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Supplemental Material

Association of Temperature Thresholds with Heat Illness– and Cardiorespiratory-Related Emergency Visits during Summer Months in Alaska

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Reason for ED visit	*Number of cases*	70-degree HI threshold	72-degree HI threshold	74-degree HI threshold	76-degree HI threshold	78-degree HI threshold	80-degree HI threshold	82-degree HI threshold	84-degree HI threshold	86-degree HI threshold
Asthma	1651	1.02 (0.91, 1.13)	1.02 (0.91, 1.15)	1.01 (0.89, 1.15)	1.00 (0.87, 1.16)	1.06 (0.90, 1.26)	1.13 (0.91, 1.41)	1.08 (0.79, 1.47)	0.82 (0.47, 1.43)	0.56 (0.07, 4.19)[b]
COPD	1138	0.98 (0.86, 1.11)	1.01 (0.88, 1.16)	0.99 (0.85, 1.15)	1.03 (0.87, 1.23)	1.01 (0.82, 1.25)	0.89 (0.66, 1.19)	0.82 (0.53, 1.26)	1.18 (0.61, 2.29)	1.52 (0.35, 6.66)
Pneumonia	999	0.98 (0.85, 1.13)	0.97 (0.84, 1.13)	0.90 (0.76, 1.07)	1.01 (0.84, 1.22)	1.18 (0.95, 1.47)	1.32 (0.98, 1.77)	1.54 (1.04, 2.27)[a]	1.67 (0.88, 3.18)	2.56 (0.74, 8.87)
Bronchitis	1130	0.77 (0.68, 0.88)[a]	0.83 (0.72, 0.96)[a]	0.80 (0.68, 0.94)[a]	0.74 (0.61, 0.89)[a]	0.67 (0.52, 0.86)[a]	0.72 (0.52, 0.99)[a]	0.59 (0.36, 0.98)[a]	1.12 (0.58, 2.17)	1.62 (0.57, 4.60)
Arrhythmia	676	0.93 (0.79, 1.11)	0.92 (0.76, 1.11)	0.95 (0.77, 1.16)	0.92 (0.73, 1.17)	1.08 (0.82, 1.41)	0.96 (0.66, 1.41)	0.93 (0.54, 1.60)	1.13 (0.48, 2.64)	
Cerebrovascular	207	1.14 (0.83, 1.56)	1.08 (0.77, 1.52)	1.39 (0.98, 1.99)	1.61 (1.08, 2.40)[a]	1.26 (0.77, 2.08)	1.13 (0.56, 2.28)	1.97 (0.89, 4.39)	1.81 (0.54, 6.14)	2.95 (0.34, 25.80)[b]
Ischemic	62	0.92 (0.52, 1.63)	1.30 (0.72, 2.34)	1.54 (0.83, 2.84)	1.58 (0.80, 3.12)	2.59 (1.26, 5.31)[a]	2.86 (1.01, 8.10)[a]	4.79 (1.35, 16.95)[a]	1.87 (0.20, 17.96)[b]	11.98 (0.72, 198.43)[b]
Myocardial infarction	21	1.19 (0.46, 3.09)	2.34 (0.87, 6.31)	2.79 (0.99, 7.80)	3.88 (1.33, 11.33)[a]	7.65 (2.46, 23.80)[a]	21.05 (2.13, 208.24)[a]	11.23 (0.65, 194.55)[b]		
Heart failure	162	1.00 (0.71, 1.41)	1.03 (0.72, 1.47)	1.18 (0.80, 1.73)	1.12 (0.72, 1.75)	0.99 (0.58, 1.70)	0.99 (0.51, 1.96)	0.81 (0.28, 2.40)	1.12 (0.25, 5.04)	
Heat illness	14	19.46 (2.20, 171.90)[a]	7.06 (1.48, 33.78)[a]	9.15 (1.91, 43.70)[a]	17.13 (3.48, 84.25)[a]	23.27 (4.47, 121.15)[a]		62.78 (4.66, 846.26)[a]	20.38 (1.99, 208.51)[a]	

[a] 95% CI does not include the null.

[b] This footnote is to designate that only one ED visit related to the indicated health outcome occurred on an exposed day (i.e., a day during which the HI exceeded the indicated threshold) during the study period.

Note: Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Table S1b. Odds ratios and 95% confidence intervals for emergency department (ED) visits among females for heat index (HI) on lag day 1 above versus below the threshold from single-day lag models in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	***Number of cases***	**70-degree HI threshold**	**72-degree HI threshold**	**74-degree HI threshold**	**76-degree HI threshold**	**78-degree HI threshold**	**80-degree HI threshold**	**82-degree HI threshold**	**84-degree HI threshold**	**86-degree HI threshold**
Asthma	1651	1.00 (0.90, 1.12)	1.10 (0.98, 1.23)	1.06 (0.93, 1.20)	1.01 (0.88, 1.17)	1.13 (0.96, 1.33)	1.27 (1.03, 1.57)[a]	1.35 (1.02, 1.79)[a]	1.35 (0.83, 2.18)	0.69 (0.17, 2.91)
COPD	1138	0.93 (0.82, 1.06)	0.94 (0.82, 1.09)	0.99 (0.85, 1.15)	0.98 (0.82, 1.17)	0.92 (0.74, 1.14)	0.78 (0.56, 1.07)	0.88 (0.58, 1.34)	0.98 (0.47, 2.05)	2.96 (0.99, 8.88)
Pneumonia	999	0.87 (0.75, 1.00)	0.84 (0.72, 0.98)[a]	0.87 (0.73, 1.03)	0.92 (0.76, 1.12)	1.08 (0.86, 1.35)	1.35 (1.01, 1.80)[a]	1.61 (1.11, 2.33)[a]	1.63 (0.92, 2.88)	1.68 (0.38, 7.39)
Bronchitis	1130	0.77 (0.68, 0.89)[a]	0.83 (0.71, 0.95)[a]	0.78 (0.66, 0.92)[a]	0.82 (0.68, 0.99)[a]	0.88 (0.71, 1.11)	0.78 (0.57, 1.07)	0.74 (0.47, 1.15)	1.12 (0.59, 2.10)	1.36 (0.41, 4.48)
Arrhythmia	676	0.99 (0.83, 1.18)	0.99 (0.82, 1.19)	0.97 (0.79, 1.19)	1.05 (0.83, 1.32)	1.23 (0.94, 1.60)	1.14 (0.79, 1.66)	0.83 (0.47, 1.45)	1.10 (0.47, 2.60)	2.18 (0.48, 9.83)
Cerebrovascular	207	1.10 (0.80, 1.49)	1.05 (0.75, 1.47)	1.10 (0.76, 1.58)	1.27 (0.85, 1.90)	1.31 (0.81, 2.13)	1.07 (0.51, 2.26)	0.90 (0.31, 2.64)		
Ischemic	62	1.02 (0.58, 1.80)	1.18 (0.65, 2.13)	1.65 (0.89, 3.09)	2.31 (1.19, 4.46)[a]	2.34 (1.11, 4.94)[a]	2.99 (1.21, 7.36)[a]	3.25 (1.07, 9.87)[a]	14.30 (3.16, 64.76)[a]	22.73 (2.06, 251.17)[a]
Myocardial infarction	21	1.69 (0.68, 4.19)	1.86 (0.72, 4.84)	2.42 (0.88, 6.66)	3.77 (1.32, 10.74)[a]	1.91 (0.47, 7.74)	2.47 (0.39, 15.65)	2.04 (0.21, 20.17)[b]	5.21 (0.45, 59.80)[b]	
Heart failure	162	0.93 (0.66, 1.32)	0.92 (0.64, 1.33)	0.97 (0.65, 1.44)	0.87 (0.55, 1.38)	1.09 (0.64, 1.84)	0.82 (0.38, 1.75)	0.70 (0.23, 2.11)	0.56 (0.07, 4.49)[b]	2.15 (0.25, 18.58)[b]
Heat illness	14	17.56 (1.95, 158.07)[a]	9.35 (1.84, 47.52)[a]	7.97 (2.01, 31.61)[a]	19.89 (3.91, 101.05)[a]	28.40 (5.45, 148.05)[a]		7.35 (0.98, 55.17)		

[a] 95% CI does not include the null.

[b] This footnote is to designate that only one ED visit related to the indicated health outcome occurred one day after an exposure (i.e., a day during which the HI exceeded the indicated threshold) during the study period.

Note: Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Table S1c. Odds ratios and 95% confidence intervals for emergency department (ED) visits among females for heat index (HI) on lag day 2 above versus below the threshold from single-day lag models in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	***Number of cases***	**70-degree HI threshold**	**72-degree HI threshold**	**74-degree HI threshold**	**76-degree HI threshold**	**78-degree HI threshold**	**80-degree HI threshold**	**82-degree HI threshold**	**84-degree HI threshold**	**86-degree HI threshold**
Asthma	1651	1.00 (0.89, 1.11)	1.03 (0.92, 1.16)	1.01 (0.89, 1.15)	1.04 (0.90, 1.20)	1.04 (0.88, 1.24)	1.12 (0.90, 1.40)	1.09 (0.80, 1.50)	0.83 (0.46, 1.51)	1.02 (0.24, 4.36)
COPD	1138	0.92 (0.80, 1.05)	0.95 (0.83, 1.10)	0.93 (0.79, 1.09)	0.89 (0.74, 1.07)	0.87 (0.70, 1.10)	0.74 (0.53, 1.02)	0.87 (0.55, 1.38)	0.98 (0.45, 2.15)	
Pneumonia	999	0.86 (0.75, 1.00)[a]	0.85 (0.72, 0.99)[a]	0.84 (0.70, 1.00)[a]	0.97 (0.79, 1.17)	1.19 (0.95, 1.49)	1.44 (1.08, 1.91)[a]	1.30 (0.87, 1.93)	1.09 (0.54, 2.19)	0.53 (0.07, 3.97)[b]
Bronchitis	1130	0.78 (0.68, 0.89)[a]	0.83 (0.72, 0.96)[a]	0.78 (0.66, 0.92)[a]	0.83 (0.68, 1.00)[a]	0.82 (0.65, 1.03)	0.88 (0.65, 1.20)	0.85 (0.54, 1.32)	0.61 (0.27, 1.40)	1.22 (0.37, 3.99)
Arrhythmia	676	1.00 (0.85, 1.19)	0.92 (0.76, 1.11)	0.91 (0.74, 1.12)	1.04 (0.82, 1.31)	0.98 (0.74, 1.30)	0.79 (0.52, 1.19)	0.79 (0.45, 1.41)	0.71 (0.25, 1.98)	0.92 (0.12, 7.06)[b]
Cerebrovascular	207	1.12 (0.82, 1.52)	1.11 (0.80, 1.54)	1.22 (0.85, 1.74)	1.29 (0.86, 1.95)	1.31 (0.80, 2.15)	0.88 (0.41, 1.91)	0.44 (0.10, 1.87)	0.75 (0.10, 5.70)[b]	3.46 (0.38, 31.48)[b]
Ischemic	62	1.03 (0.58, 1.82)	1.00 (0.54, 1.84)	1.21 (0.64, 2.28)	1.10 (0.54, 2.24)	1.34 (0.59, 3.06)	1.81 (0.68, 4.86)	0.83 (0.16, 4.34)	1.74 (0.20, 15.25)[b]	
Myocardial infarction	21	1.65 (0.66, 4.08)	1.98 (0.78, 5.02)	2.56 (0.99, 6.65)	1.16 (0.37, 3.68)	1.54 (0.40, 5.88)	1.95 (0.38, 10.07)			
Heart failure	162	0.89 (0.63, 1.26)	0.95 (0.66, 1.37)	0.96 (0.65, 1.44)	1.01 (0.64, 1.58)	1.11 (0.66, 1.87)	0.49 (0.19, 1.27)	0.84 (0.29, 2.41)	0.75 (0.10, 5.67)[b]	3.86 (0.40, 37.17)[b]
Heat illness	14	6.95 (1.44, 33.46)[a]	5.63 (1.46, 21.75)[a]	5.88 (1.69, 20.47)[a]	8.65 (2.43, 30.75)[a]	10.46 (3.06, 35.82)[a]	9.79 (1.91, 50.29)[a]	4.76 (0.76, 29.72)	11.91 (0.67, 211.28)[b]	

[a] 95% CI does not include the null.

[b] This footnote is to designate that only one ED visit related to the indicated health outcome occurred two days after an exposure (i.e., a day during which the HI exceeded the indicated threshold) during the study period.

Note: Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Table S1d. Odds ratios and 95% confidence intervals for emergency department (ED) visits among females for heat index (HI) on lag day 3 above versus below the threshold from single-day lag models in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	***Number of cases***	**70-degree HI threshold**	**72-degree HI threshold**	**74-degree HI threshold**	**76-degree HI threshold**	**78-degree HI threshold**	**80-degree HI threshold**	**82-degree HI threshold**	**84-degree HI threshold**	**86-degree HI threshold**
Asthma	1651	0.96 (0.86, 1.07)	0.94 (0.84, 1.06)	0.98 (0.86, 1.11)	1.00 (0.87, 1.16)	1.03 (0.86, 1.22)	1.02 (0.81, 1.30)	1.04 (0.74, 1.44)	0.95 (0.54, 1.66)	0.47 (0.06, 3.50)[b]
COPD	1138	0.92 (0.80, 1.05)	0.96 (0.84, 1.11)	0.92 (0.79, 1.08)	0.95 (0.79, 1.14)	0.95 (0.76, 1.18)	0.86 (0.62, 1.17)	0.80 (0.51, 1.24)	0.65 (0.28, 1.51)	
Pneumonia	999	0.93 (0.81, 1.08)	0.89 (0.76, 1.04)	0.85 (0.71, 1.01)	0.93 (0.76, 1.14)	1.02 (0.81, 1.29)	1.23 (0.91, 1.65)	1.47 (1.00, 2.16)[a]	1.83 (1.06, 3.16)[a]	0.46 (0.06, 3.43)[b]
Bronchitis	1130	0.75 (0.65, 0.86)[a]	0.72 (0.62, 0.83)[a]	0.74 (0.62, 0.87)[a]	0.65 (0.52, 0.79)[a]	0.72 (0.56, 0.92)[a]	0.84 (0.61, 1.14)	0.74 (0.46, 1.21)	0.73 (0.32, 1.68)	0.55 (0.07, 4.08)[b]
Arrhythmia	676	0.96 (0.81, 1.14)	0.82 (0.68, 0.99)[a]	0.84 (0.68, 1.03)	0.85 (0.67, 1.08)	0.90 (0.68, 1.20)	0.97 (0.67, 1.40)	1.28 (0.77, 2.10)	1.25 (0.59, 2.66)	0.64 (0.09, 4.82)[b]
Cerebrovascular	207	1.02 (0.75, 1.39)	1.07 (0.77, 1.48)	1.02 (0.71, 1.47)	1.09 (0.71, 1.66)	0.83 (0.48, 1.43)	0.80 (0.38, 1.68)	0.56 (0.17, 1.90)		
Ischemic	62	1.22 (0.69, 2.13)	1.05 (0.57, 1.91)	1.13 (0.59, 2.15)	1.12 (0.54, 2.31)	1.46 (0.65, 3.27)	2.21 (0.88, 5.60)	4.13 (1.35, 12.64)[a]	12.03 (2.63, 55.10)[a]	
Myocardial infarction	21	1.97 (0.77, 5.03)	1.94 (0.72, 5.25)	1.83 (0.66, 5.08)	1.52 (0.49, 4.68)	2.07 (0.58, 7.36)	4.17 (0.99, 17.50)	8.92 (1.19, 66.64)[a]	13.11 (0.81, 213.43)	
Heart failure	162	0.84 (0.59, 1.19)	1.03 (0.71, 1.48)	0.98 (0.65, 1.47)	1.21 (0.78, 1.87)	1.21 (0.72, 2.02)	0.79 (0.38, 1.68)	1.60 (0.69, 3.73)	2.97 (0.96, 9.25)	
Heat illness	14	2.89 (0.86, 9.76)	4.19 (1.21, 14.46)[a]	3.00 (0.92, 9.79)	2.69 (0.77, 9.40)	3.65 (0.97, 13.76)	2.08 (0.39, 10.96)	1.34 (0.14, 12.53)[b]		

[a] 95% CI does not include the null.

[b] This footnote is to designate that only one ED visit related to the indicated health outcome occurred three days after an exposure (i.e., a day during which the HI exceeded the indicated threshold) during the study period.

Note: Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Table S1e. Odds ratios and 95% confidence intervals for emergency department (ED) visits among females for heat index (HI) on lag day 4 above versus below the threshold from single-day lag models in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	***Number of cases***	**70-degree HI threshold**	**72-degree HI threshold**	**74-degree HI threshold**	**76-degree HI threshold**	**78-degree HI threshold**	**80-degree HI threshold**	**82-degree HI threshold**	**84-degree HI threshold**	**86-degree HI threshold**
Asthma	1651	0.88 (0.79, 0.98)[a]	0.88 (0.78, 0.99)[a]	0.93 (0.82, 1.06)	0.96 (0.82, 1.11)	1.03 (0.86, 1.22)	0.99 (0.78, 1.27)	0.92 (0.65, 1.31)	0.79 (0.40, 1.58)	
COPD	1138	0.91 (0.80, 1.04)	0.90 (0.78, 1.03)	0.92 (0.78, 1.07)	0.95 (0.79, 1.13)	0.89 (0.71, 1.11)	1.01 (0.75, 1.36)	0.81 (0.52, 1.27)	0.92 (0.44, 1.93)	1.10 (0.26, 4.70)
Pneumonia	999	0.92 (0.80, 1.06)	0.96 (0.82, 1.12)	0.90 (0.76, 1.07)	0.91 (0.74, 1.11)	0.97 (0.76, 1.23)	1.12 (0.83, 1.53)	1.27 (0.86, 1.87)	1.35 (0.71, 2.54)	0.68 (0.09, 5.10)[b]
Bronchitis	1130	0.73 (0.63, 0.83)[a]	0.73 (0.63, 0.85)[a]	0.72 (0.61, 0.85)[a]	0.71 (0.58, 0.87)[a]	0.80 (0.63, 1.00)	0.70 (0.50, 0.98)[a]	0.58 (0.34, 0.99)[a]	0.70 (0.28, 1.75)	0.50 (0.07, 3.66)[b]
Arrhythmia	676	0.92 (0.78, 1.09)	0.87 (0.72, 1.05)	0.84 (0.68, 1.03)	0.92 (0.73, 1.16)	0.83 (0.62, 1.12)	0.96 (0.66, 1.41)	1.28 (0.79, 2.08)	1.95 (0.98, 3.87)	2.13 (0.62, 7.29)
Cerebrovascular	207	0.86 (0.63, 1.18)	0.83 (0.60, 1.17)	1.02 (0.72, 1.46)	0.94 (0.62, 1.42)	0.91 (0.55, 1.49)	0.86 (0.45, 1.67)	0.79 (0.30, 2.10)	0.77 (0.17, 3.57)	
Ischemic	62	1.14 (0.66, 1.99)	1.53 (0.86, 2.72)	1.91 (1.05, 3.47)[a]	1.89 (1.00, 3.58)[a]	2.13 (1.02, 4.47)[a]	2.77 (1.20, 6.43)[a]	4.90 (1.64, 14.57)[a]	1.20 (0.15, 9.74)[b]	
Myocardial infarction	21	1.49 (0.59, 3.80)	2.21 (0.85, 5.78)	2.56 (0.94, 6.92)	3.87 (1.38, 10.86)[a]	3.60 (1.17, 11.08)[a]	5.39 (1.47, 19.71)[a]	41.88 (2.50, 701.16)[a]		
Heart failure	162	1.12 (0.80, 1.58)	1.00 (0.70, 1.44)	1.02 (0.68, 1.51)	1.04 (0.67, 1.62)	0.99 (0.58, 1.68)	1.23 (0.66, 2.31)	0.83 (0.33, 2.13)	1.30 (0.29, 5.77)	3.76 (0.71, 19.81)
Heat illness	14	2.95 (0.87, 9.97)	0.87 (0.26, 2.85)	1.27 (0.37, 4.35)	1.35 (0.36, 5.01)	2.82 (0.72, 11.03)	4.07 (1.01, 16.36)[a]	6.02 (1.05, 34.47)[a]	4.25 (0.36, 49.71)[b]	

[a] 95% CI does not include the null.

[b] This footnote is to designate that only one ED visit related to the indicated health outcome occurred four days after an exposure (i.e., a day during which the HI exceeded the indicated threshold) during the study period.

Note: Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Table S1f. Odds ratios and 95% confidence intervals for emergency department (ED) visits among females for heat index (HI) on lag day 5 above versus below the threshold from single-day lag models in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	***Number of cases***	**70-degree HI threshold**	**72-degree HI threshold**	**74-degree HI threshold**	**76-degree HI threshold**	**78-degree HI threshold**	**80-degree HI threshold**	**82-degree HI threshold**	**84-degree HI threshold**	**86-degree HI threshold**
Asthma	1651	0.90 (0.80, 1.00)[a]	0.87 (0.77, 0.98)[a]	0.95 (0.84, 1.08)	0.94 (0.81, 1.10)	0.93 (0.78, 1.12)	0.89 (0.69, 1.14)	1.01 (0.71, 1.42)	0.81 (0.42, 1.57)	
COPD	1138	0.95 (0.83, 1.08)	0.91 (0.79, 1.04)	0.90 (0.77, 1.06)	0.88 (0.73, 1.05)	0.84 (0.67, 1.05)	0.87 (0.64, 1.18)	0.71 (0.45, 1.13)	0.38 (0.14, 1.03)	0.71 (0.09, 5.32)[b]
Pneumonia	999	1.02 (0.88, 1.18)	0.94 (0.80, 1.09)	0.92 (0.78, 1.10)	0.93 (0.76, 1.14)	0.95 (0.75, 1.21)	0.90 (0.64, 1.25)	0.90 (0.57, 1.41)	1.02 (0.48, 2.13)	
Bronchitis	1130	0.78 (0.68, 0.89)[a]	0.77 (0.66, 0.89)[a]	0.74 (0.63, 0.88)[a]	0.77 (0.64, 0.93)[a]	0.77 (0.61, 0.97)[a]	0.68 (0.49, 0.96)[a]	1.06 (0.69, 1.63)	1.38 (0.68, 2.78)	3.77 (1.24, 11.51)[a]
Arrhythmia	676	0.92 (0.77, 1.09)	0.96 (0.80, 1.16)	1.02 (0.83, 1.24)	0.98 (0.78, 1.23)	1.14 (0.88, 1.49)	1.30 (0.92, 1.83)	1.36 (0.85, 2.17)	0.89 (0.35, 2.25)	1.12 (0.14, 8.71)[b]
Cerebrovascular	207	0.95 (0.70, 1.30)	0.98 (0.71, 1.37)	1.02 (0.71, 1.45)	0.99 (0.66, 1.49)	0.96 (0.58, 1.59)	1.03 (0.55, 1.94)	1.53 (0.69, 3.37)	1.46 (0.43, 4.98)	
Ischemic	62	1.25 (0.72, 2.18)	1.55 (0.88, 2.73)	2.01 (1.12, 3.59)[a]	2.11 (1.09, 4.06)[a]	2.03 (0.95, 4.36)	4.71 (2.09, 10.59)[a]	1.25 (0.28, 5.63)	1.10 (0.14, 8.84)[b]	
Myocardial infarction	21	1.88 (0.73, 4.82)	2.82 (1.12, 7.09)[a]	3.64 (1.42, 9.36)[a]	3.14 (1.12, 8.82)[a]	3.32 (0.89, 12.30)	13.88 (2.42, 79.47)[a]			
Heart failure	162	1.26 (0.90, 1.76)	1.20 (0.84, 1.70)	1.12 (0.76, 1.64)	0.83 (0.52, 1.32)	0.92 (0.53, 1.60)	1.04 (0.50, 2.16)	0.96 (0.31, 2.93)	0.49 (0.06, 4.10)[b]	
Heat illness	14	1.39 (0.46, 4.22)	1.36 (0.45, 4.06)	2.03 (0.66, 6.24)	2.01 (0.60, 6.75)	2.31 (0.62, 8.58)	6.04 (1.24, 29.47)[a]	10.26 (1.16, 90.38)[a]	5.91 (0.47, 74.17)[b]	

[a] 95% CI does not include the null.

[b] This footnote is to designate that only one ED visit related to the indicated health outcome occurred five days after an exposure (i.e., a day during which the HI exceeded the indicated threshold) during the study period.

Note: Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Table S1g. Odds ratios and 95% confidence intervals for emergency department (ED) visits among males for same-day heat index (HI) above versus below the threshold from single-day lag models in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	***Number of cases***	**70-degree HI threshold**	**72-degree HI threshold**	**74-degree HI threshold**	**76-degree HI threshold**	**78-degree HI threshold**	**80-degree HI threshold**	**82-degree HI threshold**	**84-degree HI threshold**	**86-degree HI threshold**
Asthma	1260	0.98 (0.87, 1.11)	1.00 (0.87, 1.14)	1.00 (0.86, 1.15)	1.01 (0.86, 1.19)	0.97 (0.80, 1.18)	1.00 (0.78, 1.30)	1.11 (0.80, 1.55)	1.19 (0.68, 2.09)	1.66 (0.37, 7.47)
COPD	1010	0.91 (0.79, 1.05)	0.95 (0.81, 1.10)	0.95 (0.80, 1.12)	0.92 (0.75, 1.11)	0.99 (0.79, 1.25)	0.78 (0.54, 1.11)	0.56 (0.32, 0.98)[a]	0.38 (0.12, 1.22)	0.56 (0.08, 4.15)[b]
Pneumonia	1082	0.88 (0.77, 1.01)	0.94 (0.82, 1.09)	0.95 (0.81, 1.12)	0.89 (0.73, 1.08)	0.96 (0.76, 1.20)	1.17 (0.87, 1.58)	0.95 (0.61, 1.49)	1.14 (0.57, 2.29)	1.07 (0.25, 4.52)
Bronchitis	842	0.75 (0.64, 0.88)[a]	0.81 (0.68, 0.95)[a]	0.79 (0.66, 0.96)[a]	0.77 (0.62, 0.97)[a]	0.80 (0.61, 1.04)	0.96 (0.68, 1.34)	0.89 (0.55, 1.45)	1.04 (0.47, 2.29)	1.34 (0.31, 5.78)
Arrhythmia	941	0.97 (0.84, 1.13)	0.99 (0.85, 1.16)	0.99 (0.84, 1.18)	0.90 (0.74, 1.10)	0.78 (0.61, 1.00)	0.69 (0.49, 0.98)[a]	0.67 (0.40, 1.11)	0.46 (0.17, 1.26)	1.28 (0.30, 5.52)
Cerebrovascular	227	0.82 (0.61, 1.11)	0.75 (0.54, 1.04)	0.78 (0.54, 1.13)	0.77 (0.50, 1.18)	0.98 (0.61, 1.57)	1.08 (0.59, 2.00)	1.08 (0.46, 2.54)	1.60 (0.53, 4.80)	1.61 (0.20, 12.99)[b]
Ischemic	138	1.27 (0.87, 1.86)	1.28 (0.86, 1.91)	1.28 (0.83, 1.97)	1.30 (0.79, 2.12)	1.04 (0.56, 1.93)	1.52 (0.67, 3.45)	1.11 (0.32, 3.81)		
Myocardial infarction	61	1.67 (0.94, 2.95)	1.39 (0.76, 2.55)	1.67 (0.88, 3.15)	1.65 (0.80, 3.41)	0.85 (0.28, 2.56)	0.83 (0.17, 4.06)			
Heart failure	279	0.72 (0.54, 0.95)[a]	0.65 (0.48, 0.90)[a]	0.67 (0.47, 0.96)[a]	0.79 (0.53, 1.16)	0.75 (0.46, 1.22)	0.76 (0.38, 1.49)	0.57 (0.20, 1.64)	1.48 (0.33, 6.57)	11.70 (0.73, 187.14)[b]
Heat illness	21	11.48 (2.64, 50.04)[a]	17.56 (4.00, 77.00)[a]	14.28 (4.01, 50.82)[a]	16.84 (5.36, 52.86)[a]	14.21 (4.76, 42.47)[a]	27.05 (7.48, 97.89)[a]	16.44 (4.93, 54.87)[a]	10.41 (2.93, 36.96)[a]	

[a] 95% CI does not include the null.

[b] This footnote is to designate that only one ED visit related to the indicated health outcome occurred on an exposed day (i.e., a day during which the HI exceeded the indicated threshold) during the study period.

Note: Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Table S1h. Odds ratios and 95% confidence intervals for emergency department (ED) visits among males for heat index (HI) on lag day 1 above versus below the threshold from single-day lag models in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	***Number of cases***	**70-degree HI threshold**	**72-degree HI threshold**	**74-degree HI threshold**	**76-degree HI threshold**	**78-degree HI threshold**	**80-degree HI threshold**	**82-degree HI threshold**	**84-degree HI threshold**	**86-degree HI threshold**
Asthma	1260	0.99 (0.88, 1.13)	1.01 (0.88, 1.15)	1.04 (0.90, 1.19)	1.09 (0.93, 1.28)	1.05 (0.87, 1.28)	1.07 (0.84, 1.38)	1.07 (0.75, 1.52)	0.80 (0.42, 1.55)	0.93 (0.22, 3.95)
COPD	1010	0.93 (0.81, 1.07)	0.94 (0.81, 1.09)	0.89 (0.75, 1.05)	0.94 (0.78, 1.14)	0.77 (0.60, 0.99)[a]	0.58 (0.39, 0.84)[a]	0.54 (0.31, 0.93)[a]	0.57 (0.23, 1.42)	
Pneumonia	1082	0.94 (0.82, 1.08)	0.97 (0.84, 1.12)	0.96 (0.81, 1.13)	1.02 (0.84, 1.22)	1.12 (0.90, 1.39)	1.16 (0.86, 1.57)	1.23 (0.82, 1.86)	1.34 (0.69, 2.61)	
Bronchitis	842	0.79 (0.68, 0.93)[a]	0.81 (0.68, 0.96)[a]	0.83 (0.69, 1.00)	0.69 (0.55, 0.87)[a]	0.68 (0.51, 0.90)[a]	0.81 (0.56, 1.18)	0.92 (0.56, 1.51)	0.82 (0.35, 1.90)	0.47 (0.06, 3.47)[b]
Arrhythmia	941	1.04 (0.90, 1.20)	1.05 (0.90, 1.22)	0.98 (0.83, 1.16)	0.87 (0.71, 1.06)	0.96 (0.75, 1.21)	0.71 (0.49, 1.02)	0.83 (0.51, 1.35)	1.08 (0.49, 2.37)	2.46 (0.54, 11.25)
Cerebrovascular	227	0.85 (0.63, 1.15)	0.78 (0.56, 1.08)	0.76 (0.52, 1.09)	0.91 (0.61, 1.36)	1.08 (0.68, 1.72)	1.03 (0.56, 1.88)	0.56 (0.20, 1.58)	0.33 (0.04, 2.43)[b]	
Ischemic	138	1.35 (0.93, 1.97)	1.47 (0.99, 2.18)	1.46 (0.96, 2.22)	1.08 (0.64, 1.81)	0.82 (0.41, 1.63)	0.95 (0.39, 2.35)	0.68 (0.15, 3.02)		
Myocardial infarction	61	1.86 (1.05, 3.28)[a]	1.90 (1.03, 3.51)[a]	1.94 (1.01, 3.71)[a]	1.31 (0.60, 2.88)	0.70 (0.20, 2.44)	1.15 (0.23, 5.88)	1.78 (0.31, 10.02)		
Heart failure	279	1.86 (1.05, 3.28)[a]	0.76 (0.56, 1.02)	0.83 (0.60, 1.15)	0.84 (0.58, 1.22)	0.94 (0.59, 1.48)	0.84 (0.43, 1.63)	1.50 (0.65, 3.46)	0.37 (0.04, 3.12)[b]	1.88 (0.22, 15.88)[b]
Heat illness	21	11.98 (2.76, 51.94)[a]	7.60 (2.51, 23.06)[a]	7.76 (2.78, 21.62)[a]	11.12 (4.13, 29.90)[a]	9.34 (3.56, 24.46)[a]	9.99 (3.51, 28.45)[a]	13.44 (3.57, 50.65)[a]	12.01 (1.69, 85.27)[a]	

[a] 95% CI does not include the null.

[b] This footnote is to designate that only one ED visit related to the indicated health outcome occurred one day after an exposure (i.e., a day during which the HI exceeded the indicated threshold) during the study period.

Note: Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Table S1i. Odds ratios and 95% confidence intervals for emergency department (ED) visits among males for heat index (HI) on lag day 2 above versus below the threshold from single-day lag models in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	***Number of cases***	**70-degree HI threshold**	**72-degree HI threshold**	**74-degree HI threshold**	**76-degree HI threshold**	**78-degree HI threshold**	**80-degree HI threshold**	**82-degree HI threshold**	**84-degree HI threshold**	**86-degree HI threshold**
Asthma	1260	0.96 (0.85, 1.09)	1.01 (0.89, 1.15)	0.95 (0.82, 1.09)	1.06 (0.91, 1.25)	1.03 (0.84, 1.25)	1.06 (0.82, 1.37)	1.11 (0.78, 1.57)	1.01 (0.55, 1.84)	0.48 (0.07, 3.59)[b]
COPD	1010	0.83 (0.72, 0.96)[a]	0.84 (0.72, 0.97)[a]	0.81 (0.68, 0.96)[a]	0.81 (0.66, 0.99)[a]	0.70 (0.54, 0.91)[a]	0.79 (0.56, 1.11)	0.78 (0.48, 1.26)	0.54 (0.22, 1.33)	1.07 (0.25, 4.53)
Pneumonia	1082	0.95 (0.83, 1.09)	0.93 (0.80, 1.08)	0.96 (0.81, 1.13)	1.03 (0.86, 1.24)	1.11 (0.89, 1.39)	1.13 (0.83, 1.54)	1.19 (0.77, 1.84)	0.82 (0.36, 1.91)	1.61 (0.48, 5.35)
Bronchitis	842	0.79 (0.68, 0.93)[a]	0.87 (0.73, 1.03)	0.77 (0.64, 0.94)[a]	0.75 (0.60, 0.94)[a]	0.79 (0.60, 1.04)	0.84 (0.58, 1.21)	0.69 (0.38, 1.23)	0.44 (0.14, 1.41)	0.51 (0.07, 3.80)[b]
Arrhythmia	941	1.08 (0.94, 1.25)	1.08 (0.93, 1.25)	1.03 (0.87, 1.22)	0.91 (0.75, 1.11)	0.93 (0.74, 1.18)	0.92 (0.67, 1.28)	0.90 (0.57, 1.43)	0.87 (0.40, 1.89)	1.15 (0.27, 4.89)
Cerebrovascular	227	0.93 (0.69, 1.26)	0.87 (0.64, 1.20)	0.93 (0.66, 1.31)	0.84 (0.57, 1.26)	0.69 (0.41, 1.15)	0.75 (0.39, 1.44)	0.54 (0.19, 1.53)	0.79 (0.19, 3.39)	
Ischemic	138	1.63 (1.12, 2.37)[a]	1.75 (1.20, 2.56)[a]	1.35 (0.89, 2.05)	1.31 (0.81, 2.13)	0.91 (0.48, 1.73)	0.73 (0.28, 1.92)	1.07 (0.31, 3.69)		
Myocardial infarction	61	2.15 (1.22, 3.79)[a]	2.17 (1.21, 3.92)[a]	1.93 (1.01, 3.68)[a]	1.68 (0.78, 3.65)	1.05 (0.35, 3.14)	1.32 (0.27, 6.46)	2.09 (0.41, 10.77)		
Heart failure	279	0.81 (0.62, 1.06)	0.80 (0.60, 1.07)	0.75 (0.54, 1.05)	0.85 (0.58, 1.23)	0.89 (0.56, 1.41)	1.00 (0.53, 1.87)	1.08 (0.45, 2.59)		
Heat illness	21	5.92 (1.72, 20.35)[a]	3.66 (1.39, 9.65)[a]	2.95 (1.21, 7.23)[a]	3.61 (1.45, 8.98)[a]	5.09 (1.88, 13.78)[a]	4.29 (1.32, 13.98)[a]	1.39 (0.11, 17.49)[b]	8.15 (0.45, 148.89)[b]	

[a] 95% CI does not include the null.

[b] This footnote is to designate that only one ED visit related to the indicated health outcome occurred two days after an exposure (i.e., a day during which the HI exceeded the indicated threshold) during the study period.

Note: Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Table S1j. Odds ratios and 95% confidence intervals for emergency department (ED) visits among males for heat index (HI) on lag day 3 above versus below the threshold from single-day lag models in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	***Number of cases***	**70-degree HI threshold**	**72-degree HI threshold**	**74-degree HI threshold**	**76-degree HI threshold**	**78-degree HI threshold**	**80-degree HI threshold**	**82-degree HI threshold**	**84-degree HI threshold**	**86-degree HI threshold**
Asthma	1260	0.94 (0.83, 1.06)	0.96 (0.84, 1.09)	0.94 (0.82, 1.09)	0.96 (0.81, 1.13)	0.94 (0.77, 1.14)	0.99 (0.76, 1.29)	0.81 (0.55, 1.20)	0.77 (0.39, 1.53)	0.41 (0.06, 3.04)[b]
COPD	1010	0.84 (0.73, 0.97)[a]	0.88 (0.76, 1.03)	0.73 (0.61, 0.87)[a]	0.71 (0.57, 0.87)[a]	0.70 (0.54, 0.91)[a]	0.67 (0.46, 0.96)[a]	0.58 (0.33, 1.01)	0.59 (0.24, 1.48)	1.34 (0.31, 5.80)
Pneumonia	1082	0.91 (0.79, 1.04)	0.92 (0.79, 1.06)	0.97 (0.83, 1.15)	0.91 (0.75, 1.10)	0.85 (0.67, 1.08)	0.88 (0.63, 1.23)	0.98 (0.62, 1.53)	0.85 (0.39, 1.87)	
Bronchitis	842	0.80 (0.68, 0.93)[a]	0.79 (0.67, 0.94)[a]	0.80 (0.66, 0.97)[a]	0.82 (0.66, 1.02)	0.83 (0.63, 1.08)	0.72 (0.48, 1.06)	0.86 (0.51, 1.46)	0.69 (0.25, 1.90)	0.83 (0.11, 6.30)[b]
Arrhythmia	941	0.90 (0.78, 1.05)	0.94 (0.80, 1.10)	0.91 (0.77, 1.08)	0.90 (0.74, 1.10)	0.87 (0.68, 1.11)	1.07 (0.80, 1.45)	0.99 (0.65, 1.50)	0.70 (0.32, 1.54)	0.44 (0.06, 3.26)[b]
Cerebrovascular	227	0.85 (0.62, 1.15)	0.88 (0.64, 1.22)	0.79 (0.55, 1.14)	0.81 (0.54, 1.23)	0.72 (0.43, 1.22)	0.78 (0.40, 1.50)	0.47 (0.14, 1.56)		
Ischemic	138	1.16 (0.79, 1.69)	1.10 (0.74, 1.64)	0.99 (0.63, 1.54)	1.25 (0.78, 2.02)	1.11 (0.62, 2.02)	0.86 (0.38, 1.95)	0.53 (0.12, 2.29)	0.56 (0.07, 4.23)[b]	
Myocardial infarction	61	1.20 (0.65, 2.18)	1.36 (0.73, 2.53)	1.73 (0.88, 3.38)	2.07 (0.98, 4.37)	1.29 (0.45, 3.70)	1.45 (0.35, 5.95)	1.73 (0.29, 10.49)	1.13 (0.12, 10.47)[b]	
Heart failure	279	0.88 (0.67, 1.15)	0.78 (0.58, 1.05)	0.89 (0.64, 1.23)	0.77 (0.52, 1.14)	0.64 (0.38, 1.07)	0.70 (0.35, 1.41)	0.91 (0.36, 2.33)	0.86 (0.20, 3.68)	1.71 (0.21, 13.90)[b]
Heat illness	21	3.37 (1.20, 9.45)[a]	3.09 (1.20, 7.95)[a]	3.97 (1.52, 10.34)[a]	1.61 (0.60, 4.28)	1.70 (0.51, 5.70)	0.50 (0.06, 4.42)[b]	0.87 (0.10, 7.55)[b]	4.09 (0.42, 39.67)[b]	

[a] 95% CI does not include the null.

[b] This footnote is to designate that only one ED visit related to the indicated health outcome occurred three days after an exposure (i.e., a day during which the HI exceeded the indicated threshold) during the study period.

Note: Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Table S1k. Odds ratios and 95% confidence intervals for emergency department (ED) visits among males for heat index (HI) on lag day 4 above versus below the threshold from single-day lag models in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	***Number of cases***	**70-degree HI threshold**	**72-degree HI threshold**	**74-degree HI threshold**	**76-degree HI threshold**	**78-degree HI threshold**	**80-degree HI threshold**	**82-degree HI threshold**	**84-degree HI threshold**	**86-degree HI threshold**
Asthma	1260	0.91 (0.80, 1.03)	0.92 (0.80, 1.05)	0.91 (0.79, 1.06)	0.90 (0.76, 1.07)	1.03 (0.85, 1.26)	1.18 (0.92, 1.51)	1.17 (0.83, 1.64)	0.80 (0.42, 1.51)	0.76 (0.10, 5.78)[b]
COPD	1010	0.85 (0.74, 0.98)[a]	0.86 (0.74, 1.00)	0.87 (0.73, 1.03)	0.87 (0.72, 1.06)	0.74 (0.58, 0.95)[a]	0.67 (0.47, 0.97)[a]	0.76 (0.46, 1.26)	0.81 (0.37, 1.77)	
Pneumonia	1082	0.90 (0.78, 1.03)	0.93 (0.81, 1.08)	0.87 (0.73, 1.02)	0.83 (0.69, 1.02)	0.79 (0.62, 1.01)	0.71 (0.50, 1.01)	0.58 (0.33, 1.02)	0.54 (0.20, 1.50)	0.65 (0.09, 4.86)[b]
Bronchitis	842	0.73 (0.63, 0.86)[a]	0.75 (0.63, 0.89)[a]	0.82 (0.68, 1.00)[a]	0.84 (0.68, 1.05)	0.70 (0.53, 0.93)[a]	0.82 (0.56, 1.19)	0.62 (0.34, 1.14)	0.36 (0.09, 1.47)	0.85 (0.11, 6.46)[b]
Arrhythmia	941	0.91 (0.78, 1.05)	0.95 (0.82, 1.11)	0.90 (0.76, 1.08)	0.95 (0.77, 1.16)	0.97 (0.76, 1.23)	1.17 (0.87, 1.58)	1.19 (0.79, 1.80)	0.89 (0.41, 1.96)	
Cerebrovascular	227	1.09 (0.81, 1.47)	1.00 (0.73, 1.37)	0.90 (0.64, 1.28)	0.82 (0.55, 1.25)	0.77 (0.45, 1.30)	0.67 (0.33, 1.37)	0.47 (0.15, 1.55)	0.98 (0.23, 4.14)	
Ischemic	138	0.86 (0.58, 1.27)	0.97 (0.64, 1.46)	1.04 (0.66, 1.63)	1.11 (0.67, 1.84)	0.87 (0.46, 1.65)	0.67 (0.28, 1.60)	0.44 (0.10, 1.86)		
Myocardial infarction	61	1.17 (0.63, 2.17)	1.25 (0.65, 2.39)	1.79 (0.90, 3.54)	2.74 (1.31, 5.72)[a]	1.68 (0.67, 4.23)	1.05 (0.29, 3.76)	0.64 (0.08, 5.16)[b]		
Heart failure	279	0.96 (0.74, 1.26)	0.80 (0.59, 1.07)	0.85 (0.61, 1.18)	0.52 (0.34, 0.82)[a]	0.71 (0.42, 1.18)	0.93 (0.50, 1.76)	0.42 (0.13, 1.40)	0.46 (0.06, 3.46)[b]	
Heat illness	21	2.14 (0.84, 5.46)	2.12 (0.85, 5.29)	2.38 (0.94, 6.01)	1.31 (0.48, 3.58)	1.08 (0.30, 3.97)	1.74 (0.45, 6.76)	2.18 (0.44, 10.93)	6.04 (1.05, 34.63)[a]	

[a] 95% CI does not include the null.

[b] This footnote is to designate that only one ED visit related to the indicated health outcome occurred four days after an exposure (i.e., a day during which the HI exceeded the indicated threshold) during the study period.

Note: Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Table S1l. Odds ratios and 95% confidence intervals for emergency department (ED) visits among males for heat index (HI) on lag day 5 above versus below the threshold from single-day lag models in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	***Number of cases***	**70-degree HI threshold**	**72-degree HI threshold**	**74-degree HI threshold**	**76-degree HI threshold**	**78-degree HI threshold**	**80-degree HI threshold**	**82-degree HI threshold**	**84-degree HI threshold**	**86-degree HI threshold**
Asthma	1260	0.96 (0.84, 1.08)	0.94 (0.82, 1.07)	0.94 (0.81, 1.08)	0.94 (0.79, 1.11)	1.06 (0.87, 1.28)	1.07 (0.83, 1.39)	1.07 (0.75, 1.52)	0.25 (0.08, 0.79)[a]	
COPD	1010	0.85 (0.74, 0.98)[a]	0.81 (0.70, 0.95)[a]	0.82 (0.69, 0.97)[a]	0.74 (0.61, 0.91)[a]	0.70 (0.55, 0.90)[a]	0.74 (0.53, 1.04)	0.65 (0.39, 1.08)	1.15 (0.55, 2.42)	3.05 (1.13, 8.23)[a]
Pneumonia	1082	0.85 (0.74, 0.97)[a]	0.85 (0.74, 0.99)[a]	0.85 (0.72, 1.00)	0.83 (0.68, 1.01)	0.83 (0.65, 1.05)	0.52 (0.35, 0.76)[a]	0.72 (0.43, 1.19)	0.63 (0.25, 1.57)	1.47 (0.34, 6.39)
Bronchitis	842	0.82 (0.70, 0.96)[a]	0.84 (0.71, 0.99)[a]	0.85 (0.71, 1.03)	0.82 (0.66, 1.03)	0.70 (0.53, 0.94)[a]	0.76 (0.52, 1.12)	0.75 (0.43, 1.31)	0.81 (0.32, 2.03)	
Arrhythmia	941	0.92 (0.79, 1.06)	0.85 (0.73, 1.00)	0.87 (0.73, 1.03)	0.93 (0.77, 1.13)	0.97 (0.77, 1.22)	1.21 (0.91, 1.62)	0.89 (0.57, 1.40)	0.96 (0.50, 1.84)	0.47 (0.06, 3.48)[b]
Cerebrovascular	227	1.25 (0.94, 1.66)	1.26 (0.94, 1.70)	1.14 (0.82, 1.59)	1.33 (0.93, 1.92)	1.07 (0.67, 1.69)	0.84 (0.44, 1.62)	1.28 (0.57, 2.89)	0.55 (0.07, 4.10)[b]	2.53 (0.30, 21.66)[b]
Ischemic	138	1.21 (0.83, 1.77)	1.06 (0.71, 1.60)	0.83 (0.52, 1.35)	1.01 (0.60, 1.70)	0.83 (0.43, 1.59)	0.50 (0.19, 1.31)	0.47 (0.10, 2.08)	1.20 (0.24, 5.95)	
Myocardial infarction	61	1.74 (0.96, 3.14)	1.79 (0.96, 3.33)	1.86 (0.95, 3.66)	2.10 (0.98, 4.47)	1.58 (0.61, 4.08)	0.68 (0.15, 3.11)	0.74 (0.09, 5.95)	1.61 (0.18, 14.03)[b]	
Heart failure	279	0.93 (0.71, 1.21)	0.87 (0.64, 1.16)	0.76 (0.54, 1.08)	0.54 (0.34, 0.84)[a]	0.67 (0.41, 1.11)	0.70 (0.35, 1.38)	0.51 (0.15, 1.71)	0.74 (0.10, 5.65)[b]	
Heat illness	21	2.65 (0.99, 7.12)	1.86 (0.75, 4.65)	2.18 (0.86, 5.52)	2.81 (1.09, 7.24)[a]	2.93 (1.00, 8.62)	3.40 (1.02, 11.36)[a]	3.81 (0.97, 14.94)	0.99 (0.11, 8.52)[b]	

[a] 95% CI does not include the null.

[b] This footnote is to designate that only one ED visit related to the indicated health outcome occurred five days after an exposure (i.e., a day during which the HI exceeded the indicated threshold) during the study period.

Note: Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Tables S2a-l – Threshold analyses at Lags 0-5, stratified by race

Table S2a. Odds ratios and 95% confidence intervals for emergency department (ED) visits among Alaskan Native people for same-day heat index (HI) above versus below the threshold from single-day lag models in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	***Number of cases***	**70-degree HI threshold**	**72-degree HI threshold**	**74-degree HI threshold**	**76-degree HI threshold**	**78-degree HI threshold**	**80-degree HI threshold**	**82-degree HI threshold**	**84-degree HI threshold**	**86-degree HI threshold**
Asthma	920	1.03 (0.89, 1.19)	1.01 (0.87, 1.18)	1.00 (0.85, 1.19)	1.01 (0.84, 1.23)	1.03 (0.82, 1.30)	1.11 (0.81, 1.52)	1.15 (0.76, 1.75)	0.96 (0.42, 2.16)	3.27 (0.65, 16.36)
COPD	477	0.80 (0.65, 0.98)[a]	0.82 (0.65, 1.02)	0.80 (0.62, 1.02)	0.82 (0.62, 1.10)	0.87 (0.62, 1.23)	0.71 (0.43, 1.19)	0.60 (0.27, 1.31)	0.61 (0.14, 2.60)	2.92 (0.33, 26.13)[b]
Pneumonia	625	0.77 (0.64, 0.93)[a]	0.78 (0.63, 0.95)[a]	0.81 (0.65, 1.01)	0.90 (0.70, 1.16)	1.07 (0.80, 1.43)	1.64 (1.13, 2.39)[a]	1.25 (0.72, 2.17)	1.93 (0.85, 4.36)	2.03 (0.45, 9.06)
Bronchitis	597	0.84 (0.70, 1.01)	0.79 (0.64, 0.96)[a]	0.79 (0.63, 0.99)[a]	0.71 (0.54, 0.93)[a]	0.67 (0.47, 0.94)[a]	0.78 (0.49, 1.25)	0.48 (0.21, 1.08)	1.37 (0.53, 3.55)	3.19 (1.04, 9.73)[a]
Arrhythmia	222	0.82 (0.60, 1.12)	0.88 (0.63, 1.22)	0.77 (0.53, 1.13)	0.81 (0.53, 1.25)	0.81 (0.49, 1.34)	0.72 (0.34, 1.51)	0.72 (0.26, 2.00)	1.08 (0.25, 4.64)	12.07 (0.74, 195.62)[b]
Cerebrovascular	62	0.87 (0.49, 1.54)	0.72 (0.38, 1.34)	0.88 (0.45, 1.71)	1.08 (0.51, 2.29)	1.05 (0.44, 2.52)	1.13 (0.34, 3.73)	1.11 (0.21, 5.77)	2.15 (0.22, 21.55)[b]	5.07 (0.46, 56.06)[b]
Ischemic	35	1.34 (0.62, 2.89)	1.60 (0.74, 3.47)	1.54 (0.68, 3.48)	2.75 (1.20, 6.29)[a]	3.23 (1.36, 7.64)[a]	2.73 (0.87, 8.52)	2.47 (0.43, 14.20)		
Myocardial infarction	20	1.94 (0.69, 5.45)	1.84 (0.66, 5.14)	1.50 (0.50, 4.54)	3.03 (0.98, 9.34)	3.55 (1.11, 11.35)[a]	3.96 (0.80, 19.50)	2.16 (0.15, 30.99)[b]		
Heart failure	135	1.07 (0.73, 1.56)	0.86 (0.57, 1.31)	1.04 (0.67, 1.61)	1.20 (0.74, 1.94)	0.79 (0.42, 1.47)	0.52 (0.21, 1.32)	0.37 (0.09, 1.57)	1.39 (0.28, 6.90)	
Heat illness	10	11.46 (1.30, 100.82)[a]	14.38 (1.70, 121.61)[a]	15.99 (1.92, 132.92)[a]	25.28 (2.96, 215.67)[a]	18.82 (1.86, 190.33)[a]	28.08 (3.20, 246.69)[a]	8.74 (1.20, 63.76)[a]	6.98 (0.43, 113.46)[b]	

[a] 95% CI does not include the null.

[a]This footnote is to designate that only one ED visit related to the indicated health outcome occurred on an exposed day (i.e., a day during which the HI exceeded the indicated threshold) during the study period.

Note: Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Table S2b. Odds ratios and 95% confidence intervals for emergency department (ED) visits among Alaskan Native people for heat index (HI) on lag day 1 above versus below the threshold from single-day lag models in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	***Number of cases***	**70-degree HI threshold**	**72-degree HI threshold**	**74-degree HI threshold**	**76-degree HI threshold**	**78-degree HI threshold**	**80-degree HI threshold**	**82-degree HI threshold**	**84-degree HI threshold**	**86-degree HI threshold**
Asthma	920	1.03 (0.89, 1.19)	1.11 (0.96, 1.30)	1.12 (0.95, 1.32)	1.06 (0.88, 1.29)	1.13 (0.90, 1.41)	1.26 (0.93, 1.72)	1.31 (0.87, 1.99)	1.49 (0.75, 2.99)	
COPD	477	0.90 (0.73, 1.10)	0.83 (0.66, 1.04)	0.75 (0.58, 0.97)[a]	0.92 (0.69, 1.22)	0.76 (0.53, 1.08)	0.55 (0.32, 0.97)[a]	0.67 (0.32, 1.40)	0.51 (0.12, 2.19)	
Pneumonia	625	0.80 (0.67, 0.96)[a]	0.80 (0.65, 0.97)[a]	0.78 (0.63, 0.98)[a]	0.93 (0.73, 1.20)	0.98 (0.73, 1.32)	1.31 (0.90, 1.92)	1.48 (0.89, 2.46)	1.82 (0.85, 3.89)	1.80 (0.22, 14.73)[b]
Bronchitis	597	0.86 (0.72, 1.03)	0.84 (0.69, 1.02)	0.75 (0.60, 0.94)[a]	0.74 (0.57, 0.97)[a]	0.77 (0.56, 1.07)	0.72 (0.45, 1.16)	1.08 (0.61, 1.89)	1.28 (0.50, 3.29)	
Arrhythmia	222	0.95 (0.70, 1.28)	0.97 (0.70, 1.33)	0.95 (0.67, 1.35)	1.12 (0.76, 1.66)	1.22 (0.77, 1.93)	0.67 (0.31, 1.45)	0.34 (0.08, 1.50)		
Cerebrovascular	62	0.76 (0.42, 1.35)	0.56 (0.29, 1.09)	0.66 (0.32, 1.35)	0.96 (0.46, 2.00)	1.33 (0.60, 2.96)	1.40 (0.44, 4.44)	0.95 (0.20, 4.41)		
Ischemic	35	1.36 (0.66, 2.81)	1.74 (0.83, 3.67)	2.29 (1.09, 4.79)[a]	3.04 (1.40, 6.62)[a]	2.12 (0.89, 5.05)	2.62 (0.83, 8.26)	1.46 (0.31, 7.01)	3.42 (0.34, 34.58)[b]	
Myocardial infarction	20	1.71 (0.65, 4.55)	2.14 (0.77, 5.90)	3.09 (1.13, 8.41)[a]	3.24 (1.10, 9.52)[a]	0.78 (0.16, 3.76)	1.92 (0.31, 11.71)	3.18 (0.53, 19.28)	4.80 (0.39, 59.45)[b]	
Heart failure	135	1.08 (0.74, 1.58)	0.92 (0.61, 1.38)	0.89 (0.56, 1.39)	1.05 (0.64, 1.72)	0.89 (0.48, 1.63)	1.17 (0.55, 2.49)	1.41 (0.55, 3.61)	0.45 (0.05, 3.87)[b]	3.06 (0.31, 30.09)[b]
Heat illness	10	9.21 (1.02, 83.25)[a]	14.50 (1.64, 128.00)[a]	4.20 (0.96, 18.31)	6.36 (1.49, 27.17)[a]	4.39 (0.93, 20.61)	7.04 (0.92, 53.92)	14.77 (0.71, 309.41)[b]		

[a] 95% CI does not include the null.

[b] This footnote is to designate that only one ED visit related to the indicated health outcome occurred one day after an exposure (i.e., a day during which the HI exceeded the indicated threshold) during the study period.

Note: Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Table S2c. Odds ratios and 95% confidence intervals fo emergency department (ED) visits among Alaskan Native people for heat index (HI) on lag day 2 above versus below the threshold from single-day lag models in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	***Number of cases***	**70-degree HI threshold**	**72-degree HI threshold**	**74-degree HI threshold**	**76-degree HI threshold**	**78-degree HI threshold**	**80-degree HI threshold**	**82-degree HI threshold**	**84-degree HI threshold**	**86-degree HI threshold**
Asthma	920	1.09 (0.94, 1.26)	1.13 (0.97, 1.32)	1.01 (0.85, 1.20)	1.08 (0.89, 1.31)	1.06 (0.84, 1.34)	1.04 (0.75, 1.44)	1.09 (0.69, 1.71)	1.41 (0.68, 2.92)	0.97 (0.12, 7.53)[b]
COPD	477	0.90 (0.73, 1.10)	0.77 (0.61, 0.96)[a]	0.83 (0.64, 1.06)	0.84 (0.62, 1.12)	0.84 (0.59, 1.20)	0.60 (0.34, 1.06)	0.78 (0.37, 1.66)	1.49 (0.51, 4.35)	2.63 (0.30, 22.91)[b]
Pneumonia	625	0.82 (0.68, 0.99)[a]	0.82 (0.68, 1.01)	0.81 (0.65, 1.01)	0.88 (0.68, 1.14)	1.10 (0.82, 1.48)	1.42 (0.96, 2.10)	1.65 (0.98, 2.78)	0.98 (0.35, 2.77)	
Bronchitis	597	0.82 (0.69, 0.99)[a]	0.88 (0.72, 1.07)	0.81 (0.65, 1.02)	0.88 (0.68, 1.14)	0.87 (0.64, 1.19)	0.94 (0.60, 1.45)	0.99 (0.54, 1.84)	0.25 (0.03, 1.82)[b]	1.79 (0.22, 14.62)[b]
Arrhythmia	222	0.92 (0.68, 1.24)	0.86 (0.62, 1.20)	0.95 (0.67, 1.36)	1.03 (0.69, 1.54)	0.84 (0.51, 1.39)	0.57 (0.26, 1.25)	0.29 (0.07, 1.26)		
Cerebrovascular	62	0.74 (0.41, 1.34)	0.75 (0.40, 1.41)	0.72 (0.35, 1.49)	0.89 (0.40, 1.98)	0.91 (0.35, 2.40)	1.09 (0.32, 3.79)	1.28 (0.26, 6.17)	3.66 (0.38, 35.55)[b]	
Ischemic	35	1.63 (0.80, 3.34)	1.53 (0.73, 3.17)	2.08 (1.00, 4.36)	2.11 (0.92, 4.85)	1.22 (0.43, 3.46)	2.13 (0.58, 7.87)	1.49 (0.30, 7.55)		
Myocardial infarction	20	2.18 (0.83, 5.72)	1.77 (0.67, 4.67)	2.37 (0.88, 6.36)	1.58 (0.48, 5.22)	1.16 (0.24, 5.55)	2.59 (0.47, 14.41)	1.70 (0.19, 15.07)[b]		
Heart failure	135	0.97 (0.66, 1.42)	1.02 (0.68, 1.53)	0.73 (0.46, 1.17)	0.81 (0.47, 1.38)	0.97 (0.53, 1.76)	0.95 (0.41, 2.19)	0.68 (0.19, 2.40)		
Heat illness	10	1.08 (0.28, 4.16)	1.02 (0.27, 3.92)	0.63 (0.13, 3.09)	1.01 (0.20, 4.97)	0.87 (0.10, 7.30)[b]	1.29 (0.14, 12.01)[b]			

[a] 95% CI does not include the null.

[b] This footnote is to designate that only one ED visit related to the indicated health outcome occurred two days after an exposure (i.e., a day during which the HI exceeded the indicated threshold) during the study period.

Note: Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Table S2d. Odds ratios and 95% confidence intervals for emergency department (ED) visits among Alaskan Native people for heat index (HI) on lag day 3 above versus below the threshold from single-day lag models in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	***Number of cases***	**70-degree HI threshold**	**72-degree HI threshold**	**74-degree HI threshold**	**76-degree HI threshold**	**78-degree HI threshold**	**80-degree HI threshold**	**82-degree HI threshold**	**84-degree HI threshold**	**86-degree HI threshold**
Asthma	920	1.01 (0.87, 1.16)	0.96 (0.82, 1.12)	1.02 (0.86, 1.21)	1.01 (0.83, 1.23)	1.00 (0.79, 1.28)	1.03 (0.74, 1.43)	1.29 (0.83, 1.99)	1.67 (0.79, 3.56)	2.96 (0.33, 26.48)[b]
COPD	477	0.91 (0.74, 1.12)	0.84 (0.67, 1.05)	0.82 (0.64, 1.06)	0.89 (0.67, 1.19)	0.98 (0.69, 1.37)	0.76 (0.44, 1.32)	0.97 (0.47, 2.01)	1.09 (0.32, 3.69)	3.06 (0.34, 27.42)[b]
Pneumonia	625	0.89 (0.74, 1.07)	0.92 (0.76, 1.12)	0.84 (0.67, 1.06)	0.91 (0.70, 1.18)	0.83 (0.60, 1.15)	0.98 (0.63, 1.54)	1.55 (0.88, 2.72)	2.08 (0.91, 4.79)	1.59 (0.20, 12.76)[b]
Bronchitis	597	0.77 (0.64, 0.93)[a]	0.79 (0.65, 0.97)[a]	0.84 (0.67, 1.06)	0.74 (0.56, 0.98)[a]	0.89 (0.64, 1.22)	0.85 (0.54, 1.35)	0.89 (0.43, 1.82)	1.10 (0.33, 3.67)	
Arrhythmia	222	1.01 (0.75, 1.37)	0.77 (0.55, 1.08)	0.81 (0.56, 1.18)	0.86 (0.56, 1.32)	0.75 (0.44, 1.26)	0.57 (0.27, 1.21)	0.69 (0.27, 1.80)	0.50 (0.07, 3.79)[b]	
Cerebrovascular	62	0.93 (0.53, 1.63)	1.12 (0.62, 2.04)	0.78 (0.38, 1.60)	1.29 (0.62, 2.68)	1.48 (0.63, 3.44)	1.67 (0.56, 4.97)	0.52 (0.05, 5.23)[b]		
Ischemic	35	1.42 (0.68, 2.94)	1.51 (0.71, 3.22)	1.51 (0.67, 3.39)	2.10 (0.89, 4.97)	2.81 (1.06, 7.49)[a]	3.31 (0.92, 11.84)	1.59 (0.30, 8.46)	1.88 (0.18, 19.46)[b]	
Myocardial infarction	20	0.97 (0.35, 2.65)	1.20 (0.43, 3.36)	1.54 (0.52, 4.54)	1.65 (0.50, 5.43)	2.42 (0.61, 9.62)	4.91 (0.82, 29.30)	3.27 (0.47, 22.58)	2.09 (0.18, 24.13)[b]	
Heart failure	135	1.03 (0.71, 1.52)	0.96 (0.64, 1.44)	1.04 (0.68, 1.61)	0.90 (0.54, 1.51)	1.00 (0.55, 1.84)	0.62 (0.25, 1.54)	1.83 (0.77, 4.38)	2.81 (0.89, 8.91)	3.02 (0.31, 29.72)[b]
Heat illness	10	0.47 (0.11, 2.00)	0.40 (0.08, 2.03)	0.69 (0.13, 3.55)	0.44 (0.05, 3.64)[b]					

[a] 95% CI does not include the null.

[b] This footnote is to designate that only one ED visit related to the indicated health outcome occurred three days after an exposure (i.e., a day during which the HI exceeded the indicated threshold) during the study period.

Note: Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Table S2e. Odds ratios and 95% confidence intervals for emergency department (ED) visits among Alaskan Native people for heat index (HI) on lag day 4 above versus below the threshold from single-day lag models in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	***Number of cases***	**70-degree HI threshold**	**72-degree HI threshold**	**74-degree HI threshold**	**76-degree HI threshold**	**78-degree HI threshold**	**80-degree HI threshold**	**82-degree HI threshold**	**84-degree HI threshold**	**86-degree HI threshold**
Asthma	920	0.88 (0.76, 1.02)	0.87 (0.75, 1.03)	0.93 (0.78, 1.11)	0.95 (0.78, 1.17)	1.03 (0.81, 1.31)	1.07 (0.77, 1.49)	0.98 (0.60, 1.59)	0.90 (0.38, 2.18)	
COPD	477	0.93 (0.76, 1.14)	0.91 (0.73, 1.13)	0.94 (0.73, 1.20)	0.99 (0.75, 1.31)	0.97 (0.69, 1.35)	1.06 (0.66, 1.68)	0.84 (0.39, 1.79)	1.28 (0.37, 4.38)	4.40 (0.45, 43.09)[b]
Pneumonia	625	0.97 (0.81, 1.17)	1.07 (0.88, 1.29)	0.89 (0.71, 1.11)	0.86 (0.66, 1.12)	0.83 (0.60, 1.15)	1.06 (0.68, 1.65)	1.33 (0.74, 2.38)	1.92 (0.84, 4.36)	1.37 (0.17, 10.81)[b]
Bronchitis	597	0.78 (0.65, 0.94)[a]	0.79 (0.64, 0.97)[a]	0.81 (0.65, 1.03)	0.79 (0.60, 1.04)	0.83 (0.60, 1.14)	0.72 (0.45, 1.16)	0.46 (0.20, 1.07)		
Arrhythmia	222	0.96 (0.71, 1.30)	1.01 (0.73, 1.39)	0.82 (0.56, 1.19)	0.93 (0.60, 1.42)	0.99 (0.60, 1.64)	0.92 (0.46, 1.84)	1.03 (0.42, 2.53)	1.01 (0.21, 5.02)	
Cerebrovascular	62	1.09 (0.63, 1.89)	1.24 (0.70, 2.21)	1.30 (0.70, 2.41)	1.23 (0.60, 2.51)	1.17 (0.49, 2.77)	2.18 (0.83, 5.72)	0.78 (0.16, 3.79)	1.85 (0.22, 15.81)[b]	
Ischemic	35	0.85 (0.40, 1.81)	1.05 (0.49, 2.23)	1.71 (0.79, 3.73)	1.77 (0.77, 4.10)	1.35 (0.49, 3.72)	1.94 (0.60, 6.22)	2.91 (0.57, 14.88)		
Myocardial infarction	20	0.78 (0.27, 2.25)	0.95 (0.33, 2.72)	1.62 (0.55, 4.77)	2.25 (0.74, 6.86)	1.51 (0.36, 6.27)	3.53 (0.85, 14.72)	7.60 (1.15, 50.14)[a]		
Heart failure	135	1.22 (0.84, 1.78)	1.24 (0.84, 1.82)	1.15 (0.76, 1.76)	1.01 (0.62, 1.64)	1.01 (0.56, 1.83)	1.22 (0.60, 2.47)	0.62 (0.20, 1.93)	1.71 (0.37, 7.85)	2.69 (0.27, 26.78)[b]
Heat illness	10	0.78 (0.21, 2.94)	1.21 (0.31, 4.70)	0.94 (0.22, 4.01)	0.38 (0.05, 3.18)[b]	0.61 (0.07, 5.13)[b]	1.11 (0.12, 10.27)[b]	2.70 (0.22, 33.10)[b]		

[a] 95% CI does not include the null.

[b] This footnote is to designate that only one ED visit related to the indicated health outcome occurred four days after an exposure (i.e., a day during which the HI exceeded the indicated threshold) during the study period.

Note: Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Table S2f. Odds ratios and 95% confidence intervals for emergency department (ED) visits among Alaskan Native people for heat index (HI) on lag day 5 above versus below the threshold from single-day lag models in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	***Number of cases***	**70-degree HI threshold**	**72-degree HI threshold**	**74-degree HI threshold**	**76-degree HI threshold**	**78-degree HI threshold**	**80-degree HI threshold**	**82-degree HI threshold**	**84-degree HI threshold**	**86-degree HI threshold**
Asthma	920	0.85 (0.74, 0.99)[a]	0.89 (0.76, 1.05)	1.00 (0.84, 1.19)	0.90 (0.73, 1.11)	0.90 (0.70, 1.15)	0.88 (0.62, 1.25)	0.79 (0.47, 1.32)	0.82 (0.32, 2.06)	
COPD	477	0.89 (0.73, 1.10)	0.86 (0.68, 1.07)	0.85 (0.66, 1.09)	0.81 (0.61, 1.09)	0.73 (0.50, 1.05)	0.69 (0.41, 1.17)	0.66 (0.29, 1.47)		
Pneumonia	625	0.89 (0.74, 1.07)	0.94 (0.77, 1.15)	0.84 (0.67, 1.05)	0.80 (0.61, 1.05)	0.82 (0.60, 1.14)	0.94 (0.60, 1.45)	1.24 (0.70, 2.18)	0.26 (0.04, 1.94)[b]	
Bronchitis	597	0.76 (0.63, 0.92)[a]	0.79 (0.65, 0.98)[a]	0.83 (0.66, 1.04)	0.98 (0.76, 1.26)	0.89 (0.65, 1.22)	0.78 (0.49, 1.26)	1.20 (0.63, 2.28)	2.38 (0.80, 7.08)	
Arrhythmia	222	0.80 (0.59, 1.09)	0.90 (0.65, 1.25)	0.79 (0.54, 1.15)	0.87 (0.57, 1.33)	0.80 (0.48, 1.36)	1.31 (0.71, 2.41)	1.17 (0.51, 2.70)	1.02 (0.24, 4.39)	
Cerebrovascular	62	1.19 (0.69, 2.05)	1.32 (0.76, 2.30)	1.41 (0.77, 2.59)	1.28 (0.65, 2.55)	1.05 (0.45, 2.42)	2.05 (0.79, 5.29)	2.71 (0.81, 9.13)		
Ischemic	35	1.39 (0.68, 2.85)	1.88 (0.91, 3.87)	1.74 (0.81, 3.75)	1.43 (0.60, 3.42)	1.98 (0.76, 5.12)	2.67 (0.90, 7.89)			
Myocardial infarction	20	1.60 (0.61, 4.20)	2.29 (0.86, 6.09)	2.28 (0.80, 6.44)	1.86 (0.59, 5.91)	3.10 (0.89, 10.80)	3.27 (0.75, 14.15)			
Heart failure	135	1.13 (0.78, 1.64)	1.04 (0.70, 1.55)	1.05 (0.68, 1.61)	0.84 (0.51, 1.40)	0.97 (0.55, 1.73)	1.00 (0.48, 2.09)	0.87 (0.28, 2.66)	1.54 (0.33, 7.26)	
Heat illness	10	0.76 (0.20, 2.90)	1.18 (0.31, 4.56)	1.03 (0.25, 4.28)	1.02 (0.19, 5.39)	0.85 (0.11, 6.33)	1.60 (0.16, 15.97)	6.34 (0.45, 90.31)		

[a] 95% CI does not include the null.

[b] This footnote is to designate that only one ED visit related to the indicated health outcome occurred five days after an exposure (i.e., a day during which the HI exceeded the indicated threshold) during the study period.

Note: Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Table S2g. Odds ratios and 95% confidence intervals for emergency department (ED) visits among Non-Alaskan Native people for same-day heat index (HI) above versus below the threshold from single-day lag models in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	***Number of cases***	**70-degree HI threshold**	**72-degree HI threshold**	**74-degree HI threshold**	**76-degree HI threshold**	**78-degree HI threshold**	**80-degree HI threshold**	**82-degree HI threshold**	**84-degree HI threshold**	**86-degree HI threshold**
Asthma	1907	0.99 (0.89, 1.09)	1.01 (0.91, 1.13)	1.01 (0.90, 1.13)	1.01 (0.88, 1.15)	1.03 (0.88, 1.21)	1.08 (0.88, 1.32)	1.07 (0.82, 1.40)	1.00 (0.64, 1.58)	0.42 (0.06, 3.12)[b]
COPD	1627	1.00 (0.90, 1.12)	1.03 (0.92, 1.16)	1.03 (0.91, 1.17)	1.04 (0.90, 1.20)	1.05 (0.88, 1.26)	0.88 (0.68, 1.14)	0.74 (0.51, 1.09)	0.85 (0.45, 1.57)	0.74 (0.18, 3.09)
Pneumonia	1372	1.00 (0.88, 1.13)	1.04 (0.91, 1.18)	0.98 (0.85, 1.13)	0.96 (0.81, 1.13)	1.08 (0.89, 1.31)	1.17 (0.91, 1.52)	1.26 (0.89, 1.78)	1.24 (0.69, 2.21)	1.46 (0.44, 4.83)
Bronchitis	1301	0.73 (0.64, 0.82)[a]	0.83 (0.73, 0.95)[a]	0.82 (0.70, 0.95)[a]	0.78 (0.66, 0.94)[a]	0.74 (0.59, 0.92)[a]	0.82 (0.62, 1.08)	0.81 (0.55, 1.19)	1.01 (0.55, 1.83)	0.74 (0.18, 3.09)
Arrhythmia	1325	0.99 (0.87, 1.11)	0.98 (0.86, 1.12)	1.00 (0.87, 1.16)	0.92 (0.78, 1.09)	0.92 (0.75, 1.12)	0.80 (0.61, 1.07)	0.79 (0.53, 1.18)	0.67 (0.33, 1.37)	0.42 (0.06, 3.07)[b]
Cerebrovascular	350	0.95 (0.75, 1.21)	0.87 (0.67, 1.13)	1.00 (0.75, 1.32)	1.04 (0.75, 1.43)	1.01 (0.68, 1.49)	1.01 (0.60, 1.69)	1.52 (0.82, 2.80)	1.69 (0.71, 4.04)	1.31 (0.17, 10.25)[b]
Ischemic	156	1.09 (0.76, 1.56)	1.15 (0.78, 1.68)	1.18 (0.78, 1.79)	1.02 (0.62, 1.67)	1.09 (0.61, 1.94)	1.73 (0.79, 3.81)	1.88 (0.69, 5.09)	0.78 (0.10, 6.06)[b]	7.23 (0.63, 83.35)[b]
Myocardial infarction	55	1.52 (0.81, 2.86)	1.49 (0.74, 2.99)	2.06 (1.00, 4.26)	2.07 (0.91, 4.75)	1.61 (0.51, 5.01)	2.23 (0.43, 11.54)			
Heart failure	286	0.73 (0.56, 0.96)[a]	0.79 (0.59, 1.05)	0.81 (0.59, 1.13)	0.81 (0.55, 1.18)	0.87 (0.56, 1.37)	1.02 (0.57, 1.85)	0.75 (0.29, 1.93)	1.07 (0.25, 4.61)	2.42 (0.28, 20.86)[b]
Heat illness	23	15.08 (3.29, 68.98)[a]	10.29 (2.97, 35.59)[a]	9.87 (3.19, 30.48)[a]	18.02 (5.82, 55.78)[a]	21.97 (7.58, 63.64)[a]	89.72 (17.34, 464.37)[a]	38.08 (8.84, 163.95)[a]	12.91 (4.06, 41.05)[a]	

[a] 95% CI does not include the null.

[b] This footnote is to designate that only one ED visit related to the indicated health outcome occurred on an exposed day (i.e., a day during which the HI exceeded the indicated threshold) during the study period.

Note: Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Table S2h. Odds ratios and 95% confidence intervals for emergency department (ED) visits among Non-Alaskan Native people for heat index (HI) on lag day 1 above versus below the threshold from single-day lag models in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	***Number of cases***	**70-degree HI threshold**	**72-degree HI threshold**	**74-degree HI threshold**	**76-degree HI threshold**	**78-degree HI threshold**	**80-degree HI threshold**	**82-degree HI threshold**	**84-degree HI threshold**	**86-degree HI threshold**
Asthma	1907	0.99 (0.89, 1.09)	1.05 (0.94, 1.16)	1.03 (0.91, 1.15)	1.06 (0.93, 1.21)	1.11 (0.95, 1.29)	1.18 (0.98, 1.44)	1.19 (0.92, 1.55)	0.99 (0.62, 1.58)	1.07 (0.38, 2.99)
COPD	1627	0.95 (0.85, 1.06)	0.98 (0.87, 1.10)	1.00 (0.88, 1.14)	0.98 (0.85, 1.14)	0.89 (0.74, 1.07)	0.72 (0.55, 0.95)[a]	0.74 (0.50, 1.07)	0.85 (0.46, 1.58)	1.48 (0.52, 4.17)
Pneumonia	1372	0.94 (0.83, 1.06)	0.94 (0.82, 1.07)	0.96 (0.84, 1.11)	0.97 (0.83, 1.15)	1.14 (0.94, 1.37)	1.23 (0.95, 1.58)	1.34 (0.96, 1.87)	1.39 (0.82, 2.36)	0.50 (0.07, 3.69)[b]
Bronchitis	1301	0.75 (0.66, 0.85)[a]	0.82 (0.72, 0.94)[a]	0.83 (0.71, 0.97)[a]	0.78 (0.65, 0.93)[a]	0.79 (0.64, 0.98)[a]	0.78 (0.59, 1.04)	0.71 (0.47, 1.07)	0.91 (0.50, 1.65)	1.17 (0.42, 3.26)
Arrhythmia	1325	1.03 (0.91, 1.16)	1.03 (0.90, 1.17)	0.99 (0.86, 1.14)	0.92 (0.78, 1.09)	1.05 (0.87, 1.28)	0.92 (0.69, 1.21)	0.92 (0.63, 1.34)	1.26 (0.71, 2.26)	2.71 (0.92, 8.02)
Cerebrovascular	350	0.99 (0.78, 1.26)	0.94 (0.73, 1.22)	0.95 (0.72, 1.27)	1.07 (0.78, 1.48)	1.14 (0.78, 1.68)	0.89 (0.51, 1.56)	0.70 (0.29, 1.66)	0.27 (0.04, 1.99)[b]	
Ischemic	156	1.12 (0.78, 1.60)	1.20 (0.82, 1.75)	1.34 (0.89, 2.01)	1.02 (0.61, 1.69)	0.85 (0.44, 1.65)	1.01 (0.43, 2.37)	1.23 (0.41, 3.75)	3.23 (0.89, 11.71)	5.98 (1.09, 32.67)[a]
Myocardial infarction	55	1.60 (0.88, 2.91)	1.61 (0.83, 3.11)	1.69 (0.82, 3.48)	1.27 (0.52, 3.07)	0.71 (0.15, 3.29)				
Heart failure	286	0.72 (0.55, 0.94)[a]	0.76 (0.57, 1.02)	0.87 (0.64, 1.19)	0.76 (0.52, 1.11)	1.07 (0.70, 1.63)	0.69 (0.34, 1.38)	0.86 (0.32, 2.26)	0.49 (0.06, 3.83)[b]	1.62 (0.20, 13.21)[b]
Heat illness	23	15.40 (3.39, 70.00)[a]	6.49 (2.30, 18.32)[a]	9.26 (3.32, 25.82)[a]	21.38 (6.76, 67.58)[a]	26.92 (8.47, 85.57)[a]	33.22 (10.62, 103.92)[a]	11.54 (3.36, 39.59)[a]	18.00 (3.01, 107.75)[a]	

[a] 95% CI does not include the null.

[b] This footnote is to designate that only one ED visit related to the indicated health outcome occurred one day after an exposure (i.e., a day during which the HI exceeded the indicated threshold) during the study period.

Note: Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Table S2i. Odds ratios and 95% confidence intervals for emergency department (ED) visits among Non-Alaskan Native people for heat index (HI) on lag day 2 above versus below the threshold from single-day lag models in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	***Number of cases***	**70-degree HI threshold**	**72-degree HI threshold**	**74-degree HI threshold**	**76-degree HI threshold**	**78-degree HI threshold**	**80-degree HI threshold**	**82-degree HI threshold**	**84-degree HI threshold**	**86-degree HI threshold**
Asthma	1907	0.95 (0.86, 1.05)	1.00 (0.90, 1.11)	1.00 (0.89, 1.12)	1.08 (0.94, 1.22)	1.05 (0.90, 1.23)	1.14 (0.94, 1.39)	1.10 (0.83, 1.45)	0.72 (0.42, 1.22)	0.67 (0.16, 2.79)
COPD	1627	0.88 (0.78, 0.98)[a]	0.94 (0.84, 1.06)	0.89 (0.78, 1.02)	0.86 (0.74, 1.00)	0.79 (0.65, 0.95)[a]	0.83 (0.64, 1.08)	0.85 (0.59, 1.23)	0.59 (0.29, 1.21)	0.37 (0.05, 2.69)[b]
Pneumonia	1372	0.96 (0.85, 1.08)	0.91 (0.80, 1.04)	0.94 (0.81, 1.08)	1.04 (0.88, 1.22)	1.18 (0.98, 1.43)	1.24 (0.96, 1.59)	1.07 (0.75, 1.54)	0.97 (0.52, 1.82)	1.40 (0.50, 3.95)
Bronchitis	1301	0.77 (0.68, 0.87)[a]	0.84 (0.73, 0.96)[a]	0.77 (0.66, 0.90)[a]	0.76 (0.63, 0.91)[a]	0.78 (0.63, 0.97)[a]	0.83 (0.62, 1.10)	0.71 (0.46, 1.10)	0.64 (0.31, 1.32)	0.79 (0.24, 2.53)
Arrhythmia	1325	1.09 (0.96, 1.23)	1.04 (0.92, 1.19)	0.98 (0.85, 1.13)	0.96 (0.81, 1.13)	0.95 (0.78, 1.16)	0.90 (0.68, 1.19)	0.98 (0.68, 1.43)	0.97 (0.52, 1.82)	1.13 (0.35, 3.70)
Cerebrovascular	350	1.05 (0.82, 1.33)	1.01 (0.78, 1.30)	1.09 (0.83, 1.43)	1.03 (0.75, 1.41)	0.90 (0.60, 1.34)	0.71 (0.40, 1.27)	0.41 (0.15, 1.12)	0.63 (0.15, 2.62)	0.98 (0.13, 7.49)[b]
Ischemic	156	1.34 (0.94, 1.90)	1.40 (0.98, 2.02)	1.04 (0.69, 1.58)	0.90 (0.55, 1.48)	0.75 (0.39, 1.44)	0.66 (0.26, 1.68)	0.48 (0.11, 2.15)	0.89 (0.12, 6.91)[b]	
Myocardial infarction	55	1.92 (1.04, 3.51)[a]	2.14 (1.14, 4.02)[a]	1.81 (0.87, 3.75)	0.99 (0.39, 2.54)	0.31 (0.04, 2.37)a				
Heart failure	286	0.78 (0.59, 1.01)	0.79 (0.59, 1.06)	0.94 (0.69, 1.28)	1.01 (0.71, 1.42)	1.05 (0.69, 1.61)	0.72 (0.36, 1.43)	1.16 (0.52, 2.60)	0.42 (0.06, 3.13)[b]	1.54 (0.19, 12.31)[b]
Heat illness	23	26.85 (3.53, 204.24)[a]	10.82 (3.12, 37.52)[a]	8.74 (3.13, 24.44)[a]	12.15 (4.49, 32.85)[a]	15.81 (5.70, 43.86)[a]	9.74 (3.21, 29.58)[a]	4.08 (0.92, 18.10)	9.78 (1.26, 75.88)[a]	

[a] 95% CI does not include the null.

[b] This footnote is to designate that only one ED visit related to the indicated health outcome occurred two days after an exposure (i.e., a day during which the HI exceeded the indicated threshold) during the study period.

Note: Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Table S2j. Odds ratios and 95% confidence intervals for emergency department (ED) visits among Non-Alaskan Native people for heat index (HI) on lag day 3 above versus below the threshold from single-day lag models in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	***Number of cases***	**70-degree HI threshold**	**72-degree HI threshold**	**74-degree HI threshold**	**76-degree HI threshold**	**78-degree HI threshold**	**80-degree HI threshold**	**82-degree HI threshold**	**84-degree HI threshold**	**86-degree HI threshold**
Asthma	1907	0.95 (0.86, 1.05)	0.96 (0.86, 1.07)	0.96 (0.85, 1.08)	0.99 (0.87, 1.13)	1.00 (0.85, 1.17)	1.03 (0.84, 1.27)	0.82 (0.60, 1.11)	0.68 (0.39, 1.16)	0.24 (0.03, 1.72)[b]
COPD	1627	0.88 (0.79, 0.98)[a]	0.96 (0.85, 1.08)	0.84 (0.73, 0.96)[a]	0.83 (0.71, 0.97)[a]	0.80 (0.66, 0.97)[a]	0.78 (0.60, 1.02)	0.65 (0.44, 0.97)[a]	0.55 (0.27, 1.13)	0.42 (0.06, 3.08)[b]
Pneumonia	1372	0.93 (0.83, 1.06)	0.90 (0.79, 1.03)	0.94 (0.81, 1.08)	0.93 (0.79, 1.10)	0.96 (0.79, 1.18)	1.10 (0.85, 1.42)	1.13 (0.80, 1.60)	1.14 (0.66, 1.96)	
Bronchitis	1301	0.77 (0.68, 0.87)[a]	0.72 (0.63, 0.83)[a]	0.73 (0.63, 0.86)[a]	0.72 (0.60, 0.86)[a]	0.72 (0.58, 0.90)[a]	0.76 (0.57, 1.02)	0.78 (0.51, 1.18)	0.62 (0.29, 1.34)	0.90 (0.21, 3.76)
Arrhythmia	1325	0.92 (0.82, 1.04)	0.91 (0.80, 1.04)	0.89 (0.77, 1.03)	0.88 (0.74, 1.04)	0.92 (0.75, 1.12)	1.12 (0.87, 1.45)	1.19 (0.84, 1.68)	1.04 (0.59, 1.83)	0.60 (0.14, 2.47)
Cerebrovascular	350	0.93 (0.73, 1.19)	0.94 (0.73, 1.22)	0.91 (0.68, 1.21)	0.85 (0.61, 1.19)	0.66 (0.42, 1.02)	0.61 (0.34, 1.11)	0.52 (0.21, 1.30)		
Ischemic	156	1.13 (0.79, 1.62)	0.97 (0.66, 1.42)	0.87 (0.56, 1.34)	0.93 (0.57, 1.52)	0.90 (0.50, 1.64)	0.84 (0.38, 1.85)	1.28 (0.47, 3.49)	1.96 (0.57, 6.79)	
Myocardial infarction	55	1.43 (0.76, 2.68)	1.41 (0.72, 2.75)	1.55 (0.75, 3.24)	1.44 (0.61, 3.40)	0.89 (0.25, 3.22)	1.22 (0.23, 6.35)	3.38 (0.51, 22.57)	1.92 (0.19, 19.02)[b]	
Heart failure	286	0.84 (0.65, 1.09)	0.87 (0.65, 1.16)	0.90 (0.65, 1.23)	0.97 (0.68, 1.39)	0.82 (0.51, 1.29)	0.82 (0.43, 1.54)	0.81 (0.32, 2.06)	0.86 (0.20, 3.64)	
Heat illness	23	12.48 (2.87, 54.23)[a]	10.98 (3.18, 37.91)[a]	6.51 (2.44, 17.41)[a]	3.18 (1.28, 7.86)[a]	4.34 (1.63, 11.55)[a]	1.64 (0.41, 6.46)	1.45 (0.29, 7.24)	3.02 (0.34, 27.11)[b]	

[a] 95% CI does not include the null.

[b] This footnote is to designate that only one ED visit related to the indicated health outcome occurred three days after an exposure (i.e., a day during which the HI exceeded the indicated threshold) during the study period.

Note: Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Table S2k. Odds ratios and 95% confidence intervals for emergency department (ED) visits among Non-Alaskan Native people for heat index (HI) on lag day 4 above versus below the threshold from single-day lag models in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	***Number of cases***	**70-degree HI threshold**	**72-degree HI threshold**	**74-degree HI threshold**	**76-degree HI threshold**	**78-degree HI threshold**	**80-degree HI threshold**	**82-degree HI threshold**	**84-degree HI threshold**	**86-degree HI threshold**
Asthma	1907	0.91 (0.83, 1.01)	0.92 (0.82, 1.02)	0.93 (0.82, 1.05)	0.93 (0.81, 1.07)	1.05 (0.89, 1.23)	1.12 (0.91, 1.38)	1.06 (0.80, 1.41)	0.73 (0.41, 1.29)	0.35 (0.05, 2.53)[b]
COPD	1627	0.89 (0.80, 0.99)[a]	0.89 (0.79, 1.00)[a]	0.90 (0.79, 1.02)	0.90 (0.78, 1.05)	0.80 (0.66, 0.97)[a]	0.81 (0.62, 1.05)	0.79 (0.54, 1.14)	0.81 (0.45, 1.47)	0.33 (0.04, 2.38)[b]
Pneumonia	1372	0.89 (0.78, 1.00)	0.90 (0.79, 1.03)	0.89 (0.77, 1.04)	0.90 (0.76, 1.06)	0.91 (0.74, 1.11)	0.86 (0.65, 1.13)	0.86 (0.58, 1.26)	0.69 (0.33, 1.42)	0.44 (0.06, 3.24)[b]
Bronchitis	1301	0.68 (0.60, 0.78)[a]	0.70 (0.61, 0.81)[a]	0.74 (0.63, 0.86)[a]	0.74 (0.62, 0.89)[a]	0.72 (0.58, 0.90)[a]	0.76 (0.56, 1.03)	0.65 (0.41, 1.03)	0.72 (0.33, 1.56)	0.80 (0.19, 3.37)
Arrhythmia	1325	0.91 (0.80, 1.03)	0.91 (0.79, 1.03)	0.89 (0.77, 1.03)	0.93 (0.78, 1.09)	0.89 (0.73, 1.09)	1.10 (0.85, 1.43)	1.22 (0.86, 1.71)	1.34 (0.78, 2.31)	1.21 (0.37, 3.96)
Cerebrovascular	350	0.96 (0.76, 1.23)	0.87 (0.67, 1.13)	0.91 (0.68, 1.21)	0.81 (0.58, 1.13)	0.75 (0.50, 1.14)	0.53 (0.29, 0.98)[a]	0.60 (0.26, 1.41)	0.81 (0.25, 2.65)	
Ischemic	156	0.92 (0.64, 1.33)	1.09 (0.74, 1.60)	1.13 (0.74, 1.72)	1.14 (0.71, 1.83)	1.14 (0.64, 2.03)	0.97 (0.47, 2.03)	1.22 (0.50, 3.00)	0.50 (0.07, 3.75)[b]	
Myocardial infarction	55	1.32 (0.70, 2.49)	1.59 (0.81, 3.13)	1.87 (0.90, 3.90)	2.98 (1.34, 6.61)[a]	2.42 (0.93, 6.29)	0.87 (0.17, 4.36)	1.82 (0.32, 10.27)		
Heart failure	286	0.97 (0.75, 1.26)	0.74 (0.55, 0.99)[a]	0.83 (0.60, 1.14)	0.61 (0.41, 0.92)[a]	0.76 (0.47, 1.22)	0.99 (0.55, 1.78)	0.60 (0.23, 1.55)	0.38 (0.05, 2.78)[b]	1.01 (0.13, 7.75)[b]
Heat illness	23	4.88 (1.62, 14.74)[a]	1.87 (0.78, 4.49)	2.90 (1.16, 7.21)[a]	2.11 (0.83, 5.36)	2.72 (0.94, 7.90)	3.69 (1.23, 11.12)[a]	3.79 (0.97, 14.84)	6.01 (1.42, 25.45)[a]	

[a] 95% CI does not include the null.

[b] This footnote is to designate that only one ED visit related to the indicated health outcome occurred four days after an exposure (i.e., a day during which the HI exceeded the indicated threshold) during the study period.

Note: Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Table S2l. Odds ratios and 95% confidence intervals for emergency department (ED) visits among Non-Alaskan Native people for heat index (HI) on lag day 5 above versus below the threshold from single-day lag models in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	***Number of cases***	**70-degree HI threshold**	**72-degree HI threshold**	**74-degree HI threshold**	**76-degree HI threshold**	**78-degree HI threshold**	**80-degree HI threshold**	**82-degree HI threshold**	**84-degree HI threshold**	**86-degree HI threshold**
Asthma	1907	0.96 (0.87, 1.06)	0.92 (0.82, 1.02)	0.94 (0.83, 1.06)	0.98 (0.86, 1.12)	1.04 (0.89, 1.22)	1.00 (0.81, 1.25)	1.11 (0.83, 1.47)	0.44 (0.21, 0.90)[a]	
COPD	1627	0.92 (0.82, 1.03)	0.87 (0.77, 0.98)[a]	0.88 (0.77, 1.01)	0.83 (0.71, 0.96)[a]	0.80 (0.66, 0.97)[a]	0.87 (0.67, 1.11)	0.70 (0.48, 1.01)	0.84 (0.46, 1.52)	2.52 (1.04, 6.12)[a]
Pneumonia	1372	0.95 (0.84, 1.07)	0.89 (0.78, 1.01)	0.91 (0.79, 1.05)	0.91 (0.77, 1.08)	0.92 (0.75, 1.12)	0.62 (0.45, 0.85)[a]	0.65 (0.42, 0.99)[a]	0.93 (0.50, 1.73)	1.23 (0.29, 5.27)
Bronchitis	1301	0.80 (0.71, 0.91)[a]	0.78 (0.68, 0.90)[a]	0.75 (0.64, 0.87)[a]	0.72 (0.60, 0.86)[a]	0.66 (0.53, 0.84)[a]	0.69 (0.50, 0.94)[a]	0.85 (0.57, 1.27)	0.91 (0.48, 1.75)	1.57 (0.56, 4.45)
Arrhythmia	1325	0.93 (0.83, 1.06)	0.90 (0.79, 1.03)	0.95 (0.82, 1.10)	0.97 (0.83, 1.15)	1.07 (0.89, 1.29)	1.22 (0.95, 1.55)	1.05 (0.73, 1.49)	0.95 (0.54, 1.69)	0.71 (0.17, 2.96)
Cerebrovascular	350	1.14 (0.90, 1.45)	1.13 (0.88, 1.44)	1.07 (0.81, 1.40)	1.19 (0.88, 1.61)	1.07 (0.74, 1.56)	0.82 (0.48, 1.38)	1.22 (0.64, 2.33)	1.35 (0.48, 3.82)	1.44 (0.18, 11.42)[b]
Ischemic	156	1.15 (0.80, 1.65)	1.02 (0.69, 1.51)	0.95 (0.61, 1.49)	1.35 (0.84, 2.18)	1.01 (0.55, 1.83)	1.07 (0.52, 2.21)	0.57 (0.16, 1.99)	0.78 (0.16, 3.83)	
Myocardial infarction	55	1.69 (0.90, 3.18)	1.65 (0.85, 3.21)	1.92 (0.93, 3.97)	3.19 (1.43, 7.10)[a]	1.47 (0.49, 4.37)	0.94 (0.17, 5.09)			
Heart failure	286	1.02 (0.79, 1.33)	0.95 (0.71, 1.27)	0.78 (0.55, 1.10)	0.62 (0.41, 0.95)[a]	0.74 (0.45, 1.22)	0.86 (0.43, 1.73)	0.64 (0.19, 2.12)		
Heat illness	23	4.10 (1.46, 11.47)[a]	2.13 (0.89, 5.13)	3.16 (1.28, 7.78)[a]	3.68 (1.48, 9.15)[a]	4.05 (1.53, 10.74)[a]	6.29 (2.06, 19.19)[a]	4.80 (1.42, 16.27)[a]	2.70 (0.53, 13.80)	

[a] 95% CI does not include the null.

[b] This footnote is to designate that only one ED visit related to the indicated health outcome occurred five days after an exposure (i.e., a day during which the HI exceeded the indicated threshold) during the study period.

Note: Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Tables S3a-r – Threshold analyses at Lags 0-5, stratified by age

Table S3a. Odds ratios and 95% confidence intervals for emergency department (ED) visits among <15-year-olds for same-day heat index (HI) above versus below the threshold from single-day lag models in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	***Number of cases***	**70-degree HI threshold**	**72-degree HI threshold**	**74-degree HI threshold**	**76-degree HI threshold**	**78-degree HI threshold**	**80-degree HI threshold**	**82-degree HI threshold**	**84-degree HI threshold**	**86-degree HI threshold**
Asthma	523	1.02 (0.84, 1.24)	1.07 (0.87, 1.31)	0.95 (0.76, 1.20)	0.88 (0.68, 1.15)	0.92 (0.67, 1.27)	0.85 (0.55, 1.32)	0.91 (0.50, 1.67)	0.94 (0.33, 2.64)	2.11 (0.24, 18.25)[b]
COPD	12	0.72 (0.17, 2.99)	1.17 (0.26, 5.27)	1.11 (0.19, 6.54)						
Pneumonia	330	0.69 (0.53, 0.90)[a]	0.75 (0.56, 1.00)[a]	0.84 (0.62, 1.15)	0.72 (0.49, 1.05)	0.92 (0.59, 1.42)	0.97 (0.52, 1.81)	0.98 (0.40, 2.39)	1.52 (0.44, 5.28)	2.49 (0.29, 21.09)[b]
Bronchitis	402	0.74 (0.58, 0.93)[a]	0.76 (0.59, 0.97)[a]	0.77 (0.58, 1.03)	0.74 (0.52, 1.03)	0.87 (0.58, 1.30)	1.03 (0.59, 1.77)	1.07 (0.46, 2.44)	1.68 (0.48, 5.83)	3.70 (0.77, 17.77)
Arrhythmia	14	0.74 (0.24, 2.32)	0.88 (0.26, 2.99)	0.86 (0.22, 3.31)	0.90 (0.17, 4.69)					
Heat illness	6		5.94 (0.63, 55.53)	7.25 (0.78, 66.95)	5.47 (0.81, 36.85)	15.73 (1.39, 178.20)[a]			15.87 (0.67, 374.56)[b]	

[a] 95% CI does not include the null.

[b] This footnote is to designate that only one ED visit related to the indicated health outcome occurred on an exposed day (i.e., a day during which the HI exceeded the indicated threshold) during the study period.

Note: Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Table S3b. Odds ratios and 95% confidence intervals for emergency department (ED) visits among <15-year-olds for heat index (HI) on lag day 1 above versus below the threshold from single-day lag models in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	***Number of cases***	**70-degree HI threshold**	**72-degree HI threshold**	**74-degree HI threshold**	**76-degree HI threshold**	**78-degree HI threshold**	**80-degree HI threshold**	**82-degree HI threshold**	**84-degree HI threshold**	**86-degree HI threshold**
Asthma	523	1.04 (0.86, 1.25)	1.17 (0.96, 1.43)	1.06 (0.85, 1.32)	0.94 (0.72, 1.21)	0.90 (0.66, 1.24)	0.89 (0.58, 1.37)	1.00 (0.55, 1.81)	0.49 (0.12, 2.10)	
COPD	12	0.67 (0.16, 2.73)	0.24 (0.03, 1.98)							
Pneumonia	330	0.73 (0.57, 0.95)[a]	0.82 (0.62, 1.08)	0.95 (0.70, 1.28)	0.98 (0.70, 1.38)	1.06 (0.70, 1.59)	1.21 (0.70, 2.09)	1.23 (0.57, 2.67)	1.72 (0.59, 5.07)	2.32 (0.28, 19.52)[b]
Bronchitis	402	0.74 (0.59, 0.94)[a]	0.76 (0.59, 0.98)[a]	0.80 (0.60, 1.06)	0.82 (0.59, 1.14)	0.94 (0.63, 1.40)	0.74 (0.40, 1.36)	0.92 (0.41, 2.08)	1.99 (0.68, 5.87)	1.60 (0.20, 12.81)[b]
Arrhythmia	14	0.77 (0.24, 2.47)	0.63 (0.16, 2.44)	0.59 (0.12, 3.02)	0.37 (0.04, 3.20)[b]	0.71 (0.07, 6.86)[b]				
Heat illness	6	9.12 (0.78, 107.01)	3.41 (0.52, 22.61)	5.67 (0.91, 35.56)	8.39 (1.19, 59.22)[a]	19.17 (1.74, 210.98)[a]	26.56 (2.46, 286.30)[a]	12.93 (0.60, 277.26)[b]		

[a] 95% CI does not include the null.

[b] This footnote is to designate that only one ED visit related to the indicated health outcome occurred one day after an exposure (i.e., a day during which the HI exceeded the indicated threshold) during the study period.

Note: Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Table S3c. Odds ratios and 95% confidence intervals for emergency department (ED) visits among <15-year-olds for heat index (HI) on lag day 2 above versus below the threshold from single-day lag models in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	*Number of cases*	**70-degree HI threshold**	**72-degree HI threshold**	**74-degree HI threshold**	**76-degree HI threshold**	**78-degree HI threshold**	**80-degree HI threshold**	**82-degree HI threshold**	**84-degree HI threshold**	**86-degree HI threshold**
Asthma	523	0.93 (0.77, 1.13)	0.91 (0.74, 1.12)	0.77 (0.61, 0.98)[a]	0.83 (0.64, 1.09)	0.85 (0.62, 1.18)	0.80 (0.51, 1.25)	0.86 (0.47, 1.57)	0.41 (0.10, 1.70)	1.43 (0.18, 11.47)[b]
COPD	12	0.96 (0.25, 3.76)	0.47 (0.09, 2.43)	0.26 (0.03, 2.41)						
Pneumonia	330	0.80 (0.62, 1.03)	0.67 (0.51, 0.89)[a]	0.74 (0.54, 1.01)	0.92 (0.66, 1.29)	1.01 (0.67, 1.51)	1.24 (0.73, 2.13)	1.24 (0.57, 2.68)	0.38 (0.05, 2.92)[b]	2.14 (0.26, 17.96)[b]
Bronchitis	402	0.72 (0.57, 0.91)[a]	0.81 (0.64, 1.05)	0.78 (0.59, 1.04)	0.92 (0.67, 1.27)	0.88 (0.60, 1.31)	0.93 (0.54, 1.59)	0.59 (0.23, 1.48)	0.38 (0.05, 2.85)[b]	
Arrhythmia	14	0.33 (0.09, 1.25)	0.56 (0.15, 2.14)	0.46 (0.09, 2.23)	0.63 (0.13, 3.13)					
Heat illness	6		3.62 (0.59, 22.29)	5.65 (0.90, 35.52)	7.32 (1.15, 46.61)[a]	6.15 (0.97, 38.98)	3.27 (0.17, 64.20)[b]			

[a] 95% CI does not include the null.

[b] This footnote is to designate that only one ED visit related to the indicated health outcome occurred two days after an exposure (i.e., a day during which the HI exceeded the indicated threshold) during the study period.

Note: Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Table S3d. Odds ratios and 95% confidence intervals for emergency department (ED) visits among <15-year-olds for heat index (HI) on lag day 3 above versus below the threshold from single-day lag models in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	***Number of cases***	**70-degree HI threshold**	**72-degree HI threshold**	**74-degree HI threshold**	**76-degree HI threshold**	**78-degree HI threshold**	**80-degree HI threshold**	**82-degree HI threshold**	**84-degree HI threshold**	**86-degree HI threshold**
Asthma	523	0.80 (0.65, 0.97)[a]	0.74 (0.59, 0.91)[a]	0.79 (0.62, 1.00)	0.77 (0.58, 1.01)	0.78 (0.55, 1.10)	0.84 (0.53, 1.31)	0.68 (0.35, 1.33)	1.15 (0.45, 2.95)	0.92 (0.12, 7.04)[b]
COPD	12	0.18 (0.02, 1.63)	0.32 (0.04, 2.79)							
Pneumonia	330	0.84 (0.65, 1.09)	0.75 (0.57, 1.00)[a]	0.82 (0.60, 1.11)	0.80 (0.56, 1.14)	0.85 (0.55, 1.32)	0.85 (0.46, 1.57)	1.03 (0.45, 2.35)	1.75 (0.50, 6.10)	
Bronchitis	402	0.73 (0.58, 0.92)[a]	0.79 (0.61, 1.01)	0.80 (0.61, 1.06)	0.92 (0.67, 1.26)	1.03 (0.71, 1.49)	0.94 (0.55, 1.62)	1.02 (0.47, 2.21)	1.42 (0.42, 4.80)	3.32 (0.37, 29.50)[b]
Arrhythmia	14	0.49 (0.14, 1.64)	0.29 (0.06, 1.37)	0.17 (0.02, 1.40)[b]	0.23 (0.03, 1.92)[b]	0.43 (0.05, 3.71)[b]				
Heat illness	6	2.88 (0.50, 16.76)	3.46 (0.59, 20.13)	5.88 (0.88, 39.38)	1.86 (0.28, 12.26)	1.50 (0.14, 16.28)[b]				

[a] 95% CI does not include the null.

[b] This footnote is to designate that only one ED visit related to the indicated health outcome occurred three days after an exposure (i.e., a day during which the HI exceeded the indicated threshold) during the study period.

Note: Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Table S3e. Odds ratios and 95% confidence intervals for emergency department (ED) visits among <15-year-olds for heat index (HI) on lag day 4 above versus below the threshold from single-day lag models in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	***Number of cases***	**70-degree HI threshold**	**72-degree HI threshold**	**74-degree HI threshold**	**76-degree HI threshold**	**78-degree HI threshold**	**80-degree HI threshold**	**82-degree HI threshold**	**84-degree HI threshold**	**86-degree HI threshold**
Asthma	523	0.69 (0.57, 0.84)[a]	0.71 (0.57, 0.89)[a]	0.69 (0.54, 0.89)[a]	0.76 (0.58, 1.01)	0.91 (0.66, 1.26)	1.11 (0.73, 1.68)	0.93 (0.50, 1.73)	0.51 (0.12, 2.12)	
COPD	12	0.16 (0.02, 1.36)								
Pneumonia	330	0.84 (0.65, 1.09)	0.90 (0.69, 1.19)	0.91 (0.67, 1.24)	0.92 (0.64, 1.31)	0.91 (0.59, 1.42)	0.73 (0.38, 1.40)	0.90 (0.37, 2.18)	1.67 (0.49, 5.71)	
Bronchitis	402	0.69 (0.54, 0.87)[a]	0.79 (0.61, 1.01)	0.86 (0.65, 1.14)	0.79 (0.57, 1.09)	0.84 (0.57, 1.24)	0.90 (0.52, 1.54)	0.67 (0.28, 1.60)	0.42 (0.06, 3.16)[b]	
Arrhythmia	14	0.41 (0.11, 1.54)	0.40 (0.08, 1.93)	0.25 (0.03, 2.02)						
Heat illness	6	5.67 (0.61, 52.56)	0.62 (0.09, 4.19)	0.93 (0.13, 6.59)	1.72 (0.23, 13.01)	3.70 (0.45, 30.43)	4.63 (0.55, 38.94)			

[a] 95% CI does not include the null.

[b] This footnote is to designate that only one ED visit related to the indicated health outcome occurred four days after an exposure (i.e., a day during which the HI exceeded the indicated threshold) during the study period.

Note: Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Table S3f. Odds ratios and 95% confidence intervals for emergency department (ED) visits among <15-year-olds for heat index (HI) on lag day 5 above versus below the threshold from single-day lag models in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	***Number of cases***	**70-degree HI threshold**	**72-degree HI threshold**	**74-degree HI threshold**	**76-degree HI threshold**	**78-degree HI threshold**	**80-degree HI threshold**	**82-degree HI threshold**	**84-degree HI threshold**	**86-degree HI threshold**
Asthma	523	**0.74 (0.61, 0.90)**[a]	**0.79 (0.64, 0.98)**[a]	0.83 (0.66, 1.05)	0.84 (0.64, 1.10)	0.88 (0.64, 1.22)	0.80 (0.50, 1.29)	0.72 (0.38, 1.38)		
COPD	12	0.15 (0.02, 1.22)								
Pneumonia	330	0.94 (0.73, 1.20)	0.87 (0.66, 1.14)	0.77 (0.56, 1.04)	0.75 (0.52, 1.08)	0.70 (0.44, 1.11)	0.74 (0.40, 1.40)	0.70 (0.30, 1.67)	0.92 (0.22, 3.97)	
Bronchitis	402	**0.73 (0.58, 0.92)**[a]	**0.68 (0.53, 0.89)**[a]	**0.67 (0.50, 0.90)**[a]	0.82 (0.60, 1.13)	0.89 (0.61, 1.30)	0.79 (0.45, 1.38)	0.92 (0.43, 1.98)	1.61 (0.55, 4.71)	
Arrhythmia	14	0.39 (0.10, 1.47)	0.37 (0.08, 1.72)							
Heat illness	6	1.13 (0.22, 5.90)	0.65 (0.11, 3.72)	0.88 (0.15, 5.30)	1.59 (0.24, 10.33)	2.74 (0.37, 20.01)	3.83 (0.44, 33.02)			

[a] 95% CI does not include the null.

Note: Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Table S3g. Odds ratios and 95% confidence intervals for emergency department (ED) visits among 15-65 year-olds for same-day heat index (HI) above versus below the threshold from single-day lag models in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	***Number of cases***	**70-degree HI threshold**	**72-degree HI threshold**	**74-degree HI threshold**	**76-degree HI threshold**	**78-degree HI threshold**	**80-degree HI threshold**	**82-degree HI threshold**	**84-degree HI threshold**	**86-degree HI threshold**
Asthma	2217	0.98 (0.90, 1.08)	0.99 (0.90, 1.09)	1.01 (0.91, 1.13)	1.04 (0.92, 1.18)	1.06 (0.92, 1.22)	1.11 (0.92, 1.34)	1.08 (0.84, 1.40)	0.91 (0.58, 1.44)	0.47 (0.06, 3.48)[b]
COPD	1293	0.89 (0.79, 1.01)	0.91 (0.80, 1.04)	0.93 (0.80, 1.07)	0.93 (0.78, 1.10)	0.88 (0.72, 1.09)	0.67 (0.48, 0.92)[a]	0.50 (0.30, 0.84)[a]	0.61 (0.27, 1.41)	
Pneumonia	1231	0.98 (0.86, 1.11)	1.00 (0.88, 1.15)	0.96 (0.83, 1.12)	1.02 (0.86, 1.21)	1.16 (0.95, 1.41)	1.47 (1.13, 1.91)[a]	1.41 (0.97, 2.04)	1.10 (0.55, 2.20)	2.06 (0.61, 6.98)
Bronchitis	1294	0.75 (0.66, 0.85)[a]	0.82 (0.72, 0.94)[a]	0.78 (0.67, 0.91)[a]	0.75 (0.63, 0.90)[a]	0.67 (0.53, 0.84)[a]	0.73 (0.54, 0.98)[a]	0.57 (0.36, 0.90)[a]	0.90 (0.47, 1.74)	1.60 (0.56, 4.56)
Arrhythmia	879	0.98 (0.85, 1.14)	1.07 (0.92, 1.26)	1.06 (0.89, 1.27)	0.94 (0.76, 1.15)	0.93 (0.72, 1.19)	0.87 (0.61, 1.23)	0.94 (0.57, 1.56)	0.70 (0.25, 1.93)	
Cerebrovascular	211	0.87 (0.64, 1.20)	0.88 (0.63, 1.24)	0.98 (0.69, 1.40)	1.19 (0.80, 1.77)	1.01 (0.62, 1.65)	0.68 (0.32, 1.45)	0.47 (0.14, 1.61)	0.88 (0.20, 3.92)	2.67 (0.31, 23.21)[b]
Ischemic	100	1.21 (0.78, 1.89)	1.21 (0.75, 1.96)	1.51 (0.92, 2.49)	1.92 (1.12, 3.29)[a]	1.93 (1.01, 3.66)[a]	3.19 (1.34, 7.62)[a]	2.42 (0.73, 7.96)		
Myocardial infarction	53	1.18 (0.64, 2.18)	1.32 (0.69, 2.55)	1.95 (1.00, 3.79)	2.45 (1.19, 5.03)[a]	2.81 (1.18, 6.68)[a]	4.21 (1.27, 13.99)[a]	1.03 (0.08, 13.84)[b]		
Heart failure	241	0.77 (0.57, 1.03)	0.69 (0.49, 0.95)[a]	0.83 (0.59, 1.19)	0.99 (0.67, 1.46)	0.84 (0.52, 1.37)	0.65 (0.32, 1.34)	0.22 (0.05, 1.00)	0.98 (0.22, 4.37)	
Heat illness	27	8.98 (2.64, 30.54)[a]	12.91 (3.77, 44.20)[a]	11.96 (3.92, 36.50)[a]	19.54 (6.38, 59.91)[a]	14.44 (5.27, 39.53)[a]	32.51 (9.00, 117.46)[a]	10.98 (3.40, 35.45)[a]	6.81 (1.98, 23.42)[a]	

[a] 95% CI does not include the null.

[b] This footnote is to designate that only one ED visit related to the indicated health outcome occurred on an exposed day (i.e., a day during which the HI exceeded the indicated threshold) during the study period.

Note: Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Table S3h. Odds ratios and 95% confidence intervals for emergency department (ED) visits among 15-65 year-olds for heat index (HI) on lag day 1 above versus below the threshold from single-day lag models in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	***Number of cases***	**70-degree HI threshold**	**72-degree HI threshold**	**74-degree HI threshold**	**76-degree HI threshold**	**78-degree HI threshold**	**80-degree HI threshold**	**82-degree HI threshold**	**84-degree HI threshold**	**86-degree HI threshold**
Asthma	2217	0.98 (0.90, 1.08)	1.03 (0.93, 1.14)	1.04 (0.93, 1.16)	1.07 (0.94, 1.20)	1.10 (0.96, 1.27)	1.16 (0.96, 1.40)	1.23 (0.96, 1.57)	1.18 (0.77, 1.81)	1.03 (0.37, 2.89)
COPD	1293	0.92 (0.81, 1.04)	0.95 (0.83, 1.08)	0.92 (0.79, 1.07)	0.91 (0.77, 1.08)	0.79 (0.64, 0.98)[a]	0.61 (0.44, 0.86)[a]	0.59 (0.37, 0.95)[a]	0.42 (0.15, 1.15)	0.79 (0.10, 5.98)[b]
Pneumonia	1231	0.91 (0.80, 1.04)	0.92 (0.80, 1.06)	0.92 (0.79, 1.07)	0.92 (0.77, 1.10)	1.09 (0.88, 1.33)	1.20 (0.91, 1.57)	1.43 (1.00, 2.05)[a]	1.57 (0.90, 2.73)	0.72 (0.10, 5.41)[b]
Bronchitis	1294	0.78 (0.69, 0.88)[a]	0.83 (0.72, 0.95)[a]	0.81 (0.70, 0.94)[a]	0.78 (0.65, 0.93)[a]	0.78 (0.63, 0.97)[a]	0.78 (0.58, 1.05)	0.83 (0.55, 1.24)	0.82 (0.43, 1.58)	0.92 (0.28, 2.98)
Arrhythmia	879	1.11 (0.95, 1.28)	1.07 (0.91, 1.25)	1.01 (0.85, 1.20)	1.00 (0.82, 1.23)	1.10 (0.86, 1.39)	0.88 (0.61, 1.26)	0.93 (0.57, 1.51)	1.80 (0.87, 3.71)	3.62 (1.00, 13.17)
Cerebrovascular	211	0.79 (0.58, 1.08)	0.69 (0.48, 0.97)[a]	0.73 (0.50, 1.07)	0.94 (0.62, 1.41)	0.87 (0.53, 1.43)	0.93 (0.49, 1.76)	0.53 (0.18, 1.55)	0.35 (0.05, 2.58)[b]	
Ischemic	100	1.30 (0.84, 2.01)	1.55 (0.97, 2.46)	1.43 (0.87, 2.36)	1.42 (0.80, 2.50)	1.40 (0.69, 2.86)	2.15 (0.89, 5.21)	1.41 (0.36, 5.55)	1.92 (0.23, 15.96)[b]	
Myocardial infarction	53	1.36 (0.75, 2.46)	1.37 (0.70, 2.65)	1.49 (0.73, 3.05)	1.71 (0.79, 3.70)	1.55 (0.54, 4.44)	2.87 (0.78, 10.51)	3.13 (0.72, 13.61)	2.78 (0.31, 25.19)[b]	
Heart failure	241	0.75 (0.55, 1.00)	0.78 (0.57, 1.08)	0.80 (0.56, 1.14)	0.88 (0.60, 1.30)	0.94 (0.60, 1.50)	0.77 (0.39, 1.53)	1.08 (0.45, 2.57)	0.91 (0.20, 4.16)	10.48 (1.36, 80.84)[a]
Heat illness	27	14.18 (3.31, 60.64)[a]	9.55 (3.22, 28.34)[a]	7.36 (2.88, 18.80)[a]	12.42 (4.80, 32.16)[a]	10.45 (4.26, 25.63)[a]	13.81 (5.02, 37.96)[a]	10.25 (3.23, 32.54)[a]	18.00 (3.01, 107.73)[a]	

[a] 95% CI does not include the null.

[b] This footnote is to designate that only one ED visit related to the indicated health outcome occurred one day after an exposure (i.e., a day during which the HI exceeded the indicated threshold) during the study period.

Note: Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Table S3i. Odds ratios and 95% confidence intervals for emergency department (ED) visits among 15-65 year-olds for heat index (HI) on lag day 2 above versus below the threshold from single-day lag models in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	***Number of cases***	**70-degree HI threshold**	**72-degree HI threshold**	**74-degree HI threshold**	**76-degree HI threshold**	**78-degree HI threshold**	**80-degree HI threshold**	**82-degree HI threshold**	**84-degree HI threshold**	**86-degree HI threshold**
Asthma	2217	0.99 (0.90, 1.09)	1.04 (0.94, 1.15)	1.00 (0.90, 1.12)	1.08 (0.95, 1.21)	1.03 (0.89, 1.19)	1.08 (0.89, 1.31)	1.02 (0.78, 1.35)	0.94 (0.59, 1.52)	0.64 (0.15, 2.65)
COPD	1293	0.86 (0.76, 0.97)[a]	0.88 (0.77, 1.01)	0.87 (0.75, 1.01)	0.79 (0.66, 0.95)[a]	0.75 (0.60, 0.94)[a]	0.75 (0.55, 1.03)	0.71 (0.45, 1.12)	0.71 (0.33, 1.54)	0.67 (0.09, 5.02)[b]
Pneumonia	1231	0.88 (0.77, 1.00)	0.94 (0.81, 1.08)	0.92 (0.79, 1.08)	1.01 (0.84, 1.21)	1.17 (0.95, 1.44)	1.37 (1.05, 1.80)[a]	1.45 (0.99, 2.11)	1.18 (0.59, 2.37)	0.49 (0.07, 3.63)[b]
Bronchitis	1294	0.78 (0.69, 0.89)[a]	0.84 (0.73, 0.96)[a]	0.78 (0.67, 0.91)[a]	0.77 (0.65, 0.93)[a]	0.78 (0.62, 0.97)[a]	0.87 (0.65, 1.17)	0.84 (0.55, 1.28)	0.44 (0.18, 1.08)	0.91 (0.28, 2.94)
Arrhythmia	879	1.17 (1.01, 1.36)[a]	1.05 (0.90, 1.23)	1.04 (0.87, 1.23)	1.01 (0.82, 1.24)	1.04 (0.82, 1.33)	0.87 (0.62, 1.23)	0.95 (0.59, 1.51)	1.04 (0.47, 2.29)	1.28 (0.30, 5.51)
Cerebrovascular	211	0.92 (0.68, 1.26)	0.88 (0.63, 1.22)	1.03 (0.72, 1.46)	0.87 (0.57, 1.32)	0.88 (0.53, 1.46)	1.20 (0.67, 2.18)	0.63 (0.22, 1.79)	0.47 (0.06, 3.49)[b]	1.09 (0.14, 8.48)[b]
Ischemic	100	1.69 (1.10, 2.59)[a]	2.05 (1.33, 3.16)[a]	1.62 (1.00, 2.61)[a]	1.69 (0.98, 2.90)	1.50 (0.77, 2.92)	1.52 (0.59, 3.94)	1.35 (0.35, 5.17)		
Myocardial infarction	53	1.65 (0.92, 2.98)	2.22 (1.22, 4.04)[a]	2.13 (1.10, 4.11)[a]	1.84 (0.85, 3.95)	2.28 (0.93, 5.61)	2.87 (0.85, 9.68)	2.72 (0.54, 13.80)		
Heart failure	241	0.77 (0.58, 1.04)	0.88 (0.65, 1.21)	0.81 (0.57, 1.14)	0.88 (0.60, 1.30)	0.85 (0.53, 1.37)	0.75 (0.36, 1.53)	0.85 (0.33, 2.18)		
Heat illness	27	4.36 (1.62, 11.75)[a]	4.08 (1.67, 9.93)[a]	3.23 (1.44, 7.23)[a]	4.22 (1.86, 9.55)[a]	5.79 (2.42, 13.87)[a]	7.27 (2.61, 20.28)[a]	6.94 (1.49, 32.29)[a]	20.76 (1.78, 242.44)[a]	

[a] 95% CI does not include the null.

[b] This footnote is to designate that only one ED visit related to the indicated health outcome occurred two days after an exposure (i.e., a day during which the HI exceeded the indicated threshold) during the study period.

Note: Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Table S3j. Odds ratios and 95% confidence intervals for emergency department (ED) visits among 15-65 year-olds for heat index (HI) on lag day 3 above versus below the threshold from single-day lag models in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	***Number of cases***	**70-degree HI threshold**	**72-degree HI threshold**	**74-degree HI threshold**	**76-degree HI threshold**	**78-degree HI threshold**	**80-degree HI threshold**	**82-degree HI threshold**	**84-degree HI threshold**	**86-degree HI threshold**
Asthma	2217	0.96 (0.88, 1.06)	0.97 (0.88, 1.07)	0.98 (0.88, 1.09)	1.03 (0.91, 1.17)	1.01 (0.87, 1.18)	0.99 (0.81, 1.21)	0.93 (0.70, 1.24)	0.81 (0.49, 1.35)	
COPD	1293	0.87 (0.77, 0.99)[a]	0.93 (0.82, 1.06)	0.85 (0.74, 0.99)[a]	0.85 (0.71, 1.02)	0.79 (0.64, 0.99)[a]	0.67 (0.49, 0.93)[a]	0.59 (0.36, 0.95)[a]	0.55 (0.24, 1.27)	1.23 (0.29, 5.30)
Pneumonia	1231	0.94 (0.82, 1.07)	0.94 (0.82, 1.08)	0.90 (0.77, 1.05)	0.90 (0.75, 1.08)	0.96 (0.77, 1.20)	1.23 (0.92, 1.63)	1.18 (0.79, 1.76)	1.50 (0.86, 2.62)	0.48 (0.06, 3.50)[b]
Bronchitis	1294	0.76 (0.67, 0.86)[a]	0.72 (0.62, 0.82)[a]	0.74 (0.63, 0.86)[a]	0.65 (0.54, 0.79)[a]	0.69 (0.55, 0.87)[a]	0.75 (0.56, 1.02)	0.67 (0.42, 1.07)	0.55 (0.22, 1.35)	0.47 (0.06, 3.46)[b]
Arrhythmia	879	1.02 (0.88, 1.18)	0.95 (0.81, 1.12)	0.97 (0.81, 1.16)	1.02 (0.83, 1.24)	0.96 (0.75, 1.23)	1.01 (0.74, 1.39)	0.99 (0.64, 1.56)	1.09 (0.56, 2.13)	0.50 (0.07, 3.73)[b]
Cerebrovascular	211	0.93 (0.68, 1.27)	1.03 (0.75, 1.43)	1.01 (0.71, 1.45)	1.29 (0.88, 1.90)	1.23 (0.77, 1.96)	1.26 (0.70, 2.28)	0.82 (0.31, 2.14)		
Ischemic	100	1.35 (0.87, 2.08)	1.34 (0.85, 2.12)	1.37 (0.84, 2.25)	1.84 (1.08, 3.15)[a]	1.57 (0.81, 3.03)	2.80 (1.31, 5.97)[a]	2.70 (0.93, 7.86)	3.01 (0.80, 11.42)	
Myocardial infarction	53	1.45 (0.78, 2.69)	1.60 (0.85, 3.02)	2.19 (1.12, 4.28)[a]	2.32 (1.11, 4.87)[a]	1.78 (0.68, 4.63)	4.06 (1.42, 11.64)[a]	6.08 (1.41, 26.28)[a]	4.84 (0.99, 23.77)	
Heart failure	241	0.90 (0.68, 1.20)	0.85 (0.62, 1.16)	1.03 (0.74, 1.44)	1.11 (0.76, 1.63)	1.01 (0.63, 1.61)	0.81 (0.40, 1.63)	1.47 (0.68, 3.18)	1.86 (0.63, 5.44)	1.49 (0.18, 12.18)[b]
Heat illness	27	2.94 (1.20, 7.20)[a]	3.23 (1.37, 7.61)[a]	3.06 (1.32, 7.11)[a]	2.55 (1.06, 6.15)[a]	3.05 (1.10, 8.50)[a]	1.66 (0.43, 6.43)	1.64 (0.33, 8.20)	5.99 (0.54, 66.32)[b]	

[a] 95% CI does not include the null.

[b] This footnote is to designate that only one ED visit related to the indicated health outcome occurred three days after an exposure (i.e., a day during which the HI exceeded the indicated threshold) during the study period.

Note: Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Table S3k. Odds ratios and 95% confidence intervals for emergency department (ED) visits among 15-65 year-olds for heat index (HI) on lag day 4 above versus below the threshold from single-day lag models in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	***Number of cases***	**70-degree HI threshold**	**72-degree HI threshold**	**74-degree HI threshold**	**76-degree HI threshold**	**78-degree HI threshold**	**80-degree HI threshold**	**82-degree HI threshold**	**84-degree HI threshold**	**86-degree HI threshold**
Asthma	2217	0.93 (0.84, 1.02)	0.93 (0.84, 1.03)	0.96 (0.86, 1.08)	0.95 (0.84, 1.08)	1.01 (0.87, 1.18)	1.05 (0.86, 1.28)	1.08 (0.82, 1.43)	0.78 (0.45, 1.34)	0.33 (0.05, 2.44)[b]
COPD	1293	0.85 (0.75, 0.96)[a]	0.85 (0.74, 0.97)[a]	0.89 (0.77, 1.03)	0.90 (0.76, 1.06)	0.74 (0.59, 0.92)[a]	0.72 (0.53, 0.99)[a]	0.63 (0.39, 1.01)	0.46 (0.18, 1.13)	
Pneumonia	1231	0.92 (0.81, 1.05)	0.96 (0.84, 1.10)	0.86 (0.74, 1.01)	0.85 (0.71, 1.02)	0.89 (0.71, 1.11)	0.98 (0.73, 1.32)	1.02 (0.68, 1.53)	0.95 (0.46, 1.98)	0.98 (0.23, 4.14)
Bronchitis	1294	0.74 (0.65, 0.85)[a]	0.74 (0.64, 0.85)[a]	0.73 (0.62, 0.86)[a]	0.78 (0.65, 0.93)[a]	0.74 (0.60, 0.93)[a]	0.72 (0.53, 0.99)[a]	0.59 (0.35, 0.98)[a]	0.36 (0.11, 1.15)	
Arrhythmia	879	0.93 (0.80, 1.08)	0.95 (0.81, 1.12)	0.92 (0.77, 1.10)	0.95 (0.78, 1.17)	0.85 (0.66, 1.10)	1.08 (0.78, 1.49)	1.19 (0.78, 1.82)	1.65 (0.86, 3.16)	1.12 (0.26, 4.78)
Cerebrovascular	211	1.01 (0.75, 1.37)	0.99 (0.71, 1.36)	1.04 (0.73, 1.48)	0.92 (0.61, 1.40)	0.99 (0.61, 1.62)	0.96 (0.51, 1.80)	0.87 (0.34, 2.24)	0.95 (0.22, 4.07)	
Ischemic	100	1.03 (0.65, 1.63)	1.28 (0.80, 2.06)	1.59 (0.96, 2.62)	1.94 (1.13, 3.34)[a]	2.38 (1.29, 4.39)[a]	2.80 (1.37, 5.72)[a]	2.73 (0.95, 7.83)		
Myocardial infarction	53	1.52 (0.80, 2.89)	1.86 (0.96, 3.59)	2.64 (1.33, 5.21)[a]	4.20 (2.00, 8.79)[a]	4.14 (1.87, 9.16)[a]	4.18 (1.56, 11.16)[a]	9.11 (1.88, 44.14)[a]		
Heart failure	241	0.93 (0.70, 1.23)	0.89 (0.65, 1.21)	1.01 (0.72, 1.41)	0.66 (0.43, 1.02)	0.89 (0.55, 1.45)	1.20 (0.66, 2.18)	0.78 (0.33, 1.89)	1.03 (0.24, 4.44)	2.77 (0.31, 24.88)[b]
Heat illness	27	1.93 (0.85, 4.36)	1.61 (0.72, 3.61)	1.99 (0.86, 4.60)	1.00 (0.38, 2.62)	0.84 (0.23, 3.00)	1.40 (0.37, 5.23)	0.75 (0.09, 6.42)[b]		

[a] 95% CI does not include the null.

[b] This footnote is to designate that only one ED visit related to the indicated health outcome occurred four days after an exposure (i.e., a day during which the HI exceeded the indicated threshold) during the study period.

Note: Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Table S3l. Odds ratios and 95% confidence intervals for emergency department (ED) visits among 15-65 year-olds for heat index (HI) on lag day 5 above versus below the threshold from single-day lag models in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	***Number of cases***	**70-degree HI threshold**	**72-degree HI threshold**	**74-degree HI threshold**	**76-degree HI threshold**	**78-degree HI threshold**	**80-degree HI threshold**	**82-degree HI threshold**	**84-degree HI threshold**	**86-degree HI threshold**
Asthma	2217	0.96 (0.87, 1.05)	0.92 (0.83, 1.02)	0.97 (0.87, 1.08)	0.94 (0.83, 1.07)	1.02 (0.88, 1.19)	1.03 (0.84, 1.26)	1.12 (0.85, 1.48)	0.68 (0.37, 1.23)	
COPD	1293	0.90 (0.79, 1.02)	0.85 (0.75, 0.98)[a]	0.85 (0.73, 0.98)[a]	0.83 (0.69, 0.98)[a]	0.82 (0.66, 1.01)	0.83 (0.62, 1.10)	0.63 (0.40, 1.00)[a]	0.68 (0.31, 1.47)	2.24 (0.64, 7.76)
Pneumonia	1231	0.91 (0.80, 1.04)	0.89 (0.77, 1.02)	0.87 (0.74, 1.02)	0.85 (0.70, 1.02)	0.89 (0.71, 1.11)	0.66 (0.47, 0.93)[a]	0.63 (0.38, 1.03)	0.46 (0.17, 1.28)	0.67 (0.09, 5.00)[b]
Bronchitis	1294	0.79 (0.70, 0.90)[a]	0.81 (0.71, 0.93)[a]	0.77 (0.66, 0.90)[a]	0.76 (0.63, 0.91)[a]	0.71 (0.57, 0.89)[a]	0.72 (0.53, 0.99)[a]	0.92 (0.61, 1.41)	1.01 (0.49, 2.10)	1.44 (0.44, 4.77)
Arrhythmia	879	0.89 (0.77, 1.04)	0.92 (0.78, 1.08)	0.97 (0.82, 1.16)	0.97 (0.79, 1.18)	1.04 (0.83, 1.32)	1.33 (0.99, 1.80)	1.17 (0.76, 1.80)	1.18 (0.61, 2.30)	
Cerebrovascular	211	1.10 (0.82, 1.49)	1.13 (0.83, 1.55)	0.97 (0.68, 1.38)	1.12 (0.76, 1.64)	0.92 (0.56, 1.50)	0.83 (0.43, 1.60)	1.24 (0.54, 2.82)	1.01 (0.23, 4.35)	
Ischemic	100	1.56 (0.99, 2.44)	1.54 (0.97, 2.45)	1.62 (0.98, 2.69)	1.73 (1.00, 3.00)	1.45 (0.75, 2.82)	1.97 (0.92, 4.19)	0.94 (0.21, 4.13)	0.93 (0.12, 7.50)[b]	
Myocardial infarction	53	2.08 (1.11, 3.90)[a]	2.28 (1.20, 4.34)[a]	3.71 (1.89, 7.30)[a]	3.22 (1.54, 6.74)[a]	2.83 (1.14, 7.01)[a]	3.98 (1.36, 11.66)[a]	0.93 (0.12, 7.44)[a]	1.65 (0.19, 14.12)[b]	
Heart failure	241	0.99 (0.74, 1.31)	0.99 (0.73, 1.35)	0.96 (0.68, 1.35)	0.77 (0.50, 1.17)	0.93 (0.57, 1.50)	1.04 (0.56, 1.96)	0.83 (0.30, 2.25)	1.20 (0.26, 5.66)	
Heat illness	27	2.16 (0.93, 4.99)	1.83 (0.82, 4.08)	2.31 (1.02, 5.24)[a]	2.32 (1.00, 5.41)	2.10 (0.79, 5.60)	3.28 (1.03, 10.48)[a]	2.74 (0.72, 10.46)	3.58 (0.63, 20.31)	

[a] 95% CI does not include the null.

[b] This footnote is to designate that only one ED visit related to the indicated health outcome occurred five days after an exposure (i.e., a day during which the HI exceeded the indicated threshold) during the study period.

Note: Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Table S3m. Odds ratios and 95% confidence intervals for emergency department (ED) visits among >65-year-olds for same-day heat index (HI) above versus below the threshold from single-day lag models in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	***Number of cases***	**70-degree HI threshold**	**72-degree HI threshold**	**74-degree HI threshold**	**76-degree HI threshold**	**78-degree HI threshold**	**80-degree HI threshold**	**82-degree HI threshold**	**84-degree HI threshold**	**86-degree HI threshold**
Asthma	171	1.20 (0.86, 1.67)	1.14 (0.80, 1.61)	1.07 (0.73, 1.57)	0.95 (0.61, 1.49)	0.82 (0.46, 1.43)	1.33 (0.69, 2.56)	2.03 (0.89, 4.65)	1.97 (0.51, 7.65)	2.91 (0.33, 26.08)[b]
COPD	853	1.03 (0.89, 1.20)	1.08 (0.92, 1.26)	1.03 (0.86, 1.23)	1.06 (0.87, 1.29)	1.19 (0.94, 1.50)	1.09 (0.79, 1.51)	1.00 (0.63, 1.60)	1.02 (0.47, 2.24)	2.41 (0.70, 8.33)
Pneumonia	520	0.97 (0.79, 1.18)	0.99 (0.80, 1.22)	0.90 (0.71, 1.13)	0.93 (0.72, 1.22)	0.95 (0.68, 1.31)	0.95 (0.61, 1.47)	1.05 (0.59, 1.87)	1.98 (0.92, 4.24)	0.89 (0.12, 6.74)[b]
Bronchitis	275	0.87 (0.66, 1.13)	0.92 (0.69, 1.22)	0.92 (0.68, 1.26)	0.81 (0.56, 1.17)	0.86 (0.55, 1.34)	1.11 (0.65, 1.89)	1.22 (0.60, 2.51)	1.68 (0.58, 4.84)	
Arrhythmia	724	0.93 (0.79, 1.10)	0.84 (0.71, 1.01)	0.88 (0.73, 1.08)	0.89 (0.71, 1.11)	0.89 (0.68, 1.16)	0.73 (0.50, 1.08)	0.64 (0.37, 1.11)	0.71 (0.31, 1.65)	1.33 (0.31, 5.73)
Cerebrovascular	223	1.04 (0.77, 1.41)	0.90 (0.64, 1.25)	1.10 (0.77, 1.57)	1.03 (0.68, 1.56)	1.20 (0.74, 1.94)	1.61 (0.89, 2.90)	2.75 (1.38, 5.47)[a]	2.66 (0.99, 7.14)	1.74 (0.21, 14.07)[b]
Ischemic	99	1.09 (0.69, 1.72)	1.38 (0.86, 2.19)	1.24 (0.75, 2.06)	1.00 (0.55, 1.81)	1.14 (0.58, 2.27)	1.17 (0.43, 3.21)	1.76 (0.49, 6.40)	1.27 (0.16, 10.21)[b]	13.27 (0.82, 213.90)[b]
Myocardial infarction	28	2.74 (1.13, 6.69)[a]	2.44 (0.99, 5.99)	2.04 (0.78, 5.32)	1.82 (0.60, 5.56)	0.98 (0.21, 4.47)				
Heart failure	199	0.88 (0.64, 1.21)	0.92 (0.66, 1.29)	0.88 (0.60, 1.28)	0.82 (0.52, 1.28)	0.85 (0.50, 1.45)	1.12 (0.59, 2.13)	1.34 (0.56, 3.21)	1.86 (0.42, 8.36)	

[a] 95% CI does not include the null.

[b] This footnote is to designate that only one ED visit related to the indicated health outcome occurred on an exposed day (i.e., a day during which the HI exceeded the indicated threshold) during the study period.

Note: Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Table S3n. Odds ratios and 95% confidence intervals for ED emergency department (ED) visits among >65-year-olds for heat index (HI) on lag day 1 above versus below the threshold from single-day lag models in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	***Number of cases***	**70-degree HI threshold**	**72-degree HI threshold**	**74-degree HI threshold**	**76-degree HI threshold**	**78-degree HI threshold**	**80-degree HI threshold**	**82-degree HI threshold**	**84-degree HI threshold**	**86-degree HI threshold**
Asthma	171	1.11 (0.79, 1.55)	1.10 (0.77, 1.56)	1.15 (0.78, 1.68)	1.17 (0.76, 1.80)	**1.63 (1.03, 2.58)**[a]	**2.61 (1.51, 4.52)**[a]	2.03 (0.97, 4.25)	1.62 (0.47, 5.52)	
COPD	853	0.96 (0.82, 1.11)	0.95 (0.80, 1.11)	0.99 (0.83, 1.18)	1.06 (0.86, 1.29)	0.96 (0.74, 1.23)	0.78 (0.55, 1.13)	0.91 (0.57, 1.47)	1.24 (0.61, 2.49)	1.68 (0.50, 5.62)
Pneumonia	520	1.00 (0.82, 1.22)	0.91 (0.74, 1.12)	0.87 (0.69, 1.10)	1.06 (0.82, 1.37)	1.13 (0.83, 1.54)	1.38 (0.93, 2.05)	1.42 (0.85, 2.39)	1.19 (0.47, 3.02)	
Bronchitis	275	0.86 (0.66, 1.13)	0.88 (0.66, 1.17)	0.77 (0.56, 1.07)	0.66 (0.44, 0.97)[a]	0.72 (0.45, 1.14)	0.93 (0.53, 1.62)	0.68 (0.28, 1.60)	1.02 (0.31, 3.39)	
Arrhythmia	724	0.93 (0.79, 1.10)	0.98 (0.83, 1.17)	0.95 (0.78, 1.15)	0.88 (0.70, 1.11)	1.05 (0.80, 1.36)	0.91 (0.63, 1.32)	0.75 (0.43, 1.31)	0.60 (0.22, 1.66)	1.24 (0.16, 9.68)[b]
Cerebrovascular	223	1.17 (0.87, 1.59)	1.17 (0.85, 1.61)	1.14 (0.79, 1.63)	1.24 (0.84, 1.85)	1.65 (1.05, 2.62)[a]	1.27 (0.63, 2.54)	0.93 (0.32, 2.72)		
Ischemic	99	1.18 (0.75, 1.84)	1.21 (0.76, 1.93)	1.58 (0.98, 2.57)	1.38 (0.78, 2.44)	1.09 (0.54, 2.19)	1.15 (0.47, 2.83)	1.63 (0.54, 4.90)	4.68 (1.17, 18.72)[a]	7.99 (1.33, 47.90)[a]
Myocardial infarction	28	3.42 (1.44, 8.15)[a]	3.52 (1.46, 8.53)[a]	3.75 (1.52, 9.23)[a]	2.32 (0.80, 6.71)	0.40 (0.05, 3.21)[b]				
Heart failure	199	0.92 (0.67, 1.25)	0.86 (0.62, 1.20)	0.98 (0.69, 1.41)	0.80 (0.52, 1.25)	1.07 (0.64, 1.79)	0.89 (0.43, 1.86)	1.05 (0.37, 3.01)		

[a] 95% CI does not include the null.

[b] This footnote is to designate that only one ED visit related to the indicated health outcome occurred one day after an exposure (i.e., a day during which the HI exceeded the indicated threshold) during the study period.

Note: Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Table S3o. Odds ratios and 95% confidence intervals for emergency department (ED) visits among >65-year-olds for heat index (HI) on lag day 2 above versus below the threshold from single-day lag models in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	***Number of cases***	**70-degree HI threshold**	**72-degree HI threshold**	**74-degree HI threshold**	**76-degree HI threshold**	**78-degree HI threshold**	**80-degree HI threshold**	**82-degree HI threshold**	**84-degree HI threshold**	**86-degree HI threshold**
Asthma	171	1.05 (0.75, 1.47)	1.22 (0.86, 1.73)	1.48 (1.03, 2.14)[a]	1.54 (1.02, 2.32)[a]	1.80 (1.13, 2.86)[a]	2.35 (1.35, 4.09)[a]	3.18 (1.58, 6.41)[a]	2.45 (0.61, 9.81)	
COPD	853	0.90 (0.77, 1.05)	0.92 (0.78, 1.09)	0.89 (0.73, 1.07)	0.96 (0.78, 1.19)	0.88 (0.67, 1.14)	0.80 (0.55, 1.15)	1.04 (0.64, 1.69)	0.76 (0.31, 1.91)	0.64 (0.09, 4.75)[b]
Pneumonia	520	1.05 (0.86, 1.27)	0.92 (0.75, 1.14)	0.95 (0.76, 1.20)	1.02 (0.79, 1.32)	1.18 (0.87, 1.60)	1.11 (0.74, 1.68)	0.91 (0.50, 1.64)	0.92 (0.36, 2.32)	1.60 (0.36, 7.01)
Bronchitis	275	0.89 (0.68, 1.17)	0.93 (0.69, 1.23)	0.78 (0.56, 1.08)	0.74 (0.50, 1.09)	0.86 (0.55, 1.35)	0.80 (0.44, 1.47)	0.82 (0.34, 1.93)	1.16 (0.35, 3.85)	2.01 (0.24, 16.52)[b]
Arrhythmia	724	0.94 (0.79, 1.11)	0.97 (0.82, 1.16)	0.93 (0.77, 1.13)	0.92 (0.73, 1.15)	0.87 (0.66, 1.15)	0.88 (0.60, 1.29)	0.78 (0.45, 1.36)	0.59 (0.21, 1.62)	0.76 (0.10, 5.78)[b]
Cerebrovascular	223	1.12 (0.83, 1.51)	1.08 (0.79, 1.49)	1.09 (0.77, 1.54)	1.20 (0.81, 1.77)	0.98 (0.59, 1.62)	0.41 (0.16, 1.05)	0.37 (0.09, 1.56)	1.30 (0.29, 5.72)	
Ischemic	99	1.19 (0.76, 1.86)	1.03 (0.64, 1.67)	1.04 (0.63, 1.74)	0.89 (0.49, 1.62)	0.70 (0.32, 1.52)	0.81 (0.31, 2.12)	0.68 (0.16, 2.98)	1.12 (0.14, 9.00)[b]	
Myocardial infarction	28	2.92 (1.27, 6.69)[a]	1.96 (0.81, 4.73)	2.12 (0.85, 5.31)	1.03 (0.32, 3.31)					
Heart failure	199	0.92 (0.68, 1.26)	0.82 (0.58, 1.15)	0.85 (0.59, 1.24)	0.94 (0.61, 1.43)	1.13 (0.69, 1.84)	0.78 (0.37, 1.65)	1.03 (0.40, 2.66)	0.58 (0.08, 4.35)[b]	2.38 (0.28, 20.38)[b]

[a] 95% CI does not include the null.

[b] This footnote is to designate that only one ED visit related to the indicated health outcome occurred two days after an exposure (i.e., a day during which the HI exceeded the indicated threshold) during the study period.

Note: Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Table S3p. Odds ratios and 95% confidence intervals for emergency department (ED) visits among >65-year-olds for heat index (HI) on lag day 3 above versus below the threshold from single-day lag models in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	***Number of cases***	**70-degree HI threshold**	**72-degree HI threshold**	**74-degree HI threshold**	**76-degree HI threshold**	**78-degree HI threshold**	**80-degree HI threshold**	**82-degree HI threshold**	**84-degree HI threshold**	**86-degree HI threshold**
Asthma	171	1.32 (0.95, 1.83)	1.45 (1.03, 2.03)[a]	1.29 (0.90, 1.87)	1.11 (0.72, 1.70)	1.27 (0.77, 2.09)	1.93 (1.05, 3.53)[a]	2.03 (0.87, 4.74)	0.82 (0.10, 6.47)[b]	5.96 (0.54, 65.69)[b]
COPD	853	0.91 (0.78, 1.06)	0.92 (0.78, 1.09)	0.80 (0.67, 0.97)[a]	0.82 (0.66, 1.02)	0.90 (0.69, 1.16)	0.92 (0.65, 1.32)	0.87 (0.53, 1.44)	0.74 (0.30, 1.85)	
Pneumonia	520	0.92 (0.76, 1.12)	0.91 (0.73, 1.12)	1.00 (0.79, 1.26)	1.06 (0.82, 1.37)	0.91 (0.66, 1.26)	0.87 (0.57, 1.34)	1.43 (0.87, 2.36)	1.01 (0.40, 2.56)	
Bronchitis	275	0.90 (0.68, 1.18)	0.87 (0.65, 1.17)	0.86 (0.62, 1.18)	0.77 (0.52, 1.13)	0.76 (0.48, 1.21)	0.77 (0.41, 1.45)	1.19 (0.52, 2.73)	0.76 (0.18, 3.21)	
Arrhythmia	724	0.84 (0.71, 0.99)[a]	0.83 (0.69, 1.00)[a]	0.80 (0.65, 0.98)[a]	0.75 (0.59, 0.95)[a]	0.81 (0.61, 1.08)	1.09 (0.77, 1.54)	1.26 (0.79, 2.00)	0.72 (0.29, 1.83)	0.60 (0.08, 4.51)[b]
Cerebrovascular	223	0.93 (0.69, 1.26)	0.91 (0.65, 1.26)	0.79 (0.54, 1.15)	0.64 (0.40, 1.01)	0.40 (0.21, 0.79)[a]	0.38 (0.15, 0.96)[a]	0.18 (0.02, 1.36)[b]		
Ischemic	99	1.04 (0.66, 1.63)	0.87 (0.53, 1.42)	0.76 (0.44, 1.32)	0.78 (0.42, 1.43)	0.97 (0.49, 1.94)	0.41 (0.13, 1.35)	0.68 (0.16, 2.94)	1.70 (0.38, 7.69)	
Myocardial infarction	28	1.27 (0.51, 3.19)	1.33 (0.49, 3.61)	1.09 (0.36, 3.30)	1.22 (0.35, 4.16)	1.12 (0.22, 5.82)				
Heart failure	199	0.82 (0.60, 1.13)	0.89 (0.64, 1.25)	0.81 (0.55, 1.19)	0.74 (0.47, 1.16)	0.69 (0.39, 1.22)	0.67 (0.32, 1.40)	1.00 (0.37, 2.69)	1.22 (0.27, 5.44)	

[a] 95% CI does not include the null.

[b] This footnote is to designate that only one ED visit related to the indicated health outcome occurred three days after an exposure (i.e., a day during which the HI exceeded the indicated threshold) during the study period.

Note: Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Table S3q. Odds ratios and 95% confidence intervals for emergency department (ED) visits among >65-year-olds for heat index (HI) on lag day 4 above versus below the threshold from single-day lag models in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	***Number of cases***	**70-degree HI threshold**	**72-degree HI threshold**	**74-degree HI threshold**	**76-degree HI threshold**	**78-degree HI threshold**	**80-degree HI threshold**	**82-degree HI threshold**	**84-degree HI threshold**	**86-degree HI threshold**
Asthma	171	1.16 (0.84, 1.62)	1.13 (0.80, 1.59)	1.21 (0.83, 1.76)	1.24 (0.81, 1.89)	1.66 (1.04, 2.64)[a]	1.46 (0.77, 2.79)	0.94 (0.35, 2.50)	1.86 (0.49, 7.07)	
COPD	853	0.96 (0.82, 1.12)	0.96 (0.81, 1.13)	0.92 (0.77, 1.11)	0.95 (0.77, 1.17)	0.96 (0.75, 1.24)	1.07 (0.76, 1.52)	1.08 (0.67, 1.75)	1.58 (0.80, 3.11)	2.45 (0.54, 11.17)
Pneumonia	520	0.92 (0.75, 1.12)	0.94 (0.76, 1.16)	0.91 (0.72, 1.15)	0.89 (0.68, 1.18)	0.83 (0.59, 1.16)	0.87 (0.56, 1.35)	0.82 (0.44, 1.52)	0.75 (0.27, 2.09)	
Bronchitis	275	0.72 (0.55, 0.95)[a]	0.72 (0.53, 0.97)[a]	0.77 (0.56, 1.07)	0.69 (0.46, 1.03)	0.70 (0.43, 1.13)	0.69 (0.36, 1.33)	0.56 (0.20, 1.56)	1.48 (0.44, 5.03)	4.26 (0.85, 21.26)
Arrhythmia	724	0.91 (0.77, 1.07)	0.89 (0.75, 1.07)	0.84 (0.69, 1.03)	0.94 (0.75, 1.17)	1.01 (0.77, 1.32)	1.12 (0.79, 1.58)	1.32 (0.83, 2.10)	0.98 (0.42, 2.31)	0.92 (0.12, 7.06)[b]
Cerebrovascular	223	0.94 (0.70, 1.27)	0.85 (0.61, 1.18)	0.88 (0.62, 1.26)	0.83 (0.54, 1.25)	0.68 (0.39, 1.17)	0.59 (0.28, 1.25)	0.43 (0.13, 1.44)	0.90 (0.21, 3.95)	
Ischemic	99	0.88 (0.56, 1.37)	0.99 (0.62, 1.59)	1.03 (0.62, 1.73)	0.93 (0.52, 1.68)	0.52 (0.22, 1.22)	0.28 (0.07, 1.17)	0.60 (0.14, 2.52)	0.79 (0.10, 6.01)[b]	
Myocardial infarction	28	0.90 (0.38, 2.16)	0.98 (0.39, 2.49)	1.15 (0.42, 3.18)	1.72 (0.60, 4.96)	0.32 (0.04, 2.54)[b]				
Heart failure	199	1.14 (0.84, 1.56)	0.85 (0.60, 1.20)	0.80 (0.54, 1.18)	0.78 (0.50, 1.21)	0.74 (0.42, 1.29)	0.87 (0.44, 1.73)	0.34 (0.08, 1.43)	0.53 (0.07, 4.00)[b]	1.09 (0.14, 8.60)[b]

[a] 95% CI does not include the null.

[b] This footnote is to designate that only one ED visit related to the indicated health outcome occurred four days after an exposure (i.e., a day during which the HI exceeded the indicated threshold) during the study period.

Note: Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Table S3r. Odds ratios and 95% confidence intervals for emergency department (ED) visits among >65-year-olds for heat index (HI) on lag day 5 above versus below the threshold from single-day lag models in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	***Number of cases***	**70-degree HI threshold**	**72-degree HI threshold**	**74-degree HI threshold**	**76-degree HI threshold**	**78-degree HI threshold**	**80-degree HI threshold**	**82-degree HI threshold**	**84-degree HI threshold**	**86-degree HI threshold**
Asthma	171	1.06 (0.76, 1.48)	0.95 (0.66, 1.36)	1.00 (0.68, 1.49)	1.28 (0.83, 1.95)	0.86 (0.48, 1.53)	0.81 (0.37, 1.76)	1.07 (0.39, 2.88)	0.62 (0.07, 5.23)[b]	
COPD	853	0.93 (0.80, 1.08)	0.89 (0.76, 1.05)	0.91 (0.76, 1.09)	0.81 (0.65, 1.00)	0.72 (0.54, 0.94)[a]	0.78 (0.55, 1.13)	0.77 (0.46, 1.30)	0.69 (0.28, 1.73)	1.83 (0.54, 6.19)
Pneumonia	520	0.95 (0.78, 1.16)	0.92 (0.75, 1.14)	1.00 (0.79, 1.27)	1.03 (0.79, 1.35)	0.99 (0.72, 1.37)	0.74 (0.47, 1.18)	1.26 (0.73, 2.17)	1.39 (0.62, 3.12)	1.56 (0.19, 12.56)[b]
Bronchitis	275	0.93 (0.71, 1.21)	0.91 (0.68, 1.21)	1.05 (0.77, 1.43)	0.90 (0.62, 1.31)	0.67 (0.41, 1.09)	0.61 (0.31, 1.20)	0.91 (0.38, 2.15)	0.86 (0.20, 3.69)	1.93 (0.23, 15.88)[b]
Arrhythmia	724	0.96 (0.82, 1.14)	0.88 (0.74, 1.06)	0.90 (0.74, 1.09)	0.96 (0.77, 1.19)	1.05 (0.81, 1.37)	1.17 (0.84, 1.63)	0.99 (0.60, 1.61)	0.67 (0.27, 1.68)	1.12 (0.26, 4.74)
Cerebrovascular	223	1.11 (0.82, 1.48)	1.12 (0.83, 1.53)	1.20 (0.86, 1.68)	1.22 (0.83, 1.79)	1.13 (0.71, 1.80)	1.06 (0.57, 1.97)	1.60 (0.74, 3.46)	1.08 (0.25, 4.63)	2.15 (0.26, 17.88)[b]
Ischemic	99	0.99 (0.64, 1.55)	0.96 (0.60, 1.54)	0.83 (0.48, 1.42)	0.97 (0.52, 1.78)	0.90 (0.43, 1.89)	0.90 (0.36, 2.23)	0.52 (0.11, 2.36)	1.27 (0.25, 6.39)	
Myocardial infarction	28	1.46 (0.62, 3.44)	1.90 (0.79, 4.55)	1.03 (0.35, 2.99)	1.53 (0.46, 5.14)	1.02 (0.20, 5.25)				
Heart failure	199	1.19 (0.87, 1.62)	1.05 (0.74, 1.47)	0.90 (0.61, 1.32)	0.58 (0.35, 0.95)[a]	0.67 (0.37, 1.22)	0.66 (0.27, 1.61)	0.65 (0.15, 2.84)		

[a] 95% CI does not include the null.

[b] This footnote is to designate that only one ED visit related to the indicated health outcome occurred five days after an exposure (i.e., a day during which the HI exceeded the indicated threshold) during the study period.

Note: Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Tables S4a-g – Acute heatwave analysis stratified by sex, race, and age

Table S4a. Odds ratios and 95% confidence intervals for emergency department (ED) visits on heatwave days versus non-heatwave days among females in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	***Number of cases***	**70-degree HI threshold**	**72-degree HI threshold**	**74-degree HI threshold**	**76-degree HI threshold**	**78-degree HI threshold**	**80-degree HI threshold**	**82-degree HI threshold**	**84-degree HI threshold**	**86-degree HI threshold**
Heat illness	14	15.07 (1.88, 120.70)[a]	8.83 (1.85, 42.07)[a]	8.86 (2.20, 35.66)[a]	22.13 (4.45, 110.03)[a]	50.76 (5.81, 443.82)[a]		8.63 (1.19, 62.48)[a]		
Asthma	1651	1.07 (0.96, 1.20)	1.07 (0.95, 1.21)	1.03 (0.89, 1.18)	0.98 (0.83, 1.16)	1.09 (0.88, 1.35)	1.13 (0.87, 1.46)	1.17 (0.78, 1.74)	0.56 (0.20, 1.63)	
COPD	1138	1.00 (0.87, 1.14)	0.96 (0.82, 1.12)	1.01 (0.85, 1.20)	1.01 (0.82, 1.24)	0.85 (0.65, 1.13)	0.78 (0.54, 1.13)	0.86 (0.48, 1.54)	2.13 (0.72, 6.25)	
Pneumonia	999	0.93 (0.79, 1.08)	0.89 (0.75, 1.06)	0.93 (0.77, 1.13)	1.05 (0.84, 1.31)	1.37 (1.05, 1.79)[a]	1.44 (1.03, 2.02)[a]	1.83 (1.12, 3.00)[a]	1.05 (0.24, 4.53)	
Bronchitis	1130	0.81 (0.70, 0.93)[a]	0.82 (0.70, 0.96)[a]	0.78 (0.64, 0.94)[a]	0.79 (0.63, 0.99)[a]	0.76 (0.56, 1.03)	0.67 (0.45, 1.00)[a]	0.48 (0.23, 0.98)[a]	2.09 (0.79, 5.53)	
Arrhythmia	676	1.00 (0.83, 1.20)	0.95 (0.78, 1.16)	0.99 (0.79, 1.25)	1.07 (0.82, 1.39)	1.25 (0.90, 1.73)	1.03 (0.66, 1.63)	0.63 (0.27, 1.47)	1.40 (0.31, 6.28)	
Cerebrovascular	207	1.21 (0.87, 1.69)	1.29 (0.90, 1.85)	1.45 (0.97, 2.16)	1.52 (0.95, 2.44)	1.50 (0.84, 2.68)	1.21 (0.53, 2.79)	1.24 (0.37, 4.18)		
Ischemic	62	1.08 (0.59, 1.98)	1.57 (0.85, 2.93)	2.07 (1.06, 4.02)[a]	2.49 (1.21, 5.12)[a]	2.90 (1.22, 6.90)[a]	2.80 (0.82, 9.52)	7.94 (2.00, 31.49)[a]		
Myocardial infarction	21	2.23 (0.84, 5.92)	3.52 (1.27, 9.70)[a]	3.67 (1.19, 11.27)[a]	6.03 (1.97, 18.48)[a]	5.52 (1.23, 24.78)[a]	8.45 (0.49, 145.31)[b]	11.23 (0.65, 194.55)[b]		
Heart failure	162	0.99 (0.70, 1.42)	1.01 (0.68, 1.50)	3.67 (1.19, 11.27)[a]	1.07 (0.64, 1.81)	1.17 (0.62, 2.20)	0.66 (0.25, 1.74)	0.88 (0.22, 3.49)	1.69 (0.19, 15.28)[b]	

[a] 95% CI does not include the null.

[b] This footnote is to designate that only one ED visit related to the indicated health outcome occurred on an exposed day (i.e., an acute heatwave day as defined above) during the study period.

Note: For the acute heatwave analysis, the results of which are reported in this table, a heatwave day was defined as a day on which the observed heat index (HI) was above the indicated threshold as was the HI on the previous day. Days with a HI below the threshold and/or those that were preceded by a daily HI below the threshold were considered non-heatwave days. Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Table S4b. Odds ratios and 95% confidence intervals for emergency department (ED) visits on heatwave days versus non-heatwave days among males in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	***Number of cases***	**70-degree HI threshold**	**72-degree HI threshold**	**74-degree HI threshold**	**76-degree HI threshold**	**78-degree HI threshold**	**80-degree HI threshold**	**82-degree HI threshold**	**84-degree HI threshold**	**86-degree HI threshold**
Heat illness	21	15.28 (3.50, 66.76)[a]	10.68 (3.46, 33.00)[a]	12.13 (4.16, 35.35)[a]	20.21 (6.34, 64.43)[a]	15.76 (5.26, 47.28)[a]	14.02 (4.31, 45.67)[a]	15.73 (3.63, 68.14)[a]	5.99 (0.54, 66.05)[b]	
Asthma	1260	0.98 (0.86, 1.12)	0.98 (0.85, 1.14)	1.06 (0.90, 1.24)	1.09 (0.90, 1.32)	1.01 (0.79, 1.28)	0.94 (0.70, 1.27)	1.24 (0.79, 1.93)	0.94 (0.30, 2.94)	
COPD	1020	0.96 (0.83, 1.11)	0.98 (0.83, 1.16)	0.91 (0.75, 1.10)	0.91 (0.72, 1.15)	0.78 (0.57, 1.08)	0.58 (0.36, 0.92)[a]	0.34 (0.14, 0.84)[a]	0.53 (0.07, 3.96)[b]	
Pneumonia	1082	0.89 (0.77, 1.04)	0.89 (0.75, 1.04)	0.89 (0.74, 1.07)	0.90 (0.72, 1.13)	1.04 (0.78, 1.38)	0.98 (0.67, 1.42)	1.01 (0.57, 1.76)	1.15 (0.27, 4.90)	
Bronchitis	842	0.81 (0.68, 0.95)[a]	0.81 (0.68, 0.98)[a]	0.80 (0.64, 0.99)[a]	0.68 (0.51, 0.89)[a]	0.70 (0.49, 1.00)[a]	0.83 (0.55, 1.26)	0.79 (0.39, 1.58)	0.72 (0.17, 3.04)	
Arrhythmia	941	1.01 (0.87, 1.18)	1.03 (0.87, 1.22)	0.97 (0.80, 1.18)	0.81 (0.64, 1.04)	0.72 (0.52, 1.00)	0.51 (0.31, 0.83)[a]	0.85 (0.44, 1.63)	0.91 (0.21, 3.89)	
Cerebrovascular	227	0.85 (0.62, 1.18)	0.86 (0.60, 1.22)	0.83 (0.55, 1.25)	0.94 (0.58, 1.50)	1.35 (0.78, 2.34)	1.07 (0.52, 2.20)	1.23 (0.41, 3.70)	1.07 (0.12, 9.68)[b]	
Ischemic	138	1.44 (0.97, 2.14)	1.45 (0.94, 2.23)	1.56 (0.97, 2.49)	1.42 (0.80, 2.54)	0.93 (0.38, 2.26)	1.32 (0.43, 4.05)			
Myocardial infarction	61	2.16 (1.20, 3.87)[a]	1.72 (0.89, 3.32)	1.83 (0.88, 3.81)	1.94 (0.82, 4.59)	0.42 (0.04, 4.27)b	0.67 (0.06, 7.27)[b]			
Heart failure	279	0.68 (0.50, 0.92)[a]	0.64 (0.45, 0.91)[a]	0.68 (0.45, 1.02)	0.74 (0.46, 1.20)	0.57 (0.28, 1.16)	0.80 (0.38, 1.73)	1.07 (0.31, 3.77)	2.33 (0.26, 21.20)[b]	

[a] 95% CI does not include the null.

[b] This footnote is to designate that only one ED visit related to the indicated health outcome occurred on an exposed day (i.e., an acute heatwave day as defined above) during the study period.

Note: For the acute heatwave analysis, the results of which are reported in this table, a heatwave day was defined as a day on which the observed heat index (HI) was above the indicated threshold as was the HI on the previous day. Days with a HI below the threshold and/or those that were preceded by a daily HI below the threshold were considered non-heatwave days. Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Table S4c. Odds ratios and 95% confidence intervals for emergency department (ED) visits on heatwave days versus non-heatwave days among Alaska Native people in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	***Number of cases***	**70-degree HI threshold**	**72-degree HI threshold**	**74-degree HI threshold**	**76-degree HI threshold**	**78-degree HI threshold**	**80-degree HI threshold**	**82-degree HI threshold**	**84-degree HI threshold**	**86-degree HI threshold**
Heat illness	10	14.18 (1.68, 119.44)[a]	21.75 (2.37, 199.73)[a]	8.01 (1.69, 38.03)[a]	25.95 (2.52, 266.74)[a]	8.25 (1.22, 55.85)[a]	7.44 (1.05, 52.93)[a]	6.98 (0.43, 113.46)[b]		
Asthma	920	1.08 (0.93, 1.26)	1.01 (0.86, 1.20)	1.00 (0.83, 1.22)	0.98 (0.77, 1.23)	0.99 (0.74, 1.34)	1.11 (0.77, 1.59)	1.51 (0.88, 2.58)	0.89 (0.17, 4.57)	
COPD	477	0.80 (0.64, 0.99)[a]	0.79 (0.61, 1.01)	0.73 (0.55, 0.98)[a]	0.87 (0.62, 1.22)	0.70 (0.44, 1.12)	0.57 (0.30, 1.10)	0.65 (0.23, 1.84)		
Pneumonia	625	0.79 (0.65, 0.96)[a]	0.77 (0.62, 0.97)[a]	0.81 (0.63, 1.04)	1.01 (0.75, 1.36)	1.24 (0.87, 1.77)	1.51 (0.98, 2.32)	1.61 (0.84, 3.09)	1.26 (0.16, 9.93)[b]	
Bronchitis	597	0.86 (0.71, 1.05)	0.81 (0.65, 1.01)	0.70 (0.54, 0.92)[a]	0.73 (0.53, 1.01)	0.66 (0.42, 1.04)	0.66 (0.37, 1.18)	0.72 (0.28, 1.83)	1.85 (0.41, 8.32)	
Arrhythmia	222	0.88 (0.63, 1.22)	0.95 (0.67, 1.36)	0.79 (0.52, 1.21)	0.83 (0.50, 1.39)	0.96 (0.50, 1.83)	0.36 (0.11, 1.18)	0.42 (0.06, 3.08)[b]		
Cerebrovascular	62	0.91 (0.50, 1.64)	0.81 (0.41, 1.60)	1.05 (0.51, 2.15)	1.71 (0.80, 3.68)	1.98 (0.80, 4.93)	2.25 (0.64, 7.85)	1.86 (0.35, 9.86)		
Ischemic	35	1.68 (0.78, 3.66)	1.89 (0.85, 4.20)	2.22 (0.98, 5.07)	4.16 (1.79, 9.69)[a]	3.85 (1.34, 11.12)[a]	4.12 (1.12, 15.24)[a]	1.81 (0.15, 21.18)[b]		
Myocardial infarction	20	2.75 (0.96, 7.87)	2.41 (0.81, 7.16)	2.25 (0.73, 6.89)	4.15 (1.28, 13.51)[a]	3.16 (0.45, 22.08)	5.94 (0.71, 49.42)	4.92 (0.24, 98.90)[b]		
Heart failure	135	1.00 (0.67, 1.50)	0.91 (0.58, 1.43)	0.96 (0.58, 1.59)	1.15 (0.66, 2.01)	0.66 (0.28, 1.52)	0.65 (0.24, 1.82)	0.63 (0.13, 3.14)	2.21 (0.15, 32.28)[b]	

[a] 95% CI does not include the null.

[b] This footnote is to designate that only one ED visit related to the indicated health outcome occurred on an exposed day (i.e., an acute heatwave day as defined above) during the study period.

Note: For the acute heatwave analysis, the results of which are reported in this table, a heatwave day was defined as a day on which the observed heat index (HI) was above the indicated threshold as was the HI on the previous day. Days with a HI below the threshold and/or those that were preceded by a daily HI below the threshold were considered non-heatwave days. Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Table S4d. Odds ratios and 95% confidence intervals for emergency department (ED) visits on heatwave days versus non-heatwave days among non-Alaska Native people in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	***Number of cases***	**70-degree HI threshold**	**72-degree HI threshold**	**74-degree HI threshold**	**76-degree HI threshold**	**78-degree HI threshold**	**80-degree HI threshold**	**82-degree HI threshold**	**84-degree HI threshold**	**86-degree HI threshold**
Heat illness	23	14.25 (3.28, 61.89)[a]	7.51 (2.66, 21.20)[a]	11.17 (3.93, 31.79)[a]	20.46 (7.19, 58.23)[a]	42.44 (11.81, 152.54)[a]	65.86 (14.59, 297.39)[a]	13.75 (3.87, 48.78)[a]	11.95 (1.68, 84.85)[a]	
Asthma	1907	1.02 (0.91, 1.13)	1.05 (0.93, 1.18)	1.07 (0.94, 1.22)	1.08 (0.93, 1.26)	1.11 (0.92, 1.35)	1.04 (0.82, 1.32)	1.08 (0.76, 1.55)	0.68 (0.28, 1.64)	
COPD	1627	1.04 (0.92, 1.16)	1.03 (0.91, 1.17)	1.04 (0.90, 1.20)	0.99 (0.83, 1.19)	0.87 (0.69, 1.10)	0.73 (0.53, 1.01)	0.59 (0.34, 1.03)	1.45 (0.57, 3.70)	
Pneumonia	1372	0.96 (0.84, 1.09)	0.94 (0.81, 1.08)	0.95 (0.81, 1.12)	0.94 (0.77, 1.14)	1.19 (0.94, 1.51)	1.16 (0.85, 1.58)	1.32 (0.84, 2.06)	1.10 (0.34, 3.64)	
Bronchitis	1301	0.78 (0.68, 0.90)[a]	0.85 (0.73, 0.98)[a]	0.84 (0.71, 0.99)[a]	0.74 (0.60, 0.92)[a]	0.73 (0.55, 0.96)[a]	0.72 (0.51, 1.02)	0.57 (0.31, 1.03)	1.22 (0.48, 3.10)	
Arrhythmia	1325	1.03 (0.91, 1.18)	1.00 (0.87, 1.15)	1.02 (0.86, 1.19)	0.93 (0.76, 1.13)	0.93 (0.72, 1.19)	0.77 (0.54, 1.09)	0.81 (0.47, 1.39)	1.21 (0.42, 3.42)	
Cerebrovascular	350	0.98 (0.75, 1.26)	1.01 (0.76, 1.34)	1.04 (0.76, 1.43)	0.99 (0.67, 1.45)	1.19 (0.75, 1.88)	0.95 (0.51, 1.77)	1.11 (0.43, 2.86)	0.99 (0.13, 7.74)[b]	
Ischemic	156	1.16 (0.79, 1.70)	1.26 (0.83, 1.92)	1.57 (1.00, 2.47)[a]	1.17 (0.65, 2.09)	0.97 (0.42, 2.21)	1.17 (0.39, 3.52)	2.15 (0.58, 7.96)		
Myocardial infarction	55	2.11 (1.09, 4.08)[a]	1.88 (0.89, 3.99)	2.48 (1.09, 5.64)[a]	2.56 (0.94, 6.97)	1.00 (0.12, 8.59)[b]				
Heart failure	286	0.71 (0.53, 0.95)[a]	0.73 (0.52, 1.02)	0.76 (0.52, 1.12)	0.74 (0.46, 1.18)	0.96 (0.54, 1.69)	0.79 (0.36, 1.70)	0.98 (0.29, 3.31)	1.49 (0.18, 12.05)[b]	

[a] 95% CI does not include the null.

[b] This footnote is to designate that only one ED visit related to the indicated health outcome occurred on an exposed day (i.e., an acute heatwave day as defined above) during the study period.

Note: For the acute heatwave analysis, the results of which are reported in this table, a heatwave day was defined as a day on which the observed heat index (HI) was above the indicated threshold as was the HI on the previous day. Days with a HI below the threshold and/or those that were preceded by a daily HI below the threshold were considered non-heatwave days. Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Table S4e. Odds ratios and 95% confidence intervals for emergency department (ED) visits on heatwave days versus non-heatwave days among <15-year-olds in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	***Number of cases***	**70-degree HI threshold**	**72-degree HI threshold**	**74-degree HI threshold**	**76-degree HI threshold**	**78-degree HI threshold**	**80-degree HI threshold**	**82-degree HI threshold**	**84-degree HI threshold**	**86-degree HI threshold**
Heat illness	6		7.21 (0.78, 66.44)	15.12 (1.62, 141.34)[a]	20.33 (1.94, 212.65)[a]	26.37 (2.42, 287.44)[a]				
Asthma	523	1.07 (0.87, 1.31)	1.15 (0.92, 1.43)	0.98 (0.75, 1.27)	0.83 (0.60, 1.15)	0.80 (0.53, 1.22)	0.76 (0.45, 1.30)	0.88 (0.37, 2.12)		
COPD	12	0.65 (0.13, 3.32)	0.38 (0.04, 3.29)b							
Pneumonia	330	0.75 (0.56, 0.99)[a]	0.74 (0.54, 1.02)	0.95 (0.67, 1.34)	0.80 (0.51, 1.24)	0.97 (0.56, 1.71)	0.80 (0.37, 1.74)	1.50 (0.56, 3.97)	1.83 (0.23, 14.85)[b]	
Bronchitis	402	0.81 (0.63, 1.04)	0.83 (0.63, 1.09)	0.84 (0.61, 1.15)	0.82 (0.55, 1.22)	1.07 (0.65, 1.76)	0.99 (0.51, 1.93)	1.43 (0.54, 3.77)	1.57 (0.20, 12.57)[b]	
Arrhythmia	14	1.16 (0.37, 3.70)	0.87 (0.22, 3.46)	0.73 (0.14, 3.71)	0.63 (0.07, 5.71)[b]					

[a] 95% CI does not include the null.

[b]This footnote is to designate that only one ED visit related to the indicated health outcome occurred on an exposed day (i.e., an acute heatwave day as defined above) during the study period.

Note: For the acute heatwave analysis, the results of which are reported in this table, a heatwave day was defined as a day on which the observed heat index (HI) was above the indicated threshold as was the HI on the previous day. Days with a HI below the threshold and/or those that were preceded by a daily HI below the threshold were considered non-heatwave days. Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios.
Abbreviations: COPD, chronic obstructive pulmonary disease.

Table S4f. Odds ratios and 95% confidence intervals for emergency department (ED) visits on heatwave days versus non-heatwave days among 15-65 year-olds in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	***Number of cases***	**70-degree HI threshold**	**72-degree HI threshold**	**74-degree HI threshold**	**76-degree HI threshold**	**78-degree HI threshold**	**80-degree HI threshold**	**82-degree HI threshold**	**84-degree HI threshold**	**86-degree HI threshold**
Heat illness	27	11.51 (3.36, 39.34)[a]	9.42 (3.40, 26.14)[a]	8.39 (3.26, 21.64)[a]	16.47 (5.79, 46.86)[a]	15.93 (5.38, 47.17)[a]	15.89 (5.00, 50.49)[a]	9.31 (2.81, 30.88)[a]	12.02 (1.69, 85.37)[a]	
Asthma	2217	1.01 (0.92, 1.12)	1.00 (0.90, 1.11)	1.04 (0.93, 1.18)	1.07 (0.93, 1.24)	1.10 (0.92, 1.32)	1.05 (0.84, 1.31)	1.27 (0.91, 1.75)	0.69 (0.28, 1.66)	
COPD	1293	0.96 (0.84, 1.10)	0.94 (0.81, 1.09)	0.93 (0.78, 1.10)	0.86 (0.70, 1.06)	0.67 (0.50, 0.90)[a]	0.53 (0.35, 0.81)[a]	0.44 (0.21, 0.90)[a]	0.52 (0.07, 3.92)[b]	
Pneumonia	1231	0.95 (0.83, 1.09)	0.93 (0.79, 1.08)	0.95 (0.80, 1.13)	1.03 (0.84, 1.26)	1.34 (1.06, 1.71)[a]	1.32 (0.96, 1.81)	1.41 (0.87, 2.28)	1.38 (0.41, 4.63)	
Bronchitis	1294	0.77 (0.67, 0.88)[a]	0.78 (0.67, 0.91)[a]	0.77 (0.64, 0.92)[a]	0.75 (0.60, 0.93)[a]	0.64 (0.47, 0.86)[a]	0.63 (0.43, 0.91)[a]	0.50 (0.26, 0.96)[a]	1.25 (0.49, 3.23)	
Arrhythmia	879	1.03 (0.88, 1.21)	1.07 (0.90, 1.27)	1.00 (0.82, 1.22)	1.01 (0.80, 1.29)	1.05 (0.77, 1.44)	0.80 (0.50, 1.26)	1.06 (0.52, 2.13)	1.70 (0.39, 7.51)	
Cerebrovascular	211	0.86 (0.62, 1.21)	0.89 (0.61, 1.28)	0.97 (0.65, 1.46)	1.07 (0.66, 1.72)	1.17 (0.66, 2.08)	0.86 (0.38, 1.96)	0.88 (0.25, 3.12)	1.47 (0.16, 13.89)[b]	
Ischemic	100	1.32 (0.83, 2.11)	1.55 (0.93, 2.56)	1.72 (0.99, 3.00)	2.64 (1.44, 4.85)[a]	2.08 (0.88, 4.90)	2.86 (0.90, 9.10)	0.82 (0.08, 8.10)[b]		
Myocardial infarction	53	1.65 (0.87, 3.11)	1.67 (0.82, 3.40)	2.13 (0.98, 4.61)	3.58 (1.56, 8.23)[a]	3.07 (0.86, 10.87)	2.75 (0.41, 18.45)	1.43 (0.10, 20.84)[b]		
Heart failure	241	0.73 (0.53, 1.01)	0.69 (0.48, 1.00)[a]	0.79 (0.52, 1.19)	0.91 (0.57, 1.46)	0.80 (0.43, 1.48)	0.59 (0.25, 1.41)	0.59 (0.13, 2.60)	7.43 (1.01, 54.77)[a]	

[a] 95% CI does not include the null.

[b] This footnote is to designate that only one ED visit related to the indicated health outcome occurred on an exposed day (i.e., an acute heatwave day as defined above) during the study period.

Note: For the acute heatwave analysis, the results of which are reported in this table, a heatwave day was defined as a day on which the observed heat index (HI) was above the indicated threshold as was the HI on the previous day. Days with a HI below the threshold and/or those that were preceded by a daily HI below the threshold were considered non-heatwave days. Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Table S4g. Odds ratios and 95% confidence intervals for emergency department (ED) visits on heatwave days versus non-heatwave days among >65-year-olds in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	*Number of cases*	70-degree HI threshold	72-degree HI threshold	74-degree HI threshold	76-degree HI threshold	78-degree HI threshold	80-degree HI threshold	82-degree HI threshold	84-degree HI threshold	86-degree HI threshold
Asthma	171	1.23 (0.87, 1.75)	1.15 (0.79, 1.69)	1.21 (0.79, 1.87)	1.10 (0.66, 1.83)	1.23 (0.66, 2.30)	1.91 (0.94, 3.88)	1.25 (0.35, 4.52)	0.90 (0.10, 8.36)	
COPD	853	1.00 (0.85, 1.17)	1.02 (0.85, 1.21)	1.01 (0.83, 1.24)	1.12 (0.88, 1.42)	1.05 (0.77, 1.41)	0.91 (0.61, 1.36)	0.84 (0.43, 1.62)	1.85 (0.64, 5.40)	
Pneumonia	520	0.91 (0.74, 1.12)	0.90 (0.71, 1.13)	0.81 (0.62, 1.06)	0.94 (0.69, 1.30)	1.01 (0.67, 1.52)	1.18 (0.73, 1.92)	1.29 (0.63, 2.63)		
Bronchitis	275	1.01 (0.76, 1.33)	0.99 (0.73, 1.35)	0.83 (0.58, 1.19)	0.64 (0.40, 1.03)	0.83 (0.48, 1.45)	1.05 (0.56, 1.96)	0.47 (0.11, 2.00)	1.49 (0.18, 12.08)[b]	
Arrhythmia	724	0.97 (0.82, 1.16)	0.92 (0.76, 1.12)	0.96 (0.77, 1.20)	0.81 (0.62, 1.07)	0.82 (0.58, 1.16)	0.65 (0.40, 1.05)	0.55 (0.25, 1.19)	0.75 (0.17, 3.29)	
Cerebrovascular	223	1.16 (0.85, 1.60)	1.21 (0.85, 1.71)	1.22 (0.82, 1.81)	1.30 (0.82, 2.05)	1.73 (1.00, 2.99)	1.45 (0.71, 2.98)	1.59 (0.55, 4.60)		
Ischemic	99	1.34 (0.83, 2.14)	1.46 (0.88, 2.40)	1.71 (1.00, 2.92)[a]	1.17 (0.59, 2.32)	1.19 (0.49, 2.92)	1.23 (0.35, 4.34)	3.76 (0.90, 15.64)		
Myocardial infarction	28	4.20 (1.72, 10.25)[a]	3.53 (1.36, 9.20)[a]	2.68 (0.96, 7.43)	2.20 (0.65, 7.48)					
Heart failure	199	0.87 (0.62, 1.21)	0.87 (0.60, 1.27)	0.84 (0.54, 1.30)	0.82 (0.47, 1.40)	0.84 (0.41, 1.72)	0.96 (0.42, 2.20)	1.43 (0.43, 4.80)		

[a] 95% CI does not include the null.

[b] This footnote is to designate that only one ED visit related to the indicated health outcome occurred on an exposed day (i.e., an acute heatwave day as defined above) during the study period.

Note: For the acute heatwave analysis, the results of which are reported in this table, a heatwave day was defined as a day on which the observed heat index (HI) was above the indicated threshold as was the HI on the previous day. Days with a HI below the threshold and/or those that were preceded by a daily HI below the threshold were considered non-heatwave days. Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios.
Abbreviations: COPD, chronic obstructive pulmonary disease.

Tables S5a-g – Ongoing heatwave analysis stratified by sex, race, and age

Table S5a. Odds ratios and 95% confidence intervals for one additional previous day on which the observed heat index (HI) was above the indicated threshold among females in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	***Number of cases***	**70-degree HI threshold**	**72-degree HI threshold**	**74-degree HI threshold**	**76-degree HI threshold**	**78-degree HI threshold**	**80-degree HI threshold**	**82-degree HI threshold**	**84-degree HI threshold**	**86-degree HI threshold**
Heat illness	14	1.03 (0.94, 1.12)	1.08 (0.95, 1.23)	1.11 (0.96, 1.29)	1.50 (1.08, 2.09)[a]	1.61 (1.09, 2.36)[a]	2.56 (1.11, 5.89)[a]	0.27 (0.02, 3.79)		
Asthma	1651	1.00 (0.99, 1.02)	1.01 (0.99, 1.03)	1.01 (0.98, 1.03)	1.00 (0.96, 1.05)	1.03 (0.97, 1.08)	1.04 (0.97, 1.12)	1.11 (0.96, 1.28)	1.27 (0.88, 1.83)	0.66 (0.16, 2.78)
COPD	1138	0.99 (0.97, 1.01)	0.98 (0.96, 1.01)	0.98 (0.95, 1.01)	0.96 (0.90, 1.01)	0.94 (0.87, 1.02)	0.87 (0.77, 0.99)[a]	0.93 (0.74, 1.17)	1.07 (0.65, 1.76)	2.77 (0.92, 8.31)
Pneumonia	999	1.00 (0.98, 1.02)	1.00 (0.97, 1.02)	1.01 (0.98, 1.05)	1.02 (0.97, 1.08)	1.06 (0.98, 1.14)	1.13 (1.04, 1.24)[a]	1.16 (0.98, 1.38)	1.36 (0.90, 2.04)	1.81 (0.41, 7.99)
Bronchitis	1130	0.98 (0.97, 1.00)	0.97 (0.94, 1.00)	0.96 (0.92, 0.99)[a]	0.96 (0.90, 1.02)	0.98 (0.91, 1.06)	0.94 (0.84, 1.05)	1.00 (0.81, 1.23)	1.11 (0.73, 1.69)	1.35 (0.41, 4.47)
Arrhythmia	676	1.01 (0.98, 1.03)	1.01 (0.98, 1.05)	1.01 (0.97, 1.05)	1.04 (0.98, 1.12)	1.00 (0.92, 1.10)	1.03 (0.91, 1.16)	1.05 (0.83, 1.33)	1.03 (0.57, 1.85)	2.16 (0.48, 9.79)
Cerebrovascular	207	1.00 (0.96, 1.04)	1.02 (0.96, 1.08)	1.02 (0.95, 1.09)	1.02 (0.90, 1.16)	1.00 (0.84, 1.18)	0.91 (0.68, 1.23)	0.85 (0.51, 1.42)		
Ischemic	62	1.08 (1.02, 1.15)[a]	1.12 (1.02, 1.22)[a]	1.13 (1.03, 1.26)[a]	1.22 (1.02, 1.45)[a]	1.18 (0.96, 1.44)	1.32 (1.05, 1.65)[a]	1.16 (0.73, 1.86)	17.17 (2.87, 102.76)[a]	24.16 (2.16, 270.46)[a]
Myocardial infarction	21	1.14 (1.02, 1.29)[a]	1.13 (0.94, 1.35)	1.13 (0.92, 1.39)	0.97 (0.69, 1.35)	0.87 (0.55, 1.36)	1.25 (0.77, 2.04)			
Heart failure	162	1.01 (0.97, 1.04)	1.01 (0.95, 1.08)	1.00 (0.93, 1.08)	0.97 (0.85, 1.12)	1.07 (0.92, 1.25)	1.02 (0.82, 1.26)	0.92 (0.53, 1.60)	0.53 (0.08, 3.36)	2.19 (0.25, 18.94)

[a] 95% CI does not include the null.

Note: For the ongoing heatwave analysis, the results of which are reported in this table, the effect of prolonged elevated HI was estimated via a linear variable in the model that represented the number of previous consecutive days on which the observed HI was above the relevant threshold. An indicator variable was also included to control for same-day elevated HI. As with the threshold analysis, a value of `1` indicated that the same-day HI was above the relevant threshold and a value of `0` indicated that the same-day HI was below the relevant threshold. Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Table S5b. Odds ratios and 95% confidence intervals for one additional previous day on which the observed heat index (HI) was above the indicated threshold among males in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	*Number of cases*	70-degree HI threshold	72-degree HI threshold	74-degree HI threshold	76-degree HI threshold	78-degree HI threshold	80-degree HI threshold	82-degree HI threshold	84-degree HI threshold	86-degree HI threshold
Heat illness	21	1.07 (0.98, 1.18)	1.06 (0.95, 1.19)	1.05 (0.92, 1.21)	0.96 (0.67, 1.38)	0.93 (0.62, 1.38)	0.93 (0.54, 1.59)	2.05 (0.49, 8.63)	3.20 (0.96, 10.65)	
Asthma	1260	1.01 (0.99, 1.02)	1.01 (0.98, 1.03)	1.00 (0.98, 1.03)	1.00 (0.95, 1.05)	0.99 (0.93, 1.05)	1.03 (0.95, 1.13)	0.94 (0.77, 1.14)	0.78 (0.45, 1.33)	0.84 (0.20, 3.57)
COPD	1020	0.99 (0.98, 1.01)	0.98 (0.96, 1.01)	0.99 (0.95, 1.02)	0.99 (0.93, 1.06)	0.91 (0.83, 1.01)	0.91 (0.79, 1.04)	0.84 (0.63, 1.11)	0.71 (0.37, 1.36)	
Pneumonia	1082	1.00 (0.98, 1.02)	0.99 (0.96, 1.02)	0.98 (0.95, 1.01)	1.00 (0.94, 1.06)	1.00 (0.93, 1.08)	0.97 (0.87, 1.08)	1.02 (0.83, 1.25)	1.14 (0.74, 1.76)	
Bronchitis	842	0.99 (0.97, 1.01)	0.97 (0.93, 1.00)[a]	0.96 (0.92, 1.00)[a]	0.92 (0.85, 0.99)[a]	0.90 (0.81, 0.99)[a]	0.86 (0.74, 1.00)	0.83 (0.62, 1.10)	0.72 (0.37, 1.38)	0.43 (0.06, 3.17)
Arrhythmia	941	1.00 (0.98, 1.02)	1.00 (0.98, 1.03)	0.99 (0.96, 1.02)	0.98 (0.92, 1.04)	1.03 (0.96, 1.11)	0.98 (0.88, 1.09)	1.00 (0.81, 1.24)	0.93 (0.49, 1.75)	2.44 (0.53, 11.15)
Cerebrovascular	227	0.96 (0.92, 1.00)	0.95 (0.89, 1.01)	0.96 (0.89, 1.03)	0.98 (0.87, 1.11)	0.98 (0.83, 1.15)	0.99 (0.80, 1.22)	0.58 (0.27, 1.21)	0.30 (0.05, 1.96)	
Ischemic	138	1.00 (0.95, 1.06)	1.03 (0.97, 1.11)	1.00 (0.92, 1.09)	0.92 (0.78, 1.10)	0.98 (0.78, 1.22)	0.98 (0.74, 1.31)	0.96 (0.51, 1.79)		
Myocardial infarction	61	1.05 (0.97, 1.12)	1.07 (0.97, 1.18)	1.07 (0.96, 1.20)	0.96 (0.77, 1.20)	1.03 (0.79, 1.34)	1.09 (0.81, 1.47)	1.38 (0.74, 2.59)		
Heart failure	279	0.99 (0.95, 1.03)	1.00 (0.94, 1.06)	0.99 (0.92, 1.07)	0.97 (0.85, 1.10)	0.94 (0.78, 1.13)	0.91 (0.69, 1.19)	1.03 (0.69, 1.54)	0.41 (0.07, 2.48)	1.63 (0.19, 13.72)

[a] 95% CI does not include the null.

Note: For the ongoing heatwave analysis, the results of which are reported in this table, the effect of prolonged elevated HI was estimated via a linear variable in the model that represented the number of previous consecutive days on which the observed HI was above the relevant threshold. An indicator variable was also included to control for same-day elevated HI. As with the threshold analysis, a value of `1` indicated that the same-day HI was above the relevant threshold and a value of `0` indicated that the same-day HI was below the relevant threshold. Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Table S5c. Odds ratios and 95% confidence intervals for one additional previous day on which the observed heat index (HI) was above the indicated threshold among Alaska Native people in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	*Number of cases*	70-degree HI threshold	72-degree HI threshold	74-degree HI threshold	76-degree HI threshold	78-degree HI threshold	80-degree HI threshold	82-degree HI threshold	84-degree HI threshold	86-degree HI threshold
Heat illness	10	1.07 (0.86, 1.33)	0.99 (0.77, 1.28)	1.02 (0.78, 1.33)	0.81 (0.38, 1.73)	0.45 (0.10, 2.12)	0.45 (0.11, 1.79)	0.64 (0.01, 33.52)		
Asthma	920	1.01 (0.99, 1.03)	1.02 (0.99, 1.05)	1.02 (0.98, 1.05)	1.00 (0.94, 1.06)	1.02 (0.95, 1.10)	1.08 (0.98, 1.19)	1.11 (0.89, 1.38)	1.36 (0.77, 2.39)	
COPD	477	0.98 (0.95, 1.01)	0.97 (0.93, 1.02)	0.97 (0.93, 1.03)	1.00 (0.92, 1.09)	0.89 (0.78, 1.03)	0.84 (0.68, 1.04)	0.87 (0.59, 1.29)	0.80 (0.28, 2.27)	
Pneumonia	625	1.01 (0.98, 1.03)	1.01 (0.97, 1.04)	1.00 (0.96, 1.05)	1.04 (0.96, 1.12)	1.02 (0.91, 1.13)	1.02 (0.88, 1.17)	1.13 (0.87, 1.47)	1.42 (0.82, 2.47)	1.97 (0.24, 16.30)
Bronchitis	597	0.99 (0.97, 1.02)	0.99 (0.95, 1.03)	0.97 (0.93, 1.02)	1.01 (0.93, 1.09)	1.02 (0.92, 1.13)	0.98 (0.84, 1.13)	1.23 (0.94, 1.61)	1.16 (0.55, 2.44)	
Arrhythmia	222	1.00 (0.96, 1.05)	1.01 (0.95, 1.07)	1.03 (0.96, 1.09)	1.10 (0.99, 1.21)	1.12 (0.99, 1.27)	0.89 (0.67, 1.18)	0.66 (0.31, 1.42)		
Cerebrovascular	62	0.97 (0.91, 1.04)	0.99 (0.88, 1.10)	0.98 (0.86, 1.12)	1.04 (0.84, 1.29)	1.11 (0.89, 1.40)	1.16 (0.88, 1.54)	1.08 (0.39, 2.96)		
Ischemic	35	1.06 (0.98, 1.15)	1.12 (1.00, 1.25)[a]	1.18 (1.04, 1.33)[a]	1.12 (0.92, 1.38)	1.08 (0.85, 1.39)	1.05 (0.76, 1.44)	0.92 (0.37, 2.29)	2.34 (0.38, 14.41)	
Myocardial infarction	20	1.05 (0.94, 1.17)	1.07 (0.92, 1.25)	1.19 (0.98, 1.45)	1.03 (0.78, 1.36)	1.06 (0.77, 1.47)	1.08 (0.73, 1.59)	1.30 (0.55, 3.12)	10.19 (0.63, 164.48)	
Heart failure	135	1.03 (0.99, 1.06)	1.04 (0.98, 1.11)	1.03 (0.96, 1.11)	1.06 (0.93, 1.21)	1.13 (0.95, 1.33)	1.23 (1.02, 1.49)[a]	1.47 (0.91, 2.35)	0.43 (0.05, 3.64)	3.02 (0.31, 29.42)

[a] 95% CI does not include the null.

Note: For the ongoing heatwave analysis, the results of which are reported in this table, the effect of prolonged elevated HI was estimated via a linear variable in the model that represented the number of previous consecutive days on which the observed HI was above the relevant threshold. An indicator variable was also included to control for same-day elevated HI. As with the threshold analysis, a value of `1` indicated that the same-day HI was above the relevant threshold and a value of `0` indicated that the same-day HI was below the relevant threshold. Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Table S5d. Odds ratios and 95% confidence intervals for one additional previous day on which the observed heat index (HI) was above the indicated threshold among non-Alaska Native people in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	*Number of cases*	70-degree HI threshold	72-degree HI threshold	74-degree HI threshold	76-degree HI threshold	78-degree HI threshold	80-degree HI threshold	82-degree HI threshold	84-degree HI threshold	86-degree HI threshold
Heat illness	23	1.05 (0.98, 1.12)	1.10 (1.01, 1.21)[a]	1.11 (1.00, 1.24)	1.31 (1.03, 1.68)[a]	1.31 (1.00, 1.72)	1.60 (1.05, 2.43)[a]	1.13 (0.34, 3.74)	3.55 (1.07, 11.82)[a]	
Asthma	1907	1.01 (0.99, 1.02)	1.01 (0.99, 1.02)	1.01 (0.98, 1.03)	1.01 (0.97, 1.05)	1.01 (0.96, 1.06)	1.02 (0.96, 1.09)	1.01 (0.88, 1.16)	0.96 (0.67, 1.38)	1.00 (0.36, 2.81)
COPD	1627	1.00 (0.98, 1.01)	0.99 (0.97, 1.01)	0.98 (0.96, 1.01)	0.97 (0.92, 1.01)	0.94 (0.88, 1.01)	0.90 (0.82, 1.00)	0.88 (0.72, 1.08)	0.90 (0.59, 1.37)	1.46 (0.52, 4.14)
Pneumonia	1372	1.00 (0.98, 1.01)	0.99 (0.96, 1.01)	0.99 (0.97, 1.02)	1.00 (0.95, 1.05)	1.02 (0.96, 1.09)	1.05 (0.97, 1.14)	1.07 (0.91, 1.25)	1.21 (0.85, 1.71)	0.51 (0.07, 3.80)
Bronchitis	1301	0.99 (0.97, 1.00)	0.96 (0.94, 0.99)[a]	0.95 (0.92, 0.98)[a]	0.91 (0.86, 0.97)[a]	0.91 (0.85, 0.98)[a]	0.87 (0.78, 0.98)[a]	0.81 (0.65, 1.01)	0.90 (0.60, 1.35)	1.11 (0.40, 3.11)
Arrhythmia	1325	1.00 (0.99, 1.02)	1.01 (0.99, 1.03)	0.99 (0.97, 1.02)	0.99 (0.94, 1.04)	1.00 (0.94, 1.07)	1.02 (0.93, 1.11)	1.06 (0.91, 1.25)	1.13 (0.73, 1.74)	2.70 (0.91, 7.99)
Cerebrovascular	350	0.98 (0.95, 1.01)	0.98 (0.93, 1.03)	0.99 (0.94, 1.05)	0.98 (0.88, 1.08)	0.94 (0.82, 1.08)	0.82 (0.64, 1.05)	0.70 (0.44, 1.11)	0.24 (0.04, 1.51)	
Ischemic	156	1.02 (0.98, 1.07)	1.03 (0.97, 1.10)	1.00 (0.92, 1.09)	0.93 (0.79, 1.11)	1.01 (0.82, 1.23)	1.09 (0.85, 1.40)	1.07 (0.68, 1.69)	1.93 (0.86, 4.36)	6.65 (1.20, 36.94)[a]
Myocardial infarction	55	1.08 (0.99, 1.17)	1.08 (0.96, 1.22)	1.06 (0.91, 1.22)	0.73 (0.46, 1.16)	0.59 (0.21, 1.65)				
Heart failure	286	0.97 (0.94, 1.01)	0.98 (0.92, 1.04)	0.97 (0.90, 1.04)	0.91 (0.79, 1.04)	0.95 (0.80, 1.12)	0.71 (0.51, 1.00)	0.78 (0.46, 1.33)	0.44 (0.08, 2.43)	1.47 (0.18, 11.92)

[a] 95% CI does not include the null.

Note: For the ongoing heatwave analysis, the results of which are reported in this table, the effect of prolonged elevated HI was estimated via a linear variable in the model that represented the number of previous consecutive days on which the observed HI was above the relevant threshold. An indicator variable was also included to control for same-day elevated HI. As with the threshold analysis, a value of `1` indicated that the same-day HI was above the relevant threshold and a value of `0` indicated that the same-day HI was below the relevant threshold. Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Table S5e. Odds ratios and 95% confidence intervals for one additional previous day on which the observed heat index (HI) was above the indicated threshold among <15 year-olds in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	***Number of cases***	**70-degree HI threshold**	**72-degree HI threshold**	**74-degree HI threshold**	**76-degree HI threshold**	**78-degree HI threshold**	**80-degree HI threshold**	**82-degree HI threshold**	**84-degree HI threshold**	**86-degree HI threshold**
Heat illness	6	1.01 (0.89, 1.15)	1.02 (0.84, 1.24)	1.05 (0.85, 1.29)	1.12 (0.71, 1.79)	1.18 (0.58, 2.41)		1.17 (0.05, 27.65)		
Asthma	523	0.99 (0.96, 1.02)	0.99 (0.95, 1.02)	0.99 (0.95, 1.03)	0.96 (0.88, 1.04)	0.94 (0.84, 1.05)	0.92 (0.78, 1.08)	0.98 (0.73, 1.32)	0.54 (0.15, 1.87)	
COPD	12	0.85 (0.57, 1.28)	0.45 (0.15, 1.39)							
Pneumonia	330	1.01 (0.98, 1.05)	1.02 (0.98, 1.07)	1.03 (0.98, 1.09)	1.08 (0.98, 1.20)	1.03 (0.88, 1.20)	1.00 (0.82, 1.22)	1.17 (0.80, 1.69)	1.12 (0.46, 2.69)	2.76 (0.32, 23.77)
Bronchitis	402	0.99 (0.96, 1.02)	0.99 (0.94, 1.04)	0.99 (0.93, 1.04)	0.99 (0.89, 1.09)	0.97 (0.84, 1.12)	0.86 (0.69, 1.08)	0.93 (0.61, 1.41)	1.10 (0.47, 2.61)	1.72 (0.21, 13.83)
Arrhythmia	14	0.75 (0.50, 1.11)	0.76 (0.48, 1.20)	0.59 (0.25, 1.43)	0.59 (0.21, 1.66)	0.77 (0.26, 2.25)				

Note: All 95% CI's in this table included the null. For the ongoing heatwave analysis, the results of which are reported in this table, the effect of prolonged elevated HI was estimated via a linear variable in the model that represented the number of previous consecutive days on which the observed HI was above the relevant threshold. An indicator variable was also included to control for same-day elevated HI. As with the threshold analysis, a value of `1` indicated that the same-day HI was above the relevant threshold and a value of `0` indicated that the same-day HI was below the relevant threshold. Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Table S5f. Odds ratios and 95% confidence intervals for one additional previous day on which the observed heat index (HI) was above the indicated threshold among 15-65 year olds in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	***Number of cases***	**70-degree HI threshold**	**72-degree HI threshold**	**74-degree HI threshold**	**76-degree HI threshold**	**78-degree HI threshold**	**80-degree HI threshold**	**82-degree HI threshold**	**84-degree HI threshold**	**86-degree HI threshold**
Heat illness	27	1.04 (0.96, 1.12)	1.05 (0.94, 1.17)	1.06 (0.94, 1.21)	1.17 (0.86, 1.60)	1.16 (0.84, 1.61)	1.33 (0.91, 1.93)	2.01 (0.49, 8.30)	4.30 (1.00, 18.51)[a]	
Asthma	2217	1.01 (0.99, 1.02)	1.01 (0.99, 1.03)	1.01 (0.99, 1.03)	1.00 (0.96, 1.04)	1.01 (0.96, 1.05)	1.03 (0.97, 1.10)	1.04 (0.91, 1.19)	1.15 (0.83, 1.58)	0.96 (0.34, 2.69)
COPD	1293	1.00 (0.98, 1.01)	1.00 (0.97, 1.02)	0.99 (0.96, 1.02)	0.96 (0.91, 1.02)	0.93 (0.86, 1.01)	0.91 (0.81, 1.02)	0.86 (0.66, 1.12)	0.56 (0.26, 1.20)	0.78 (0.10, 5.92)
Pneumonia	1231	1.00 (0.98, 1.01)	0.99 (0.97, 1.02)	0.99 (0.96, 1.02)	0.99 (0.94, 1.05)	1.03 (0.96, 1.10)	1.04 (0.95, 1.13)	1.09 (0.92, 1.30)	1.38 (0.96, 1.97)	0.74 (0.10, 5.60)
Bronchitis	1294	0.99 (0.97, 1.00)	0.97 (0.94, 1.00)[a]	0.96 (0.93, 0.99)[a]	0.96 (0.91, 1.02)	0.97 (0.90, 1.04)	0.95 (0.86, 1.06)	0.98 (0.80, 1.19)	0.90 (0.57, 1.43)	0.89 (0.28, 2.90)
Arrhythmia	879	1.01 (1.00, 1.03)	1.02 (1.00, 1.05)	1.01 (0.98, 1.05)	1.03 (0.97, 1.09)	1.06 (0.99, 1.14)	1.02 (0.92, 1.13)	1.09 (0.91, 1.31)	1.30 (0.77, 2.19)	3.67 (1.01, 13.37)[a]
Cerebrovascular	211	0.98 (0.94, 1.02)	0.95 (0.89, 1.02)	0.95 (0.88, 1.03)	0.99 (0.88, 1.11)	0.99 (0.85, 1.15)	1.05 (0.87, 1.28)	0.97 (0.62, 1.53)	0.40 (0.07, 2.35)	
Ischemic	100	1.04 (0.99, 1.09)	1.09 (1.02, 1.18)[a]	1.04 (0.95, 1.14)	1.03 (0.88, 1.21)	1.16 (0.97, 1.40)	1.21 (0.99, 1.49)	1.03 (0.58, 1.82)	1.31 (0.32, 5.34)	
Myocardial infarction	53	1.09 (1.01, 1.17)[a]	1.13 (1.01, 1.26)[a]	1.13 (0.99, 1.28)	1.02 (0.83, 1.26)	1.13 (0.89, 1.43)	1.22 (0.95, 1.56)	1.28 (0.78, 2.10)	1.48 (0.36, 6.16)	
Heart failure	241	1.02 (0.99, 1.05)	1.05 (1.00, 1.11)[a]	1.03 (0.97, 1.09)	1.03 (0.92, 1.15)	1.07 (0.92, 1.24)	1.10 (0.91, 1.32)	1.20 (0.83, 1.73)	0.86 (0.25, 2.99)	10.40 (1.38, 78.20)[a]

[a] 95% CI does not include the null.

Note: For the ongoing heatwave analysis, the results of which are reported in this table, the effect of prolonged elevated HI was estimated via a linear variable in the model that represented the number of previous consecutive days on which the observed HI was above the relevant threshold. An indicator variable was also included to control for same-day elevated HI. As with the threshold analysis, a value of `1` indicated that the same-day HI was above the relevant threshold and a value of `0` indicated that the same-day HI was below the relevant threshold. Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

Table S5g. Odds ratios and 95% confidence intervals for one additional previous day on which the observed heat index (HI) was above the indicated threshold among >65 year-olds in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015-2019

Reason for ED visit	*Number of cases*	70-degree HI threshold	72-degree HI threshold	74-degree HI threshold	76-degree HI threshold	78-degree HI threshold	80-degree HI threshold	82-degree HI threshold	84-degree HI threshold	86-degree HI threshold
Asthma	171	1.03 (0.99, 1.08)	1.03 (0.97, 1.10)	1.03 (0.96, 1.11)	1.11 (1.00, 1.24)	1.19 (1.05, 1.36)[a]	1.33 (1.13, 1.57)[a]	1.18 (0.80, 1.75)	0.56 (0.10, 3.08)	
COPD	853	0.99 (0.97, 1.01)	0.97 (0.94, 1.00)[a]	0.97 (0.93, 1.00)	0.99 (0.93, 1.05)	0.93 (0.85, 1.03)	0.87 (0.75, 1.00)[a]	0.89 (0.70, 1.14)	1.19 (0.74, 1.91)	1.61 (0.48, 5.41)
Pneumonia	520	0.99 (0.97, 1.02)	0.98 (0.95, 1.02)	0.99 (0.95, 1.04)	1.01 (0.94, 1.09)	1.03 (0.93, 1.13)	1.11 (0.99, 1.26)	1.09 (0.86, 1.37)	1.04 (0.55, 1.96)	
Bronchitis	275	0.98 (0.94, 1.01)	0.95 (0.89, 1.00)	0.91 (0.85, 0.99)[a]	0.80 (0.68, 0.93)[a]	0.81 (0.68, 0.98)[a]	0.76 (0.59, 0.99)[a]	0.71 (0.43, 1.16)	0.97 (0.47, 2.03)	
Arrhythmia	724	0.98 (0.96, 1.01)	0.99 (0.96, 1.02)	0.98 (0.94, 1.02)	0.97 (0.91, 1.04)	0.97 (0.89, 1.07)	0.98 (0.86, 1.12)	0.94 (0.71, 1.26)	0.66 (0.31, 1.44)	1.18 (0.15, 9.21)
Cerebrovascular	223	0.99 (0.95, 1.03)	1.01 (0.95, 1.07)	1.02 (0.95, 1.09)	1.00 (0.88, 1.14)	0.98 (0.82, 1.17)	0.80 (0.57, 1.11)	0.48 (0.22, 1.03)		
Ischemic	99	1.03 (0.97, 1.10)	1.04 (0.96, 1.12)	1.05 (0.96, 1.15)	1.05 (0.89, 1.23)	1.02 (0.82, 1.28)	1.12 (0.84, 1.48)	1.26 (0.79, 2.03)	2.66 (1.06, 6.67)[a]	9.35 (1.52, 57.67)[a]
Myocardial infarction	28	1.07 (0.95, 1.19)	1.05 (0.91, 1.22)	1.04 (0.88, 1.24)	0.89 (0.60, 1.32)	0.50 (0.12, 2.15)				
Heart failure	199	0.96 (0.92, 1.01)	0.91 (0.83, 0.99)[a]	0.94 (0.85, 1.04)	0.86 (0.72, 1.02)	0.91 (0.74, 1.12)	0.73 (0.52, 1.04)	0.68 (0.34, 1.37)		

[a] 95% CI does not include the null.

Note: For the ongoing heatwave analysis, the results of which are reported in this table, the effect of prolonged elevated HI was estimated via a linear variable in the model that represented the number of previous consecutive days on which the observed HI was above the relevant threshold. An indicator variable was also included to control for same-day elevated HI. As with the threshold analysis, a value of `1` indicated that the same-day HI was above the relevant threshold and a value of `0` indicated that the same-day HI was below the relevant threshold. Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. Abbreviations: COPD, chronic obstructive pulmonary disease.

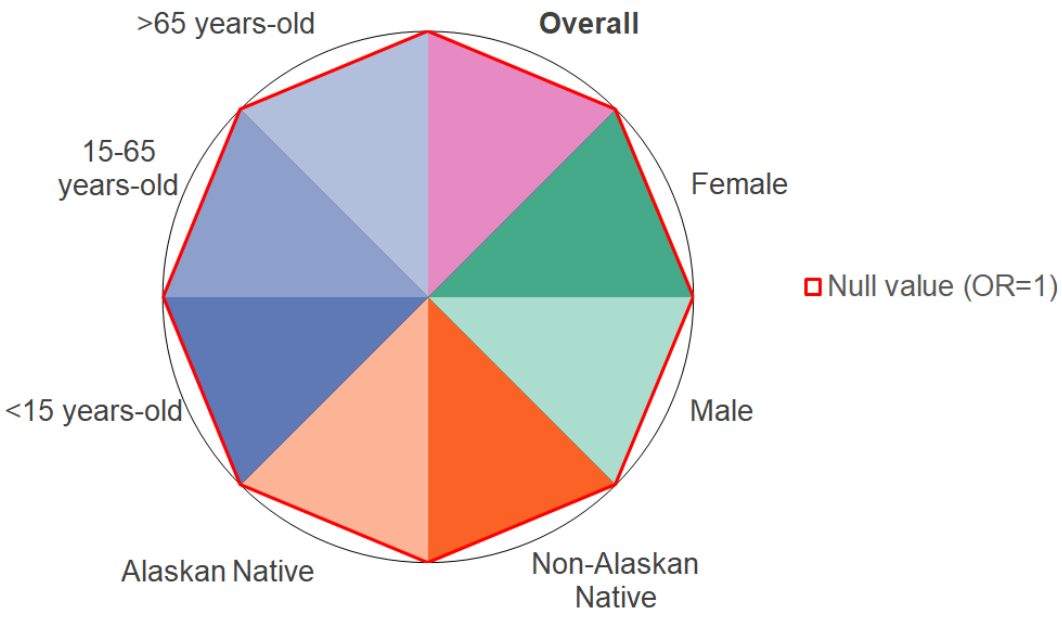

Figure S1. Legend for all Supplemental Figures

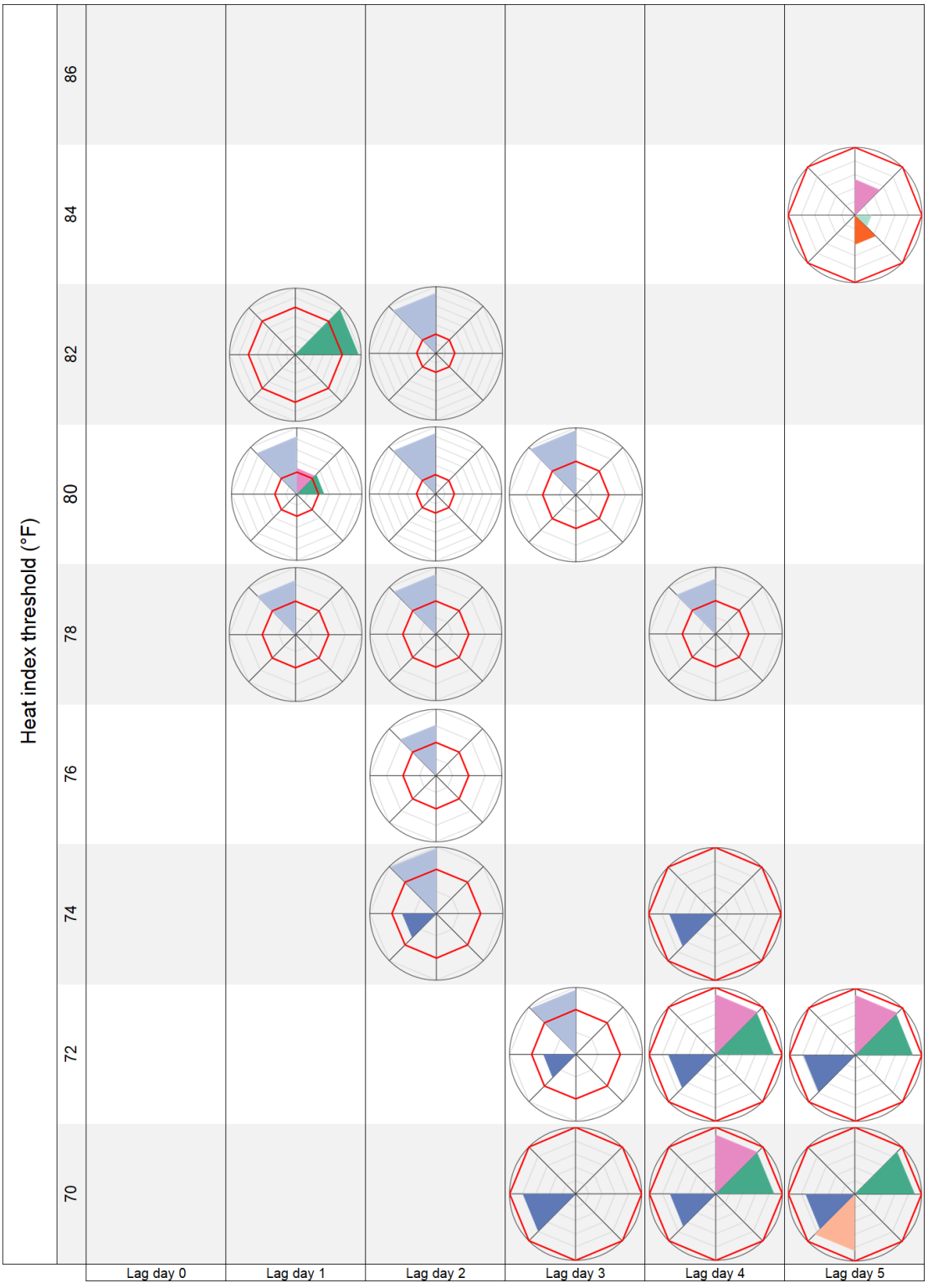

Figure S2. Significant odds ratios (95% CI does not include the null) for asthma-related emergency department visits by demographic group on days above vs. below the Heat Index (HI) threshold, in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015- 2019. Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. See Figure S1 for legend. Data for this figure can be found in Tables S1a-1, Tables S2a-l, and Tables S3a-r.

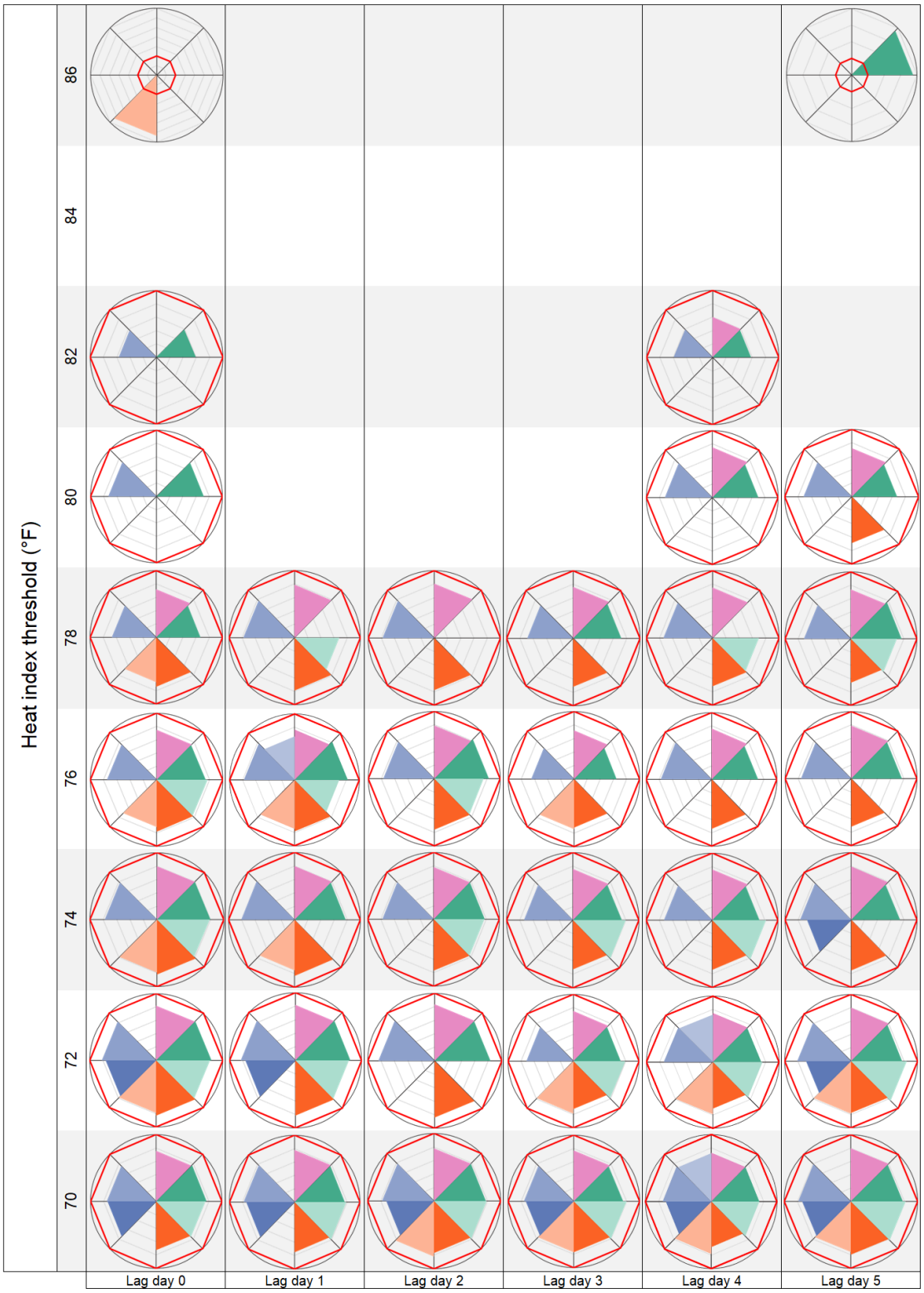

Figure S3. Significant odds ratios (95% CI does not include the null) for bronchitis-related emergency department visits by demographic group on days above vs. below the Heat Index (HI) threshold, in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015- 2019. Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. See Figure S1 for legend. Data for this figure can be found in Tables S1a-1, Tables S2a-l, and Tables S3a-r.

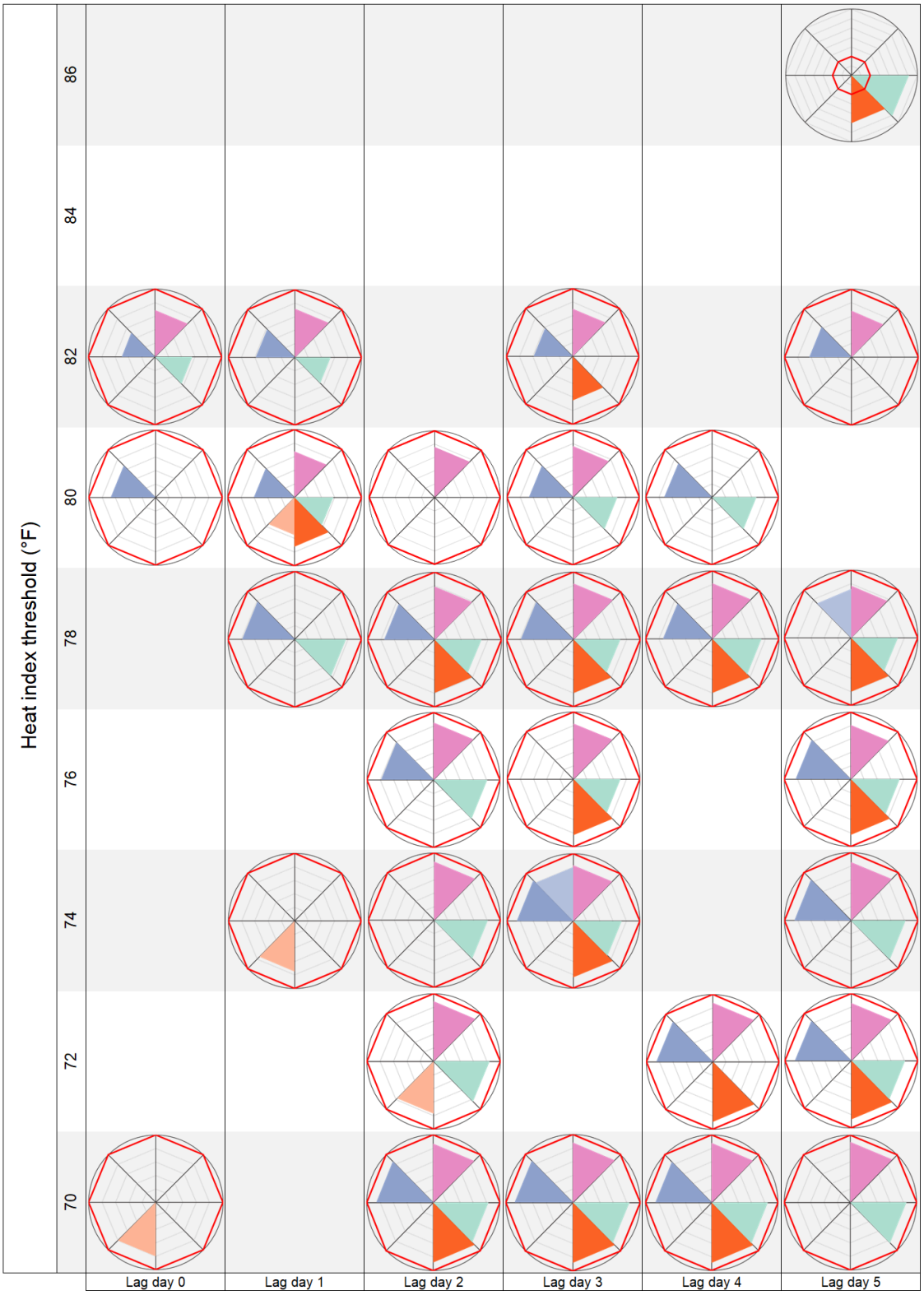

Figure S4. Significant odds ratios (95% CI does not include the null) for COPD-related emergency department visits by demographic group on days above vs. below the Heat Index (HI) threshold, in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015- 2019. Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. See Figure S1 for legend. Data for this figure can be found in Tables S1a-1, Tables S2a-l, and Tables S3a-r.

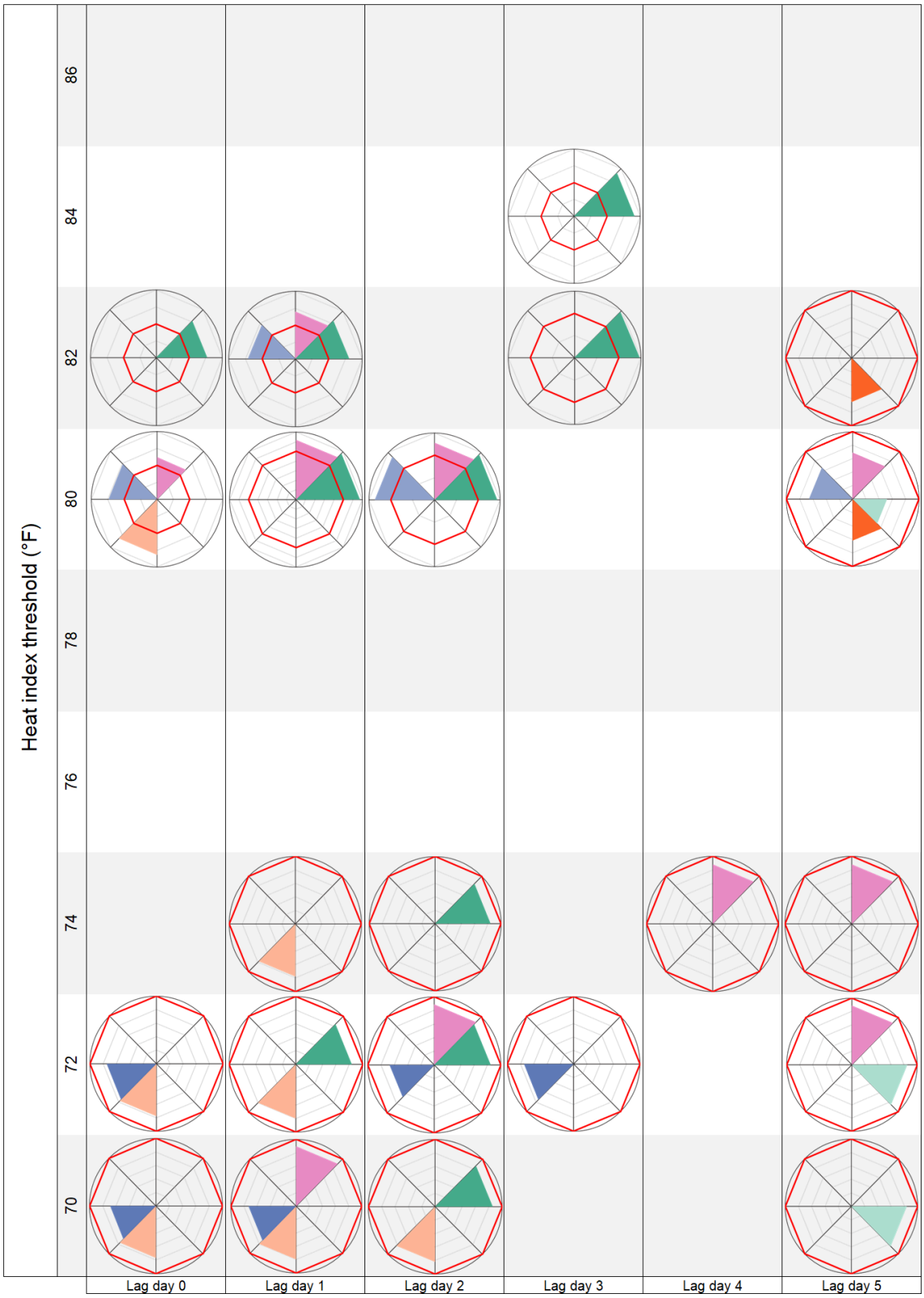

Figure S5. Significant odds ratios (95% CI does not include the null) for pneumonia-related emergency department visits by demographic group on days above vs. below the Heat Index (HI) threshold, in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015- 2019. Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. See Figure S1 for legend. Data for this figure can be found in Tables S1a-1, Tables S2a-l, and Tables S3a-r.

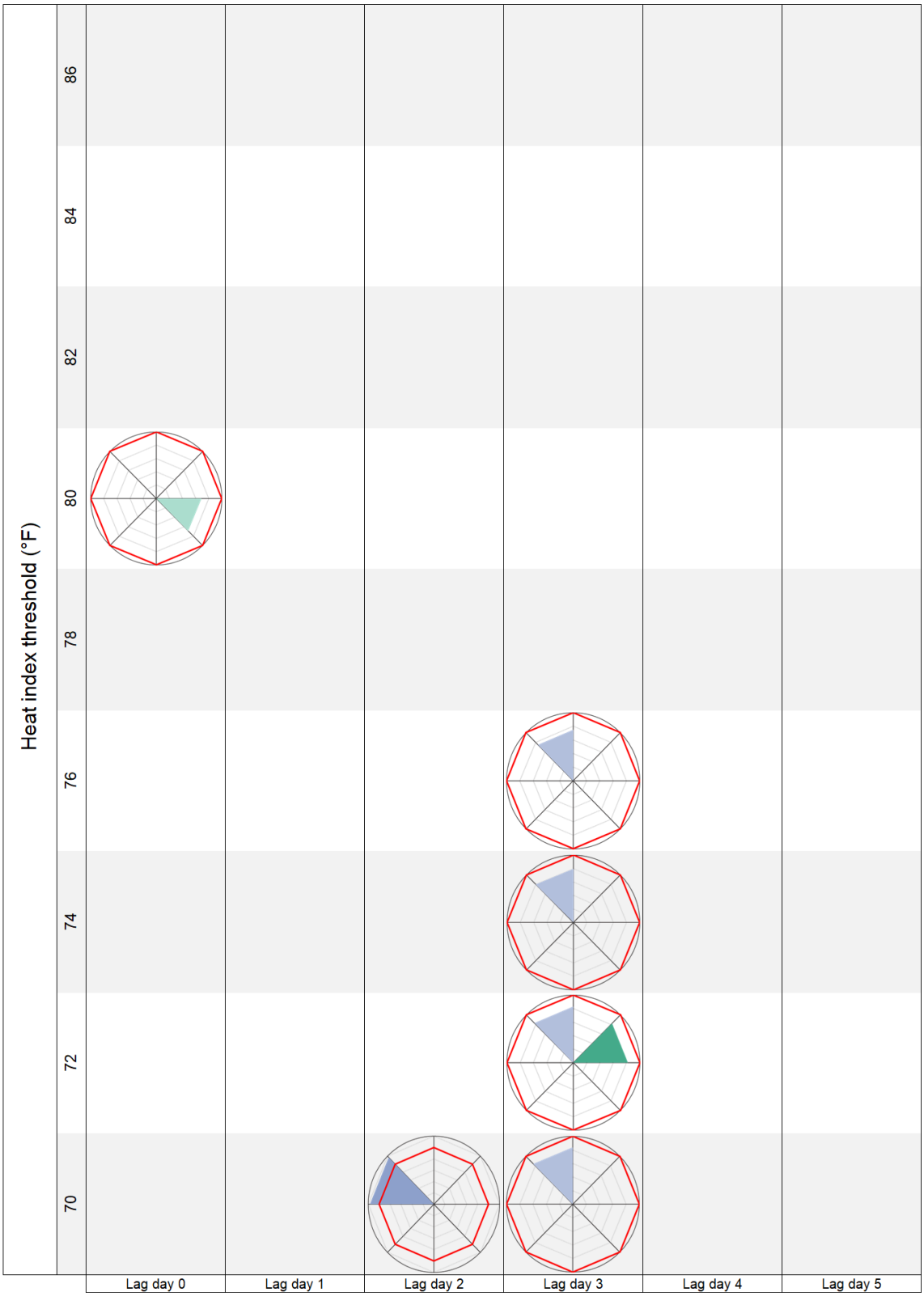

Figure S6. Significant odds ratios (95% CI does not include the null) for arrythmia-related emergency department visits by demographic group on days above vs. below the Heat Index (HI) threshold, in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015- 2019. Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. See Figure S1 for legend. Data for this figure can be found in Tables S1a-1, Tables S2a-l, and Tables S3a-r.

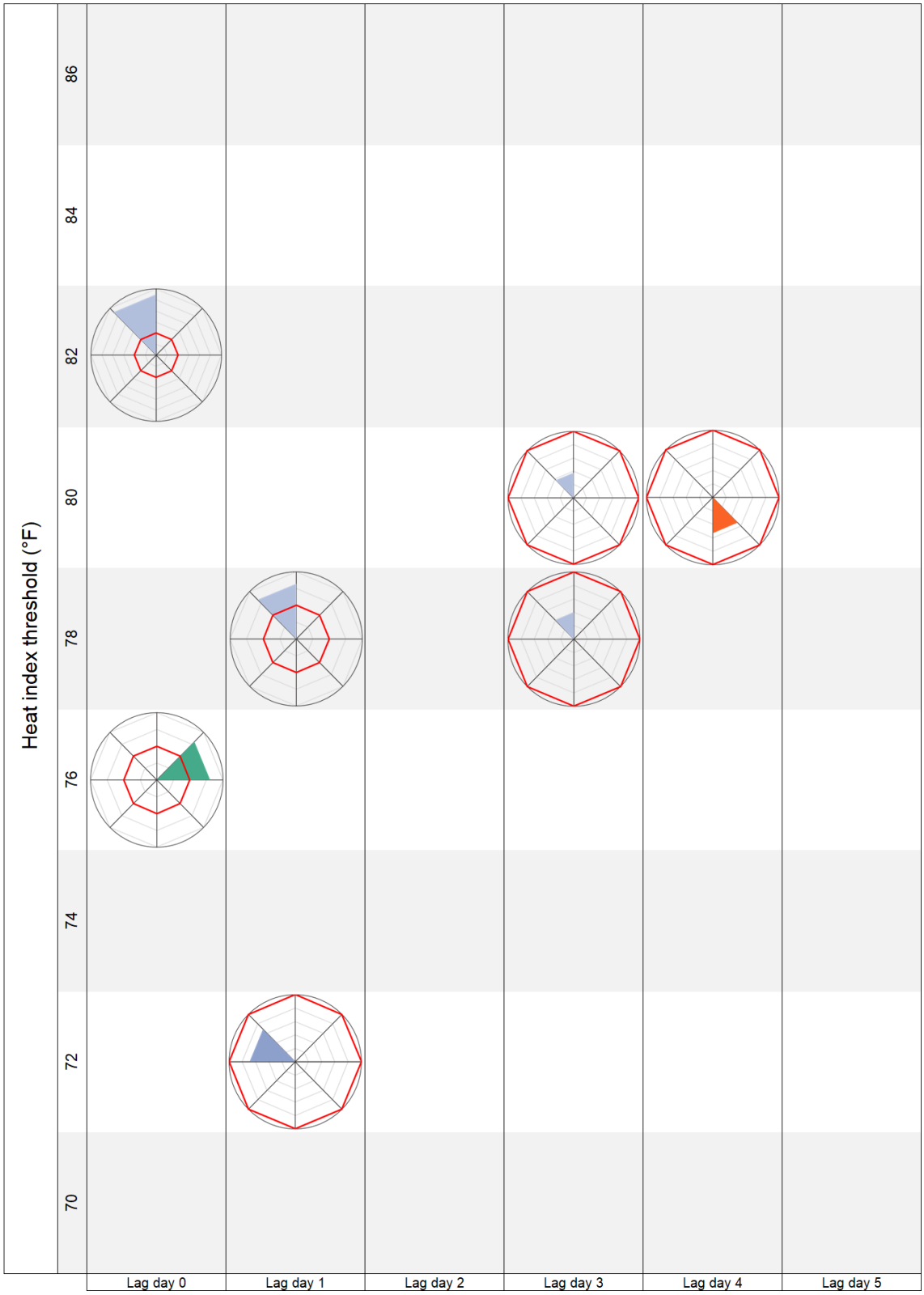

Figure S7. Significant odds ratios (95% CI does not include the null) for cerebrovascular-related emergency department visits by demographic group on days above vs. below the Heat Index (HI) threshold, in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015- 2019. Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. See Figure S1 for legend. Data for this figure can be found in Tables S1a-1, Tables S2a-l, and Tables S3a-r.

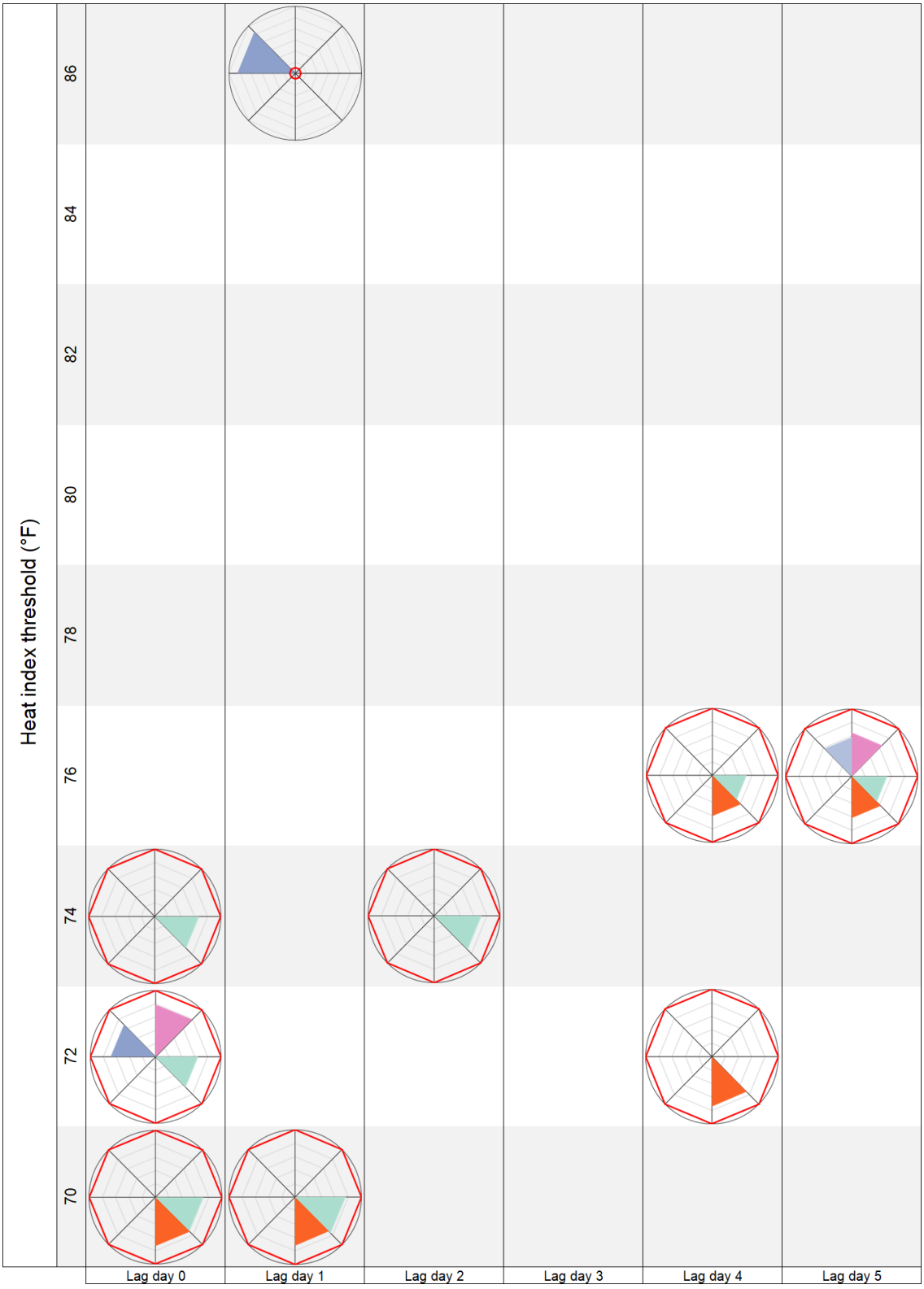

Figure S8. Significant odds ratios (95% CI does not include the null) for heart failure-related emergency department visits by demographic group on days above vs. below the Heat Index (HI) threshold, in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015- 2019. Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. See Figure S1 for legend. Data for this figure can be found in Tables S1a-1, Tables S2a-l, and Tables S3a-r.

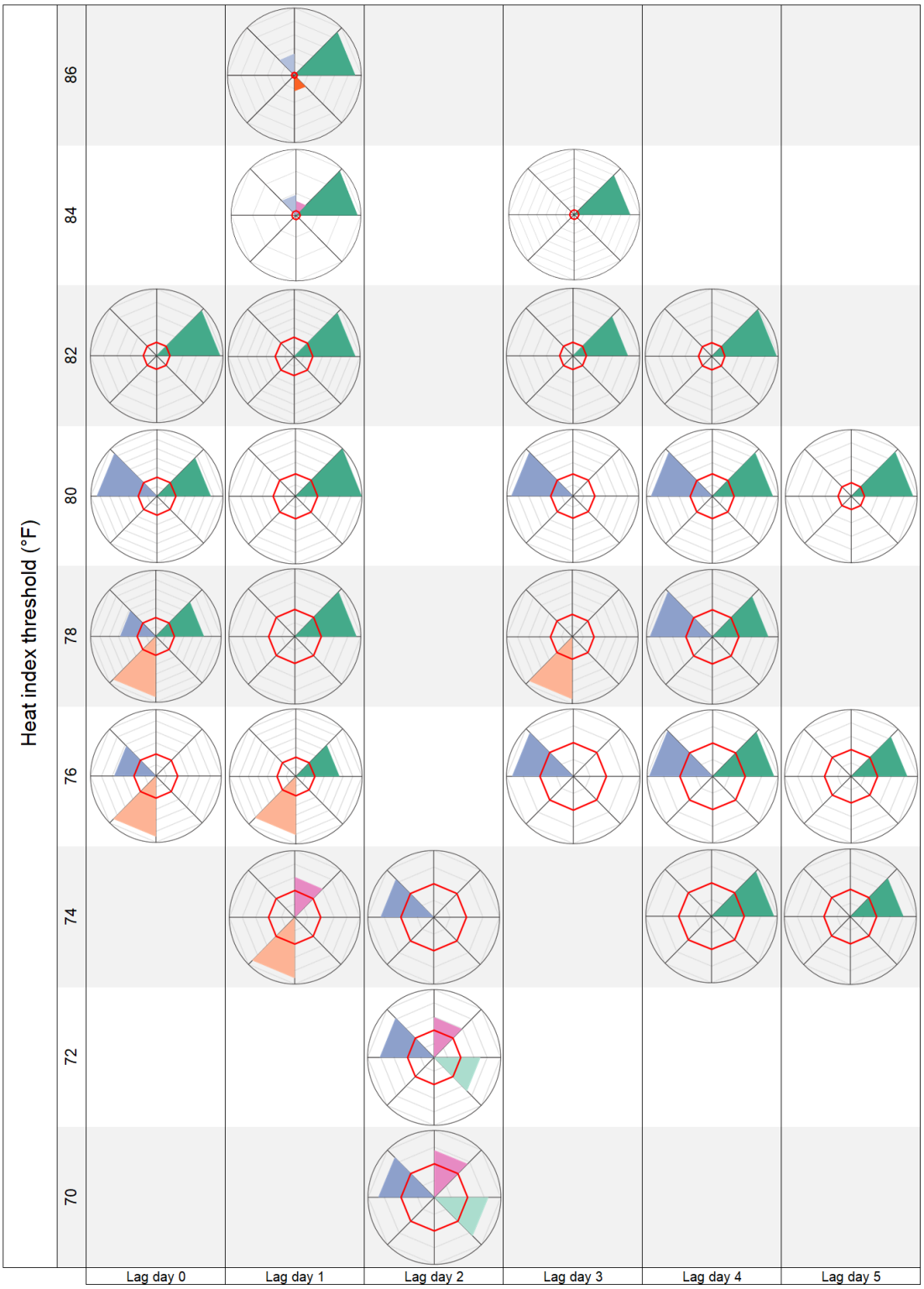

Figure S9. Significant odds ratios (95% CI does not include the null) for ischemia-related emergency department visits by demographic group on days above vs. below the Heat Index (HI) threshold, in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015- 2019. Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. See Figure S1 for legend. Data for this figure can be found in Tables S1a-1, Tables S2a-l, and Tables S3a-r.

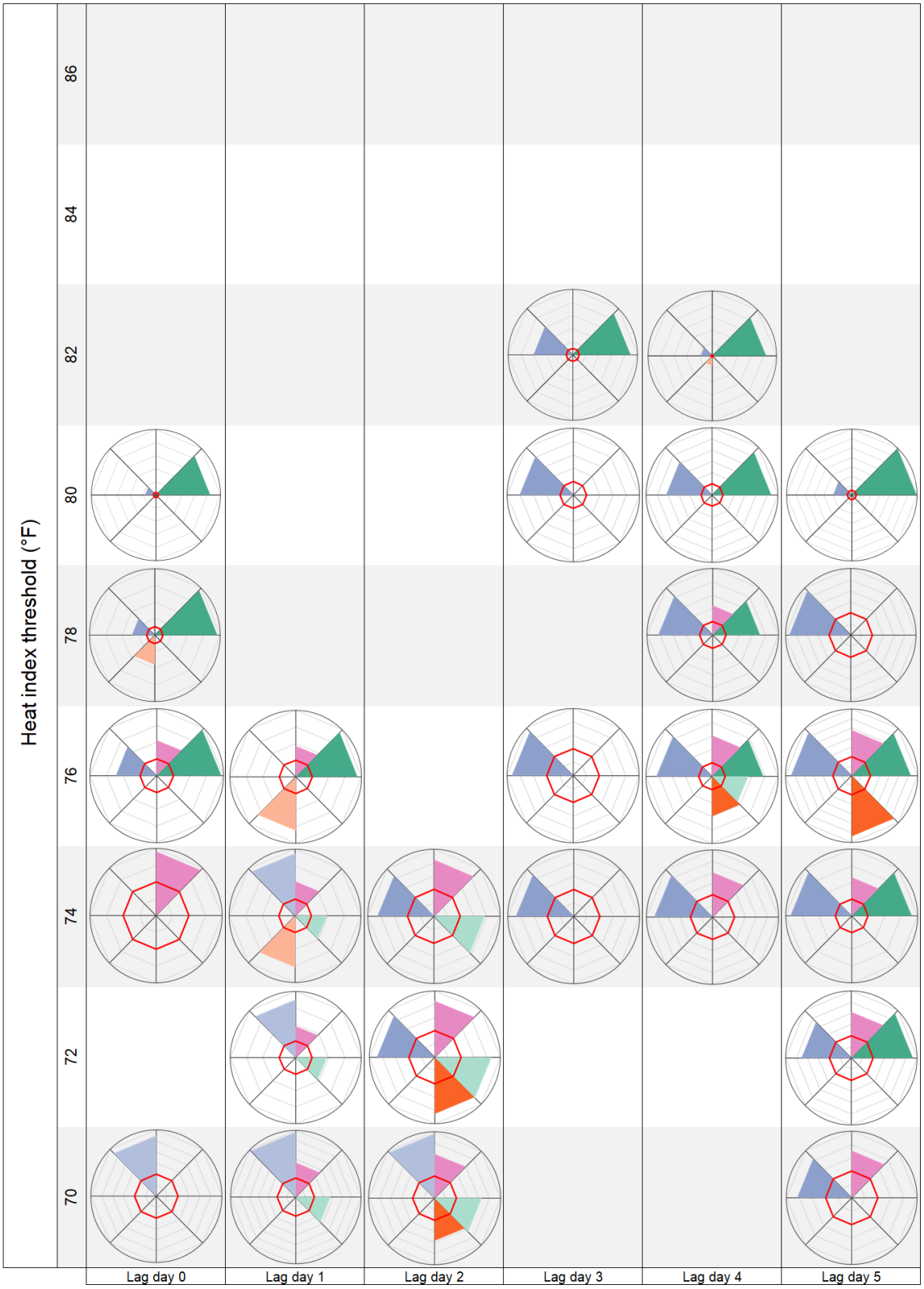

Figure S10. Significant odds ratios (95% CI does not include the null) for myocardial infarction-related emergency department visits by demographic group on days above vs. below the Heat Index (HI) threshold, in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015- 2019. Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. See Figure S1 for legend. Data for this figure can be found in Tables S1a-1, Tables S2a-l, and Tables S3a-r.

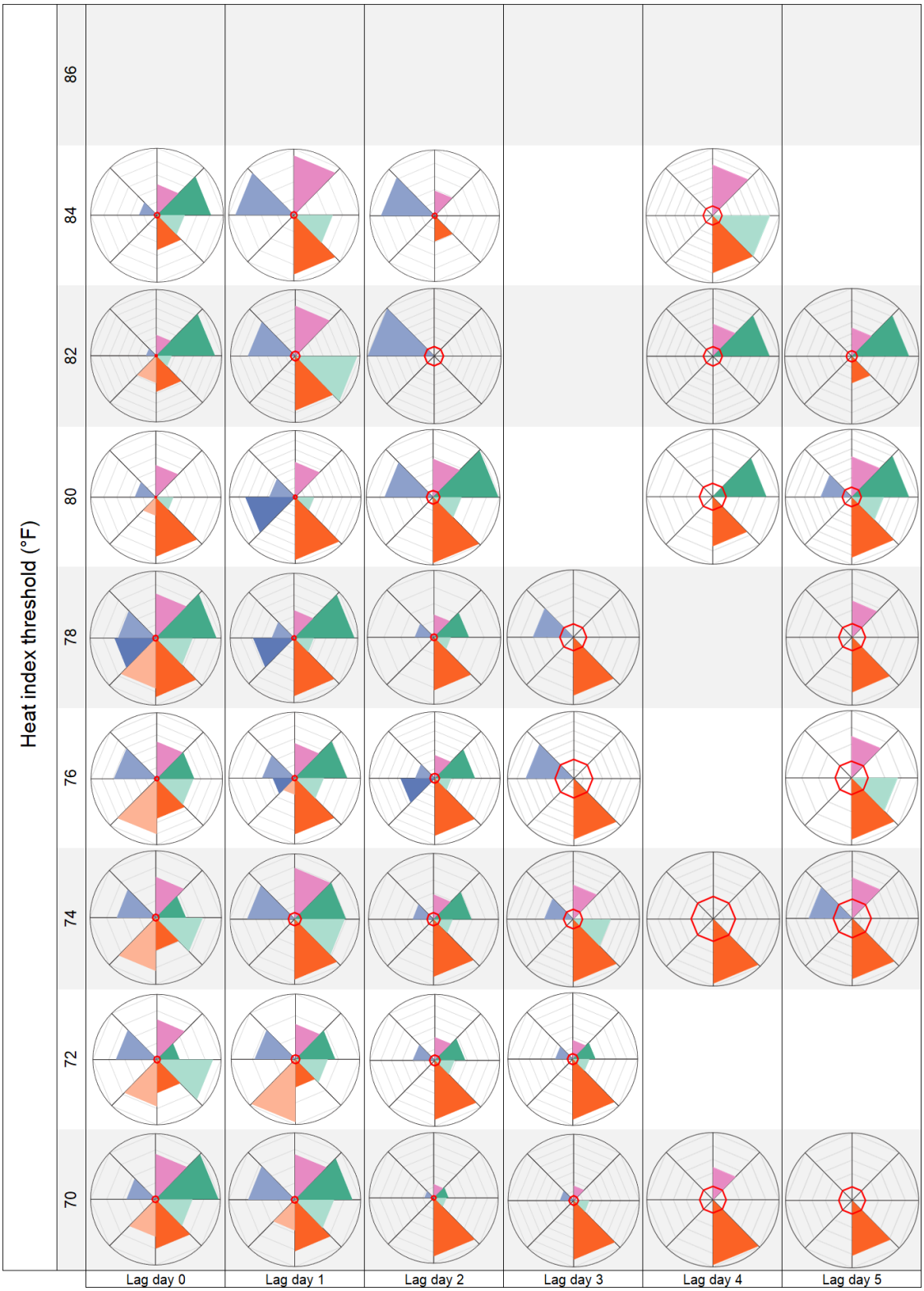

Figure S11. Significant odds ratios (95% CI does not include the null) for heat illness-related emergency department visits by demographic group on days above vs. below the Heat Index (HI) threshold, in Anchorage, Fairbanks, and the Matanuska-Susitna Valley, Alaska, 2015- 2019. Conditional logistic regression models adjusted for daily $PM_{2.5}$ concentration were used to estimate odds ratios. See Figure S1 for legend. Data for this figure can be found in Tables S1a-1, Tables S2a-l, and Tables S3a-r.