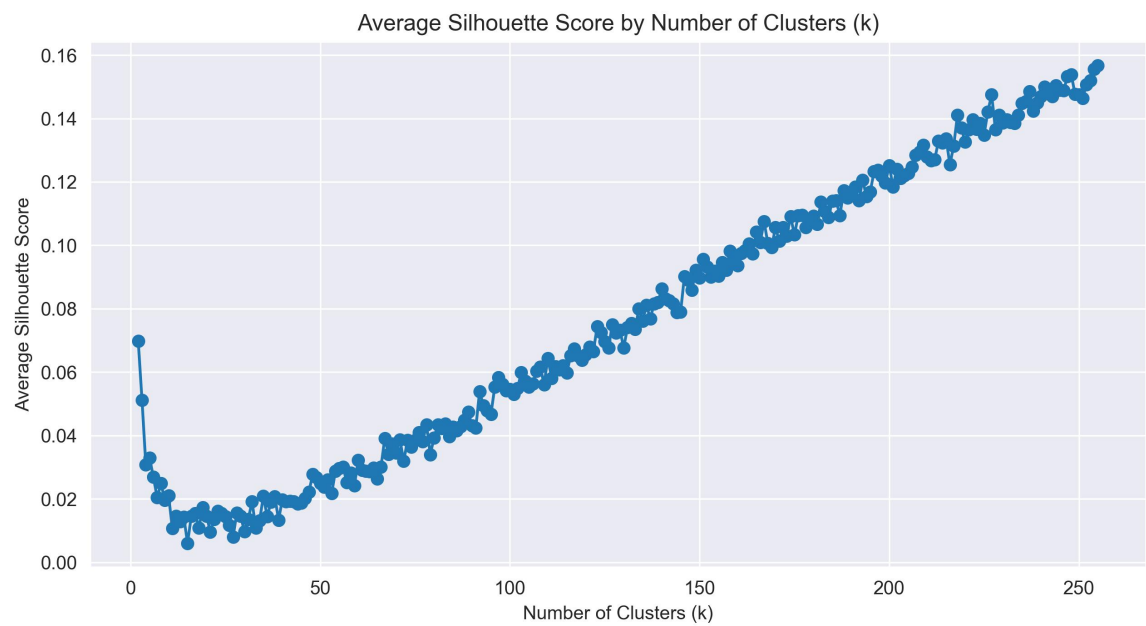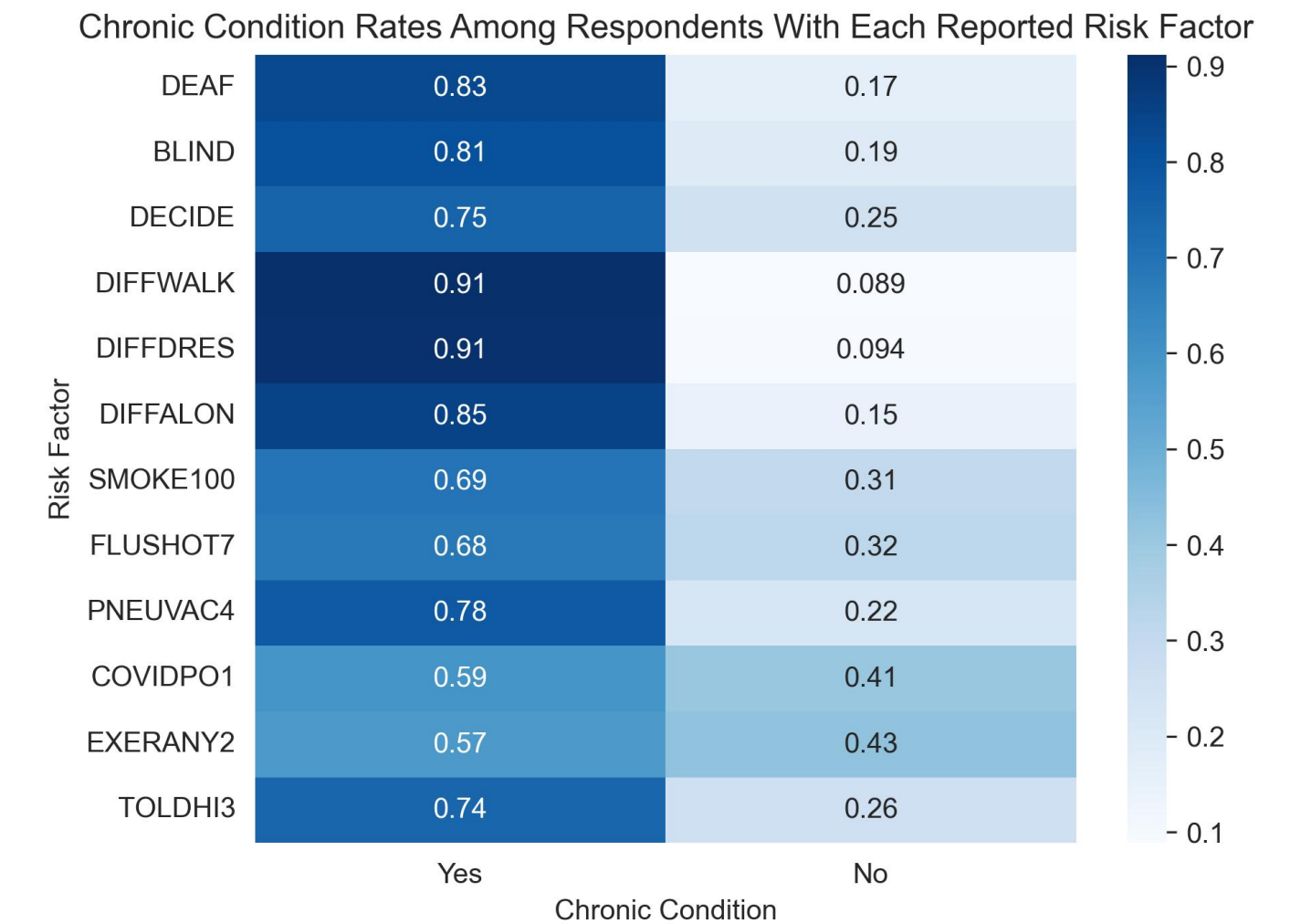
Fig 25: chronic_vs_ecignow2

Created: 2025-06-21 00:12:47

Chronic Condition Distribution by E-Cigarette Use
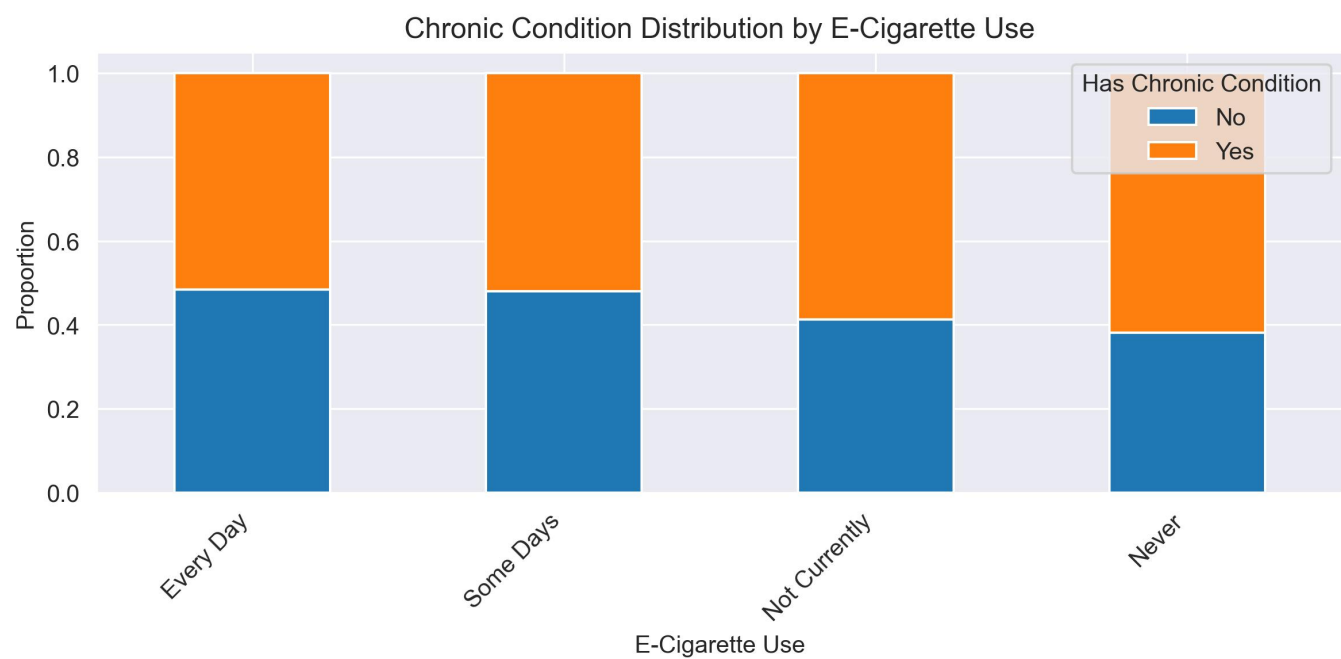
Fig 26: chronic_vs_genhlth

Created: 2025-06-21 00:12:47

Chronic Condition Distribution by General Health
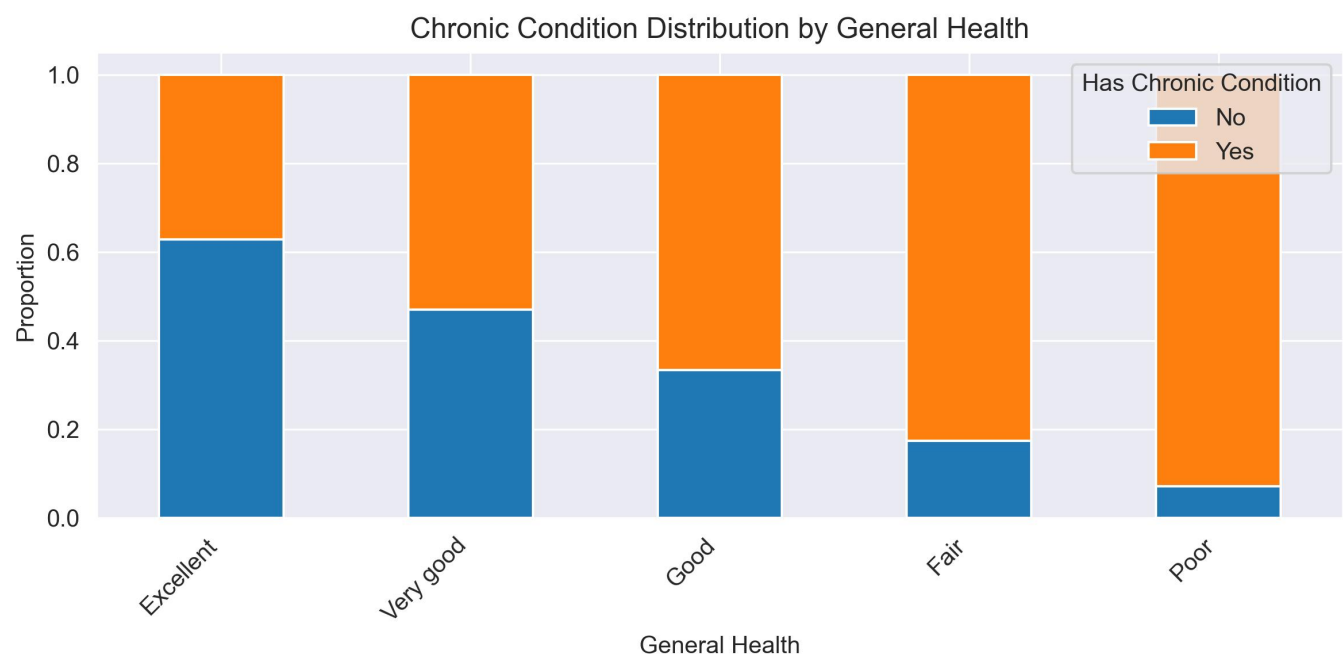
Fig 27: chronic_vs_seatbelt

Created: 2025-06-21 00:12:47

Chronic Condition Distribution by Seatbelt Use Frequency
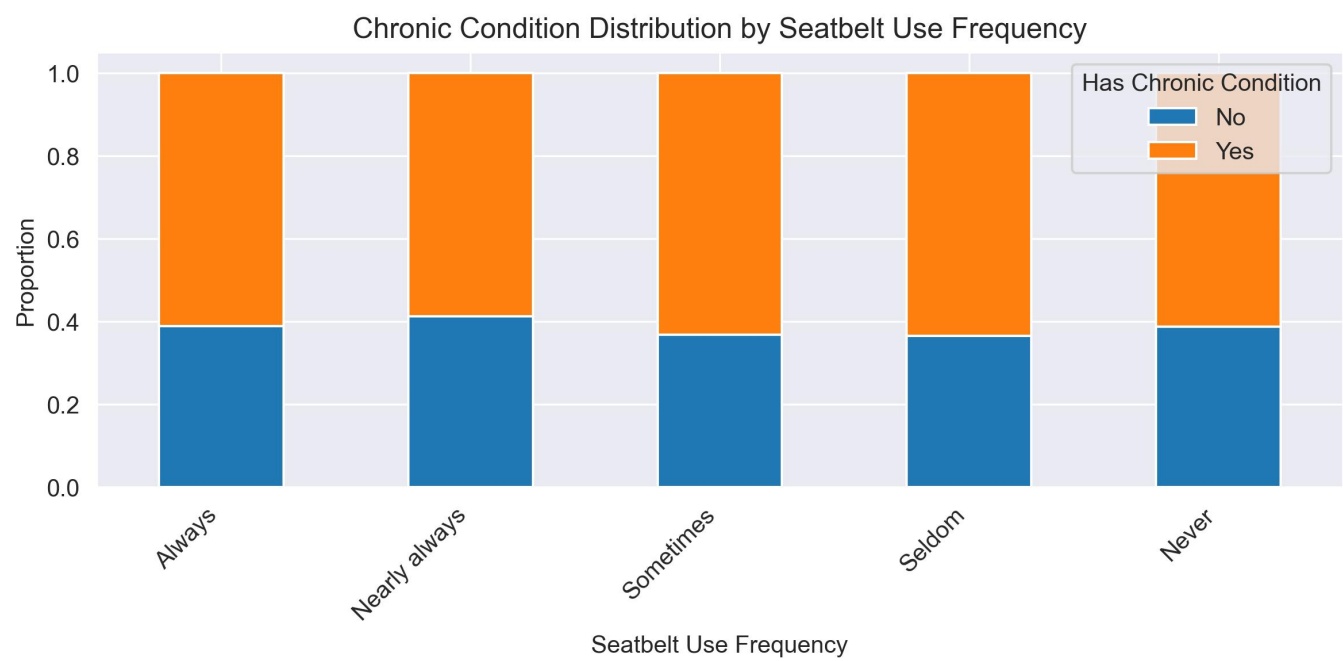
Fig 28: educationvschronic

Created: 2025-06-21 00:12:47

Chronic Condition Distribution by Education Level
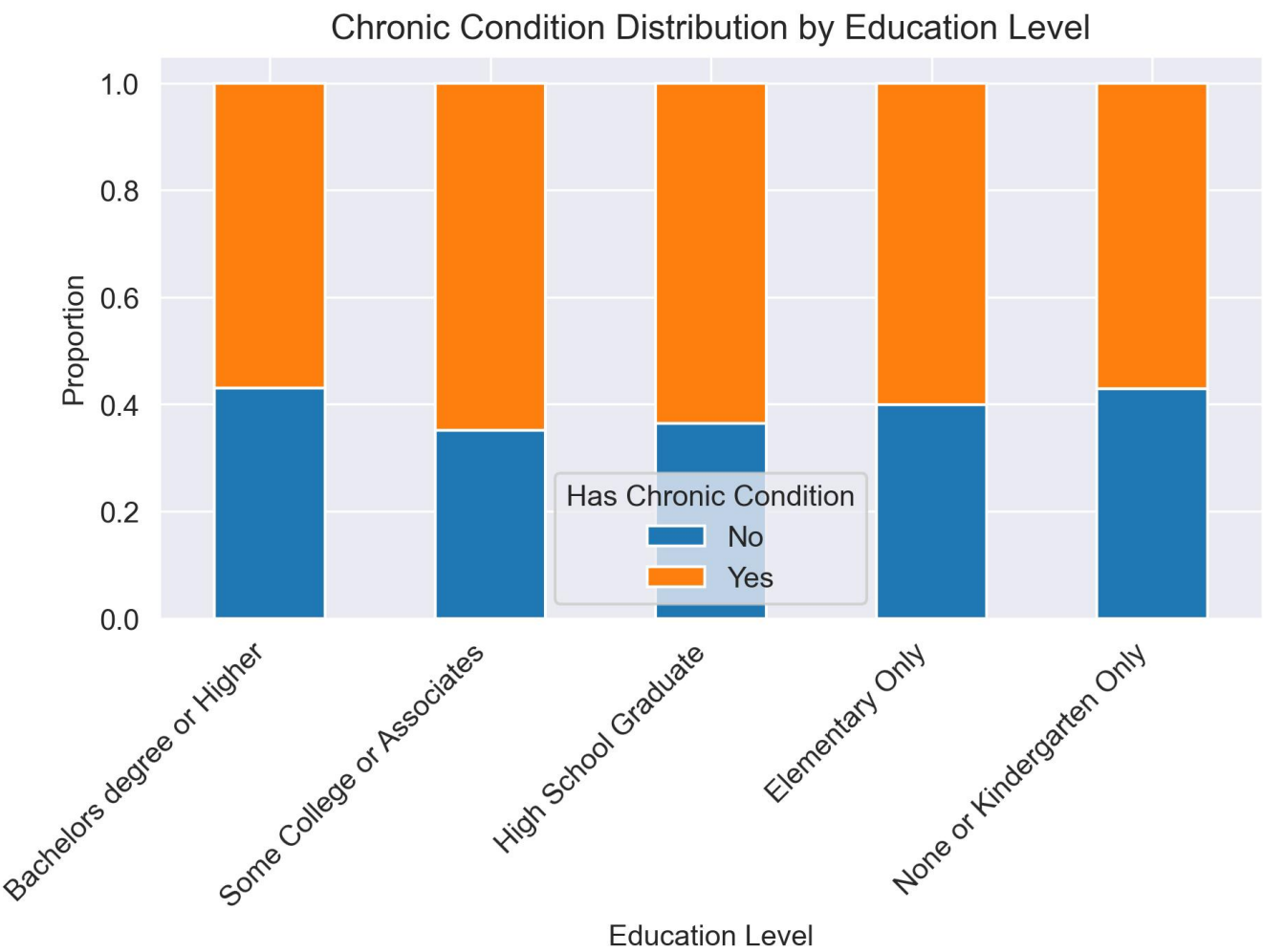
Fig 29: neg_chronic_condition_heatmap

Created: 2025-06-21 00:12:47

Chronic Condition Rates Among Respondents Without Each Reported Risk Factor

Risk Factor	Yes	No
DEAF	0.59	0.41
BLIND	0.6	0.4
DECIDE	0.59	0.41
DIFFWALK	0.55	0.45
DIFFDRES	0.6	0.4
DIFFALON	0.59	0.41
SMOKE100	0.56	0.44
FLUSHOT7	0.53	0.47
PNEUVAC4	0.47	0.53
COVIDPO1	0.63	0.37
EXERANY2	0.72	0.28
TOLDHI3	0.52	0.48
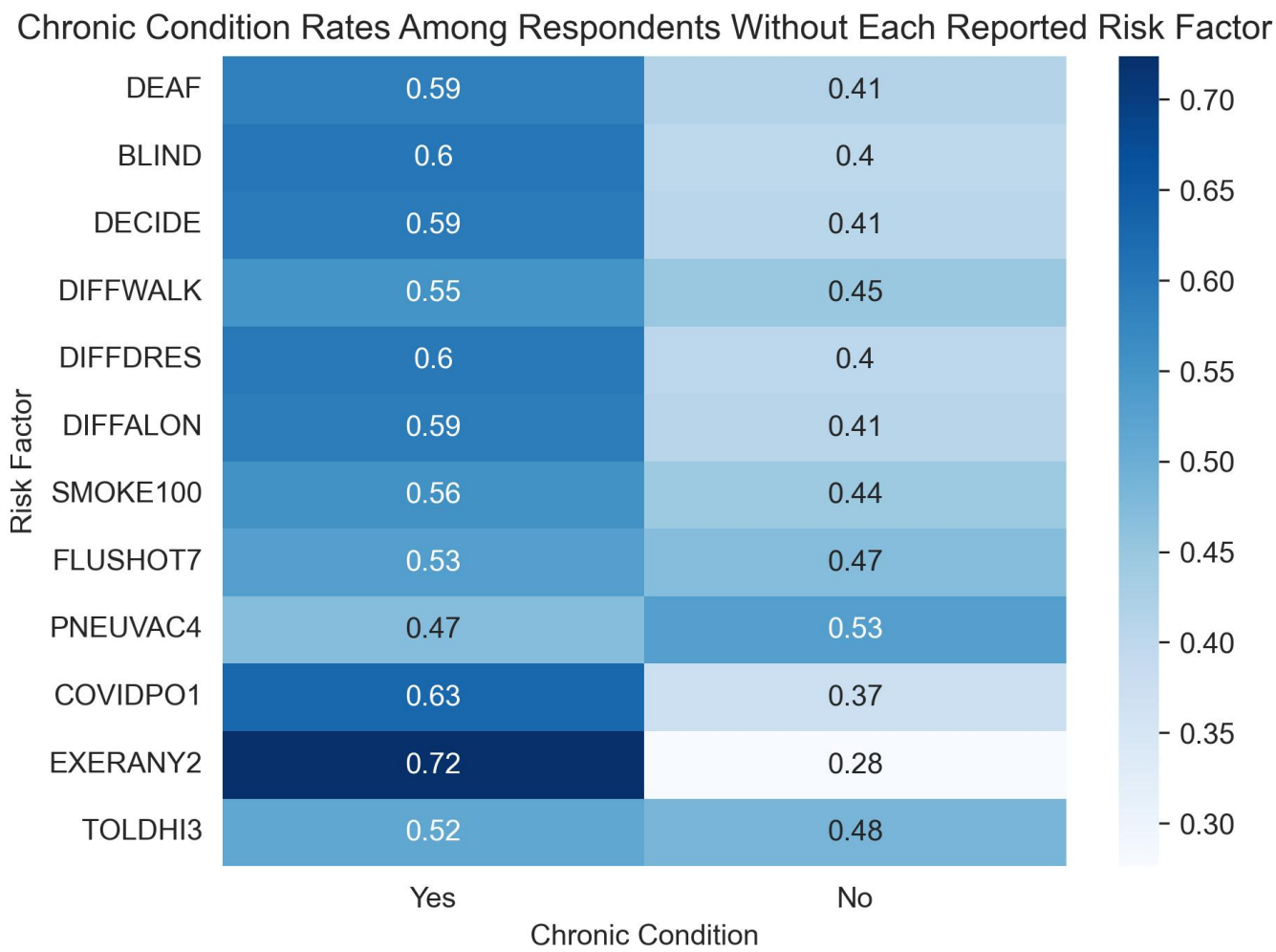
Chronic Condition

Fig 30: Any_Chronic_(alt)_Condition

Created: 2025-06-21 00:19:08

Any Chronic (alt) Condition
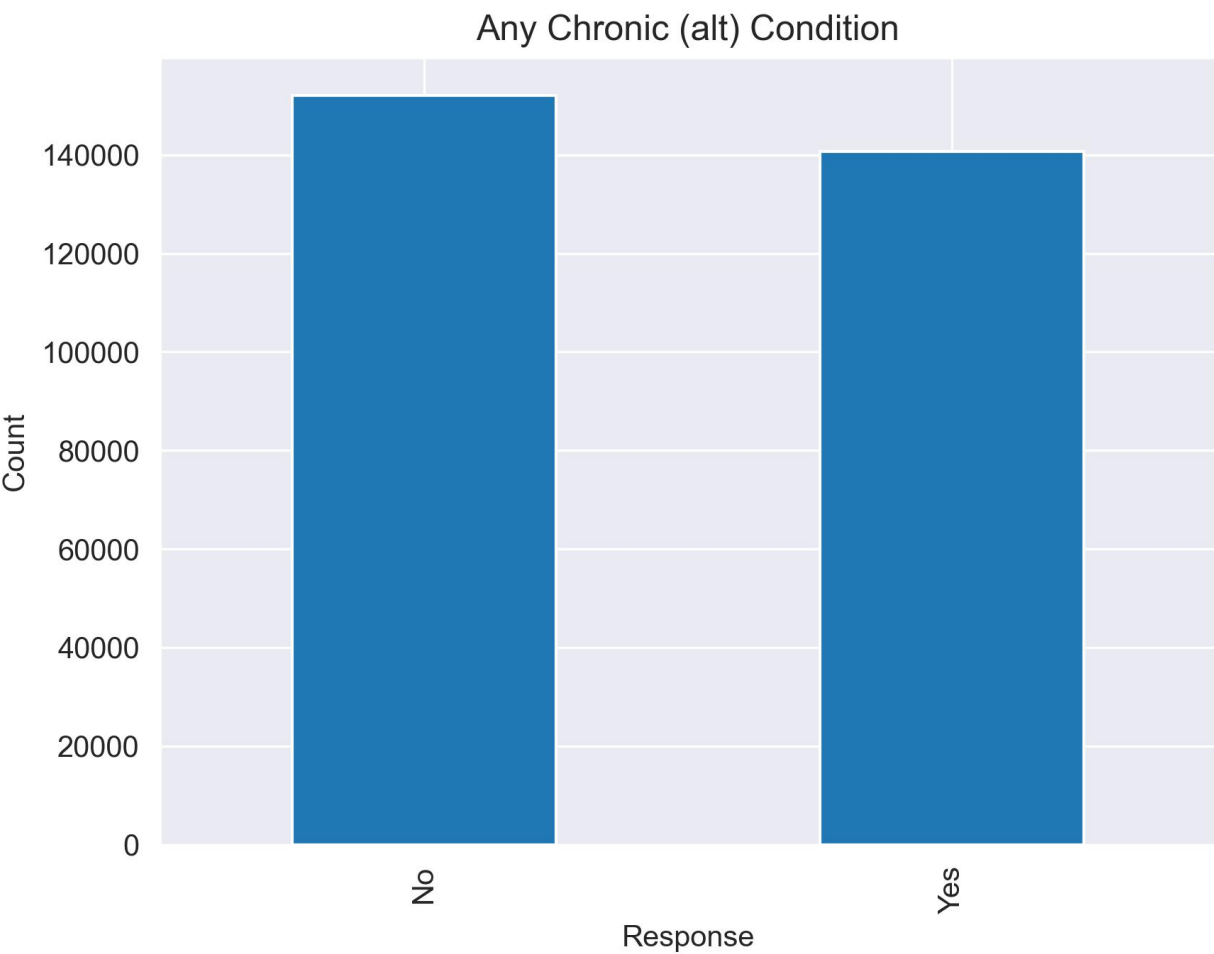
Fig 31: chronic2_condition_heatmap

Created: 2025-06-21 00:19:15

Chronic2 Condition Rates Among Respondents With Each Reported Risk Factor
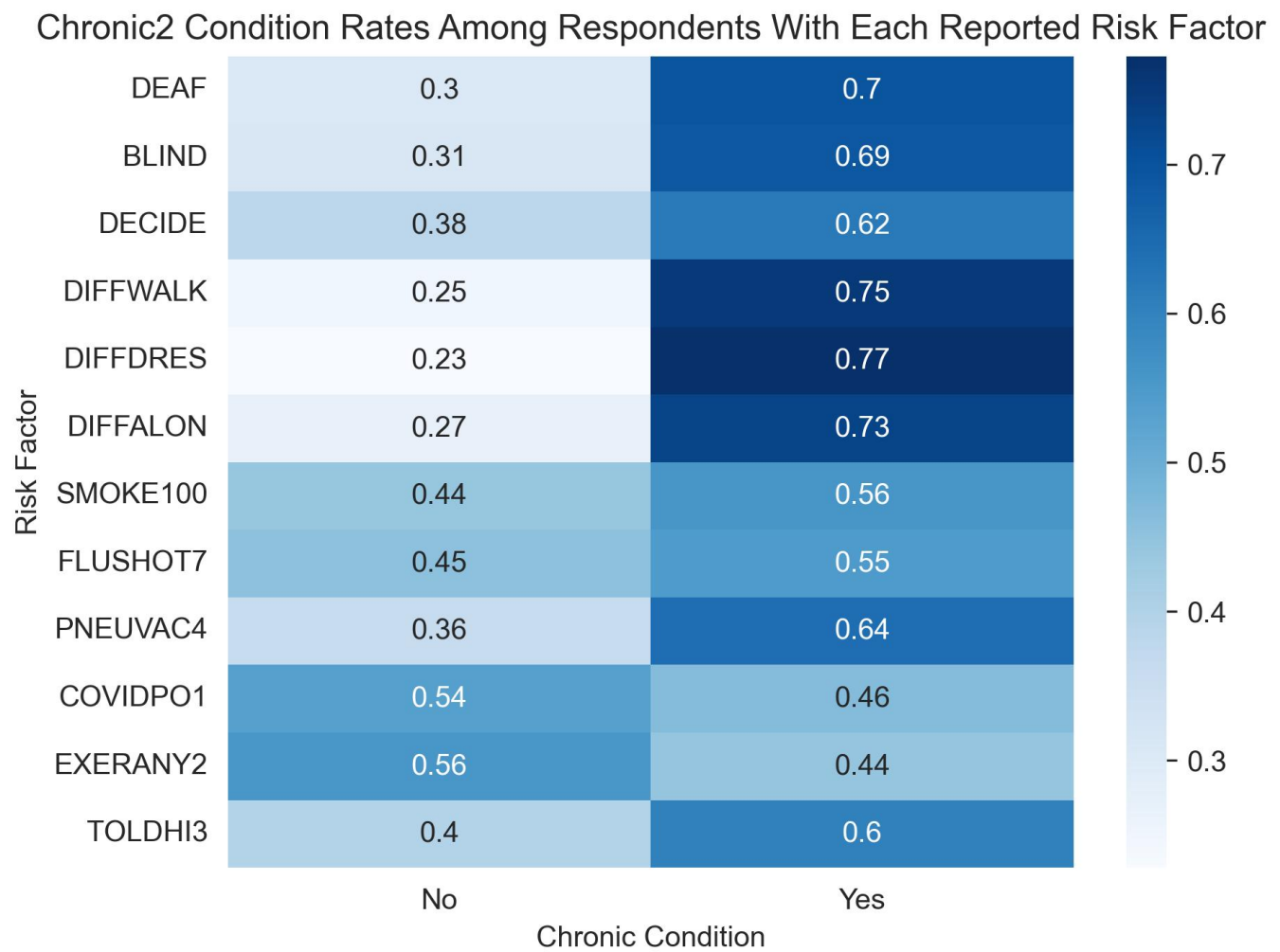
Fig 32: screeplot_mca

Created: 2025-06-21 02:34:16

Scree Plot (Explained Inertia per Component)

Fig 33: all_chronic_baseline_table

Created: 2025-06-21 02:45:44

Individual feature baseline results for ALL_CHRONIC

	accuracy	precision	recall	f1_score
EDUCA	0.54	0.643	0.555	0.596
DEAF	0.45	0.83	0.126	0.219
BLIND	0.419	0.805	0.065	0.121
DECIDE	0.438	0.745	0.123	0.211
DIFFWALK	0.521	0.913	0.24	0.38
DIFFDRES	0.419	0.905	0.055	0.103
DIFFALON	0.438	0.859	0.096	0.173
SMOKE100	0.54	0.692	0.445	0.542
ECIGNOW2	0.583	0.621	0.816	0.705
FLUSHOT7	0.579	0.682	0.583	0.628
PNEUVAC4	0.641	0.777	0.578	0.663
SEATBELT	0.6	0.613	0.938	0.742
COVIDPO1	0.517	0.63	0.507	0.562
GENHLTH	0.625	0.731	0.611	0.666
EXERANY2	0.496	0.727	0.28	0.405
TOLDHI3	0.592	0.74	0.512	0.606

Fig 34: all_cardiac_baseline_table

Created: 2025-06-21 02:45:45

Individual feature baseline results for ALL_CARDIAC

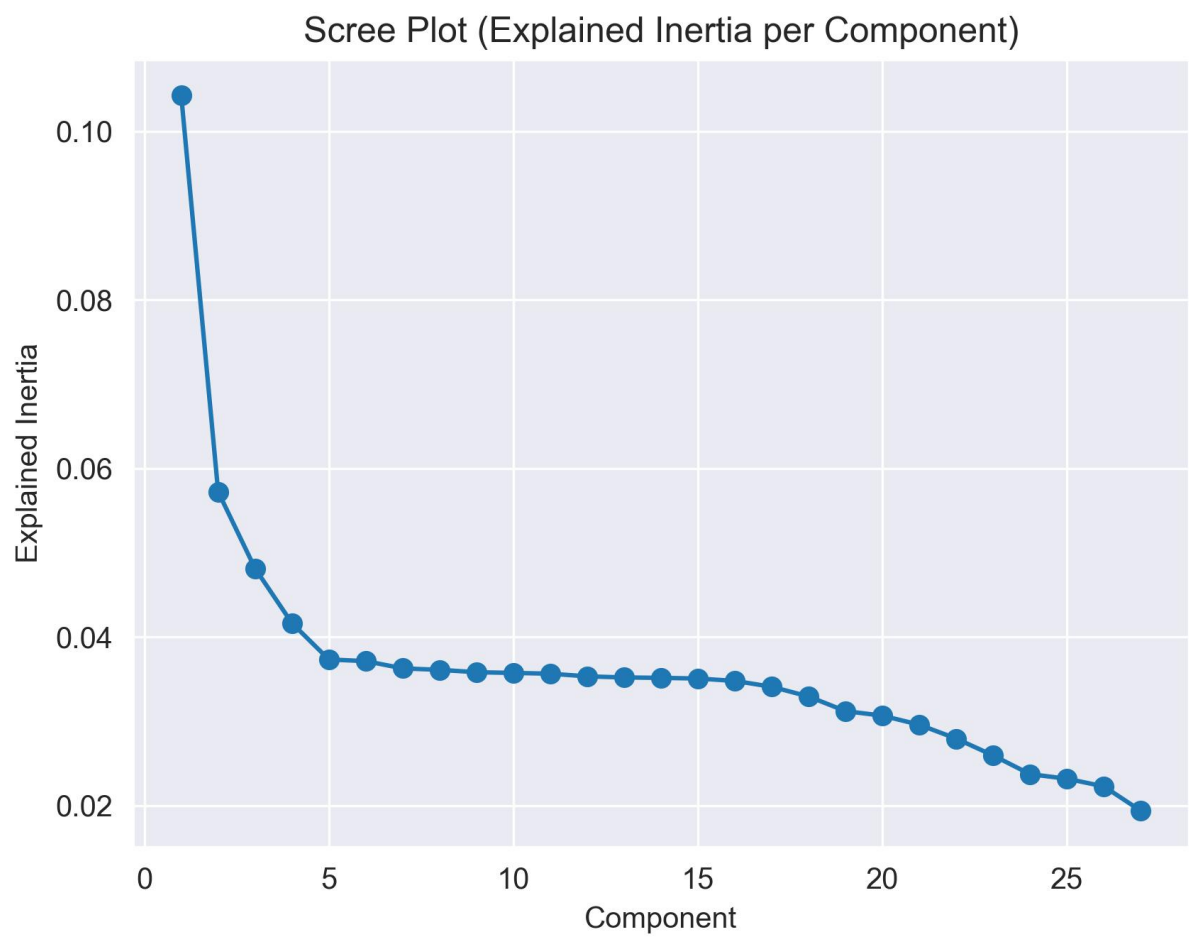|	accuracy	precision	recall	f1_score
EDUCA	0.493	0.14	0.648	0.23
DEAF	0.837	0.251	0.199	0.222
BLIND	0.858	0.251	0.106	0.149
DECIDE	0.82	0.19	0.164	0.176
DIFFWALK	0.812	0.28	0.385	0.324
DIFFDRES	0.869	0.309	0.097	0.148
DIFFALON	0.853	0.277	0.162	0.204
SMOKE100	0.617	0.162	0.546	0.25
ECIGNOW2	0.154	0.119	0.972	0.212
FLUSHOT7	0.501	0.134	0.6	0.219
PNEUVAC4	0.586	0.173	0.671	0.275
SEATBELT	0.849	0.158	0.067	0.094
COVIDPO1	0.523	0.134	0.564	0.217
GENHLTH	0.554	0.178	0.777	0.289
EXERANY2	0.734	0.185	0.373	0.247
TOLDHI3	0.611	0.179	0.648	0.28

Fig 35: all_pul_baseline_table

Created: 2025-06-21 02:45:45

Individual feature baseline results for ALL_PUL

	accuracy	precision	recall	f1_score
EDUCA	0.506	0.217	0.587	0.317
DEAF	0.762	0.269	0.128	0.173
BLIND	0.786	0.317	0.08	0.128
DECIDE	0.773	0.344	0.178	0.234
DIFFWALK	0.758	0.356	0.293	0.321
DIFFDRES	0.798	0.408	0.077	0.129
DIFFALON	0.789	0.387	0.135	0.2
SMOKE100	0.61	0.252	0.508	0.337
ECIGNOW2	0.705	0.246	0.248	0.247
FLUSHOT7	0.502	0.21	0.561	0.305
PNEUVAC4	0.582	0.255	0.593	0.357
SEATBELT	0.74	0.219	0.128	0.162
COVIDPO1	0.5	0.2	0.52	0.289
GENHLTH	0.559	0.26	0.679	0.376
EXERANY2	0.693	0.264	0.318	0.288
TOLDHI3	0.569	0.222	0.481	0.304

Fig 36: all_chronic2_baseline_table

Created: 2025-06-21 02:45:46

Individual feature baseline results for ALL_CHRONIC2

	accuracy	precision	recall	f1_score
EDUCA	0.529	0.508	0.573	0.539
DEAF	0.556	0.694	0.134	0.224
BLIND	0.538	0.684	0.07	0.128
DECIDE	0.542	0.613	0.129	0.213
DIFFWALK	0.6	0.751	0.251	0.377
DIFFDRES	0.539	0.765	0.059	0.109
DIFFALON	0.551	0.729	0.104	0.181
SMOKE100	0.563	0.556	0.455	0.501
ECIGNOW2	0.497	0.486	0.812	0.608
FLUSHOT7	0.565	0.544	0.591	0.566
PNEUVAC4	0.645	0.638	0.604	0.62
SEATBELT	0.521	0.514	0.053	0.097
COVIDPO1	0.518	0.498	0.51	0.504
GENHLTH	0.625	0.603	0.642	0.622
EXERANY2	0.567	0.6	0.295	0.395
TOLDHI3	0.606	0.602	0.531	0.564

Fig 37: mca_inertia

Created: 2025-06-21 03:03:58

Cumulative Explained Inertia (MCA)
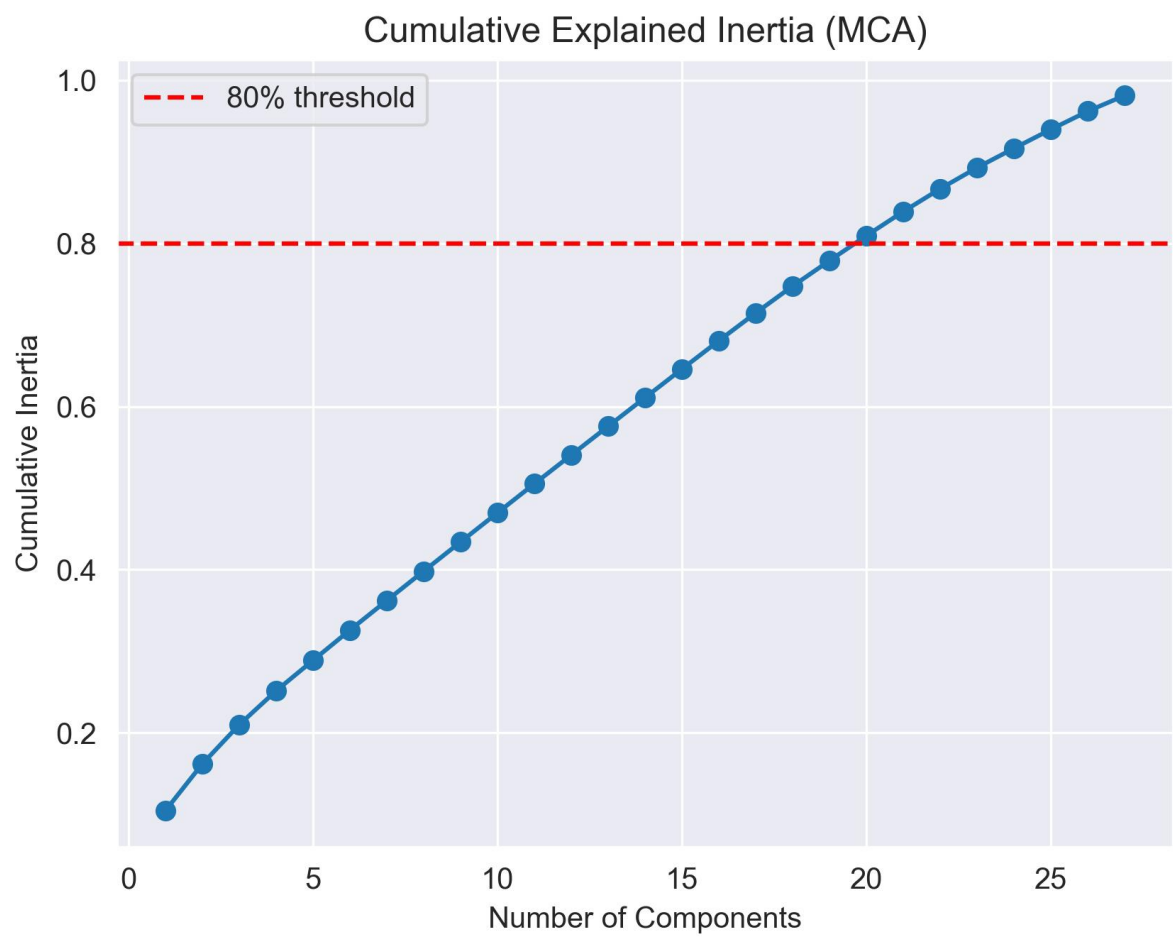
Fig 38: all_chronic_importance

Created: 2025-06-21 03:04:06

Feature Importance for Target: ALL_CHRONIC (One per Original Feature)
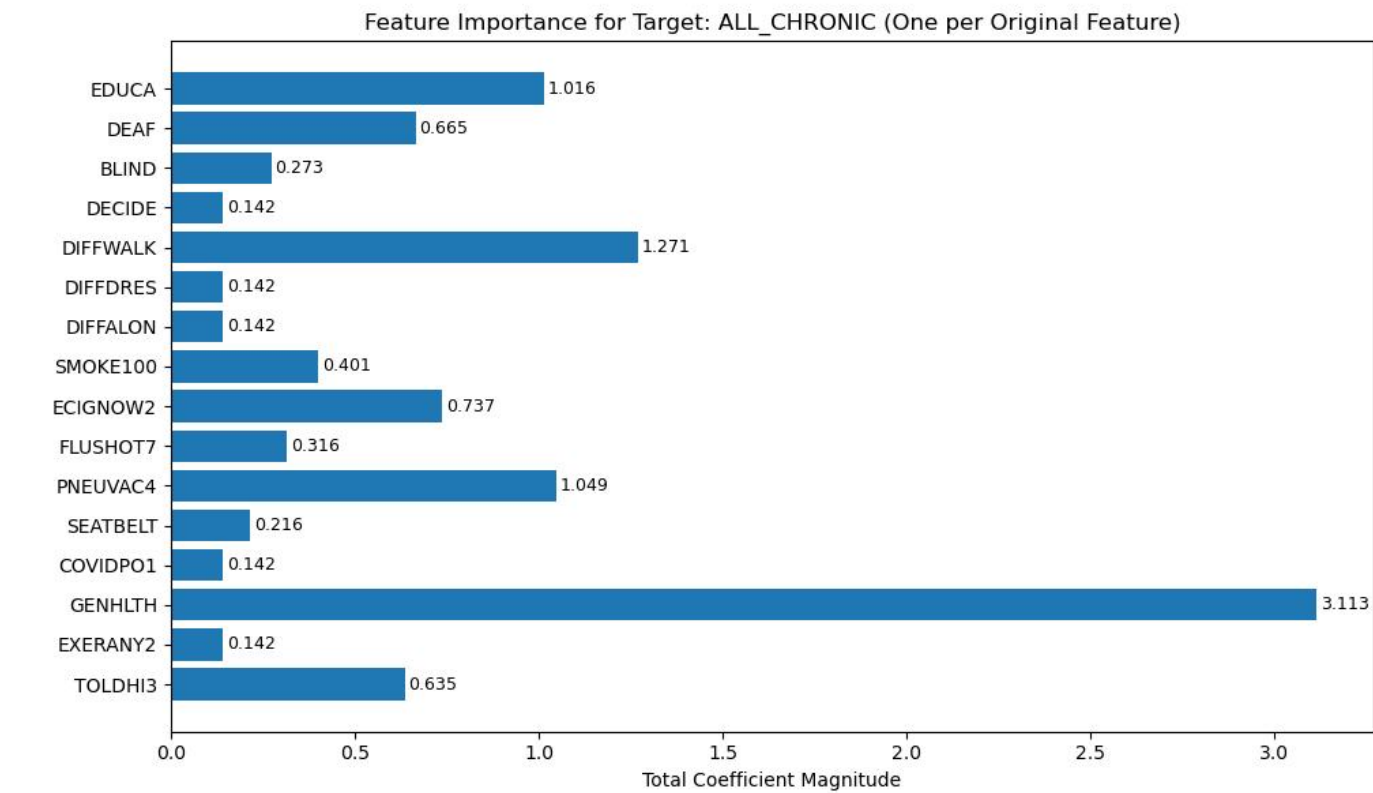
Fig 39: all_cardiac_importance

Created: 2025-06-21 03:04:06

Feature Importance for Target: ALL_CARDIAC (One per Original Feature)

Feature	Total Coefficient Magnitude
EDUCA	0.421
DEAF	0.605
BLIND	0.379
DECIDE	0.062
DIFFWALK	0.558
DIFFDRES	0.062
DIFFALON	0.177
SMOKE100	0.456
ECIGNOW2	0.946
FLUSHOT7	0.090
PNEUVAC4	0.715
SEATBELT	0.541
COVIDPO1	0.143
GENHLTH	2.936
EXERANY2	0.062
TOLDHI3	0.752
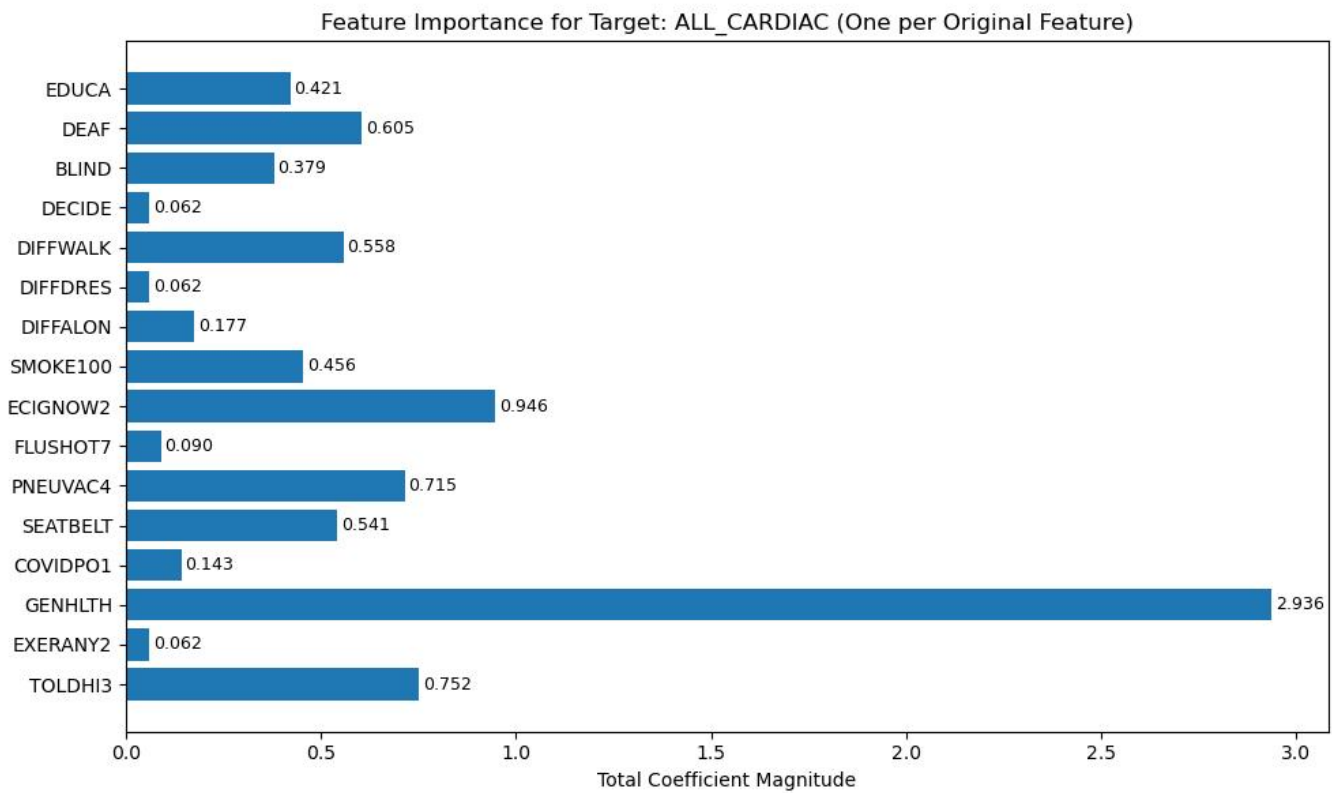
Fig 40: all_pul_importance

Created: 2025-06-21 03:04:07

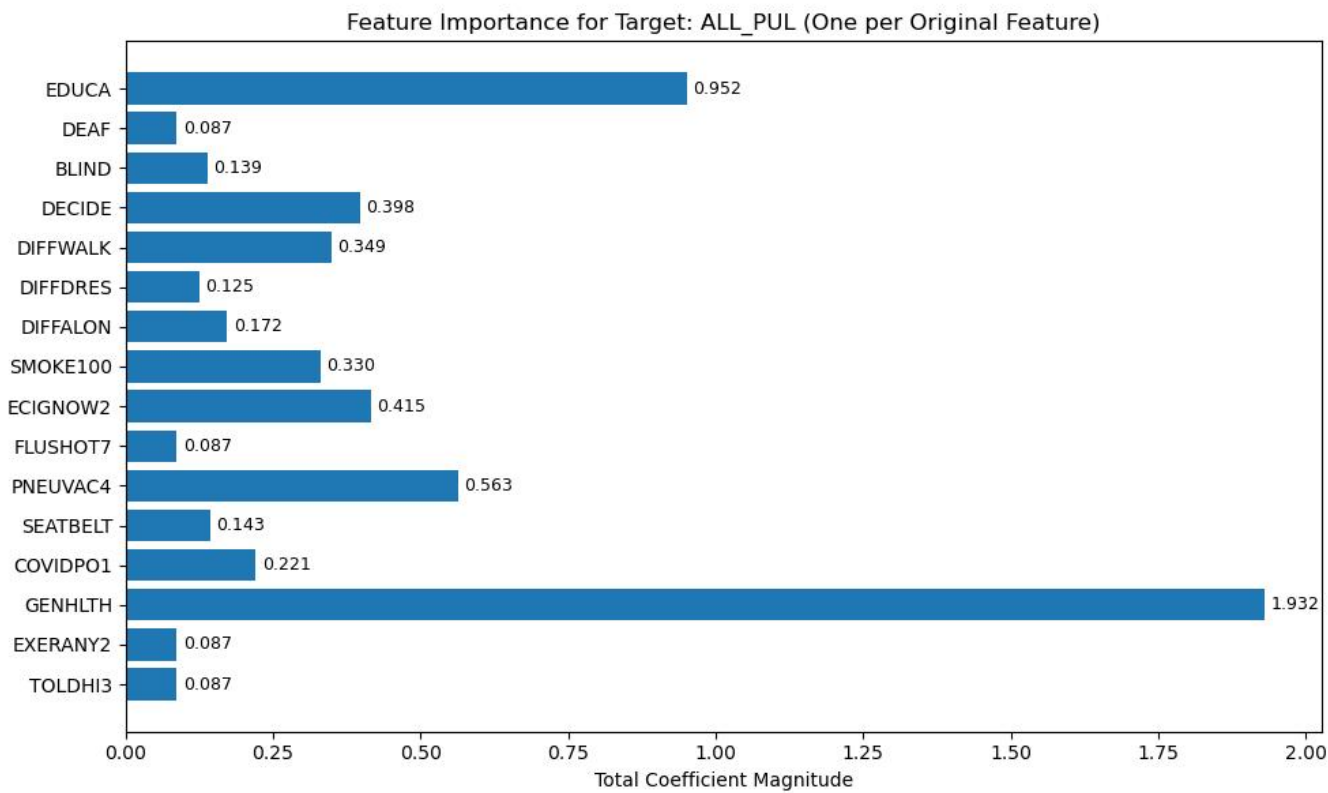Feature Importance for Target: ALL_PUL (One per Original Feature)

Fig 41: all_chronic2_importance

Created: 2025-06-21 03:04:07

Feature Importance for Target: ALL_CHRONIC2 (One per Original Feature)