

FinalModeling
CHIS_MLE_ASTHMAESCALATION_FLAT
PROC SURVEYLOGISTIC - May 2, 2019

The LOGISTIC Procedure

Model Information		
Data Set	CHIS.CHIS_DATA_BINOMIAL_ED2	
Response Variable	asthmaesc	ED/UC Asthma Visit
Number of Response Levels	2	
Weight Variable	fnwgt0	
Model	generalized logit	
Optimization Technique	Newton-Raphson	

Number of Observations Read	13590
Number of Observations Used	13590
Sum of Weights Read	2765889
Sum of Weights Used	2765889

Response Profile			
Ordered Value	asthmaesc	Total Frequency	Total Weight
1	1 Asthmatic Escalation	1095	237258.9
2	2 No Asthma Escalation	12495	2528630.5

Logits modeled use asthmaesc='2 No Asthma Escalation' as the reference category.

Model Convergence Status
Convergence criterion (GCONV=1E-8) satisfied.

Model Fit Statistics		
Criterion	Intercept Only	Intercept and Covariates
AIC	1618958.7	1572238.7
SC	1618966.2	1572283.8
-2 Log L	1618956.7	1572226.7

R-Square	0.9679	Max-rescaled R-Square	0.9679
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Testing Global Null Hypothesis: BETA=0			
Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	46730.0342	5	<.0001
Score	49423.0508	5	<.0001
Wald	47286.5557	5	<.0001

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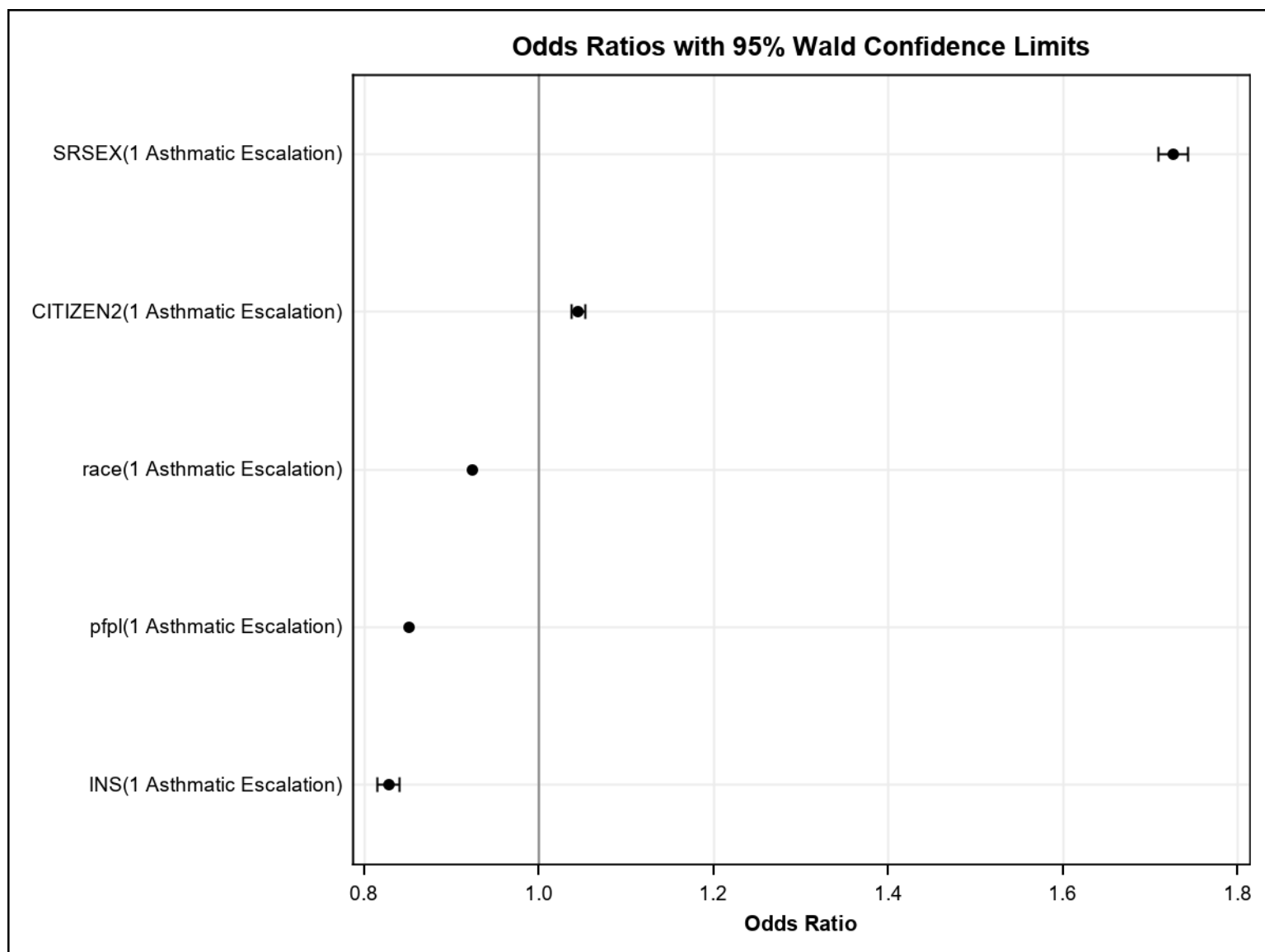
Type 3 Analysis of Effects			
Effect	DF	Wald Chi-Square	Pr > ChiSq
SRSEX	1	12354.0174	<.0001
CITIZEN2	1	148.9961	<.0001
race	1	6320.2618	<.0001
pfpl	1	17278.2233	<.0001
INS	1	593.9538	<.0001

Analysis of Maximum Likelihood Estimates							
Parameter	asthmaesc	DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq	Standardized Estimate
Intercept	1 Asthmatic Escalation	1	-2.1557	0.0155	19367.5900	<.0001	
SRSEX	1 Asthmatic Escalation	1	0.5459	0.00491	12354.0174	<.0001	2.0805
CITIZEN2	1 Asthmatic Escalation	1	0.0440	0.00360	148.9961	<.0001	0.2051
race	1 Asthmatic Escalation	1	-0.0790	0.000994	6320.2618	<.0001	-1.4409
pfpl	1 Asthmatic Escalation	1	-0.1606	0.00122	17278.2233	<.0001	-1.9847
INS	1 Asthmatic Escalation	1	-0.1892	0.00777	593.9538	<.0001	-0.4338

Odds Ratio Estimates				
Effect	asthmaesc	Point Estimate	95% Wald Confidence Limits	
SRSEX	1 Asthmatic Escalation	1.726	1.710	1.743
CITIZEN2	1 Asthmatic Escalation	1.045	1.038	1.052
race	1 Asthmatic Escalation	0.924	0.922	0.926
pfpl	1 Asthmatic Escalation	0.852	0.850	0.854
INS	1 Asthmatic Escalation	0.828	0.815	0.840

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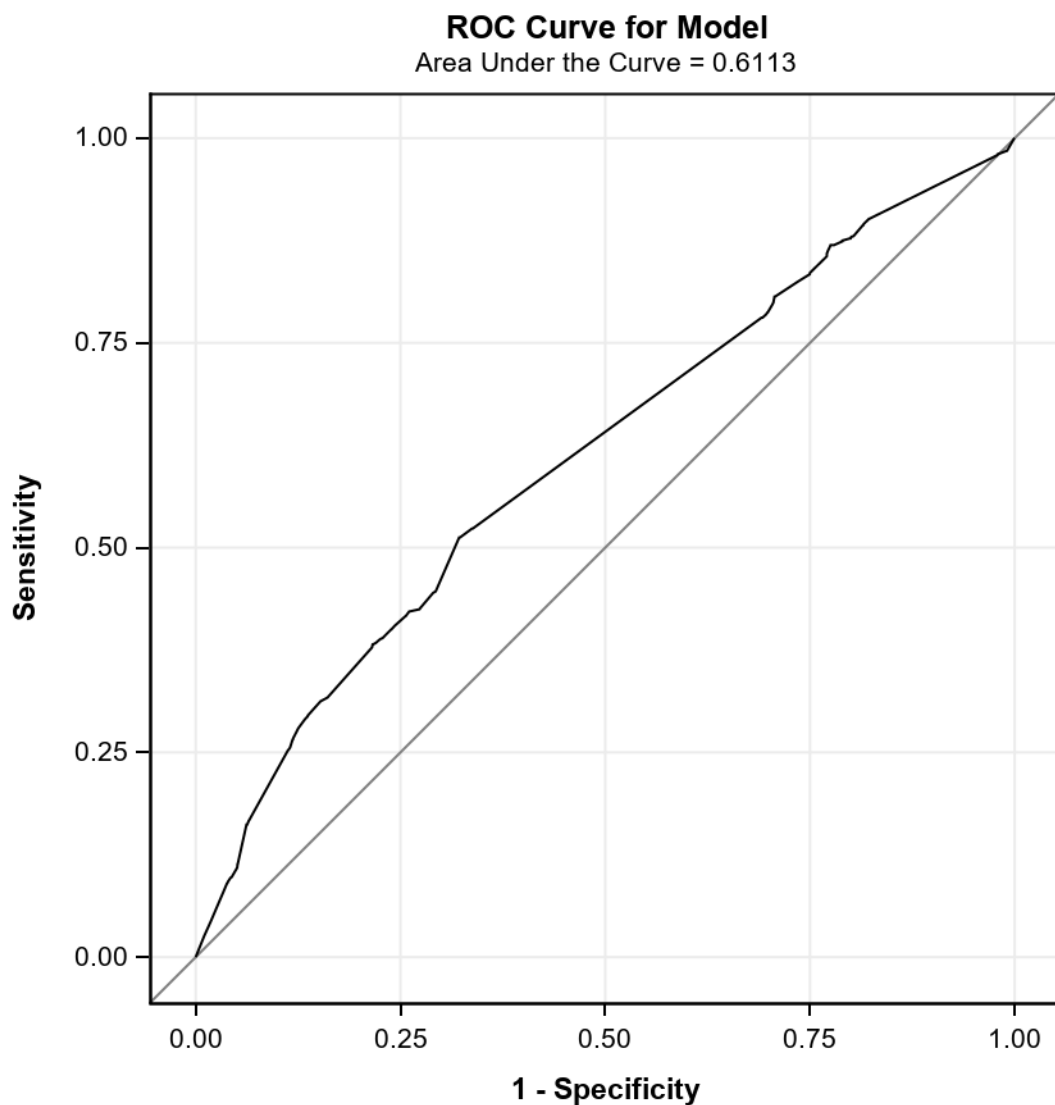
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Association of Predicted Probabilities and Observed Responses			
Percent Concordant	55.3	Somers' D	0.223
Percent Discordant	33.0	Gamma	0.252
Percent Tied	11.7	Tau-a	0.033
Pairs	13682025	c	0.611

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Estimated Covariance Matrix						
Parameter	Intercept_1 Asthmatic Escalation	SRSEX_1 Asthmatic Escalation	CITIZEN2_1 Asthmatic Escalation	race_1 Asthmatic Escalation	pfpl_1 Asthmatic Escalation	INS_1 Asthmatic Escalation
Intercept_1 Asthmatic Escalation	0.00024	-0.00005	-0.00002	-5.63E-6	-6.93E-6	-0.00007
SRSEX_1 Asthmatic Escalation	-0.00005	0.000024	-1.11E-7	8.121E-9	4.042E-7	2.607E-6
CITIZEN2_1 Asthmatic Escalation	-0.00002	-1.11E-7	0.000013	1.266E-6	5.172E-7	-2.24E-6
race_1 Asthmatic Escalation	-5.63E-6	8.121E-9	1.266E-6	9.882E-7	-1.75E-7	6.106E-7
pfpl_1 Asthmatic Escalation	-6.93E-6	4.042E-7	5.172E-7	-1.75E-7	1.492E-6	5.265E-7
INS_1 Asthmatic Escalation	-0.00007	2.607E-6	-2.24E-6	6.106E-7	5.265E-7	0.00006

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Estimated Correlation Matrix						
Parameter	Intercept_1 Asthmatic Escalation	SRSEX_1 Asthmatic Escalation	CITIZEN2_1 Asthmatic Escalation	race_1 Asthmatic Escalation	pfpl_1 Asthmatic Escalation	INS_1 Asthmatic Escalation
Intercept_1 Asthmatic Escalation	1.0000	-0.6048	-0.3893	-0.3656	-0.3665	-0.5949
SRSEX_1 Asthmatic Escalation	-0.6048	1.0000	-0.0063	0.0017	0.0674	0.0684
CITIZEN2_1 Asthmatic Escalation	-0.3893	-0.0063	1.0000	0.3536	0.1175	-0.0800
race_1 Asthmatic Escalation	-0.3656	0.0017	0.3536	1.0000	-0.1438	0.0791
pfpl_1 Asthmatic Escalation	-0.3665	0.0674	0.1175	-0.1438	1.0000	0.0555
INS_1 Asthmatic Escalation	-0.5949	0.0684	-0.0800	0.0791	0.0555	1.0000

Classification Table									
	Correct		Incorrect		Percentages				
Prob Level	Event	Non- Event	Event	Non- Event	Correct	Sensi- tivity	Speci- ficity	Pos Pred	Neg Pred
0.852	0	12495	0	1095	91.9	0.0	100.0	.	91.9

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Predicted Probabilities for asthmaesc=1 Asthmatic Escalation with 95% Confidence Limits

At CITIZEN2=1.268 race=4.434 pfpl=4.237 INS=1.094

