```
  __   ___   ___   ___   ____(R)
 /_    /    /__/  /    /__/
__/  /   /__/  /   /__/
       Statistics/Data analysis
```

```
 1 .
 2 .
 3 . **STEP 17: TABLE 5: MED4WAY FOR DIFFERENT PROBABILITIES OF DEMENTIA AS EXPOSURE, POOR SLEEP AS MEDIATORS, AND A
 4 .
 5 .
 6 . use finaldata_imputed_FINAL,clear

 7 .
 8 . *****************************OVERALL*****************************
 9 . capture drop zpoorsleep_2006

10 . capture drop zpoorsleepalt_2006

11 . capture drop zlnhurd_odds

12 . capture drop zlnexpert_odds

13 . capture drop zlnlasso_odds

14 . foreach x of varlist poorsleep_2006 poorsleepalt_2006 lnhurd_odds lnexpert_odds lnlasso_odds {
    2.          mi passive: egen z`x'=std(`x') if sample_final==1
    3. }
  (passive variables zpoorsleep_2006 zpoorsleepalt_2006 zlnhurd_odds zlnexpert_odds zlnlasso_odds unregistered beca
  m=0:
  (36,570 missing values generated)
  m=1:
  (36,570 missing values generated)
  m=2:
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  m=5:
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  m=0:
  (36,570 missing values generated)
  m=1:
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     (36,570 missing values generated)
m=2:
     (36,570 missing values generated)
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m=5:
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     (36,570 missing values generated)
m=3:
     (36,570 missing values generated)
m=4:
     (36,570 missing values generated)
m=5:
     (36,570 missing values generated)

15 .
16 . save, replace
     (file C:\Users\baydounm\AppData\Local\Temp\ST_6434_000002.tmp not found)
     file C:\Users\baydounm\AppData\Local\Temp\ST_6434_000002.tmp saved as .dta format

17 .
18 .
19 .
20 .
21 .
22 . foreach x of varlist zlnhurd_odds zlnexpert_odds zlnlasso_odds {
     2. mi estimate, cmdok esampvaryok: med4way `x' zpoorsleep_2006  AGE2006 SEX NonWhite  educationg* totwealth_200
   > g* zcesd_2006 if sample_final==1 , a0(0) a1(1) m(0) yreg(cox) mreg(linear)
     3. }
     Warning: this analysis assumes a rare outcome.
     Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu
   > 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b
   > ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.
     Warning: this analysis assumes a rare outcome.
     Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu
   > 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b
   > ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.
     Warning: this analysis assumes a rare outcome.
     Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu
   > 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b
   > ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.
     Warning: this analysis assumes a rare outcome.
     Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu
   > 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b
   > ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.
     Warning: this analysis assumes a rare outcome.
     Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu
   > 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b
   > ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.
```

Multiple-imputation estimates

| | | | |
|---|---|---|---|
| Imputations | = | 5 |
| Number of obs | = | 6,510 |
| Average RVI | = | 0.0001 |
| Largest FMI | = | 0.0002 |

DF adjustment:    **Large sample**

| DF: | min | = | 1.08e+08 |
|---|---|---|---|
| | avg | = | 2.00e+10 |
| | max | = | 9.91e+10 |

| | Coefficient | Std. err. | t | P>|t| | [95% conf. interval] | |
|---|---|---|---|---|---|---|
| tereri | .5078116 | .047817 | 10.62 | 0.000 | .4140919 | .6015312 |
| ereri_cde | .4683686 | .0458344 | 10.22 | 0.000 | .3785348 | .5582024 |
| ereri_intref | .0186584 | .0060933 | 3.06 | 0.002 | .0067158 | .030601 |
| ereri_intmed | .0158549 | .0051666 | 3.07 | 0.002 | .0057285 | .0259813 |
| ereri_pie | .0049297 | .0018693 | 2.64 | 0.008 | .001266 | .0085934 |

**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**

Multiple-imputation estimates

| | | | |
|---|---|---|---|
| Imputations | = | 5 |
| Number of obs | = | 6,510 |
| Average RVI | = | 0.0001 |
| Largest FMI | = | 0.0003 |

DF adjustment:    **Large sample**

| DF: | min | = | 4.54e+07 |
|---|---|---|---|
| | avg | = | 4.38e+09 |
| | max | = | 2.14e+10 |

| | Coefficient | Std. err. | t | P>|t| | [95% conf. interval] | |
|---|---|---|---|---|---|---|
| tereri | .3828363 | .0320282 | 11.95 | 0.000 | .3200621 | .4456104 |
| ereri_cde | .3589969 | .0311212 | 11.54 | 0.000 | .2980004 | .4199933 |
| ereri_intref | .0102364 | .0034524 | 2.96 | 0.003 | .0034698 | .017003 |
| ereri_intmed | .0094675 | .002784 | 3.40 | 0.001 | .0040109 | .0149241 |
| ereri_pie | .0041355 | .0015281 | 2.71 | 0.007 | .0011406 | .0071305 |

**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**

**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**

```
Multiple-imputation estimates              Imputations     =             5
                                           Number of obs   =         6,510
                                           Average RVI     =        0.0001
                                           Largest FMI     =        0.0002
DF adjustment:   Large sample              DF:     min     =      1.38e+08
                                                   avg     =      1.01e+10
                                                   max     =      4.96e+10
```

|              | Coefficient | Std. err. |    t  | P>\|t\| | [95% conf. interval] |          |
|-------------:|------------:|----------:|------:|-------:|---------------------:|---------:|
|       tereri |   .4457043  | .0345508  | 12.90 | 0.000  |            .3779859  | .5134227 |
|    ereri_cde |   .4169909  | .0336765  | 12.38 | 0.000  |            .3509861  | .4829957 |
| ereri_intref |   .0115115  | .0038936  |  2.96 | 0.003  |            .0038802  | .0191428 |
| ereri_intmed |    .012242  | .0033461  |  3.66 | 0.000  |            .0056839  | .0188002 |
|    ereri_pie |   .0049599  | .0017375  |  2.85 | 0.004  |            .0015545  | .0083652 |

```
23 .
24 . ***************SENSITIVITY ANALYSIS, OVERALL******************
25 .
26 .
27 . foreach x of varlist zlnhurd_odds zlnexpert_odds zlnlasso_odds {
    2. mi estimate, cmdok esampvaryok: med4way `x' zpoorsleepalt_2006  AGE2006 SEX NonWhite  educationg* totwealth_
  > 006g* zcesd_2006 if sample_final==1 , a0(0) a1(1) m(0) yreg(cox) mreg(linear)
    3. }
```
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**

Multiple-imputation estimates

| | | |
|---|---|---|
| Imputations | = | 5 |
| Number of obs | = | 6,510 |
| Average RVI | = | 0.0001 |
| Largest FMI | = | 0.0002 |

DF adjustment:   **Large sample**

| DF: | min | = | 1.17e+08 |
|---|---|---|---|
| | avg | = | 1.90e+10 |
| | max | = | 9.44e+10 |

| | Coefficient | Std. err. | t | P>|t| | [95% conf. interval] | |
|---|---|---|---|---|---|---|
| tereri | .5083399 | .0478423 | 10.63 | 0.000 | .4145707 | .6021091 |
| ereri_cde | .4654872 | .0456889 | 10.19 | 0.000 | .3759386 | .5550358 |
| ereri_intref | .0196838 | .006302 | 3.12 | 0.002 | .0073321 | .0320356 |
| ereri_intmed | .017337 | .0053714 | 3.23 | 0.001 | .0068093 | .0278647 |
| ereri_pie | .0058319 | .002038 | 2.86 | 0.004 | .0018374 | .0098264 |

**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**

Multiple-imputation estimates

| | | |
|---|---|---|
| Imputations | = | 5 |
| Number of obs | = | 6,510 |
| Average RVI | = | 0.0001 |
| Largest FMI | = | 0.0003 |

DF adjustment:   **Large sample**

| DF: | min | = | 3.73e+07 |
|---|---|---|---|
| | avg | = | 4.78e+09 |
| | max | = | 2.34e+10 |

| | Coefficient | Std. err. | t | P>|t| | [95% conf. interval] | |
|---|---|---|---|---|---|---|
| tereri | .3824244 | .0320032 | 11.95 | 0.000 | .3196992 | .4451495 |
| ereri_cde | .3576487 | .0310558 | 11.52 | 0.000 | .2967804 | .418517 |
| ereri_intref | .0107789 | .0035544 | 3.03 | 0.002 | .0038125 | .0177453 |
| ereri_intmed | .0094619 | .0028059 | 3.37 | 0.001 | .0039623 | .0149614 |
| ereri_pie | .0045349 | .0015896 | 2.85 | 0.004 | .0014194 | .0076503 |

**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**

**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**

```
Multiple-imputation estimates              Imputations     =          5
                                           Number of obs   =      6,510
                                           Average RVI     =     0.0001
                                           Largest FMI     =     0.0002
DF adjustment:   Large sample              DF:     min     =   1.38e+08
                                                   avg     =   1.61e+10
                                                   max     =   8.01e+10
```

|              | Coefficient | Std. err. |     t | P>\|t\| | [95% conf. interval] |           |
| ------------ | ----------- | --------- | ----- | ------- | -------------------- | --------- |
| tereri       | .4449895    | .0345137  | 12.89 | 0.000   | .377344              | .5126351  |
| ereri_cde    | .4144499    | .0335902  | 12.34 | 0.000   | .3486144             | .4802854  |
| ereri_intref | .0121254    | .0040269  |  3.01 | 0.003   | .0042328             | .0200179  |
| ereri_intmed | .0127453    | .0034338  |  3.71 | 0.000   | .0060151             | .0194754  |
| ereri_pie    | .005669     | .0018412  |  3.08 | 0.002   | .0020604             | .0092777  |

```
28 .
29 .
30 . *******************************MEN*******************************
31 . capture drop zpoorsleep_2006

32 . capture drop zpoorsleepalt_2006

33 . capture drop zlnhurd_odds

34 . capture drop zlnexpert_odds

35 . capture drop zlnlasso_odds

36 . foreach x of varlist poorsleep_2006 poorsleepalt_2006 lnhurd_odds lnexpert_odds lnlasso_odds {
   2.          mi passive: egen z`x'=std(`x') if sample_final==1
   3. }
 (passive variables zpoorsleep_2006 zpoorsleepalt_2006 zlnhurd_odds zlnexpert_odds zlnlasso_odds unregistered beca
 m=0:
 (36,570 missing values generated)
 m=1:
 (36,570 missing values generated)
 m=2:
 (36,570 missing values generated)
 m=3:
 (36,570 missing values generated)
 m=4:
 (36,570 missing values generated)
 m=5:
 (36,570 missing values generated)
 m=0:
 (36,570 missing values generated)
 m=1:
```

```
     (36,570 missing values generated)
```
*m=2:*
```
     (36,570 missing values generated)
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*m=3:*
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*m=4:*
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     (36,570 missing values generated)
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*m=5:*
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     (36,570 missing values generated)
```
*m=0:*
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     (36,570 missing values generated)
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*m=1:*
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     (36,570 missing values generated)
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*m=2:*
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*m=2:*
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*m=4:*
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     (36,570 missing values generated)
```
*m=5:*
```
     (36,570 missing values generated)
```

```
37 .
38 . save, replace
     (file C:\Users\baydounm\AppData\Local\Temp\ST_6434_000002.tmp not found)
     file C:\Users\baydounm\AppData\Local\Temp\ST_6434_000002.tmp saved as .dta format
```

```
39 .
40 .
41 .
42 .
43 .
44 . foreach x of varlist zlnhurd_odds zlnexpert_odds zlnlasso_odds {
    2. mi estimate, cmdok esampvaryok: med4way `x' zpoorsleep_2006  AGE2006 SEX NonWhite  educationg* totwealth_200
  > g* zcesd_2006 if SEX==1 , a0(0) a1(1) m(0) yreg(cox) mreg(linear)
    3. }
```

**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**

```
Multiple-imputation estimates              Imputations      =          5
                                           Number of obs    =      2,698
                                           Average RVI      =     0.0002
                                           Largest FMI      =     0.0004
DF adjustment:   Large sample              DF:     min      =   2.39e+07
                                                   avg      =   2.95e+09
                                                   max      =   1.42e+10
```

|              | Coefficient | Std. err. | t    | P>|t| | [95% conf. interval] |          |
|-------------:|-------------|-----------|------|-------|----------------------|----------|
| tereri       | .4164165    | .0724578  | 5.75 | 0.000 | .2744019             | .5584311 |
| ereri_cde    | .3663741    | .0687888  | 5.33 | 0.000 | .2315505             | .5011976 |
| ereri_intref | .03971      | .0151257  | 2.63 | 0.009 | .0100643             | .0693558 |
| ereri_intmed | .0080567    | .0066646  | 1.21 | 0.227 | -.0050057            | .0211191 |
| ereri_pie    | .0022757    | .0021029  | 1.08 | 0.279 | -.001846             | .0063973 |

**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**

**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**

Multiple-imputation estimates                     Imputations       =          5
                                                  Number of obs     =      2,698
                                                  Average RVI       =     0.0003
                                                  Largest FMI       =     0.0008
DF adjustment:   **Large sample**                 DF:     min       = 6214103.16
                                                          avg       =    4.44e+08
                                                          max       =    1.96e+09

|            | Coefficient | Std. err. |   t  | P>\|t\| | [95% conf. interval] |          |
|-----------:|------------:|----------:|-----:|--------:|---------------------:|---------:|
| tereri     |    .2695916 |  .0475928 | 5.66 |   0.000 |             .1763114 | .3628718 |
| ereri_cde  |    .2409081 |  .0463011 | 5.20 |   0.000 |             .1501595 | .3316566 |
| ereri_intref |  .0208089 |  .0088543 | 2.35 |   0.019 |             .0034548 |  .038163 |
| ereri_intmed |   .005339 |  .0032771 | 1.63 |   0.103 |            -.0010839 | .0117619 |
| ereri_pie  |    .0025357 |  .0018865 | 1.34 |   0.179 |            -.0011619 | .0062332 |

**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**

Multiple-imputation estimates                     Imputations       =          5
                                                  Number of obs     =      2,698
                                                  Average RVI       =     0.0002
                                                  Largest FMI       =     0.0005
DF adjustment:   **Large sample**                 DF:     min       =    1.76e+07
                                                          avg       =    3.90e+08
                                                          max       =    1.75e+09

|            | Coefficient | Std. err. |   t  | P>\|t\| | [95% conf. interval] |          |
|-----------:|------------:|----------:|-----:|--------:|---------------------:|---------:|
| tereri     |    .3520528 |  .0514405 | 6.84 |   0.000 |             .2512312 | .4528743 |
| ereri_cde  |    .3215936 |  .0500869 | 6.42 |   0.000 |             .2234251 | .4197622 |
| ereri_intref |  .0218936 |  .0099902 | 2.19 |   0.028 |             .0023132 |  .041474 |
| ereri_intmed |  .0057126 |   .003571 | 1.60 |   0.110 |            -.0012865 | .0127117 |
| ereri_pie  |    .0028529 |  .0020199 | 1.41 |   0.158 |            -.0011061 |  .006812 |

```
45 .
46 .
47 . ***************SENSITIVITY ANALYSIS******************
48 .
49 . foreach x of varlist zlnhurd_odds zlnexpert_odds zlnlasso_odds {
   2. mi estimate, cmdok esampvaryok: med4way `x' zpoorsleepalt_2006  AGE2006 SEX NonWhite  educationg* totwealth_
 > 006g* zcesd_2006 if SEX==1 , a0(0) a1(1) m(0) yreg(cox) mreg(linear)
   3. }
```
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**

```
Multiple-imputation estimates              Imputations       =          5
                                           Number of obs     =      2,698
                                           Average RVI       =     0.0002
                                           Largest FMI       =     0.0004
DF adjustment:    Large sample             DF:     min       =   2.34e+07
                                                   avg       =   7.16e+09
                                                   max       =   3.52e+10
```

|             | Coefficient | Std. err. | t | P>|t| | [95% conf. interval] | |
|---|---|---|---|---|---|---|
| tereri | .4163938 | .0724495 | 5.75 | 0.000 | .2743953 | .5583923 |
| ereri_cde | .3652305 | .0685961 | 5.32 | 0.000 | .2307846 | .4996765 |
| ereri_intref | .0400392 | .015321 | 2.61 | 0.009 | .0100107 | .0700677 |
| ereri_intmed | .0085921 | .0069285 | 1.24 | 0.215 | -.0049875 | .0221717 |
| ereri_pie | .002532 | .0022419 | 1.13 | 0.259 | -.0018622 | .0069261 |

**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**

**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**

Multiple-imputation estimates                 Imputations      =           5
                                              Number of obs    =       2,698
                                              Average RVI      =      0.0003
                                              Largest FMI      =      0.0008
DF adjustment:   **Large sample**             DF:     min      = 5881032.39
                                                      avg      =    7.82e+08
                                                      max      =    3.65e+09

|              | Coefficient | Std. err. |    t  | P>\|t\| | [95% conf. interval] |           |
|-------------:|------------:|----------:|------:|-------:|---------------------:|----------:|
|       tereri |   .2699946  |   .047615 |  5.67 |  0.000 |              .176671 |  .3633183 |
|    ereri_cde |    .241748  |  .0462393 |  5.23 |  0.000 |             .1511206 |  .3323754 |
| ereri_intref |   .0210587  | .0088441  |  2.38 |  0.017 |             .0037246 |  .0383927 |
| ereri_intmed |   .0048072  | .0032497  |  1.48 |  0.139 |            -.0015622 |  .0111766 |
|    ereri_pie |   .0023808  | .0018317  |  1.30 |  0.194 |            -.0012092 |  .0059708 |

**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**

Multiple-imputation estimates                 Imputations      =           5
                                              Number of obs    =       2,698
                                              Average RVI      =      0.0002
                                              Largest FMI      =      0.0005
DF adjustment:   **Large sample**             DF:     min      =    1.78e+07
                                                      avg      =    8.23e+08
                                                      max      =    3.90e+09

|              | Coefficient | Std. err. |    t  | P>\|t\| | [95% conf. interval] |           |
|-------------:|------------:|----------:|------:|-------:|---------------------:|----------:|
|       tereri |   .3508348  | .0513407  |  6.83 |  0.000 |            .2502088  |  .4514608 |
|    ereri_cde |   .3206145  | .0500176  |  6.41 |  0.000 |            .2225818  |  .4186472 |
| ereri_intref |   .0217371  |  .010039  |  2.17 |  0.030 |            .0020611  |  .0414131 |
| ereri_intmed |    .005549  |  .003598  |  1.54 |  0.123 |            -.001503  |  .0126011 |
|    ereri_pie |   .0029342  | .0020567  |  1.43 |  0.154 |            -.001097  |  .0069653 |

```
50 .
51 .
52 .
53 . ***************************WOMEN*****************************
54 . capture drop zpoorsleep_2006

55 . capture drop zpoorsleepalt_2006

56 . capture drop zlnhurd_odds

57 . capture drop zlnexpert_odds

58 . capture drop zlnlasso_odds

59 . foreach x of varlist poorsleep_2006 poorsleepalt_2006 lnhurd_odds lnexpert_odds lnlasso_odds {
   2.          mi passive: egen z`x'=std(`x') if sample_final==1
   3. }
 (passive variables zpoorsleep_2006 zpoorsleepalt_2006 zlnhurd_odds zlnexpert_odds zlnlasso_odds unregistered beca
 m=0:
 (36,570 missing values generated)
 m=1:
 (36,570 missing values generated)
 m=2:
 (36,570 missing values generated)
 m=3:
 (36,570 missing values generated)
 m=4:
 (36,570 missing values generated)
 m=5:
 (36,570 missing values generated)
 m=0:
 (36,570 missing values generated)
 m=1:
 (36,570 missing values generated)
 m=2:
 (36,570 missing values generated)
 m=3:
 (36,570 missing values generated)
 m=4:
 (36,570 missing values generated)
 m=5:
 (36,570 missing values generated)
 m=0:
 (36,570 missing values generated)
 m=1:
 (36,570 missing values generated)
 m=2:
 (36,570 missing values generated)
 m=3:
 (36,570 missing values generated)
 m=4:
 (36,570 missing values generated)
 m=5:
 (36,570 missing values generated)
 m=0:
 (36,570 missing values generated)
 m=1:
 (36,570 missing values generated)
 m=2:
 (36,570 missing values generated)
 m=3:
 (36,570 missing values generated)
 m=4:
```

```
   (36,570 missing values generated)
 m=5:
   (36,570 missing values generated)
 m=0:
   (36,570 missing values generated)
 m=1:
   (36,570 missing values generated)
 m=2:
   (36,570 missing values generated)
 m=3:
   (36,570 missing values generated)
 m=4:
   (36,570 missing values generated)
 m=5:
   (36,570 missing values generated)

60 .
61 . save, replace
   (file C:\Users\baydounm\AppData\Local\Temp\ST_6434_000002.tmp not found)
   file C:\Users\baydounm\AppData\Local\Temp\ST_6434_000002.tmp saved as .dta format

62 .
63 .
64 .
65 .
66 . foreach x of varlist zlnhurd_odds zlnexpert_odds zlnlasso_odds {
   2. mi estimate, cmdok esampvaryok: med4way `x' zpoorsleep_2006  AGE2006 SEX NonWhite  educationg* totwealth_200
 > g* zcesd_2006 if SEX==2 , a0(0) a1(1) m(0) yreg(cox) mreg(linear)
   3. }
 Warning: this analysis assumes a rare outcome.
 Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu
 > 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b
 > ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.
 Warning: this analysis assumes a rare outcome.
 Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu
 > 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b
 > ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.
 Warning: this analysis assumes a rare outcome.
 Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu
 > 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b
 > ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.
 Warning: this analysis assumes a rare outcome.
 Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu
 > 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b
 > ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.
 Warning: this analysis assumes a rare outcome.
 Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu
 > 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b
 > ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.

 Multiple-imputation estimates              Imputations     =            5
                                            Number of obs   =        3,812
                                            Average RVI     =       0.0000
                                            Largest FMI     =       0.0001
 DF adjustment:   Large sample              DF:     min     =     3.28e+08
                                                    avg     =     1.62e+09
                                                    max     =     2.90e+09
```

| | Coefficient | Std. err. | t | P>\|t\| | [95% conf. interval] |
|---:|---|---|---|---|---|---|
| tereri | .5690946 | .0635896 | 8.95 | 0.000 | .4444613 | .6937279 |
| ereri_cde | .5423194 | .0618847 | 8.76 | 0.000 | .4210276 | .6636112 |
| ereri_intref | -.0007545 | .0051422 | -0.15 | 0.883 | -.0108331 | .0093241 |
| ereri_intmed | .0208004 | .0075418 | 2.76 | 0.006 | .0060187 | .0355821 |
| ereri_pie | .0067293 | .0028207 | 2.39 | 0.017 | .0012008 | .0122577 |

**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**

```
Multiple-imputation estimates              Imputations       =          5
                                           Number of obs     =      3,812
                                           Average RVI       =     0.0000
                                           Largest FMI       =     0.0000
DF adjustment:    Large sample             DF:     min       =   1.67e+09
                                                   avg       =   5.98e+09
                                                   max       =   2.05e+10
```

| | Coefficient | Std. err. | t | P>\|t\| | [95% conf. interval] |
|---:|---|---|---|---|---|---|
| tereri | .4612899 | .0432456 | 10.67 | 0.000 | .37653 | .5460498 |
| ereri_cde | .4458882 | .0424209 | 10.51 | 0.000 | .3627448 | .5290316 |
| ereri_intref | -.0031992 | .0033987 | -0.94 | 0.347 | -.0098605 | .0034622 |
| ereri_intmed | .0133793 | .0044008 | 3.04 | 0.002 | .0047539 | .0220046 |
| ereri_pie | .0052216 | .0022254 | 2.35 | 0.019 | .0008599 | .0095832 |

**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**

**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**

```
Multiple-imputation estimates                    Imputations      =           5
                                                 Number of obs    =       3,812
                                                 Average RVI      =      0.0000
                                                 Largest FMI      =      0.0000
DF adjustment:   Large sample                    DF:    min       =    2.71e+09
                                                        avg       =    5.36e+09
                                                        max       =    1.42e+10
```

|            | Coefficient | Std. err. |     t  | P>\|t\| | [95% conf. interval] |          |
|-----------:|------------:|----------:|-------:|--------:|---------------------:|---------:|
| tereri     |   .5134917  |  .046634  | 11.01  | 0.000   |   .4220906           | .6048927 |
| ereri_cde  |   .493091   | .0458615  | 10.75  | 0.000   |   .4032042           | .5829779 |
| ereri_intref | -.0038566 | .0035737  | -1.08  | 0.281   |  -.0108608           | .0031477 |
| ereri_intmed |  .0180633 |  .005351  |  3.38  | 0.001   |   .0075756           | .028551  |
| ereri_pie  |   .0061939 | .0025968  |  2.39  | 0.017   |   .0011043           | .0112834 |

```
67 .
68 .
69 . ***************SENSITIVITY ANALYSIS*******************
70 .
71 . foreach x of varlist zlnhurd_odds zlnexpert_odds zlnlasso_odds {
    2. mi estimate, cmdok esampvaryok: med4way `x' zpoorsleepalt_2006  AGE2006 SEX NonWhite  educationg* totwealth_
  > 006g* zcesd_2006 if SEX==2 , a0(0) a1(1) m(0) yreg(cox) mreg(linear)
    3. }
```
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**

```
Multiple-imputation estimates                    Imputations      =           5
                                                 Number of obs    =       3,812
                                                 Average RVI      =      0.0000
                                                 Largest FMI      =      0.0001
DF adjustment:   Large sample                    DF:    min       =    3.09e+08
                                                        avg       =    1.42e+09
                                                        max       =    2.77e+09
```

| | Coefficient | Std. err. | t | P>|t| | [95% conf. interval] | |
|---|---|---|---|---|---|---|
| tereri | .569994 | .0636598 | 8.95 | 0.000 | .445223 | .694765 |
| ereri_cde | .5371311 | .0616363 | 8.71 | 0.000 | .4163262 | .657936 |
| ereri_intref | .0016369 | .00547 | 0.30 | 0.765 | -.009084 | .0123579 |
| ereri_intmed | .0229844 | .0078648 | 2.92 | 0.003 | .0075697 | .0383991 |
| ereri_pie | .0082415 | .00313 | 2.63 | 0.008 | .0021068 | .0143762 |

**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 k**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 k**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 k**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 k**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 k**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**

```
Multiple-imputation estimates               Imputations      =          5
                                            Number of obs    =      3,812
                                            Average RVI      =     0.0000
                                            Largest FMI      =     0.0001
DF adjustment:   Large sample               DF:     min      =   1.30e+09
                                                    avg      =   3.31e+09
                                                    max      =   7.29e+09
```

| | Coefficient | Std. err. | t | P>|t| | [95% conf. interval] | |
|---|---|---|---|---|---|---|
| tereri | .4595841 | .0431558 | 10.65 | 0.000 | .3750002 | .544168 |
| ereri_cde | .4412541 | .0422259 | 10.45 | 0.000 | .3584928 | .5240154 |
| ereri_intref | -.0015519 | .0034798 | -0.45 | 0.656 | -.0083722 | .0052685 |
| ereri_intmed | .0137712 | .0044423 | 3.10 | 0.002 | .0050645 | .0224779 |
| ereri_pie | .0061107 | .0023974 | 2.55 | 0.011 | .0014119 | .0108095 |

**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 k**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 k**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 k**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 k**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**

**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**

```
Multiple-imputation estimates              Imputations      =          5
                                           Number of obs    =      3,812
                                           Average RVI      =     0.0000
                                           Largest FMI      =     0.0001
DF adjustment:   Large sample              DF:     min      =   1.29e+09
                                                   avg      =   3.70e+09
                                                   max      =   6.84e+09
```

|  | Coefficient | Std. err. | t | P>\|t\| | [95% conf. interval] | |
|---:|---|---|---|---|---|---|
| tereri | .5130262 | .0465986 | 11.01 | 0.000 | .4216947 | .6043578 |
| ereri_cde | .4884735 | .045698 | 10.69 | 0.000 | .3989071 | .5780398 |
| ereri_intref | -.0020449 | .0037046 | -0.55 | 0.581 | -.0093057 | .005216 |
| ereri_intmed | .0191341 | .0055133 | 3.47 | 0.001 | .0083283 | .02994 |
| ereri_pie | .0074635 | .0028207 | 2.65 | 0.008 | .001935 | .0129921 |

```
72 .
73 .
74 .
75 . ***************************NHW*****************************************
76 . capture drop zpoorsleep_2006

77 . capture drop zpoorsleepalt_2006

78 . capture drop zlnhurd_odds

79 . capture drop zlnexpert_odds

80 . capture drop zlnlasso_odds

81 . foreach x of varlist poorsleep_2006 poorsleepalt_2006 lnhurd_odds lnexpert_odds lnlasso_odds {
   2.          mi passive: egen z`x'=std(`x') if sample_final==1
   3. }
(passive variables zpoorsleep_2006 zpoorsleepalt_2006 zlnhurd_odds zlnexpert_odds zlnlasso_odds unregistered beca
m=0:
(36,570 missing values generated)
m=1:
(36,570 missing values generated)
m=2:
(36,570 missing values generated)
m=3:
(36,570 missing values generated)
m=4:
(36,570 missing values generated)
m=5:
(36,570 missing values generated)
m=0:
(36,570 missing values generated)
m=1:
(36,570 missing values generated)
m=2:
(36,570 missing values generated)
m=3:
(36,570 missing values generated)
m=4:
(36,570 missing values generated)
```

*m*=5:
(36,570 missing values generated)
*m*=0:
(36,570 missing values generated)
*m*=1:
(36,570 missing values generated)
*m*=2:
(36,570 missing values generated)
*m*=3:
(36,570 missing values generated)
*m*=4:
(36,570 missing values generated)
*m*=5:
(36,570 missing values generated)
*m*=0:
(36,570 missing values generated)
*m*=1:
(36,570 missing values generated)
*m*=2:
(36,570 missing values generated)
*m*=3:
(36,570 missing values generated)
*m*=4:
(36,570 missing values generated)
*m*=5:
(36,570 missing values generated)
*m*=0:
(36,570 missing values generated)
*m*=1:
(36,570 missing values generated)
*m*=2:
(36,570 missing values generated)
*m*=3:
(36,570 missing values generated)
*m*=4:
(36,570 missing values generated)
*m*=5:
(36,570 missing values generated)

```
82 .
83 . save, replace
   (file C:\Users\baydounm\AppData\Local\Temp\ST_6434_000002.tmp not found)
   file C:\Users\baydounm\AppData\Local\Temp\ST_6434_000002.tmp saved as .dta format

84 .
85 .
86 .
87 .
88 .
89 . foreach x of varlist zlnhurd_odds zlnexpert_odds zlnlasso_odds {
   2. mi estimate, cmdok esampvaryok: med4way `x' zpoorsleep_2006  AGE2006 SEX NonWhite  educationg* totwealth_200
 > g* zcesd_2006 if NonWhite==0 , a0(0) a1(1) m(0) yreg(cox) mreg(linear)
   3. }
   Warning: this analysis assumes a rare outcome.
   Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu
 > 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b
 > ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.
   Warning: this analysis assumes a rare outcome.
   Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu
 > 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b
 > ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.
   Warning: this analysis assumes a rare outcome.
   Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu
```

> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b
> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.
Warning: this analysis assumes a rare outcome.
Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu
> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b
> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.
Warning: this analysis assumes a rare outcome.
Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu
> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b
> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.

```
Multiple-imputation estimates                  Imputations      =            5
                                               Number of obs    =        5,324
                                               Average RVI      =       0.0001
                                               Largest FMI      =       0.0003
DF adjustment:   Large sample                  DF:    min       =     4.03e+07
                                                      avg       =     4.08e+09
                                                      max       =     1.88e+10
```

| | Coefficient | Std. err. | t | P>\|t\| | [95% conf. interval] | |
|---|---|---|---|---|---|---|
| tereri | .5271601 | .0536675 | 9.82 | 0.000 | .4219737 | .6323465 |
| ereri_cde | .4879399 | .0514341 | 9.49 | 0.000 | .387131 | .5887488 |
| ereri_intref | .0163363 | .0065733 | 2.49 | 0.013 | .0034529 | .0292197 |
| ereri_intmed | .0183595 | .0061416 | 2.99 | 0.003 | .0063222 | .0303969 |
| ereri_pie | .0045244 | .0019982 | 2.26 | 0.024 | .0006079 | .0084408 |

Warning: this analysis assumes a rare outcome.
Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu
> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b
> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.
Warning: this analysis assumes a rare outcome.
Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu
> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b
> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.
Warning: this analysis assumes a rare outcome.
Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu
> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b
> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.
Warning: this analysis assumes a rare outcome.
Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu
> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b
> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.
Warning: this analysis assumes a rare outcome.
Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu
> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b
> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.

```
Multiple-imputation estimates                  Imputations      =            5
                                               Number of obs    =        5,324
                                               Average RVI      =       0.0001
                                               Largest FMI      =       0.0004
DF adjustment:   Large sample                  DF:    min       =     3.09e+07
                                                      avg       =     1.60e+09
                                                      max       =     3.60e+09
```

| | Coefficient | Std. err. | t | P>|t| | [95% conf. interval] |
|---|---|---|---|---|---|---|
| tereri | .433347 | .0374219 | 11.58 | 0.000 | .3600014 | .5066927 |
| ereri_cde | .4063941 | .0363882 | 11.17 | 0.000 | .3350744 | .4777137 |
| ereri_intref | .0091009 | .0038777 | 2.35 | 0.019 | .0015008 | .0167011 |
| ereri_intmed | .0137915 | .0038048 | 3.62 | 0.000 | .0063342 | .0212489 |
| ereri_pie | .0040605 | .001876 | 2.16 | 0.030 | .0003837 | .0077374 |

**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**

| Multiple-imputation estimates | | Imputations | = | 5 |
|---|---|---|---|---|
| | | Number of obs | = | 5,324 |
| | | Average RVI | = | 0.0001 |
| | | Largest FMI | = | 0.0003 |
| DF adjustment:   **Large sample** | | DF:   min | = | **6.35e+07** |
| | | avg | = | **1.33e+09** |
| | | max | = | **5.08e+09** |

| | Coefficient | Std. err. | t | P>|t| | [95% conf. interval] |
|---|---|---|---|---|---|---|
| tereri | .4740054 | .0390999 | 12.12 | 0.000 | .397371 | .5506399 |
| ereri_cde | .4424474 | .0380584 | 11.63 | 0.000 | .3678543 | .5170404 |
| ereri_intref | .0107851 | .0043751 | 2.47 | 0.014 | .0022102 | .0193601 |
| ereri_intmed | .0162945 | .0043092 | 3.78 | 0.000 | .0078487 | .0247402 |
| ereri_pie | .0044785 | .0020082 | 2.23 | 0.026 | .0005425 | .0084145 |

```
90 .
91 .
92 .
```

93 . ***************SENSITIVITY ANALYSIS******************
94 .
95 . foreach x of varlist zlnhurd_odds zlnexpert_odds zlnlasso_odds {
    2. mi estimate, cmdok esampvaryok: med4way `x' zpoorsleepalt_2006  AGE2006 SEX NonWhite  educationg* totwealth_
> 006g* zcesd_2006 if NonWhite==0 , a0(0) a1(1) m(0) yreg(cox) mreg(linear)
    3. }
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 k**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 k**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 k**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 k**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 k**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**

    Multiple-imputation estimates              Imputations      =          5
                                               Number of obs    =      5,324
                                               Average RVI      =     0.0001
                                               Largest FMI      =     0.0003
    DF adjustment:    **Large sample**         DF:     min      =   4.00e+07
                                                       avg      =   7.88e+09
                                                       max      =   3.75e+10

| | Coefficient | Std. err. | t | P>\|t\| | [95% conf. interval] | |
|---|---|---|---|---|---|---|
| tereri | .527986 | .05374 | 9.82 | 0.000 | .4226576 | .6333144 |
| ereri_cde | .4827975 | .0511969 | 9.43 | 0.000 | .3824534 | .5831417 |
| ereri_intref | .0192717 | .0071537 | 2.69 | 0.007 | .0052507 | .0332928 |
| ereri_intmed | .0203573 | .0064565 | 3.15 | 0.002 | .0077027 | .0330119 |
| ereri_pie | .0055594 | .0022126 | 2.51 | 0.012 | .0012229 | .009896 |

**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 k**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 k**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 k**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 k**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 k**

> **ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**

```
Multiple-imputation estimates              Imputations       =            5
                                           Number of obs     =        5,324
                                           Average RVI       =       0.0001
                                           Largest FMI       =       0.0004
DF adjustment:   Large sample              DF:    min        =     3.20e+07
                                                  avg        =     3.39e+09
                                                  max        =     1.13e+10
```

|              | Coefficient | Std. err. |    t   | P>\|t\| | [95% conf. interval] |          |
|-------------:|------------:|----------:|-------:|--------:|---------------------:|---------:|
|       tereri |    .4322272 |  .0373799 |  11.56 |   0.000 |             .3589639 | .5054905 |
|    ereri_cde |    .4029048 |  .0362711 |  11.11 |   0.000 |             .3318147 | .4739949 |
| ereri_intref |    .0106974 |  .0041516 |   2.58 |   0.010 |             .0025604 | .0188344 |
| ereri_intmed |    .0139085 |  .0038493 |   3.61 |   0.000 |              .006364 | .0214531 |
|    ereri_pie |    .0047164 |  .0019462 |   2.42 |   0.015 |             .0009019 |  .008531 |

**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
> **6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
> **ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
> **6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
> **ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
> **6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
> **ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
> **6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
> **ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
> **6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
> **ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**

```
Multiple-imputation estimates              Imputations       =            5
                                           Number of obs     =        5,324
                                           Average RVI       =       0.0001
                                           Largest FMI       =       0.0002
DF adjustment:   Large sample              DF:    min        =     6.44e+07
                                                  avg        =     4.72e+09
                                                  max        =     2.20e+10
```

|              | Coefficient | Std. err. |    t   | P>\|t\| | [95% conf. interval] |          |
|-------------:|------------:|----------:|-------:|--------:|---------------------:|---------:|
|       tereri |    .4726754 |  .0390318 |  12.11 |   0.000 |             .3961745 | .5491763 |
|    ereri_cde |     .437541 |  .0379072 |  11.54 |   0.000 |             .3632442 | .5118378 |
| ereri_intref |    .0127758 |  .0047307 |   2.70 |   0.007 |             .0035038 | .0220478 |
| ereri_intmed |    .0170126 |  .0044407 |   3.83 |   0.000 |              .008309 | .0257161 |
|    ereri_pie |    .0053461 |  .0021258 |   2.51 |   0.012 |             .0011796 | .0095125 |

```
 96 .
 97 .
 98 .
 99 . ****************************Non-White*********************************
100 . capture drop zpoorsleep_2006

101 . capture drop zpoorsleepalt_2006

102 . capture drop zlnhurd_odds

103 . capture drop zlnexpert_odds

104 . capture drop zlnlasso_odds

105 . foreach x of varlist poorsleep_2006 poorsleepalt_2006 lnhurd_odds lnexpert_odds lnlasso_odds {
  2.          mi passive: egen z`x'=std(`x') if sample_final==1
  3. }
(passive variables zpoorsleep_2006 zpoorsleepalt_2006 zlnhurd_odds zlnexpert_odds zlnlasso_odds unregistered beca
m=0:
(36,570 missing values generated)
m=1:
(36,570 missing values generated)
m=2:
(36,570 missing values generated)
m=3:
(36,570 missing values generated)
m=4:
(36,570 missing values generated)
m=5:
(36,570 missing values generated)
m=0:
(36,570 missing values generated)
m=1:
(36,570 missing values generated)
m=2:
(36,570 missing values generated)
m=3:
(36,570 missing values generated)
m=4:
(36,570 missing values generated)
m=5:
(36,570 missing values generated)
m=0:
(36,570 missing values generated)
m=1:
(36,570 missing values generated)
m=2:
(36,570 missing values generated)
m=3:
(36,570 missing values generated)
m=4:
(36,570 missing values generated)
m=5:
(36,570 missing values generated)
m=0:
(36,570 missing values generated)
m=1:
(36,570 missing values generated)
m=2:
(36,570 missing values generated)
m=3:
(36,570 missing values generated)
m=4:
```

```
    (36,570 missing values generated)
m=5:
    (36,570 missing values generated)
m=0:
    (36,570 missing values generated)
m=1:
    (36,570 missing values generated)
m=2:
    (36,570 missing values generated)
m=3:
    (36,570 missing values generated)
m=4:
    (36,570 missing values generated)
m=5:
    (36,570 missing values generated)

106 .
107 . save, replace
    (file C:\Users\baydounm\AppData\Local\Temp\ST_6434_000002.tmp not found)
    file C:\Users\baydounm\AppData\Local\Temp\ST_6434_000002.tmp saved as .dta format

108 .
109 .
110 .
111 .
112 . foreach x of varlist zlnhurd_odds zlnexpert_odds zlnlasso_odds {
      2. mi estimate, cmdok esampvaryok: med4way `x' zpoorsleep_2006  AGE2006 SEX NonWhite  educationg* totwealth_200
    > g* zcesd_2006 if NonWhite==1 , a0(0) a1(1) m(0) yreg(cox) mreg(linear)
      3. }
    Warning: this analysis assumes a rare outcome.
    Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu
    > 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b
    > ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.
    Warning: this analysis assumes a rare outcome.
    Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu
    > 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b
    > ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.
    Warning: this analysis assumes a rare outcome.
    Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu
    > 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b
    > ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.
    Warning: this analysis assumes a rare outcome.
    Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu
    > 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b
    > ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.
    Warning: this analysis assumes a rare outcome.
    Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu
    > 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b
    > ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.
```

| Multiple-imputation estimates | Imputations | = | 5 |
|---|---|---|---|
| | Number of obs | = | 1,186 |
| | Average RVI | = | 0.0003 |
| | Largest FMI | = | 0.0010 |
| DF adjustment:   **Large sample** | DF:   min | = | 3878688.51 |
| | avg | = | 1.36e+10 |
| | max | = | 6.80e+10 |

|  | Coefficient | Std. err. | t | P>|t| | [95% conf. interval] |  |
|---|---|---|---|---|---|---|
| tereri | .410282 | .1057925 | 3.88 | 0.000 | .2029326 | .6176314 |
| ereri_cde | .3785128 | .1020466 | 3.71 | 0.000 | .1785052 | .5785205 |
| ereri_intref | .0196343 | .0169435 | 1.16 | 0.247 | -.0135745 | .0528431 |
| ereri_intmed | .0060521 | .0073782 | 0.82 | 0.412 | -.0084088 | .020513 |
| ereri_pie | .0060828 | .0065186 | 0.93 | 0.351 | -.0066934 | .018859 |

**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 k**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 k**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 k**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 k**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 k**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**

Multiple-imputation estimates

| Imputations | = | 5 |
|---|---|---|
| Number of obs | = | 1,186 |
| Average RVI | = | 0.0007 |
| Largest FMI | = | 0.0023 |

DF adjustment:   **Large sample**

| DF: | min | = 776,691.35 |
|---|---|---|
|  | avg | = 2.52e+10 |
|  | max | = 1.25e+11 |

|  | Coefficient | Std. err. | t | P>|t| | [95% conf. interval] |  |
|---|---|---|---|---|---|---|
| tereri | .2258871 | .0617193 | 3.66 | 0.000 | .1049195 | .3468547 |
| ereri_cde | .2152519 | .0596627 | 3.61 | 0.000 | .0983151 | .3321886 |
| ereri_intref | .0092654 | .0096552 | 0.96 | 0.337 | -.0096584 | .0281893 |
| ereri_intmed | .0004221 | .0020471 | 0.21 | 0.837 | -.0035902 | .0044345 |
| ereri_pie | .0009477 | .0045315 | 0.21 | 0.834 | -.0079339 | .0098293 |

**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 k**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 k**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 k**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 k**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**

**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**

```
Multiple-imputation estimates                Imputations      =             5
                                             Number of obs    =         1,186
                                             Average RVI      =        0.0002
                                             Largest FMI      =        0.0009
DF adjustment:    Large sample               DF:     min      =   5031936.31
                                                     avg      =      1.06e+11
                                                     max      =      5.29e+11
```

|              | Coefficient | Std. err. |    t  | P>|t| | [95% conf. interval] |          |
|-------------:|------------:|----------:|------:|------:|---------------------:|---------:|
|       tereri |   .3393887  | .0751117  |  4.52 | 0.000 |            .1921724  | .4866051 |
|    ereri_cde |   .3280985  | .0736025  |  4.46 | 0.000 |            .1838403  | .4723568 |
| ereri_intref |   .0059125  | .0108579  |  0.54 | 0.586 |           -.0153685  | .0271935 |
| ereri_intmed |   .0013321  | .0025211  |  0.53 | 0.597 |           -.0036092  | .0062734 |
|    ereri_pie |   .0040456  | .0056021  |  0.72 | 0.470 |           -.0069343  | .0150256 |

```
113 .
114 .
115 .
116 . ***************SENSITIVITY ANALYSIS******************
117 .
118 . foreach x of varlist zlnhurd_odds zlnexpert_odds zlnlasso_odds {
      2. mi estimate, cmdok esampvaryok: med4way `x' zpoorsleepalt_2006  AGE2006 SEX NonWhite  educationg* totwealth_
    > 006g* zcesd_2006 if NonWhite==1 , a0(0) a1(1) m(0) yreg(cox) mreg(linear)
      3. }
```
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
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**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**

```
Multiple-imputation estimates                Imputations      =             5
                                             Number of obs    =         1,186
                                             Average RVI      =        0.0004
                                             Largest FMI      =        0.0010
DF adjustment:    Large sample               DF:     min      =   3659635.54
                                                     avg      =      8.92e+09
                                                     max      =      4.45e+10
```

|  | Coefficient | Std. err. | t | P>|t| | [95% conf. interval] |  |
|---|---|---|---|---|---|---|
| tereri | .4107362 | .1057516 | 3.88 | 0.000 | .2034669 | .6180056 |
| ereri_cde | .3825567 | .1022728 | 3.74 | 0.000 | .1821058 | .5830077 |
| ereri_intref | .015644 | .0143724 | 1.09 | 0.276 | -.0125254 | .0438134 |
| ereri_intmed | .0061412 | .0073845 | 0.83 | 0.406 | -.0083321 | .0206145 |
| ereri_pie | .0063943 | .0067089 | 0.95 | 0.341 | -.0067549 | .0195434 |

**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**

Multiple-imputation estimates                    Imputations       =          5
                                                 Number of obs     =      1,186
                                                 Average RVI       =     0.0006
                                                 Largest FMI       =     0.0023
DF adjustment:   **Large sample**                DF:     min       = 736,653.95
                                                         avg       =   1.70e+10
                                                         max       =   8.06e+10

|  | Coefficient | Std. err. | t | P>|t| | [95% conf. interval] |  |
|---|---|---|---|---|---|---|
| tereri | .2267244 | .0617054 | 3.67 | 0.000 | .105784 | .3476649 |
| ereri_cde | .2179709 | .0598896 | 3.64 | 0.000 | .1005894 | .3353524 |
| ereri_intref | .0077981 | .0082535 | 0.94 | 0.345 | -.0083785 | .0239748 |
| ereri_intmed | .0002961 | .0021035 | 0.14 | 0.888 | -.0038267 | .0044188 |
| ereri_pie | .0006594 | .0046543 | 0.14 | 0.887 | -.0084629 | .0097817 |

**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**
**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**

**Warning: this analysis assumes a rare outcome.**
**Warning: fixed values for the covariates AGE2006 SEX NonWhite educationg1 educationg2 educationg3 educationg4 edu**
**> 6g1 smoking_2006g2 smoking_2006g3 physic_act_2006g1 physic_act_2006g2 physic_act_2006g3 srh_2006g1 srh_2006g2 b**
**> ndbr_2006g3 zcesd_2006 were not provided. All covariates are fixed at their respective mean.**

```
Multiple-imputation estimates              Imputations     =           5
                                           Number of obs   =       1,186
                                           Average RVI     =      0.0003
                                           Largest FMI     =      0.0009
DF adjustment:   Large sample              DF:     min     = 4758645.64
                                                   avg     =    7.06e+10
                                                   max     =    3.53e+11
```

|  | Coefficient | Std. err. | t | P>\|t\| | [95% conf. interval] | |
|---|---|---|---|---|---|---|
| tereri | .3400088 | .0751285 | 4.53 | 0.000 | .1927597 | .4872579 |
| ereri_cde | .3295654 | .0736675 | 4.47 | 0.000 | .1851797 | .4739511 |
| ereri_intref | .0044248 | .0090454 | 0.49 | 0.625 | -.0133038 | .0221535 |
| ereri_intmed | .0014626 | .0026447 | 0.55 | 0.580 | -.0037209 | .0066462 |
| ereri_pie | .004556 | .00579 | 0.79 | 0.431 | -.0067921 | .0159041 |

```
119 .
120 .
121 . save, replace
    (file C:\Users\baydounm\AppData\Local\Temp\ST_6434_000002.tmp not found)
    file C:\Users\baydounm\AppData\Local\Temp\ST_6434_000002.tmp saved as .dta format

122 .
123 . capture log close
```