CHIS_74_BinomRegress
CHIS CHIS_DATA_BINOMIAL_C
PROC SURVEYLOGISTIC - April 28, 2019

The LOGISTIC Procedure

Model Information		
Data Set	CHIS.CHIS_DATA_BINOMIAL_C	
Response Variable	nonasthmatic	Non-Asthmatic
Number of Response Levels	2	
Weight Variable	fnwgt0	
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.

Class Level Information						
Class	Value	Design Variables				
SRSEX	Female	1				
	Male	-1				
CITIZEN2	Naturalized Citizen	-1	-1			
	Non-Citizen	1	0			
	US-Born Citizen	0	1			
race	African American	1	0	0	0	0
	American Indian / Alaska Native	0	1	0	0	0
	Asian	0	0	1	0	0
	Latino	0	0	0	1	0
	Multiracial / Other	0	0	0	0	1
	White	-1	-1	-1	-1	-1
childhh	Children in HH	-1				
	No Children in HH	1				
pfpl	0-99% FPL	1				
	100% FPL and Above	-1				

CHIS_74_BinomRegress
CHIS CHIS_DATA_BINOMIAL_C
PROC SURVEYLOGISTIC - April 28, 2019

The LOGISTIC Procedure

Class Level Information						
Class	Value	Design Variables				
INS	No	-1				
	Yes	1				

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

Model Fit Statistics		
Criterion	Intercept Only	Intercept and Covariates
AIC	17838929	17208765
SC	17838938	17208881
-2 Log L	17838927	17208741

R-Square	0.9948	Max-rescaled R-Square	0.9948

Testing Global Null Hypothesis: BETA=0			
Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	630186.043	11	<.0001
Score	593616.824	11	<.0001
Wald	562140.616	11	<.0001

Type 3 Analysis of Effects			
Effect	DF	Wald Chi-Square	Pr > ChiSq
SRSEX	1	126404.844	<.0001
CITIZEN2	2	184964.562	<.0001
race	5	40492.2203	<.0001
childhh	1	10534.8803	<.0001
pfpl	1	47583.0974	<.0001
INS	1	23467.4839	<.0001

CHIS_74_BinomRegress
CHIS CHIS_DATA_BINOMIAL_C
PROC SURVEYLOGISTIC - April 28, 2019

The LOGISTIC Procedure

Analysis of Maximum Likelihood Estimates

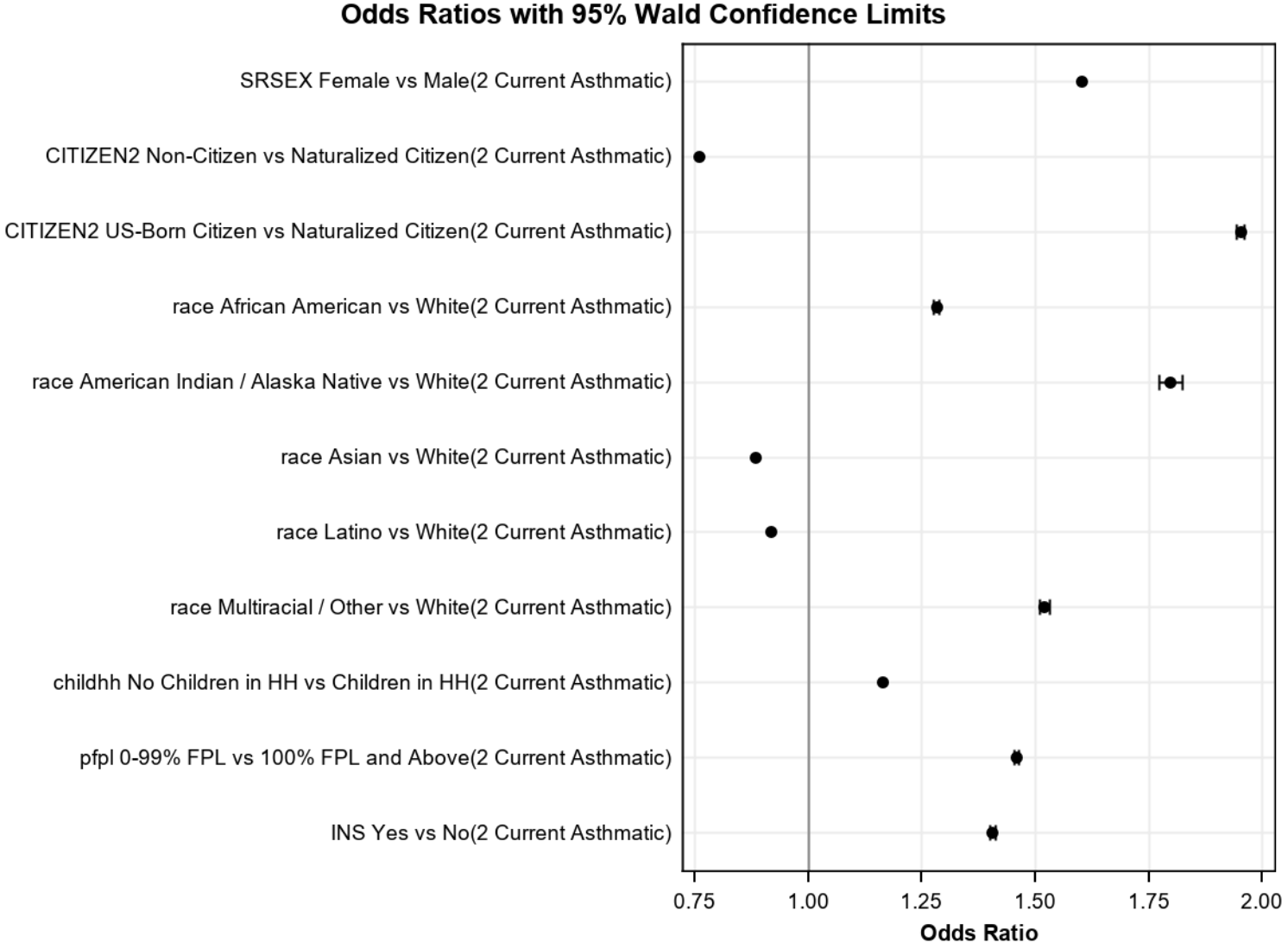
Parameter		nonasthmatic	DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq	Standardized Estimate
Intercept		2 Current Asthmatic	1	-2.3799	0.00189	1587981.97	<.0001	
SRSEX	Female	2 Current Asthmatic	1	0.2354	0.000662	126404.844	<.0001	1.9478
CITIZEN2	Non-Citizen	2 Current Asthmatic	1	-0.4063	0.00172	56100.0517	<.0001	-1.9751
CITIZEN2	US-Born Citizen	2 Current Asthmatic	1	0.5377	0.00125	184519.546	<.0001	3.4654
race	African American	2 Current Asthmatic	1	0.0753	0.00235	1025.2460	<.0001	0.3656
race	American Indian / Alaska Native	2 Current Asthmatic	1	0.4133	0.00583	5022.5650	<.0001	1.7230
race	Asian	2 Current Asthmatic	1	-0.2990	0.00229	17073.6074	<.0001	-1.7203
race	Latino	2 Current Asthmatic	1	-0.2613	0.00177	21845.8076	<.0001	-1.8988
race	Multiracial / Other	2 Current Asthmatic	1	0.2453	0.00305	6487.3031	<.0001	1.0928
childhh	No Children in HH	2 Current Asthmatic	1	0.0757	0.000737	10534.8803	<.0001	0.5810
pfpl	0-99% FPL	2 Current Asthmatic	1	0.1885	0.000864	47583.0974	<.0001	1.1683
INS	Yes	2 Current Asthmatic	1	0.1703	0.00111	23467.4839	<.0001	0.9948

Odds Ratio Estimates

Effect	nonasthmatic	Point Estimate	95% Wald Confidence Limits	
SRSEX Female vs Male	2 Current Asthmatic	1.601	1.597	1.606
CITIZEN2 Non-Citizen vs Naturalized Citizen	2 Current Asthmatic	0.760	0.755	0.764
CITIZEN2 US-Born Citizen vs Naturalized Citizen	2 Current Asthmatic	1.952	1.944	1.961
race African American vs White	2 Current Asthmatic	1.283	1.276	1.289
race American Indian / Alaska Native vs White	2 Current Asthmatic	1.798	1.774	1.823
race Asian vs White	2 Current Asthmatic	0.882	0.878	0.886
race Latino vs White	2 Current Asthmatic	0.916	0.913	0.919
race Multiracial / Other vs White	2 Current Asthmatic	1.520	1.510	1.531
childhh No Children in HH vs Children in HH	2 Current Asthmatic	1.163	1.160	1.167
pfpl 0-99% FPL vs 100% FPL and Above	2 Current Asthmatic	1.458	1.453	1.463
INS Yes vs No	2 Current Asthmatic	1.406	1.400	1.412

CHIS_74_BinomRegress
CHIS CHIS_DATA_BINOMIAL_C
PROC SURVEYLOGISTIC - April 28, 2019

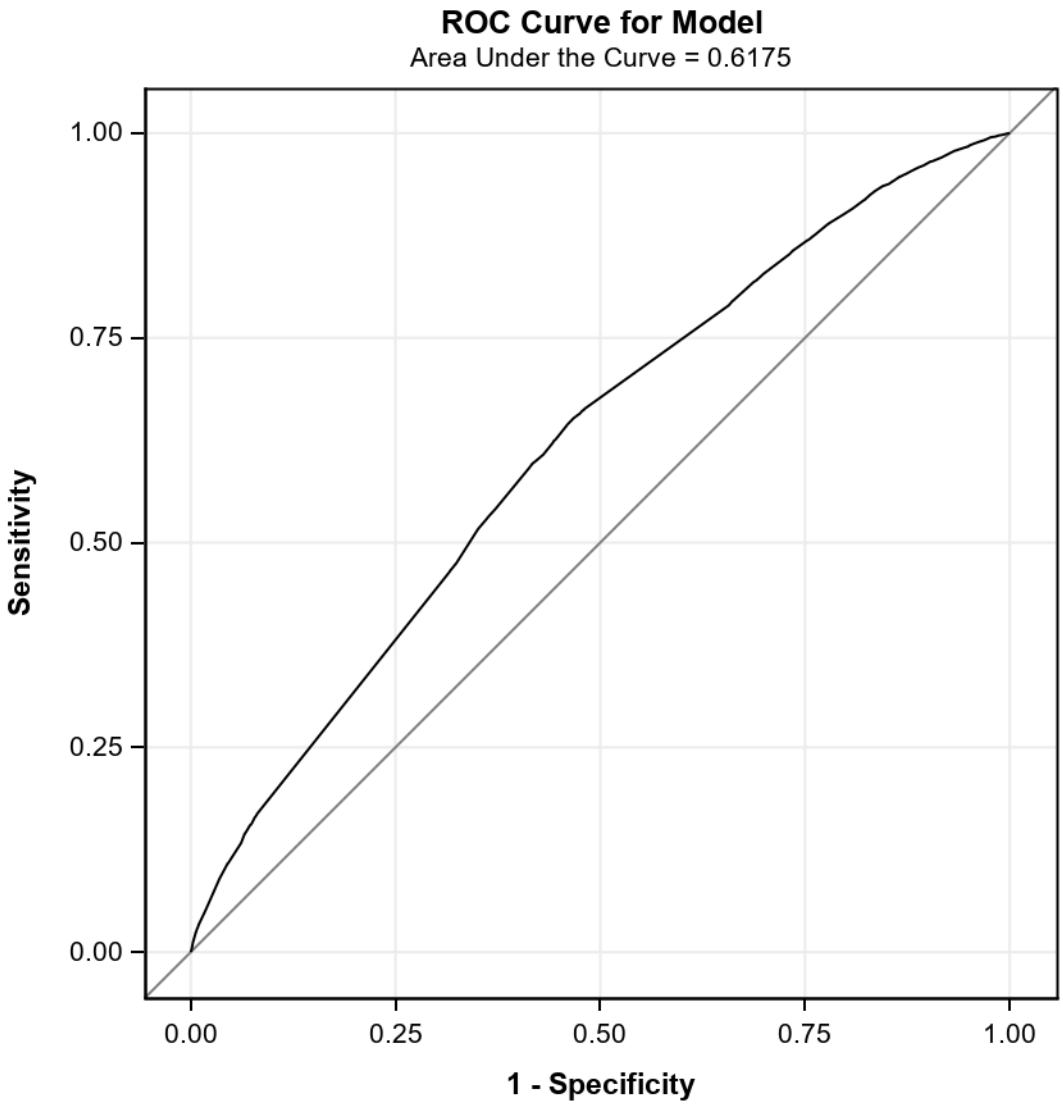
The LOGISTIC Procedure



Association of Predicted Probabilities and Observed Responses			
Percent Concordant	56.8	Somers' D	0.235
Percent Discordant	33.3	Gamma	0.261
Percent Tied	10.0	Tau-a	0.047
Pairs	1442170800	c	0.618

CHIS_74_BinomRegress
CHIS CHIS_DATA_BINOMIAL_C
PROC SURVEYLOGISTIC - April 28, 2019

The LOGISTIC Procedure



CHIS_74_BinomRegress
CHIS CHIS_DATA_BINOMIAL_C
PROC SURVEYLOGISTIC - April 28, 2019

The LOGISTIC Procedure

Estimated Covariance Matrix				
Parameter	Intercept_2 Current Asthmatic	SRSEXFemale_2 Current Asthmatic	CITIZEN2Non-Citizen_2 Current As	CITIZEN2US-Born Citizen_2 Curren
Intercept_2 Current Asthmatic	3.567E-6	-9.39E-8	5.424E-7	-9.22E-7
SRSEXFemale_2 Current Asthmatic	-9.39E-8	4.385E-7	1.811E-8	3.569E-9
CITIZEN2Non-Citizen_2 Current As	5.424E-7	1.811E-8	2.943E-6	-1.09E-6
CITIZEN2US-Born Citizen_2 Curren	-9.22E-7	3.569E-9	-1.09E-6	1.567E-6
raceAfrican American_2 Current A	-8.67E-7	-1.16E-8	1.345E-7	-3.14E-7
raceAmerican Indian / Alaska Nat	6.2E-6	1.479E-8	2.15E-7	-4.38E-7
raceAsian_2 Current Asthmatic	-1.73E-6	-1.43E-8	-1.07E-7	8.673E-7
raceLatino_2 Current Asthmatic	-2.21E-6	3.349E-9	-4.69E-7	4.417E-7
raceMultiracial / Other_2 Curren	7.665E-8	7.901E-9	1.502E-7	-2.97E-7
childhhNo Children in HH_2 Curre	-1.92E-7	2.819E-8	1.4E-7	-1.08E-7
pfpl0-99% FPL_2 Current Asthmati	2.83E-7	-3.27E-8	-1.85E-7	1.186E-7
INSYes_2 Current Asthmatic	-8.58E-7	-4.59E-8	2.568E-7	-1.27E-7

CHIS_74_BinomRegress
CHIS CHIS_DATA_BINOMIAL_C
PROC SURVEYLOGISTIC - April 28, 2019

The LOGISTIC Procedure

Estimated Covariance Matrix					
Parameter	raceAfrican American_2 Current A	raceAmerican Indian / Alaska Nat	raceAsian_2 Current Asthmatic	raceLatino_2 Current Asthmatic	raceMultiracial / Other_2 Curren
Intercept_2 Current Asthmatic	-8.67E-7	6.2E-6	-1.73E-6	-2.21E-6	7.665E-8
SRSEXFemale_2 Current Asthmatic	-1.16E-8	1.479E-8	-1.43E-8	3.349E-9	7.901E-9
CITIZEN2Non-Citizen_2 Current As	1.345E-7	2.15E-7	-1.07E-7	-4.69E-7	1.502E-7
CITIZEN2US-Born Citizen_2 Curren	-3.14E-7	-4.38E-7	8.673E-7	4.417E-7	-2.97E-7
raceAfrican American_2 Current A	5.526E-6	-6.8E-6	2.142E-7	7.538E-7	-6.79E-7
raceAmerican Indian / Alaska Nat	-6.8E-6	0.000034	-6.97E-6	-6.36E-6	-7.76E-6
raceAsian_2 Current Asthmatic	2.142E-7	-6.97E-6	5.235E-6	1.226E-6	-7.02E-7
raceLatino_2 Current Asthmatic	7.538E-7	-6.36E-6	1.226E-6	3.127E-6	-1.99E-7
raceMultiracial / Other_2 Curren	-6.79E-7	-7.76E-6	-7.02E-7	-1.99E-7	9.278E-6
childhhNo Children in HH_2 Curre	-6.67E-9	6.097E-8	-6.66E-8	5.74E-8	-5.83E-9
pfpl0-99% FPL_2 Current Asthmati	-8.47E-8	-1.23E-7	1.133E-7	-8.82E-8	3.751E-8
INSYes_2 Current Asthmatic	-4E-8	4.733E-8	-7.12E-8	1.126E-7	2.45E-8

CHIS_74_BinomRegress
CHIS CHIS_DATA_BINOMIAL_C
PROC SURVEYLOGISTIC - April 28, 2019

The LOGISTIC Procedure

Estimated Covariance Matrix			
Parameter	childhhNo Children in HH_2 Curre	pfpl0-99% FPL_2 Current Asthmati	INSYes_2 Current Asthmatic
Intercept_2 Current Asthmatic	-1.92E-7	2.83E-7	-8.58E-7
SRSEXFemale_2 Current Asthmatic	2.819E-8	-3.27E-8	-4.59E-8
CITIZEN2Non-Citizen_2 Current As	1.4E-7	-1.85E-7	2.568E-7
CITIZEN2US-Born Citizen_2 Curren	-1.08E-7	1.186E-7	-1.27E-7
raceAfrican American_2 Current A	-6.67E-9	-8.47E-8	-4E-8
raceAmerican Indian / Alaska Nat	6.097E-8	-1.23E-7	4.733E-8
raceAsian_2 Current Asthmatic	-6.66E-8	1.133E-7	-7.12E-8
raceLatino_2 Current Asthmatic	5.74E-8	-8.82E-8	1.126E-7
raceMultiracial / Other_2 Curren	-5.83E-9	3.751E-8	2.45E-8
childhhNo Children in HH_2 Curre	5.437E-7	1.505E-8	4.452E-8
pfpl0-99% FPL_2 Current Asthmati	1.505E-8	7.467E-7	6.076E-8
INSYes_2 Current Asthmatic	4.452E-8	6.076E-8	1.236E-6

CHIS_74_BinomRegress
CHIS CHIS_DATA_BINOMIAL_C
PROC SURVEYLOGISTIC - April 28, 2019

The LOGISTIC Procedure

Estimated Correlation Matrix				
Parameter	Intercept_2 Current Asthmatic	SRSEXFemale_2 Current Asthmatic	CITIZEN2Non-Citizen_2 Current As	CITIZEN2US-Born Citizen_2 Curren
Intercept_2 Current Asthmatic	1.0000	-0.0751	0.1674	-0.3899
SRSEXFemale_2 Current Asthmatic	-0.0751	1.0000	0.0159	0.0043
CITIZEN2Non-Citizen_2 Current As	0.1674	0.0159	1.0000	-0.5091
CITIZEN2US-Born Citizen_2 Curren	-0.3899	0.0043	-0.5091	1.0000
raceAfrican American_2 Current A	-0.1952	-0.0074	0.0333	-0.1066
raceAmerican Indian / Alaska Nat	0.5629	0.0038	0.0215	-0.0600
raceAsian_2 Current Asthmatic	-0.4007	-0.0094	-0.0272	0.3028
raceLatino_2 Current Asthmatic	-0.6605	0.0029	-0.1546	0.1995
raceMultiracial / Other_2 Curren	0.0133	0.0039	0.0287	-0.0779
childhhNo Children in HH_2 Curre	-0.1381	0.0577	0.1107	-0.1173
pfpl0-99% FPL_2 Current Asthmati	0.1734	-0.0572	-0.1245	0.1096
INSYes_2 Current Asthmatic	-0.4087	-0.0623	0.1346	-0.0911

CHIS_74_BinomRegress
CHIS CHIS_DATA_BINOMIAL_C
PROC SURVEYLOGISTIC - April 28, 2019

The LOGISTIC Procedure

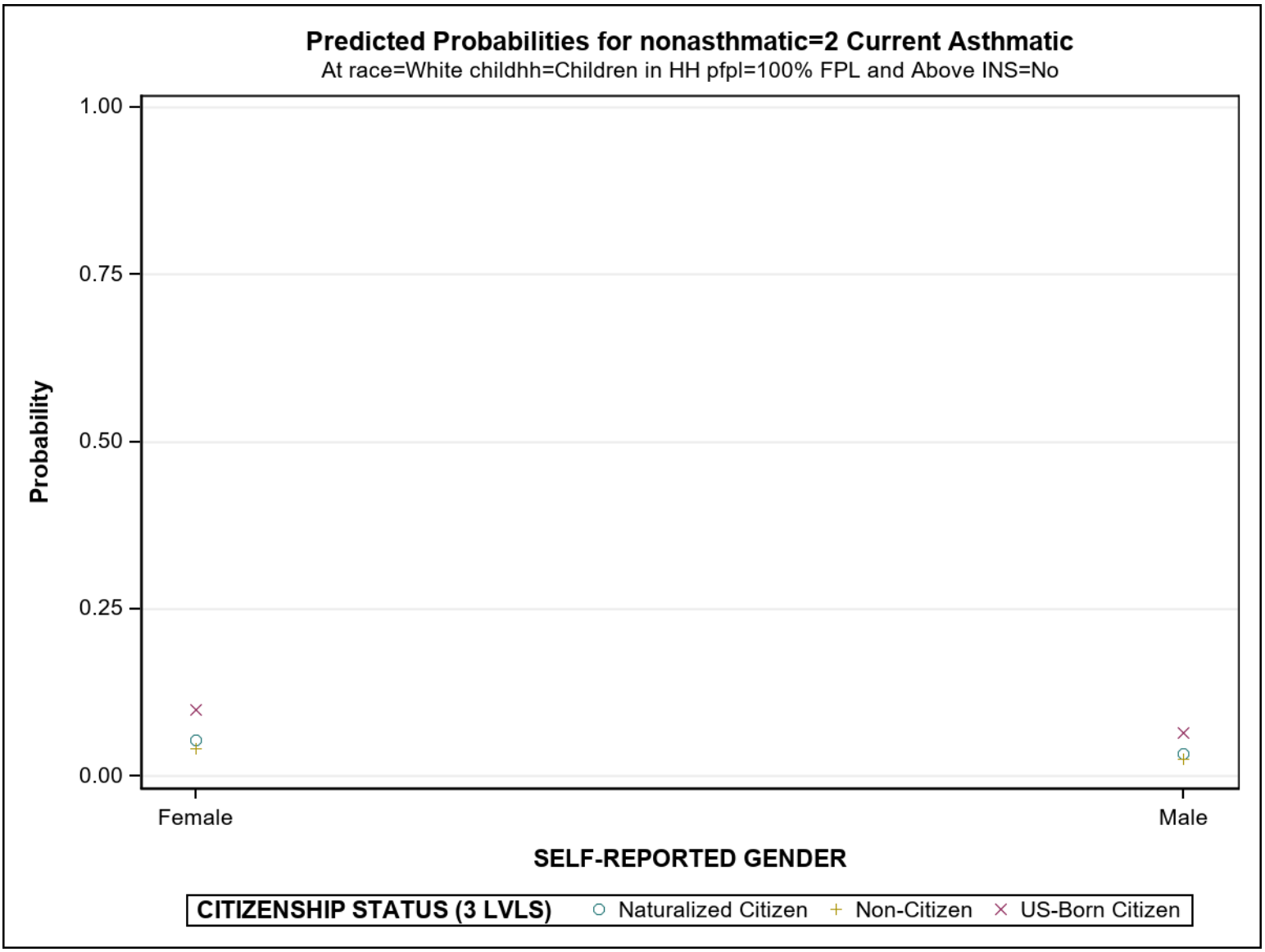
Estimated Correlation Matrix					
Parameter	raceAfrican American_2 Current A	raceAmerican Indian / Alaska Nat	raceAsian_2 Current Asthmatic	raceLatino_2 Current Asthmatic	raceMultiracial / Other_2 Curren
Intercept_2 Current Asthmatic	-0.1952	0.5629	-0.4007	-0.6605	0.0133
SRSEXFemale_2 Current Asthmatic	-0.0074	0.0038	-0.0094	0.0029	0.0039
CITIZEN2Non-Citizen_2 Current As	0.0333	0.0215	-0.0272	-0.1546	0.0287
CITIZEN2US-Born Citizen_2 Curren	-0.1066	-0.0600	0.3028	0.1995	-0.0779
raceAfrican American_2 Current A	1.0000	-0.4962	0.0398	0.1813	-0.0948
raceAmerican Indian / Alaska Nat	-0.4962	1.0000	-0.5224	-0.6166	-0.4371
raceAsian_2 Current Asthmatic	0.0398	-0.5224	1.0000	0.3029	-0.1008
raceLatino_2 Current Asthmatic	0.1813	-0.6166	0.3029	1.0000	-0.0370
raceMultiracial / Other_2 Curren	-0.0948	-0.4371	-0.1008	-0.0370	1.0000
childhhNo Children in HH_2 Curre	-0.0038	0.0142	-0.0395	0.0440	-0.0026
pfpl0-99% FPL_2 Current Asthmati	-0.0417	-0.0244	0.0573	-0.0577	0.0143
INSYes_2 Current Asthmatic	-0.0153	0.0073	-0.0280	0.0573	0.0072

CHIS_74_BinomRegress
CHIS CHIS_DATA_BINOMIAL_C
PROC SURVEYLOGISTIC - April 28, 2019

The LOGISTIC Procedure

Estimated Correlation Matrix			
Parameter	childhhNo Children in HH_2 Curre	pfpl0-99% FPL_2 Current Asthmati	INSYes_2 Current Asthmatic
Intercept_2 Current Asthmatic	-0.1381	0.1734	-0.4087
SRSEXFemale_2 Current Asthmatic	0.0577	-0.0572	-0.0623
CITIZEN2Non-Citizen_2 Current As	0.1107	-0.1245	0.1346
CITIZEN2US-Born Citizen_2 Curren	-0.1173	0.1096	-0.0911
raceAfrican American_2 Current A	-0.0038	-0.0417	-0.0153
raceAmerican Indian / Alaska Nat	0.0142	-0.0244	0.0073
raceAsian_2 Current Asthmatic	-0.0395	0.0573	-0.0280
raceLatino_2 Current Asthmatic	0.0440	-0.0577	0.0573
raceMultiracial / Other_2 Curren	-0.0026	0.0143	0.0072
childhhNo Children in HH_2 Curre	1.0000	0.0236	0.0543
pfpl0-99% FPL_2 Current Asthmati	0.0236	1.0000	0.0632
INSYes_2 Current Asthmatic	0.0543	0.0632	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

CHIS_74_BinomRegress
CHIS CHIS_DATA_BINOMIAL_C
PROC SURVEYLOGISTIC - April 28, 2019

The LOGISTIC Procedure