

FinalModeling
CHIS MLE_CURRENTASTHMA_FLAT
PROC SURVEYLOGISTIC - May 2, 2019

The LOGISTIC Procedure

Model Information		
Data Set	CHIS.CHIS_DATA_BINOMIAL_D	
Response Variable	nonasthmatic	Non-Asthmatic
Number of Response Levels	2	
Weight Variable	frwgt0	
Model	generalized logit	
Optimization Technique	Newton-Raphson	

Number of Observations Read	119710
Number of Observations Used	119710
Sum of Weights Read	26984609
Sum of Weights Used	26984609

Response Profile			
Ordered Value	nonasthmatic	Total Frequency	Total Weight
1	1 Non-Asthmatic	106120	24218720
2	2 Current Asthmatic	13590	2765889

Logits modeled use nonasthmatic='1 Non-Asthmatic' as the reference category.

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

Model Fit Statistics		
Criterion	Intercept Only	Intercept and Covariates
AIC	17838929	17257360
SC	17838938	17257418
-2 Log L	17838927	17257348

R-Square	0.9922	Max-rescaled R-Square	0.9922
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Testing Global Null Hypothesis: BETA=0			
Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	581578.746	5	<.0001
Score	524128.067	5	<.0001
Wald	500195.238	5	<.0001

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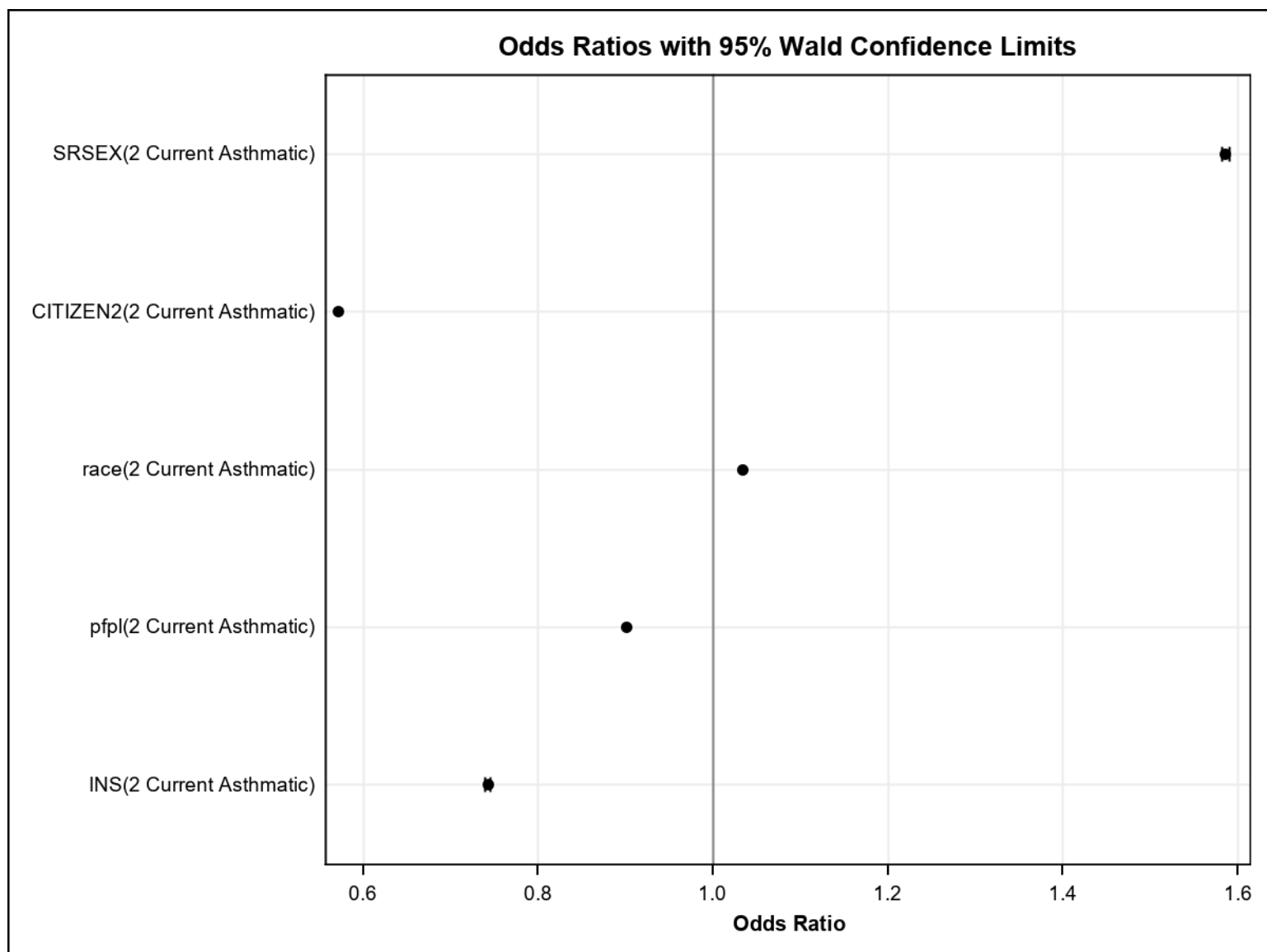
Type 3 Analysis of Effects			
Effect	DF	Wald Chi-Square	Pr > ChiSq
SRSEX	1	121950.126	<.0001
CITIZEN2	1	225428.066	<.0001
race	1	11590.1940	<.0001
pfpl	1	59500.3307	<.0001
INS	1	18206.3130	<.0001

Analysis of Maximum Likelihood Estimates							
Parameter	nonasthmatic	DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq	Standardized Estimate
Intercept	2 Current Asthmatic	1	-1.4716	0.00460	102321.617	<.0001	
SRSEX	2 Current Asthmatic	1	0.4610	0.00132	121950.126	<.0001	1.9072
CITIZEN2	2 Current Asthmatic	1	-0.5596	0.00118	225428.066	<.0001	-3.5370
race	2 Current Asthmatic	1	0.0332	0.000308	11590.1940	<.0001	0.6452
pfpl	2 Current Asthmatic	1	-0.1043	0.000427	59500.3307	<.0001	-1.2922
INS	2 Current Asthmatic	1	-0.2977	0.00221	18206.3130	<.0001	-0.8692

Odds Ratio Estimates				
Effect	nonasthmatic	Point Estimate	95% Wald Confidence Limits	
SRSEX	2 Current Asthmatic	1.586	1.582	1.590
CITIZEN2	2 Current Asthmatic	0.571	0.570	0.573
race	2 Current Asthmatic	1.034	1.033	1.034
pfpl	2 Current Asthmatic	0.901	0.900	0.902
INS	2 Current Asthmatic	0.743	0.739	0.746

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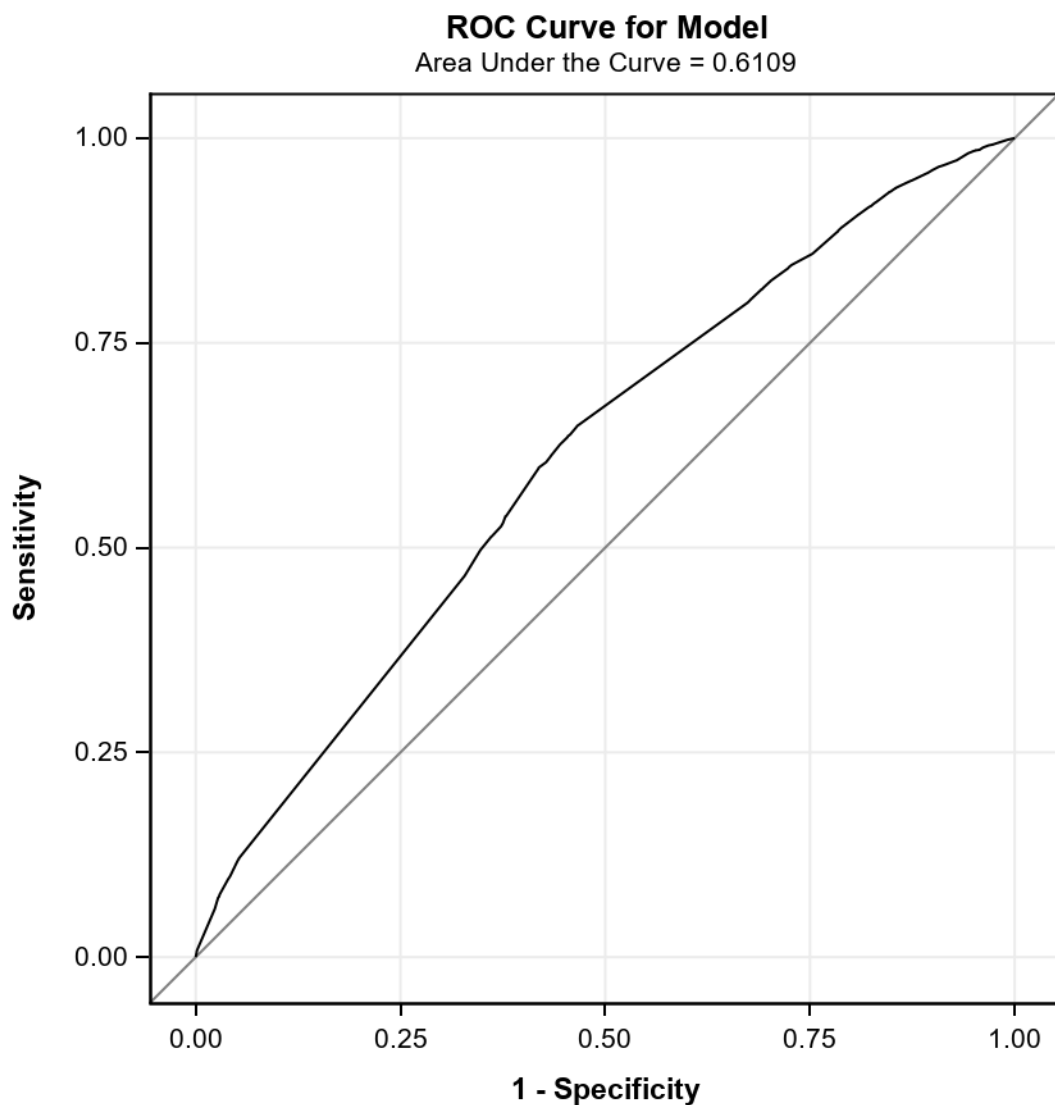
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Association of Predicted Probabilities and Observed Responses			
Percent Concordant	54.4	Somers' D	0.222
Percent Discordant	32.2	Gamma	0.256
Percent Tied	13.4	Tau-a	0.045
Pairs	1442170800	c	0.611

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Estimated Covariance Matrix						
Parameter	Intercept_2 Current Asthmatic	SRSEX_2 Current Asthmatic	CITIZEN2_2 Current Asthmatic	race_2 Current Asthmatic	pfpl_2 Current Asthmatic	INS_2 Current Asthmatic
Intercept_2 Current Asthmatic	0.000021	-3.15E-6	-2.28E-6	-5.59E-7	-8.99E-7	-5.89E-6
SRSEX_2 Current Asthmatic	-3.15E-6	1.743E-6	-1.76E-8	1.585E-9	3.301E-8	1.976E-7
CITIZEN2_2 Current Asthmatic	-2.28E-6	-1.76E-8	1.389E-6	1.241E-7	5.806E-8	-2.47E-7
race_2 Current Asthmatic	-5.59E-7	1.585E-9	1.241E-7	9.494E-8	-1.93E-8	5.652E-8
pfpl_2 Current Asthmatic	-8.99E-7	3.301E-8	5.806E-8	-1.93E-8	1.827E-7	7.099E-8
INS_2 Current Asthmatic	-5.89E-6	1.976E-7	-2.47E-7	5.652E-8	7.099E-8	4.867E-6

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Estimated Correlation Matrix						
Parameter	Intercept_2 Current Asthmatic	SRSEX_2 Current Asthmatic	CITIZEN2_2 Current Asthmatic	race_2 Current Asthmatic	pfpl_2 Current Asthmatic	INS_2 Current Asthmatic
Intercept_2 Current Asthmatic	1.0000	-0.5184	-0.4203	-0.3945	-0.4571	-0.5806
SRSEX_2 Current Asthmatic	-0.5184	1.0000	-0.0113	0.0039	0.0585	0.0678
CITIZEN2_2 Current Asthmatic	-0.4203	-0.0113	1.0000	0.3418	0.1153	-0.0952
race_2 Current Asthmatic	-0.3945	0.0039	0.3418	1.0000	-0.1466	0.0832
pfpl_2 Current Asthmatic	-0.4571	0.0585	0.1153	-0.1466	1.0000	0.0753
INS_2 Current Asthmatic	-0.5806	0.0678	-0.0952	0.0832	0.0753	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	106E3	0	13590	88.6	0.0	100.0	.	88.6

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Predicted Probabilities for nonasthmatic=2 Current Asthmatic with 95% Confidence Limits

At CITIZEN2=1.512 race=3.982 pfpl=4.326 INS=1.146

