



```

1 .
2 .
3 . use "E:\16GBBACKUPUSB\BACKUP_USB_SEPTEMBER2014\May Baydoun_folder\UK_BIOBANK_PROJECT\UKB_PAPER3_LE8INFECTDEM\DATA\
4 .
5 .
6 . *****TABLE 2*****
7 .
8 .
9 . *****STSET FOR DEMENTIA*****
10 . stset Age_dementia if sample_final==1, failure(dem_diag==1) enter(baselineage) id(n_eid) scale(1)

```

Survival-time data settings

```

      ID variable: n_eid
      Failure event: dem_diag==1
Observed time interval: (Age_dementia[_n-1], Age_dementia]
      Enter on or after: time baselineage
      Exit on or before: failure
      Keep observations
      if exp: sample_final==1

```

---

502,389 total observations

147,343 ignored at outset because of if exp

---

355,046 observations remaining, representing

355,046 subjects

6,335 failures in single-failure-per-subject data

4,356,387 total analysis time at risk and under observation

At risk from t = 0

Earliest observed entry t = 50.00137

Last observed exit t = 87.63313

```

11 .
12 .
13 . *****OVERALL*****
14 .
15 . **Model 1**
16 .
17 . stcox infectionburdenhospr AGE SEX NonWhite householdsize SES LE8_TOTALSCORE if sample_final==1

```

```

      Failure _d: dem_diag==1
      Analysis time _t: Age_dementia
      Enter on or after: time baselineage
      ID variable: n_eid

```

Iteration 0: log likelihood = -73314.873

Iteration 1: log likelihood = -72685.684

Iteration 2: log likelihood = -72638.543

Iteration 3: log likelihood = -72638.426

Refining estimates:

Iteration 0: log likelihood = -72638.426

Cox regression with Breslow method for ties

No. of subjects = 355,046

No. of failures = 6,335

Time at risk = 4,356,387.3

Log likelihood = -72638.426

Number of obs = 355,046

LR chi2(7) = 1352.89

Prob > chi2 = 0.0000

_t	Haz. ratio	Std. err.	z	P> z	[95% conf. interval]	
infectionburdenhospbr	2.17916	.0625776	27.13	0.000	2.059898	2.305327
AGE	.942034	.0047914	-11.74	0.000	.9326897	.951472
SEX	.7537303	.0191484	-11.13	0.000	.7171192	.7922105
NonWhite	1.119465	.0743233	1.70	0.089	.9828734	1.275038
householdsize	.9582784	.0143507	-2.85	0.004	.9305604	.9868221
SES	.7321328	.0139612	-16.35	0.000	.7052743	.760014
LE8_TOTALSCORE	.9989937	.0001363	-7.38	0.000	.9987266	.9992608

```

18 .
19 . **Model 2: Interaction with LE8 TOTAL SCORE**
20 . stcox c.infectionburdenhospbr#c.LE8_TOTALSCOREtert AGE SEX NonWhite householdsize SES if sample_final==1

```

```

      Failure _d: dem_diag==1
      Analysis time _t: Age_dementia
      Enter on or after: time baselineage
      ID variable: n_eid

```

```

Iteration 0: log likelihood = -73314.873
Iteration 1: log likelihood = -72716.493
Iteration 2: log likelihood = -72649.036
Iteration 3: log likelihood = -72648.473
Iteration 4: log likelihood = -72648.473
Refining estimates:
Iteration 0: log likelihood = -72648.473

```

Cox regression with Breslow method for ties

```

No. of subjects = 355,046
No. of failures = 6,335
Time at risk = 4,356,387.3

```

Number of obs = 355,046

Log likelihood = -72648.473

```

LR chi2(8) = 1332.80
Prob > chi2 = 0.0000

```

_t	Haz. ratio	Std. err.	z	P> z	[95% conf. interval]	
infectionburdenhospbr	2.283211	.1617678	11.65	0.000	1.987182	2.62334
LE8_TOTALSCOREtert	.9164532	.0170368	-4.69	0.000	.8836627	.9504605
c.infectionburdenhospbr#c.LE8_TOTALSCOREtert	.9769728	.0354493	-0.64	0.521	.9099065	1.048982
AGE	.9417692	.0047896	-11.80	0.000	.9324284	.9512036
SEX	.7525689	.019122	-11.19	0.000	.7160084	.7909961
NonWhite	1.122044	.0745028	1.73	0.083	.9851234	1.277994
householdsize	.9583145	.0143549	-2.84	0.004	.9305884	.9868668
SES	.7257394	.0137737	-16.89	0.000	.6992393	.7532438

```

21 .

```

```

22 . **Stratified analysis by LE8 TERTILES**
23 .
24 . **LOWEST TERTILE**
25 .
26 . stcox infectionburdenhospbr AGE SEX NonWhite householdsize SES if sample_final==1 & LE8_TOTALSCOREtert==1

```

```

      Failure _d: dem_diag==1
      Analysis time _t: Age_dementia
      Enter on or after: time baselineage
      ID variable: n_eid

```

```

Iteration 0: log likelihood = -27306.337
Iteration 1: log likelihood = -27015.235
Iteration 2: log likelihood = -26996.909
Iteration 3: log likelihood = -26996.883
Refining estimates:
Iteration 0: log likelihood = -26996.883

```

Cox regression with Breslow method for ties

```

No. of subjects = 124,912
No. of failures = 2,588
Time at risk = 1,512,957.4

```

Number of obs = 124,912

Log likelihood = -26996.883

```

LR chi2(6) = 618.91
Prob > chi2 = 0.0000

```

	_t	Haz. ratio	Std. err.	z	P> z	[95% conf. interval]	
infectionburdenhospbr		2.244968	.0965181	18.81	0.000	2.063547	2.442339
AGE		.9337368	.0073035	-8.77	0.000	.9195314	.9481616
SEX		.7620226	.0302526	-6.85	0.000	.7049768	.8236846
NonWhite		1.163219	.1116649	1.57	0.115	.9637162	1.404022
householdsize		.942385	.0227272	-2.46	0.014	.8988768	.9879991
SES		.7028256	.0201353	-12.31	0.000	.6644486	.7434192

```

27 .
28 . **MIDDLE TERTILE**
29 .
30 . stcox infectionburdenhospbr AGE SEX NonWhite householdsize SES if sample_final==1 & LE8_TOTALSCOREtert==2

```

```

      Failure _d: dem_diag==1
      Analysis time _t: Age_dementia
      Enter on or after: time baselineage
      ID variable: n_eid

```

```

Iteration 0: log likelihood = -22262.288
Iteration 1: log likelihood = -22083.588
Iteration 2: log likelihood = -22072.209
Iteration 3: log likelihood = -22072.182
Refining estimates:
Iteration 0: log likelihood = -22072.182

```

Cox regression with Breslow method for ties

```

No. of subjects = 120,827
No. of failures = 2,117
Time at risk = 1,486,758.9

```

Number of obs = 120,827

Log likelihood = -22072.182

```

LR chi2(6) = 380.21
Prob > chi2 = 0.0000

```

_t	Haz. ratio	Std. err.	z	P> z	[95% conf. interval]	
infectionburdenhospbr	<b>2.115136</b>	<b>.1073678</b>	<b>14.76</b>	<b>0.000</b>	<b>1.914829</b>	<b>2.336397</b>
AGE	<b>.9346149</b>	<b>.0083191</b>	<b>-7.60</b>	<b>0.000</b>	<b>.9184512</b>	<b>.9510631</b>
SEX	<b>.7746469</b>	<b>.0340611</b>	<b>-5.81</b>	<b>0.000</b>	<b>.710684</b>	<b>.8443665</b>
NonWhite	<b>.9582088</b>	<b>.1191317</b>	<b>-0.34</b>	<b>0.731</b>	<b>.7509871</b>	<b>1.22261</b>
householdsize	<b>.9815853</b>	<b>.0225811</b>	<b>-0.81</b>	<b>0.419</b>	<b>.9383102</b>	<b>1.026856</b>
SES	<b>.7120151</b>	<b>.0235821</b>	<b>-10.26</b>	<b>0.000</b>	<b>.6672634</b>	<b>.7597683</b>

```

31 .
32 . **HIGHEST TERTILE**
33 . stcox infectionburdenhospbr AGE SEX NonWhite householdsize SES if sample_final==1 & LE8_TOTALSCOREtert==3

```

```

      Failure _d: dem_diag==1
      Analysis time _t: Age_dementia
      Enter on or after: time baselineage
      ID variable: n_eid

```

```

Iteration 0: log likelihood = -16837.004
Iteration 1: log likelihood = -16729.254
Iteration 2: log likelihood = -16718.452
Iteration 3: log likelihood = -16718.413
Refining estimates:
Iteration 0: log likelihood = -16718.413

```

Cox regression with Breslow method for ties

```

No. of subjects = 109,307          Number of obs = 109,307
No. of failures = 1,630
Time at risk = 1,356,671

Log likelihood = -16718.413      LR chi2(6) = 237.18
                                Prob > chi2 = 0.0000

```

_t	Haz. ratio	Std. err.	z	P> z	[95% conf. interval]	
infectionburdenhospbr	<b>2.166245</b>	<b>.1287614</b>	<b>13.00</b>	<b>0.000</b>	<b>1.928023</b>	<b>2.4339</b>
AGE	<b>.9657512</b>	<b>.0098284</b>	<b>-3.42</b>	<b>0.001</b>	<b>.9466787</b>	<b>.985208</b>
SEX	<b>.7213426</b>	<b>.0362655</b>	<b>-6.50</b>	<b>0.000</b>	<b>.6536532</b>	<b>.7960417</b>
NonWhite	<b>1.256703</b>	<b>.1721569</b>	<b>1.67</b>	<b>0.095</b>	<b>.9607839</b>	<b>1.643764</b>
householdsize	<b>.954409</b>	<b>.0301426</b>	<b>-1.48</b>	<b>0.140</b>	<b>.8971219</b>	<b>1.015354</b>
SES	<b>.8021063</b>	<b>.0317433</b>	<b>-5.57</b>	<b>0.000</b>	<b>.7422422</b>	<b>.8667986</b>

```

34 .
35 . *****AMONG MEN*****
36 .
37 .
38 .
39 .
40 . **Model 1**

```

41 .  
 42 . stcox infectionburdenhospbr AGE SEX NonWhite householdsize SES LE8\_TOTALSCORE if SEX==1 & sample\_final==1

Failure \_d: dem\_diag==1  
 Analysis time \_t: Age\_dementia  
 Enter on or after: time\_baselineage  
 ID variable: n\_eid

note: SEX omitted because of collinearity.  
 Iteration 0: log likelihood = -37301.86  
 Iteration 1: log likelihood = -36962.485  
 Iteration 2: log likelihood = -36932.602  
 Iteration 3: log likelihood = -36932.524  
 Refining estimates:  
 Iteration 0: log likelihood = -36932.524

Cox regression with Breslow method for ties

No. of subjects = 164,922 Number of obs = 164,922  
 No. of failures = 3,437  
 Time at risk = 1,999,977.2  
 Log likelihood = -36932.524  
 LR chi2(6) = 738.67  
 Prob > chi2 = 0.0000

_t	Haz. ratio	Std. err.	z	P> z	[95% conf. interval]	
infectionburdenhospbr	2.243921	.0869169	20.87	0.000	2.079873	2.420908
AGE	.9434033	.0064338	-8.54	0.000	.9308772	.9560978
SEX	1	(omitted)				
NonWhite	1.148594	.1003649	1.59	0.113	.9678049	1.363154
householdsize	.9545773	.0192401	-2.31	0.021	.9176025	.9930421
SES	.7147539	.0179324	-13.39	0.000	.6804572	.7507793
LE8_TOTALSCORE	.9991477	.0001876	-4.54	0.000	.999878	.9995154

43 .  
 44 . \*\*Model 2: Interaction with LE8 TOTAL SCORE\*\*  
 45 . stcox c.infectionburdenhospbr##c.LE8\_TOTALSCOREtert AGE SEX NonWhite householdsize SES if SEX==1 & sample\_final==1

Failure \_d: dem\_diag==1  
 Analysis time \_t: Age\_dementia  
 Enter on or after: time\_baselineage  
 ID variable: n\_eid

note: SEX omitted because of collinearity.  
 Iteration 0: log likelihood = -37301.86  
 Iteration 1: log likelihood = -36980.298  
 Iteration 2: log likelihood = -36937.828  
 Iteration 3: log likelihood = -36937.452  
 Iteration 4: log likelihood = -36937.452  
 Refining estimates:  
 Iteration 0: log likelihood = -36937.452

Cox regression with Breslow method for ties

No. of subjects = 164,922 Number of obs = 164,922  
 No. of failures = 3,437  
 Time at risk = 1,999,977.2  
 Log likelihood = -36937.452  
 LR chi2(7) = 728.82  
 Prob > chi2 = 0.0000

_t	Haz. ratio	Std. err.	z	P> z	[95% conf. interval]	
infectionburdenhospbr	<b>2.447516</b>	<b>.2348622</b>	<b>9.33</b>	<b>0.000</b>	<b>2.027891</b>	<b>2.953972</b>
LE8_TOTALSCOREtert	<b>.9449136</b>	<b>.0241252</b>	<b>-2.22</b>	<b>0.026</b>	<b>.8987927</b>	<b>.9934011</b>
c.infectionburdenhospbr#c.LE8_TOTALSCOREtert	<b>.9548768</b>	<b>.0470503</b>	<b>-0.94</b>	<b>0.349</b>	<b>.8669729</b>	<b>1.051694</b>
AGE	<b>.9428767</b>	<b>.006427</b>	<b>-8.63</b>	<b>0.000</b>	<b>.9303638</b>	<b>.9555579</b>
SEX	<b>1</b>	<b>(omitted)</b>				
NonWhite	<b>1.151619</b>	<b>.1006469</b>	<b>1.62</b>	<b>0.106</b>	<b>.9703245</b>	<b>1.366785</b>
householdsize	<b>.9545182</b>	<b>.0192569</b>	<b>-2.31</b>	<b>0.021</b>	<b>.9175117</b>	<b>.9930172</b>
SES	<b>.7088205</b>	<b>.0177064</b>	<b>-13.78</b>	<b>0.000</b>	<b>.6749524</b>	<b>.7443881</b>

```

46 .
47 . **Stratification by LE8 TERTILES**
48 .
49 . **LOWEST TERTILE**
50 .
51 . stcox infectionburdenhospbr AGE SEX NonWhite householdsize SES if SEX==1 & sample_final==1 & LE8_TOTALSCOREtert=

```

```

      Failure _d: dem_diag==1
      Analysis time _t: Age_dementia
      Enter on or after: time baselineage
      ID variable: n_eid

```

```

note: SEX omitted because of collinearity.
Iteration 0: log likelihood = -13983.321
Iteration 1: log likelihood = -13814.858
Iteration 2: log likelihood = -13802.24
Iteration 3: log likelihood = -13802.219
Refining estimates:
Iteration 0: log likelihood = -13802.219

```

Cox regression with Breslow method for ties

```

No. of subjects =    62,999
No. of failures =     1,415
Time at risk    = 753,558.77

```

Number of obs = 62,999

Log likelihood = -13802.219

```

LR chi2(5)      = 362.20
Prob > chi2     = 0.0000

```

_t	Haz. ratio	Std. err.	z	P> z	[95% conf. interval]	
infectionburdenhospbr	<b>2.308614</b>	<b>.1343677</b>	<b>14.37</b>	<b>0.000</b>	<b>2.059724</b>	<b>2.587579</b>
AGE	<b>.9344584</b>	<b>.0097051</b>	<b>-6.53</b>	<b>0.000</b>	<b>.9156291</b>	<b>.9536749</b>
SEX	<b>1</b>	<b>(omitted)</b>				
NonWhite	<b>1.047079</b>	<b>.1424798</b>	<b>0.34</b>	<b>0.735</b>	<b>.801961</b>	<b>1.367116</b>
householdsize	<b>.9513592</b>	<b>.0301734</b>	<b>-1.57</b>	<b>0.116</b>	<b>.894021</b>	<b>1.012375</b>
SES	<b>.6739582</b>	<b>.0253569</b>	<b>-10.49</b>	<b>0.000</b>	<b>.6260477</b>	<b>.7255352</b>

```

52 .
53 . **MIDDLE TERTILE**
54 .
55 . stcox infectionburdenhosnbr AGE SEX NonWhite households size SES if SEX==1 & sample_final==1 & LE8_TOTALSCOREtert=

```

```

      Failure _d: dem_diag==1
      Analysis time _t: Age_dementia
      Enter on or after: time baselineage
      ID variable: n_eid

```

note: **SEX** omitted because of collinearity.

Iteration 0: log likelihood = **-11365.47**

Iteration 1: log likelihood = **-11255.493**

Iteration 2: log likelihood = **-11246.112**

Iteration 3: log likelihood = **-11246.085**

Refining estimates:

Iteration 0: log likelihood = **-11246.085**

Cox regression with Breslow method for ties

No. of subjects = **58,075**

No. of failures = **1,160**

Time at risk = **707,942.594**

Number of obs = **58,075**

LR chi2(5) = **238.77**

Prob > chi2 = **0.0000**

Log likelihood = **-11246.085**

	_t	Haz. ratio	Std. err.	z	P> z	[95% conf. interval]	
infectionburdenhosnbr		<b>2.280897</b>	<b>.1539539</b>	<b>12.22</b>	<b>0.000</b>	<b>1.998261</b>	<b>2.60351</b>
AGE		<b>.9247319</b>	<b>.0110121</b>	<b>-6.57</b>	<b>0.000</b>	<b>.9033985</b>	<b>.9465691</b>
SEX		<b>1</b>	(omitted)				
NonWhite		<b>.996915</b>	<b>.1619888</b>	<b>-0.02</b>	<b>0.985</b>	<b>.7250139</b>	<b>1.370787</b>
households size		<b>.9732245</b>	<b>.0298948</b>	<b>-0.88</b>	<b>0.377</b>	<b>.9163606</b>	<b>1.033617</b>
SES		<b>.7043911</b>	<b>.030433</b>	<b>-8.11</b>	<b>0.000</b>	<b>.6471991</b>	<b>.766637</b>

```

56 .
57 . **HIGHEST TERTILE**
58 . stcox infectionburdenhosnbr AGE SEX NonWhite households size SES if SEX==1 & sample_final==1 & LE8_TOTALSCOREtert=

```

```

      Failure _d: dem_diag==1
      Analysis time _t: Age_dementia
      Enter on or after: time baselineage
      ID variable: n_eid

```

note: **SEX** omitted because of collinearity.

Iteration 0: log likelihood = **-8227.7277**

Iteration 1: log likelihood = **-8179.8757**

Iteration 2: log likelihood = **-8174.6586**

Iteration 3: log likelihood = **-8174.64**

Iteration 4: log likelihood = **-8174.64**

Refining estimates:

Iteration 0: log likelihood = **-8174.64**

Cox regression with Breslow method for ties

No. of subjects = **43,848**

No. of failures = **862**

Time at risk = **538,475.809**

Number of obs = **43,848**

LR chi2(5) = **106.18**

Prob > chi2 = **0.0000**

Log likelihood = **-8174.64**

_t	Haz. ratio	Std. err.	z	P> z	[95% conf. interval]	
infectionburdenhospbr	<b>2.07547</b>	<b>.1691466</b>	<b>8.96</b>	<b>0.000</b>	<b>1.769071</b>	<b>2.434936</b>
AGE	<b>.986073</b>	<b>.0137768</b>	<b>-1.00</b>	<b>0.315</b>	<b>.9594373</b>	<b>1.013448</b>
SEX	<b>1</b>	(omitted)				
NonWhite	<b>1.569119</b>	<b>.2514127</b>	<b>2.81</b>	<b>0.005</b>	<b>1.14623</b>	<b>2.148028</b>
householdsize	<b>.9340101</b>	<b>.0425073</b>	<b>-1.50</b>	<b>0.134</b>	<b>.854305</b>	<b>1.021152</b>
SES	<b>.7992243</b>	<b>.0424032</b>	<b>-4.22</b>	<b>0.000</b>	<b>.7202907</b>	<b>.886808</b>

```

59 .
60 .
61 .
62 . *****AMONG WOMEN*****
63 .
64 .
65 .
66 .
67 . **Model 1**
68 .
69 . stcox infectionburdenhospbr AGE SEX NonWhite householdsize SES LE8_TOTALSCORE if SEX==2 & sample_final==1

```

```

      Failure _d: dem_diag==1
      Analysis time _t: Age_dementia
      Enter on or after: time_baselineage
      ID variable: n_eid

```

```

note: SEX omitted because of collinearity.
Iteration 0:  log likelihood = -31588.189
Iteration 1:  log likelihood = -31347.343
Iteration 2:  log likelihood = -31329.668
Iteration 3:  log likelihood = -31329.627
Refining estimates:
Iteration 0:  log likelihood = -31329.627

```

Cox regression with Breslow method for ties

```

No. of subjects =      190,124          Number of obs = 190,124
No. of failures =       2,898
Time at risk    = 2,356,410.2

LR chi2(6)      = 517.12
Prob > chi2     = 0.0000
Log likelihood = -31329.627

```

_t	Haz. ratio	Std. err.	z	P> z	[95% conf. interval]	
infectionburdenhospbr	<b>2.103876</b>	<b>.0900864</b>	<b>17.37</b>	<b>0.000</b>	<b>1.934516</b>	<b>2.288063</b>
AGE	<b>.9391969</b>	<b>.007181</b>	<b>-8.20</b>	<b>0.000</b>	<b>.9252273</b>	<b>.9533774</b>
SEX	<b>1</b>	(omitted)				
NonWhite	<b>1.08839</b>	<b>.1113066</b>	<b>0.83</b>	<b>0.408</b>	<b>.890706</b>	<b>1.329947</b>
householdsize	<b>.9638528</b>	<b>.0213495</b>	<b>-1.66</b>	<b>0.096</b>	<b>.9229038</b>	<b>1.006619</b>
SES	<b>.7567816</b>	<b>.0222168</b>	<b>-9.49</b>	<b>0.000</b>	<b>.7144666</b>	<b>.8016028</b>
LE8_TOTALSCORE	<b>.998845</b>	<b>.000199</b>	<b>-5.80</b>	<b>0.000</b>	<b>.9984551</b>	<b>.9992351</b>



```

70 .
71 . **Model 2: Interaction with LE8 TOTAL SCORE**
72 . stcox c.infectionburdenhospbr##c.LE8_TOTALSCOREtert AGE SEX NonWhite householdsize SES if SEX==2 & sample_final=

```

```

      Failure _d: dem_diag==1
      Analysis time _t: Age_dementia
      Enter on or after: time baselineage
      ID variable: n_eid

```

```

note: SEX omitted because of collinearity.
Iteration 0: log likelihood = -31588.189
Iteration 1: log likelihood = -31358.793
Iteration 2: log likelihood = -31333.922
Iteration 3: log likelihood = -31333.737
Iteration 4: log likelihood = -31333.737
Refining estimates:
Iteration 0: log likelihood = -31333.737

```

Cox regression with Breslow method for ties

```

No. of subjects = 190,124
No. of failures = 2,898
Time at risk = 2,356,410.2

```

Number of obs = 190,124

Log likelihood = -31333.737

```

LR chi2(7) = 508.91
Prob > chi2 = 0.0000

```

	_t	Haz. ratio	Std. err.	z	P> z	[95% conf. interval]	
	infectionburdenhospbr	2.103313	.2210705	7.07	0.000	1.71174	2.584462
	LE8_TOTALSCOREtert	.8875989	.0241019	-4.39	0.000	.8415952	.9361174
	c.infectionburdenhospbr#c.LE8_TOTALSCOREtert	1.003249	.0538325	0.06	0.952	.9030983	1.114507
	AGE	.9391721	.007182	-8.21	0.000	.9252006	.9533545
	SEX	1	(omitted)				
	NonWhite	1.089963	.1114808	0.84	0.400	.8919721	1.331901
	householdsize	.9640481	.0213408	-1.65	0.098	.9231153	1.006796
	SES	.7500686	.0219046	-9.85	0.000	.7083419	.7942534

```

73 .
74 . **Stratif SEX==2 by LE8 TERTILES**
75 .
76 . **LOWEST TERTILE**
77 .
78 . stcox infectionburdenhospbr AGE SEX NonWhite householdsize SES if SEX==2 & sample_final==1 & LE8_TOTALSCOREtert=

```

```

      Failure _d: dem_diag==1
      Analysis time _t: Age_dementia
      Enter on or after: time baselineage
      ID variable: n_eid

```

```

note: SEX omitted because of collinearity.
Iteration 0: log likelihood = -11526.89
Iteration 1: log likelihood = -11418.468
Iteration 2: log likelihood = -11411.801
Iteration 3: log likelihood = -11411.791
Iteration 4: log likelihood = -11411.791
Refining estimates:
Iteration 0: log likelihood = -11411.791

```

Cox regression with Breslow method for ties

No. of subjects = **61,913**  
 No. of failures = **1,173**  
 Time at risk = **759,398.626**

Number of obs = **61,913**

Log likelihood = **-11411.791**

LR chi2(5) = **230.20**  
 Prob > chi2 = **0.0000**

_t	Haz. ratio	Std. err.	z	P> z	[95% conf. interval]	
infectionburdenhospbr	<b>2.174685</b>	<b>.1387402</b>	<b>12.18</b>	<b>0.000</b>	<b>1.919073</b>	<b>2.464343</b>
AGE	<b>.9322763</b>	<b>.0110922</b>	<b>-5.89</b>	<b>0.000</b>	<b>.9107876</b>	<b>.954272</b>
SEX	<b>1</b>	(omitted)				
NonWhite	<b>1.317428</b>	<b>.1785786</b>	<b>2.03</b>	<b>0.042</b>	<b>1.010057</b>	<b>1.718336</b>
householdsize	<b>.9344881</b>	<b>.0346754</b>	<b>-1.83</b>	<b>0.068</b>	<b>.8689381</b>	<b>1.004983</b>
SES	<b>.7453539</b>	<b>.0329876</b>	<b>-6.64</b>	<b>0.000</b>	<b>.6834243</b>	<b>.8128954</b>

79 .

80 . **\*\*MIDDLE TERTILE\*\***

81 .

82 . stcox infectionburdenhospbr AGE SEX NonWhite householdsize SES if SEX==2 & sample\_final==1 & LE8\_TOTALSCOREtert=

Failure \_d: **dem\_diag==1**  
 Analysis time \_t: **Age\_dementia**  
 Enter on or after: **time baselineage**  
 ID variable: **n\_eid**

note: **SEX** omitted because of collinearity.  
 Iteration 0: log likelihood = **-9424.2598**  
 Iteration 1: log likelihood = **-9366.7186**  
 Iteration 2: log likelihood = **-9363.8264**  
 Iteration 3: log likelihood = **-9363.8211**  
 Refining estimates:  
 Iteration 0: log likelihood = **-9363.8211**

Cox regression with Breslow method for ties

No. of subjects = **62,752**  
 No. of failures = **957**  
 Time at risk = **778,816.313**

Number of obs = **62,752**

Log likelihood = **-9363.8211**

LR chi2(5) = **120.88**  
 Prob > chi2 = **0.0000**

_t	Haz. ratio	Std. err.	z	P> z	[95% conf. interval]	
infectionburdenhospbr	<b>1.930176</b>	<b>.1489404</b>	<b>8.52</b>	<b>0.000</b>	<b>1.65926</b>	<b>2.245324</b>
AGE	<b>.9473534</b>	<b>.0126813</b>	<b>-4.04</b>	<b>0.000</b>	<b>.9228217</b>	<b>.9725371</b>
SEX	<b>1</b>	(omitted)				
NonWhite	<b>.9162952</b>	<b>.1772634</b>	<b>-0.45</b>	<b>0.651</b>	<b>.6271404</b>	<b>1.33877</b>
householdsize	<b>.9948913</b>	<b>.0348134</b>	<b>-0.15</b>	<b>0.884</b>	<b>.9289455</b>	<b>1.065519</b>
SES	<b>.7222313</b>	<b>.0373105</b>	<b>-6.30</b>	<b>0.000</b>	<b>.6526843</b>	<b>.799189</b>

```

83 .
84 . **HIGHEST TERTILE**
85 . stcox infectionburdenhospbr AGE SEX NonWhite householdsize SES if SEX==2 & sample_final==1 & LE8_TOTALSCOREtert=
      Failure _d: dem_diag==1
      Analysis time _t: Age_dementia
      Enter on or after: time baselineage
      ID variable: n_eid

```

note: **SEX** omitted because of collinearity.

Iteration 0: log likelihood = **-7462.7671**

Iteration 1: log likelihood = **-7416.0666**

Iteration 2: log likelihood = **-7410.1779**

Iteration 3: log likelihood = **-7410.1532**

Iteration 4: log likelihood = **-7410.1532**

Refining estimates:

Iteration 0: log likelihood = **-7410.1532**

Cox regression with Breslow method for ties

No. of subjects = **65,459**

Number of obs = **65,459**

No. of failures = **768**

Time at risk = **818,195.216**

LR chi2(5) = **105.23**

Log likelihood = **-7410.1532**

Prob > chi2 = **0.0000**

_t	Haz. ratio	Std. err.	z	P> z	[95% conf. interval]	
infectionburdenhospbr	<b>2.263117</b>	<b>.1966797</b>	<b>9.40</b>	<b>0.000</b>	<b>1.908675</b>	<b>2.683379</b>
AGE	<b>.940215</b>	<b>.0141267</b>	<b>-4.10</b>	<b>0.000</b>	<b>.9129309</b>	<b>.9683145</b>
SEX	<b>1</b>	(omitted)				
NonWhite	<b>.8003447</b>	<b>.2164496</b>	<b>-0.82</b>	<b>0.410</b>	<b>.4710571</b>	<b>1.359818</b>
householdsize	<b>.9723254</b>	<b>.042485</b>	<b>-0.64</b>	<b>0.521</b>	<b>.8925223</b>	<b>1.059264</b>
SES	<b>.8075402</b>	<b>.0479698</b>	<b>-3.60</b>	<b>0.000</b>	<b>.718788</b>	<b>.9072511</b>

```
86 .
```

```
87 .
```

```
88 . capture log close
```