

1 **Supplemental Table 1.** Adjusted hazard ratio (aHR) and 95% CIs for MSS of different
 2 racial/ethnicity groups compared to NHW in the SEER cohort and across three diagnostic year
 3 periods for different stages – acral lentiginous melanoma only (n=3596)

		<2000	2000-2009		≥2010	
	Race	aHR [95% CI] for MSS	aHR [95% CI] for MSS	P-interaction	aHR [95% CI] for MSS	P-interaction
Localized stage						
	Hispanic	1.13 [0.51, 2.49]	1.20 [0.06, 23.3]	0.905	1.86 [0.47, 7.40]	0.380
	NHB	0.71 [0.31, 1.65]	1.30 [0.81, 2.08]	0.273	2.62 [1.09, 6.27]	0.031
	NHAPI	2.47 [1.07, 5.73]	1.33 [0.79, 2.23]	0.286	0.62 [0.35, 1.10]	0.103
Regional stage						
	Hispanic	0.56 [0.25, 1.23]	1.82 [1.16, 2.86]	0.010	2.15 [1.23, 3.76]	0.007
	NHB	0.92 [0.44, 1.95]	1.16 [0.64, 2.09]	0.621	2.58 [0.96, 6.93]	0.060
	NHAPI	1.28 [0.68, 2.41]	1.05 [0.86, 1.29]	0.626	1.52 [0.1, 23.87]	0.764
Distant stage						
	Hispanic	0.92 [0.25, 3.37]	1.97 [0.46, 8.46]	0.360	2.49 [0.56, 11.12]	0.231
	NHB	0.30 [0.03, 2.92]	0.70 [0.26, 1.90]	0.490	1.21 [0.84, 1.75]	0.313
All stages						
	Hispanic	0.75 [0.45, 1.25]	1.69 [1.15, 2.49]	0.007	2.36 [1.45, 3.83]	0.001
	NHB	0.78 [0.46, 1.32]	1.13 [0.91, 1.41]	0.260	2.43 [1.36, 4.33]	0.003
	NHAPI	1.38 [0.85, 2.22]	1.17 [0.63, 2.18]	0.612	1.32 [0.01, 436.7]	0.924
	NHAIAN	5.50 [1.74, 17.40]	0.66 [0.43, 1.03]	0.069	1.92 [0.46, 7.97]	0.367

4 *For each of the four models (localized stage, regional stage, distant stage, and all stages) for acral lentiginous
 5 melanoma only, the adjusted HRs for MSS and P values were calculated from Cox proportional hazard models with
 6 race, year of diagnosis and the interaction terms, adjusting for age, gender, primary site and stage. P values in 2000-
 7 2009 showed the significance comparing the adjusted HRs to NHW for melanomas diagnosed in 2000-2009 and
 8 those for melanomas diagnosed <2000. P values in ≥2010 showed the significance comparing the adjusted HRs to
 9 NHW for melanomas diagnosed in ≥2010 and those for melanomas diagnosed before 2000.
 10 SEER=Surveillance, Epidemiology, and End Results; HR=hazard ratio; CI=confidence interval. NHW=non-
 11 Hispanic white; NHB=non-Hispanic black; NHAPI=non-Hispanic Asian or Pacific Islander; NHAIAN=non-
 12 Hispanic American Indian/Alaska Native.

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31 **Supplemental Table 2.** Hazard ratio (HR) (top) and adjusted hazard ratio (aHR) (bottom) and
 32 95% CIs for MSS of different racial/ethnicity groups compared to NHW in the SEER cohort and
 33 across three diagnostic year periods for different stages – mucosal melanoma only (n=4592)

		<2000	2000-2009		≥2010	
	Race	HR [95% CI] for MSS	HR [95% CI] for MSS	<i>P</i> -interaction	HR [95% CI] for MSS	<i>P</i> -interaction
Localized stage						
	Hispanic	0.61 [0.28, 1.29]	1.28 [0.97, 1.70]	0.085	0.99 [0.96, 1.01]	0.319
	NHB	2.24 [1.05, 4.78]	2.68 [0.02, 390]	0.698	1.31 [0.75, 2.27]	0.345
	NHAPI	1.49 [0.84, 2.61]	0.95 [0.87, 1.04]	0.273	1.25 [0.37, 4.22]	0.716
	NHAIAN	2.78 [0.39, 19.87]	1.25 [0.58, 2.68]	0.572	1.45 [0.30, 7.05]	0.647
Regional stage						
	Hispanic	0.86 [0.52, 1.42]	1.18 [0.85, 1.63]	0.330	1.75 [1.02, 3.00]	0.043
	NHB	0.87 [0.50, 1.51]	0.99 [0.93, 1.06]	0.754	1.35 [0.74, 2.46]	0.323
	NHAPI	1.35 [0.83, 2.21]	1.46 [0.06, 34.1]	0.816	1.17 [0.51, 2.70]	0.708
Distant stage						
	Hispanic	2.22 [0.90, 5.50]	0.90 [0.80, 1.01]	0.070	1.13 [0.94, 1.35]	0.191
	NHB	1.70 [0.74, 3.90]	0.83 [0.65, 1.07]	0.153	1.25 [0.49, 3.17]	0.640
	NHAPI	1.01 [0.55, 1.86]	0.60 [0.28, 1.28]	0.189	1.62 [0.71, 3.70]	0.255
All stages						
	Hispanic	1.01 [0.72, 1.42]	1.25 [0.83, 1.89]	0.286	1.21 [0.78, 1.88]	0.401
	NHB	1.35 [0.95, 1.92]	1.70 [0.61, 4.75]	0.312	1.26 [0.27, 5.91]	0.773
	NHAPI	1.37 [1.02, 1.84]	1.30 [0.24, 7.12]	0.765	1.27 [0.35, 4.63]	0.717
	NHAIAN	1.53 [0.38, 6.14]	2.05 [0.04, 98.83]	0.716	1.90 [0.02, 210.9]	0.790
	Race	aHR [95% CI] for MSS	aHR [95% CI] for MSS	<i>P</i> -interaction	aHR [95% CI] for MSS	<i>P</i> -interaction
Localized stage						
	Hispanic	0.66 [0.31, 1.40]	1.28 [0.93, 1.75]	0.126	1.09 [0.93, 1.27]	0.303
	NHB	2.00 [0.93, 4.28]	2.95 [0.24, 36.89]	0.401	1.52 [0.27, 8.39]	0.632
	NHAPI	1.22 [0.69, 2.17]	0.83 [0.56, 1.22]	0.336	1.26 [0.001, 1299.3]	0.947
	NHAIAN	9.60 [1.31, 70.19]	0.62 [0.38, 1.01]	0.056	1.29 [0.90, 1.83]	0.161
All stages						
	Hispanic	1.08 [0.76, 1.52]	1.14 [0.42, 3.03]	0.801	1.18 [0.53, 2.61]	0.687
	NHB	1.03 [0.72, 1.46]	1.30 [0.79, 2.14]	0.301	1.37 [0.78, 2.40]	0.271
	NHAPI	1.05 [0.78, 1.41]	1.03 [0.51, 2.07]	0.932	1.17 [0.64, 2.14]	0.612
	NHAIAN	0.65 [0.16, 2.63]	1.63 [0.70, 3.77]	0.257	1.13 [0.79, 1.61]	0.494

34 *For each of the models (localized stage, regional stage, distant stage, and all stages) for mucosal melanoma only,
 35 the HRs for MSS and *P* values were calculated from Cox proportional hazard models with race, year of diagnosis
 36 and the interaction terms. The aHRs for MSS and *P* values were calculated from Cox proportional hazard models
 37 with race, year of diagnosis and the interaction terms, adjusting for age, gender, histological subtype and stage. *P*
 38 values in 2000-2009 showed the significance comparing the HRs/aHRs to NHW for melanomas diagnosed in 2000-
 39 2009 and those for melanomas diagnosed <2000. *P* values in ≥2010 showed the significance comparing the
 40 HRs/aHRs to NHW for melanomas diagnosed in ≥2010 and those for melanomas diagnosed before 2000.
 41 SEER=Surveillance, Epidemiology, and End Results; HR=hazard ratio; CI=confidence interval. NHW=non-
 42 Hispanic white; NHB=non-Hispanic black; NHAPI=non-Hispanic Asian or Pacific Islander; NHAIAN=non-
 43 Hispanic American Indian/Alaska Native.

44 **Supplemental Table 3.** Hazard ratio (HR) (top) and adjusted hazard ratio (aHR) (bottom) and
 45 95% CIs for MSS of different racial/ethnicity groups compared to NHW in the SEER cohort and
 46 across three diagnostic year periods for different stages – uveal melanoma only (n=12374,
 47 NHAIAN excluded due to too low count)

		<2000	2000-2009		≥2010	
	Race	HR [95% CI] for MSS	HR [95% CI] for MSS	P-interaction	HR [95% CI] for MSS	P-interaction
Localized stage						
	Hispanic	1.19 [0.83, 1.73]	1.17 [0.03, 40.24]	0.931	1.08 [0.67, 1.73]	0.752
	NHB	1.16 [0.60, 2.24]	0.97 [0.80, 1.18]	0.767	0.76 [0.28, 2.06]	0.594
	NHAPI	0.42 [0.10, 1.67]	0.82 [0.52, 1.30]	0.397	0.90 [0.71, 1.15]	0.398
All stages						
	Hispanic	1.07 [0.77, 1.48]	1.23 [0.67, 2.24]	0.502	1.17 [0.48, 2.86]	0.729
	NHB	1.20 [0.69, 2.07]	1.35 [0.17, 10.92]	0.780	0.84 [0.45, 1.56]	0.583
	NHAPI	0.96 [0.45, 2.01]	1.06 [0.63, 1.78]	0.824	1.29 [0.53, 3.17]	0.577
	Race	aHR [95% CI] for MSS	aHR [95% CI] for MSS	P-interaction	aHR [95% CI] for MSS	P-interaction
All stages						
	Hispanic	1.22 [0.88, 1.68]	1.36 [0.44, 4.17]	0.591	1.24 [0.01, 266.8]	0.937
	NHB	1.16 [0.67, 2.01]	1.42 [0.33, 6.11]	0.636	0.92 [0.58, 1.45]	0.710
	NHAPI	1.25 [0.59, 2.63]	0.77 [0.47, 1.26]	0.298	1.46 [0.11, 19.17]	0.773

48 *For each of the models (localized stage and all stages) for uveal melanoma only, the HRs for MSS and P values
 49 were calculated from Cox proportional hazard models with race, year of diagnosis and the interaction terms. The
 50 aHRs for MSS and P values were calculated from Cox proportional hazard models with race, year of diagnosis and
 51 the interaction terms, adjusting for age, gender and histological subtype. P values in 2000-2009 showed the
 52 significance comparing the HRs/aHRs to NHW for melanomas diagnosed in 2000-2009 and those for melanomas
 53 diagnosed <2000. P values in ≥2010 showed the significance comparing the HRs/aHRs to NHW for melanomas
 54 diagnosed in ≥2010 and those for melanomas diagnosed before 2000.
 55 SEER=Surveillance, Epidemiology, and End Results; HR=hazard ratio; CI=confidence interval. NHW=non-
 56 Hispanic white; NHB=non-Hispanic black; NHAPI=non-Hispanic Asian or Pacific Islander; NHAIAN=non-
 57 Hispanic American Indian/Alaska Native.

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74 **Supplemental Table 4.** Adjusted hazard ratio (aHR) and 95% CIs for MSS of different
 75 racial/ethnicity groups compared to NHW in the SEER cohort and across three diagnostic year
 76 periods for different stages – age ≥ 65 only (n=162,456)

		<2000	2000-2009		≥ 2010	
	Race	aHR [95% CI] for MSS	aHR [95% CI] for MSS	<i>P</i> -interaction	aHR [95% CI] for MSS	<i>P</i> -interaction
Localized stage						
	Hispanic	0.94 [0.68, 1.29]	1.54 [1.11, 2.14]	0.009	1.49 [1.01, 2.22]	0.046
	NHB	1.28 [0.81, 2.02]	1.54 [0.37, 6.42]	0.554	4.19 [1.91, 9.19]	<0.001
	NHAPI	1.26 [0.78, 2.04]	1.36 [0.1, 17.73]	0.813	1.24 [0, 17225.3]	0.965
	NHAIAN	0.99 [0.32, 3.08]	1.14 [0.28, 4.70]	0.855	1.85 [0.38, 8.99]	0.447
Regional stage						
	Hispanic	1.11 [0.80, 1.53]	1.45 [0.86, 2.45]	0.159	1.76 [1.06, 2.94]	0.029
	NHB	1.39 [0.93, 2.08]	1.53 [0.15, 15.3]	0.719	1.71 [0.31, 9.30]	0.537
	NHAPI	1.57 [1.06, 2.30]	1.31 [0.61, 2.81]	0.483	1.48 [0.02, 143.3]	0.866
	NHAIAN	2.82 [1.17, 6.80]	1.65 [0.57, 4.79]	0.353	1.96 [0.17, 22.74]	0.590
Distant stage						
	Hispanic	1.22 [0.82, 1.81]	0.92 [0.80, 1.06]	0.253	1.24 [0.005, 318.2]	0.940
	NHB	1.55 [1.03, 2.33]	0.81 [0.68, 0.97]	0.022	1.21 [0.74, 2.00]	0.444
	NHAPI	1.31 [0.85, 2.03]	1.16 [0.58, 2.33]	0.676	1.68 [0.48, 5.89]	0.418
All stages						
	Hispanic	1.03 [0.85, 1.24]	1.38 [1.08, 1.75]	0.009	1.62 [1.26, 2.08]	<0.001
	NHB	1.37 [1.08, 1.73]	1.23 [0.65, 2.35]	0.521	2.14 [1.17, 3.90]	0.013
	NHAPI	1.52 [1.22, 1.91]	1.31 [0.77, 2.21]	0.317	1.78 [0.47, 6.75]	0.397
	NHAIAN	1.39 [0.79, 2.45]	1.69 [0.23, 12.68]	0.608	1.43 [0, 29727.1]	0.943

77 *For each of the four models (localized stage, regional stage, distant stage, and all stages), the adjusted HRs for
 78 MSS and *P* values were calculated from Cox proportional hazard models with race, year of diagnosis and the
 79 interaction terms, adjusting for age (≥ 65), gender, primary site, histological subtype and stage. *P* values in 2000-
 80 2009 showed the significance comparing the adjusted HRs to NHW for melanomas diagnosed in 2000-2009 and
 81 those for melanomas diagnosed <2000. *P* values in ≥ 2010 showed the significance comparing the adjusted HRs to
 82 NHW for melanomas diagnosed in ≥ 2010 and those for melanomas diagnosed before 2000.
 83 SEER=Surveillance, Epidemiology, and End Results; HR=hazard ratio; CI=confidence interval. NHW=non-
 84 Hispanic white; NHB=non-Hispanic black; NHAPI=non-Hispanic Asian or Pacific Islander; NHAIAN=non-
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