

CHIS_80_Hospitalizations
CHIS CHIS_DATA_BINOMIAL_ED
PROC SURVEYLOGISTIC - April 28, 2019

The LOGISTIC Procedure

Model Information		
Data Set	CHIS.CHIS_DATA_BINOMIAL_ED	
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.

Class Level Information						
Class	Value	Design Variables				
SRSEX	Female	1				
	Male	-1				
lateradult	Later Adult	-1				
	Young / Middle Aged	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				

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Class Level Information					
Class	Value	Design Variables			
	100% FPL and Above	-1			
INS	No	-1			
	Yes	1			

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

Model Fit Statistics		
Criterion	Intercept Only	Intercept and Covariates
AIC	1618958.7	1535387.0
SC	1618966.2	1535484.7
-2 Log L	1618956.7	1535361.0

R-Square	0.9979	Max-rescaled R-Square	0.9979
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Testing Global Null Hypothesis: BETA=0			
Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	83595.7131	12	<.0001
Score	93827.7228	12	<.0001
Wald	85257.4729	12	<.0001

Type 3 Analysis of Effects			
Effect	DF	Wald Chi-Square	Pr > ChiSq
SRSEX	1	9723.9178	<.0001
lateradult	1	69.9689	<.0001
CITIZEN2	2	1648.0768	<.0001
race	5	45331.8965	<.0001
childhh	1	402.3829	<.0001
pfpl	1	10857.8625	<.0001
INS	1	544.3975	<.0001

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Analysis of Maximum Likelihood Estimates								
Parameter		asthmaesc	DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq	Standardized Estimate
Intercept		1 Asthmatic Escalation	1	-2.2245	0.00684	105751.687	<.0001	
SRSEX	Female	1 Asthmatic Escalation	1	0.2452	0.00249	9723.9178	<.0001	1.8693
lateradult	Young / Middle Aged	1 Asthmatic Escalation	1	-0.0268	0.00321	69.9689	<.0001	-0.1577
CITIZEN2	Non-Citizen	1 Asthmatic Escalation	1	0.0547	0.00533	105.0974	<.0001	0.1869
CITIZEN2	US-Born Citizen	1 Asthmatic Escalation	1	-0.1614	0.00408	1568.4308	<.0001	-0.8387
race	African American	1 Asthmatic Escalation	1	0.9398	0.00640	21536.6137	<.0001	4.7185
race	American Indian / Alaska Native	1 Asthmatic Escalation	1	-0.0920	0.0190	23.4551	<.0001	-0.3755
race	Asian	1 Asthmatic Escalation	1	-0.4716	0.00875	2904.5819	<.0001	-2.4492
race	Latino	1 Asthmatic Escalation	1	0.1977	0.00572	1196.1966	<.0001	1.3208
race	Multiracial / Other	1 Asthmatic Escalation	1	-0.2018	0.0107	355.3132	<.0001	-0.9104
childhh	No Children in HH	1 Asthmatic Escalation	1	-0.0502	0.00250	402.3829	<.0001	-0.3497
pfpl	0-99% FPL	1 Asthmatic Escalation	1	0.2599	0.00249	10857.8625	<.0001	1.6065
INS	Yes	1 Asthmatic Escalation	1	0.0921	0.00395	544.3975	<.0001	0.4225

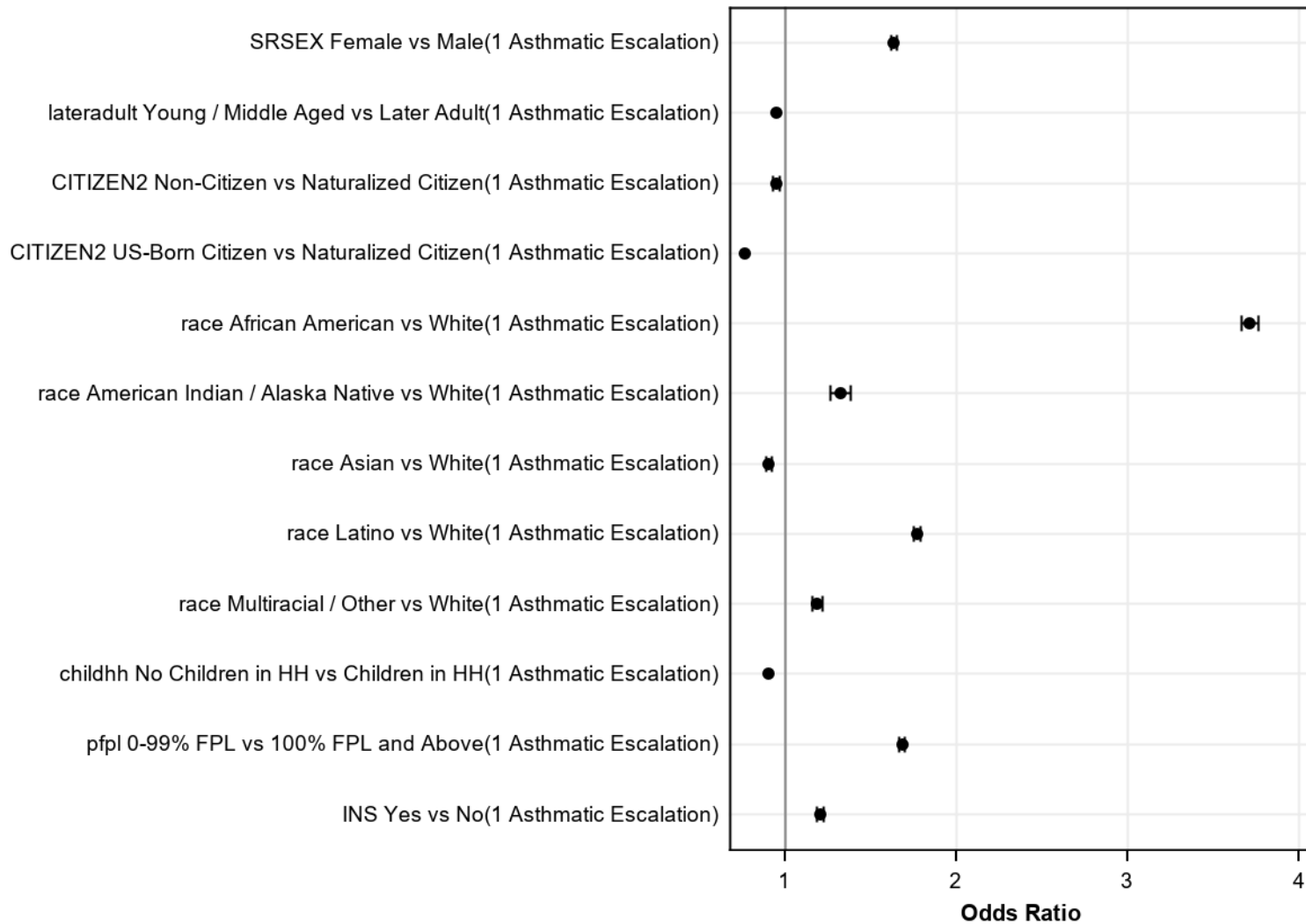
Odds Ratio Estimates				
Effect		asthmaesc	Point Estimate	95% Wald Confidence Limits
SRSEX	Female vs Male	1 Asthmatic Escalation	1.633	1.617 1.649
lateradult	Young / Middle Aged vs Later Adult	1 Asthmatic Escalation	0.948	0.936 0.960
CITIZEN2	Non-Citizen vs Naturalized Citizen	1 Asthmatic Escalation	0.949	0.932 0.967
CITIZEN2	US-Born Citizen vs Naturalized Citizen	1 Asthmatic Escalation	0.765	0.754 0.776
race	African American vs White	1 Asthmatic Escalation	3.713	3.666 3.761
race	American Indian / Alaska Native vs White	1 Asthmatic Escalation	1.323	1.265 1.384
race	Asian vs White	1 Asthmatic Escalation	0.905	0.888 0.923
race	Latino vs White	1 Asthmatic Escalation	1.768	1.748 1.788
race	Multiracial / Other vs White	1 Asthmatic Escalation	1.186	1.157 1.215
childhh	No Children in HH vs Children in HH	1 Asthmatic Escalation	0.904	0.896 0.913

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Odds Ratio Estimates					
Effect		asthmaesc	Point Estimate	95% Wald Confidence Limits	
pfpl	0-99% FPL vs 100% FPL and Above	1 Asthmatic Escalation	1.682	1.665	1.698
INS	Yes vs No	1 Asthmatic Escalation	1.202	1.184	1.221

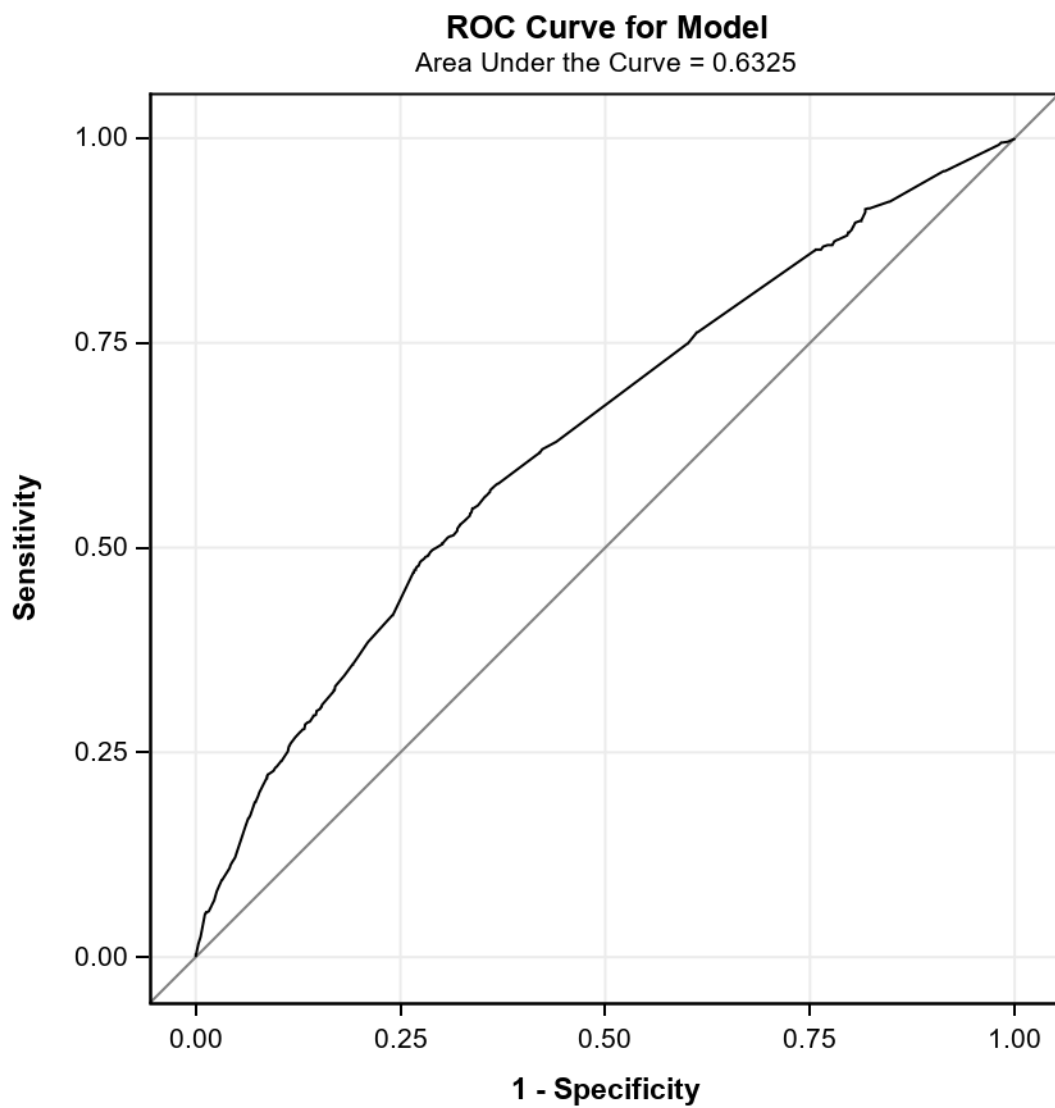
Odds Ratios with 95% Wald Confidence Limits



Association of Predicted Probabilities and Observed Responses			
Percent Concordant	61.0	Somers' D	0.265
Percent Discordant	34.5	Gamma	0.278
Percent Tied	4.5	Tau-a	0.039
Pairs	13682025	c	0.633

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Estimated Covariance Matrix				
Parameter	Intercept_1 Asthmatic Escalation	SRSEXFemale_1 Asthmatic Escalati	lateradultYoung / Middle Aged_1	CITIZEN2Non-Citizen_1 Asthmatic
Intercept_1 Asthmatic Escalation	0.000047	-3.03E-6	-8.39E-6	5.335E-6
SRSEXFemale_1 Asthmatic Escalati	-3.03E-6	6.184E-6	3.976E-7	5.025E-8
lateradultYoung / Middle Aged_1	-8.39E-6	3.976E-7	0.00001	-2.77E-7
CITIZEN2Non-Citizen_1 Asthmatic	5.335E-6	5.025E-8	-2.77E-7	0.000028
CITIZEN2US-Born Citizen_1 Asthma	-8.46E-6	7.371E-8	-1.38E-6	-9.98E-6
raceAfrican American_1 Asthmatic	-0.00001	-4.63E-7	-7.26E-7	1.625E-6
raceAmerican Indian / Alaska Nat	0.000063	-2.49E-7	1.607E-6	2.045E-6
raceAsian_1 Asthmatic Escalation	-0.00001	5.925E-7	-8.1E-7	6.978E-7
raceLatino_1 Asthmatic Escalatio	-0.00002	7.058E-8	-1.01E-6	-5.72E-6
raceMultiracial / Other_1 Asthma	5.292E-6	-1.56E-7	-2.77E-7	1.044E-6
childhhNo Children in HH_1 Asthm	-3.65E-6	5.083E-7	2.042E-6	1.791E-6
pfpl0-99% FPL_1 Asthmatic Escala	1.793E-6	-4.15E-7	-3.3E-7	-1.69E-6
INSYes_1 Asthmatic Escalation	-0.00001	-6.6E-7	1.472E-6	2.455E-6

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Estimated Covariance Matrix					
Parameter	CITIZEN2US-Born Citizen_1 Asthma	raceAfrican American_1 Asthmatic	raceAmerican Indian / Alaska Nat	raceAsian_1 Asthmatic Escalation	raceLatino_1 Asthmatic Escalatio
Intercept_1 Asthmatic Escalation	-8.46E-6	-0.00001	0.000063	-0.00001	-0.00002
SRSEXFemale_1 Asthmatic Escalati	7.371E-8	-4.63E-7	-2.49E-7	5.925E-7	7.058E-8
lateradultYoung / Middle Aged_1	-1.38E-6	-7.26E-7	1.607E-6	-8.1E-7	-1.01E-6
CITIZEN2Non-Citizen_1 Asthmatic	-9.98E-6	1.625E-6	2.045E-6	6.978E-7	-5.72E-6
CITIZEN2US-Born Citizen_1 Asthma	0.000017	-4.11E-6	-5.46E-6	0.000011	5.327E-6
raceAfrican American_1 Asthmatic	-4.11E-6	0.000041	-0.00007	2.206E-6	0.000013
raceAmerican Indian / Alaska Nat	-5.46E-6	-0.00007	0.000361	-0.00008	-0.00007
raceAsian_1 Asthmatic Escalation	0.000011	2.206E-6	-0.00008	0.000077	0.00001
raceLatino_1 Asthmatic Escalatio	5.327E-6	0.000013	-0.00007	0.00001	0.000033
raceMultiracial / Other_1 Asthma	-3.94E-6	-5.29E-6	-0.00009	-0.00002	-5.22E-6
childhhNo Children in HH_1 Asthm	-1.56E-6	2.678E-7	4.89E-7	-1.22E-6	1.468E-7
pfpl0-99% FPL_1 Asthmatic Escala	1.186E-6	-8.97E-7	-1.56E-6	1.87E-6	-8.95E-7
INSYes_1 Asthmatic Escalation	-1.36E-6	-4.99E-7	2.717E-6	-1.47E-6	6.715E-7

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Estimated Covariance Matrix				
Parameter	raceMultiracial / Other_1 Asthma	childhhNo Children in HH_1 Asthm	pfpl0-99% FPL_1 Asthmatic Escala	INSYes_1 Asthmatic Escalation
Intercept_1 Asthmatic Escalation	5.292E-6	-3.65E-6	1.793E-6	-0.00001
SRSEXFemale_1 Asthmatic Escalati	-1.56E-7	5.083E-7	-4.15E-7	-6.6E-7
lateradultYoung / Middle Aged_1	-2.77E-7	2.042E-6	-3.3E-7	1.472E-6
CITIZEN2Non-Citizen_1 Asthmatic	1.044E-6	1.791E-6	-1.69E-6	2.455E-6
CITIZEN2US-Born Citizen_1 Asthma	-3.94E-6	-1.56E-6	1.186E-6	-1.36E-6
raceAfrican American_1 Asthmatic	-5.29E-6	2.678E-7	-8.97E-7	-4.99E-7
raceAmerican Indian / Alaska Nat	-0.00009	4.89E-7	-1.56E-6	2.717E-6
raceAsian_1 Asthmatic Escalation	-0.00002	-1.22E-6	1.87E-6	-1.47E-6
raceLatino_1 Asthmatic Escalatio	-5.22E-6	1.468E-7	-8.95E-7	6.715E-7
raceMultiracial / Other_1 Asthma	0.000115	3.389E-7	3.18E-7	-7.5E-7
childhhNo Children in HH_1 Asthm	3.389E-7	6.265E-6	-4.41E-8	7.514E-7
pfpl0-99% FPL_1 Asthmatic Escala	3.18E-7	-4.41E-8	6.222E-6	3.519E-7
INSYes_1 Asthmatic Escalation	-7.5E-7	7.514E-7	3.519E-7	0.000016

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Estimated Correlation Matrix				
Parameter	Intercept_1 Asthmatic Escalation	SRSEXFemale_1 Asthmatic Escalati	lateradultYoung / Middle Aged_1	CITIZEN2Non-Citizen_1 Asthmatic
Intercept_1 Asthmatic Escalation	1.0000	-0.1779	-0.3828	0.1463
SRSEXFemale_1 Asthmatic Escalati	-0.1779	1.0000	0.0499	0.0038
lateradultYoung / Middle Aged_1	-0.3828	0.0499	1.0000	-0.0162
CITIZEN2Non-Citizen_1 Asthmatic	0.1463	0.0038	-0.0162	1.0000
CITIZEN2US-Born Citizen_1 Asthma	-0.3035	0.0073	-0.1058	-0.4591
raceAfrican American_1 Asthmatic	-0.3016	-0.0291	-0.0354	0.0476
raceAmerican Indian / Alaska Nat	0.4825	-0.0053	0.0264	0.0202
raceAsian_1 Asthmatic Escalation	-0.2447	0.0272	-0.0289	0.0150
raceLatino_1 Asthmatic Escalatio	-0.5959	0.0050	-0.0554	-0.1876
raceMultiracial / Other_1 Asthma	0.0723	-0.0059	-0.0081	0.0183
childhhNo Children in HH_1 Asthm	-0.2130	0.0817	0.2545	0.1342
pfpl0-99% FPL_1 Asthmatic Escala	0.1051	-0.0669	-0.0413	-0.1272
INSYes_1 Asthmatic Escalation	-0.4656	-0.0672	0.1163	0.1166

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Estimated Correlation Matrix					
Parameter	CITIZEN2US-Born Citizen_1 Asthma	raceAfrican American_1 Asthmatic	raceAmerican Indian / Alaska Nat	raceAsian_1 Asthmatic Escalation	raceLatino_1 Asthmatic Escalatio
Intercept_1 Asthmatic Escalation	-0.3035	-0.3016	0.4825	-0.2447	-0.5959
SRSEXFemale_1 Asthmatic Escalati	0.0073	-0.0291	-0.0053	0.0272	0.0050
lateradultYoung / Middle Aged_1	-0.1058	-0.0354	0.0264	-0.0289	-0.0554
CITIZEN2Non-Citizen_1 Asthmatic	-0.4591	0.0476	0.0202	0.0150	-0.1876
CITIZEN2US-Born Citizen_1 Asthma	1.0000	-0.1575	-0.0705	0.3147	0.2286
raceAfrican American_1 Asthmatic	-0.1575	1.0000	-0.5449	0.0394	0.3671
raceAmerican Indian / Alaska Nat	-0.0705	-0.5449	1.0000	-0.4735	-0.6116
raceAsian_1 Asthmatic Escalation	0.3147	0.0394	-0.4735	1.0000	0.2017
raceLatino_1 Asthmatic Escalatio	0.2286	0.3671	-0.6116	0.2017	1.0000
raceMultiracial / Other_1 Asthma	-0.0904	-0.0772	-0.4180	-0.1698	-0.0853
childhhNo Children in HH_1 Asthm	-0.1532	0.0167	0.0103	-0.0555	0.0103
pfpl0-99% FPL_1 Asthmatic Escala	0.1166	-0.0561	-0.0330	0.0857	-0.0628
INSYes_1 Asthmatic Escalation	-0.0845	-0.0197	0.0362	-0.0425	0.0297

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Estimated Correlation Matrix				
Parameter	raceMultiracial / Other_1 Asthma	childhhNo Children in HH_1 Asthm	pfpl0-99% FPL_1 Asthmatic Escala	INSYes_1 Asthmatic Escalation
Intercept_1 Asthmatic Escalation	0.0723	-0.2130	0.1051	-0.4656
SRSEXFemale_1 Asthmatic Escalati	-0.0059	0.0817	-0.0669	-0.0672
lateradultYoung / Middle Aged_1	-0.0081	0.2545	-0.0413	0.1163
CITIZEN2Non-Citizen_1 Asthmatic	0.0183	0.1342	-0.1272	0.1166
CITIZEN2US-Born Citizen_1 Asthma	-0.0904	-0.1532	0.1166	-0.0845
raceAfrican American_1 Asthmatic	-0.0772	0.0167	-0.0561	-0.0197
raceAmerican Indian / Alaska Nat	-0.4180	0.0103	-0.0330	0.0362
raceAsian_1 Asthmatic Escalation	-0.1698	-0.0555	0.0857	-0.0425
raceLatino_1 Asthmatic Escalatio	-0.0853	0.0103	-0.0628	0.0297
raceMultiracial / Other_1 Asthma	1.0000	0.0127	0.0119	-0.0177
childhhNo Children in HH_1 Asthm	0.0127	1.0000	-0.0071	0.0760
pfpl0-99% FPL_1 Asthmatic Escala	0.0119	-0.0071	1.0000	0.0357
INSYes_1 Asthmatic Escalation	-0.0177	0.0760	0.0357	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

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Predicted Probabilities for asthmaesc=1 Asthmatic Escalation

At CITIZEN2=Naturalized Citizen race=White childhh=Children in HH pfpl=100% FPL and Above INS=No

