

The CONTENTS Procedure

Alphabetic List of Variables for WORK.FRAME
BMI BPMeds ID TenYearCHD age cigsPerDay currentSmoker diaBP diabetes education glucose heartRate male prevalentHyp prevalentStroke sysBP totChol

# Framingham Heart Study The First Five Observations

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ID	male	age	education	currentSmoker	cigsPerDay	BPMeds	prevalentStroke	prevalentHyp	diabetes
1	1	39	4	0	0	0	0	0	0
2	0	46	2	0	0	0	0	0	0
3	1	48	1	1	20	0	0	0	0
4	0	61	3	1	30	0	0	1	0
5	0	46	3	1	23	0	0	0	0

totChol	sysBP	diaBP	BMI	heartRate	glucose	TenYearCHD
195	106	70	27	80	77	0
250	121	81	29	95	76	0
245	128	80	25	75	70	0
225	150	95	29	65	103	1
285	130	84	23	85	85	0

# Framingham Heart Study New Sample of Size 2500

## The SURVEYSELECT Procedure

Selection Method	Simple Random Sampling
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Input Data Set	FRAME
Random Number Seed	2024
Sample Size	2500
Selection Probability	0.589623
Sampling Weight	1.696
Output Data Set	NEW_FRAME

# Framingham Heart Study New Sample of Size 2500

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## The MEANS Procedure

Variable	N	Mean	Std Dev	Minimum	Maximum
BMI	2487	25.8994773	4.1078026	16.0000000	51.0000000
BPMeds	2463	0.0300447	0.1707449	0	1.0000000
ID	2500	2127.52	1230.71	1.0000000	4239.00
TenYearCHD	2500	0.1568000	0.3636848	0	1.0000000
age	2500	49.6252000	8.5085418	32.0000000	70.0000000
cigsPerDay	2482	8.9875101	11.8680202	0	70.0000000
currentSmoker	2500	0.4940000	0.5000640	0	1.0000000
diaBP	2500	82.9724000	11.8420155	48.0000000	140.0000000
diabetes	2500	0.0232000	0.1505684	0	1.0000000
education	2439	1.9852399	1.0242083	1.0000000	4.0000000
glucose	2279	81.7134708	23.4824566	40.0000000	394.0000000
heartRate	2500	75.7928000	11.9425172	44.0000000	140.0000000
male	2500	0.4364000	0.4960378	0	1.0000000
prevalentHyp	2500	0.3216000	0.4671838	0	1.0000000
prevalentStroke	2500	0.0064000	0.0797595	0	1.0000000
sysBP	2500	132.4004000	21.9483569	84.0000000	295.0000000
totChol	2468	236.1017018	44.8572816	107.0000000	696.0000000

The FREQ Procedure

Frequency  
Percent  
Row Pct  
Col Pct

Table 1 of TenYearCHD by currentSmoker			
Controlling for male=0			
TenYearCHD	currentSmoker		
	0	1	Total
0	708	503	1211
	50.25	35.70	85.95
	58.46	41.54	
	85.20	87.02	
1	123	75	198
	8.73	5.32	14.05
	62.12	37.88	
	14.80	12.98	
Total	831	578	1409
	58.98	41.02	100.00

Frequency  
Percent  
Row Pct  
Col Pct

Table 2 of TenYearCHD by currentSmoker			
Controlling for male=1			
TenYearCHD	currentSmoker		
	0	1	Total
0	364	533	897
	33.36	48.85	82.22
	40.58	59.42	
	83.87	81.13	
1	70	124	194
	6.42	11.37	17.78
	36.08	63.92	
	16.13	18.87	
Total	434	657	1091
	39.78	60.22	100.00

Frequency  
Percent  
Row Pct  
Col Pct

Table 1 of TenYearCHD by prevalentStroke			
Controlling for male=0			
TenYearCHD	prevalentStroke		
	0	1	Total
0	1206	5	1211
	85.59	0.35	85.95
	99.59	0.41	
	86.20	50.00	
1	193	5	198
	13.70	0.35	14.05
	97.47	2.53	
	13.80	50.00	
Total	1399	10	1409
	99.29	0.71	100.00

# Framingham Heart Study New Sample of Size 2500

## The FREQ Procedure

Frequency Percent Row Pct Col Pct	Table 2 of TenYearCHD by prevalentStroke			
	Controlling for male=1			
	prevalentStroke			
	TenYearCHD	0	1	Total
	<b>0</b>	894 81.94 99.67 82.40	3 0.27 0.33 50.00	897 82.22
	<b>1</b>	191 17.51 98.45 17.60	3 0.27 1.55 50.00	194 17.78
	<b>Total</b>	1085 99.45	6 0.55	1091 100.00

# Framingham Heart Study New Sample of Size 2500

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## The MEANS Procedure

Variable	N	Minimum	Lower Quartile	Median	Mean	Upper Quartile	Maximum	Std Dev
BMI	2487	16.0000000	23.0000000	25.0000000	25.8994773	28.0000000	51.0000000	4.1078026
age	2500	32.0000000	42.0000000	49.0000000	49.6252000	56.0000000	70.0000000	8.5085418
cigsPerDay	2482	0	0	0	8.9875101	20.0000000	70.0000000	11.8680202
diaBP	2500	48.0000000	75.0000000	82.0000000	82.9724000	90.0000000	140.0000000	11.8420155
glucose	2279	40.0000000	71.0000000	78.0000000	81.7134708	87.0000000	394.0000000	23.4824566
heartRate	2500	44.0000000	68.0000000	75.0000000	75.7928000	82.0000000	140.0000000	11.9425172
sysBP	2500	84.0000000	117.0000000	128.0000000	132.4004000	144.0000000	295.0000000	21.9483569
totChol	2468	107.0000000	205.0000000	233.0000000	236.1017018	262.0000000	696.0000000	44.8572816

# Framingham Heart Study New Sample of Size 2500

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## The MEANS Procedure

TenYearCHD=0

Variable	N	Minimum	Lower Quartile	Median	Mean	Upper Quartile	Maximum	Std Dev
BMI	2104	16.0000000	23.0000000	25.0000000	25.7913498	28.0000000	51.0000000	4.0636520
age	2108	32.0000000	42.0000000	48.0000000	48.7371917	55.0000000	70.0000000	8.3083779
cigsPerDay	2092	0	0	0	8.7906310	20.0000000	70.0000000	11.7259945
diaBP	2108	50.0000000	74.0000000	81.0000000	82.3434535	89.0000000	136.0000000	11.3557760
glucose	1920	40.0000000	71.0000000	78.0000000	80.7161458	86.0000000	386.0000000	19.3261724
heartRate	2108	44.0000000	68.0000000	75.0000000	75.6911765	82.0000000	140.0000000	11.9213519
sysBP	2108	85.0000000	116.0000000	127.0000000	130.3989564	141.0000000	232.0000000	20.3744431
totChol	2082	113.0000000	204.0000000	232.0000000	234.6858790	260.0000000	696.0000000	44.0797002

TenYearCHD=1

Variable	N	Minimum	Lower Quartile	Median	Mean	Upper Quartile	Maximum	Std Dev
BMI	383	17.0000000	24.0000000	26.0000000	26.4934726	29.0000000	44.0000000	4.2995597
age	392	35.0000000	49.0000000	55.0000000	54.4005102	61.0000000	70.0000000	7.9753649
cigsPerDay	390	0	0	1.0000000	10.0435897	20.0000000	60.0000000	12.5657406
diaBP	392	48.0000000	78.0000000	85.0000000	86.3545918	94.0000000	140.0000000	13.7030726
glucose	359	40.0000000	72.0000000	78.0000000	87.0473538	91.0000000	394.0000000	38.3775785
heartRate	392	50.0000000	68.0000000	75.0000000	76.3392857	83.0000000	115.0000000	12.0563336
sysBP	392	84.0000000	124.5000000	139.0000000	143.1632653	158.0000000	295.0000000	26.5365429
totChol	386	107.0000000	211.0000000	240.0000000	243.7383420	273.0000000	464.0000000	48.1860187



# Framingham Heart Study Model the Event of having CHD > 10 years

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## The LOGISTIC Procedure

Model Information	
Data Set	WORK.NEW_FRAME
Response Variable	TenYearCHD
Number of Response Levels	2
Model	binary logit
Optimization Technique	Fisher's scoring

Number of Observations Read	2500
Number of Observations Used	2500

Response Profile		
Ordered Value	TenYearCHD	Total Frequency
1	0	2108
2	1	392

Probability modeled is TenYearCHD='1'.

Class Level Information			
Class	Value	Design Variables	
currentSmoker	0	1	0
	1	0	1
prevalentStroke	0	1	0
	1	0	1

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

Model Fit Statistics		
Criterion	Intercept Only	Intercept and Covariates
AIC	2173.626	1971.503
SC	2179.450	2006.447
-2 Log L	2171.626	1959.503

# Framingham Heart Study Model the Event of having CHD > 10 years

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## The LOGISTIC Procedure

Testing Global Null Hypothesis: BETA=0			
Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	212.1236	5	<.0001
Score	216.8256	5	<.0001
Wald	188.2567	5	<.0001

Type 3 Analysis of Effects			
Effect	DF	Wald Chi-Square	Pr > ChiSq
age	1	87.9036	<.0001
male	1	7.7950	0.0052
sysBP	1	39.5977	<.0001
currentSmoker	1	10.9031	0.0010
prevalentStroke	1	5.7984	0.0160

Analysis of Maximum Likelihood Estimates							
Parameter		DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq	Exp(Est)
Intercept		1	-6.1839	0.7233	73.0964	<.0001	0.002
age		1	0.0709	0.00756	87.9036	<.0001	1.073
male		1	0.3323	0.1190	7.7950	0.0052	1.394
sysBP		1	0.0161	0.00256	39.5977	<.0001	1.016
currentSmoker	0	1	-0.4047	0.1225	10.9031	0.0010	0.667
currentSmoker	1	0	0	.	.	.	.
prevalentStroke	0	1	-1.3156	0.5463	5.7984	0.0160	0.268
prevalentStroke	1	0	0	.	.	.	.

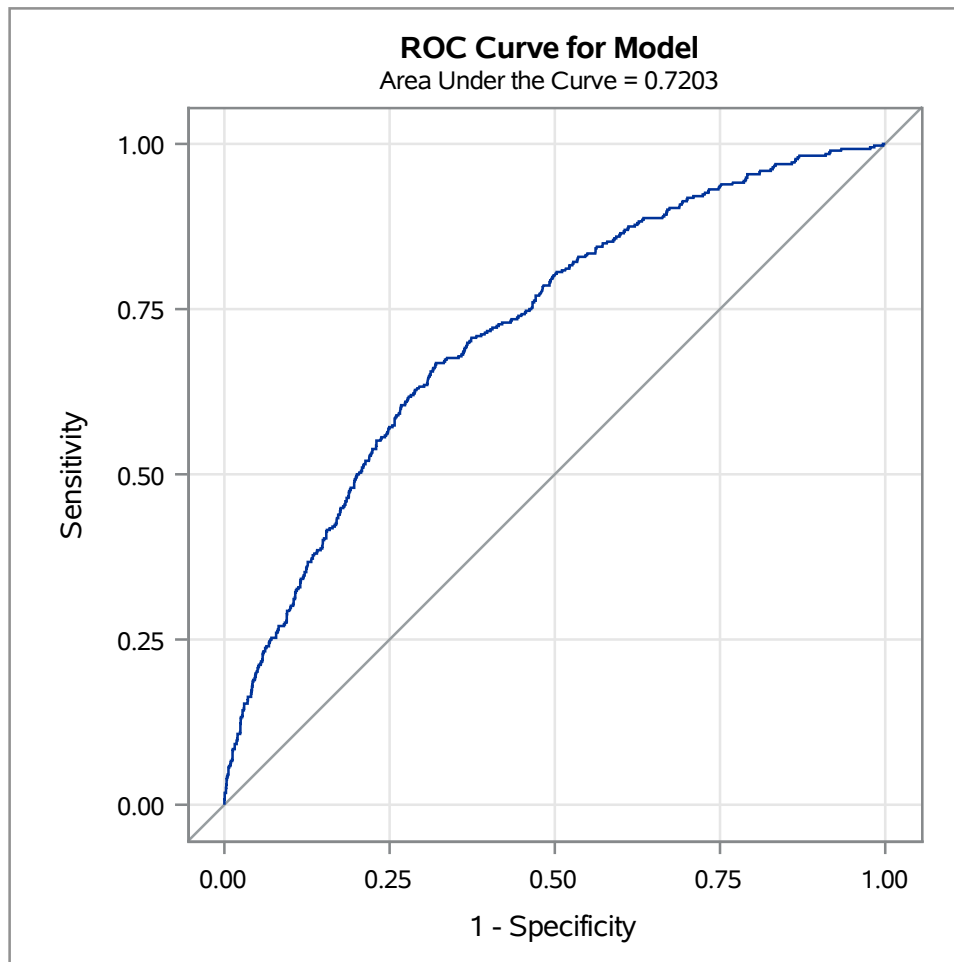
Odds Ratio Estimates			
Effect	Point Estimate	95% Wald Confidence Limits	
age	1.073	1.058	1.090
male	1.394	1.104	1.760
sysBP	1.016	1.011	1.021
currentSmoker 0 vs 1	0.667	0.525	0.848
prevalentStroke 0 vs 1	0.268	0.092	0.783

**Framingham Heart Study**  
**Model the Event of having CHD > 10 years**

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**The LOGISTIC Procedure**

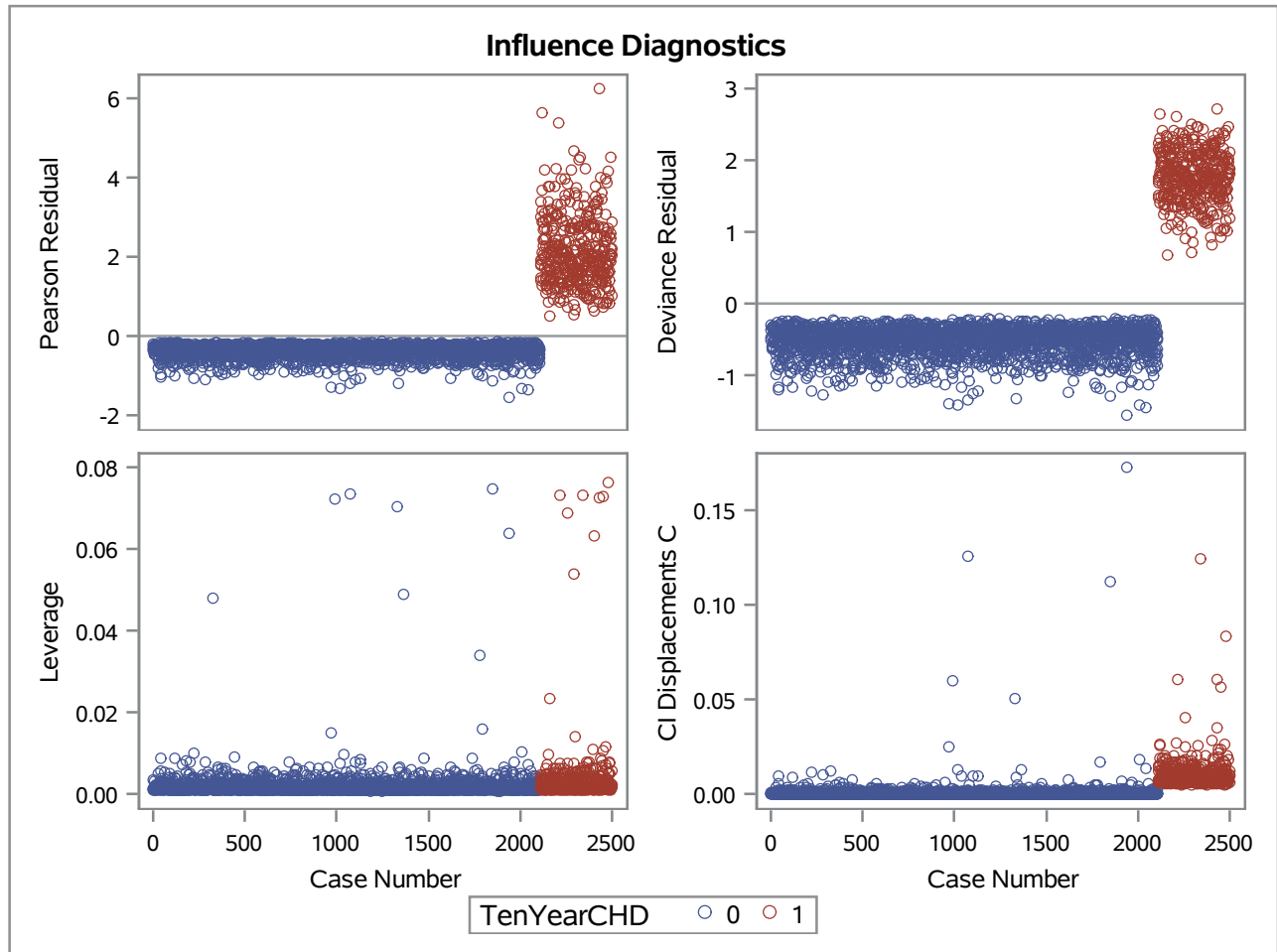
Association of Predicted Probabilities and Observed Responses			
Percent Concordant	72.0	Somers' D	0.441
Percent Discordant	28.0	Gamma	0.441
Percent Tied	0.0	Tau-a	0.117
Pairs	826336	c	0.720



Framingham Heart Study  
Model the Event of having CHD > 10 years

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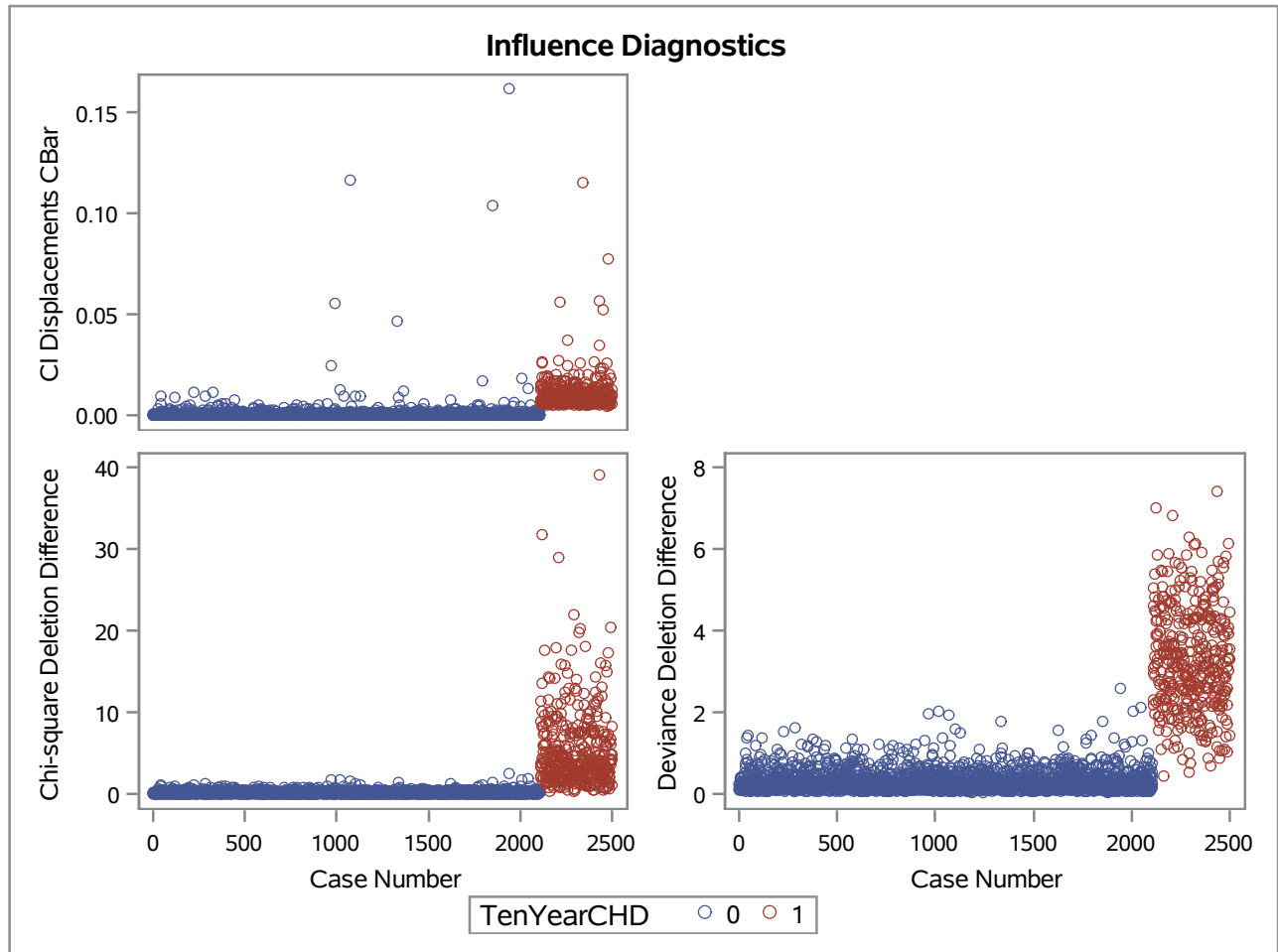
The LOGISTIC Procedure



Framingham Heart Study  
Model the Event of having CHD > 10 years

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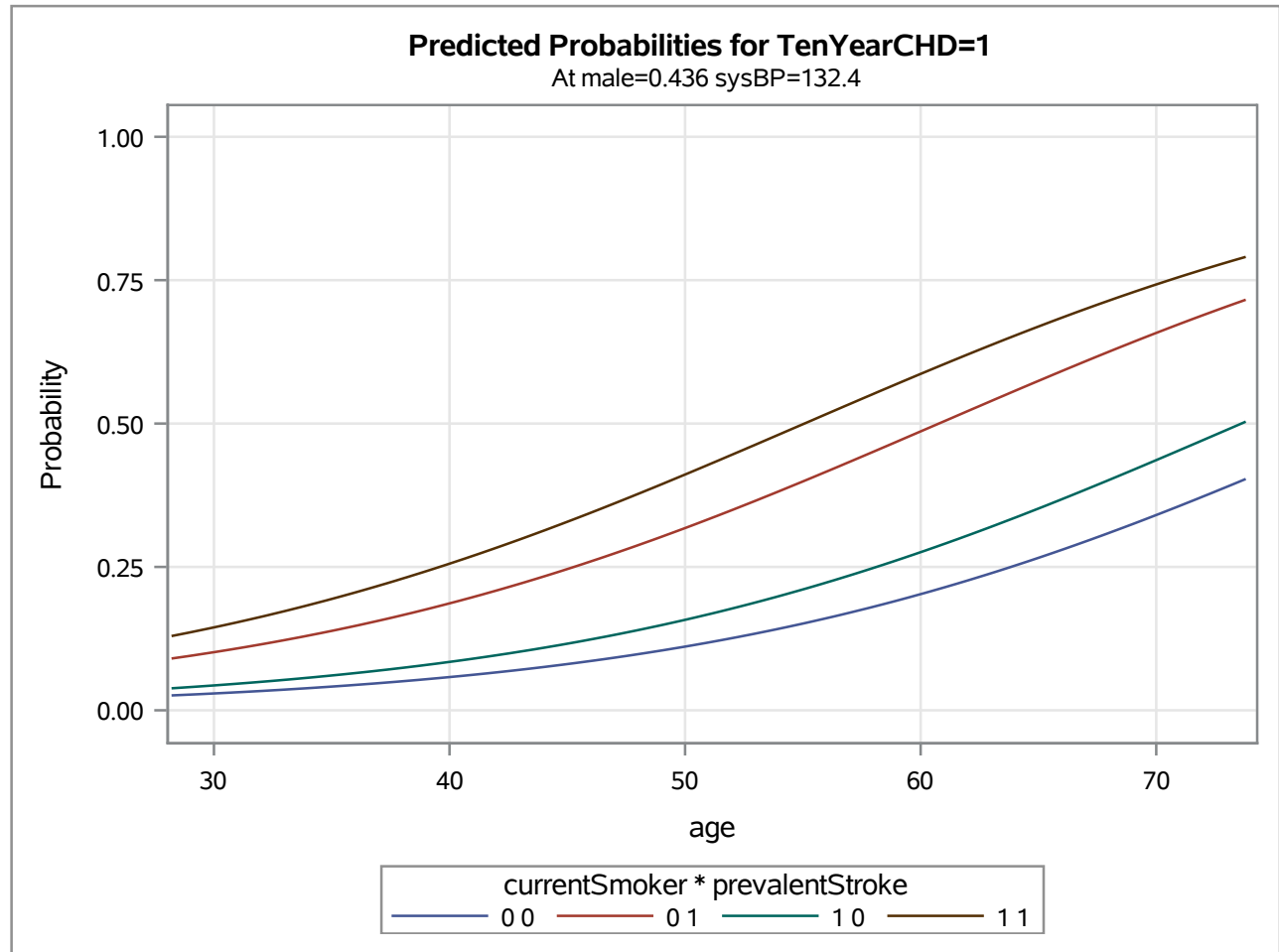
The LOGISTIC Procedure



Framingham Heart Study  
Model the Event of having CHD > 10 years

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The LOGISTIC Procedure



**The HPSPLIT Procedure**

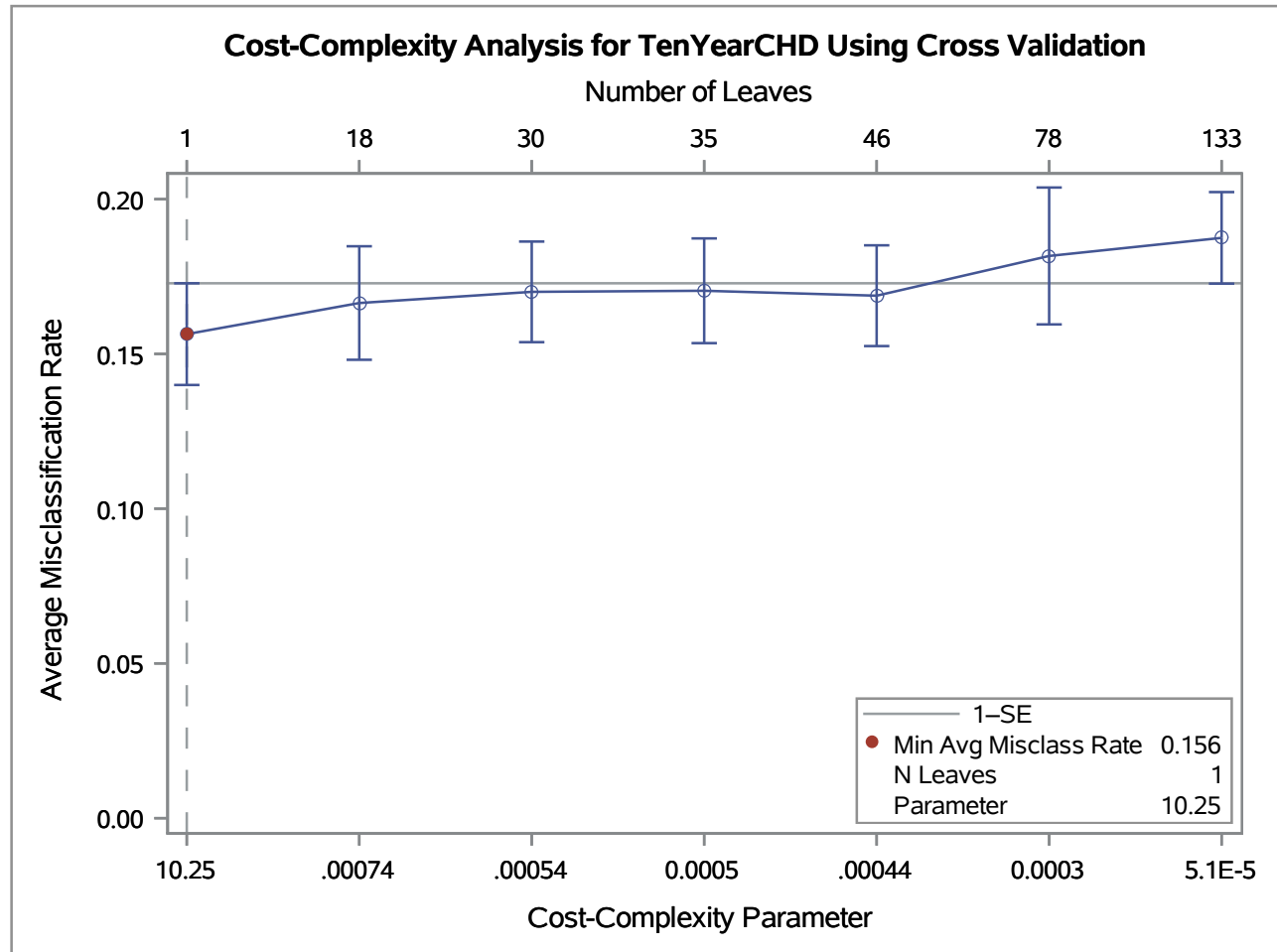
Performance Information	
Execution Mode	Single-Machine
Number of Threads	2

Data Access Information			
Data	Engine	Role	Path
WORK.NEW_FRAME	V9	Input	On Client

Model Information	
Split Criterion Used	Entropy
Pruning Method	Cost-Complexity
Subtree Evaluation Criterion	Cost-Complexity
Number of Branches	2
Maximum Tree Depth Requested	10
Maximum Tree Depth Achieved	10
Tree Depth	0
Number of Leaves Before Pruning	168
Number of Leaves After Pruning	1
Model Event Level	1

Number of Observations Read	2500
Number of Observations Used	2500

The HPSPLIT Procedure



10-Fold Cross Validation Assessment of Model											
N Leaves	Average Square Error				Number of Leaves			Misclassification Rate			
	Min	Avg	Standard Error	Max	Min	Median	Max	Min	Avg	Standard Error	Max
1	0.1016	0.1324	0.0161	0.1653	1	1.0	1	0.1116	0.1569	0.0234	0.2043

10-Fold Cross Validation Confusion Matrix			
Actual	Predicted		Error Rate
	0	1	
0	2108	0	0.0000
1	392	0	1.0000



The HPSPLIT Procedure

Classification Tree for TenYearCHD

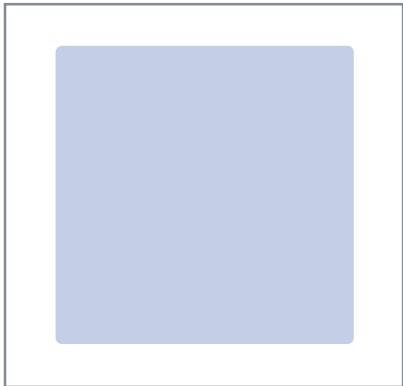


0

TenYearCHD     0     1

The HPSPLIT Procedure

Subtree Starting at Node=0



Node	0
N	2500
1	0.8432
<hr/>	
1	0.8432
2	0.1568

1 TenYearCHD=0    2 TenYearCHD=1

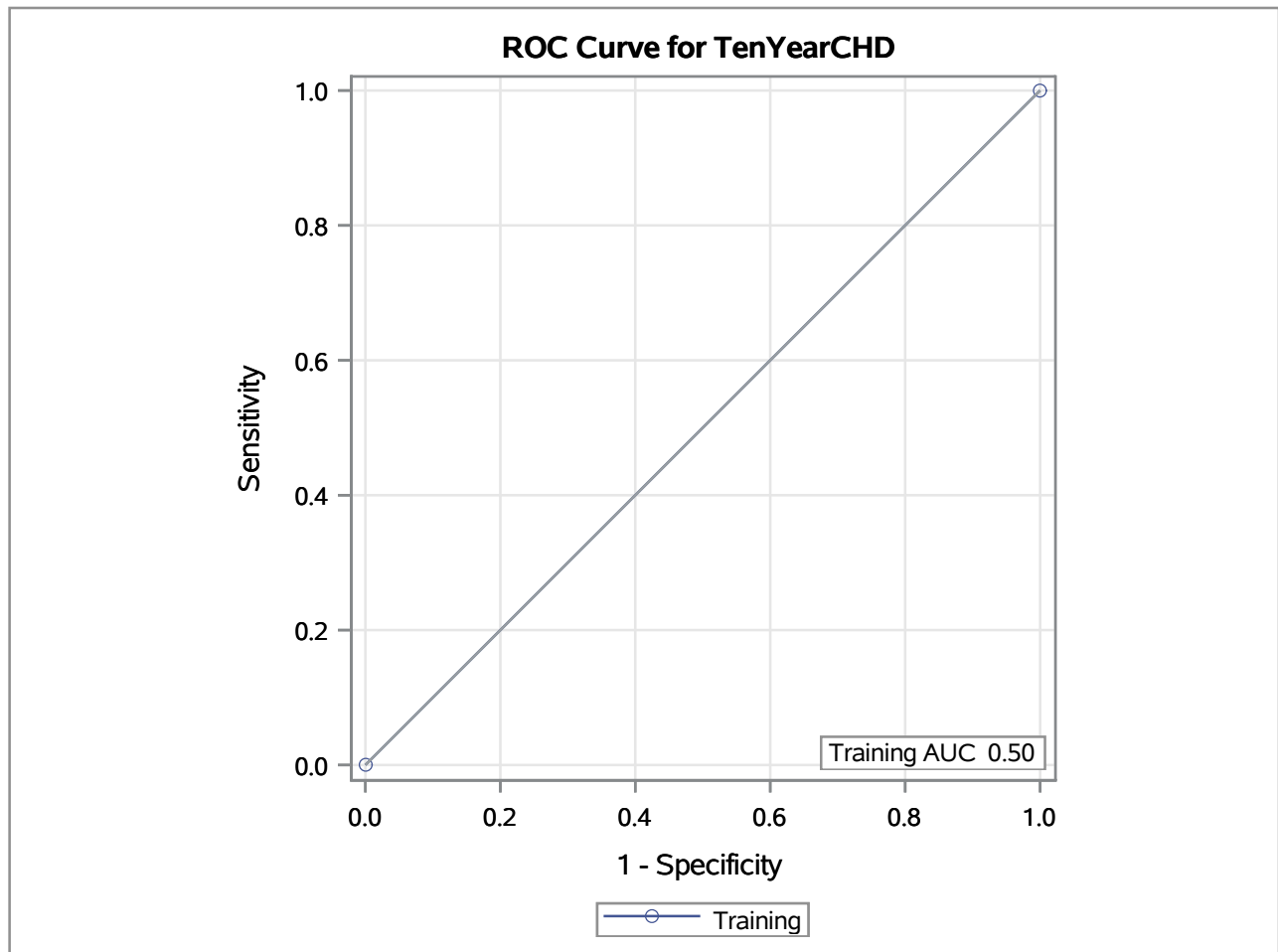
# Framingham Heart Study Model the Event of having CHD > 10 years

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## The HPSPLIT Procedure

Confusion Matrices				
	Actual	Predicted		Error Rate
		0	1	
Model Based	0	2108	0	0.0000
	1	392	0	1.0000
Cross Validation	0	2108	0	0.0000
	1	392	0	1.0000

Fit Statistics for Selected Tree									
	N Leaves	ASE	Mis-class	Sensitivity	Specificity	Entropy	Gini	RSS	AUC
Model Based	1	0.1322	0.1568	0.0000	1.0000	0.6266	0.2644	661.1	0.5000
Cross Validation	1	0.1324	0.1569	0.0000	1.0000				



**The HPFOREST Procedure**

Performance Information	
Execution Mode	Single-Machine
Number of Threads	2

Data Access Information			
Data	Engine	Role	Path
WORK.NEW_FRAME	V9	Input	On Client
LDATA.SCORE	V9	Output	On Client

Model Information		
Parameter	Value	
Variables to Try	3	(Default)
Maximum Trees	25	
Actual Trees	25	
Inbag Fraction	0.3	
Prune Fraction	0	(Default)
Prune Threshold	0.1	(Default)
Leaf Fraction	0.00001	(Default)
Leaf Size Setting	1	(Default)
Leaf Size Used	1	
Category Bins	30	(Default)
Interval Bins	100	
Minimum Category Size	5	(Default)
Node Size	100000	(Default)
Maximum Depth	20	(Default)
Alpha	1	(Default)
Exhaustive	5000	(Default)
Rows of Sequence to Skip	5	(Default)
Split Criterion	.	Gini
Preselection Method	.	BinnedSearch
Missing Value Handling	.	Valid value

Number of Observations	
Type	N
Number of Observations Read	2500
Number of Observations Used	2500

# Framingham Heart Study Model the Event of having CHD > 10 years

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## The HPFOREST Procedure

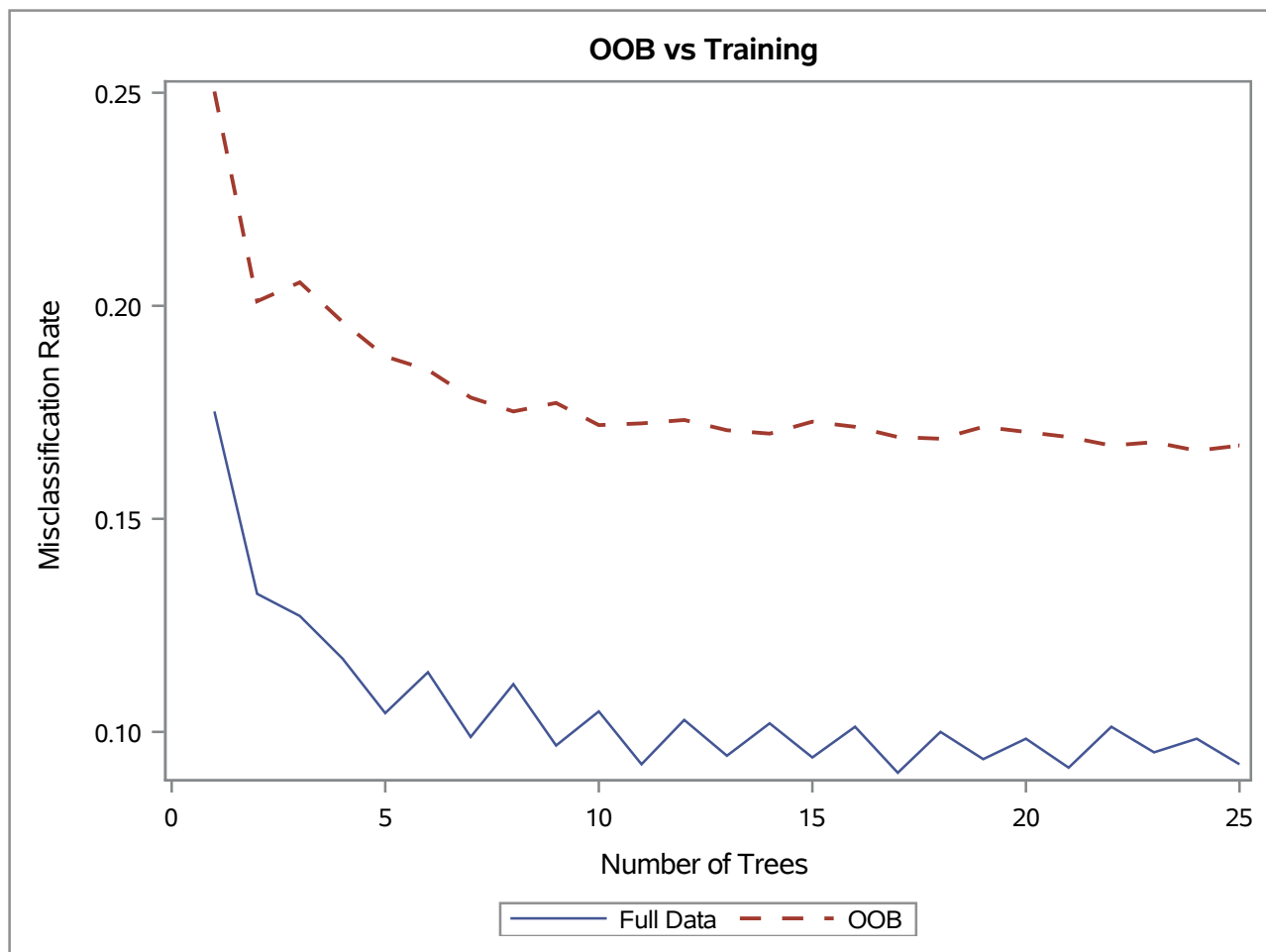
Baseline Fit Statistics	
Statistic	Value
Average Square Error	0.132
Misclassification Rate	0.157
Log Loss	0.434

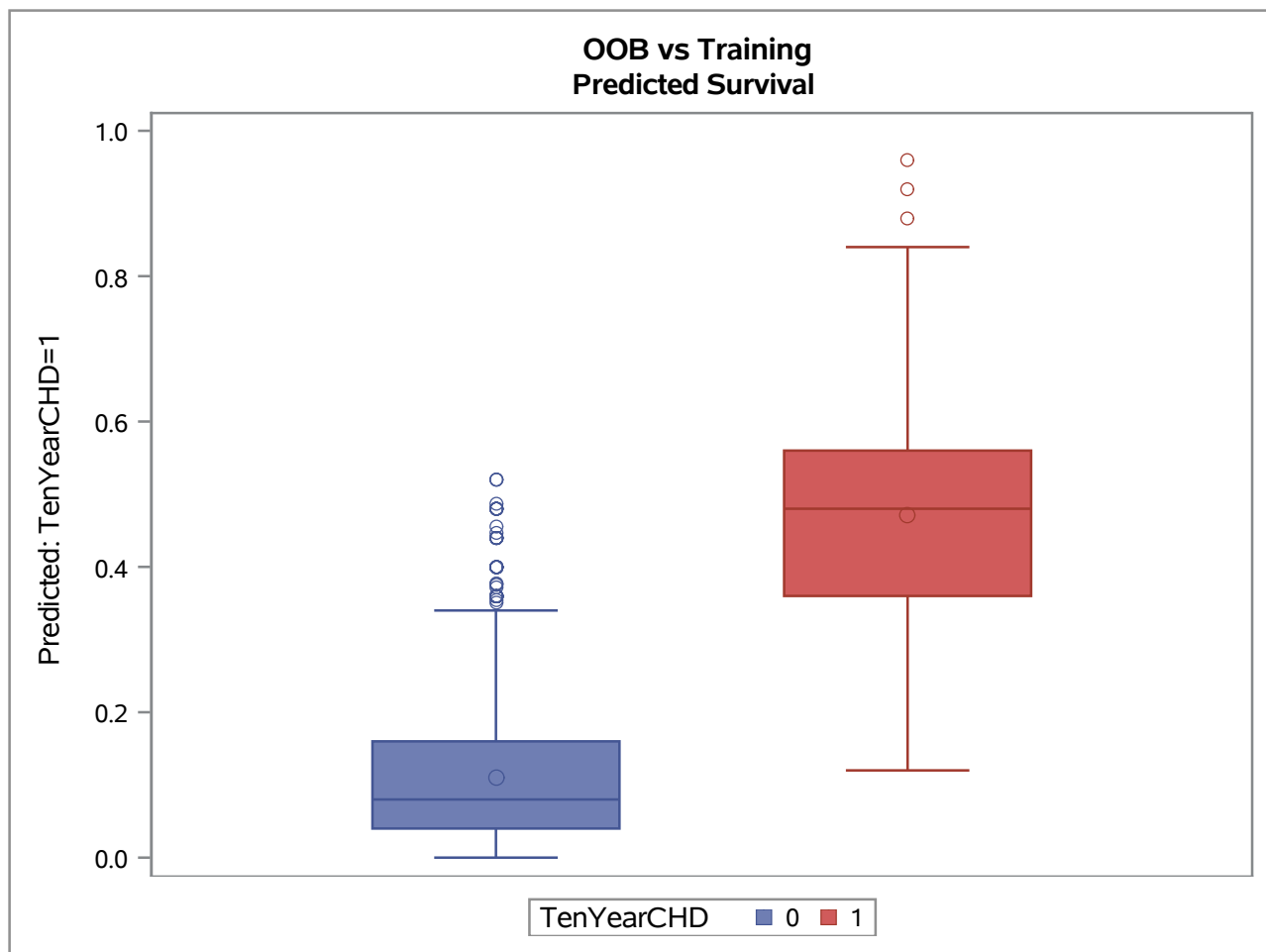
Fit Statistics							
Number of Trees	Number of Leaves	Average Square Error (Train)	Average Square Error (OOB)	Misclassification Rate (Train)	Misclassification Rate (OOB)	Log Loss (Train)	Log Loss (OOB)
1	143	0.1752	0.250	0.1752	0.250	4.034	5.763
2	288	0.1121	0.205	0.1324	0.201	1.388	3.951
3	439	0.0959	0.191	0.1272	0.206	0.705	3.144
4	592	0.0869	0.171	0.1172	0.196	0.522	2.311
5	724	0.0818	0.161	0.1044	0.188	0.417	1.936
6	849	0.0785	0.153	0.1140	0.185	0.354	1.649
7	979	0.0769	0.149	0.0988	0.178	0.327	1.518
8	1130	0.0750	0.146	0.1112	0.175	0.267	1.431
9	1278	0.0729	0.142	0.0968	0.177	0.263	1.276
10	1412	0.0716	0.140	0.1048	0.172	0.237	1.194
11	1569	0.0699	0.138	0.0924	0.172	0.234	1.111
12	1724	0.0695	0.137	0.1028	0.173	0.234	1.095
13	1880	0.0686	0.136	0.0944	0.171	0.232	1.086
14	2016	0.0680	0.135	0.1020	0.170	0.231	1.036
15	2159	0.0681	0.135	0.0940	0.173	0.232	1.014
16	2314	0.0677	0.135	0.1012	0.172	0.232	0.958
17	2471	0.0671	0.134	0.0904	0.169	0.232	0.927
18	2620	0.0671	0.134	0.1000	0.169	0.232	0.896
19	2765	0.0668	0.134	0.0936	0.172	0.232	0.863
20	2910	0.0666	0.134	0.0984	0.170	0.232	0.831
21	3045	0.0665	0.134	0.0916	0.169	0.232	0.792
22	3175	0.0665	0.133	0.1012	0.167	0.232	0.768
23	3336	0.0663	0.133	0.0952	0.168	0.232	0.752
24	3482	0.0658	0.132	0.0984	0.166	0.231	0.743
25	3638	0.0656	0.132	0.0924	0.167	0.230	0.743

**Framingham Heart Study  
Model the Event of having CHD > 10 years**

**The HPFOREST Procedure**

Loss Reduction Variable Importance					
Variable	Number of Rules	Gini	OOB Gini	Margin	OOB Margin
prevalentStroke	1	0.000379	-0.00026	0.000758	0.00012
currentSmoker	32	0.002409	-0.00197	0.004818	0.00045
cigsPerDay	185	0.012590	-0.01303	0.025180	-0.00059
age	543	0.041836	-0.01917	0.083672	0.02390
glucose	380	0.028084	-0.02646	0.056168	0.00060
heartRate	399	0.026931	-0.02939	0.053862	-0.00329
diaBP	474	0.031875	-0.02949	0.063750	0.00305
totChol	459	0.033596	-0.03258	0.067192	0.00019
BMI	452	0.031544	-0.03546	0.063089	-0.00263
sysBP	688	0.052081	-0.04607	0.104163	0.00627







## OOB vs Training Predicted Survival

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### The FREQ Procedure

Frequency Col Pct	Table of TenYearCHD by pred			
	TenYearCHD	pred		
		0	1	Total
	0	2105 90.23	3 1.80	2108
	1	228 9.77	164 98.20	392
Total	2333	167	2500	

### Statistics for Table of TenYearCHD by pred

Odds Ratio and Relative Risks			
Statistic	Value	95% Confidence Limits	
Odds Ratio	504.7076	159.8032	1594.0217
Relative Risk (Column 1)	1.7169	1.5786	1.8672
Relative Risk (Column 2)	0.0034	0.0011	0.0106

**Sample Size = 2500**

# OOB vs Training Predicted Survival Full Model

## The LOGISTIC Procedure

Model Information	
Data Set	WORK.NEW_FRAME
Response Variable	TenYearCHD
Number of Response Levels	2
Model	binary logit
Optimization Technique	Fisher's scoring

Number of Observations Read	2500
Number of Observations Used	2247

Response Profile		
Ordered Value	TenYearCHD	Total Frequency
1	1	349
2	0	1898

Probability modeled is TenYearCHD='1'.

**Note:** 253 observations were deleted due to missing values for the response or explanatory variables.

Class Level Information			
Class	Value	Design Variables	
currentSmoker	0	1	0
	1	0	1
prevalentStroke	0	1	0
	1	0	1

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

Model Fit Statistics		
Criterion	Intercept Only	Intercept and Covariates
AIC	1942.618	1747.675
SC	1948.335	1810.566
-2 Log L	1940.618	1725.675

# OOB vs Training Predicted Survival Full Model

## The LOGISTIC Procedure

Testing Global Null Hypothesis: BETA=0			
Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	214.9431	10	<.0001
Score	219.9312	10	<.0001
Wald	184.1266	10	<.0001

Type 3 Analysis of Effects			
Effect	DF	Wald Chi-Square	Pr > ChiSq
BMI	1	0.3137	0.5754
age	1	78.9189	<.0001
cigsPerDay	1	11.3223	0.0008
diaBP	1	1.1947	0.2744
glucose	1	4.5969	0.0320
heartRate	1	1.6665	0.1967
sysBP	1	18.3080	<.0001
totChol	1	1.3581	0.2439
currentSmoker	1	0.0114	0.9151
prevalentStroke	1	3.7125	0.0540

Analysis of Maximum Likelihood Estimates							
Parameter		DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq	Exp(Est)
Intercept		1	-6.9424	0.9832	49.8588	<.0001	0.001
BMI		1	0.00892	0.0159	0.3137	0.5754	1.009
age		1	0.0750	0.00845	78.9189	<.0001	1.078
cigsPerDay		1	0.0260	0.00772	11.3223	0.0008	1.026
diaBP		1	-0.00871	0.00797	1.1947	0.2744	0.991
glucose		1	0.00485	0.00226	4.5969	0.0320	1.005
heartRate		1	-0.00692	0.00536	1.6665	0.1967	0.993
sysBP		1	0.0187	0.00436	18.3080	<.0001	1.019
totChol		1	0.00159	0.00136	1.3581	0.2439	1.002
currentSmoker	0	1	-0.0210	0.1971	0.0114	0.9151	0.979
currentSmoker	1	0	0	.	.	.	.
prevalentStroke	0	1	-1.1784	0.6116	3.7125	0.0540	0.308
prevalentStroke	1	0	0	.	.	.	.

# OOB vs Training Predicted Survival Full Model

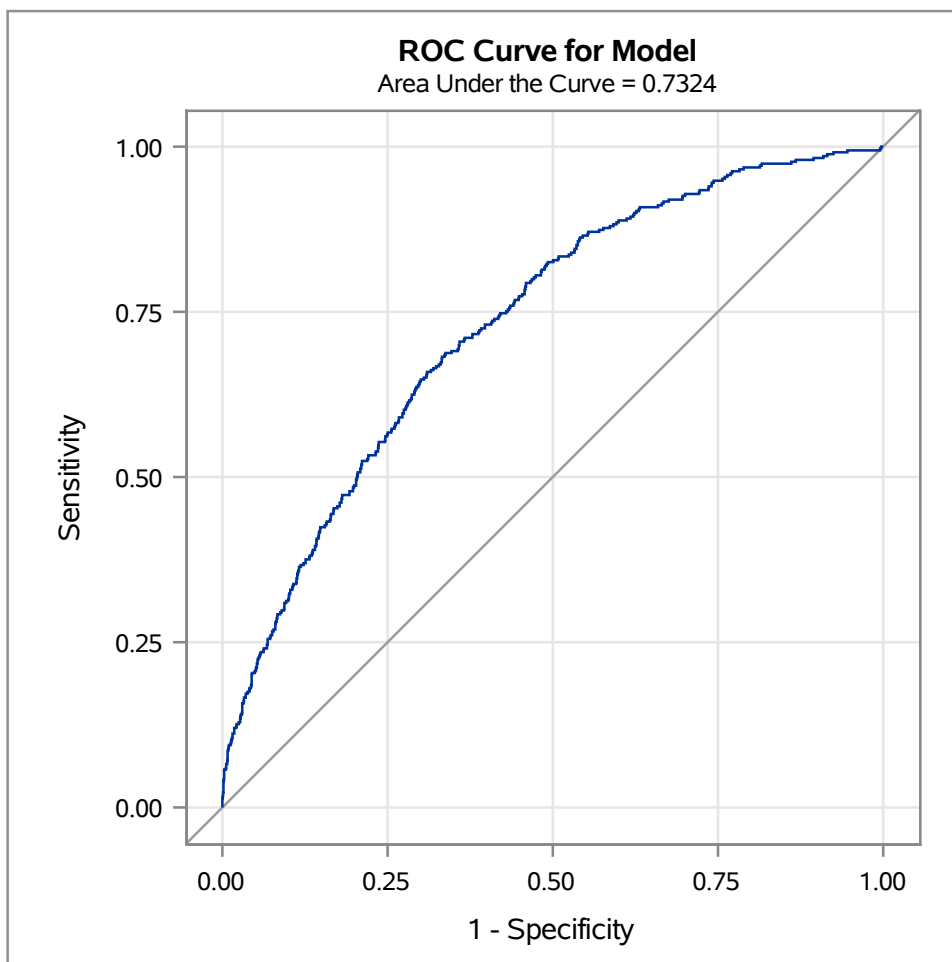
## The LOGISTIC Procedure

Odds Ratio Estimates			
Effect	Point Estimate	95% Wald Confidence Limits	
BMI	1.009	0.978	1.041
age	1.078	1.060	1.096
cigsPerDay	1.026	1.011	1.042
diaBP	0.991	0.976	1.007
glucose	1.005	1.000	1.009
heartRate	0.993	0.983	1.004
sysBP	1.019	1.010	1.028
totChol	1.002	0.999	1.004
currentSmoker 0 vs 1	0.979	0.665	1.441
prevalentStroke 0 vs 1	0.308	0.093	1.020

Association of Predicted Probabilities and Observed Responses			
Percent Concordant	73.2	Somers' D	0.465
Percent Discordant	26.8	Gamma	0.465
Percent Tied	0.0	Tau-a	0.122
Pairs	662402	c	0.732

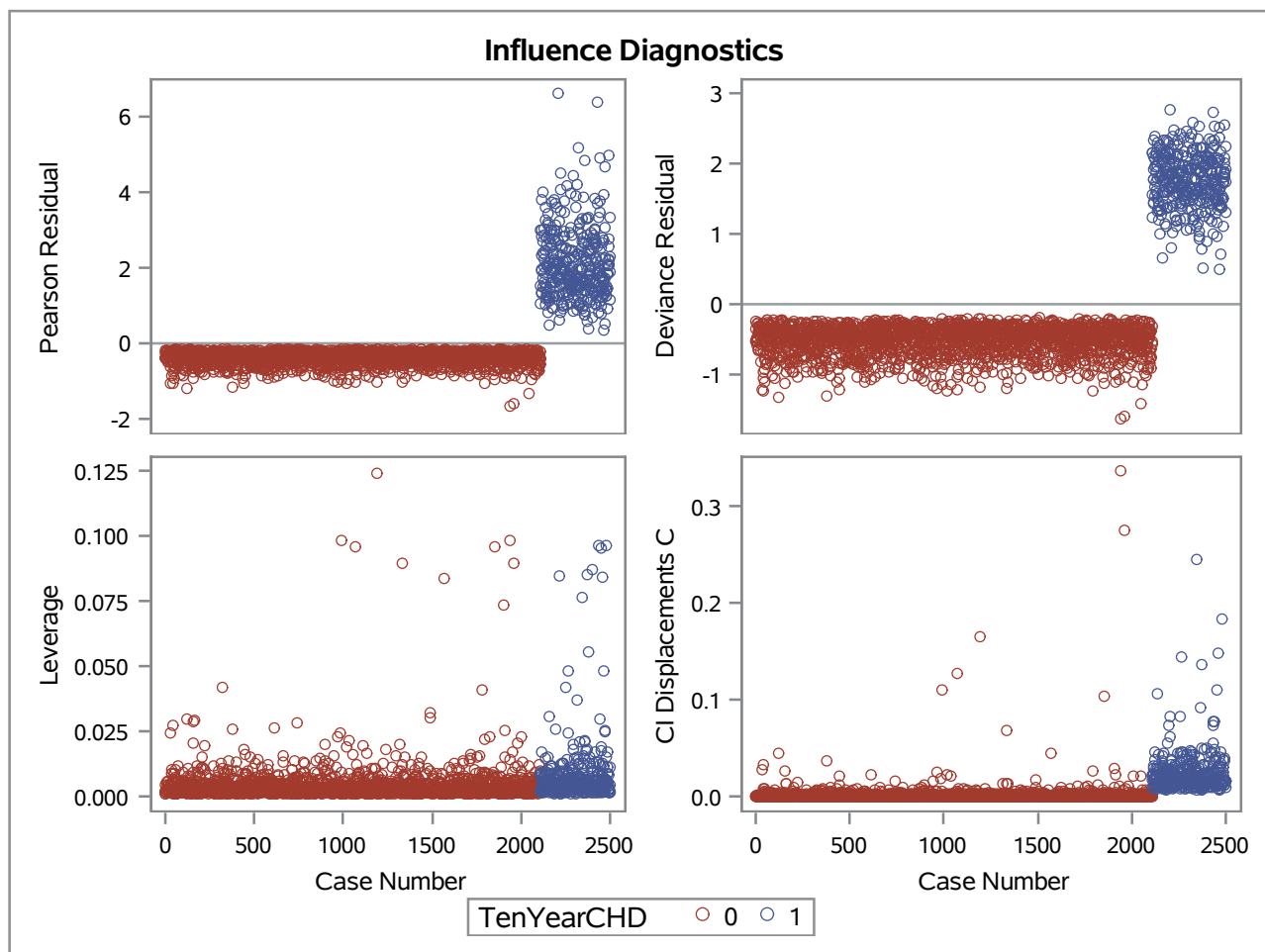
OOB vs Training  
Predicted Survival  
Full Model

The LOGISTIC Procedure



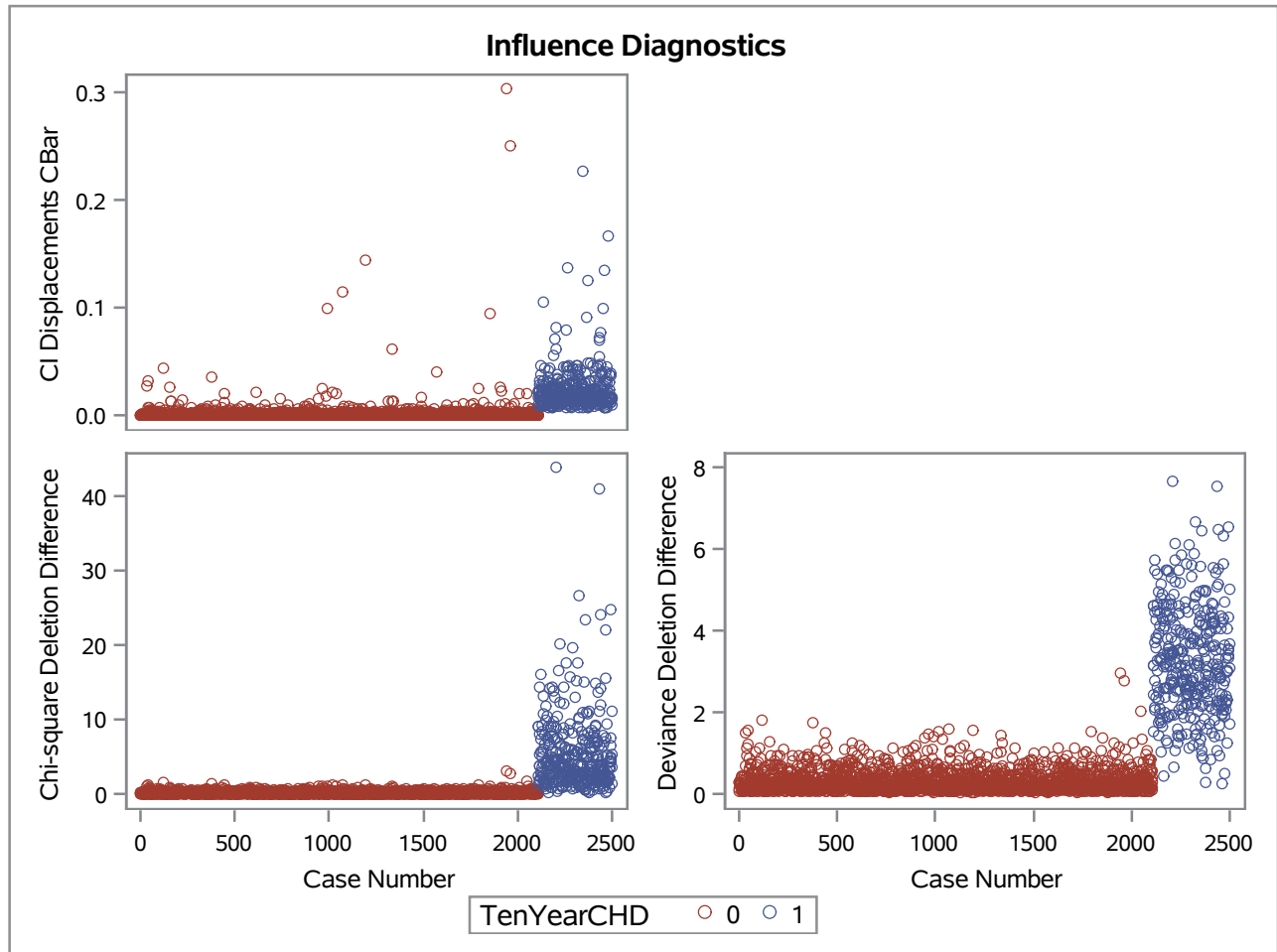
# OOB vs Training Predicted Survival Full Model

## The LOGISTIC Procedure



OOB vs Training  
Predicted Survival  
Full Model

The LOGISTIC Procedure



# **OOB vs Training Predicted Survival Full Model**

## **The FREQ Procedure**

Frequency Col Pct	Table of TenYearCHD by pred			
	TenYearCHD	pred(Estimated Probability)		
		0	1	Total
	0	2094 85.05	14 36.84	2108
1	368 14.95	24 63.16	392	
Total	2462	38	2500	

## **Statistics for Table of TenYearCHD by pred**

Odds Ratio and Relative Risks			
Statistic	Value	95% Confidence Limits	
Odds Ratio	9.7547	4.9997	19.0319
Relative Risk (Column 1)	1.0581	1.0315	1.0855
Relative Risk (Column 2)	0.1085	0.0566	0.2078

**Sample Size = 2500**



# OOB vs Training Predicted Survival Reduced Model

## The LOGISTIC Procedure

Model Information	
Data Set	WORK.NEW_FRAME
Response Variable	TenYearCHD
Number of Response Levels	2
Model	binary logit
Optimization Technique	Fisher's scoring

Number of Observations Read	2500
Number of Observations Used	2264

Response Profile		
Ordered Value	TenYearCHD	Total Frequency
1	0	1907
2	1	357

Probability modeled is TenYearCHD='1'.

**Note:** 236 observations were deleted due to missing values for the response or explanatory variables.

Class Level Information			
Class	Value	Design Variables	
prevalentStroke	0	1	0
	1	0	1

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

Model Fit Statistics		
Criterion	Intercept Only	Intercept and Covariates
AIC	1975.356	1768.384
SC	1981.081	1802.733
-2 Log L	1973.356	1756.384

# OOB vs Training Predicted Survival Reduced Model

## The LOGISTIC Procedure

Testing Global Null Hypothesis: BETA=0			
Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	216.9726	5	<.0001
Score	222.5094	5	<.0001
Wald	186.2590	5	<.0001

Type 3 Analysis of Effects			
Effect	DF	Wald Chi-Square	Pr > ChiSq
age	1	93.6856	<.0001
cigsPerDay	1	25.1151	<.0001
glucose	1	4.3319	0.0374
sysBP	1	29.1837	<.0001
prevalentStroke	1	5.8939	0.0152

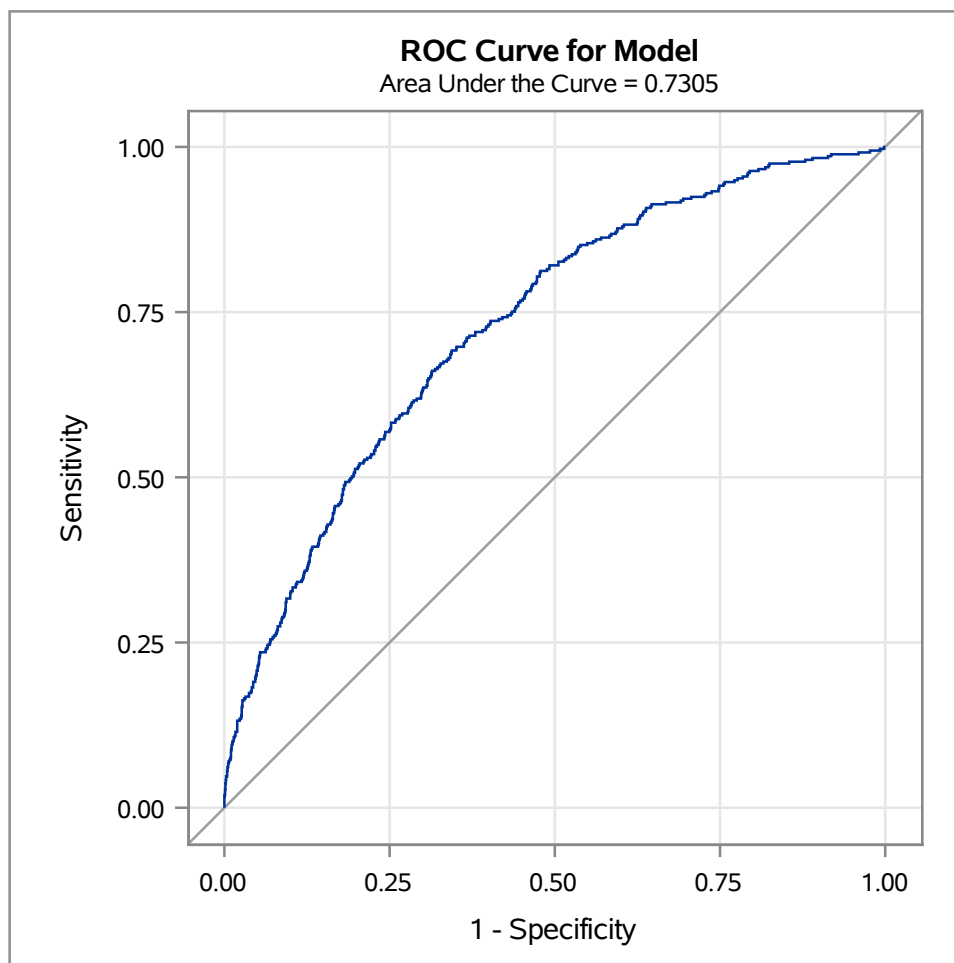
Analysis of Maximum Likelihood Estimates							
Parameter		DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq	Exp(Est)
Intercept		1	-6.9694	0.7821	79.4170	<.0001	0.001
age		1	0.0782	0.00808	93.6856	<.0001	1.081
cigsPerDay		1	0.0252	0.00504	25.1151	<.0001	1.026
glucose		1	0.00457	0.00220	4.3319	0.0374	1.005
sysBP		1	0.0146	0.00270	29.1837	<.0001	1.015
prevalentStroke	0	1	-1.3759	0.5668	5.8939	0.0152	0.253
prevalentStroke	1	0	0	.	.	.	.

Odds Ratio Estimates			
Effect	Point Estimate	95% Wald Confidence Limits	
age	1.081	1.064	1.099
cigsPerDay	1.026	1.015	1.036
glucose	1.005	1.000	1.009
sysBP	1.015	1.009	1.020
prevalentStroke 0 vs 1	0.253	0.083	0.767

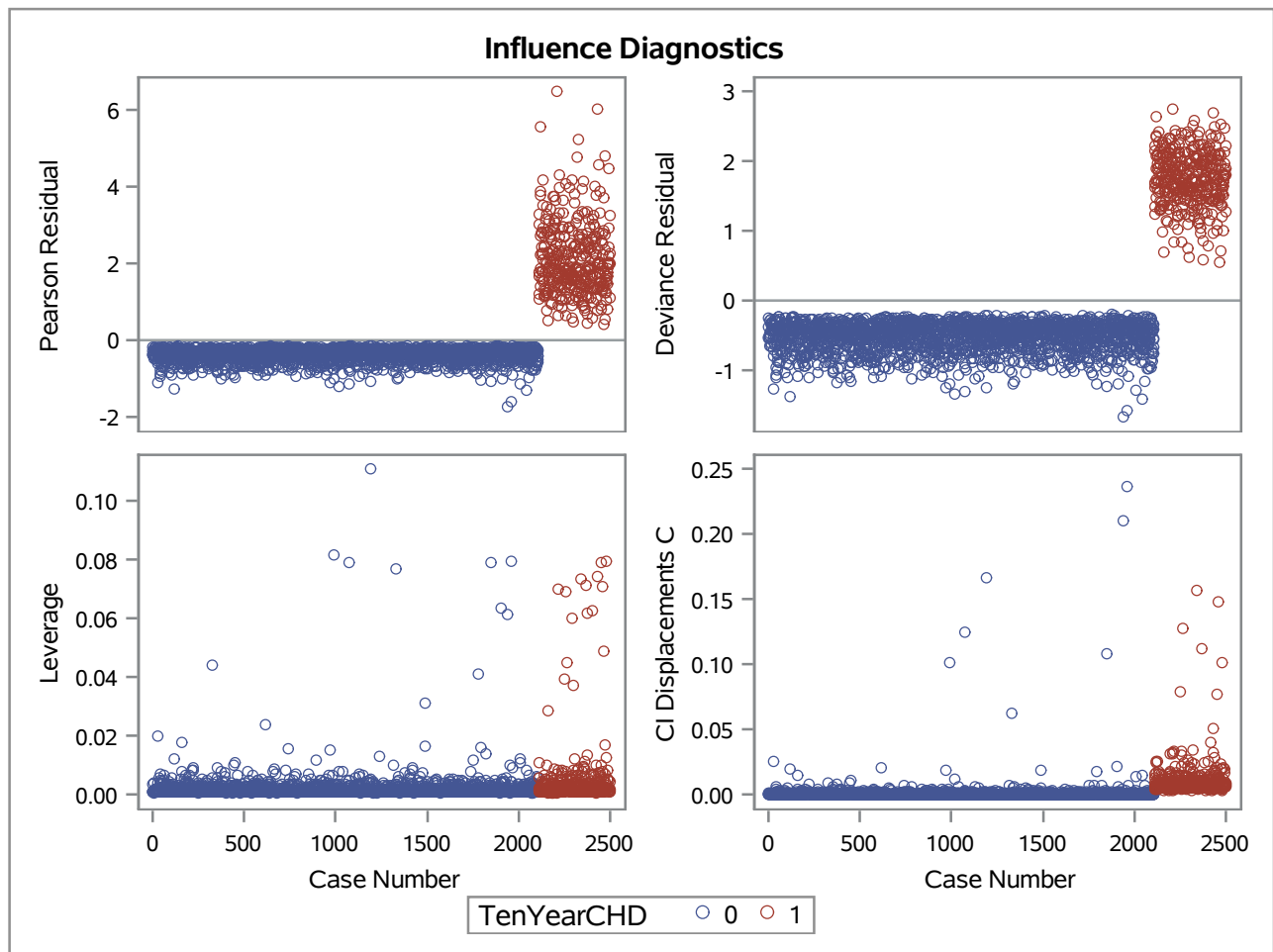
# OOB vs Training Predicted Survival Reduced Model

## The LOGISTIC Procedure

Association of Predicted Probabilities and Observed Responses			
Percent Concordant	73.1	Somers' D	0.461
Percent Discordant	26.9	Gamma	0.461
Percent Tied	0.0	Tau-a	0.123
Pairs	680799	c	0.731

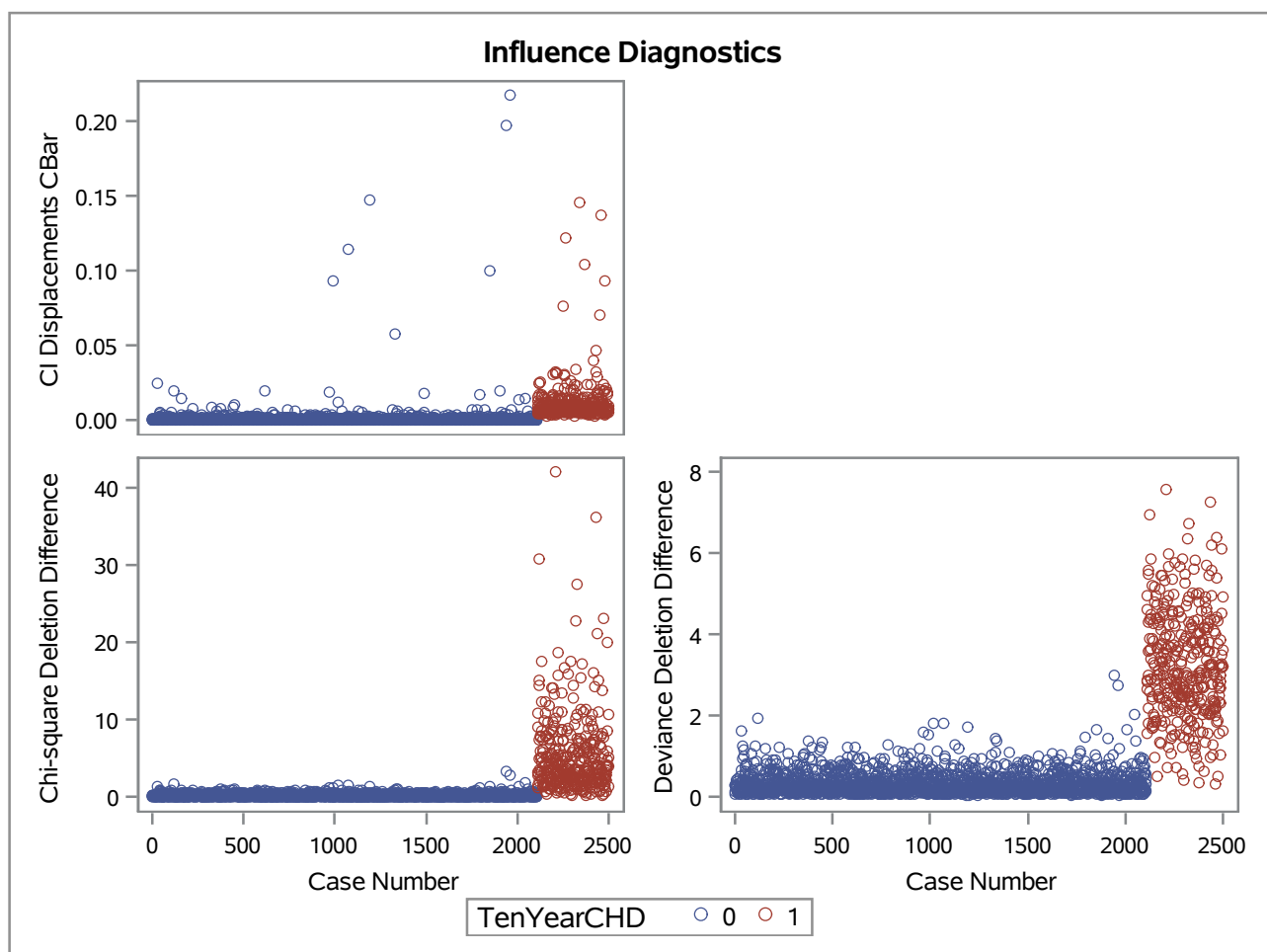


The LOGISTIC Procedure



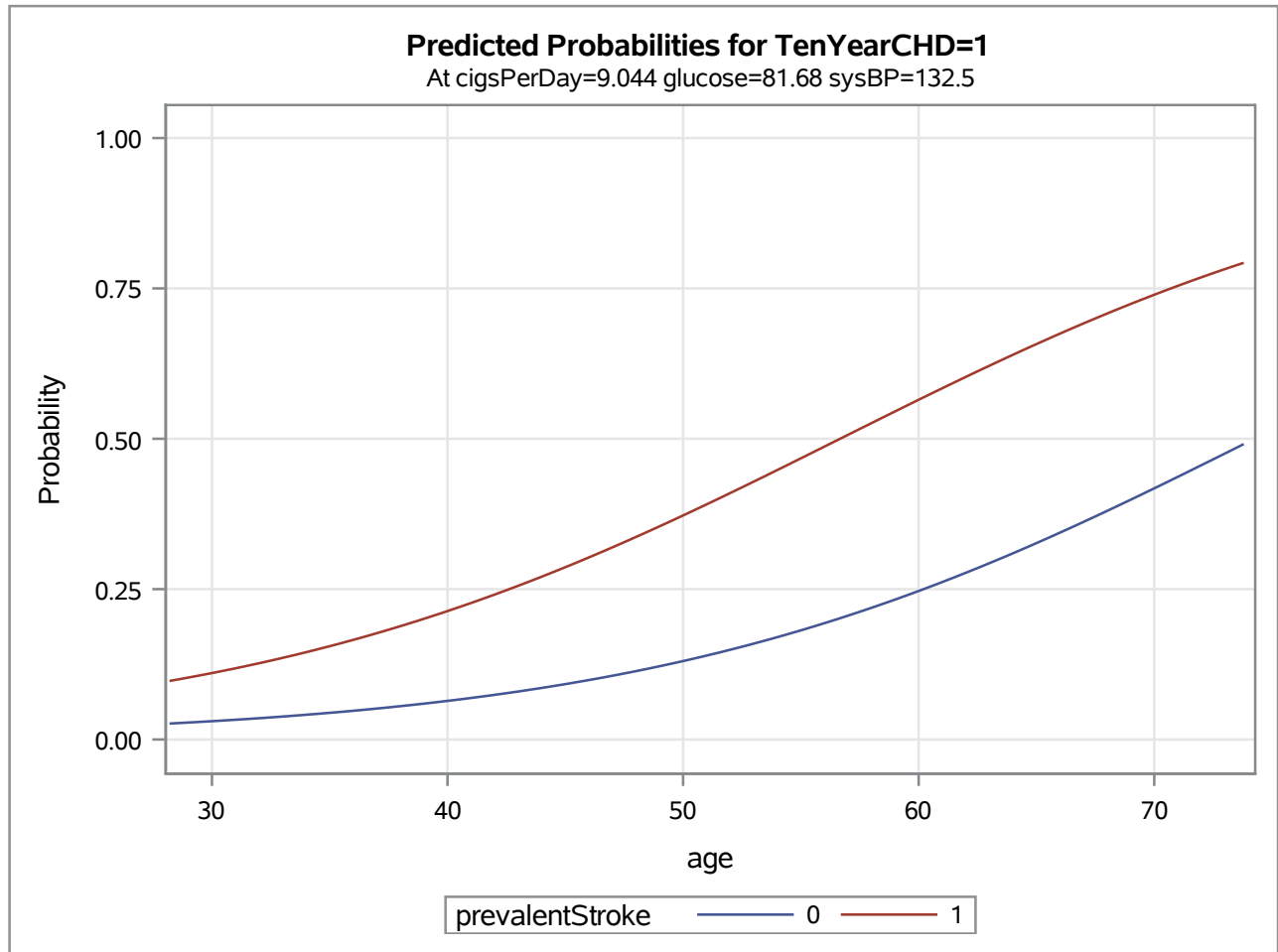
# OOB vs Training Predicted Survival Reduced Model

## The LOGISTIC Procedure



OOB vs Training  
Predicted Survival  
Reduced Model

The LOGISTIC Procedure



# **OOB vs Training Predicted Survival Reduced Model**

## **The FREQ Procedure**

Frequency Col Pct	Table of TenYearCHD by pred			
	TenYearCHD	pred(Estimated Probability)		
		0	1	Total
	0	2093 85.12	15 36.59	2108
	1	366 14.88	26 63.41	392
	Total	2459	41	2500

## **Statistics for Table of TenYearCHD by pred**

Odds Ratio and Relative Risks			
Statistic	Value	95% Confidence Limits	
Odds Ratio	9.9122	5.2000	18.8948
Relative Risk (Column 1)	1.0634	1.0355	1.0921
Relative Risk (Column 2)	0.1073	0.0574	0.2007

**Sample Size = 2500**