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	0.3750000	0.9281858	-1.0000000	1.0000000
baseline_bmi_centered	400	-0.0035000	3.2716704	-5.3900000	5.6100000
coaching	400	0.0050000	1.0012398	-1.0000000	1.0000000
meal	202	0.0495050	1.0012553	-1.0000000	1.0000000
R	400	0.4950000	0.5006011	0	1.0000000
final_kg_lost	400	2.0497500	2.6365942	-5.8000000	10.2000000

The SAS System

The GENMOD Procedure

Model Information	
Data Set	WORK.PERSON_LEVEL_FOR_ANALYSIS
Distribution	Normal
Link Function	Identity
Dependent Variable	final_kg_lost
Scale Weight Variable	replicate_weight

Number of Observations Read	598
Number of Observations Used	598
Sum of Weights	1600

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 ...

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

Algorithm converged.

GEE Model Information	
Correlation Structure	Independent
Subject Effect	ID (400 levels)
Number of Clusters	400
Correlation Matrix Dimension	2
Maximum Cluster Size	2

Minimum Cluster Size	1

Algorithm converged.

GEE Fit Criteria	
QIC	607.0485
QICu	604.0000

Analysis Of GEE Parameter Estimates

Empirical Standard Error Estimates

Parameter	Estimate	Standard Error	95% Confidence Limits		Z	Pr > |Z|
Intercept	1.9457	0.1404	1.6705	2.2210	13.86	<.0001
is_female	0.2629	0.1403	-0.0121	0.5379	1.87	0.0610
baseline_bmi_centere	-0.0366	0.0382	-0.1115	0.0383	-0.96	0.3382
coaching	0.6638	0.1276	0.4137	0.9139	5.20	<.0001
meal	0.1065	0.0907	-0.0713	0.2843	1.17	0.2403
coaching*meal	0.0276	0.0908	-0.1504	0.2055	0.30	0.7614

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	0.3750000	0.9270386	-1.0000000	1.0000000
baseline_bmi_centered	33600	-0.0035000	3.2676269	-5.3900000	5.6100000
coaching	33600	0.0050000	1.0000024	-1.0000000	1.0000000
R	33600	0.4950000	0.4999824	0	1.0000000
meal	16968	0.0495050	0.9988033	-1.0000000	1.0000000
A	33600	0.000059524	1.0000149	-1.0000000	1.0000000
proximal_outcome	33600	0.6065179	0.4885295	0	1.0000000
replicate_weight	33600	3.0100000	0.9999649	2.0000000	4.0000000

The SAS System

The GENMOD Procedure

Model Information	
Data Set	WORK.OCCASION_LEVEL_FOR_ANALYSIS
Distribution	Binomial
Link Function	Log
Dependent Variable	proximal_outcome
Scale Weight Variable	replicate_weight

Number of Observations Read	50232
Number of Observations Used	50232
Sum of Weights	134400
Number of Events	30694
Number of Trials	50232

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	Total Weight
1	1	30694	81516
2	0	19538	52884

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

Parameter Information	
Parameter	Effect
Prm1	Intercept
Prm2	is_female
Prm3	baseline_bmi_centere
Prm4	coaching
Prm5	meal

Prm6	coaching*meal
Prm7	A
Prm8	coaching*A
Prm9	meal*A
Prm10	coaching*meal*A

Algorithm converged.

GEE Model Information	
Correlation Structure	Independent
Subject Effect	ID (400 levels)
Number of Clusters	400
Correlation Matrix Dimension	168
Maximum Cluster Size	168
Minimum Cluster Size	84

Algorithm converged.

GEE Fit Criteria	
QIC	179880.6588
QICu	179823.5477

Analysis Of GEE Parameter Estimates

Empirical Standard Error Estimates

Parameter	Estimate	Standard Error	95% Confidence Limits		Z	Pr > |Z|
Intercept	-0.5074	0.0056	-0.5184	-0.4964	-90.52	<.0001
is_female	0.0170	0.0057	0.0058	0.0283	2.97	0.0030
baseline_bmi_centere	-0.0007	0.0015	-0.0037	0.0023	-0.45	0.6512
coaching	0.0342	0.0049	0.0246	0.0438	6.98	<.0001
meal	0.0050	0.0035	-0.0019	0.0118	1.42	0.1566
coaching*meal	0.0053	0.0035	-0.0015	0.0122	1.53	0.1258
A	0.0076	0.0046	-0.0015	0.0167	1.63	0.1030
coaching*A	0.0101	0.0046	0.0010	0.0192	2.18	0.0296
meal*A	0.0046	0.0033	-0.0019	0.0110	1.39	0.1650
coaching*meal*A	-0.0009	0.0033	-0.0074	0.0055	-0.28	0.7815