The GLIMMIX Procedure

Model Information	
Data Set	WORK.ICHS
Response Variable	response
Response Distribution	Binary
Link Function	Logit
Variance Function	Default
Variance Matrix Blocked By	id
Estimation Technique	Maximum Likelihood
Likelihood Approximation	Gauss-Hermite Quadrature
Degrees of Freedom Method	Containment

Class Level Information		
Class	Levels	Values
id	250	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250

Number of Observations Read	1500
Number of Observations Used	1500

Response Profile		
Ordered Value	response	Total Frequency
1	0	1056
2	1	444
The GLIMMIX procedure is modeling the probability that response='0'.		

Dimensions	
G-side Cov. Parameters	1
Columns in X	5
Columns in Z per Subject	1
Subjects (Blocks in V)	250
Max Obs per Subject	6

The GLIMMIX Procedure

Optimization Information	
Optimization Technique	Dual Quasi-Newton
Parameters in Optimization	6
Lower Boundaries	1
Upper Boundaries	0
Fixed Effects	Not Profiled
Starting From	GLM estimates
Quadrature Points	7

Iteration History					
Iteration	Restarts	Evaluations	Objective Function	Change	Max Gradient
0	0	4	1383.5750304	.	311.3643
1	0	4	1378.4942883	5.08074202	118.571
2	0	3	1370.3089285	8.18535980	23.513
3	0	4	1347.9577513	22.35117729	84.26237
4	0	4	1336.9303904	11.02736085	52.87863
5	0	4	1333.7421533	3.18823709	10.38892
6	0	3	1333.3981093	0.34404404	3.43404
7	0	3	1333.2931251	0.10498420	2.878442
8	0	3	1333.2641949	0.02893013	2.666657
9	0	3	1333.2585408	0.00565416	0.822635
10	0	3	1333.2563924	0.00214837	1.380692
11	0	2	1333.2540025	0.00238993	0.168949
12	0	3	1333.2539669	0.00003554	0.03171
13	0	3	1333.2539629	0.00000401	0.001728

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

Fit Statistics	
-2 Log Likelihood	1333.25
AIC (smaller is better)	1345.25
AICC (smaller is better)	1345.31
BIC (smaller is better)	1366.38
CAIC (smaller is better)	1372.38
HQIC (smaller is better)	1353.76

The GLIMMIX Procedure

Fit Statistics for Conditional Distribution	
-2 log L(response | r. effects)	821.99
Pearson Chi-Square	707.51
Pearson Chi-Square / DF	0.47

Covariance Parameter Estimates			
Cov Parm	Subject	Estimate	Standard Error
UN(1,1)	id	7.8052	1.3560

Solutions for Fixed Effects					
Effect	Estimate	Standard Error	DF	t Value	Pr > |t|
Intercept	1.1521	0.5333	246	2.16	0.0317
vita	-0.5991	0.4321	1249	-1.39	0.1659
time	-0.03409	0.01599	1249	-2.13	0.0332
age	0.1404	0.1091	1249	1.29	0.1982
gender	1.0926	0.4208	1249	2.60	0.0095

Type III Tests of Fixed Effects				
Effect	Num DF	Den DF	F Value	Pr > F
vita	1	1249	1.92	0.1659
time	1	1249	4.55	0.0332
age	1	1249	1.66	0.1982
gender	1	1249	6.74	0.0095

The GLIMMIX Procedure

Model Information	
Data Set	WORK.ICHS
Response Variable	response
Response Distribution	Binary
Link Function	Logit
Variance Function	Default
Variance Matrix Blocked By	id
Estimation Technique	Maximum Likelihood
Likelihood Approximation	Gauss-Hermite Quadrature
Degrees of Freedom Method	Containment

Class Level Information		
Class	Levels	Values
id	250	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250

Number of Observations Read	1500
Number of Observations Used	1500

Response Profile		
Ordered Value	response	Total Frequency
1	0	1056
2	1	444
The GLIMMIX procedure is modeling the probability that response='0'.		

Dimensions	
G-side Cov. Parameters	3
Columns in X	5
Columns in Z per Subject	2
Subjects (Blocks in V)	250
Max Obs per Subject	6

The GLIMMIX Procedure

Optimization Information	
Optimization Technique	Dual Quasi-Newton
Parameters in Optimization	8
Lower Boundaries	2
Upper Boundaries	0
Fixed Effects	Not Profiled
Starting From	GLM estimates
Quadrature Points	7

Iteration History					
Iteration	Restarts	Evaluations	Objective Function	Change	Max Gradient
0	0	4	1403.5006059	.	418.1627
1	0	4	1387.8179622	15.68264375	346.5315
2	0	5	1384.3377723	3.48018986	323.7147
3	0	5	1379.5868226	4.75094974	328.1783
4	0	5	1375.741633	3.84518960	327.4092
5	0	5	1372.0712007	3.67043223	328.3984
6	0	5	1368.8446912	3.22650953	328.2339
7	0	5	1365.9439083	2.90078287	327.1244
8	0	5	1363.3326668	2.61124159	324.8122
9	0	5	1360.9687069	2.36395983	321.2708
10	0	5	1358.8238287	2.14487817	316.4081
11	0	4	1345.7980631	13.02576568	151.6628
12	0	5	1344.9633851	0.83467792	126.5688
13	0	4	1343.1852435	1.77814166	93.31064
14	0	5	1342.7615931	0.42365042	77.15834
15	0	5	1342.6564415	0.10515155	75.30645
16	0	5	1342.5797159	0.07672563	74.23878
17	0	19	1342.5729255	0.00679042	74.17014
18	0	11	1342.5728309	0.00009455	74.16945
19	0	11	1342.5727465	0.00008445	74.16884
20	0	15	1342.5727241	0.00002235	74.16872
21	0	15	1342.5727233	0.00000081	74.16871
22	0	6	1340.4328957	2.13982758	85.29247
23	0	5	1339.9471514	0.48574436	87.65682

The GLIMMIX Procedure

Iteration History					
Iteration	Restarts	Evaluations	Objective Function	Change	Max Gradient
24	0	4	1338.9775216	0.96962977	78.03741
25	0	2	1338.1380677	0.83945388	27.8924
26	0	3	1337.6017703	0.53629742	28.83088
27	0	4	1334.94571	2.65606028	88.14097
28	0	2	1333.9203183	1.02539170	99.35625
29	0	2	1333.1353588	0.78495952	56.72658
30	0	3	1332.8532405	0.28211832	77.6748
31	0	2	1332.4906572	0.36258333	102.1951
32	0	3	1332.3844008	0.10625633	120.9031
33	0	3	1332.3408788	0.04352204	105.7458
34	0	2	1332.2918868	0.04899198	120.5787
35	0	3	1332.2797637	0.01212311	124.1311
36	0	3	1332.2785936	0.00117012	125.9665
37	0	2	1332.2768221	0.00177144	124.8471
38	0	4	1332.2731334	0.00368874	125.9897
39	0	3	1332.2716691	0.00146431	127.6274
40	0	2	1332.2694104	0.00225863	126.9945
41	0	6	1332.1971432	0.07226727	49.50343
42	0	3	1332.1550901	0.04205310	48.28626
43	0	3	1332.141509	0.01358107	18.04694
44	0	3	1332.1374661	0.00404290	0.227239
45	0	3	1332.1373759	0.00009023	0.022751
46	0	3	1332.1373756	0.00000028	0.002552

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

Fit Statistics	
-2 Log Likelihood	1332.14
AIC (smaller is better)	1348.14
AICC (smaller is better)	1348.23
BIC (smaller is better)	1376.31
CAIC (smaller is better)	1384.31
HQIC (smaller is better)	1359.48

The GLIMMIX Procedure

Fit Statistics for Conditional Distribution	
-2 log L(response | r. effects)	781.74
Pearson Chi-Square	650.32
Pearson Chi-Square / DF	0.43

Covariance Parameter Estimates			
Cov Parm	Subject	Estimate	Standard Error
UN(1,1)	id	9.3114	2.5751
UN(2,1)	id	-0.08294	0.1319
UN(2,2)	id	0.005452	0.005996

Solutions for Fixed Effects					
Effect	Estimate	Standard Error	DF	t Value	Pr > |t|
Intercept	1.2218	0.5622	246	2.17	0.0307
vita	-0.6027	0.4474	1000	-1.35	0.1782
time	-0.04199	0.02448	249	-1.71	0.0876
age	0.1506	0.1135	1000	1.33	0.1850
gender	1.1147	0.4352	1000	2.56	0.0106

Type III Tests of Fixed Effects				
Effect	Num DF	Den DF	F Value	Pr > F
vita	1	1000	1.82	0.1782
time	1	249	2.94	0.0876
age	1	1000	1.76	0.1850
gender	1	1000	6.56	0.0106