

Mixed Model Analysis

Notes		
Output Created		30-JUN-2022 10:10:23
Comments		
Input	Data	S:\Quant\data cleaning\V2\KN\V3\Analysis\A nalysis 27.06.2022\NERS_NS.sav
	Active Dataset	DataSet1
	Filter	(Cohort_Group = 1   Cohort_Group = 2   Cohort_Group = 3) & (status_code_2 = 4   status_code_2 = 6) (FILTER)
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	8313
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the model.

Syntax

```
MIXED bmi_16wk_clean
WITH Age_at_ref2 Gender2
Cohort_Dummy2
Cohort_Dummy3
IMD_Quintile2_dummy
    IMD_Quintile3_dummy
IMD_Quintile4_dummy
IMD_Quintile5_dummy

Pathway_5_dummy_generic_level4
Pathway_5_dummy_generic_back
Pathway_5_dummy_generic_MH

Pathway_5_dummy_generic_weight init_bmi_clean

/CRITERIA=DFMETHOD(SAT
TERTHWAITE) CIN(95)
MXITER(100) MXSTEP(10)
SCORING(1)

SINGULAR(0.000000000001)
HCONVERGE(0, ABSOLUTE)
LCONVERGE(0, ABSOLUTE)
PCONVERGE(0.000001,
ABSOLUTE)
    /FIXED=Age_at_ref2
Gender2 Cohort_Dummy2
Cohort_Dummy3
IMD_Quintile2_dummy
    IMD_Quintile3_dummy
IMD_Quintile4_dummy
IMD_Quintile5_dummy
Pathway_5_dummy_generic_level4

Pathway_5_dummy_generic_
```

		back Pathway_5_dummy_generic_ MH Pathway_5_dummy_generic_ weight init_bmi_clean   SSTYPE(3) /METHOD=ML /PRINT=G SOLUTION TESTCOV /RANDOM=INTERCEPT   SUBJECT(Local_Authority) COVTYPE(VC).
Resources	Processor Time	00:00:00.23
	Elapsed Time	00:00:00.23

Model Dimension<sup>a</sup>

		Number of Levels	Covariance Structure	Number of Parameters	Subject Variables
Fixed Effects	Intercept	1		1	
	Age_at_ref2	1		1	
	Gender2	1		1	
	Cohort_Dummy2	1		1	
	Cohort_Dummy3	1		1	
	IMD_Quintile2_dummy	1		1	
	IMD_Quintile3_dummy	1		1	
	IMD_Quintile4_dummy	1		1	
	IMD_Quintile5_dummy	1		1	
	Pathway_5_dummy_generic_ level4	1		1	
	Pathway_5_dummy_generic_ back	1		1	
	Pathway_5_dummy_generic_ MH	1		1	
	Pathway_5_dummy_generic_ weight	1		1	
	init_bmi_clean	1		1	

Random Effects	Intercept <sup>b</sup>	1	Variance Components	1	Local_Authority
Residual				1	
Total		15		16	

- a. Dependent Variable: bmi\_16wk\_clean.
- b. As of version 11.5, the syntax rules for the RANDOM subcommand have changed. Your command syntax may yield results that differ from those produced by prior versions. If you are using version 11 syntax, please consult the current syntax reference guide for more information.

Information Criteria <sup>a</sup>	
-2 Log Likelihood	30143.717
Akaike's Information Criterion (AIC)	30175.717
Hurvich and Tsai's Criterion (AICC)	30175.798
Bozdogan's Criterion (CAIC)	30300.696
Schwarz's Bayesian Criterion (BIC)	30284.696

The information criteria are displayed in smaller-is-better form.

- a. Dependent Variable: bmi\_16wk\_clean.

Fixed Effects

Type III Tests of Fixed Effects <sup>a</sup>				
Source	Numerator df	Denominator df	F	Sig.
Intercept	1	1355.036	54.443	<.001
Age_at_ref2	1	6707.712	14.314	<.001
Gender2	1	6702.453	16.081	<.001
Cohort_Dummy2	1	6466.608	.004	.950
Cohort_Dummy3	1	6697.198	.604	.437
IMD_Quintile2_dummy	1	6708.660	.335	.563
IMD_Quintile3_dummy	1	6567.747	.181	.670

IMD_Quintile4_dummy	1	6573.849	2.474	.116
IMD_Quintile5_dummy	1	6632.053	6.000	.014
Pathway_5_dummy_generic_level4	1	6708.606	3.404	.065
Pathway_5_dummy_generic_back	1	6707.158	.101	.751
Pathway_5_dummy_generic_MH	1	6708.404	.032	.858
Pathway_5_dummy_generic_weight	1	6696.845	.101	.750
init_bmi_clean	1	6705.695	36600.226	.000

a. Dependent Variable: bmi\_16wk\_clean.

Estimates of Fixed Effects <sup>a</sup>							
Parameter	Estimate	Std. Error	df	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Intercept	1.812256	.245612	1355.036	7.379	<.001	1.330434	2.294078
Age_at_ref2	.007581	.002004	6707.712	3.783	<.001	.003653	.011509
Gender2	.234680	.058522	6702.453	4.010	<.001	.119958	.349403
Cohort_Dummy2	-.004062	.064260	6466.608	-.063	.950	-.130033	.121910
Cohort_Dummy3	-.093571	.120429	6697.198	-.777	.437	-.329651	.142509
IMD_Quintile2_dummy	-.056903	.098271	6708.660	-.579	.563	-.249546	.135739
IMD_Quintile3_dummy	-.040911	.096112	6567.747	-.426	.670	-.229321	.147499
IMD_Quintile4_dummy	-.151322	.096213	6573.849	-1.573	.116	-.339931	.037286
IMD_Quintile5_dummy	-.238231	.097255	6632.053	-2.450	.014	-.428883	-.047579
Pathway_5_dummy_generic_level4	.160814	.087158	6708.606	1.845	.065	-.010044	.331671
Pathway_5_dummy_generic_back	-.053501	.168545	6707.158	-.317	.751	-.383903	.276902
Pathway_5_dummy_generic_MH	.022594	.126201	6708.404	.179	.858	-.224800	.269989
Pathway_5_dummy_generic_weight	.029058	.091285	6696.845	.318	.750	-.149889	.208005
init_bmi_clean	.900454	.004707	6705.695	191.312	.000	.891227	.909680

a. Dependent Variable: bmi\_16wk\_clean.

Covariance Parameters

Estimates of Covariance Parameters <sup>a</sup>						
Parameter	Estimate	Std. Error	Wald Z	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Residual	5.198211	.089897	57.824	.000	5.024969	5.377427
Intercept [subject = Local_Authority]	Variance .131959	.045612	2.893	.004	.067022	.259812

a. Dependent Variable: bmi\_16wk\_clean.

Random Effect Covariance Structure  
(G)<sup>a</sup>

Intercept   Local_Authority	
Intercept   Local_Authority	.131959

Variance Components

a. Dependent Variable: bmi\_16wk\_clean.