

CHIS_82_Exacerbations
CHIS CHIS_DATA_BINOMIAL_ED2
PROC SURVEYLOGISTIC - May 4, 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	frwgt0	
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.

Class Level Information						
Class	Value	Design Variables				
SRSEX	Female	1				
	Male	-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
pfpl	0-99% FPL	1				
	100% FPL and Above	-1				

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

CHIS_82_Exacerbations
CHIS CHIS_DATA_BINOMIAL_ED2
PROC SURVEYLOGISTIC - May 4, 2019

The LOGISTIC Procedure

Model Fit Statistics		
Criterion	Intercept Only	Intercept and Covariates
AIC	1618958.7	1538281.1
SC	1618966.2	1538341.2
-2 Log L	1618956.7	1538265.1

R-Square	0.9974	Max-rescaled R-Square	0.9974
----------	--------	-----------------------	--------

Testing Global Null Hypothesis: BETA=0			
Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	80691.6265	7	<.0001
Score	90540.7928	7	<.0001
Wald	82271.2156	7	<.0001

Type 3 Analysis of Effects			
Effect	DF	Wald Chi-Square	Pr > ChiSq
SRSEX	1	10872.2196	<.0001
race	5	45013.5404	<.0001
pfpl	1	11797.0696	<.0001

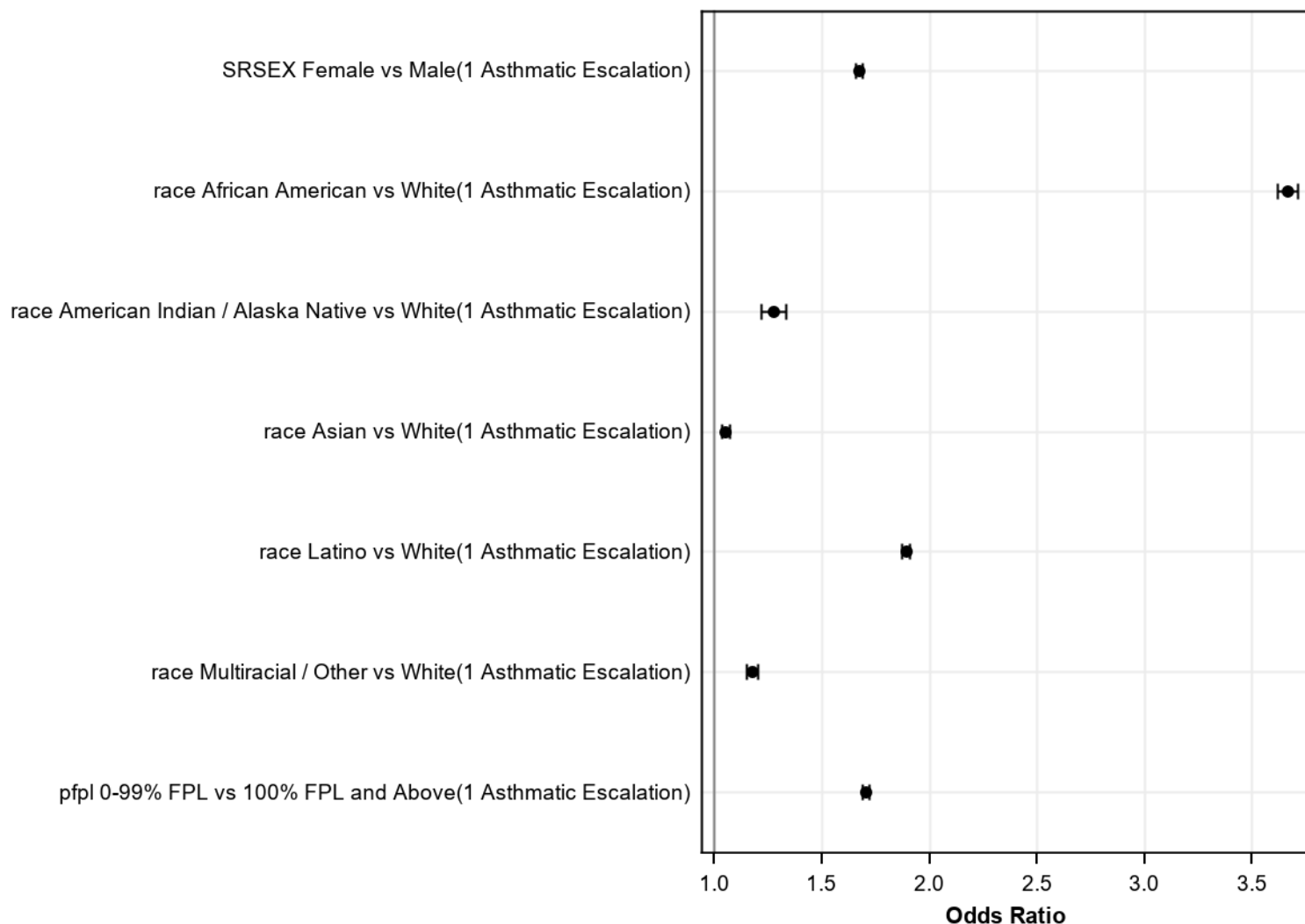
Analysis of Maximum Likelihood Estimates								
Parameter		asthmaesc	DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq	Standardized Estimate
Intercept		1 Asthmatic Escalation	1	-2.3047	0.00487	223767.814	<.0001	
SRSEX	Female	1 Asthmatic Escalation	1	0.2573	0.00247	10872.2196	<.0001	1.9615
race	African American	1 Asthmatic Escalation	1	0.9015	0.00631	20410.3972	<.0001	4.5264
race	American Indian / Alaska Native	1 Asthmatic Escalation	1	-0.1568	0.0190	68.4844	<.0001	-0.6399
race	Asian	1 Asthmatic Escalation	1	-0.3491	0.00814	1836.9228	<.0001	-1.8130
race	Latino	1 Asthmatic Escalation	1	0.2389	0.00551	1881.4198	<.0001	1.5959
race	Multiracial / Other	1 Asthmatic Escalation	1	-0.2367	0.0107	493.6227	<.0001	-1.0678
pfpl	0-99% FPL	1 Asthmatic Escalation	1	0.2669	0.00246	11797.0696	<.0001	1.6497

CHIS_82_Exacerbations
CHIS CHIS_DATA_BINOMIAL_ED2
PROC SURVEYLOGISTIC - May 4, 2019

The LOGISTIC Procedure

Odds Ratio Estimates				
Effect	asthmaesc	Point Estimate	95% Wald Confidence Limits	
SRSEX Female vs Male	1 Asthmatic Escalation	1.673	1.657	1.689
race African American vs White	1 Asthmatic Escalation	3.667	3.621	3.714
race American Indian / Alaska Native vs White	1 Asthmatic Escalation	1.273	1.217	1.331
race Asian vs White	1 Asthmatic Escalation	1.050	1.032	1.069
race Latino vs White	1 Asthmatic Escalation	1.890	1.871	1.910
race Multiracial / Other vs White	1 Asthmatic Escalation	1.175	1.147	1.204
pfpl 0-99% FPL vs 100% FPL and Above	1 Asthmatic Escalation	1.705	1.689	1.722

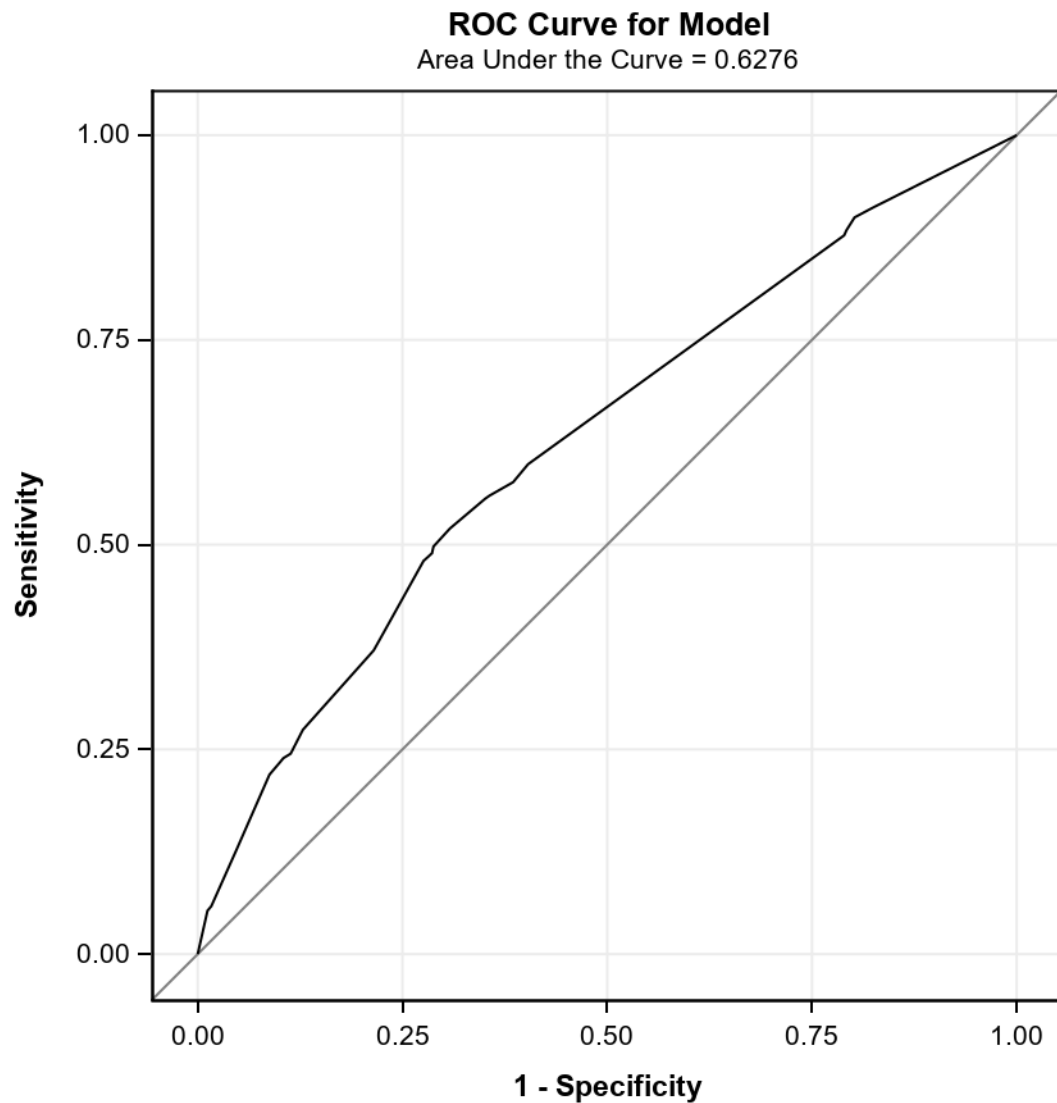
Odds Ratios with 95% Wald Confidence Limits



CHIS_82_Exacerbations
CHIS CHIS_DATA_BINOMIAL_ED2
PROC SURVEYLOGISTIC - May 4, 2019

The LOGISTIC Procedure

Association of Predicted Probabilities and Observed Responses			
Percent Concordant	55.4	Somers' D	0.255
Percent Discordant	29.9	Gamma	0.299
Percent Tied	14.8	Tau-a	0.038
Pairs	13682025	c	0.628



CHIS_82_Exacerbations
CHIS CHIS_DATA_BINOMIAL_ED2
PROC SURVEYLOGISTIC - May 4, 2019

The LOGISTIC Procedure

Estimated Covariance Matrix				
Parameter	Intercept_1 Asthmatic Escalation	SRSEXFemale_1 Asthmatic Escalati	raceAfrican American_1 Asthmatic	raceAmerican Indian / Alaska Nat
Intercept_1 Asthmatic Escalation	0.000024	-3E-6	-0.00002	0.000063
SRSEXFemale_1 Asthmatic Escalati	-3E-6	6.09E-6	-4.28E-7	-1.92E-7
raceAfrican American_1 Asthmatic	-0.00002	-4.28E-7	0.00004	-0.00007
raceAmerican Indian / Alaska Nat	0.000063	-1.92E-7	-0.00007	0.000359
raceAsian_1 Asthmatic Escalation	-9.73E-6	5.083E-7	5.295E-6	-0.00007
raceLatino_1 Asthmatic Escalatio	-0.00002	1.16E-7	0.000015	-0.00006
raceMultiracial / Other_1 Asthma	2.037E-6	-1.47E-7	-6.42E-6	-0.00009
pfpl0-99% FPL_1 Asthmatic Escala	2.626E-6	-3.75E-7	-6.71E-7	-1.37E-6

Estimated Covariance Matrix				
Parameter	raceAsian_1 Asthmatic Escalation	raceLatino_1 Asthmatic Escalatio	raceMultiracial / Other_1 Asthma	pfpl0-99% FPL_1 Asthmatic Escala
Intercept_1 Asthmatic Escalation	-9.73E-6	-0.00002	2.037E-6	2.626E-6
SRSEXFemale_1 Asthmatic Escalati	5.083E-7	1.16E-7	-1.47E-7	-3.75E-7
raceAfrican American_1 Asthmatic	5.295E-6	0.000015	-6.42E-6	-6.71E-7
raceAmerican Indian / Alaska Nat	-0.00007	-0.00006	-0.00009	-1.37E-6
raceAsian_1 Asthmatic Escalation	0.000066	7.579E-6	-0.00001	1.569E-6
raceLatino_1 Asthmatic Escalatio	7.579E-6	0.00003	-4.06E-6	-1.41E-6
raceMultiracial / Other_1 Asthma	-0.00001	-4.06E-6	0.000113	5.095E-7
pfpl0-99% FPL_1 Asthmatic Escala	1.569E-6	-1.41E-6	5.095E-7	6.038E-6

CHIS_82_Exacerbations
CHIS CHIS_DATA_BINOMIAL_ED2
PROC SURVEYLOGISTIC - May 4, 2019

The LOGISTIC Procedure

Estimated Correlation Matrix				
Parameter	Intercept_1 Asthmatic Escalation	SRSEXFemale_1 Asthmatic Escalati	raceAfrican American_1 Asthmatic	raceAmerican Indian / Alaska Nat
Intercept_1 Asthmatic Escalation	1.0000	-0.2491	-0.5444	0.6784
SRSEXFemale_1 Asthmatic Escalati	-0.2491	1.0000	-0.0275	-0.0041
raceAfrican American_1 Asthmatic	-0.5444	-0.0275	1.0000	-0.5648
raceAmerican Indian / Alaska Nat	0.6784	-0.0041	-0.5648	1.0000
raceAsian_1 Asthmatic Escalation	-0.2451	0.0253	0.1030	-0.4836
raceLatino_1 Asthmatic Escalatio	-0.7347	0.0085	0.4211	-0.6225
raceMultiracial / Other_1 Asthma	0.0393	-0.0056	-0.0955	-0.4273
pfpl0-99% FPL_1 Asthmatic Escala	0.2193	-0.0618	-0.0432	-0.0294

Estimated Correlation Matrix				
Parameter	raceAsian_1 Asthmatic Escalation	raceLatino_1 Asthmatic Escalatio	raceMultiracial / Other_1 Asthma	pfpl0-99% FPL_1 Asthmatic Escala
Intercept_1 Asthmatic Escalation	-0.2451	-0.7347	0.0393	0.2193
SRSEXFemale_1 Asthmatic Escalati	0.0253	0.0085	-0.0056	-0.0618
raceAfrican American_1 Asthmatic	0.1030	0.4211	-0.0955	-0.0432
raceAmerican Indian / Alaska Nat	-0.4836	-0.6225	-0.4273	-0.0294
raceAsian_1 Asthmatic Escalation	1.0000	0.1689	-0.1474	0.0784
raceLatino_1 Asthmatic Escalatio	0.1689	1.0000	-0.0693	-0.1041
raceMultiracial / Other_1 Asthma	-0.1474	-0.0693	1.0000	0.0195
pfpl0-99% FPL_1 Asthmatic Escala	0.0784	-0.1041	0.0195	1.0000

Classification Table									
Prob Level	Correct		Incorrect		Percentages				
	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

CHIS_82_Exacerbations
CHIS CHIS_DATA_BINOMIAL_ED2
PROC SURVEYLOGISTIC - May 4, 2019

The LOGISTIC Procedure

Predicted Probabilities for asthmaesc=1 Asthmatic Escalation

At pfpl=100% FPL and Above

