Supplemental Online Content

eFigure 1. Flowchart of Inclusion and Exclusion of the Study Population

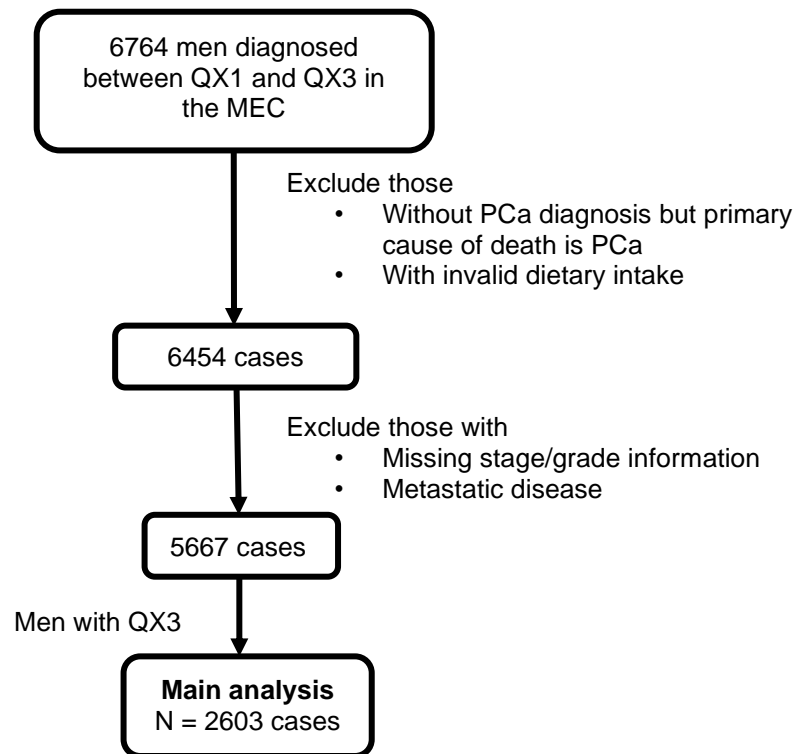**eFigure 2.** Dietary Indices Correlations Between QX1 and QX3 and at QX3 in the MEC (N = 2603)

eFigure 3. Causes of Death After Diagnosis Among Men With Nonmetastatic Prostate Cancer in the MEC (N = 2603)

eFigure 4. Distributions of Healthy Lifestyle Scores and Dietary Indices Among Men With Nonmetastatic Prostate Cancer in the MEC, Overall and by Race and Ethnicity (N = 2603)

eFigure 5. Change in Healthy Lifestyle Scores and Dietary Indices from Pre and Post Diagnosis and Mortality Among Men With Nonmetastatic Prostate Cancer in the MEC (N = 2603)
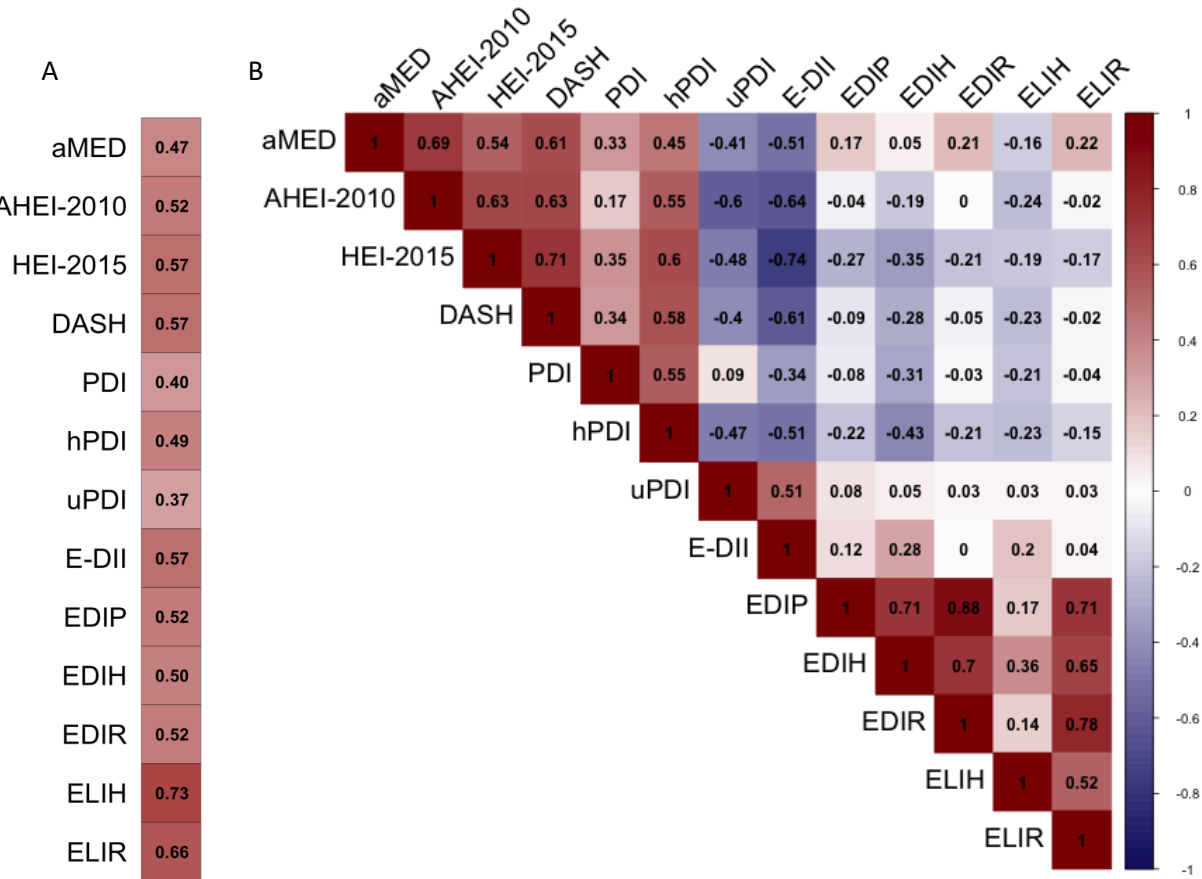
This supplemental material has been provided by the authors to give readers additional information about their work.

eFigure 1. Flowchart of Inclusion and Exclusion of the Study Population

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        ┌─────────────────────────┐
        │  6764 men diagnosed     │
        │  between QX1 and QX3 in │
        │       the MEC           │
        └─────────────────────────┘
                    │
                    │          Exclude those
                    │            •  Without PCa diagnosis but primary
                    │               cause of death is PCa
                    ▼            •  With invalid dietary intake
        ┌─────────────────────────┐
        │      6454 cases         │
        └─────────────────────────┘
                    │
                    │          Exclude those with
                    │            •  Missing stage/grade information
                    │            •  Metastatic disease
                    ▼
        ┌─────────────────────────┐
        │      5667 cases         │
        └─────────────────────────┘
                    │
  Men with QX3      │
                    ▼
        ┌─────────────────────────┐
        │     **Main analysis**   │
        │     N = 2603 cases      │
        └─────────────────────────┘
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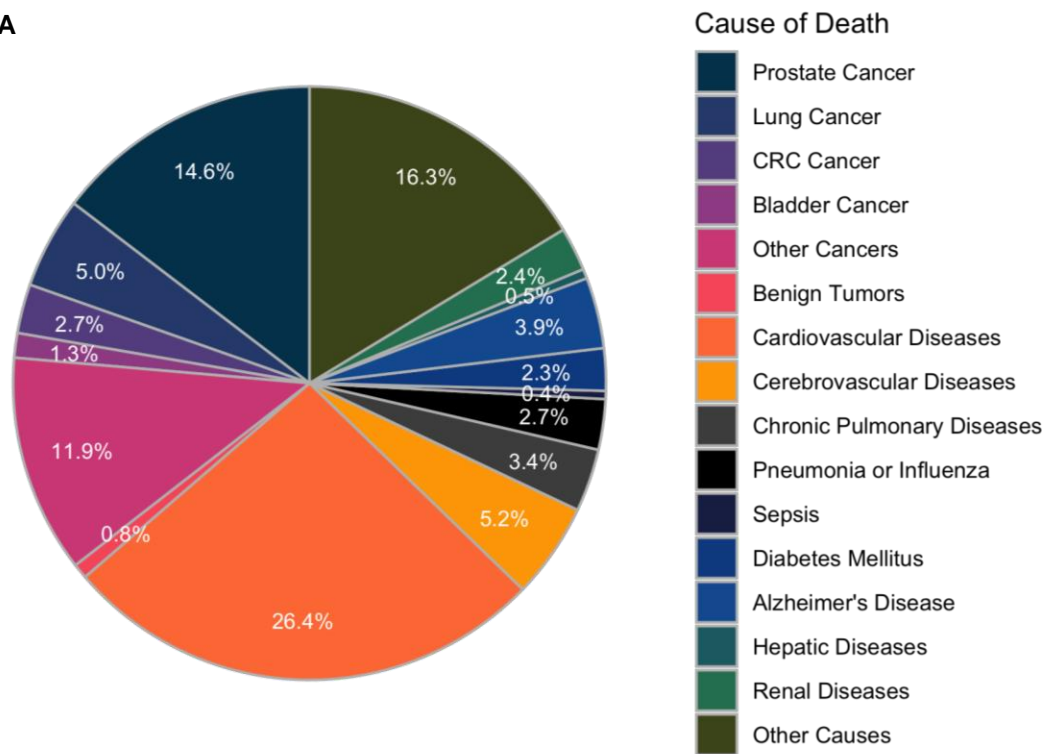# eFigure 2. Dietary Indices Correlations Between QX1 and QX3 and at QX3 in the MEC (N = 2603)

A. Correlation between dietary indices at QX1 and QX3; B.Correlation matrix of dietary indices for QX3. Square colors denote correlation magnitude, with darker colors indicating stronger correlations. Pearson correlation coefficients are displayed within each square.
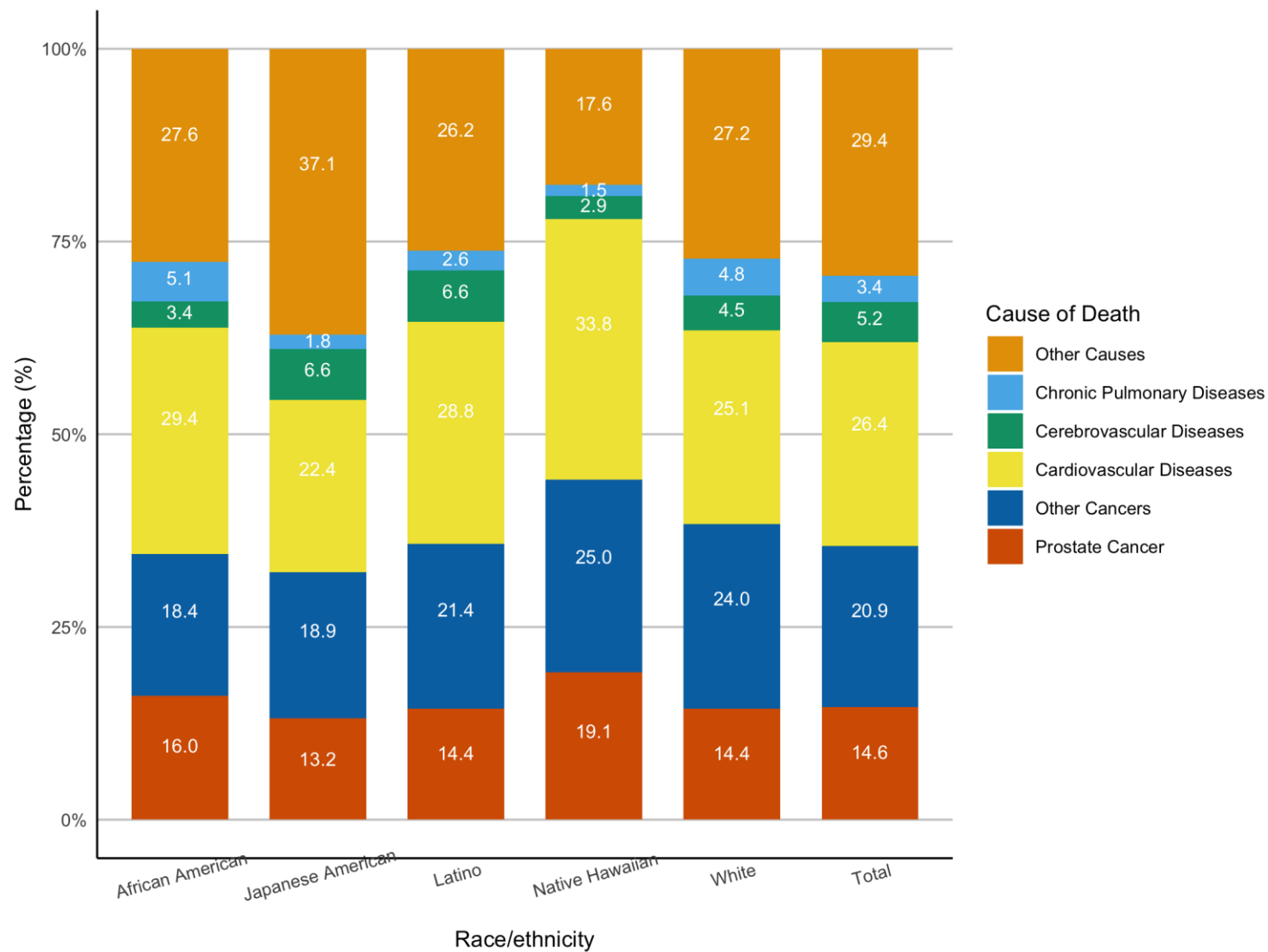
A	
aMED	0.47
AHEI-2010	0.52
HEI-2015	0.57
DASH	0.57
PDI	0.40
hPDI	0.49
uPDI	0.37
E-DII	0.57
EDIP	0.52
EDIH	0.50
EDIR	0.52
ELIH	0.73
ELIR	0.66

B.

	aMED	AHEI-2010	HEI-2015	DASH	PDI	hPDI	uPDI	E-DII	EDIP	EDIH	EDIR	ELIH	ELIR
aMED	1	0.69	0.54	0.61	0.33	0.45	-0.41	-0.51	0.17	0.05	0.21	-0.16	0.22
AHEI-2010		1	0.63	0.63	0.17	0.55	-0.6	-0.64	-0.04	-0.19	0	-0.24	-0.02
HEI-2015			1	0.71	0.35	0.6	-0.48	-0.74	-0.27	-0.35	-0.21	-0.19	-0.17
DASH				1	0.34	0.58	-0.4	-0.61	-0.09	-0.28	-0.05	-0.23	-0.02
PDI					1	0.55	0.09	-0.34	-0.08	-0.31	-0.03	-0.21	-0.04
hPDI						1	-0.47	-0.51	-0.22	-0.43	-0.21	-0.23	-0.15
uPDI							1	0.51	0.08	0.05	0.03	0.03	0.03
E-DII								1	0.12	0.28	0	0.2	0.04
EDIP									1	0.71	0.88	0.17	0.71
EDIH										1	0.7	0.36	0.65
EDIR											1	0.14	0.78
ELIH												1	0.52
ELIR													1

eFigure 3. Causes of Death After Diagnosis Among Men With Nonmetastatic Prostate Cancer in the MEC (N = 2603)

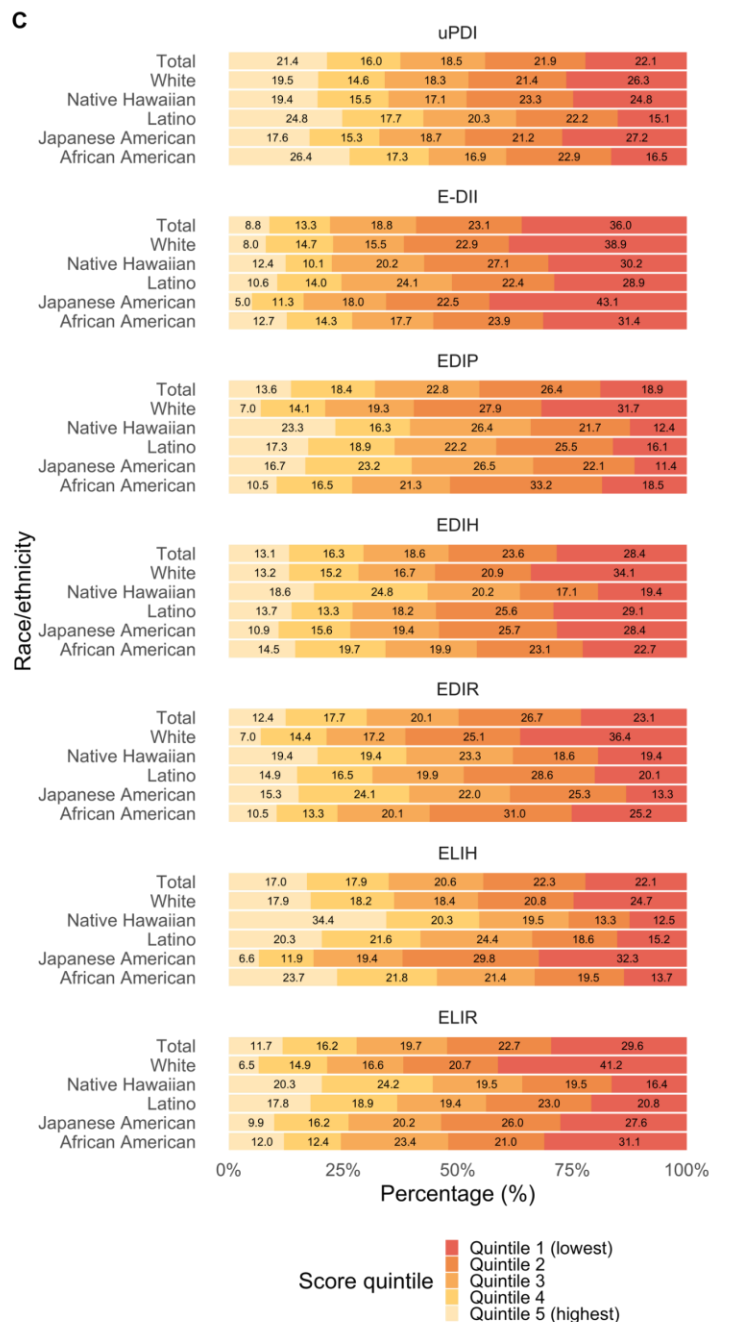A. Causes of death in total population; B. Causes of death by race and ethnicity

A

Cause of Death

- Prostate Cancer
- Lung Cancer
- CRC Cancer
- Bladder Cancer
- Other Cancers
- Benign Tumors
- Cardiovascular Diseases
- Cerebrovascular Diseases
- Chronic Pulmonary Diseases
- Pneumonia or Influenza
- Sepsis
- Diabetes Mellitus
- Alzheimer's Disease
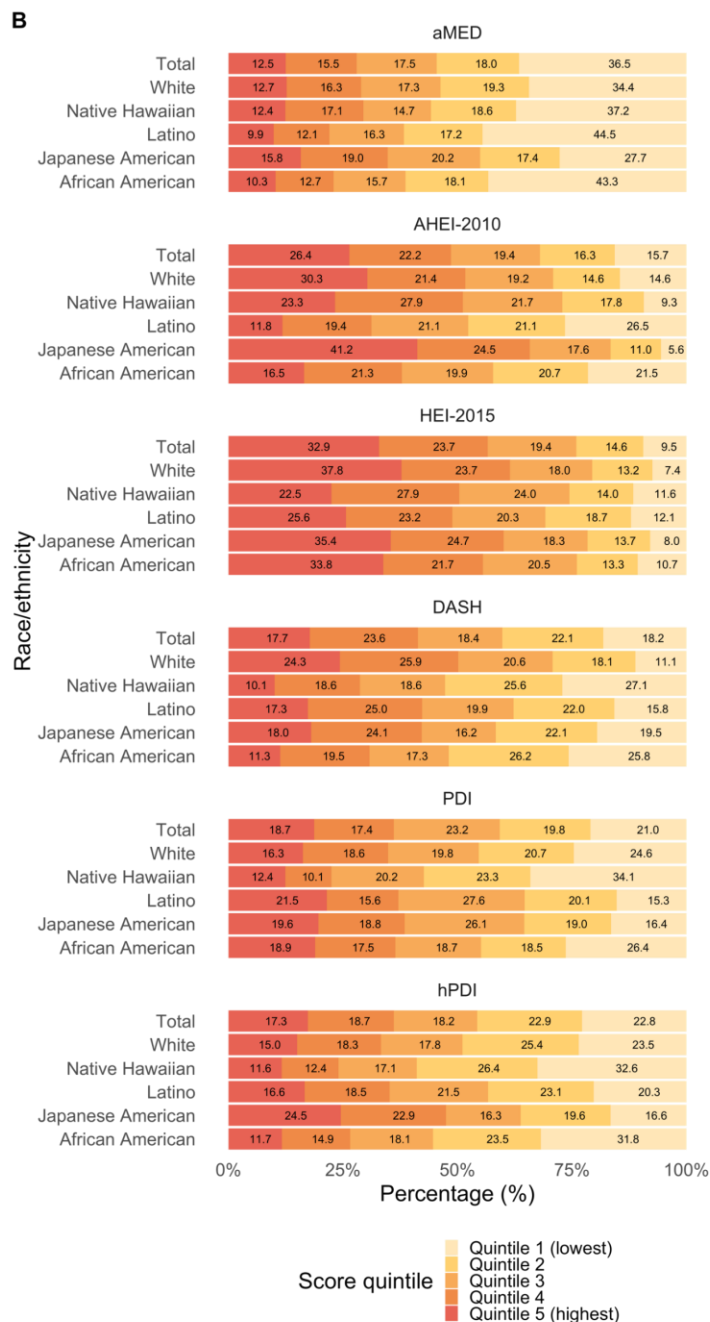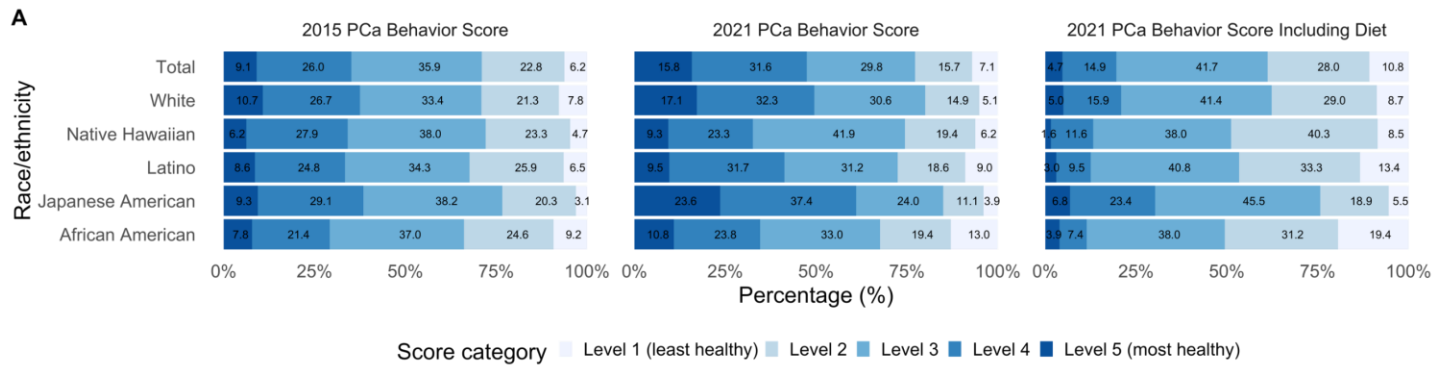- Hepatic Diseases
- Renal Diseases
- Other Causes

B

eFigure 4. Distributions of Healthy Lifestyle Scores and Dietary Indices Among Men With Nonmetastatic Prostate Cancer in the MEC, Overall and by Race and Ethnicity (N = 2603)
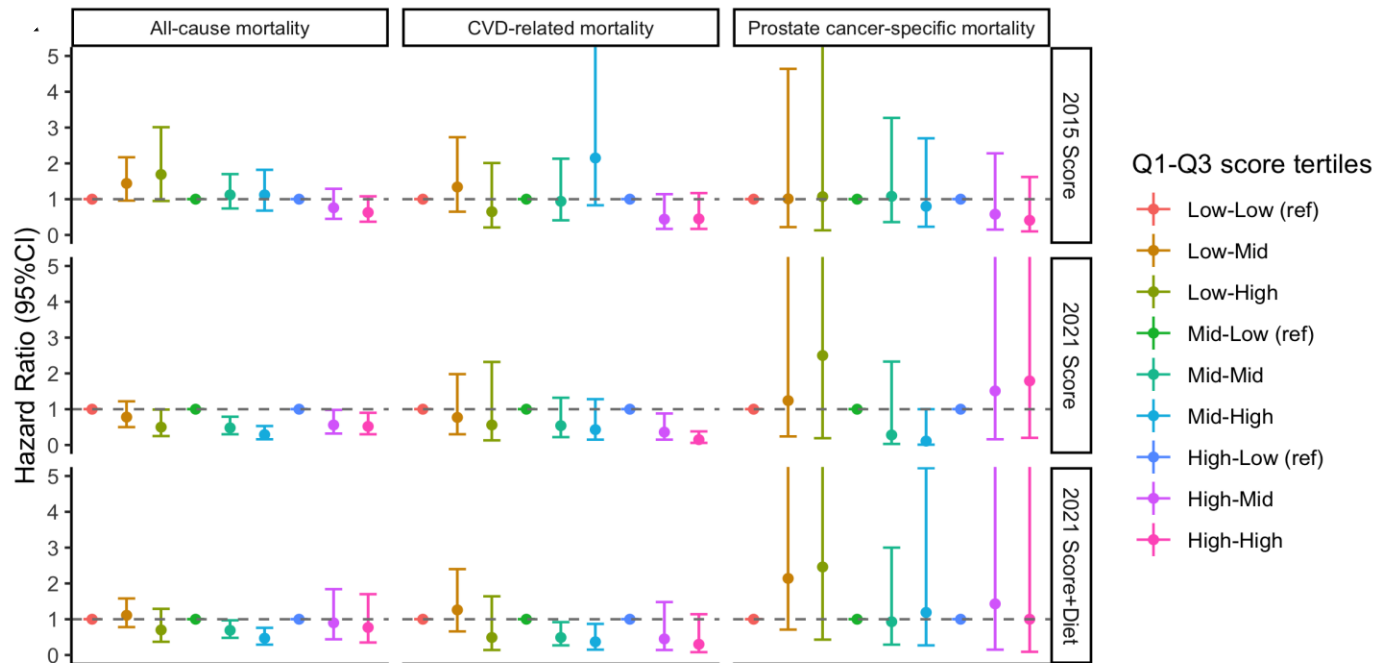
A. Healthy lifestyle scores. Three lifestyle scores were used to assess healthy behaviors related to prostate cancer: 2015 PCa Behavior Score (Point ranges for level 1 to level 5: 0-1, 2, 3, 4, 5-6), 2021 PCa Behavior Score (point ranges for level 1 to level 5: 0-1, 1.5, 2, 2.5, 3), and 2021 PCa Behavior Score Including Diet (point ranges: 0-1.5, 1.75-2.25, 2.5-3, 3.25-3.5, 3.75-4). B. Healthy dietary indices. Higher scores correspond to healthier dietary patterns, with quitiles based on the overall MEC population distribution. C. Adverse dietary indices. Higher scores indicate dietary patterns associated with poorer health outcomes.

A

2015 PCa Behavior Score

Race/ethnicity					
Total	9.1	26.0	35.9	22.8	6.2
White	10.7	26.7	33.4	21.3	7.8
Native Hawaiian	6.2	27.9	38.0	23.3	4.7
Latino	8.6	24.8	34.3	25.9	6.5
Japanese American	9.3	29.1	38.2	20.3	3.1
African American	7.8	21.4	37.0	24.6	9.2

2021 PCa Behavior Score

Total	15.8	31.6	29.8	15.7	7.1
White	17.1	32.3	30.6	14.9	5.1
Native Hawaiian	9.3	23.3	41.9	19.4	6.2
Latino	9.5	31.7	31.2	18.6	9.0
Japanese American	23.6	37.4	24.0	11.1	3.9
African American	10.8	23.8	33.0	19.4	13.0

2021 PCa Behavior Score Including Diet

Total	4.7	14.9	41.7	28.0	10.8
White	5.0	15.9	41.4	29.0	8.7
Native Hawaiian	1.6	11.6	38.0	40.3	8.5
Latino	3.0	9.5	40.8	33.3	13.4
Japanese American	6.8	23.4	45.5	18.9	5.5
African American	3.9	7.4	38.0	31.2	19.4

Score category Level 1 (least healthy) Level 2 Level 3 Level 4 Level 5 (most healthy)

B

C
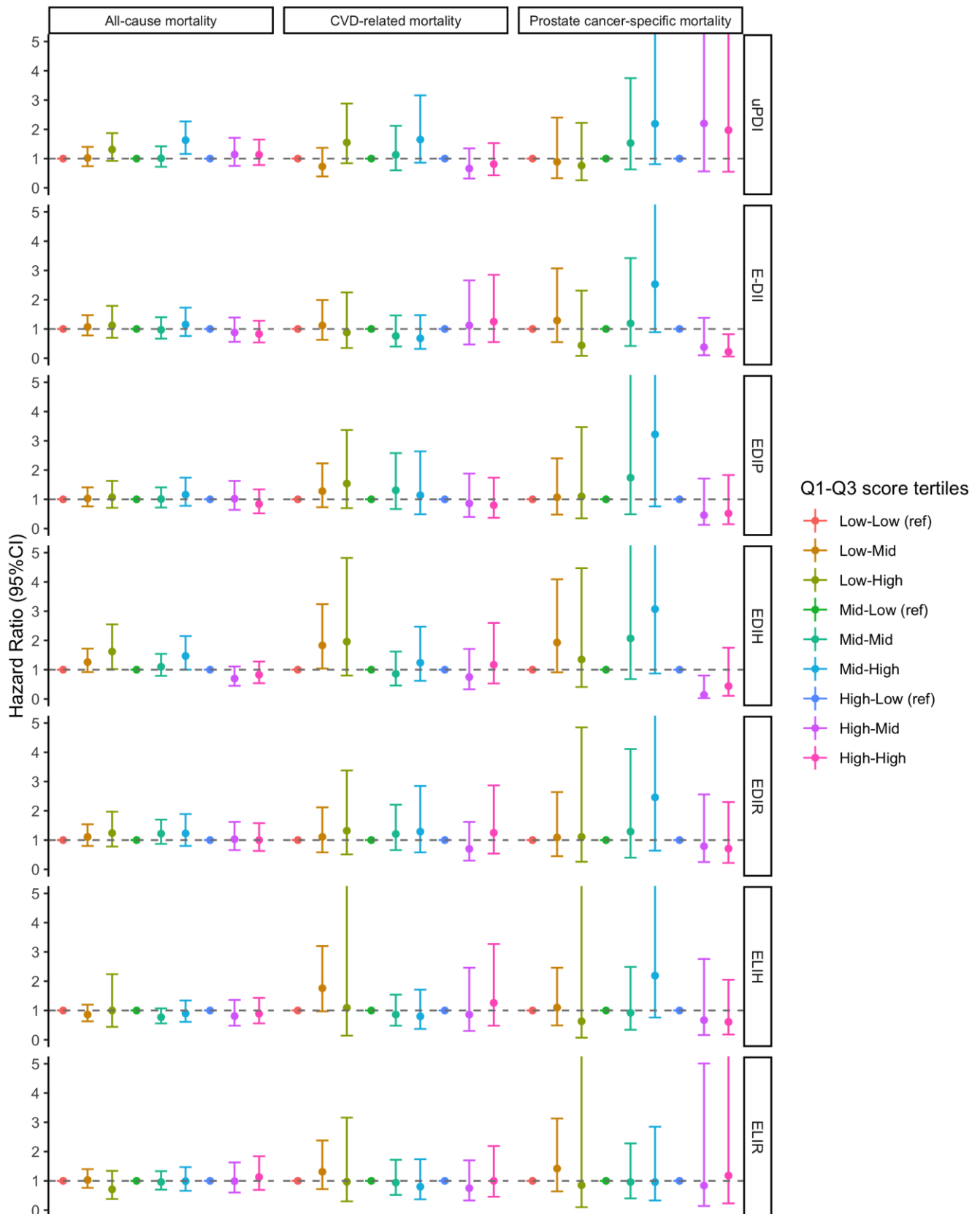
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eFigure 5. Change in Healthy Lifestyle Scores and Dietary Indices From Pre and Post Diagnosis and Mortality Among Men With Nonmetastatic Prostate Cancer in the MEC (N = 2603)

A. Healthy lifestyle scores. B. Healthy dietary indices. Higher scores correspond to healthier dietary patterns. C. Adverse dietary indices. Higher scores indicate dietary patterns associated with poorer health outcomes. Tertiles were based on men included in the analysis. Models were adjusted for age at diagnosis, education, race and ethnicity, family history of prostate cancer, total calories intake at QX3, prostate cancer stage, grade, treatments, and other dietary factors not included in the scores.

A

B

All-cause mortality | CVD-related mortality | Prostate cancer-specific mortality

uPDI
E-DII
EDIP
EDIH
EDIR
ELIH
ELIR

Hazard Ratio (95%CI)

Q1-Q3 score tertiles

- Low-Low (ref)
- Low-Mid
- Low-High
- Mid-Low (ref)
- Mid-Mid
- Mid-High
- High-Low (ref)
- High-Mid
- High-High

C