

**Supplementary Table S1. Associations of participants' characteristics with sepsis and all-cause mortality among all participants in the Multiethnic Cohort, by sex and race/ethnicity.**

Race/ Ethnicity	Characteristic / Level	Men and women					Men					Women				
		Sepsis		Other-cause		Relative risk ratio HR LCL UCL	Sepsis		Other-cause		Relative risk ratio HR LCL UCL	Sepsis		Other-cause		Relative risk ratio HR LCL UCL
		HR	HR	HR	HR		HR	HR	HR	HR		HR	HR	HR	HR	
All races/ethnicities																
BMI																
< 22		<b>1.20</b>	<b>1.24</b>				<b>1.55</b>	<b>1.30</b>				0.99	<b>1.21</b>			
22 - 24.9		1.00	(reference)				1.00	(reference)				1.00	(reference)			
25 - 29.9		1.04	1.01				1.11	1.00				0.93	1.03			
30 or higher		<b>1.93</b>	<b>1.30</b>	<b>1.48</b>	<b>1.03</b>	<b>2.11</b>	<b>1.87</b>	<b>1.32</b>	<b>1.87</b>	<b>1.15</b>	<b>3.04</b>	<b>1.94</b>	<b>1.23</b>	1.17	0.69	2.01
Education																
High school or less		1.00	(reference)				1.00	(reference)				1.00	(reference)			
Some college		1.03	<b>0.93</b>				0.99	<b>0.92</b>				1.10	<b>0.95</b>			
College degree or higher		<b>0.70</b>	<b>0.77</b>	1.01	0.76	1.35	<b>0.70</b>	<b>0.75</b>	1.01	0.69	1.48	<b>0.73</b>	<b>0.82</b>	1.04	0.67	1.60
Tobacco smoking																
Never smoker		1.00	(reference)				1.00	(reference)				1.00	(reference)			
Past smoker		1.11	<b>1.29</b>				1.13	<b>1.31</b>				1.09	<b>1.29</b>			
Current smoker		<b>2.21</b>	<b>2.42</b>	<b>0.79</b>	<b>0.63</b>	<b>0.99</b>	<b>2.36</b>	<b>2.43</b>	0.84	0.60	1.17	<b>2.00</b>	<b>2.40</b>	<b>0.71</b>	<b>0.51</b>	<b>0.98</b>
Alcohol drinking (g/d)																
None		1.00	(reference)				1.00	(reference)				1.00	(reference)			
< 14		<b>0.71</b>	<b>0.86</b>				<b>0.72</b>	<b>0.86</b>				<b>0.69</b>	<b>0.86</b>			
14 or more		0.91	<b>0.93</b>	0.81	0.65	1.01	0.94	<b>0.94</b>	0.84	0.63	1.12	0.77	<b>0.87</b>	0.70	0.47	1.05
Physical activity (AC mets/d)																
< 2.5		1.00	(reference)				1.00	(reference)				1.00	(reference)			
≥ 2.5		0.88	<b>0.88</b>	1.01	0.86	1.17	<b>0.80</b>	<b>0.87</b>	0.92	0.75	1.12	1.02	<b>0.87</b>	1.17	0.92	1.49
History of diabetes																
No		1.00	(reference)				1.00	(reference)				1.00	(reference)			
Yes		<b>2.11</b>	<b>1.86</b>	1.14	0.99	1.30	<b>2.04</b>	<b>1.76</b>	1.16	0.97	1.39	<b>2.17</b>	<b>2.01</b>	1.08	0.88	1.31
History of heart disease																
No		1.00	(reference)				1.00	(reference)				1.00	(reference)			
Yes		<b>1.34</b>	<b>1.57</b>	0.86	0.73	1.01	<b>1.35</b>	<b>1.56</b>	0.86	0.71	1.05	<b>1.33</b>	<b>1.60</b>	0.84	0.63	1.10
History of hypertension																
No		1.00	(reference)				1.00	(reference)				1.00	(reference)			
Yes		<b>1.31</b>	<b>1.26</b>	1.05	0.94	1.16	<b>1.20</b>	<b>1.25</b>	0.96	0.83	1.11	<b>1.45</b>	<b>1.24</b>	1.17	1.00	1.38
History of stroke																
No		1.00	(reference)				1.00	(reference)				1.00	(reference)			
Yes		<b>1.59</b>	<b>1.64</b>	0.97	0.76	1.23	<b>1.40</b>	<b>1.57</b>	0.89	0.65	1.22	<b>1.97</b>	<b>1.80</b>	1.09	0.76	1.57
Cancer at any site																
No		1.00	(reference)				1.00	(reference)				1.00	(reference)			
Yes		<b>3.39</b>	<b>3.51</b>	1.01	0.91	1.12	<b>3.26</b>	<b>3.38</b>	1.00	0.87	1.15	<b>3.55</b>	<b>3.73</b>	0.99	0.85	1.16
Native Hawaiians																
BMI																
< 22		0.90	<b>1.16</b>				1.86	<b>1.29</b>				0.52	<b>1.11</b>			
22 - 24.9		1.00	(reference)				1.00	(reference)				1.00	(reference)			
25 - 29.9		1.05	<b>0.88</b>				1.16	<b>0.82</b>				1.00	0.95			
30 or higher		<b>2.16</b>	<b>1.14</b>	1.75	0.57	5.39	<b>2.50</b>	1.08	4.71	0.86	25.76	<b>1.90</b>	<b>1.16</b>	0.80	0.17	3.69
Education																
High school or less		1.00	(reference)				1.00	(reference)				1.00	(reference)			
Some college		1.12	<b>0.82</b>				1.05	<b>0.84</b>				1.19	<b>0.81</b>			
College degree or higher		0.75	<b>0.68</b>	1.51	0.76	3.00	0.78	<b>0.67</b>	1.47	0.58	3.73	0.72	<b>0.70</b>	1.51	0.55	4.14
Tobacco smoking																
Never smoker		1.00	(reference)				1.00	(reference)				1.00	(reference)			
Past smoker		0.85	<b>1.32</b>				0.87	<b>1.28</b>				0.88	<b>1.35</b>			
Current smoker		<b>1.78</b>	<b>2.36</b>	<b>0.49</b>	<b>0.30</b>	<b>0.80</b>	<b>2.29</b>	<b>2.29</b>	0.68	0.32	1.46	1.46	<b>2.45</b>	<b>0.39</b>	<b>0.20</b>	<b>0.76</b>
Alcohol drinking (g/d)																
None		1.00	(reference)				1.00	(reference)				1.00	(reference)			
< 14		0.92	<b>0.86</b>				1.24	<b>0.85</b>				0.66	<b>0.88</b>			
14 or more		0.83	<b>0.90</b>	0.98	0.59	1.64	0.90	<b>0.90</b>	1.47	0.72	3.00	0.88	0.93	0.70	0.29	1.72
Physical activity (AC mets/d)																
< 2.5		1.00	(reference)				1.00	(reference)				1.00	(reference)			
≥ 2.5		<b>0.68</b>	<b>0.81</b>	0.84	0.58	1.20	0.67	<b>0.82</b>	0.82	0.51	1.32	0.71	<b>0.79</b>	0.90	0.51	1.60
History of diabetes																
No		1.00	(reference)				1.00	(reference)				1.00	(reference)			
Yes		<b>2.29</b>	<b>2.02</b>	1.13	0.87	1.48	<b>2.31</b>	<b>1.90</b>	1.21	0.83	1.78	<b>2.25</b>	<b>2.20</b>	1.02	0.71	1.48
History of heart disease																
No		1.00	(reference)				1.00	(reference)				1.00	(reference)			
Yes		<b>1.81</b>	<b>1.63</b>	1.11	0.80	1.53	<b>1.92</b>	<b>1.66</b>	1.15	0.73	1.81	<b>1.78</b>	<b>1.60</b>	1.12	0.70	1.78
History of hypertension																
No		1.00	(reference)				1.00	(reference)				1.00	(reference)			

	Yes	1.15	<b>1.27</b>	0.90	0.70	1.15	1.02	<b>1.20</b>	0.86	0.60	1.22	1.31	<b>1.36</b>	0.96	0.68	1.36
History of stroke	No	1.00	(reference)				1.00	(reference)				1.00	(reference)			
	Yes	1.39	<b>1.56</b>	0.89	0.52	1.52	0.67	<b>1.47</b>	0.45	0.16	1.28	<b>2.18</b>	<b>1.74</b>	1.26	0.67	2.37
Cancer at any site	No	1.00	(reference)				1.00	(reference)				1.00	(reference)			
	Yes	<b>3.48</b>	<b>4.08</b>	0.85	0.67	1.08	<b>3.39</b>	<b>4.11</b>	0.79	0.55	1.11	<b>3.39</b>	<b>4.19</b>	0.83	0.60	1.16
Japanese Americans																
BMI	< 22	1.13	<b>1.28</b>				<b>1.43</b>	<b>1.39</b>				0.92	<b>1.18</b>			
	22 - 24.9	1.00	(reference)				1.00	(reference)				1.00	(reference)			
	25 - 29.9	1.06	<b>1.05</b>				1.12	<b>1.07</b>				0.95	1.01			
	30 or higher	<b>1.80</b>	<b>1.40</b>	1.15	0.68	1.93	<b>1.65</b>	<b>1.45</b>	1.23	0.62	2.45	<b>1.83</b>	<b>1.27</b>	1.05	0.47	2.33
Education	High school or less	1.00	(reference)				1.00	(reference)				1.00	(reference)			
	Some college	1.05	<b>0.91</b>				0.98	<b>0.89</b>				1.20	0.95			
	College degree or higher	0.81	<b>0.75</b>	1.25	0.81	1.92	0.79	<b>0.72</b>	1.20	0.67	2.15	0.88	<b>0.80</b>	1.40	0.73	2.69
Tobacco smoking	Never smoker	1.00	(reference)				1.00	(reference)				1.00	(reference)			
	Past smoker	<b>1.20</b>	<b>1.24</b>				<b>1.29</b>	<b>1.27</b>				1.07	<b>1.25</b>			
	Current smoker	<b>2.06</b>	<b>2.10</b>	0.95	0.67	1.34	<b>2.18</b>	<b>2.13</b>	1.04	0.63	1.72	<b>1.90</b>	<b>2.08</b>	0.78	0.45	1.37
Alcohol drinking (g/d)	None	1.00	(reference)				1.00	(reference)				1.00	(reference)			
	< 14	<b>0.71</b>	<b>0.85</b>				<b>0.62</b>	<b>0.86</b>				0.92	<b>0.84</b>			
	14 or more	0.99	<b>0.91</b>	0.91	0.65	1.29	0.92	<b>0.91</b>	0.73	0.48	1.11	1.12	0.90	1.35	0.53	3.49
Physical activity (AC mets/d)	< 2.5	1.00	(reference)				1.00	(reference)				1.00	(reference)			
	≥ 2.5	0.89	<b>0.88</b>	1.01	0.79	1.30	0.79	<b>0.89</b>	0.89	0.65	1.22	1.10	<b>0.86</b>	1.27	0.85	1.90
History of diabetes	No	1.00	(reference)				1.00	(reference)				1.00	(reference)			
	Yes	<b>1.78</b>	<b>1.68</b>	1.06	0.87	1.29	<b>1.64</b>	<b>1.59</b>	1.03	0.79	1.33	<b>2.00</b>	<b>1.82</b>	1.10	0.81	1.49
History of heart disease	No	1.00	(reference)				1.00	(reference)				1.00	(reference)			
	Yes	1.20	<b>1.61</b>	<b>0.75</b>	<b>0.57</b>	<b>0.97</b>	1.25	<b>1.61</b>	0.78	0.57	1.06	1.01	<b>1.59</b>	0.63	0.37	1.08
History of hypertension	No	1.00	(reference)				1.00	(reference)				1.00	(reference)			
	Yes	<b>1.33</b>	<b>1.18</b>	1.13	0.96	1.32	<b>1.28</b>	<b>1.18</b>	1.08	0.88	1.33	<b>1.41</b>	<b>1.16</b>	1.22	0.95	1.55
History of stroke	No	1.00	(reference)				1.00	(reference)				1.00	(reference)			
	Yes	<b>1.55</b>	<b>1.73</b>	0.89	0.62	1.29	1.31	<b>1.64</b>	0.80	0.51	1.26	<b>2.11</b>	<b>1.96</b>	1.07	0.59	1.96
Cancer at any site	No	1.00	(reference)				1.00	(reference)				1.00	(reference)			
	Yes	<b>3.14</b>	<b>3.46</b>	0.95	0.81	1.11	<b>3.02</b>	<b>3.40</b>	0.91	0.74	1.12	<b>3.35</b>	<b>3.61</b>	1.00	0.78	1.26
Whites																
BMI	< 22	<b>1.43</b>	<b>1.22</b>				<b>1.87</b>	<b>1.25</b>				1.23	<b>1.23</b>			
	22 - 24.9	1.00	(reference)				1.00	(reference)				1.00	(reference)			
	25 - 29.9	1.09	1.02				1.16	0.98				1.02	<b>1.10</b>			
	30 or higher	<b>2.04</b>	<b>1.30</b>	1.97	0.94	4.14	<b>1.90</b>	<b>1.32</b>	2.56	0.95	6.90	<b>2.15</b>	<b>1.25</b>	1.61	0.52	4.98
Education	High school or less	1.00	(reference)				1.00	(reference)				1.00	(reference)			
	Some college	1.12	1.04				1.42	1.00				0.94	<b>1.13</b>			
	College degree or higher	0.80	<b>0.87</b>	0.99	0.48	2.02	1.04	<b>0.81</b>	1.80	0.65	5.04	0.64	1.00	0.53	0.19	1.51
Tobacco smoking	Never smoker	1.00	(reference)				1.00	(reference)				1.00	(reference)			
	Past smoker	1.25	<b>1.39</b>				1.19	<b>1.40</b>				<b>1.44</b>	<b>1.40</b>			
	Current smoker	<b>2.85</b>	<b>2.96</b>	0.86	0.54	1.38	<b>3.17</b>	<b>3.15</b>	0.85	0.44	1.66	<b>2.61</b>	<b>2.73</b>	0.98	0.50	1.93
Alcohol drinking (g/d)	None	1.00	(reference)				1.00	(reference)				1.00	(reference)			
	< 14	<b>0.66</b>	<b>0.85</b>				<b>0.65</b>	<b>0.86</b>				0.70	<b>0.85</b>			
	14 or more	0.97	<b>0.92</b>	0.81	0.52	1.26	1.09	0.97	0.86	0.46	1.58	0.84	<b>0.84</b>	0.83	0.42	1.63
Physical activity (AC mets/d)	< 2.5	1.00	(reference)				1.00	(reference)				1.00	(reference)			
	≥ 2.5	1.12	<b>0.94</b>	1.20	0.92	1.56	1.09	<b>0.92</b>	1.18	0.84	1.65	1.20	0.95	1.26	0.84	1.90
History of diabetes	No	1.00	(reference)				1.00	(reference)				1.00	(reference)			
	Yes	<b>2.70</b>	<b>1.98</b>	1.37	1.00	1.87	<b>2.68</b>	<b>1.95</b>	1.38	0.90	2.10	<b>2.81</b>	<b>2.05</b>	1.37	0.85	2.20
History of heart disease	No	1.00	(reference)				1.00	(reference)				1.00	(reference)			
	Yes	<b>1.44</b>	<b>1.49</b>	0.97	0.71	1.32	<b>1.51</b>	<b>1.47</b>	1.03	0.71	1.50	1.35	<b>1.57</b>	0.86	0.50	1.49

History of hypertension														
No		1.00	(reference)				1.00	(reference)				1.00	(reference)	
Yes		1.16	<b>1.35</b>	0.86	0.69	1.07	0.99	<b>1.36</b>	<b>0.73</b>	<b>0.54</b>	<b>0.97</b>	<b>1.41</b>	<b>1.31</b>	1.08
History of stroke														0.77
No		1.00	(reference)				1.00	(reference)				1.00	(reference)	1.50
Yes		1.29	<b>1.54</b>	0.84	0.49	1.44	1.66	<b>1.47</b>	1.13	0.60	2.14	0.93	<b>1.70</b>	0.55
Cancer at any site							1.00	(reference)				1.00	(reference)	
No		1.00	(reference)											
Yes		<b>3.46</b>	<b>3.20</b>	1.14	0.93	1.39	<b>3.57</b>	<b>3.09</b>	1.24	0.95	1.62	<b>3.43</b>	<b>3.39</b>	1.02
														1.38

Notes: 1. All baseline factors and cancer status modeled simultaneously in a multivariable model.

2. Bold-face: statistically significant at  $\alpha=0.05$ . HR: hazard ratio. LCL: lower confidence limit. UCL: upper confidence limit.

**Supplementary Table S2. Associations of participants' characteristics with sepsis and all-cause mortality among cancer cases in the Multiethnic Cohort, by sex and race/ethnicity.**





No	1.00	(reference)													1.00	(reference)			
Yes	0.65	<b>0.67</b>	0.96	0.60	1.51	N/A	N/A								0.66	<b>0.68</b>	0.96	0.58	1.60
Prostate cancer																			
No	1.00	(reference)													1.00	(reference)			
Yes	<b>0.68</b>	<b>0.63</b>	1.12	0.77	1.64	0.69	<b>0.61</b>	1.17	0.78	1.75	N/A	N/A							
Chemotherapy																			
No	1.00	(reference)													1.00	(reference)			
Yes	1.35	<b>1.24</b>	1.14	0.80	1.61	1.52	<b>1.44</b>	1.09	0.69	1.73	1.15	1.00	1.24	0.73	2.13				
Radiation																			
No	1.00	(reference)													1.00	(reference)			
Yes	0.93	<b>1.20</b>	0.82	0.59	1.14	1.03	<b>1.23</b>	0.85	0.57	1.28	0.84	<b>1.19</b>	0.77	0.44	1.32				

Notes: 1. All baseline factors modeled simultaneously in a multivariable model.

2. Cancer status and treatment analyses adjusted for all baseline factors.

3. Bold-face: statistically significant at  $\alpha=0.05$ . HR: hazard ratio. LCL: lower confidence limit. UCL: upper confidence limit.