FinalModeling
CHIS   CHIS_DATA_BINOMIAL_ED2
PROC SURVEYLOGISTIC - May 4, 2019

The SURVEYLOGISTIC 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	124521
Number of Observations Used	124521
Sum of Weights Read	28246634
Sum of Weights Used	28246634

Response Profile			
Ordered Value	nonasthmatic	Total Frequency	Total Weight
1	1 Non-Asthmatic	110931	25480744
2	2 Current Asthmatic	13590	2765889

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

Variance Estimation	
Method	Jackknife
Replicate Weights	CHIS_DATA_BINOMIAL_C
Number of Replicates	160

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

Model Fit Statistics		
Criterion	Intercept Only	Intercept and Covariates
AIC	18105355	17539060
SC	18105370	17539151
-2 Log L	18105353	17539048

R-Square	0.0198	Max-rescaled R-Square	0.0419

FinalModeling
CHIS   CHIS_DATA_BINOMIAL_ED2
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The SURVEYLOGISTIC Procedure

Testing Global Null Hypothesis: BETA=0				
Test	F Value	Num DF	Den DF	Pr > F
Likelihood Ratio	395.63	4.5402	726.44	<.0001
Score	111.03	5	160	<.0001
Wald	85.61	5	160	<.0001
NOTE: Second-order Rao-Scott design correction 0.1013 applied to the Likelihood Ratio test.				

Type 3 Analysis of Effects				
Effect	F Value	Num DF	Den DF	Pr > F
SRSEX	96.07	1	160	<.0001
CITIZEN2	175.67	1	160	<.0001
race	12.52	1	160	0.0005
pfpl	53.88	1	160	<.0001
INS	19.68	1	160	<.0001

Analysis of Maximum Likelihood Estimates						
Parameter	nonasthmatic	Estimate	Standard Error	t Value	Pr > |t|	Standardized Estimate
Intercept	2 Current Asthmatic	-1.5875	0.1547	-10.26	<.0001	
SRSEX	2 Current Asthmatic	0.4781	0.0488	9.80	<.0001	1.9843
CITIZEN2	2 Current Asthmatic	-0.5376	0.0406	-13.25	<.0001	-3.3835
race	2 Current Asthmatic	0.0346	0.00979	3.54	0.0005	0.6758
pfpl	2 Current Asthmatic	-0.1055	0.0144	-7.34	<.0001	-1.3060
INS	2 Current Asthmatic	-0.2932	0.0661	-4.44	<.0001	-0.8557
NOTE: The degrees of freedom for the t tests is 160.						

Odds Ratio Estimates				
Effect	nonasthmatic	Point Estimate	95% Confidence Limits	
SRSEX	2 Current Asthmatic	1.613	1.465	1.776
CITIZEN2	2 Current Asthmatic	0.584	0.539	0.633
race	2 Current Asthmatic	1.035	1.015	1.055
pfpl	2 Current Asthmatic	0.900	0.875	0.926
INS	2 Current Asthmatic	0.746	0.655	0.850
NOTE: The degrees of freedom in computing the confidence limits is 160.				

FinalModeling
CHIS   CHIS_DATA_BINOMIAL_ED2
PROC SURVEYLOGISTIC - May 4, 2019

The SURVEYLOGISTIC Procedure

Association of Predicted Probabilities and Observed Responses			
Percent Concordant	38.5	Somers' D	0.156
Percent Discordant	22.9	Gamma	0.255
Percent Tied	38.6	Tau-a	0.040
Pairs	2118195681.5	c	0.578

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	0.023936	-0.00459	-0.00271	-0.00025	-0.00117	-0.00557
SRSEX_2 Current Asthmatic	-0.00459	0.002379	0.000236	-0.00005	0.000123	0.000078
CITIZEN2_2 Current Asthmatic	-0.00271	0.000236	0.001645	0.000086	0.000074	-0.00037
race_2 Current Asthmatic	-0.00025	-0.00005	0.000086	0.000096	-0.00005	-0.00003
pfpl_2 Current Asthmatic	-0.00117	0.000123	0.000074	-0.00005	0.000207	0.000213
INS_2 Current Asthmatic	-0.00557	0.000078	-0.00037	-0.00003	0.000213	0.004369

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	-0.6082	-0.4318	-0.1634	-0.5240	-0.5449
SRSEX_2 Current Asthmatic	-0.6082	1.0000	0.1193	-0.0955	0.1756	0.0243
CITIZEN2_2 Current Asthmatic	-0.4318	0.1193	1.0000	0.2160	0.1275	-0.1392
race_2 Current Asthmatic	-0.1634	-0.0955	0.2160	1.0000	-0.3529	-0.0526
pfpl_2 Current Asthmatic	-0.5240	0.1756	0.1275	-0.3529	1.0000	0.2240
INS_2 Current Asthmatic	-0.5449	0.0243	-0.1392	-0.0526	0.2240	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	25	111E3	249	13565	88.9	0.2	99.8	9.1	89.1

FinalModeling
CHIS   CHIS_DATA_BINOMIAL_ED2
PROC SURVEYLOGISTIC - May 4, 2019

The SURVEYLOGISTIC Procedure

Domain Analysis for domain analyzeData=1

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	124521
Number of Observations Used	124521
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.

Domain Summary	
Number of Observations	124521
Number of Observations in Domain	119710
Number of Observations not in Domain	4811
Sum of Weights in Domain	26984609

Variance Estimation	
Method	Jackknife
Replicate Weights	CHIS_DATA_BINOMIAL_C
Number of Replicates	160

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

FinalModeling
CHIS   CHIS_DATA_BINOMIAL_ED2
PROC SURVEYLOGISTIC - May 4, 2019

The SURVEYLOGISTIC Procedure

Domain Analysis for domain analyzeData=1

Model Fit Statistics		
Criterion	Intercept Only	Intercept and Covariates
AIC	17838929	17257360
SC	17838944	17257451
-2 Log L	17838927	17257348

R-Square	0.0213	Max-rescaled R-Square	0.0441

Testing Global Null Hypothesis: BETA=0				
Test	F Value	Num DF	Den DF	Pr > F
Likelihood Ratio	406.87	4.5442	727.07	<.0001
Score	114.18	5	160	<.0001
Wald	86.22	5	160	<.0001
NOTE: Second-order Rao-Scott design correction 0.1003 applied to the Likelihood Ratio test.				

Type 3 Analysis of Effects			
Effect	F Value	Num DF	Den DF	Pr > F
SRSEX	88.93	1	160	<.0001
CITIZEN2	188.50	1	160	<.0001
race	11.35	1	160	0.0009
pfpl	51.18	1	160	<.0001
INS	20.13	1	160	<.0001

Analysis of Maximum Likelihood Estimates						
Parameter	nonasthmatic	Estimate	Standard Error	t Value	Pr > |t|	Standardized Estimate
Intercept	2 Current Asthmatic	-1.4716	0.1546	-9.52	<.0001	
SRSEX	2 Current Asthmatic	0.4610	0.0489	9.43	<.0001	1.8700
CITIZEN2	2 Current Asthmatic	-0.5596	0.0408	-13.73	<.0001	-3.4680
race	2 Current Asthmatic	0.0332	0.00985	3.37	0.0009	0.6326
pfpl	2 Current Asthmatic	-0.1043	0.0146	-7.15	<.0001	-1.2670
INS	2 Current Asthmatic	-0.2977	0.0663	-4.49	<.0001	-0.8522
NOTE: The degrees of freedom for the t tests is 160.						

FinalModeling
CHIS   CHIS_DATA_BINOMIAL_ED2
PROC SURVEYLOGISTIC - May 4, 2019

The SURVEYLOGISTIC Procedure

Domain Analysis for domain analyzeData=1

Odds Ratio Estimates				
Effect	**nonasthmatic**	**Point Estimate**	**95% Confidence Limits**	
SRSEX	2 Current Asthmatic	1.586	1.440	1.746
CITIZEN2	2 Current Asthmatic	0.571	0.527	0.619
race	2 Current Asthmatic	1.034	1.014	1.054
pfpl	2 Current Asthmatic	0.901	0.875	0.927
INS	2 Current Asthmatic	0.743	0.651	0.847
NOTE: The degrees of freedom in computing the confidence limits is 160.				

Association of Predicted Probabilities and Observed Responses			
Percent Concordant	54.3	**Somers' D**	0.222
Percent Discordant	32.0	**Gamma**	0.258
Percent Tied	13.7	**Tau-a**	0.045
Pairs	1442170800	**c**	0.611

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	0.02389	-0.0046	-0.0027	-0.00025	-0.00118	-0.0055
SRSEX_2 Current Asthmatic	-0.0046	0.00239	0.000241	-0.00004	0.000124	0.000049
CITIZEN2_2 Current Asthmatic	-0.0027	0.000241	0.001661	0.000087	0.000078	-0.00041
race_2 Current Asthmatic	-0.00025	-0.00004	0.000087	0.000097	-0.00005	-0.00004
pfpl_2 Current Asthmatic	-0.00118	0.000124	0.000078	-0.00005	0.000212	0.000207
INS_2 Current Asthmatic	-0.0055	0.000049	-0.00041	-0.00004	0.000207	0.004402

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	-0.6083	-0.4285	-0.1673	-0.5233	-0.5360
SRSEX_2 Current Asthmatic	-0.6083	1.0000	0.1209	-0.0845	0.1746	0.0152
CITIZEN2_2 Current Asthmatic	-0.4285	0.1209	1.0000	0.2174	0.1309	-0.1509
race_2 Current Asthmatic	-0.1673	-0.0845	0.2174	1.0000	-0.3538	-0.0563
pfpl_2 Current Asthmatic	-0.5233	0.1746	0.1309	-0.3538	1.0000	0.2139
INS_2 Current Asthmatic	-0.5360	0.0152	-0.1509	-0.0563	0.2139	1.0000

FinalModeling
CHIS   CHIS_DATA_BINOMIAL_ED2
PROC SURVEYLOGISTIC - May 4, 2019

The SURVEYLOGISTIC Procedure

Domain Analysis for domain analyzeData=1

Classification Table									
	Correct		Incorrect		Percentages				
Prob Level	Event	Non-Event	Event	Non-Event	Correct	Sensi-tivity	Speci-ficity	Pos Pred	Neg Pred
0.852	27	111E3	278	13563	88.9	0.2	99.7	8.9	89.1