**Frequencies**

|  |  |  |
| --- | --- | --- |
| **Notes** | | |
| Output Created | | 28-JUN-2022 18:10:43 |
| Comments | |  |
| Input | Data | S:\Quant\data cleaning\V2\KN\V3\Analysis\Analysis 27.06.2022\NERS\_NS.sav |
| Active Dataset | DataSet1 |
| Filter | (Cohort\_Group = 1 | Cohort\_Group = 2 | Cohort\_Group = 3) & Date\_of\_first\_consultation\_recorded = 1 (FILTER) |
| Weight | <none> |
| Split File | <none> |
| N of Rows in Working Data File | 14401 |
| 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. |
| Syntax | | FREQUENCIES VARIABLES=Cohort\_Group  /ORDER=ANALYSIS. |
| Resources | Processor Time | 00:00:00.16 |
| Elapsed Time | 00:00:00.15 |

|  |  |  |
| --- | --- | --- |
| **Statistics** | | |
| Cohort\_Group | | |
| N | Valid | 14401 |
| Missing | 0 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Cohort\_Group** | | | | | |
|  | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | Cohort 1 | 9347 | 64.9 | 64.9 | 64.9 |
| Cohort 2 | 4165 | 28.9 | 28.9 | 93.8 |
| Cohort 3 | 889 | 6.2 | 6.2 | 100.0 |
| Total | 14401 | 100.0 | 100.0 |  |

**Generalized Linear Mixed Models**

|  |  |  |
| --- | --- | --- |
| **Notes** | | |
| Output Created | | 28-JUN-2022 18:11:52 |
| Comments | |  |
| Input | Data | S:\Quant\data cleaning\V2\KN\V3\Analysis\Analysis 27.06.2022\NERS\_NS.sav |
| Active Dataset | DataSet1 |
| Filter | (Cohort\_Group = 1 | Cohort\_Group = 2 | Cohort\_Group = 3) & Date\_of\_first\_consultation\_recorded = 1 (FILTER) |
| Weight | <none> |
| Split File | <none> |
| N of Rows in Working Data File | 14401 |
| Syntax | | GENLINMIXED  /DATA\_STRUCTURE SUBJECTS=Local\_Authority  /FIELDS TARGET=Date\_of\_first\_exercise\_recorded\_USE\_ME TRIALS=NONE OFFSET=NONE  /TARGET\_OPTIONS DISTRIBUTION=BINOMIAL LINK=LOGIT  /FIXED EFFECTS=IMD\_Quintile Age\_at\_ref2 Gender2 Pathways\_5 Cohort\_two\_groups USE\_INTERCEPT=TRUE  /RANDOM EFFECTS=IMD\_Quintile Age\_at\_ref2 Gender2 Pathways\_5 Cohort\_two\_groups USE\_INTERCEPT=TRUE  SUBJECTS=Local\_Authority COVARIANCE\_TYPE=VARIANCE\_COMPONENTS SOLUTION=FALSE  /BUILD\_OPTIONS TARGET\_CATEGORY\_ORDER=DESCENDING INPUTS\_CATEGORY\_ORDER=DESCENDING  MAX\_ITERATIONS=100 CONFIDENCE\_LEVEL=95 DF\_METHOD=RESIDUAL COVB=MODEL PCONVERGE=0.000001(ABSOLUTE)  SCORING=0 SINGULAR=0.000000000001  /EMMEANS\_OPTIONS SCALE=ORIGINAL PADJUST=LSD. |
| Resources | Processor Time | 00:00:07.42 |
| Elapsed Time | 00:00:07.33 |

|  |  |  |
| --- | --- | --- |
| **Case Processing Summary** | | |
|  | N | Percent |
| Included | 13882 | 96.4% |
| Excluded | 519 | 3.6% |
| Total | 14401 | 100.0% |

|  |  |  |
| --- | --- | --- |
| **Model Summary** | | |
| Target | | Date\_of\_first\_exercise\_recorded\_USE\_ME |
| Probability Distribution | | Binomial |
| Link Function | | Logit |
| Information Criterion | Akaike Corrected | 79349.389 |
| Bayesian | 79394.608 |
| Information criteria are based on the -2 log likelihood (79337.383) and are used to compare models. Models with smaller information criterion values fit better. | | |

|  |  |  |
| --- | --- | --- |
| **Data Structurea** | | |
|  | Subjects | Target |
| Local\_Authority | Date\_of\_first\_exercise\_recorded\_USE\_ME |
| Data for First Subject | 1.000 | Yes |
| 1.000 | Yes |
| 1.000 | Yes |
| 1.000 | Yes |
| 1.000 | Yes |
| 1.000 | Yes |
| 1.000 | Yes |
| 1.000 | Yes |
| 1.000 | Yes |
| 1.000 | Yes |
| Total Number of Levels | 22 |  |
| Only the first 10 records are displayed.a | | |
| a. Target: Date\_of\_first\_exercise\_recorded\_USE\_ME | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Classification**  **Overall Percent Correct = 90.3%a** | | | |
| Observed | | Predicted | |
| Yes | No |
| Yes | Count | 12467 | 47 |
| % within Observed | 99.6% | 0.4% |
| No | Count | 1306 | 62 |
| % within Observed | 95.5% | 4.5% |
| a. Target: Date\_of\_first\_exercise\_recorded\_USE\_ME | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Fixed Effectsa** | | | | |
| Source | F | df1 | df2 | Sig. |
| Corrected Model | 3.660 | 11 | 13870 | <.001 |
| IMD\_Quintile | 1.565 | 4 | 13870 | .181 |
| Age\_at\_ref2 | 22.163 | 1 | 13870 | <.001 |
| Gender2 | 1.623 | 1 | 13870 | .203 |
| Pathways\_5 | .794 | 4 | 13870 | .529 |
| Cohort\_two\_groups | .051 | 1 | 13870 | .821 |
| Probability distribution: Binomial  Link function: Logita | | | | |
| a. Target: Date\_of\_first\_exercise\_recorded\_USE\_ME | | | | |

Diagram

Description automatically generated

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Fixed Coefficientsa** | | | | | | | | | |
| Model Term | Coefficient | Std. Error | t | Sig. | 95% Confidence Interval | | Exp(Coefficient) | 95% Confidence Interval for Exp(Coefficient) | |
| Lower | Upper | Lower | Upper |
| Intercept | 1.870 | .3223 | 5.801 | <.001 | 1.238 | 2.502 | 6.487 | 3.449 | 12.202 |
| IMD\_Quintile=5 | .246 | .1444 | 1.703 | .089 | -.037 | .529 | 1.279 | .964 | 1.697 |
| IMD\_Quintile=4 | .207 | .1371 | 1.512 | .131 | -.061 | .476 | 1.230 | .940 | 1.610 |
| IMD\_Quintile=3 | .270 | .1364 | 1.979 | .048 | .003 | .537 | 1.310 | 1.003 | 1.711 |
| IMD\_Quintile=2 | .048 | .1333 | .361 | .718 | -.213 | .309 | 1.049 | .808 | 1.363 |
| IMD\_Quintile=1 | 0b | . | . | . | . | . | . | . | . |
| Age\_at\_ref2 | .013 | .0027 | 4.708 | <.001 | .007 | .018 | 1.013 | 1.007 | 1.018 |
| Gender2=2 | .111 | .0874 | 1.274 | .203 | -.060 | .283 | 1.118 | .942 | 1.327 |
| Gender2=1 | 0b | . | . | . | . | . | . | . | . |
| Pathways\_5=6 | -.196 | .1582 | -1.237 | .216 | -.506 | .114 | .822 | .603 | 1.121 |
| Pathways\_5=5 | -.106 | .1891 | -.559 | .576 | -.476 | .265 | .900 | .621 | 1.303 |
| Pathways\_5=3 | .054 | .2217 | .242 | .809 | -.381 | .488 | 1.055 | .683 | 1.629 |
| Pathways\_5=2 | .094 | .1500 | .625 | .532 | -.200 | .388 | 1.098 | .819 | 1.473 |
| Pathways\_5=1 | 0b | . | . | . | . | . | . | . | . |
| Cohort\_two\_groups=2 | -.067 | .2967 | -.226 | .821 | -.649 | .515 | .935 | .523 | 1.673 |
| Cohort\_two\_groups=1 | 0b | . | . | . | . | . | . | . | . |
| Probability distribution: Binomial  Link function: Logita | | | | | | | | | |
| a. Target: Date\_of\_first\_exercise\_recorded\_USE\_ME | | | | | | | | | |
| b. This coefficient is set to zero because it is redundant. | | | | | | | | | |

Chart

Description automatically generated

**Random Effect Covariances**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Random Effect Block 1** | | | | | | | | | | | | | | | | |
| Random Effect Block | Intercept | IMD\_Quintile=5 | IMD\_Quintile=4 | IMD\_Quintile=3 | IMD\_Quintile=2 | IMD\_Quintile=1 | Age\_at\_ref2 | Gender2=2 | Gender2=1 | Pathways\_5=6 | Pathways\_5=5 | Pathways\_5=3 | Pathways\_5=2 | Pathways\_5=1 | Cohort\_two\_groups=2 | Cohort\_two\_groups=1 |
| Intercept | .951 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 |
| IMD\_Quintile=5 | .000 | .049 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 |
| IMD\_Quintile=4 | .000 | .000 | .049 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 |
| IMD\_Quintile=3 | .000 | .000 | .000 | .049 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 |
| IMD\_Quintile=2 | .000 | .000 | .000 | .000 | .049 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 |
| IMD\_Quintile=1 | .000 | .000 | .000 | .000 | .000 | .049 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 |
| Age\_at\_ref2 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 |
| Gender2=2 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .024 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 |
| Gender2=1 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .024 | .000 | .000 | .000 | .000 | .000 | .000 | .000 |
| Pathways\_5=6 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .114 | .000 | .000 | .000 | .000 | .000 | .000 |
| Pathways\_5=5 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .114 | .000 | .000 | .000 | .000 | .000 |
| Pathways\_5=3 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .114 | .000 | .000 | .000 | .000 |
| Pathways\_5=2 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .114 | .000 | .000 | .000 |
| Pathways\_5=1 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .114 | .000 | .000 |
| Cohort\_two\_groups=2 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .544 | .000 |
| Cohort\_two\_groups=1 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .544 |
| Covariance Structure: Variance components  Subject Specification: Local\_Authority | | | | | | | | | | | | | | | | |

**Covariance Parameters**

|  |  |  |
| --- | --- | --- |
| **Covariance Parameters Summary** | | |
| Covariance Parameters | Residual Effect | 0 |
| Random Effects | 6 |
| Design Matrix Columns | Fixed Effects | 16 |
| Random Effects | 16a |
| Common Subjects | | 22 |
| Common subjects are based on the subject specifications for the residual and random effects and are used to chunk the data for better performance. | | |
| a. This is the number of columns per common subject. | | |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Residual Effect** | | | | | | |
| Residual Effect | Estimate | Std. Error | Z | Sig. | 95% Confidence Interval | |
| Lower | Upper |
| Variance | 1.000 | . | . | . | . | . |
| Covariance Structure: Scaled Identity  Subject Specification: (None) | | | | | | |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Random Effect** | | | | | | |
| Random Effect Covariance | Estimate | Std. Error | Z | Sig. | 95% Confidence Interval | |
| Lower | Upper |
| Var(Intercept) | .951 | .509 | 1.870 | .061 | .334 | 2.713 |
| Var(IMD\_Quintile) | .049 | .028 | 1.767 | .077 | .016 | .149 |
| Var(Age\_at\_ref2) | 3.892E-5 | 3.631E-5 | 1.072 | .284 | 6.253E-6 | .000 |
| Var(Gender2) | .024 | .034 | .705 | .481 | .001 | .389 |
| Var(Pathways\_5) | .114 | .046 | 2.467 | .014 | .052 | .253 |
| Var(Cohort\_two\_groups) | .544 | .253 | 2.149 | .032 | .218 | 1.354 |
| Covariance Structure: Variance components  Subject Specification: Local\_Authority | | | | | | |