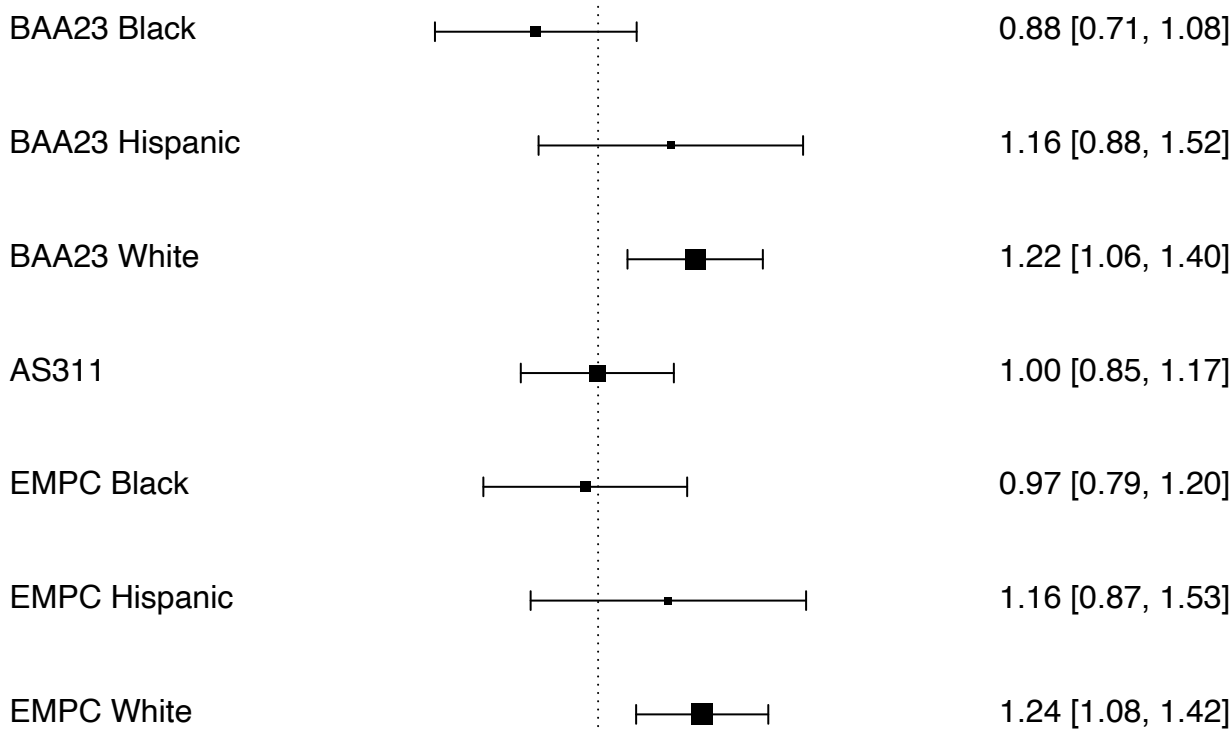


DNAmGrimAge THYROID

WHI studies

Estimate [95% CI]



FE model
Z-score = 2.93e+00
P-val = 3.40e-03
Het P-val = 5.09e-02



1.11 [1.03, 1.18]

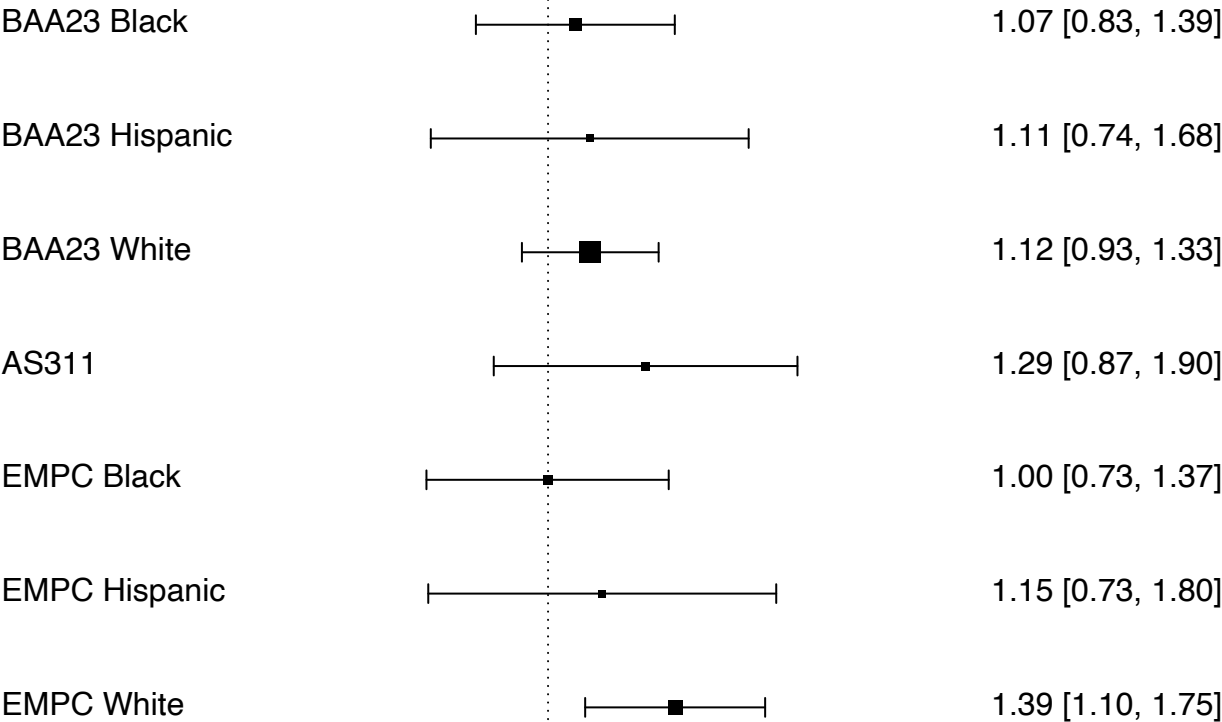
0.67 0.82 1 1.22 1.49 1.82

Hazard Ratio

DNAmGrimAge Stroke

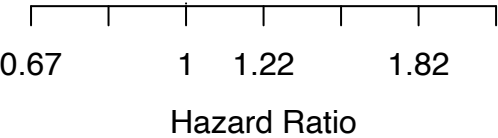
WHI studies

Estimate [95% CI]



FE model
Z-score = 2.76e+00
P-val = 5.80e-03
Het P-val = 6.73e-01

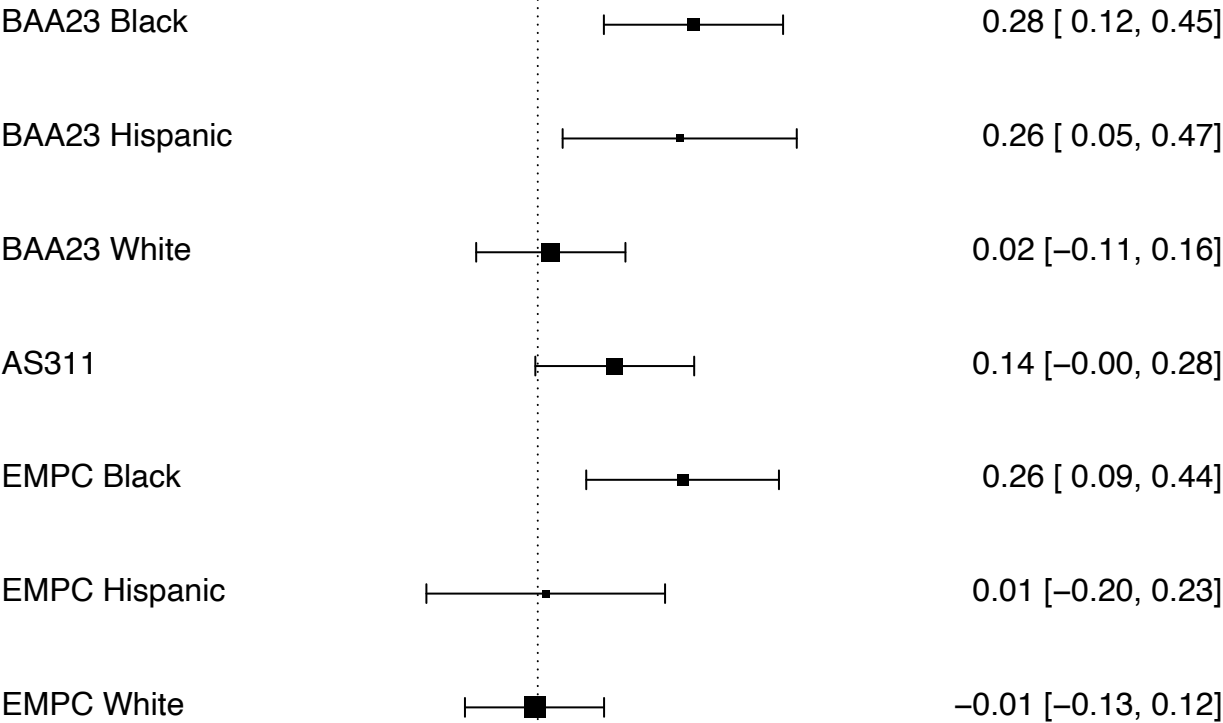
1.16 [1.04, 1.28]



DNAmGrimAge NACOND

WHI studies

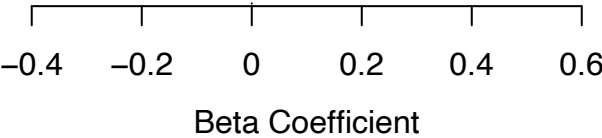
Estimate [95% CI]



FE model
Z-score = 3.86e+00
P-val = 1.12e-04
Het P-val = 2.22e-02



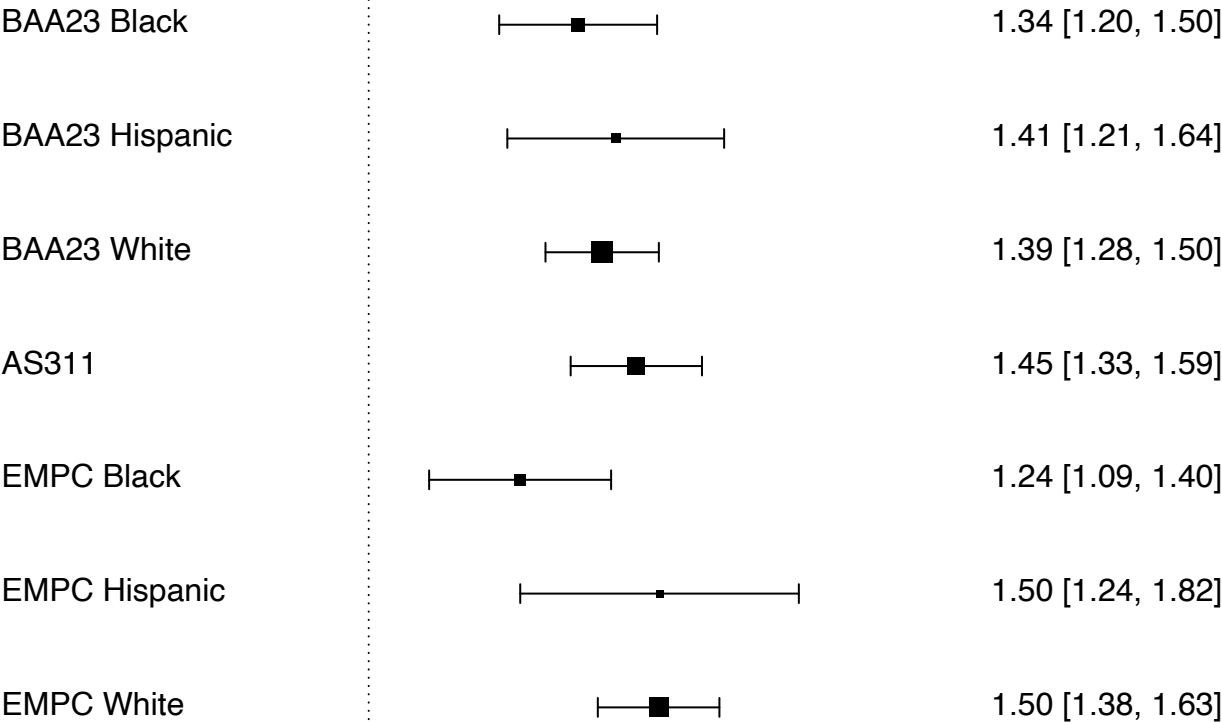
0.12 [0.06, 0.18]



DNAmGrimAge Mortality

WHI studies

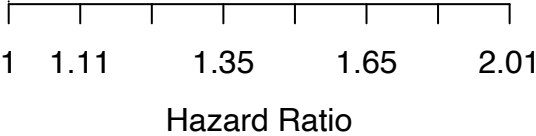
Estimate [95% CI]



FE model
Z-score = 1.68e+01
P-val = 1.85e-63
Het P-val = 2.40e-01



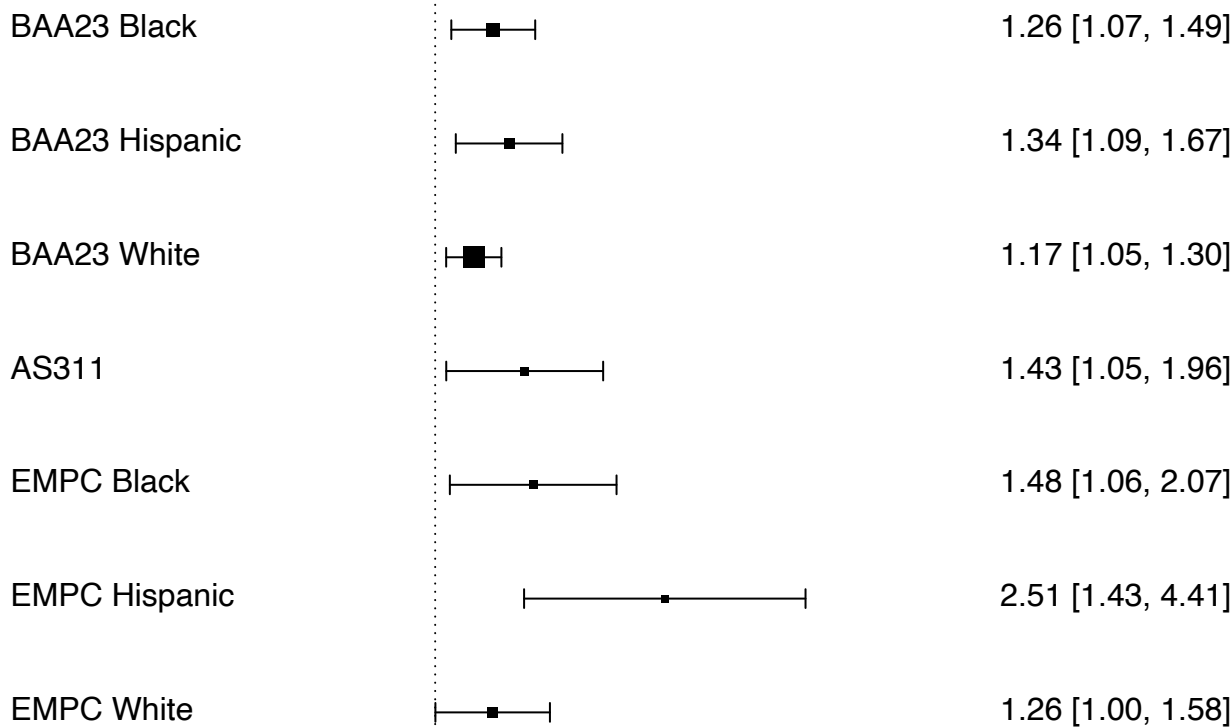
1.41 [1.35, 1.46]



DNAmGrimAge MI

WHI studies

Estimate [95% CI]



FE model
Z-score = 6.10e+00
P-val = 1.06e-09
Het P-val = 1.49e-01



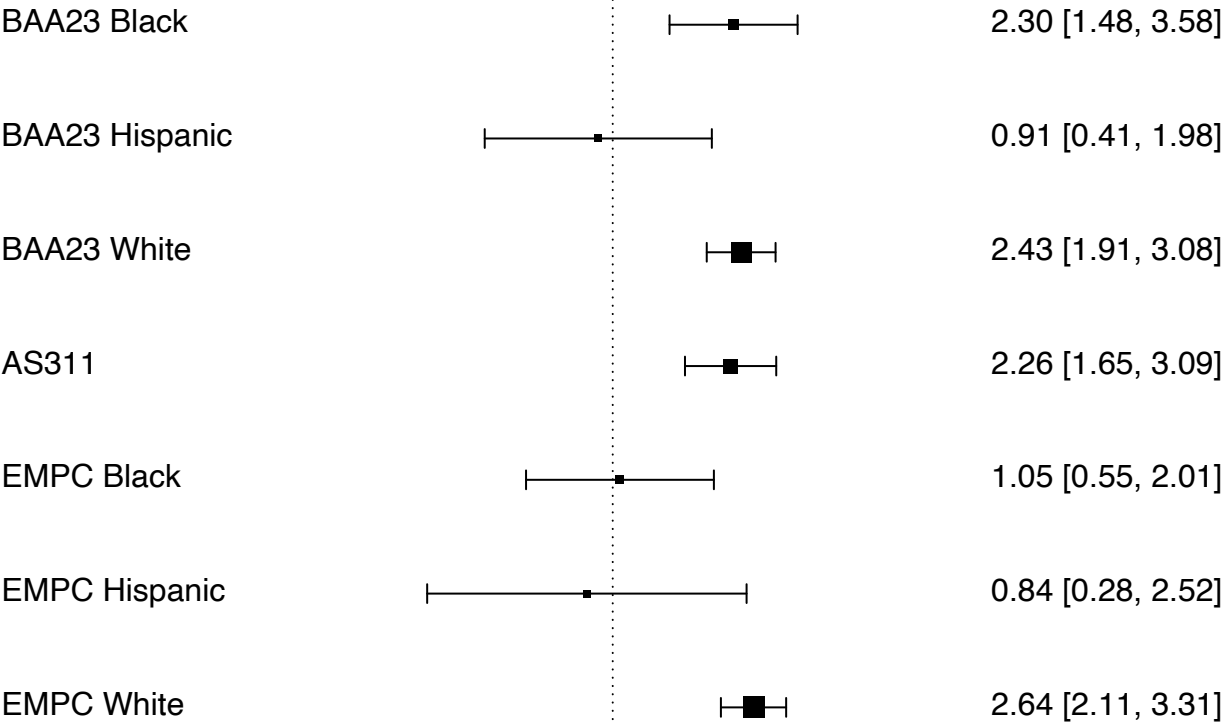
1.26 [1.17, 1.36]

1 1.65 2.72 4.48
Hazard Ratio

DNAmGrimAge Lung Cancer

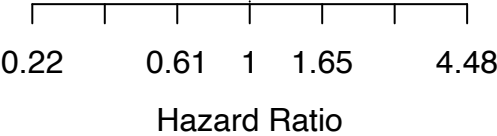
WHI studies

Estimate [95% CI]



FE model
Z-score = 1.22e+01
P-val = 3.36e-34
Het P-val = 1.42e-02

2.27 [1.99, 2.59]



DNAmGrimAge LEUKEMIA

WHI studies

Estimate [95% CI]

BAA23 Black 0.65 [0.24, 1.75]

BAA23 Hispanic 1.82 [0.51, 6.42]

BAA23 White 1.21 [0.54, 2.74]

AS311 1.22 [0.55, 2.72]

EMPC Hispanic 1.50 [0.27, 8.21]

EMPC White 1.02 [0.51, 2.04]

FE model

Z-score = $5.33e-01$

P-val = $5.94e-01$

Het P-val = $8.55e-01$

1.11 [0.76, 1.61]

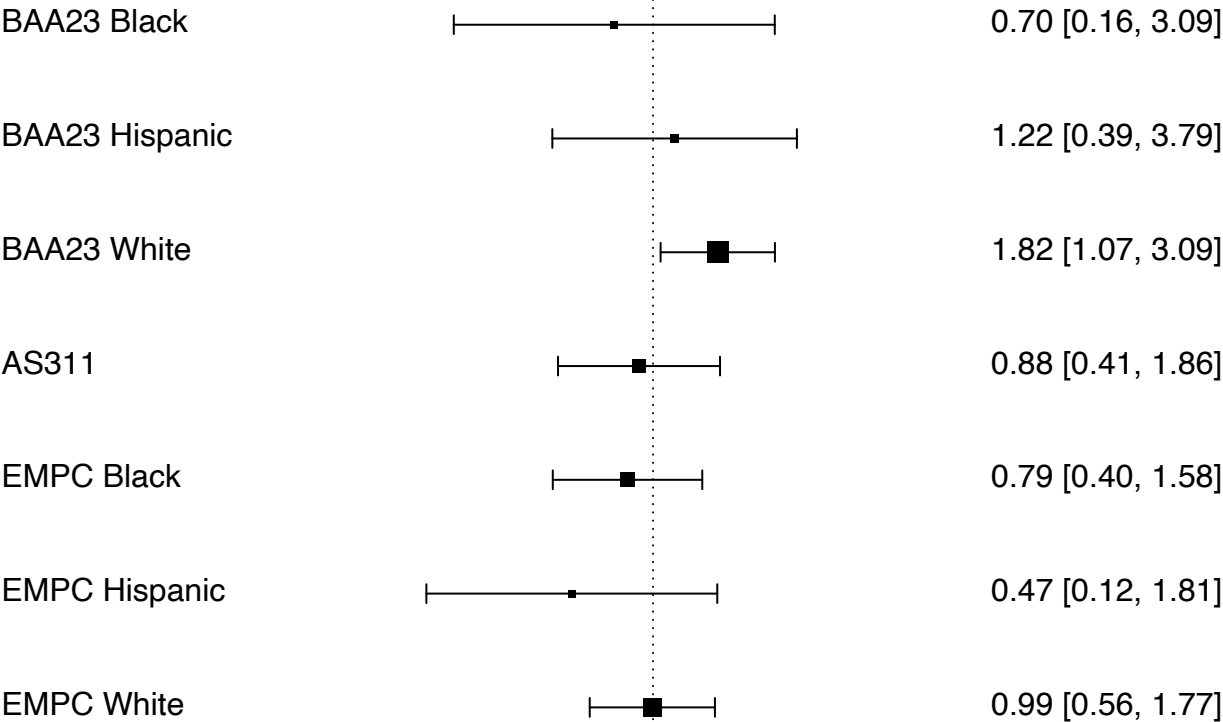
0.14 0.37 1 2.72 7.39 20.09

Hazard Ratio

DNAmGrimAge ENDMTRL

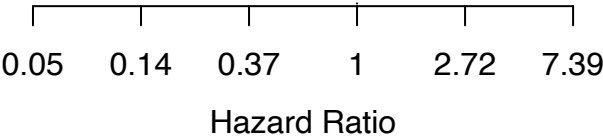
WHI studies

Estimate [95% CI]



FE model
Z-score = 5.47e-01
P-val = 5.84e-01
Het P-val = 3.46e-01

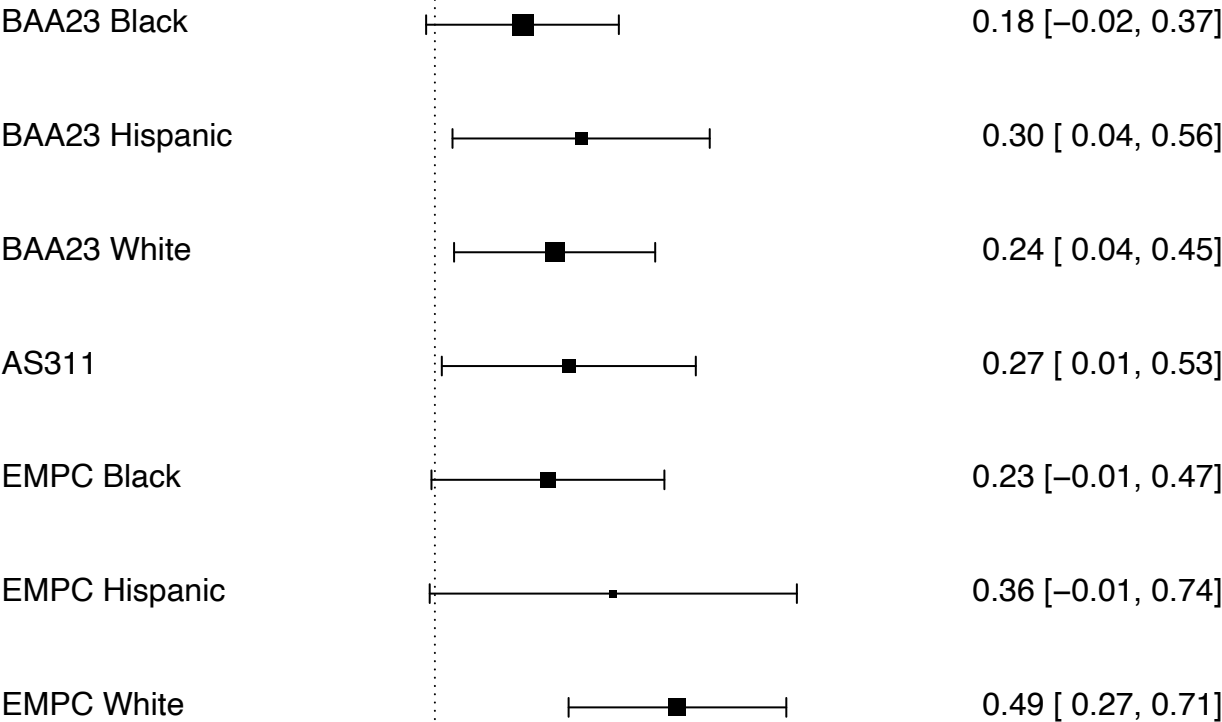
1.08 [0.81, 1.44]



DNAmGrimAge DIAB

WHI studies

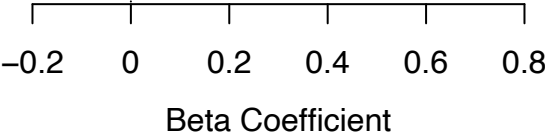
Estimate [95% CI]



FE model
Z-score = 6.25e+00
P-val = 4.04e-10
Het P-val = 5.32e-01



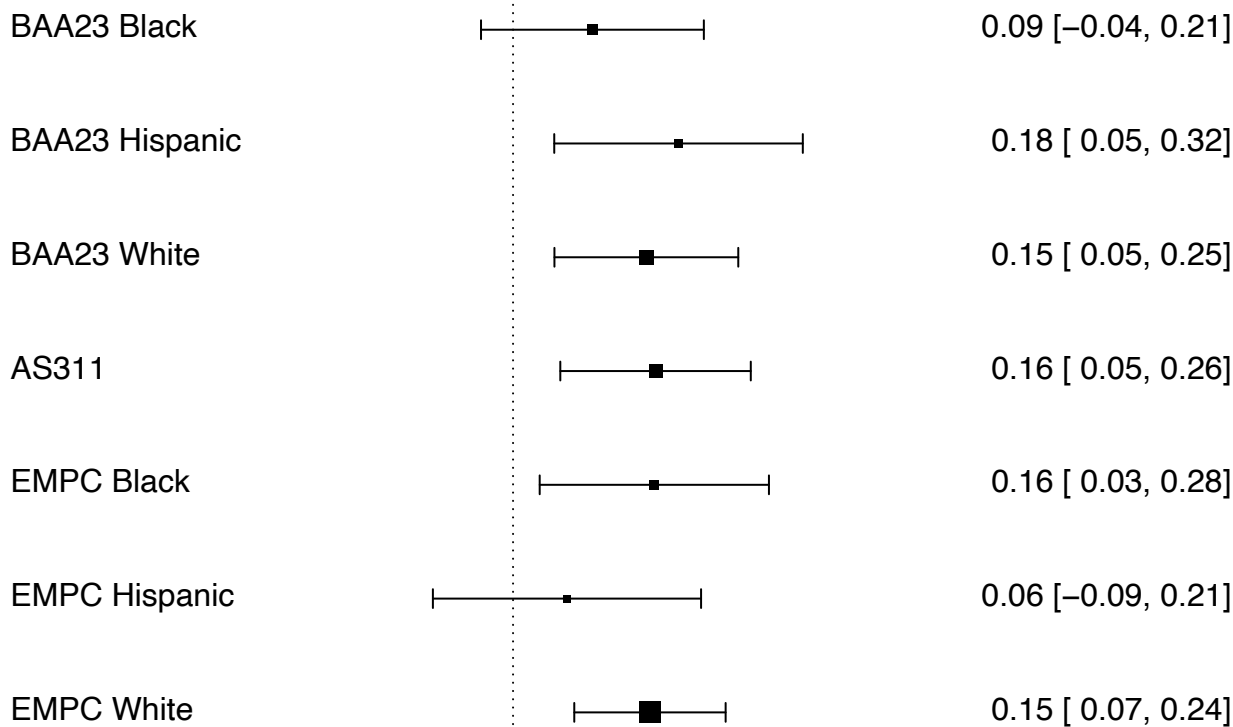
0.29 [0.20, 0.37]



DNAmGrimAge Comorbidities

WHI studies

Estimate [95% CI]



FE model
Z-score = 6.48e+00
P-val = 9.02e-11
Het P-val = 8.73e-01



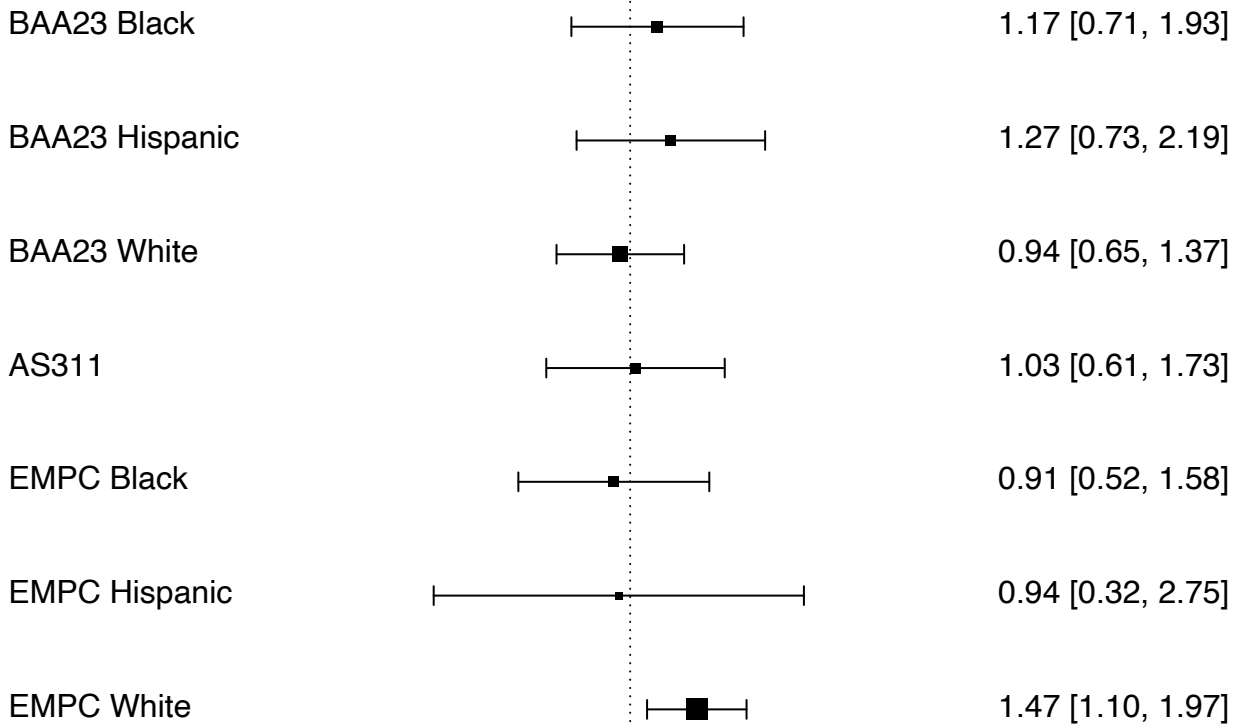
0.14 [0.10, 0.18]

-0.1 0 0.1 0.2 0.3 0.4
Beta Coefficient

DNAmGrimAge COLORECTAL

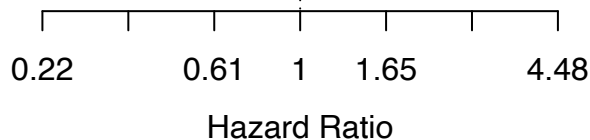
WHI studies

Estimate [95% CI]



FE model
Z-score = 1.80e+00
P-val = 7.17e-02
Het P-val = 5.46e-01

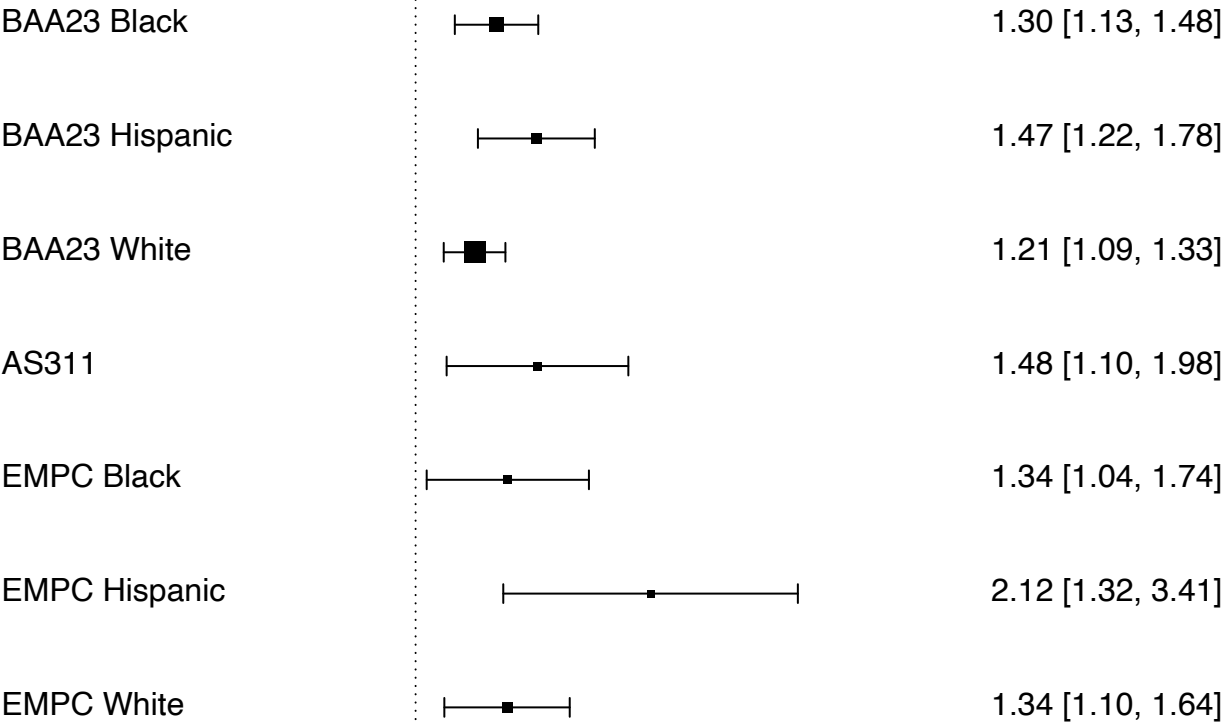
1.17 [0.99, 1.39]



DNAmGrimAge CHD

WHI studies

Estimate [95% CI]



FE model
Z-score = 8.12e+00
P-val = 4.75e-16
Het P-val = 1.82e-01



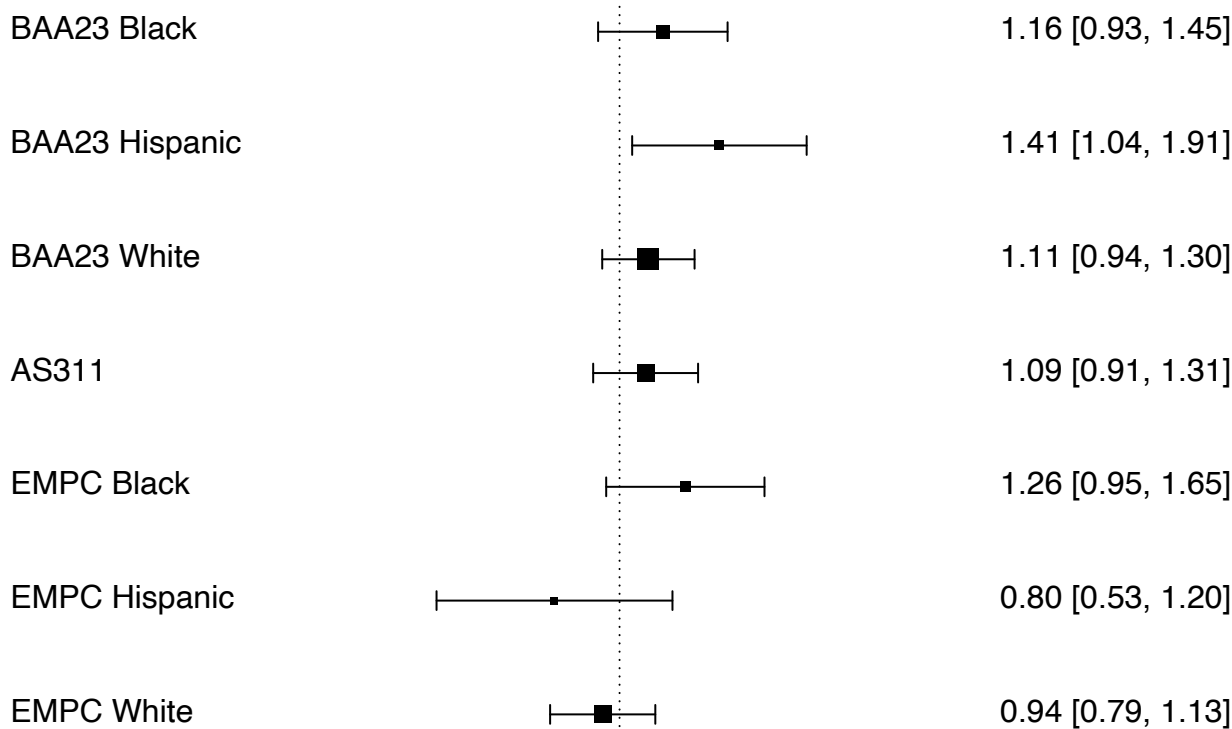
1.30 [1.22, 1.39]

1 1.65 2.72 4.48
Hazard Ratio

DNAmGrimAge CATARACT

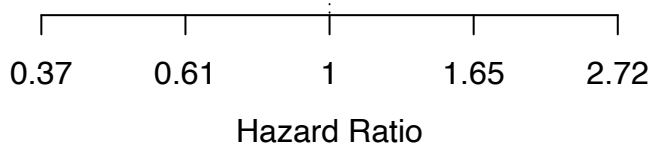
WHI studies

Estimate [95% CI]



FE model
Z-score = 2.14e+00
P-val = 3.26e-02
Het P-val = 1.82e-01

1.09 [1.01, 1.19]



DNAmGrimAge Cancer

WHI studies

Estimate [95% CI]

BAA23 Black 1.07 [0.89, 1.28]

BAA23 Hispanic 1.20 [0.95, 1.53]

BAA23 White 1.31 [1.16, 1.48]

AS311 1.26 [1.15, 1.38]

EMPC Black 1.03 [0.84, 1.25]

EMPC Hispanic 1.18 [0.90, 1.55]

EMPC White 1.28 [1.15, 1.43]

FE model

Z-score = 7.74e+00

P-val = 9.69e-15

Het P-val = 2.87e-01



1.23 [1.17, 1.30]

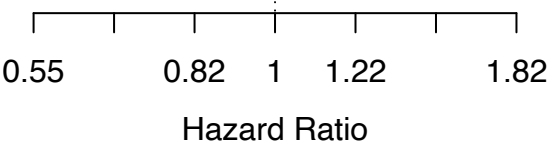
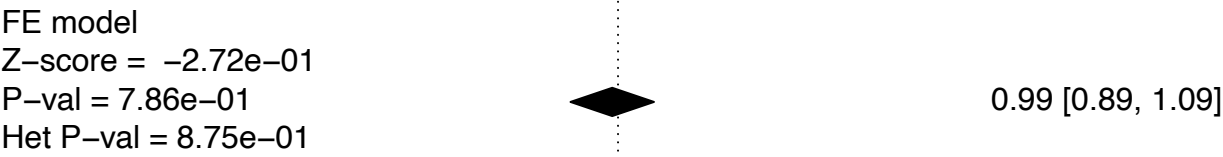
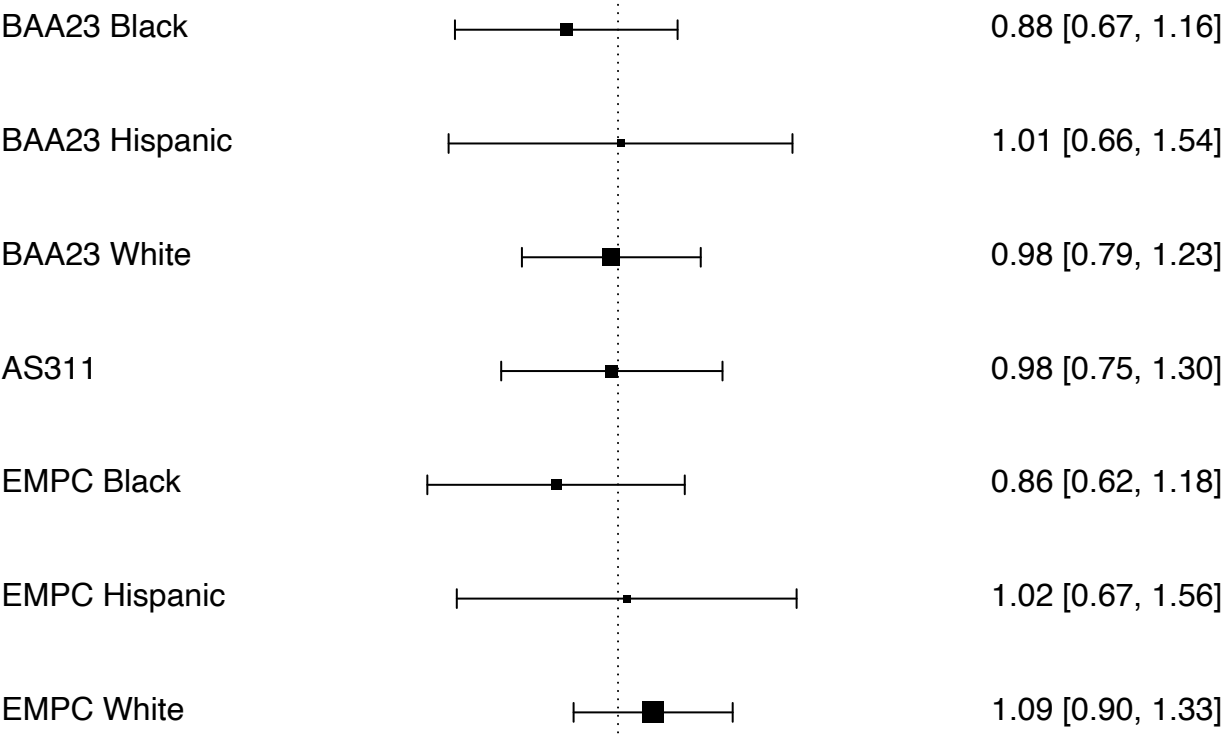
0.82 1 1.22 1.49 1.82

Hazard Ratio

DNAmGrimAge Breast Cancer

WHI studies

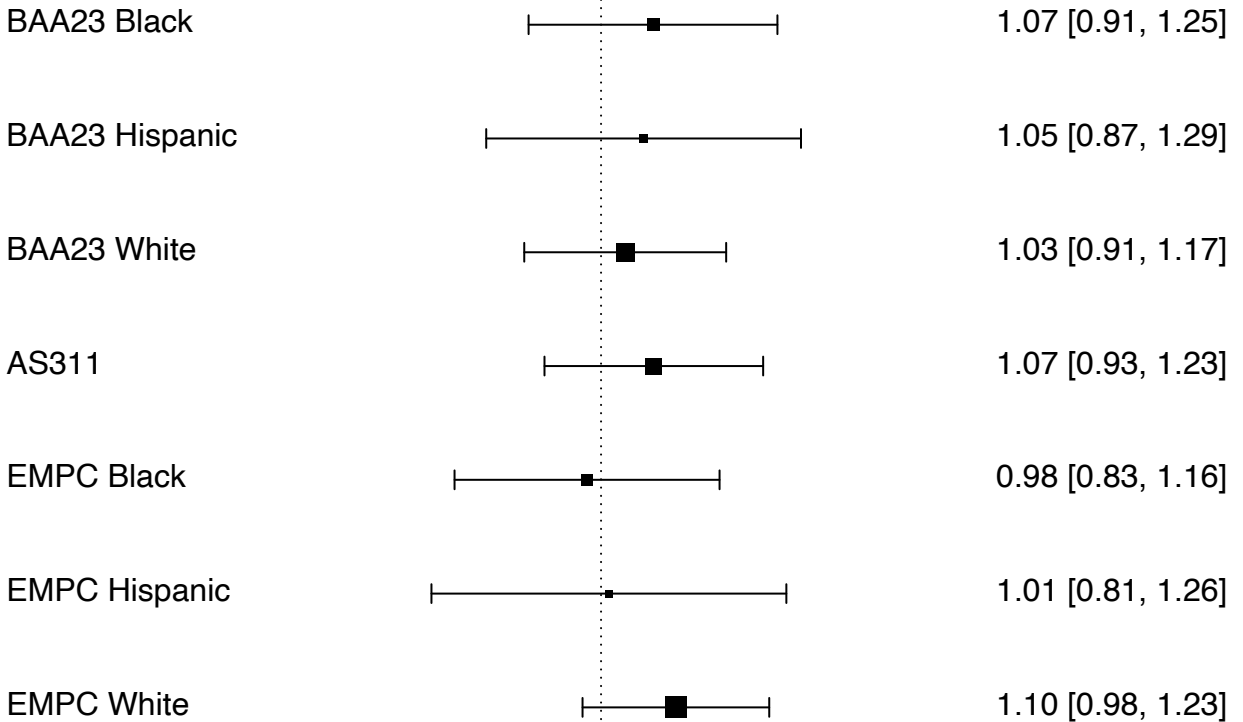
Estimate [95% CI]



DNAmGrimAge arthrit

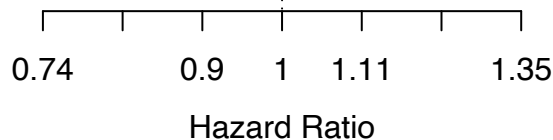
WHI studies

Estimate [95% CI]



FE model
Z-score = 1.76e+00
P-val = 7.82e-02
Het P-val = 9.61e-01

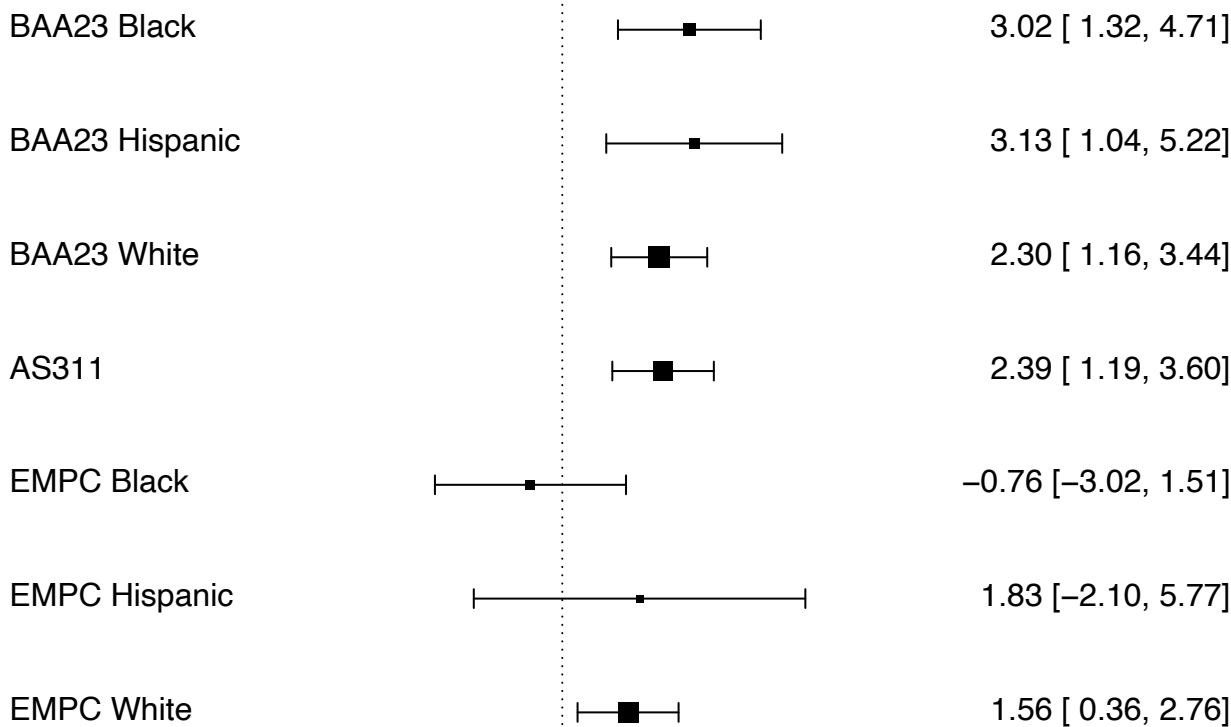
1.05 [0.99, 1.11]



DNAmGrimAge 100–PHYSFUN

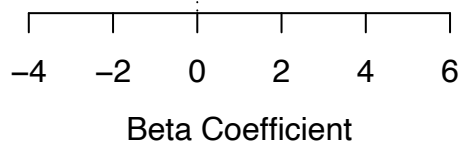
WHI studies

Estimate [95% CI]



FE model
Z-score = $7.08e+00$
P-val = $1.44e-12$
Het P-val = $1.58e-01$

2.09 [1.51, 2.67]



DNAmGrimAge 100–F393MSE

WHI studies

Estimate [95% CI]

BAA23 Black -1.08 [-3.46, 1.31]

BAA23 Hispanic -2.19 [-5.15, 0.77]

BAA23 White 0.23 [-0.06, 0.52]

AS311 0.70 [-0.41, 1.82]

EMPC Black -0.74 [-1.75, 0.26]

EMPC Hispanic -0.22 [-2.40, 1.96]

EMPC White 0.57 [0.01, 1.12]

FE model

Z-score = 1.85e+00

P-val = 6.40e-02

Het P-val = 1.44e-01

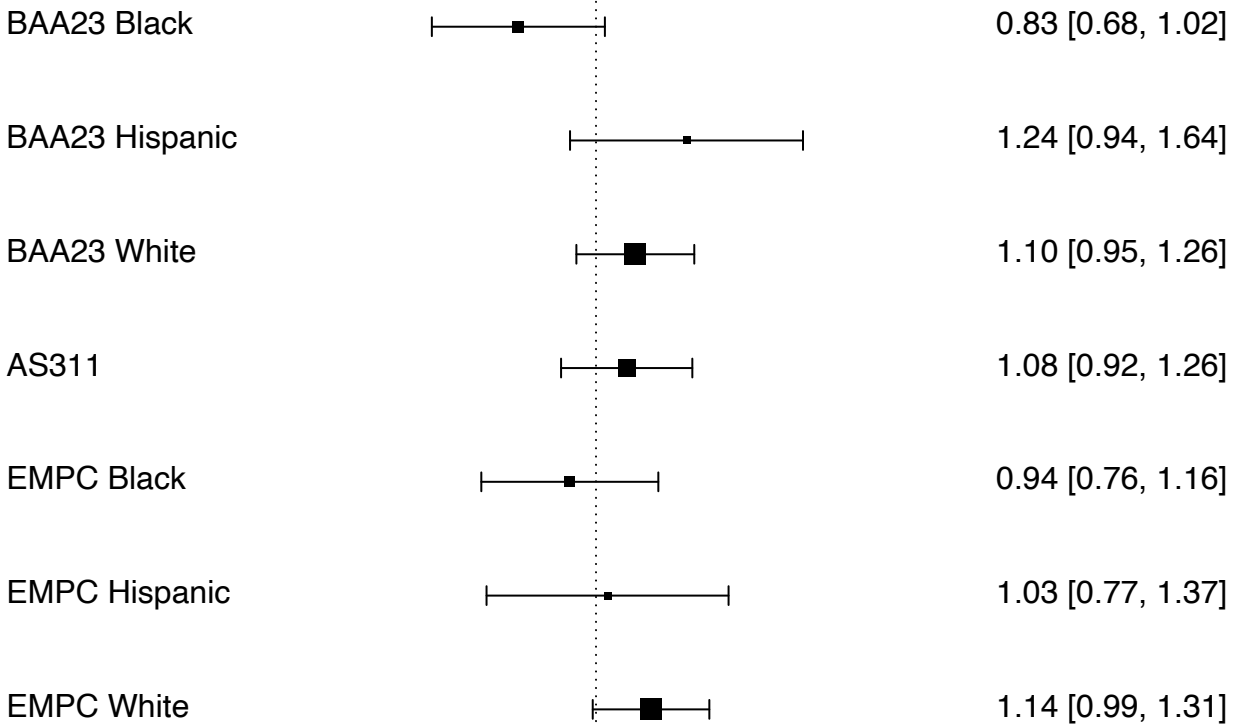
0.23 [-0.01, 0.46]



DunedinPACE THYROID

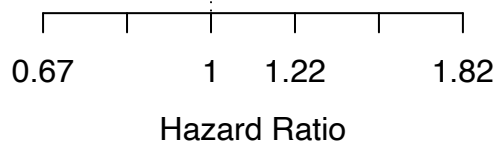
WHI studies

Estimate [95% CI]



FE model
Z-score = 1.59e+00
P-val = 1.11e-01
Het P-val = 1.62e-01

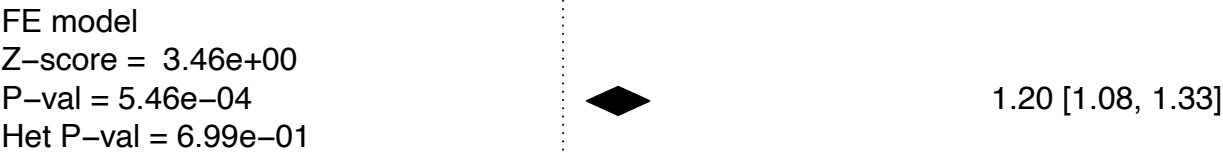
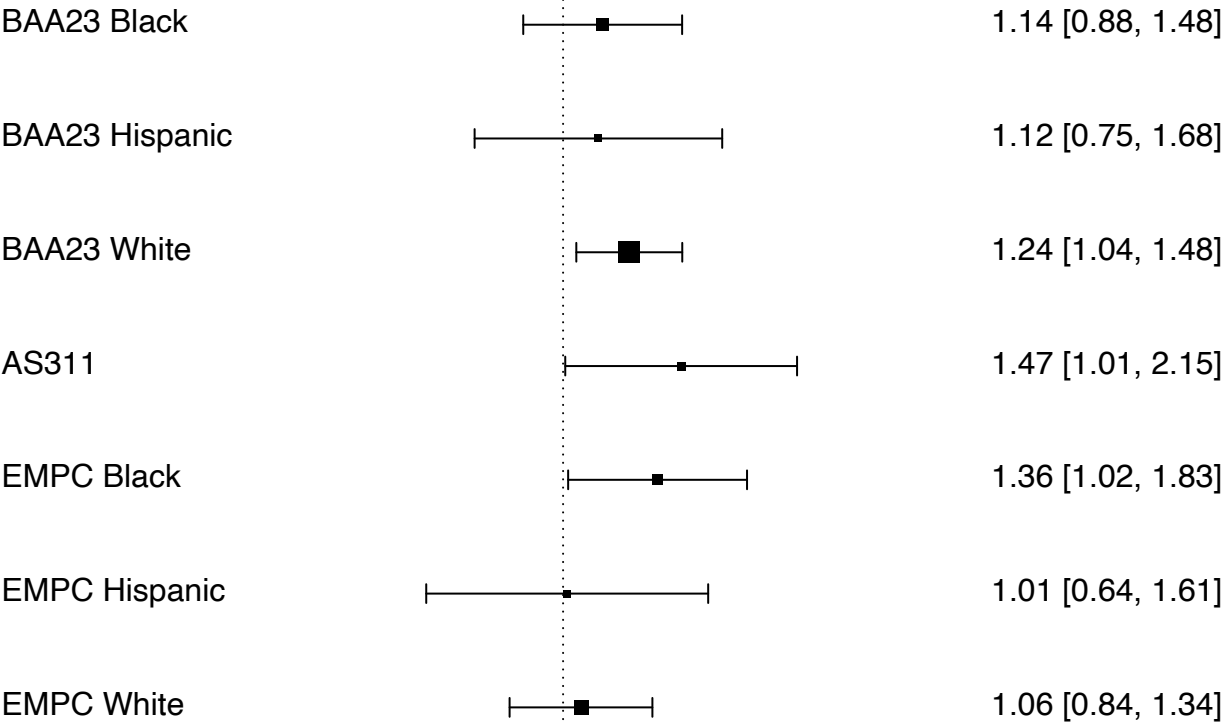
1.06 [0.99, 1.13]



DunedinPACE Stroke

WHI studies

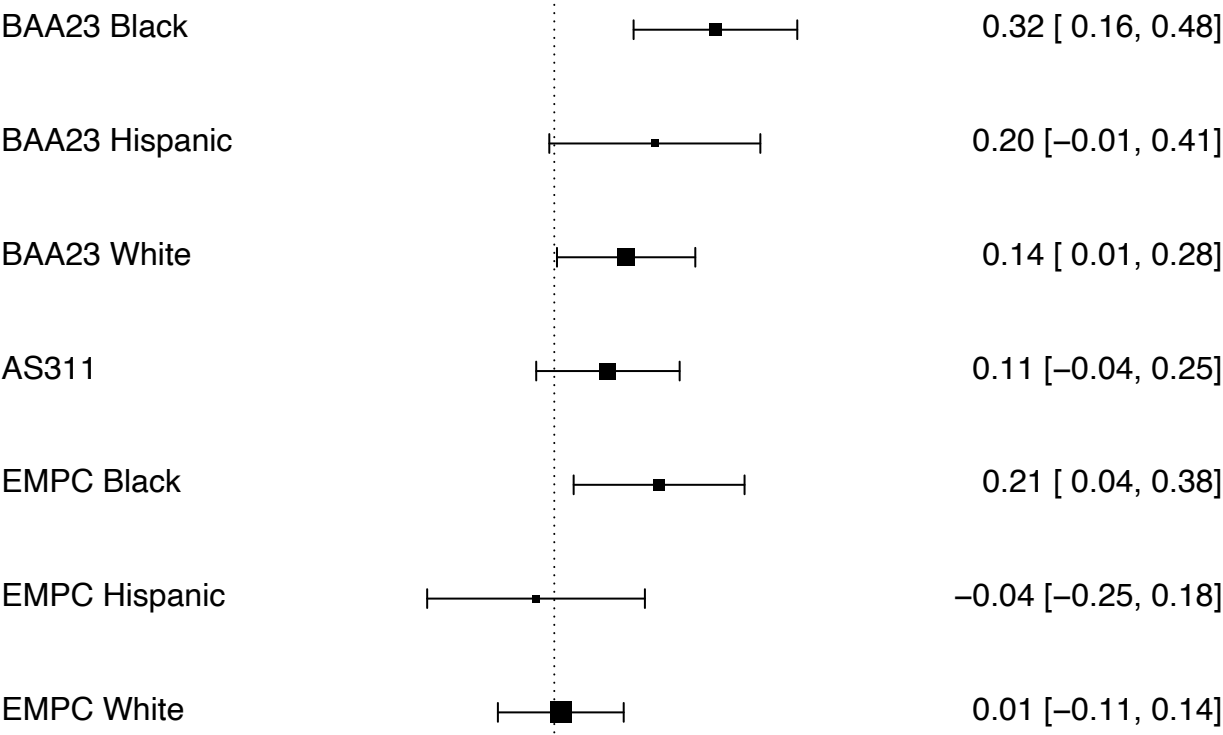
Estimate [95% CI]



DunedinPACE NACOND

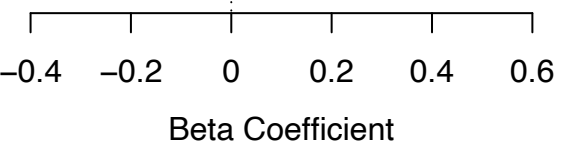
WHI studies

Estimate [95% CI]

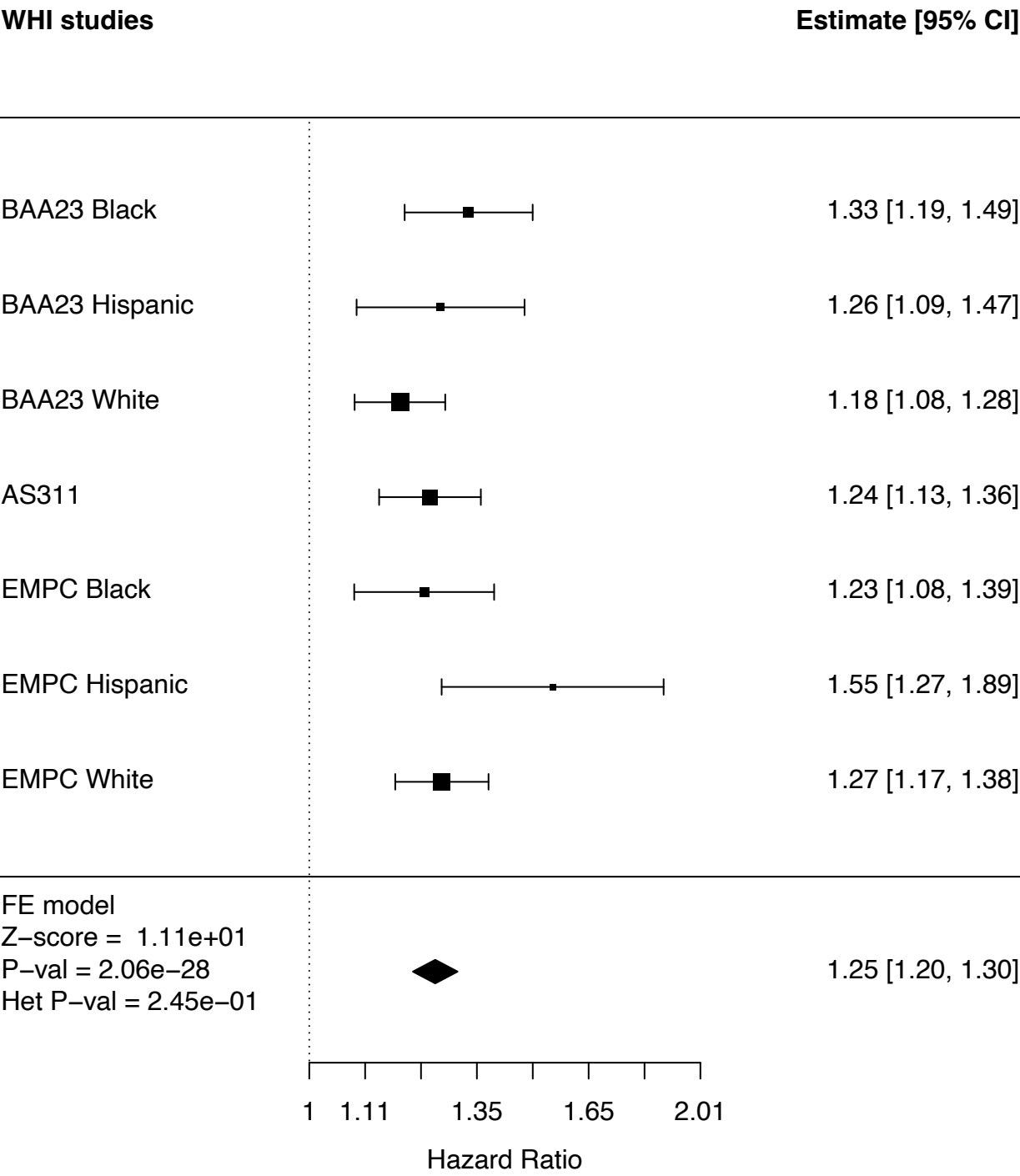


FE model
Z-score = 4.28e+00
P-val = 1.86e-05
Het P-val = 5.62e-02

0.13 [0.07, 0.19]



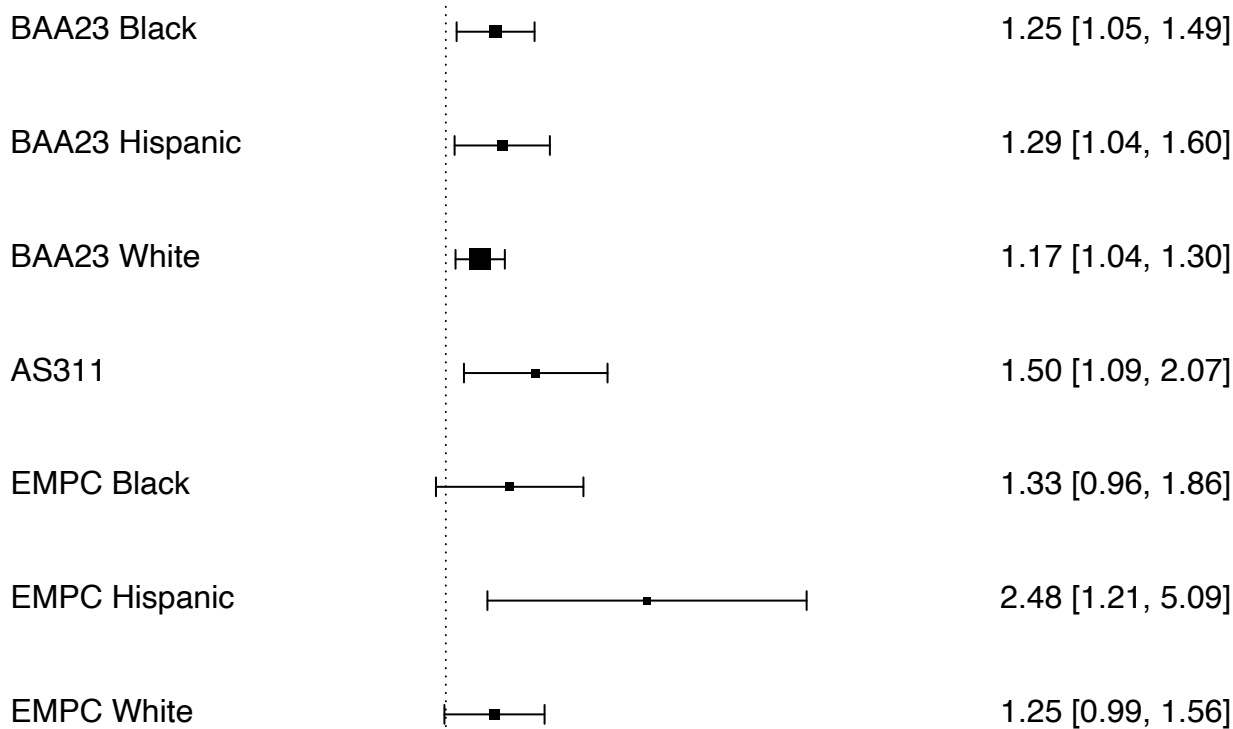
DunedinPACE Mortality



DunedinPACE MI

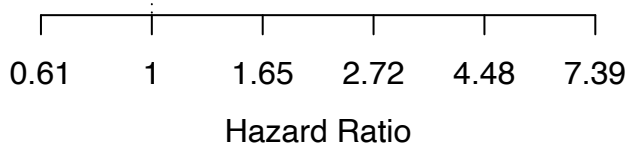
WHI studies

Estimate [95% CI]



FE model
Z-score = 5.61e+00
P-val = 2.06e-08
Het P-val = 3.87e-01

1.24 [1.15, 1.34]



DunedinPACE Lung Cancer

WHI studies

Estimate [95% CI]

BAA23 Black 1.26 [0.76, 2.09]

BAA23 Hispanic 0.54 [0.25, 1.19]

BAA23 White 1.67 [1.23, 2.26]

AS311 1.82 [1.26, 2.64]

EMPC Black 0.89 [0.46, 1.71]

EMPC Hispanic 0.67 [0.24, 1.86]

EMPC White 1.69 [1.28, 2.24]

FE model

Z-score = 4.94e+00

P-val = 7.95e-07

Het P-val = 3.01e-02



1.49 [1.27, 1.75]

0.22 0.61 1 1.65

Hazard Ratio

DunedinPACE LEUKEMIA

WHI studies

Estimate [95% CI]

BAA23 Black 0.91 [0.35, 2.36]

BAA23 Hispanic 1.05 [0.25, 4.34]

BAA23 White 0.83 [0.34, 2.04]

AS311 1.00 [0.44, 2.27]

EMPC Hispanic 2.55 [0.40, 16.41]

EMPC White 1.57 [0.84, 2.92]

FE model

Z-score = $8.25e-01$

P-val = $4.10e-01$

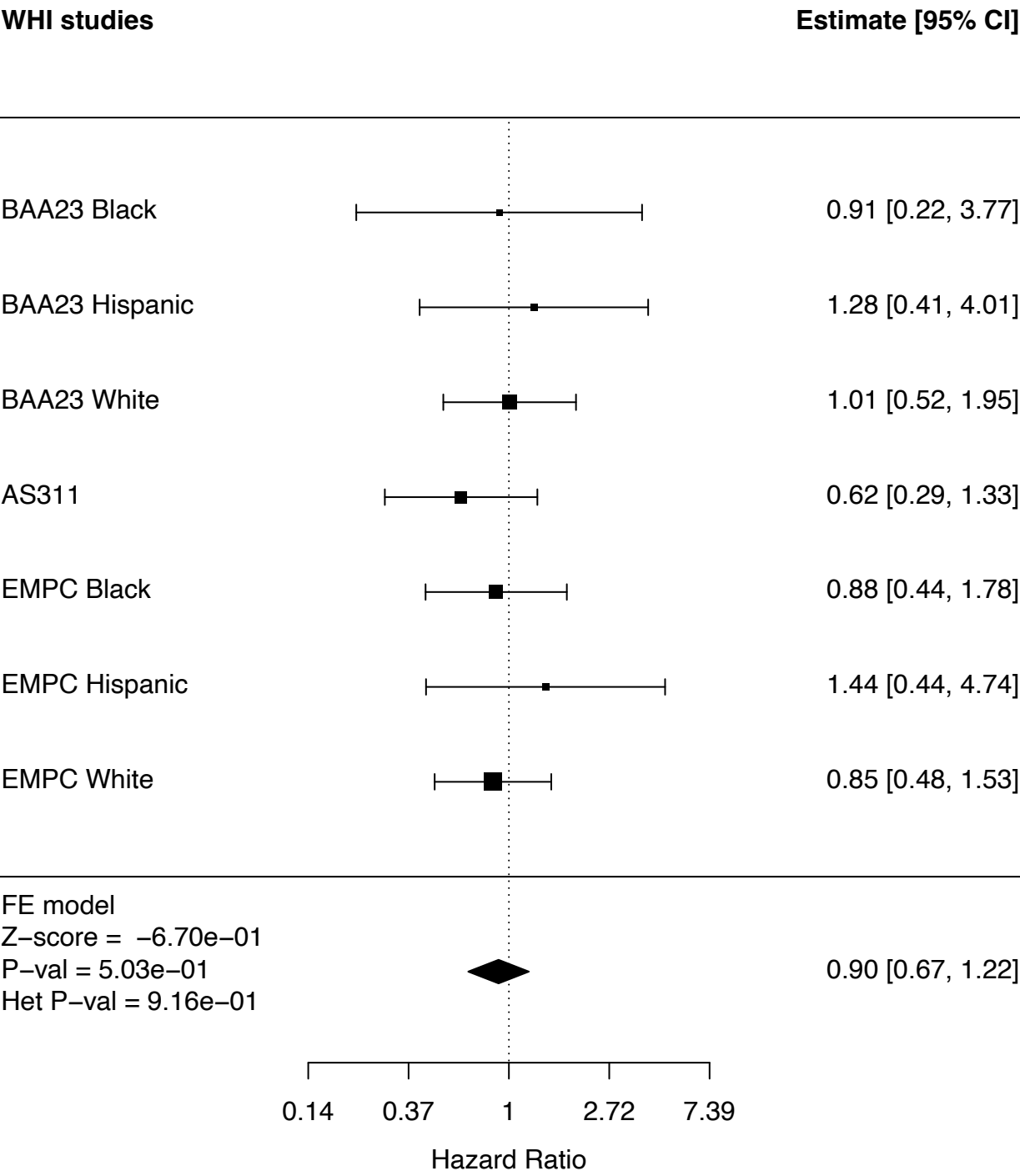
Het P-val = $7.72e-01$

1.17 [0.81, 1.70]

0.14 1 2.72 20.09

Hazard Ratio

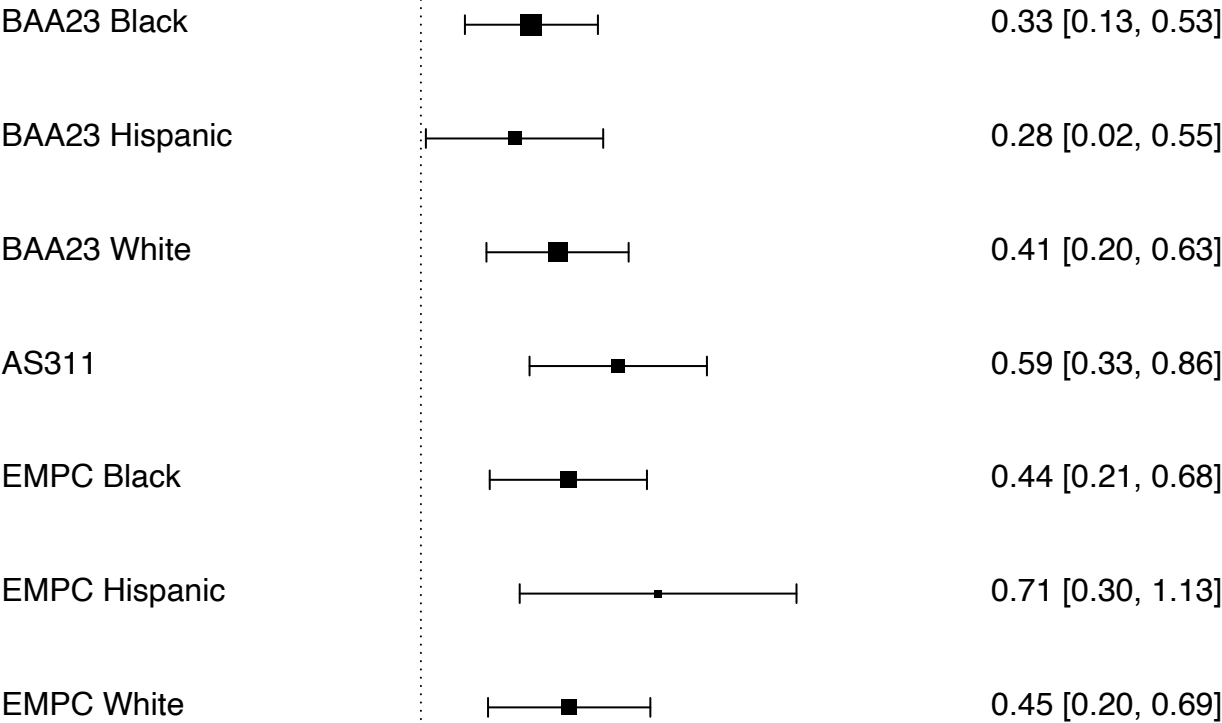
DunedinPACE ENDMTRL



DunedinPACE DIAB

WHI studies

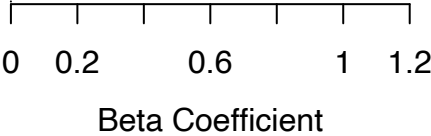
Estimate [95% CI]



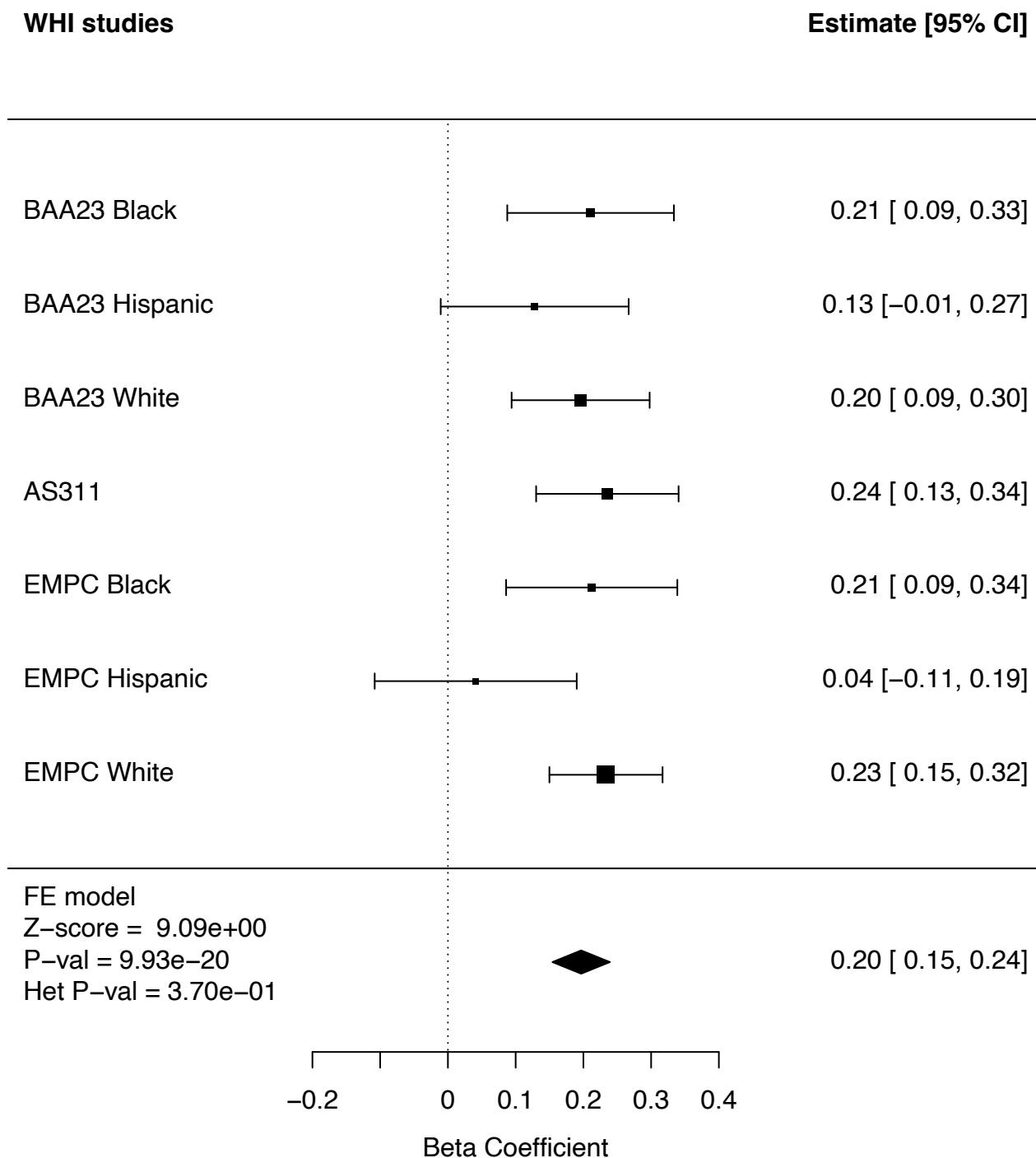
FE model
Z-score = 8.96e+00
P-val = 3.15e-19
Het P-val = 4.96e-01



0.43 [0.33, 0.52]



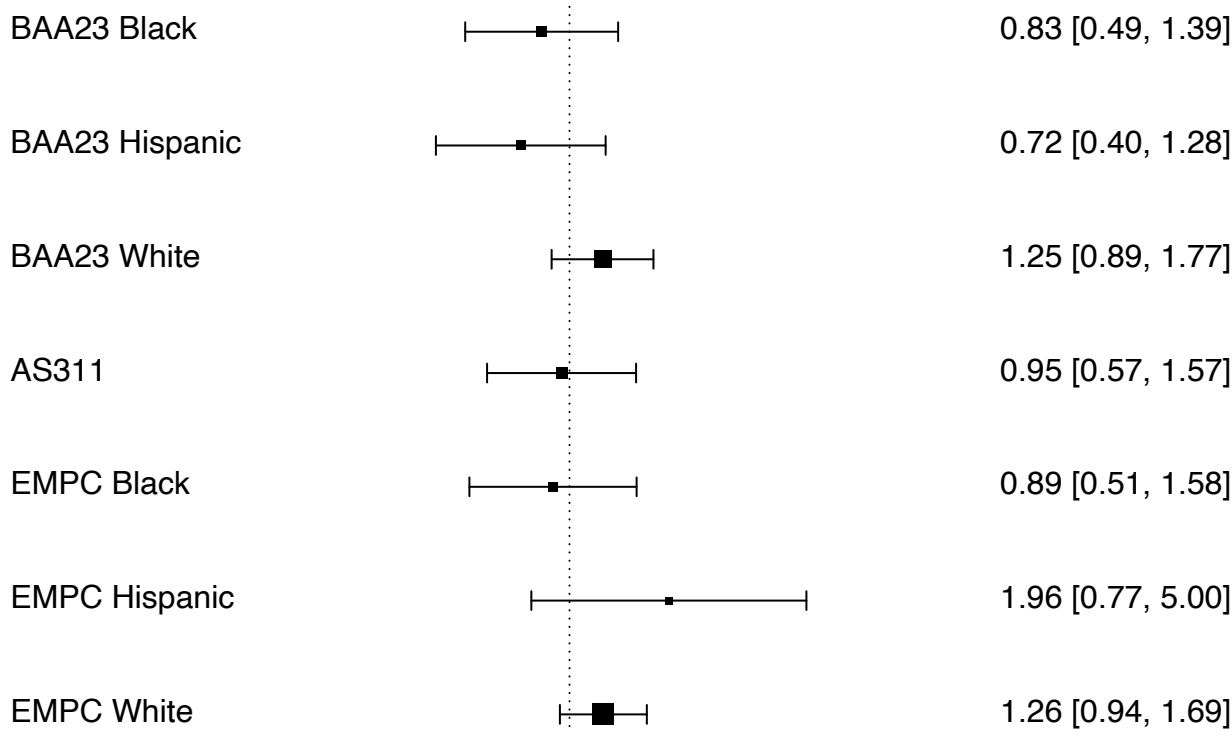
DunedinPACE Comorbidities



DunedinPACE COLORECTAL

WHI studies

Estimate [95% CI]



FE model
Z-score = 1.01e+00
P-val = 3.12e-01
Het P-val = 3.30e-01

1.09 [0.92, 1.29]

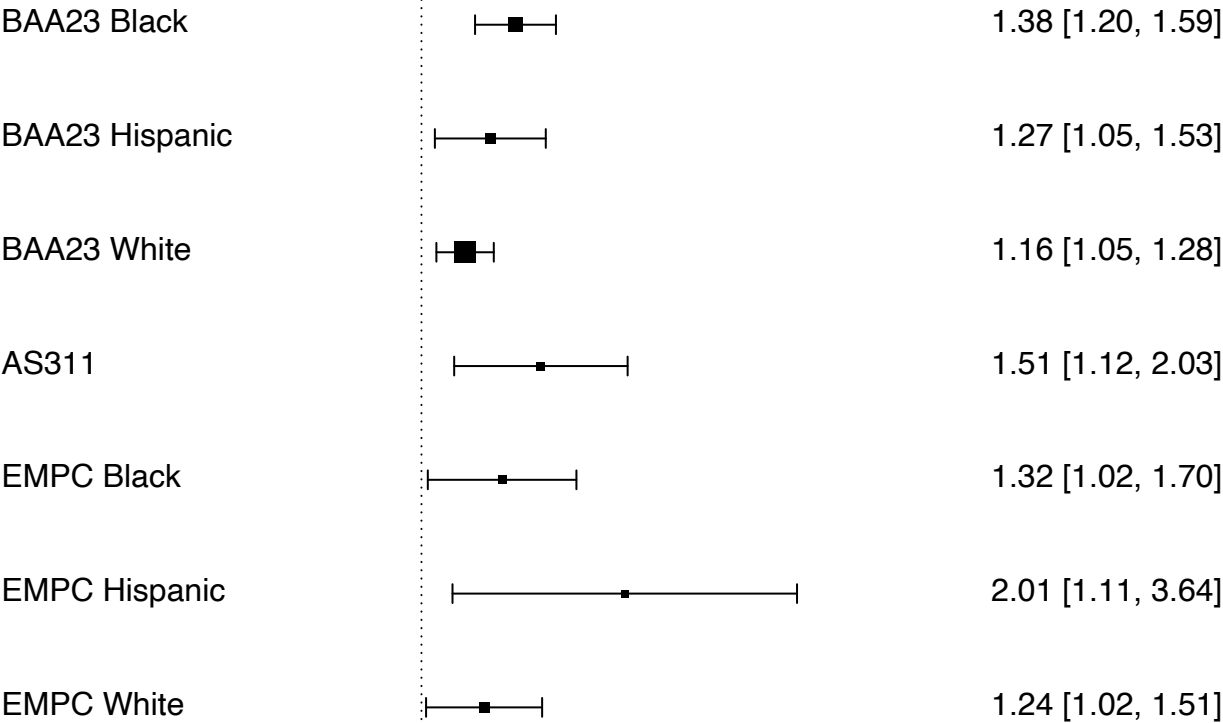
0.37 1 1.65 4.48

Hazard Ratio

DunedinPACE CHD

WHI studies

Estimate [95% CI]



FE model
Z-score = 7.00e+00
P-val = 2.60e-12
Het P-val = 2.22e-01

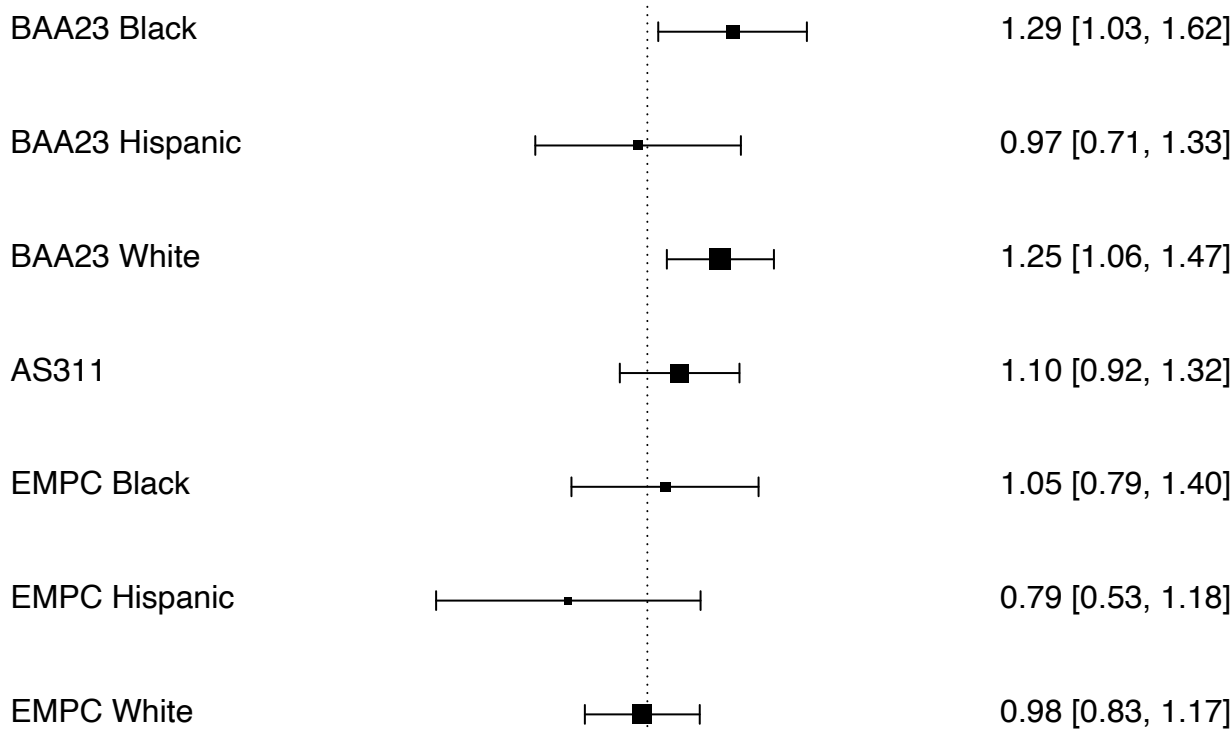
1.26 [1.18, 1.35]

1 1.65 2.72 4.48
Hazard Ratio

DunedinPACE CATARACT

WHI studies

Estimate [95% CI]



FE model
Z-score = 2.38e+00
P-val = 1.75e-02
Het P-val = 1.60e-01

0.37 0.61 1 1.65
Hazard Ratio

DunedinPACE Cancer

WHI studies

Estimate [95% CI]

BAA23 Black 0.94 [0.78, 1.13]

BAA23 Hispanic 0.98 [0.77, 1.25]

BAA23 White 1.14 [1.00, 1.29]

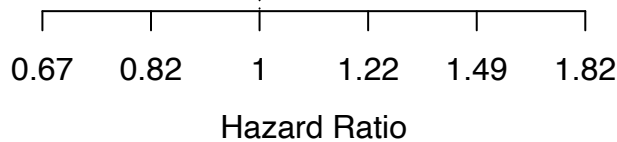
AS311 1.08 [0.99, 1.18]

EMPC Black 0.96 [0.78, 1.17]

EMPC Hispanic 1.15 [0.87, 1.53]

EMPC White 1.18 [1.05, 1.32]

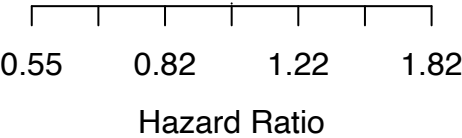
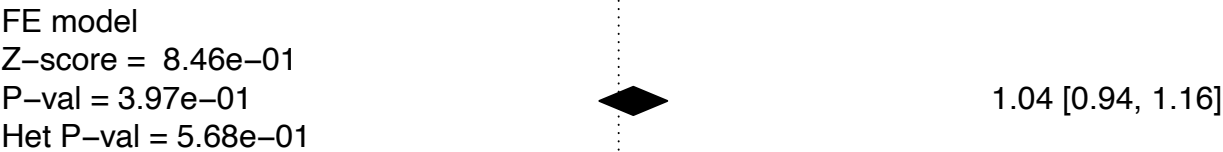
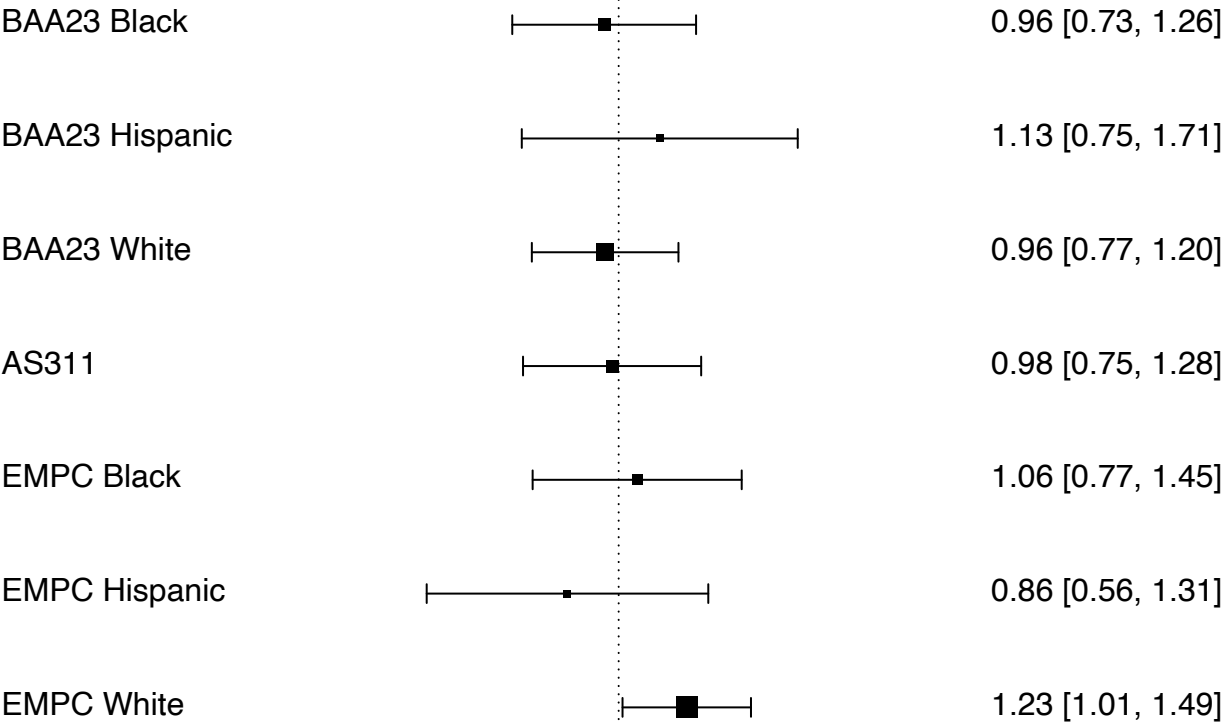
FE model
Z-score = 3.01e+00
P-val = 2.65e-03
Het P-val = 2.99e-01
1.09 [1.03, 1.15]



DunedinPACE Breast Cancer

WHI studies

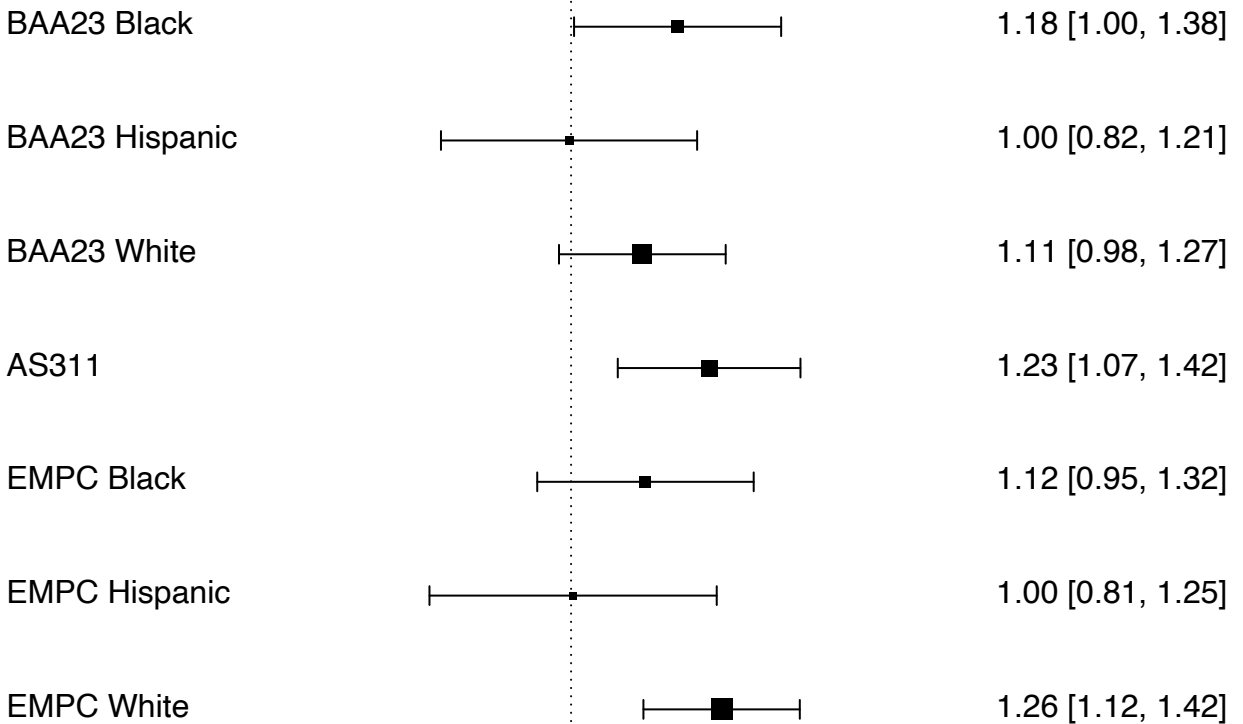
Estimate [95% CI]



DunedinPACE arthrit

WHI studies

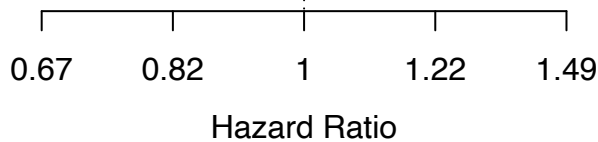
Estimate [95% CI]



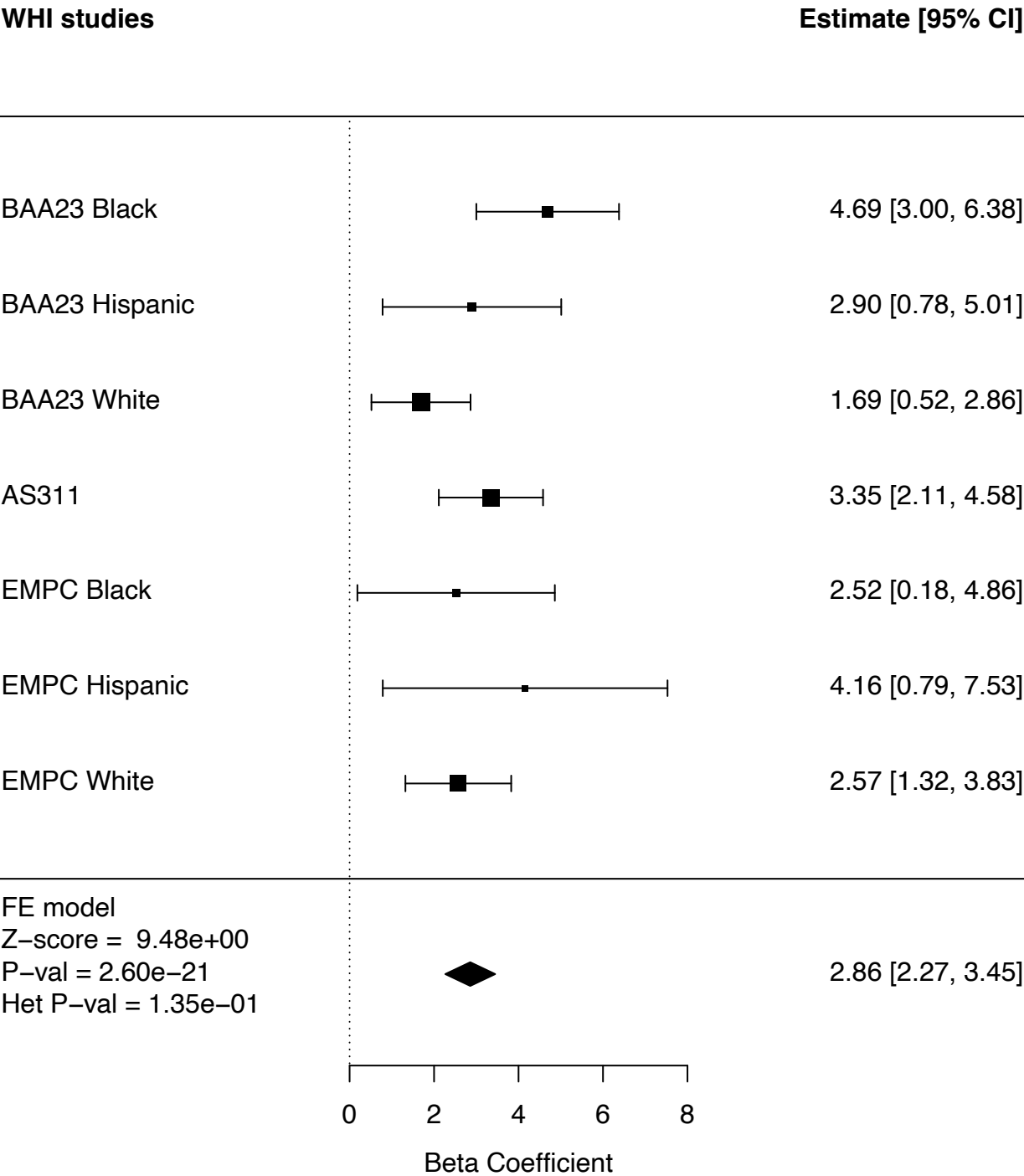
FE model
Z-score = 4.96e+00
P-val = 7.04e-07
Het P-val = 3.11e-01



1.16 [1.09, 1.22]



DunedinPACE 100–PHYSFUN



DunedinPACE 100–F393MSE

WHI studies

Estimate [95% CI]

BAA23 Black 1.46 [–0.69, 3.60]

BAA23 Hispanic –2.93 [–6.88, 1.03]

BAA23 White 0.20 [–0.09, 0.48]

AS311 –0.10 [–1.26, 1.05]

EMPC Black –0.83 [–2.03, 0.37]

EMPC Hispanic 0.36 [–1.61, 2.32]

EMPC White 0.58 [0.05, 1.11]

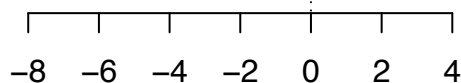
FE model

Z-score = 1.87e+00

P-val = 6.19e–02

Het P-val = 1.89e–01

0.22 [–0.01, 0.46]

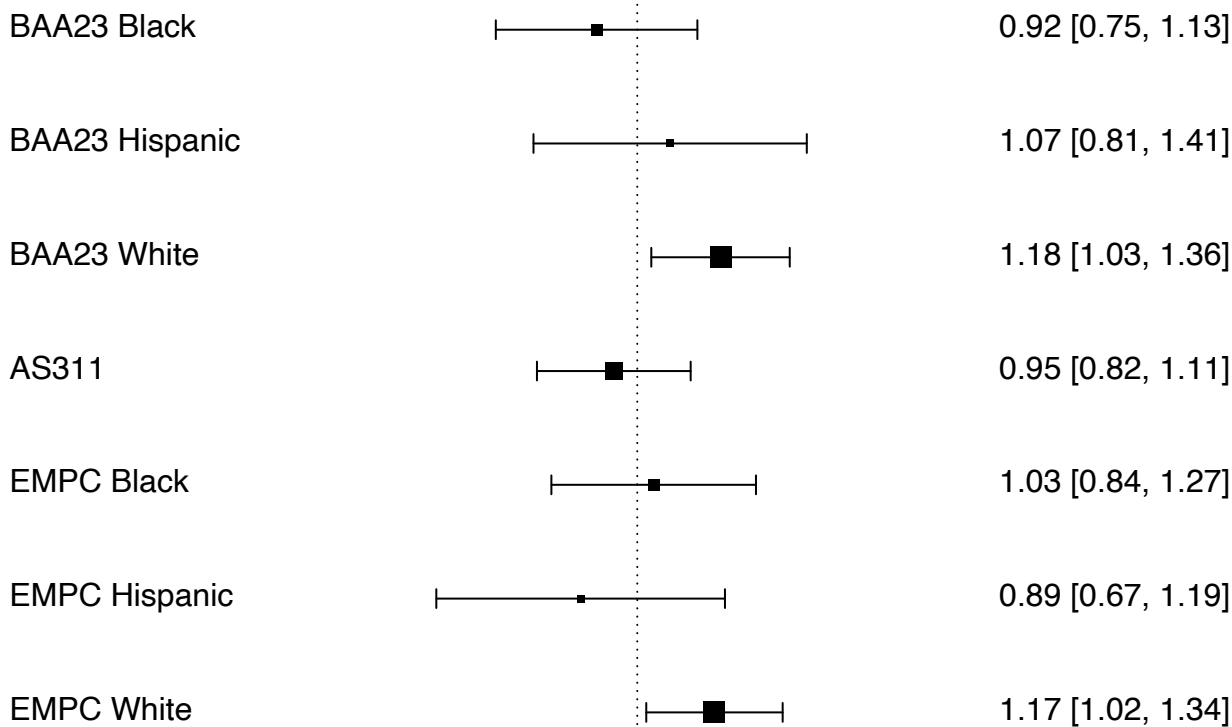


Beta Coefficient

PCPhenoAge THYROID

WHI studies

Estimate [95% CI]



FE model

Z-score = 1.75e+00

P-val = 8.03e-02

Het P-val = 1.57e-01



1.06 [0.99, 1.14]

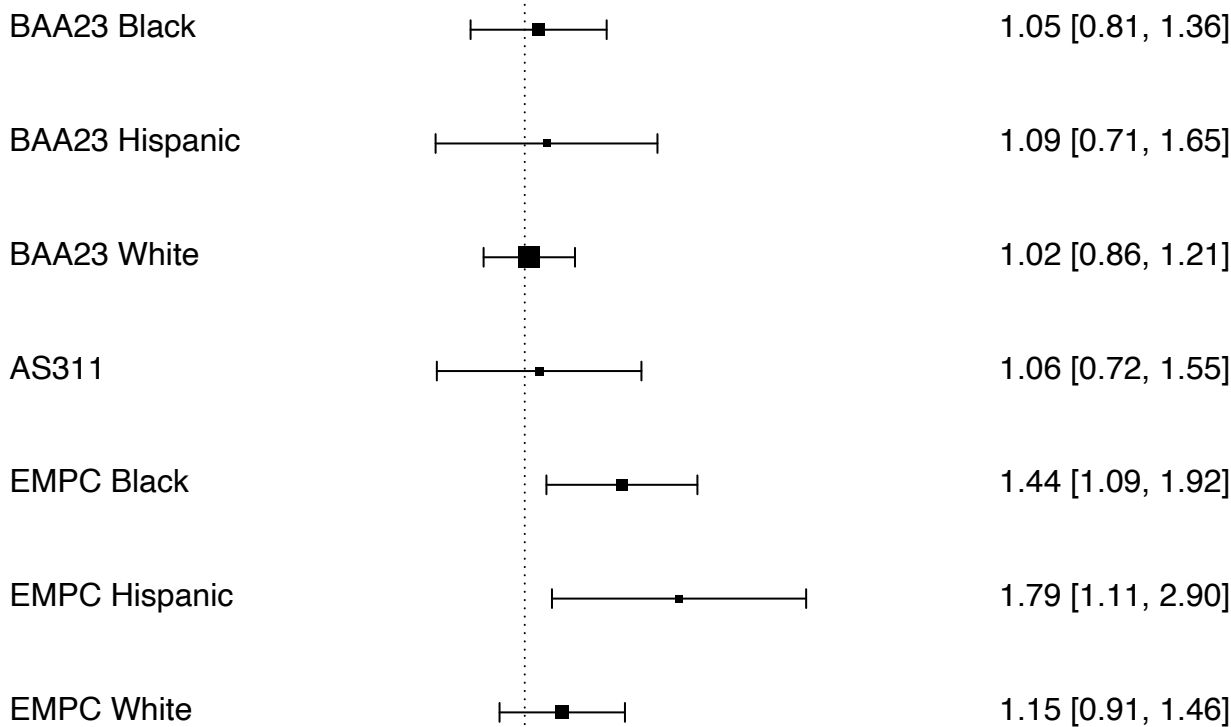
0.55 0.67 0.82 1 1.22 1.49

Hazard Ratio

PCPhenoAge Stroke

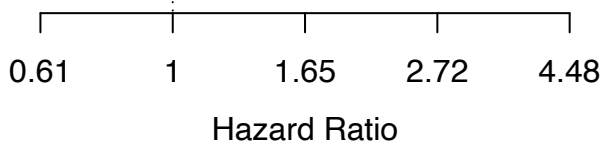
WHI studies

Estimate [95% CI]



FE model
Z-score = 2.36e+00
P-val = 1.82e-02
Het P-val = 2.20e-01

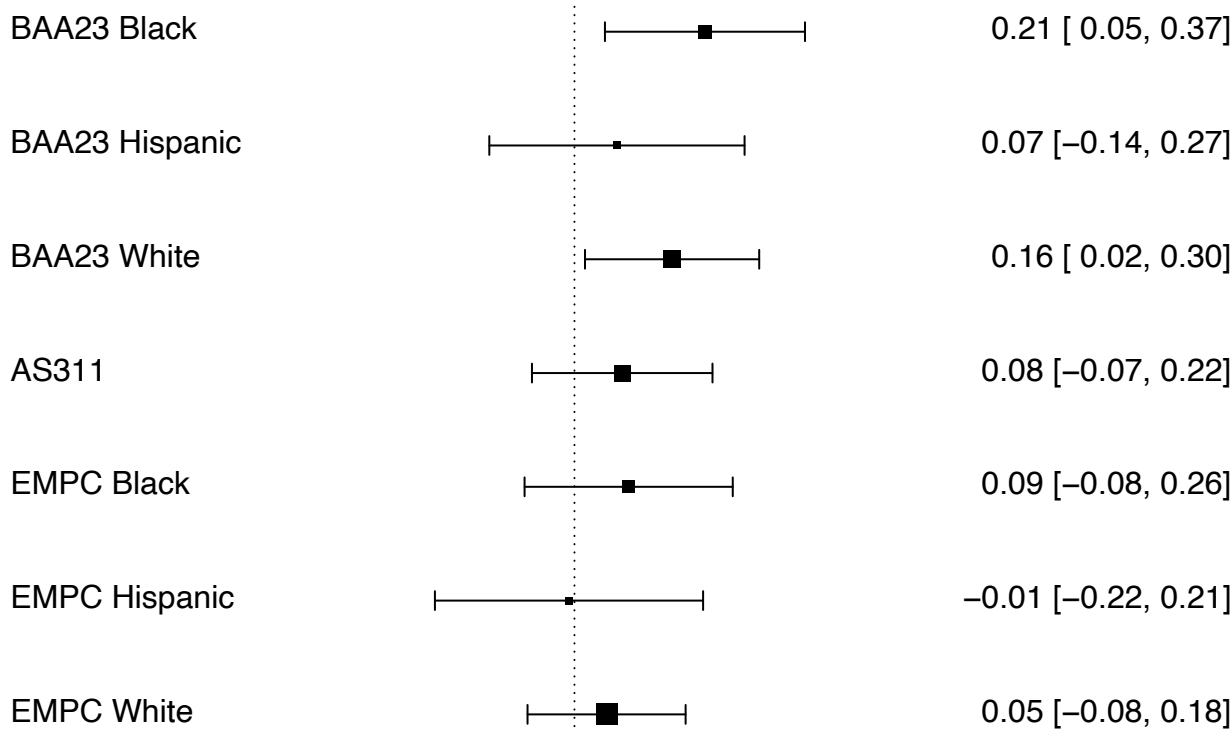
1.13 [1.02, 1.25]



PCPhenoAge NACOND

WHI studies

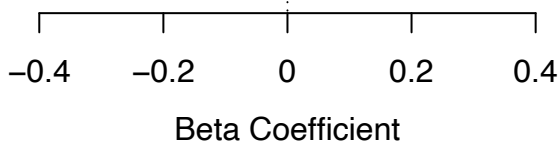
Estimate [95% CI]



FE model
Z-score = 3.22e+00
P-val = 1.28e-03
Het P-val = 6.54e-01



0.10 [0.04, 0.16]



PCPhenoAge Mortality

WHI studies

Estimate [95% CI]

BAA23 Black 1.40 [1.25, 1.56]

BAA23 Hispanic 1.40 [1.19, 1.66]

BAA23 White 1.19 [1.10, 1.29]

AS311 1.15 [1.05, 1.25]

EMPC Black 1.14 [1.01, 1.29]

EMPC Hispanic 1.49 [1.19, 1.86]

EMPC White 1.29 [1.19, 1.41]

FE model

Z-score = 1.07e+01

P-val = 1.44e-26

Het P-val = 1.48e-02

1.24 [1.19, 1.29]

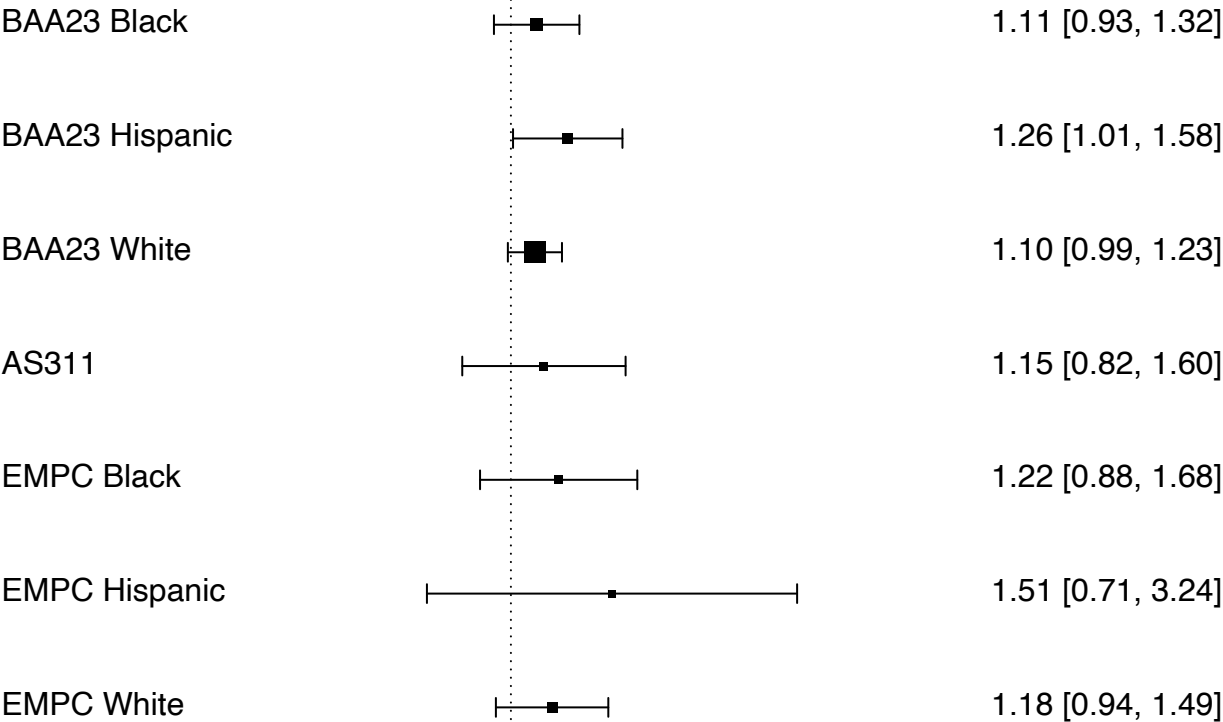
1 1.22 1.49 1.82 2.23

Hazard Ratio

PCPhenoAge MI

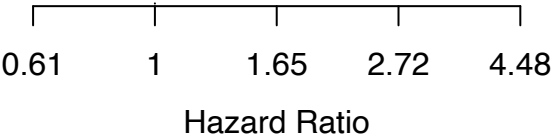
WHI studies

Estimate [95% CI]



FE model
Z-score = 3.44e+00
P-val = 5.79e-04
Het P-val = 9.20e-01

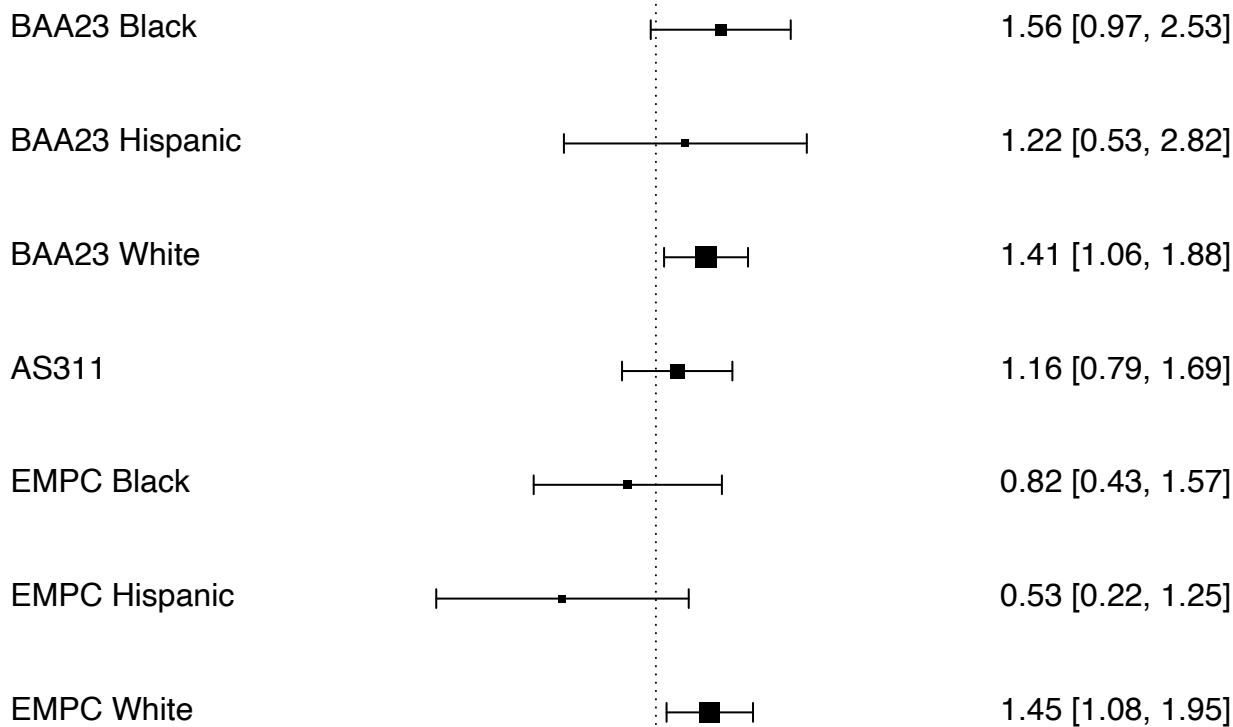
1.14 [1.06, 1.23]



PCPhenoAge Lung Cancer

WHI studies

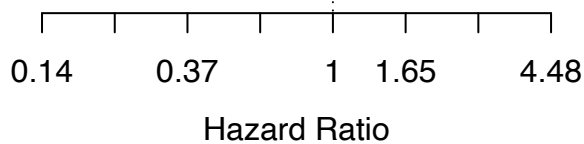
Estimate [95% CI]



FE model
Z-score = 3.19e+00
P-val = 1.43e-03
Het P-val = 2.51e-01



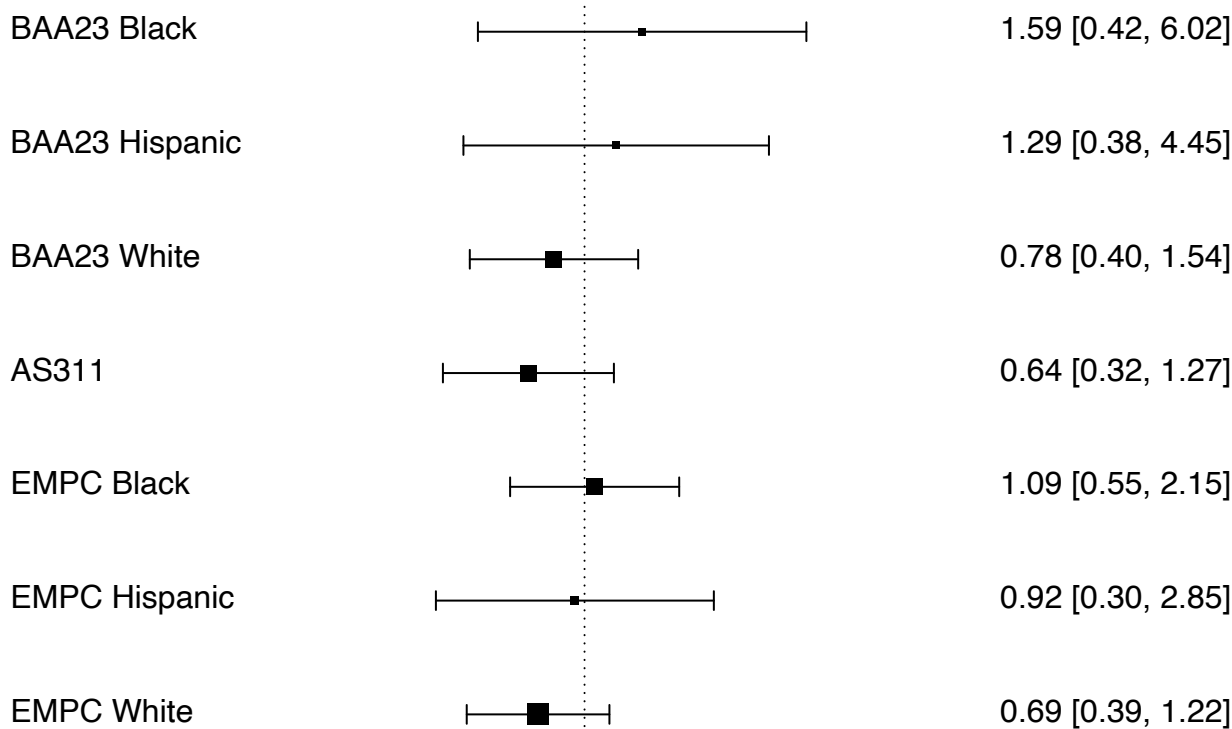
1.29 [1.10, 1.52]



PCPhenoAge ENDMTRL

WHI studies

Estimate [95% CI]



FE model
Z-score = $-1.20e+00$
P-val = $2.31e-01$
Het P-val = $8.01e-01$

0.83 [0.62, 1.12]

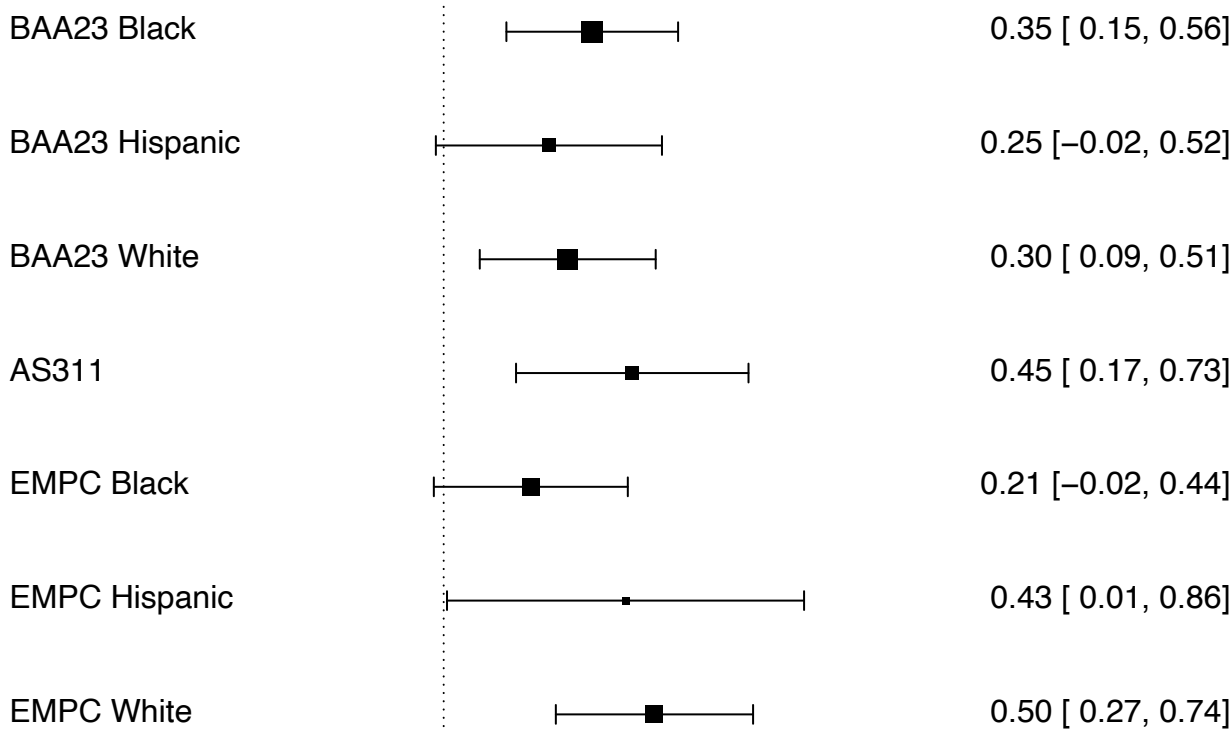
0.14 0.37 1 2.72 7.39

Hazard Ratio

PCPhenoAge DIAB

WHI studies

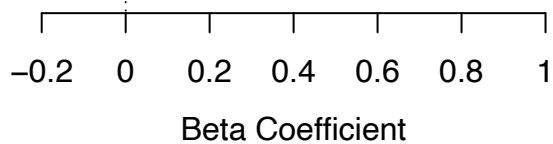
Estimate [95% CI]



FE model
Z-score = 7.26e+00
P-val = 3.79e-13
Het P-val = 6.12e-01



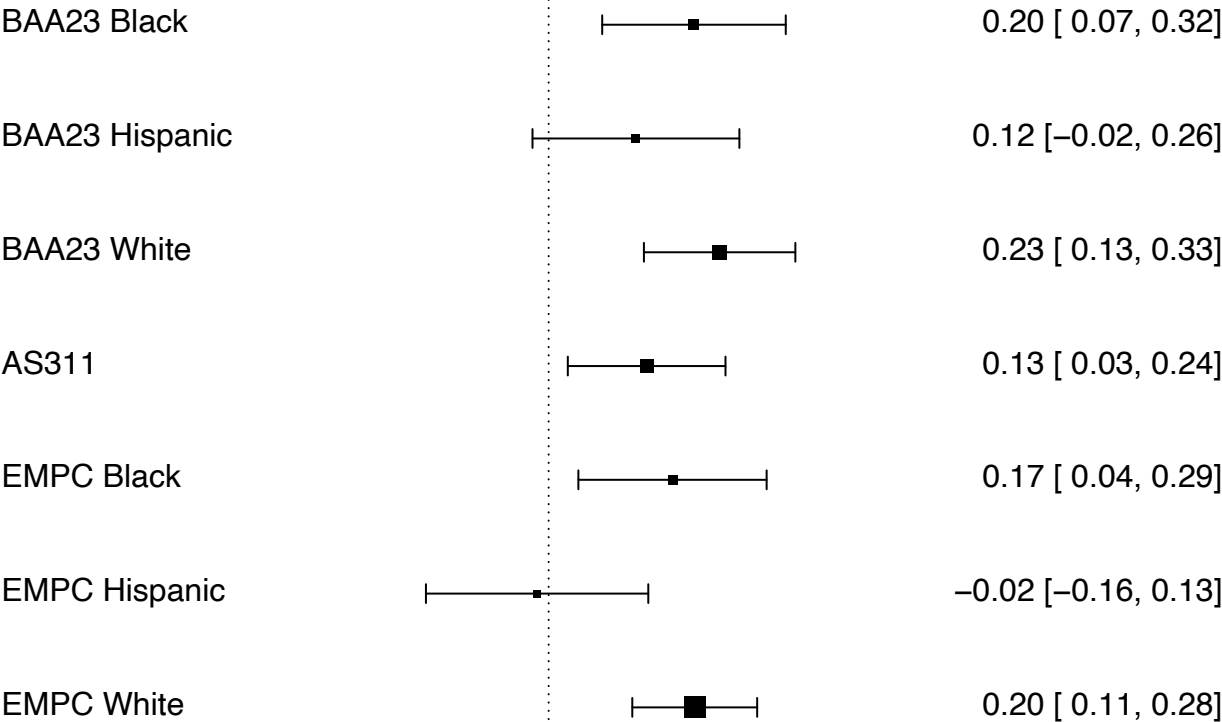
0.34 [0.25, 0.44]



PCPhenoAge Comorbidities

WHI studies

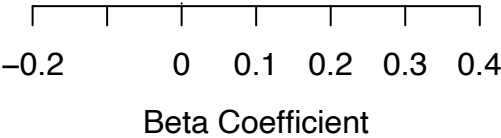
Estimate [95% CI]



FE model
Z-score = 7.54e+00
P-val = 4.70e-14
Het P-val = 1.88e-01



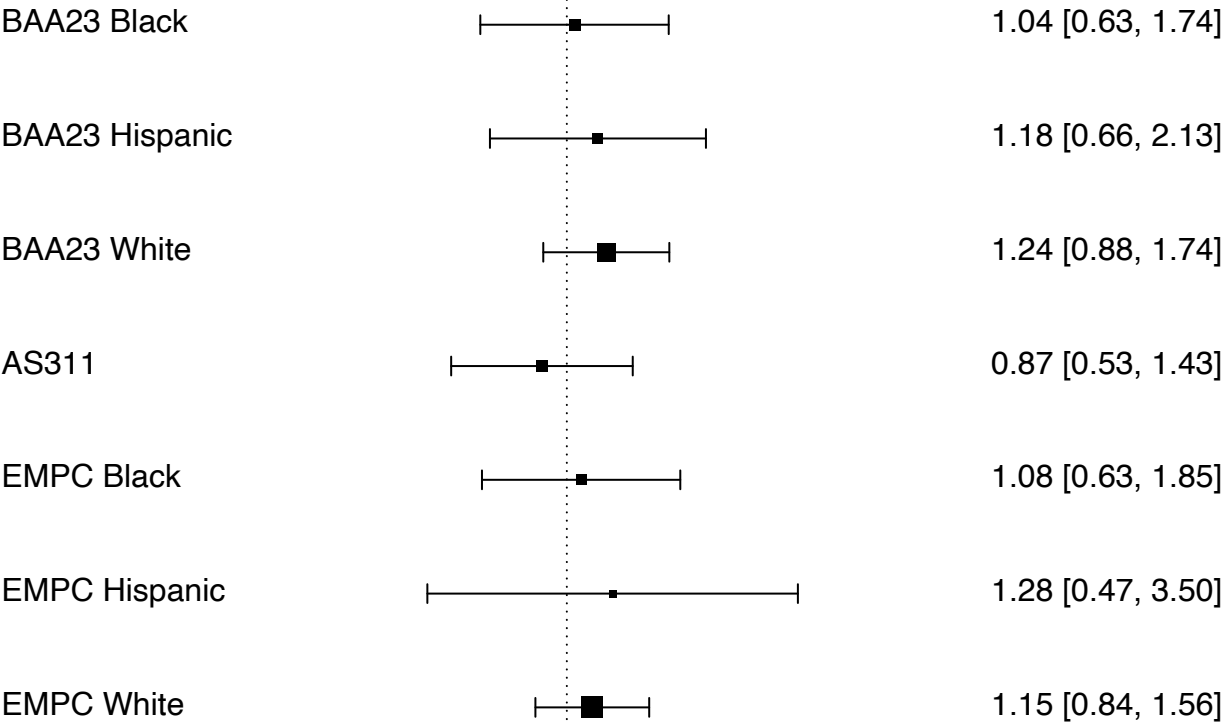
0.16 [0.12, 0.21]



PCPhenoAge COLORECTAL

WHI studies

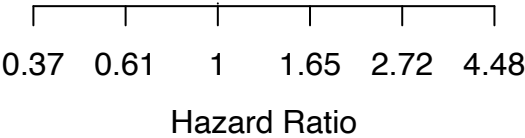
Estimate [95% CI]



FE model
Z-score = 1.30e+00
P-val = 1.93e-01
Het P-val = 9.57e-01



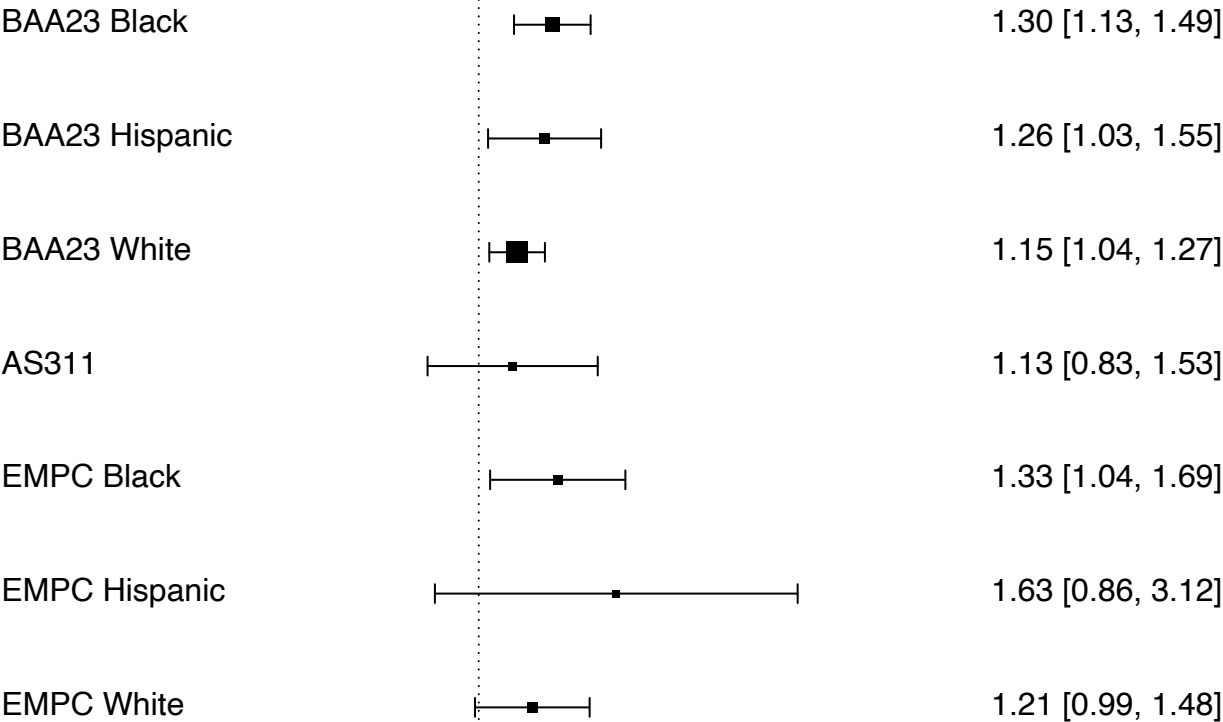
1.12 [0.94, 1.33]



PCPhenoAge CHD

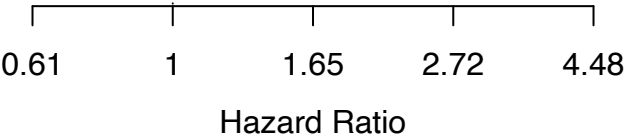
WHI studies

Estimate [95% CI]



FE model
Z-score = 5.85e+00
P-val = 5.04e-09
Het P-val = 6.86e-01

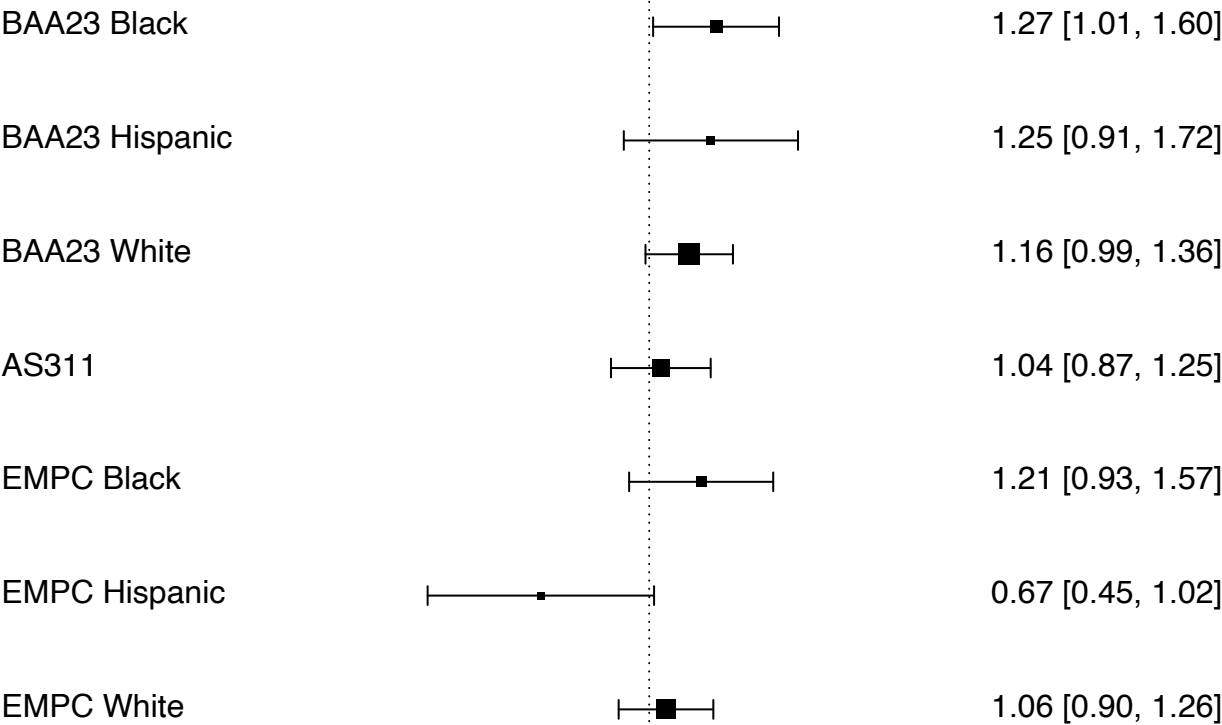
1.22 [1.14, 1.30]



PCPhenoAge CATARACT

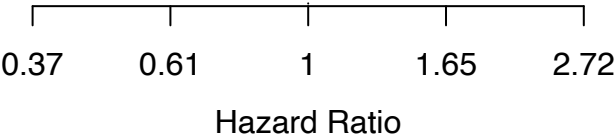
WHI studies

Estimate [95% CI]



FE model
Z-score = 2.60e+00
P-val = 9.38e-03
Het P-val = 1.77e-01

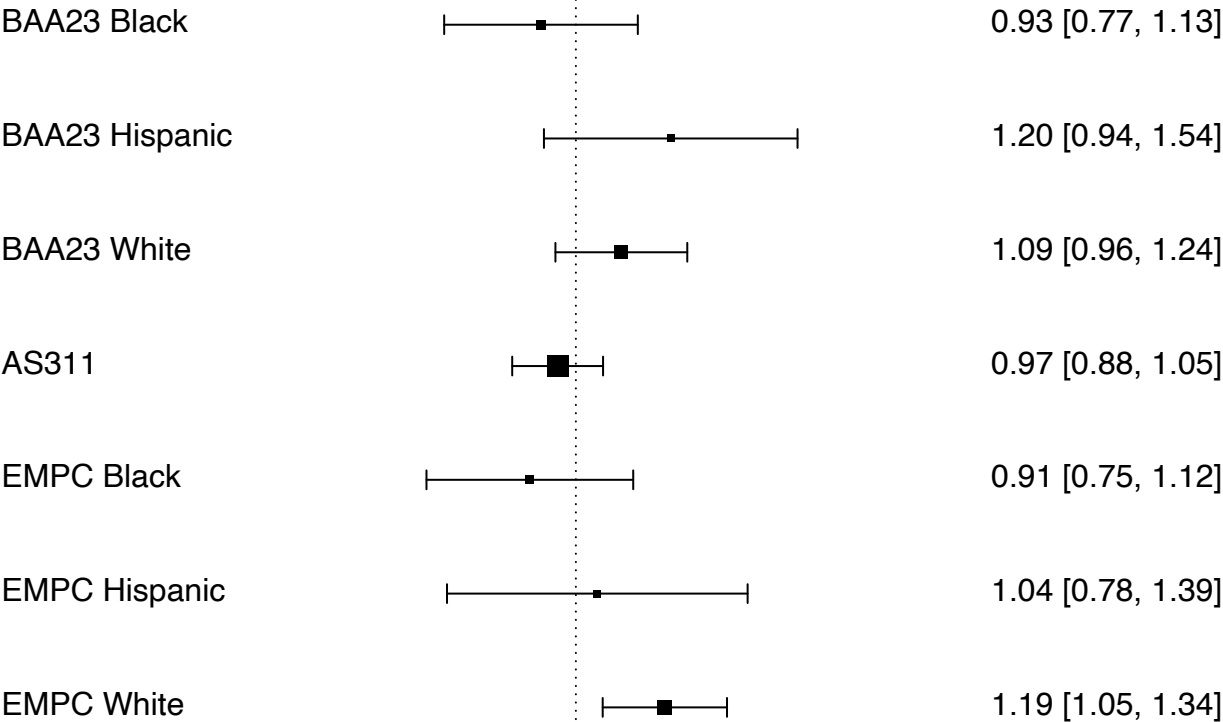
1.11 [1.03, 1.21]



PCPhenoAge Cancer

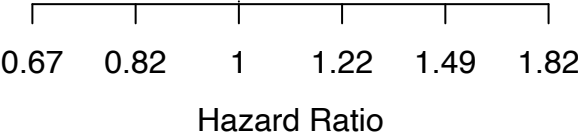
WHI studies

Estimate [95% CI]



FE model
Z-score = 1.29e+00
P-val = 1.98e-01
Het P-val = 5.86e-02

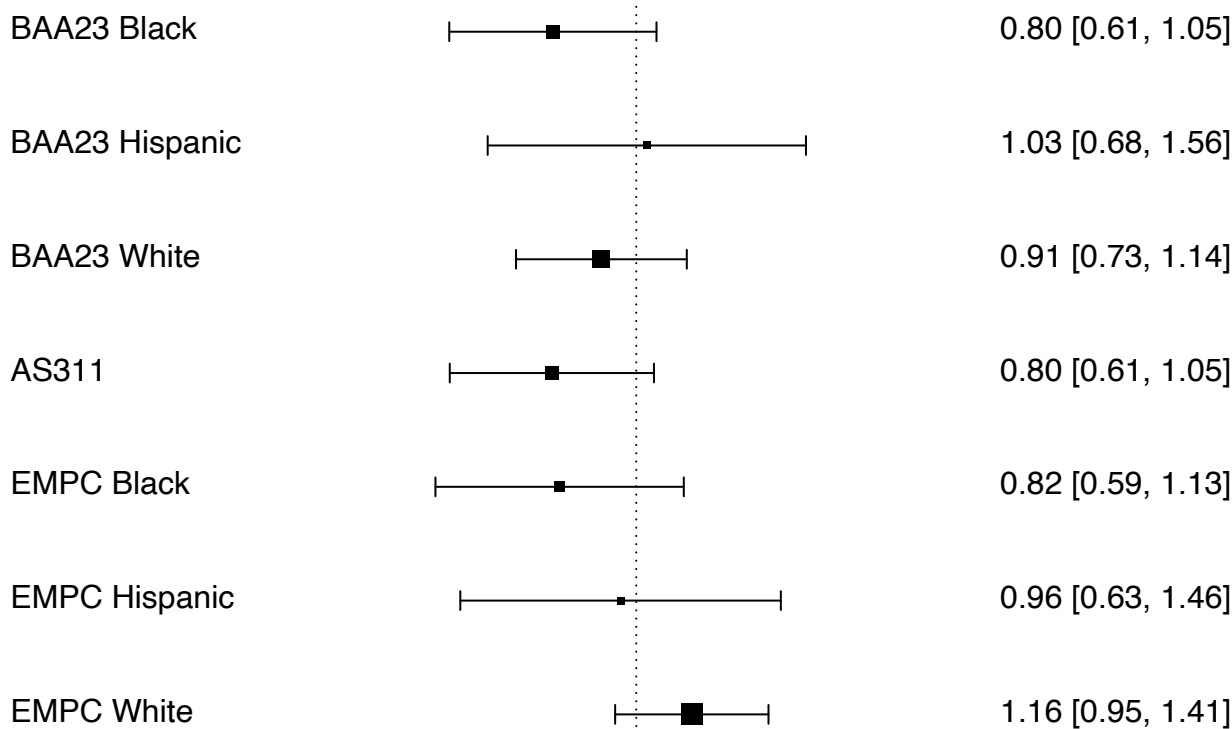
1.04 [0.98, 1.09]



PCPhenoAge Breast Cancer

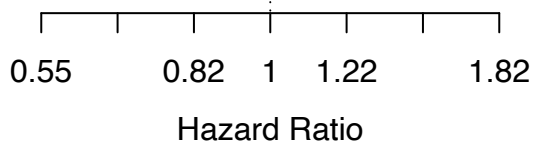
WHI studies

Estimate [95% CI]



FE model
Z-score = $-1.27e+00$
P-val = $2.05e-01$
Het P-val = $2.62e-01$

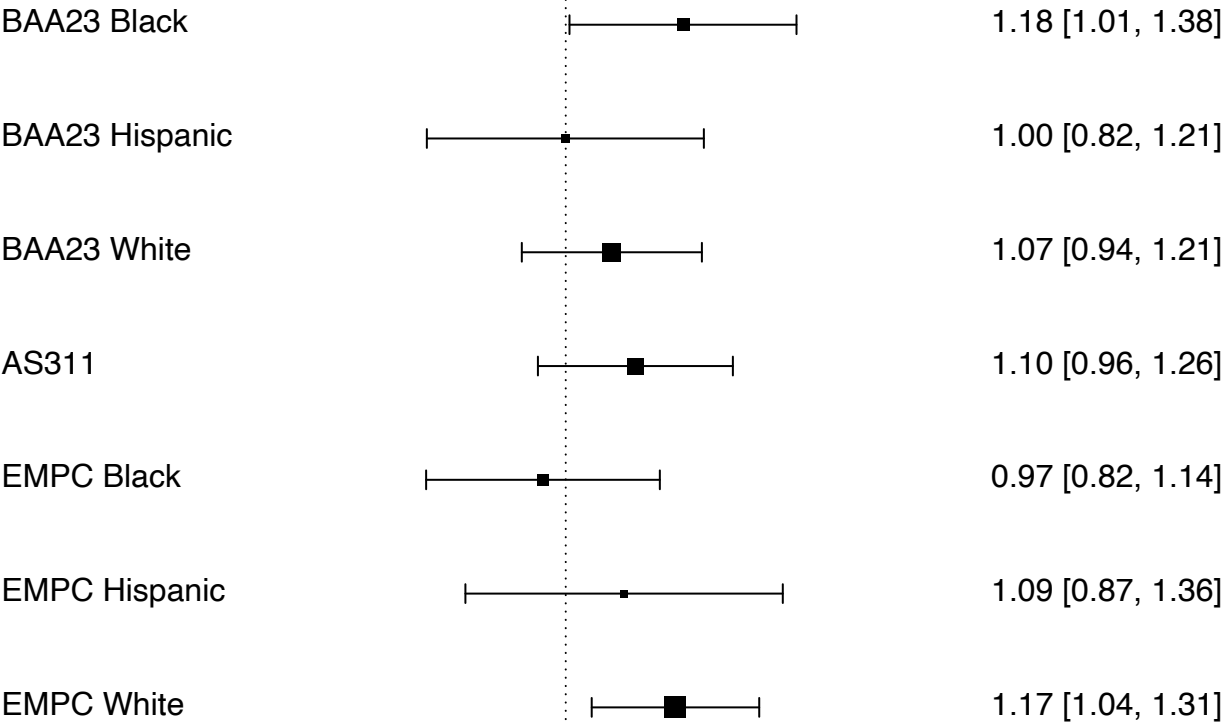
0.94 [0.84, 1.04]



PCPhenoAge arthrit

WHI studies

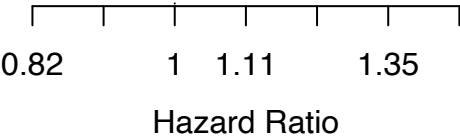
Estimate [95% CI]



FE model
Z-score = 3.04e+00
P-val = 2.39e-03
Het P-val = 5.31e-01



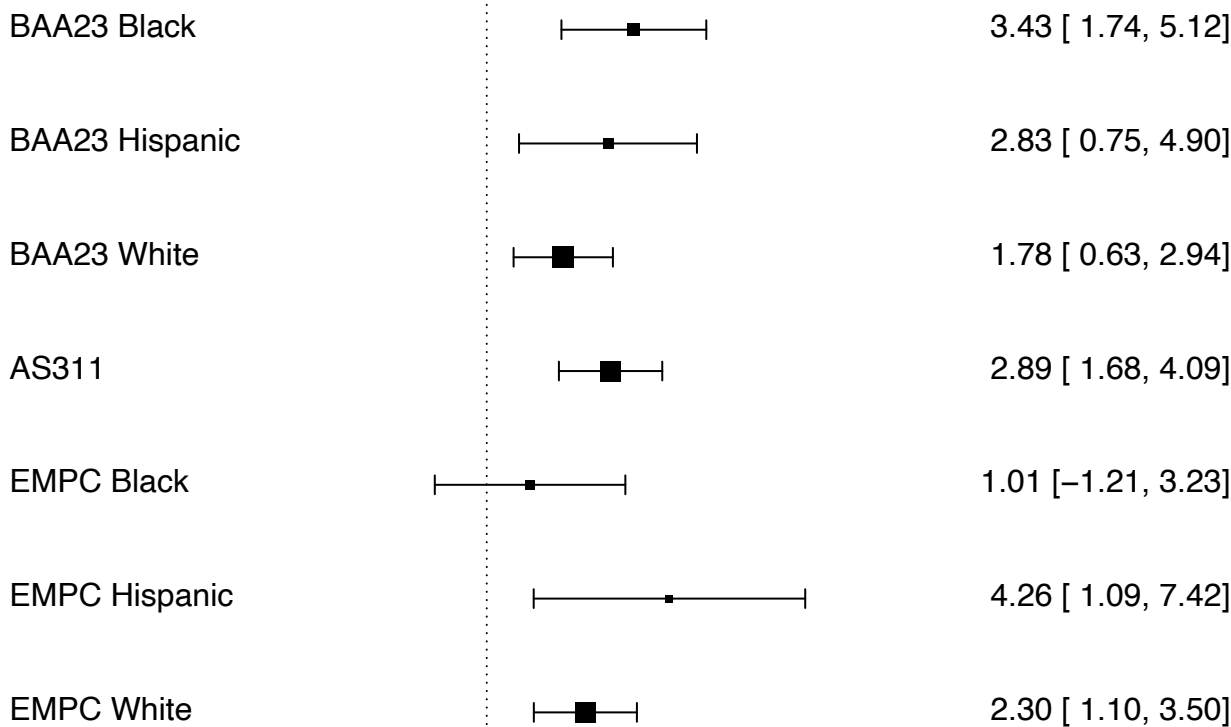
1.09 [1.03, 1.16]



PCPhenoAge 100–PHYSFUN

WHI studies

Estimate [95% CI]



FE model
Z-score = 8.36e+00
P-val = 6.41e−17
Het P-val = 4.09e−01

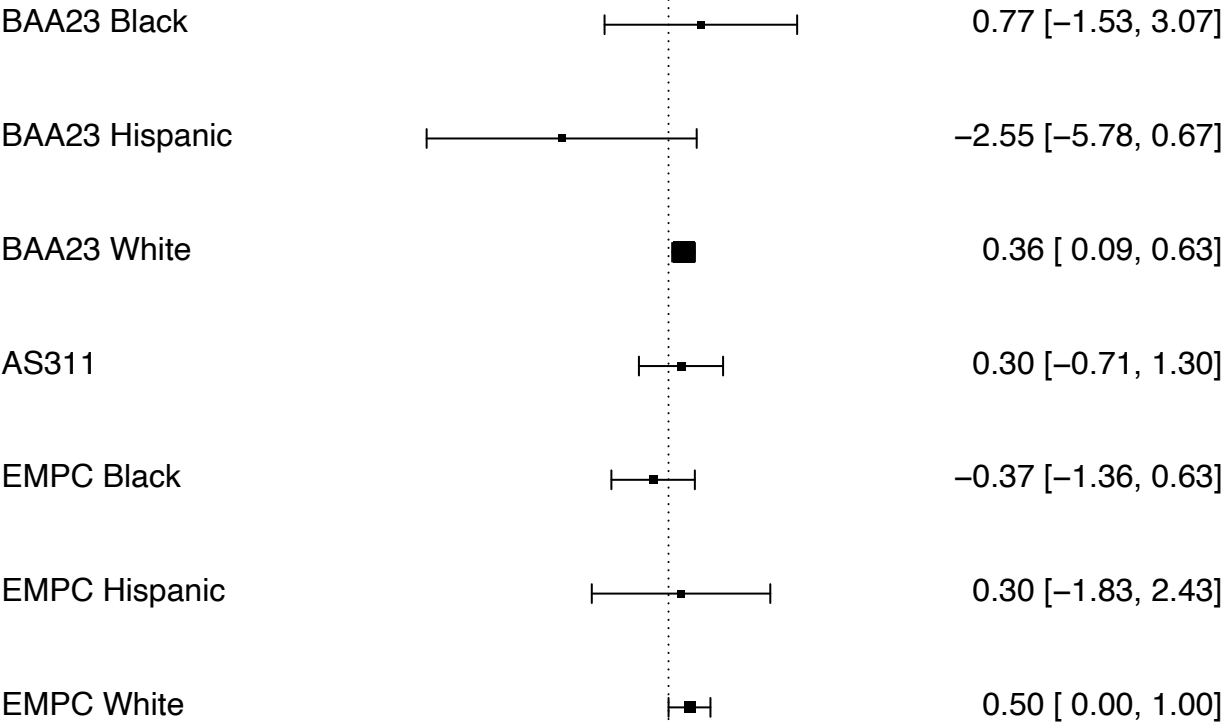
2.46 [1.88, 3.03]



PCPhenoAge 100–F393MSE

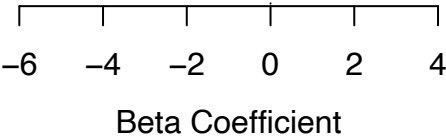
WHI studies

Estimate [95% CI]



FE model
Z-score = 2.96e+00
P-val = 3.09e-03
Het P-val = 4.71e-01

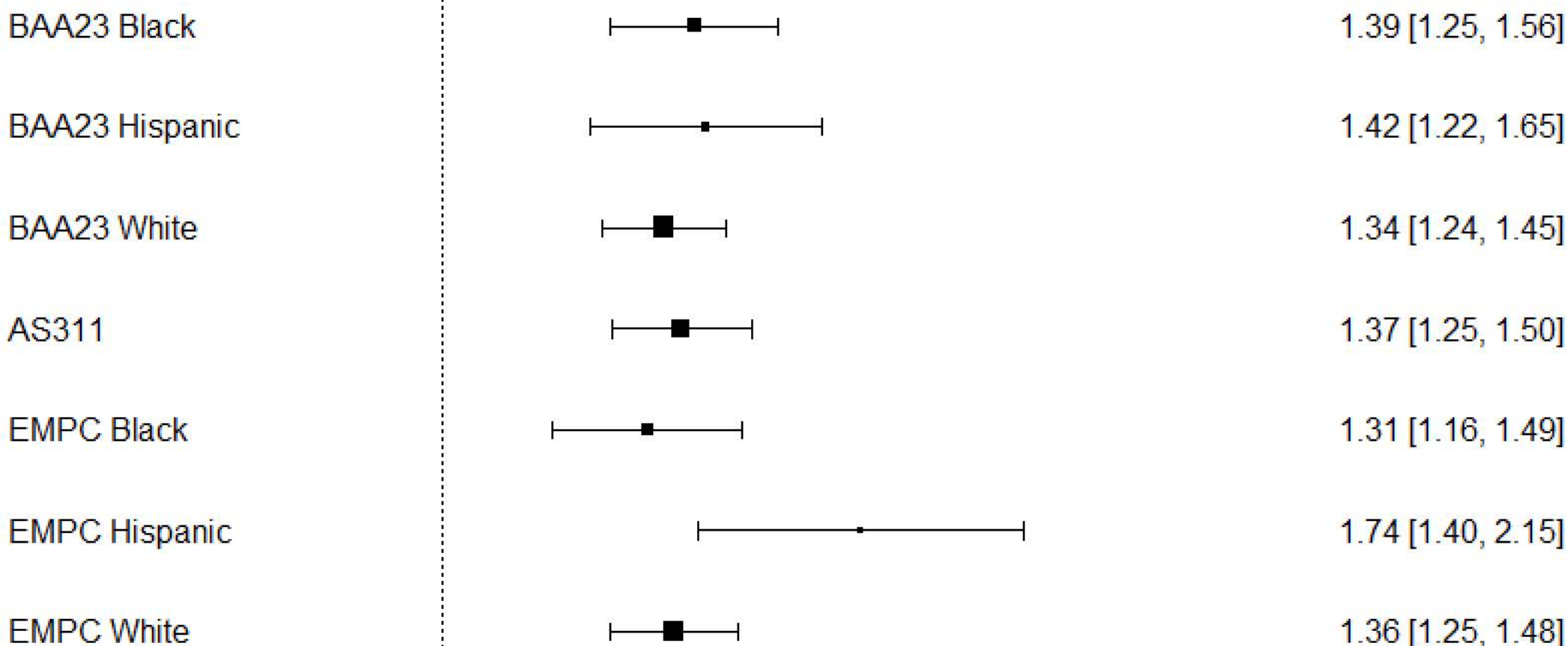
0.34 [0.11, 0.56]



Systems_Clock Mortality

WHI studies

Estimate [95% CI]



1 1.22 1.49 1.82 2.23

Hazard Ratio

Systems_Clock Comorbidities

WHI studies

Estimate [95% CI]

BAA23 Black 0.20 [0.07, 0.32]

BAA23 Hispanic 0.16 [0.02, 0.30]

BAA23 White 0.22 [0.11, 0.32]

AS311 0.12 [0.01, 0.23]

EMPC Black 0.10 [-0.02, 0.23]

EMPC Hispanic 0.10 [-0.05, 0.25]

EMPC White 0.17 [0.09, 0.26]

FE model
Z-score = 7.38e+00
P-val = 1.63e-13
Het P-val = 7.35e-01
0.16 [0.12, 0.20]

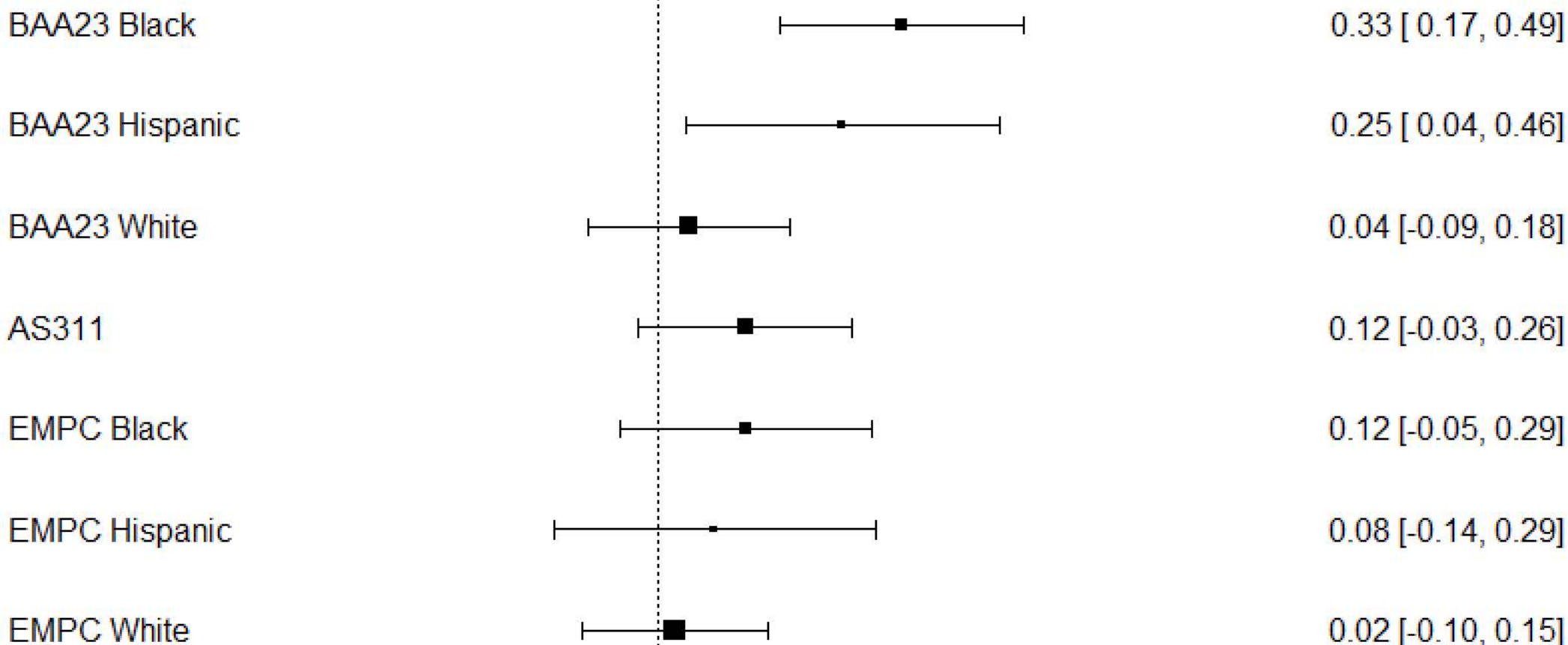
-0.1 0 0.1 0.2 0.3 0.4

Beta Coefficient

Systems_Clock NACOND

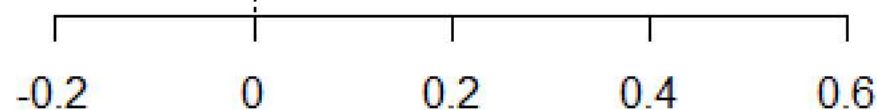
WHI studies

Estimate [95% CI]



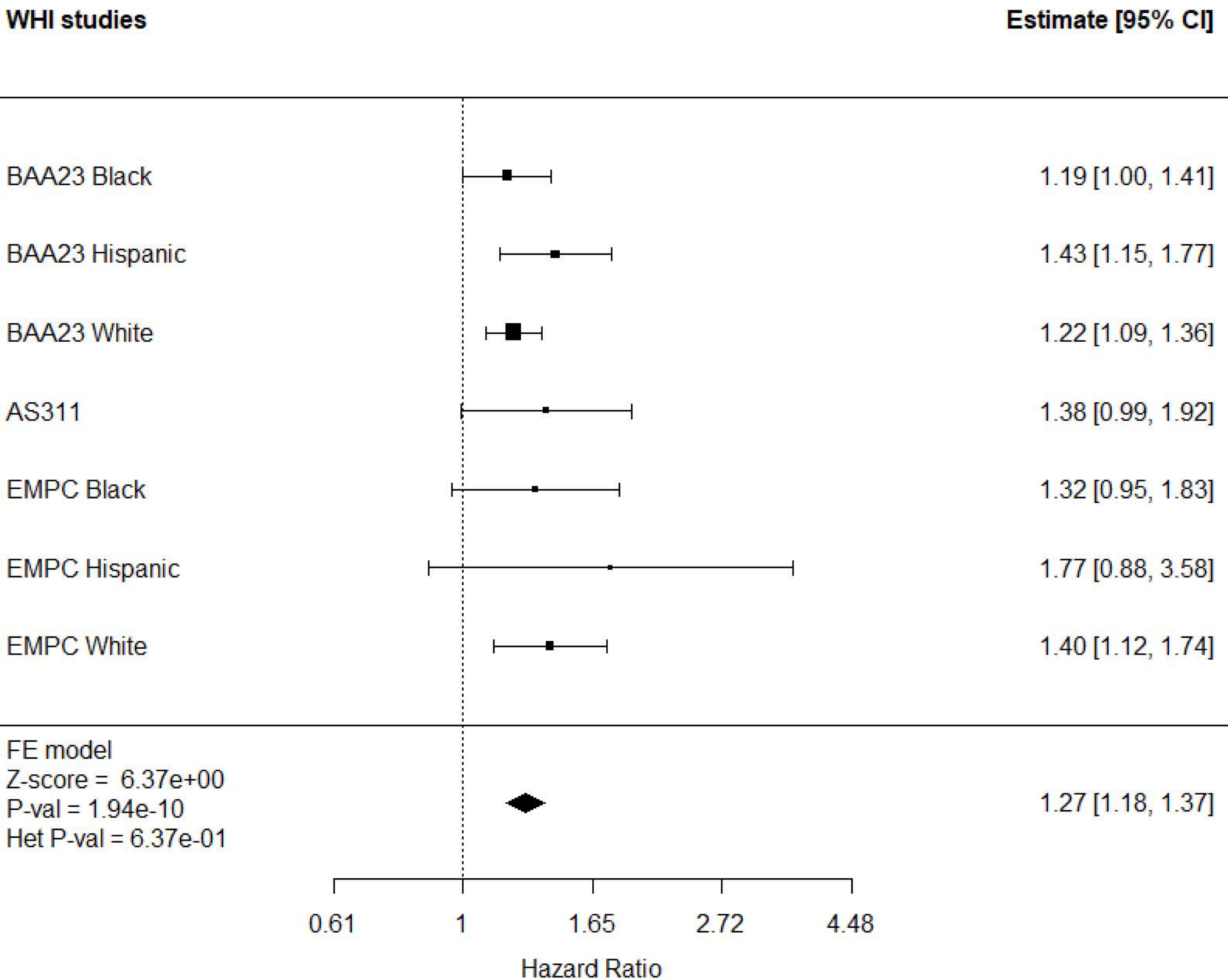
FE model
Z-score = 3.88e+00
P-val = 1.05e-04
Het P-val = 7.74e-02

0.12 [0.06, 0.18]

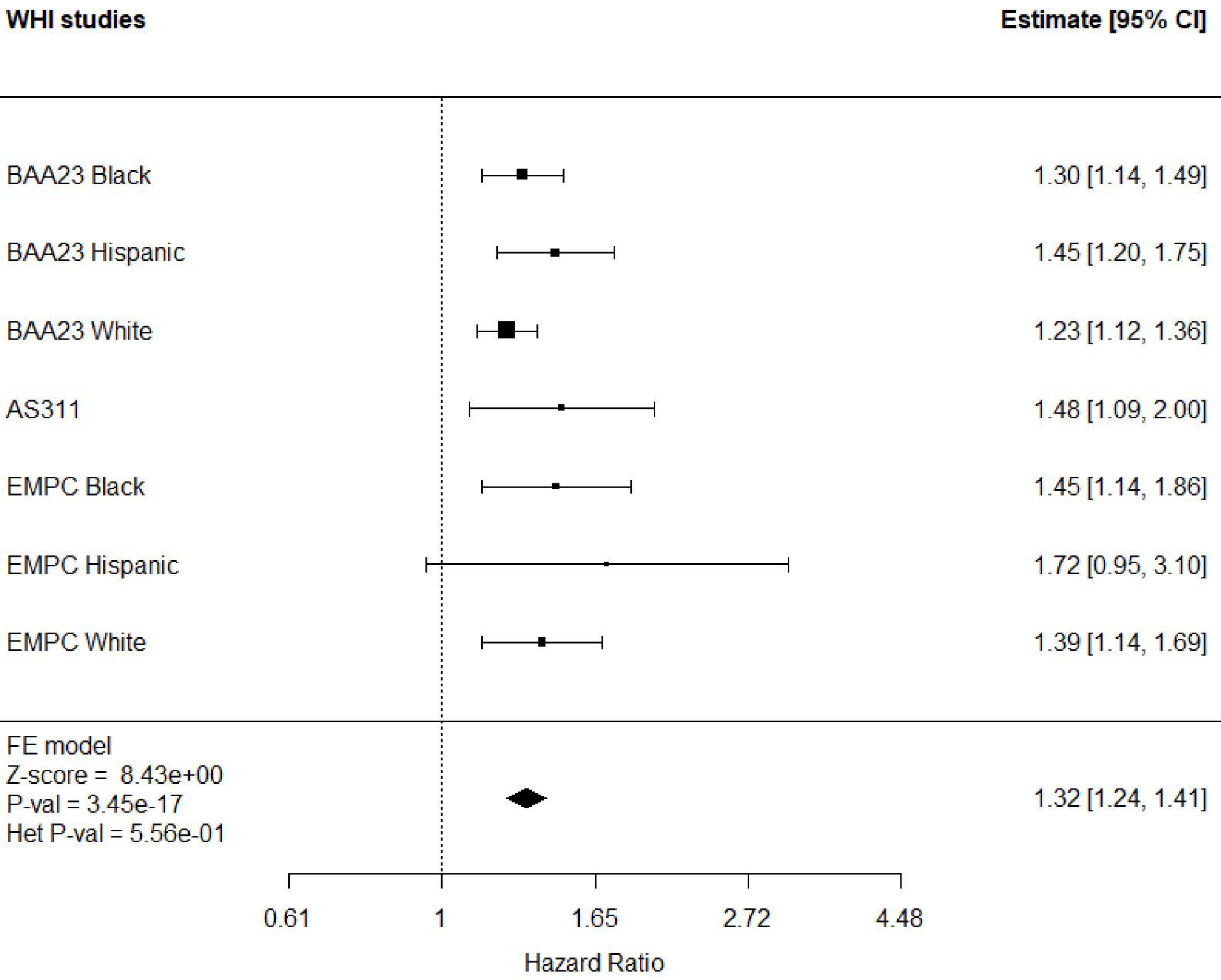


Beta Coefficient

Systems_Clock MI



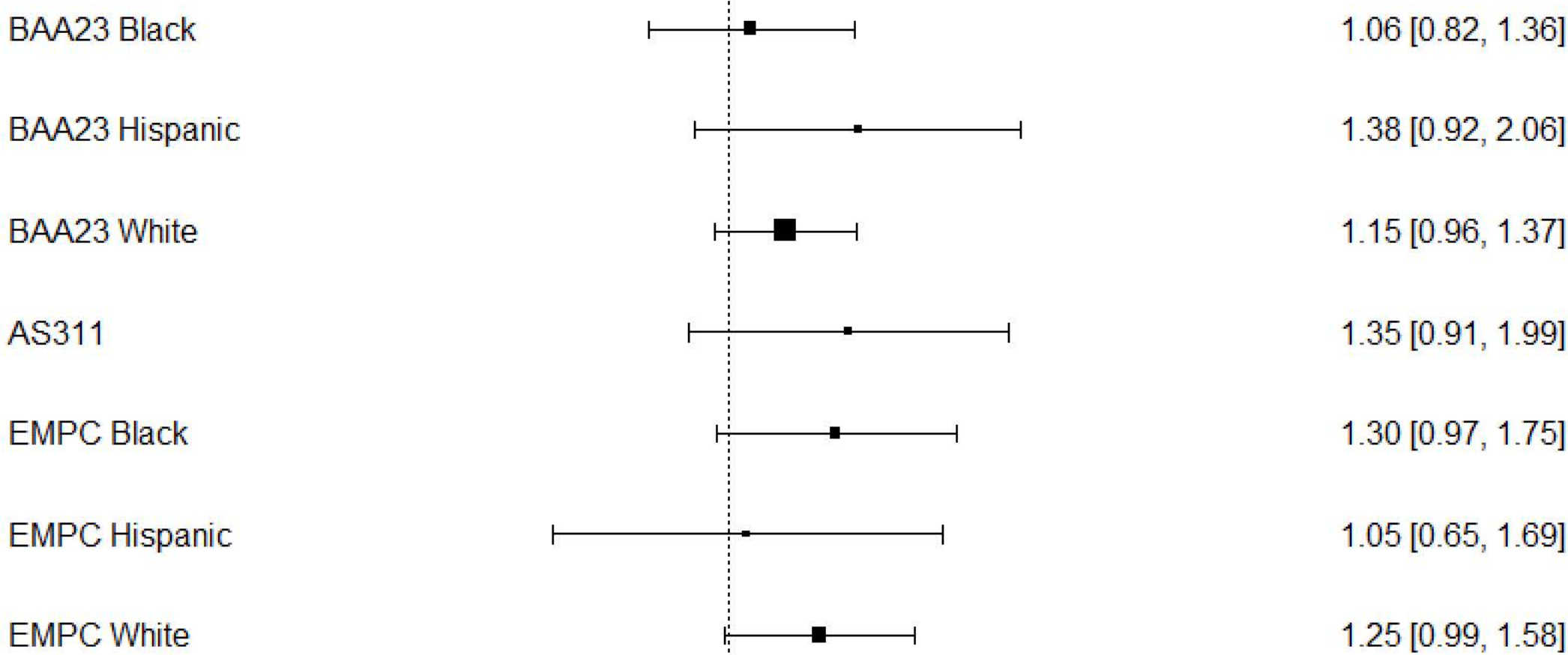
Systems_Clock CHD



Systems_Clock Stroke

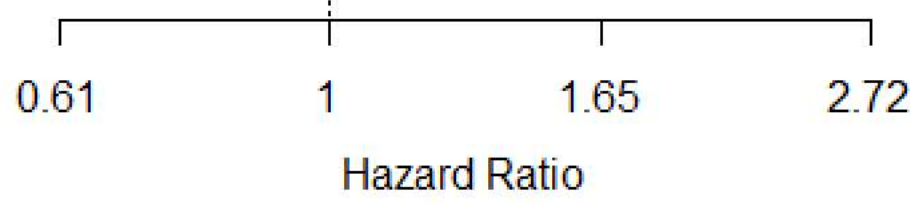
WHI studies

Estimate [95% CI]



FE model
Z-score = 3.34e+00
P-val = 8.46e-04
Het P-val = 8.48e-01

1.19 [1.07, 1.32]



Systems_Clock Cancer

WHI studies

Estimate [95% CI]

BAA23 Black 1.09 [0.91, 1.31]

BAA23 Hispanic 1.02 [0.80, 1.31]

BAA23 White 1.14 [1.00, 1.30]

AS311 1.10 [1.01, 1.21]

EMPC Black 0.97 [0.79, 1.18]

EMPC Hispanic 1.12 [0.84, 1.50]

EMPC White 1.24 [1.11, 1.39]

FE model
Z-score = 4.22e+00
P-val = 2.49e-05
Het P-val = 4.34e-01
1.12 [1.06, 1.19]

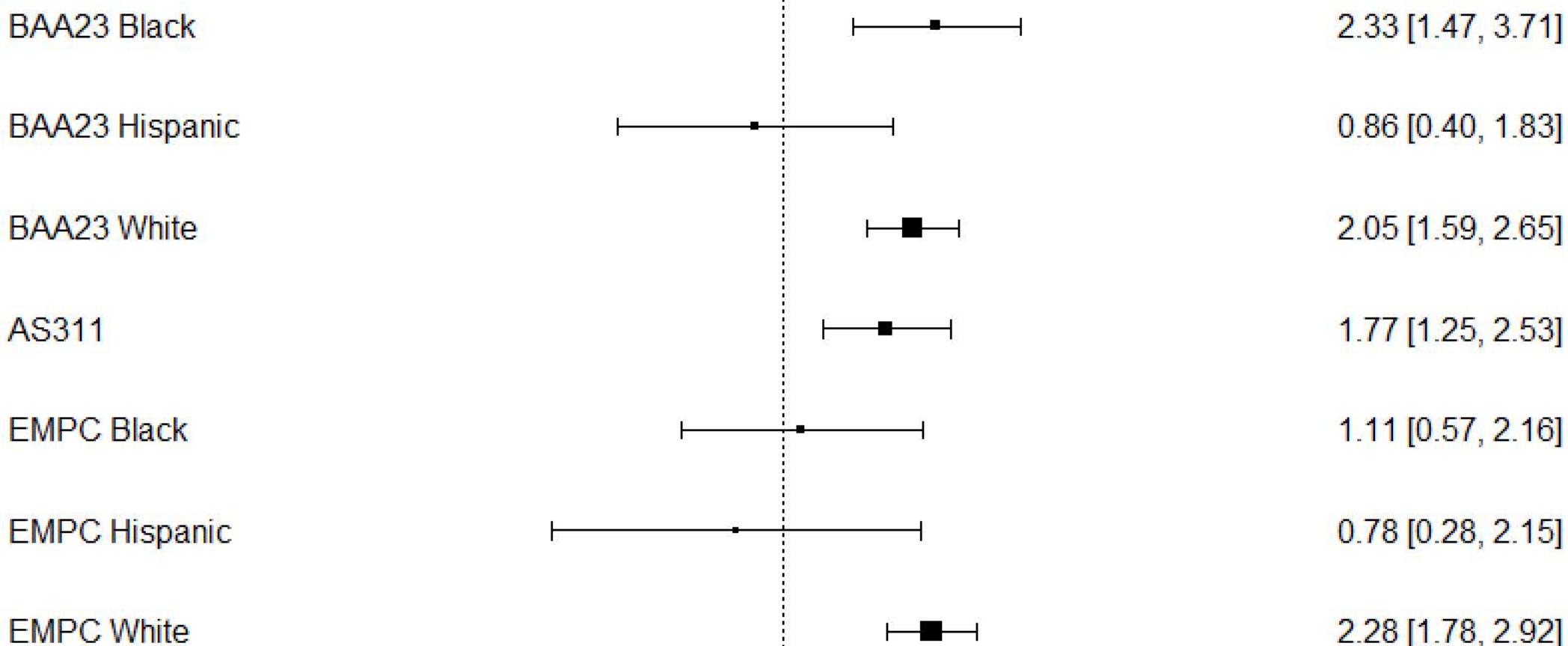
0.67 0.82 1 1.22 1.49 1.82

Hazard Ratio

Systems_Clock Lung Cancer

WHI studies

Estimate [95% CI]



FE model
Z-score = 9.18e+00
P-val = 4.13e-20
Het P-val = 4.34e-02

1.95 [1.69, 2.24]

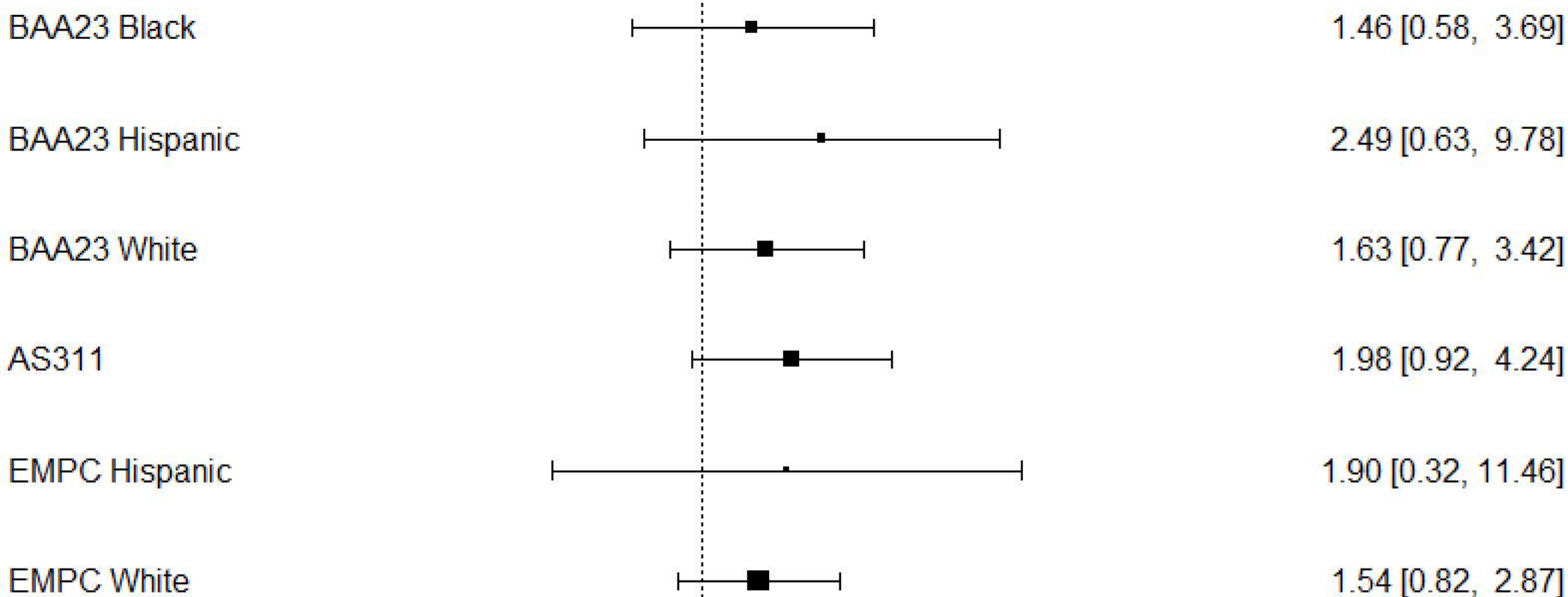
0.22 0.37 0.61 1 1.65 2.72 4.48

Hazard Ratio

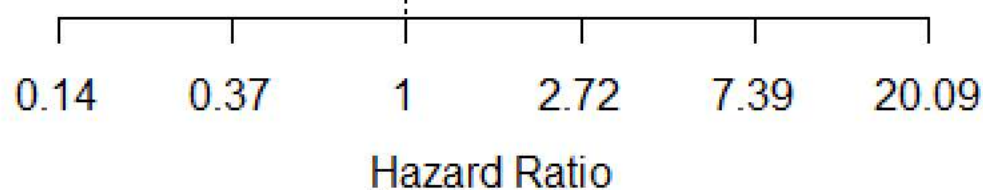
Systems_Clock LEUKEMIA

WHI studies

Estimate [95% CI]



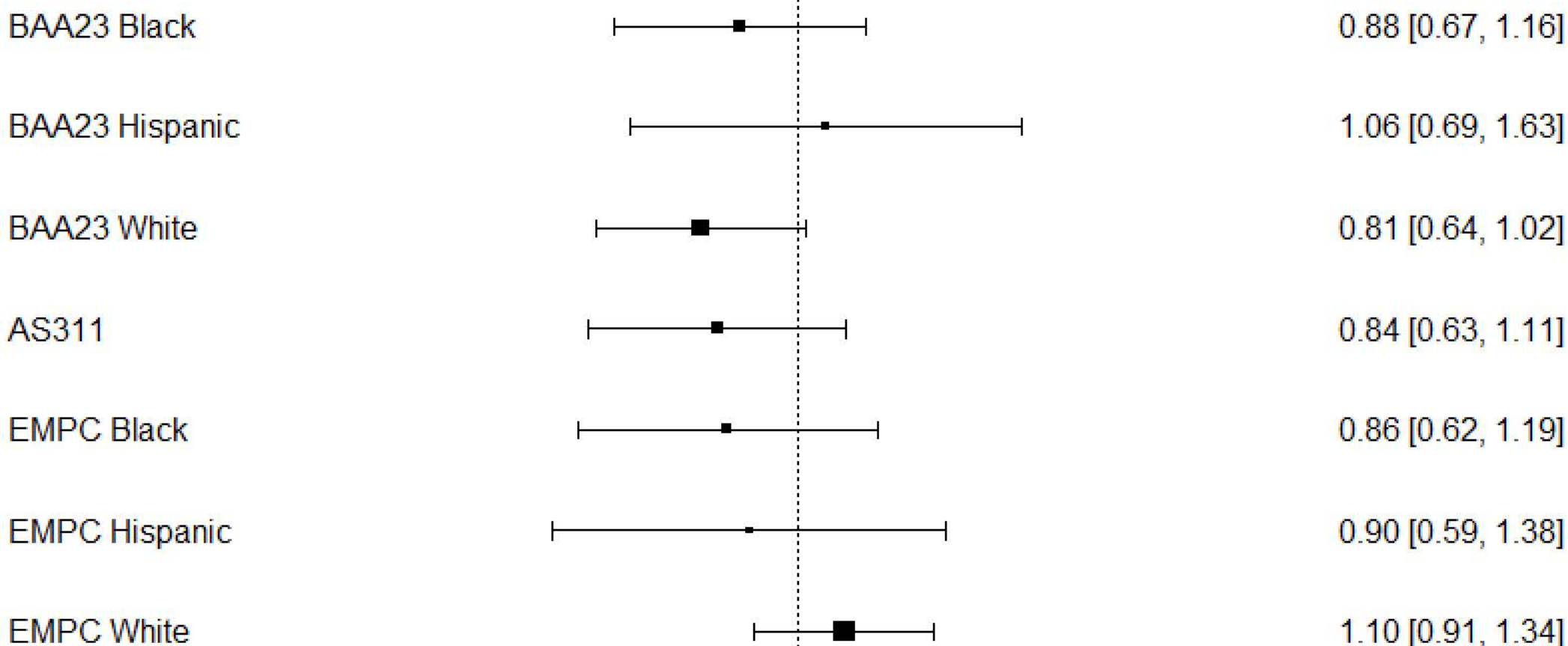
FE model
Z-score = 2.95e+00
P-val = 3.13e-03
Het P-val = 9.84e-01



Systems_Clock Breast Cancer

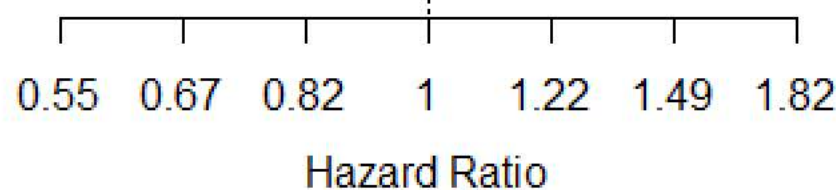
WHI studies

Estimate [95% CI]



FE model
Z-score = -1.46e+00
P-val = 1.45e-01
Het P-val = 4.56e-01

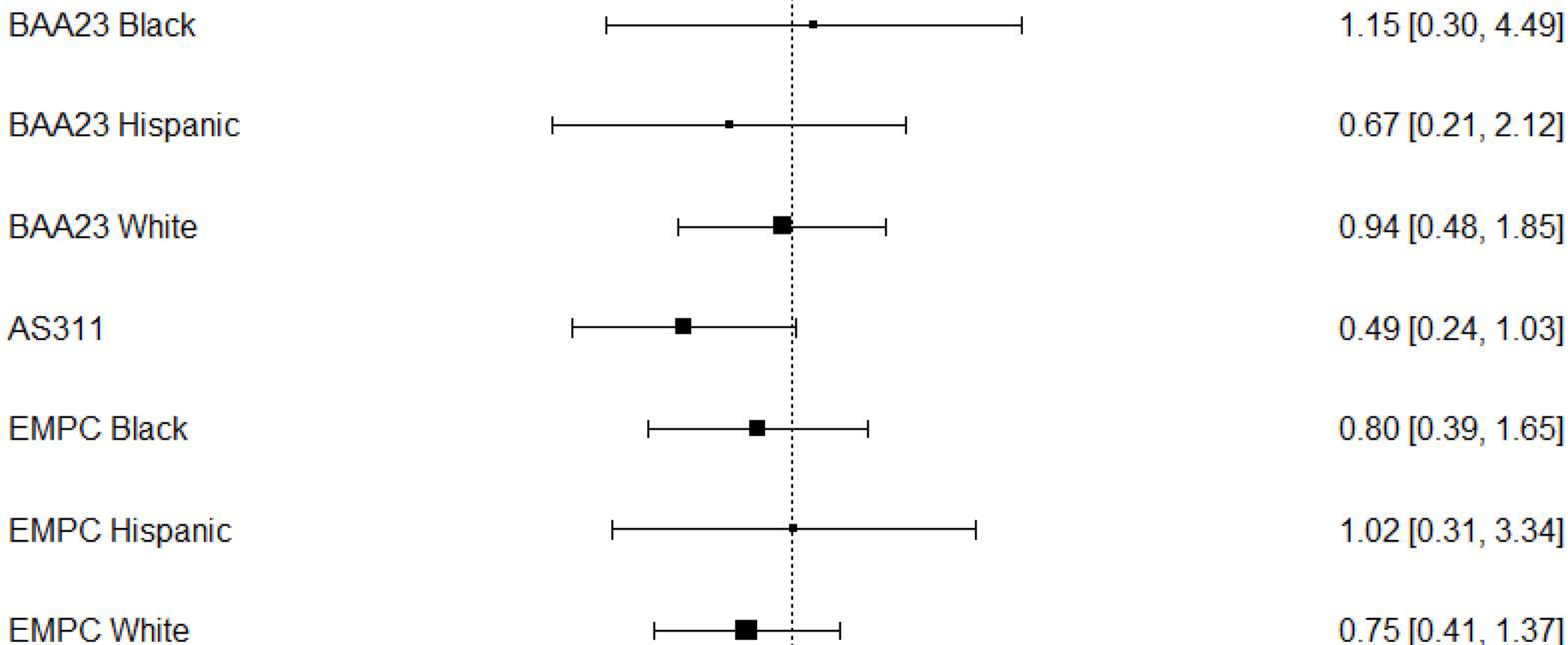
0.93 [0.83, 1.03]



Systems_Clock ENDMTRL

WHI studies

Estimate [95% CI]



FE model
Z-score = -1.73e+00
P-val = 8.35e-02
Het P-val = 8.81e-01

0.76 [0.56, 1.04]

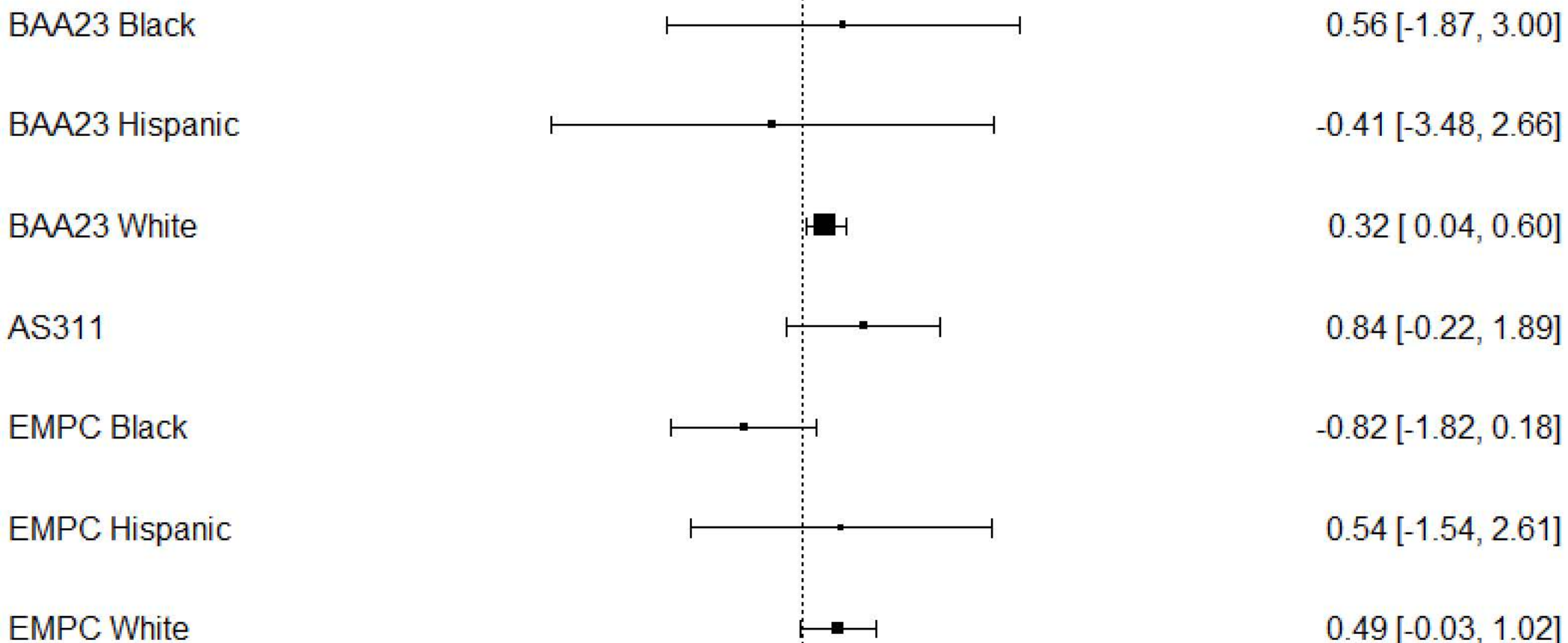
0.14 0.37 1 2.72 7.39

Hazard Ratio

Systems_Clock 100-F393MSE

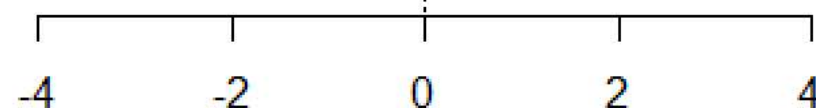
WHI studies

Estimate [95% CI]



FE model
 Z-score = 2.68e+00
 P-val = 7.26e-03
 Het P-val = 3.60e-01

0.32 [0.09, 0.55]

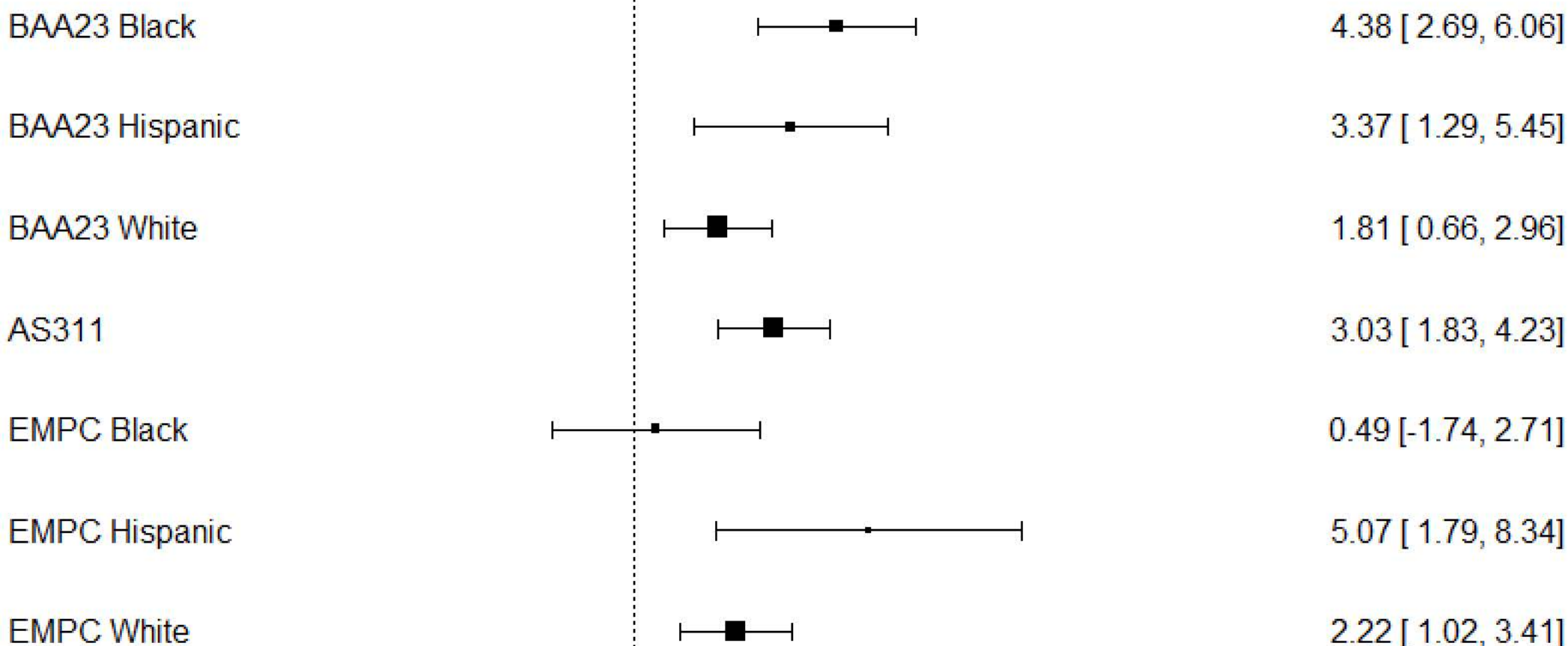


Beta Coefficient

Systems_Clock 100-PHYSFUN

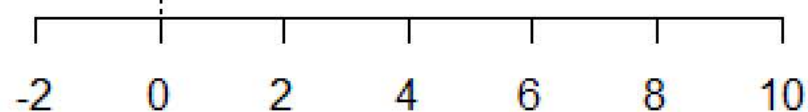
WHI studies

Estimate [95% CI]



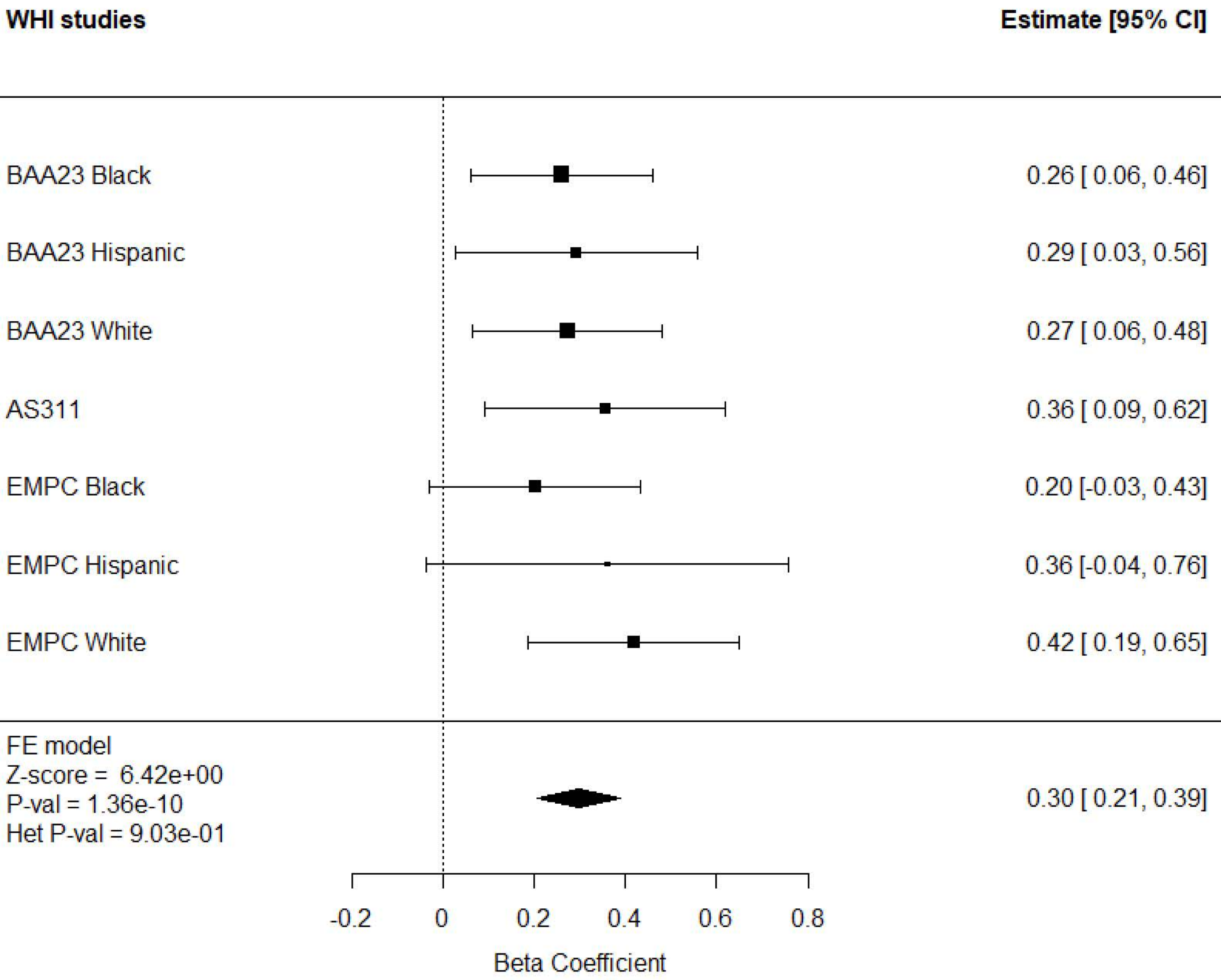
FE model
Z-score = 8.92e+00
P-val = 4.71e-19
Het P-val = 4.07e-02

2.61 [2.04, 3.19]



Beta Coefficient

Systems_Clock DIAB



Systems_Clock arthrit

WHI studies

Estimate [95% CI]

BAA23 Black 1.17 [1.00, 1.38]

BAA23 Hispanic 1.07 [0.88, 1.30]

BAA23 White 1.09 [0.96, 1.24]

AS311 1.06 [0.92, 1.21]

EMPC Black 1.01 [0.86, 1.19]

EMPC Hispanic 1.06 [0.85, 1.32]

EMPC White 1.17 [1.04, 1.31]

FE model
Z-score = 3.23e+00
P-val = 1.22e-03
Het P-val = 7.93e-01
1.10 [1.04, 1.16]

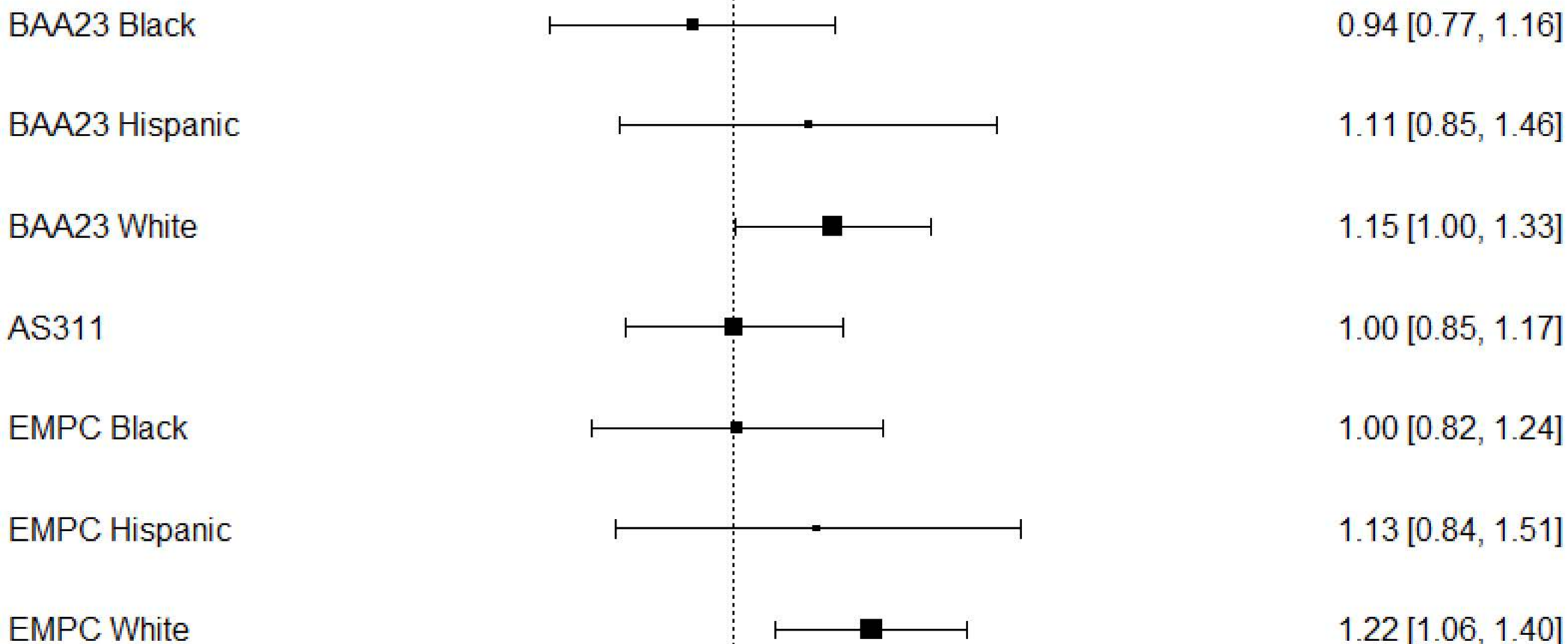
0.82 0.9 1 1.11 1.22 1.35 1.49

Hazard Ratio

Systems_Clock THYROID

WHI studies

Estimate [95% CI]



FE model
Z-score = 2.57e+00
P-val = 1.02e-02
Het P-val = 3.30e-01

1.09 [1.02, 1.17]

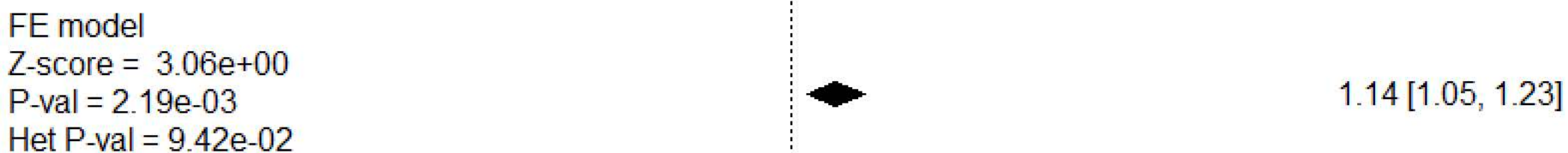
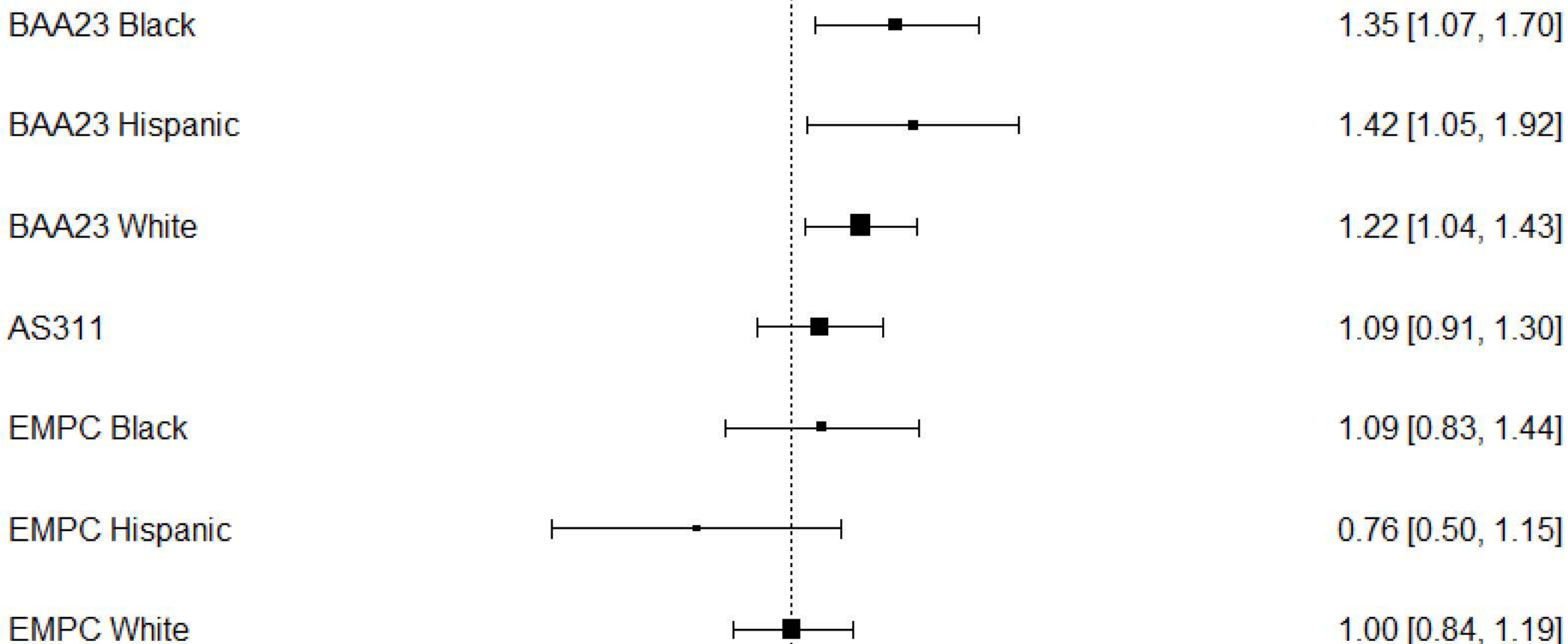
0.67 0.82 1 1.22 1.49 1.82

Hazard Ratio

Systems_Clock CATARACT

WHI studies

Estimate [95% CI]



0.37 0.61 1 1.65 2.72

Hazard Ratio