The SAS System

The MEANS Procedure

Variable	N	Mean	Std Dev	Minimum	Maximum
ID	400	200.5000000	115.6143013	1.0000000	400.0000000
is_female	400	0.3950000	0.9198316	-1.0000000	1.0000000
baseline_bmi_centered	400	-0.0025000	3.1826903	-5.3000000	5.7000000
coaching	400	-0.0250000	1.0009394	-1.0000000	1.0000000
meal	400	0.0150000	1.0011397	-1.0000000	1.0000000
final_kg_lost	400	2.5530000	2.5622752	-4.6000000	12.7000000

The SAS System

The GENMOD Procedure

Model Information	
Data Set	WORK.PERSON_LEVEL
Distribution	Normal
Link Function	Identity
Dependent Variable	final_kg_lost

Number of Observations Read	400
Number of Observations Used	400

Criteria For Assessing Goodness Of Fit			
Criterion	**DF**	**Value**	**Value/DF**
Deviance	394	2400.2200	6.0919
Scaled Deviance	394	400.0000	1.0152
Pearson Chi-Square	394	2400.2200	6.0919
Scaled Pearson X2	394	400.0000	1.0152
Log Likelihood		-925.9456	
Full Log Likelihood		-925.9456	
AIC (smaller is better)		1865.8913	
AICC (smaller is better)		1866.1770	
BIC (smaller is better)		1893.8315	

Algorithm converged.

Analysis Of Maximum Likelihood Parameter Estimates							
Parameter	**DF**	**Estimate**	**Standard Error**	**Wald 95% Confidence Limits**		**Wald Chi-Square**	**Pr > ChiSq**
Intercept	1	2.5651	0.1334	2.3036	2.8266	369.67	<.0001
is_female	1	-0.0289	0.1339	-0.2912	0.2335	0.05	0.8292
baseline_bmi_centere	1	-0.1962	0.0386	-0.2719	-0.1204	25.77	<.0001
coaching	1	0.2053	0.1228	-0.0353	0.4460	2.80	0.0945
meal	1	0.3308	0.1226	0.0905	0.5710	7.28	0.0070
coaching*meal	1	0.0330	0.1227	-0.2075	0.2735	0.07	0.7880
Scale	1	2.4496	0.0866	2.2856	2.6254		

Note: The scale parameter was estimated by maximum likelihood.

The SAS System

The MEANS Procedure

Variable	N	Mean	Std Dev	Minimum	Maximum
ID	33600	200.5000000	115.4714113	1.0000000	400.0000000
day	33600	42.5000000	24.2473538	1.0000000	84.0000000
is_female	33600	0.3950000	0.9186948	-1.0000000	1.0000000
baseline_bmi_centered	33600	-0.0025000	3.1787568	-5.3000000	5.7000000
coaching	33600	-0.0250000	0.9997023	-1.0000000	1.0000000
meal	33600	0.0150000	0.9999024	-1.0000000	1.0000000
A	33600	0.0060119	0.9999968	-1.0000000	1.0000000
proximal_outcome	33600	0.6063988	0.4885554	0	1.0000000

The SAS System

The GENMOD Procedure

Model Information	
Data Set	WORK.OCCASION_LEVEL
Distribution	Binomial
Link Function	Log
Dependent Variable	proximal_outcome

Number of Observations Read	33600
Number of Observations Used	33600
Number of Events	20375
Number of Trials	33600

Class Level Information		
Class	**Levels**	**Values**
ID	400	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 ...

Response Profile		
Ordered Value	**proximal_outcome**	**Total Frequency**
1	1	20375
2	0	13225

PROC GENMOD is modeling the probability that proximal_outcome='1'.

Parameter Information	
Parameter	**Effect**
Prm1	Intercept
Prm2	is_female
Prm3	baseline_bmi_centere
Prm4	A
Prm5	coaching
Prm6	A*coaching
Prm7	meal

Prm8	A*meal
Prm9	coaching*meal
Prm10	A*coaching*meal

Algorithm converged.

GEE Model Information	
Correlation Structure	Independent
Subject Effect	ID (400 levels)
Number of Clusters	400
Correlation Matrix Dimension	84
Maximum Cluster Size	84
Minimum Cluster Size	84

Algorithm converged.

GEE Fit Criteria	
QIC	44981.2551
QICu	44979.3355

Analysis Of GEE Parameter Estimates						
Empirical Standard Error Estimates						
Parameter	**Estimate**	**Standard Error**	**95% Confidence Limits**		**Z**	**Pr > |Z|**
Intercept	-0.5062	0.0053	-0.5165	-0.4958	-96.24	<.0001
is_female	0.0138	0.0053	0.0035	0.0242	2.62	0.0087
baseline_bmi_centere	-0.0045	0.0015	-0.0074	-0.0016	-3.06	0.0022
A	0.0071	0.0044	-0.0015	0.0157	1.61	0.1073
coaching	0.0214	0.0048	0.0120	0.0307	4.47	<.0001
A*coaching	0.0093	0.0044	0.0007	0.0179	2.11	0.0346
meal	0.0252	0.0048	0.0159	0.0345	5.31	<.0001
A*meal	0.0029	0.0044	-0.0057	0.0115	0.65	0.5131
coaching*meal	0.0072	0.0048	-0.0021	0.0166	1.52	0.1284
A*coaching*meal	0.0063	0.0044	-0.0023	0.0149	1.44	0.1501