

Supplementary Table 1: Deaths Involving Ischemic Heart Disease and Procedure-Related Conditions, Stratified by Sex and Race/Ethnicity, in the United States, 1999–2023.									
Year	Overall	Female	Male	Hispanic	NH American Indian or Alaska Native	NH Asian or Pacific Islander	NH Black or African American	NH White	Population
1999	7421	3221	4200	231	26	123	599	6442	180408769
2000	6984	2936	4048	265	31	98	597	5993	181984640
2001	6934	2875	4059	290	27	98	635	5884	184305128
2002	6848	2906	3942	282	30	125	570	5841	186208028
2003	6046	2539	3507	259	34	107	541	5105	188090429
2004	5626	2276	3350	223	28	106	474	4795	190205384
2005	5187	2069	3118	263	23	89	434	4378	192551384
2006	4847	1984	2863	205	27	89	445	4081	195019359
2007	4736	1861	2875	210	26	87	430	3983	197403777
2008	4516	1816	2700	223	19	111	374	3789	199795090
2009	4158	1564	2594	191	27	81	378	3481	202107016
2010	3850	1533	2317	222	25	77	332	3194	203891983
2011	3827	1488	2339	222	26	91	361	3127	206592936
2012	3665	1407	2258	225	24	86	379	2951	208826037
2013	3566	1331	2235	230	16	87	335	2898	211085314
2014	3329	1225	2104	207	31	102	347	2642	213809280
2015	3196	1165	2031	234	21	105	317	2519	216553817
2016	3922	1414	2508	297	30	126	382	3087	218641417
2017	4669	1562	3107	357	42	127	510	3633	221447331
2018	6411	2198	4213	503	49	243	713	4903	223311190
2019	11348	3827	7521	1125	103	530	1123	8467	224981167
2020	11844	3790	8054	1153	108	507	1286	8790	226635013
2021	12180	3903	8277	1302	92	541	1316	8929	224030595
2022	6388	2117	4271	627	39	266	697	4759	225125435
2023	3146	1076	2070	277	23	118	316	2412	226995452
Total	144644	54083	90561	9623	927	4120	13891	116083	5150005971

NH: Non-Hispanic

Supplementary Table 2: APCs and AAPCs of Age-Adjusted Mortality Rates per 100,000 for Deaths Involving Ischemic Heart Disease and Procedure-Related Conditions in the United States, 1999–2023.					
	segment	APC	p-value	AAPC	P-value
Overall	1999–2015	-7.12* (-8.04 – -6.18)	<0.000001	-5.51* (-7.94 – -3.01)	0.000021
	2015–2021	26.08* (19.33 – 33.22)	<0.000001		
	2021–2023	-54.35* (-65.58 – -39.46)	0.000019		
Female	1999–2015	-7.73* (-8.73 – -6.73)	<0.000001	-6.12* (-8.81 – -3.35)	0.000021
	2015–2021	23.47* (16.04 – 31.36)	0.000002		
	2021–2023	-52.58* (-65.40 – -35.0)	0.000111		
Male	1999–2015	-6.84* (-7.76 – -5.91)	<0.000001	-5.26* (-7.63 – -2.84)	0.000028
	2015–2021	27.60* (21.58 – 33.92)	<0.000001		
	2021–2023	-55.66* (-66.55 – -41.23)	0.000012		
Urbanization*					
Metro	1999–2015	-7.58* (-8.59 – -6.56)	<0.000001	0.39 (-1.06 – 1.86)	0.60
	2015–2020	30.80* (23.72 – 38.29)	<0.000001		
Non-metro	1999–2015	-6.85* (-7.63 – -6.06)	<0.000001	0.46 (-0.68 – 1.61)	0.43
	2015–2020	27.93* (22.44 – 33.65)	<0.000001		
Age group**					
25- 44 years	1999–2016	-7.16* (-9.61 – -4.63)	0.00002	-2.24 (-12.31 – 8.9)	0.68
	2016–2019	73.24 (-26.78 – 309.94)	0.20		
	2019–2023	-20.73 (-38.35 – 1.93)	0.068		
45- 64 years	1999–2015	-6.90* (-7.74 – -6.04)	<0.000001	-5.07* (-7.49 – -2.58)	0.00008
	2015–2021	25.84* (20.30 – 31.63)	<0.000001		
	2021–2023	-52.38* (-64.60 – -35.95)	0.000061		
65+ year	1999–2015	-7.21* (-8.18 – -6.22)	<0.000001	-5.65* (-8.16 – -3.08)	0.000022
	2015–2021	26.37* (19.71 – 33.39)	<0.000001		
	2021–2023	-55.16* (-66.62 – -39.76)	0.000024		
Census Region					
Northeast	1999–2015	-6.89* (-7.85 to -5.93)	<0.000001	-5.04* (-7.68 to -2.33)	0.00031
	2015–2021	23.65* (17.01 to 30.68)	<0.000001		
	2021–2023	-49.67* (-63.19 to -31.19)	0.00024		
Midwest	1999–2015	-7.74* (-8.49 to -6.99)	<0.000001	-6.08* (-8.31 to -3.80)	<0.000001
	2015–2021	23.27* (17.72 to 29.09)	<0.000001		
	2021–2023	-52.10* (-63.43 to -37.27)	0.000023		

South	1999–2015	-7.33* (-7.97 to -6.69)	<0.000001	-5.86* (-7.42 to -4.27)	<0.000001
	2015–2021	23.67* (19.30 to 28.20)	<0.000001		
	2021–2023	-52.89* (-60.60 to -43.66)	<0.000001		
West	1999–2015	-5.87* (-7.90 to -3.81)	0.000018	-4.57 (-9.08 to 0.16)	0.058
	2015–2021	34.44* (22.12 to 48.01)	0.000005		
	2021–2023	-61.89* (-77.50 to -35.46)	0.0013		
Race					
Hispanic	1999-2015	-6.12* (-8.18 - -4.01)	0.000014	-4.60* (-8.53 - -0.50)	0.028
	2015-2021	32.94* (22.33 - 44.47)	0.000001		
	2021-2023	-59.90* (-74.4 - -37.18)	0.000491		
NH Asian or Pacific Islander	1999-2014	-7.65* (-10.44 - -4.76)	0.000042	-5.11* (-9.84 - -0.14)	0.000042
	2014-2021	28.34* (17.86 - 39.75)	0.000010		
	2021-2023	-59.61* (-76.50 - -30.58)	0.0026		
NH Black or African American	1999-2015	-6.84* (-7.70 - -5.97)	<0.000001	-5.22* (-7.42 - -2.96)	0.000008
	2015-2021	27.51* (21.96 - 33.32)	<0.000001		
	2021-2023	-55.30* (-65.61 - -41.90)	0.000006		
NH White	1999-2015	-7.08* (-7.83 - -6.32)	<0.000001	-5.50* (-7.38 - -3.59)	<0.000001
	2015-2021	24.70* (19.17 - 30.49)	<0.000001		
	2021-2023	-52.93* (-61.87 - -41.89)	0.000001		

*Urban-rural classification data were available only for 1999–2020.

**Crude Mortality Rate

APC: Annual Percent change, AAPC: Average Annual Percent Change, AAMR: Age-Adjusted Mortality Rate, NH: Non-hispanic

All reported values per 100000

Supplementary Table 3: Overall and Sex-Stratified Age-Adjusted Mortality Rates per 100,000 for Deaths Involving Ischemic Heart Disease and Procedure-Related Conditions in the United States, 1999–2023.

Year	Overall	Female	Male
1999	4.19 (4.10–4.29)	3.09 (2.98–3.19)	5.70 (5.53–5.88)
2000	3.91 (3.82–4.01)	2.80 (2.70–2.90)	5.49 (5.32–5.66)
2001	3.81 (3.72–3.90)	2.72 (2.62–2.82)	5.37 (5.20–5.54)
2002	3.70 (3.61–3.79)	2.68 (2.58–2.78)	5.15 (4.99–5.31)
2003	3.21 (3.13–3.29)	2.31 (2.22–2.40)	4.48 (4.33–4.63)
2004	2.93 (2.85–3.01)	2.06 (1.98–2.15)	4.21 (4.07–4.36)
2005	2.68 (2.60–2.75)	1.84 (1.76–1.92)	3.82 (3.68–3.95)
2006	2.44 (2.37–2.51)	1.72 (1.65–1.80)	3.41 (3.28–3.54)
2007	2.33 (2.26–2.40)	1.62 (1.54–1.69)	3.38 (3.26–3.51)
2008	2.20 (2.14–2.27)	1.53 (1.46–1.60)	3.11 (2.99–3.23)
2009	1.96 (1.90–2.02)	1.31 (1.24–1.37)	2.89 (2.78–3.00)
2010	1.80 (1.74–1.85)	1.25 (1.18–1.31)	2.55 (2.44–2.65)
2011	1.74 (1.68–1.80)	1.22 (1.16–1.29)	2.47 (2.37–2.57)
2012	1.65 (1.59–1.70)	1.11 (1.05–1.17)	2.32 (2.23–2.42)
2013	1.56 (1.51–1.61)	1.01 (0.96–1.07)	2.21 (2.12–2.30)
2014	1.41 (1.36–1.46)	0.93 (0.87–0.98)	2.05 (1.96–2.14)
2015	1.31 (1.26–1.36)	0.85 (0.80–0.90)	1.93 (1.85–2.02)
2016	1.57 (1.52–1.62)	1.02 (0.97–1.08)	2.32 (2.23–2.42)
2017	1.83 (1.78–1.88)	1.10 (1.05–1.16)	2.82 (2.72–2.92)
2018	2.45 (2.39–2.51)	1.51 (1.44–1.57)	3.70 (3.58–3.81)
2019	4.28 (4.20–4.36)	2.61 (2.52–2.69)	6.52 (6.37–6.67)
2020	4.37 (4.29–4.45)	2.51 (2.42–2.59)	6.82 (6.67–6.97)
2021	4.61 (4.53–4.70)	2.68 (2.60–2.77)	7.13 (6.98–7.29)
2022	2.35 (2.29–2.41)	1.39 (1.33–1.45)	3.57 (3.46–3.68)
2023	1.13 (1.09–1.17)	0.71 (0.67–0.76)	1.66 (1.59–1.74)
Overall	2.59 (2.57–2.60)	1.71 (1.69–1.72)	3.78 (3.76–3.81)

AAMR: Age-Adjusted Mortality Rate

Supplementary Table 4: Race-Stratified Age-Adjusted Mortality Rates per 100,000 for Deaths Involving Ischemic Heart Disease and Procedure-Related Conditions in the United States, 1999–2023.

Year	Hispanic or Latino	NH American Indian or Alaska Native	NH Asian or Pacific Islander	NH Black or African American	NH White
1999	2.61 (2.26–2.95)	3.72 (2.39–5.54)	2.98 (2.44–3.53)	3.95 (3.63–4.27)	4.35 (4.24–4.45)
2000	2.73 (2.39–3.07)	3.92 (2.60–5.66)	2.13 (1.71–2.61)	3.87 (3.56–4.18)	4.01 (3.91–4.11)
2001	2.86 (2.52–3.20)	2.83 (1.81–4.21)	2.01 (1.62–2.47)	3.96 (3.65–4.28)	3.89 (3.79–3.99)
2002	2.60 (2.28–2.91)	3.54 (2.33–5.15)	2.46 (2.01–2.91)	3.50 (3.21–3.79)	3.82 (3.72–3.92)
2003	2.27 (1.98–2.56)	3.75 (2.53–5.36)	1.95 (1.57–2.33)	3.26 (2.99–3.54)	3.30 (3.21–3.39)
2004	1.87 (1.62–2.13)	3.20 (2.07–4.72)	1.88 (1.51–2.25)	2.82 (2.56–3.08)	3.07 (2.98–3.16)
2005	2.22 (1.94–2.50)	2.24 (1.37–3.46)	1.44 (1.14–1.78)	2.48 (2.24–2.72)	2.77 (2.69–2.85)
2006	1.62 (1.39–1.85)	2.72 (1.74–4.05)	1.32 (1.05–1.63)	2.47 (2.23–2.70)	2.55 (2.47–2.63)
2007	1.51 (1.30–1.72)	2.77 (1.76–4.16)	1.27 (1.01–1.58)	2.32 (2.09–2.54)	2.44 (2.37–2.52)
2008	1.55 (1.34–1.76)	~	1.54 (1.24–1.83)	1.94 (1.74–2.14)	2.32 (2.24–2.39)
2009	1.30 (1.11–1.49)	2.25 (1.43–3.38)	1.10 (0.86–1.37)	1.91 (1.71–2.11)	2.09 (2.02–2.16)
2010	1.38 (1.19–1.57)	2.09 (1.30–3.20)	0.95 (0.74–1.19)	1.68 (1.49–1.86)	1.88 (1.82–1.95)
2011	1.32 (1.14–1.51)	2.13 (1.35–3.19)	1.09 (0.87–1.34)	1.70 (1.52–1.88)	1.82 (1.76–1.88)
2012	1.24 (1.07–1.41)	1.86 (1.15–2.85)	0.93 (0.74–1.16)	1.74 (1.56–1.92)	1.69 (1.63–1.75)
2013	1.23 (1.06–1.39)	~	0.95 (0.76–1.18)	1.52 (1.35–1.68)	1.62 (1.56–1.68)
2014	1.05 (0.90–1.20)	2.24 (1.49–3.23)	0.99 (0.80–1.19)	1.53 (1.36–1.70)	1.45 (1.40–1.51)
2015	1.10 (0.96–1.25)	1.40 (0.84–2.19)	0.95 (0.76–1.13)	1.35 (1.20–1.50)	1.36 (1.30–1.41)
2016	1.32 (1.16–1.47)	1.94 (1.29–2.81)	1.12 (0.92–1.32)	1.56 (1.40–1.72)	1.65 (1.59–1.70)
2017	1.50 (1.34–1.67)	2.65 (1.89–3.63)	1.02 (0.84–1.20)	1.97 (1.80–2.15)	1.89 (1.82–1.95)
2018	2.08 (1.89–2.27)	2.96 (2.16–3.94)	1.90 (1.66–2.15)	2.77 (2.56–2.98)	2.50 (2.43–2.57)
2019	4.56 (4.28–4.83)	5.71 (4.57–6.85)	3.99 (3.64–4.33)	4.27 (4.02–4.53)	4.21 (4.12–4.30)
2020	4.39 (4.13–4.66)	6.32 (5.09–7.55)	3.68 (3.35–4.00)	4.77 (4.50–5.04)	4.31 (4.22–4.40)
2021	4.98 (4.70–5.26)	5.41 (4.32–6.68)	4.00 (3.66–4.34)	4.90 (4.63–5.18)	4.52 (4.42–4.61)
2022	2.26 (2.07–2.44)	2.21 (1.56–3.05)	1.79 (1.58–2.01)	2.57 (2.37–2.77)	2.31 (2.24–2.37)
2023	0.95 (0.83–1.06)	1.29 (0.81–1.95)	0.78 (0.64–0.92)	1.13 (1.00–1.26)	1.18 (1.13–1.23)
Overall from 1999 to 2023	2.17 (2.13–2.22)	2.86 (2.68–3.05)	1.80 (1.75–1.86)	2.61 (2.57–2.66)	2.65 (2.63–2.66)

AAMR: Age-Adjusted Mortality rate, NH: Non-Hispanic

Suppressed estimates were not reported because of insufficient numbers of deaths.

Table 5: Overall and Age-Stratified Crude Mortality Rates per 100,000 for Deaths Involving Ischemic Heart Disease and Procedure-Related Conditions in the United States, 1999–2023.

Year	25- 44 years	45- 64 years	65+ year
1999	0.11 (0.09–0.14)	2.30 (2.18–2.42)	17.06 (16.63–17.50)
2000	0.14 (0.12–0.17)	2.21 (2.09–2.33)	15.69 (15.28–16.11)
2001	0.13 (0.11–0.15)	2.05 (1.94–2.16)	15.59 (15.17–16.00)
2002	0.12 (0.10–0.15)	1.98 (1.88–2.09)	15.26 (14.86–15.67)
2003	0.15 (0.12–0.18)	1.65 (1.56–1.75)	13.34 (12.96–13.71)
2004	0.09 (0.07–0.11)	1.55 (1.46–1.64)	12.30 (11.94–12.66)
2005	0.10 (0.08–0.12)	1.40 (1.32–1.49)	11.13 (10.79–11.47)
2006	0.10 (0.08–0.13)	1.35 (1.27–1.43)	10.09 (9.76–10.41)
2007	0.09 (0.07–0.11)	1.27 (1.19–1.35)	9.73 (9.42–10.05)
2008	0.09 (0.07–0.11)	1.18 (1.11–1.26)	9.06 (8.76–9.36)
2009	0.08 (0.06–0.10)	1.11 (1.04–1.18)	8.07 (7.79–8.35)
2010	0.08 (0.06–0.10)	0.99 (0.92–1.06)	7.39 (7.13–7.66)
2011	0.06 (0.05–0.08)	1.07 (1.00–1.14)	6.98 (6.72–7.23)
2012	0.06 (0.05–0.08)	0.98 (0.91–1.05)	6.49 (6.25–6.73)
2013	0.05 (0.04–0.07)	0.94 (0.88–1.01)	6.12 (5.89–6.35)
2014	0.06 (0.05–0.08)	0.84 (0.78–0.90)	5.57 (5.35–5.78)
2015	0.07 (0.05–0.09)	0.84 (0.77–0.90)	5.10 (4.90–5.30)
2016	0.08 (0.06–0.10)	1.06 (0.99–1.13)	6.02 (5.80–6.23)
2017	0.07 (0.06–0.09)	1.18 (1.11–1.25)	7.10 (6.87–7.33)
2018	0.13 (0.11–0.16)	1.54 (1.46–1.62)	9.54 (9.28–9.81)
2019	0.17 (0.14–0.19)	2.52 (2.41–2.63)	16.84 (16.50–17.19)
2020	0.15 (0.12–0.17)	2.74 (2.62–2.85)	16.98 (16.64–17.32)
2021	0.15 (0.13–0.18)	2.85 (2.74–2.97)	17.55 (17.20–17.90)
2022	0.10 (0.08–0.12)	1.45 (1.37–1.53)	8.96 (8.72–9.21)
2023	0.06 (0.04–0.08)	0.77 (0.71–0.83)	4.22 (4.05–4.39)
Overall	0.10 (0.10–0.10)	1.49 (1.47–1.51)	10.34 (10.28–10.40)

CMR: Crude Mortality Rate

Supplementary Table 6: Census Region-Stratified Age-Adjusted Mortality Rates per 100,000 for Deaths Involving Ischemic Heart Disease and Procedure-Related Conditions in the United States, 1999–2023.

Year	Northeast	Midwest	South	West
1999	4.05 (3.84–4.25)	4.65 (4.44–4.85)	4.52 (4.35–4.68)	3.19 (3.01–3.38)
2000	3.54 (3.35–3.73)	4.53 (4.33–4.73)	4.27 (4.11–4.43)	2.88 (2.70–3.05)
2001	3.59 (3.40–3.78)	4.38 (4.18–4.58)	4.10 (3.94–4.26)	2.85 (2.68–3.02)
2002	3.35 (3.16–3.53)	4.36 (4.17–4.56)	3.81 (3.66–3.96)	3.15 (2.97–3.33)
2003	2.88 (2.71–3.05)	3.75 (3.57–3.93)	3.25 (3.12–3.39)	2.88 (2.71–3.05)
2004	2.46 (2.31–2.62)	3.32 (3.15–3.49)	3.11 (2.98–3.24)	2.68 (2.52–2.85)
2005	2.30 (2.15–2.45)	3.02 (2.86–3.18)	2.91 (2.79–3.04)	2.19 (2.05–2.34)
2006	2.05 (1.91–2.19)	2.98 (2.82–3.14)	2.60 (2.49–2.72)	1.95 (1.82–2.09)
2007	2.00 (1.86–2.14)	2.69 (2.54–2.84)	2.47 (2.36–2.58)	2.02 (1.88–2.15)
2008	1.79 (1.66–1.92)	2.49 (2.35–2.64)	2.32 (2.21–2.43)	2.03 (1.90–2.17)
2009	1.71 (1.58–1.84)	2.14 (2.01–2.27)	2.20 (2.09–2.31)	1.70 (1.57–1.82)
2010	1.81 (1.68–1.94)	1.92 (1.79–2.05)	1.91 (1.81–2.01)	1.56 (1.45–1.68)
2011	1.79 (1.66–1.92)	1.86 (1.74–1.98)	1.80 (1.71–1.90)	1.50 (1.39–1.62)
2012	1.56 (1.44–1.68)	1.72 (1.61–1.84)	1.70 (1.61–1.79)	1.49 (1.38–1.60)
2013	1.47 (1.35–1.58)	1.60 (1.49–1.71)	1.60 (1.51–1.69)	1.46 (1.35–1.57)
2014	1.39 (1.28–1.51)	1.51 (1.41–1.62)	1.40 (1.32–1.48)	1.33 (1.23–1.43)
2015	1.23 (1.13–1.33)	1.37 (1.27–1.47)	1.42 (1.34–1.50)	1.16 (1.06–1.25)
2016	1.59 (1.47–1.71)	1.69 (1.57–1.80)	1.54 (1.46–1.62)	1.46 (1.36–1.56)
2017	1.79 (1.66–1.91)	1.86 (1.74–1.97)	1.93 (1.84–2.02)	1.69 (1.58–1.80)
2018	2.20 (2.07–2.34)	2.45 (2.32–2.58)	2.49 (2.39–2.59)	2.67 (2.53–2.80)
2019	3.50 (3.33–3.67)	3.88 (3.72–4.04)	3.81 (3.69–3.93)	6.05 (5.84–6.25)
2020	3.65 (3.48–3.82)	4.26 (4.09–4.43)	4.01 (3.89–4.14)	5.67 (5.48–5.86)
2021	3.97 (3.79–4.15)	4.08 (3.91–4.25)	4.48 (4.35–4.61)	5.92 (5.72–6.12)
2022	2.17 (2.04–2.30)	2.31 (2.18–2.43)	2.06 (1.97–2.15)	2.89 (2.75–3.02)
2023	1.13 (1.03–1.22)	1.13(1.04–1.22)	1.18 (1.11 to 1.25)	1.06 (0.97–1.14)
Overall	2.34 (2.31–2.37)	2.75 (2.72–2.78)	2.62 (2.59–2.64)	2.58 (2.55–2.61)

AAMR: Age-Adjusted Mortality Rate

Supplementary Table 7: Urban-Rural Stratified Age-Adjusted Mortality Rates per 100,000 for Deaths Involving Ischemic Heart Disease and Procedure-Related Conditions in the United States, 1999–2020.

Year	Metropolitan	Non metropolitan
1999	3.99 (3.89–4.09)	5.07 (4.83–5.31)
2000	3.76 (3.66–3.86)	4.64 (4.41–4.87)
2001	3.62 (3.53–3.72)	4.63 (4.40–4.86)
2002	3.52 (3.42–3.61)	4.54 (4.31–4.77)
2003	3.05 (2.96–3.14)	3.85 (3.65–4.06)
2004	2.81 (2.73–2.89)	3.61 (3.41–3.81)
2005	2.50 (2.42–2.58)	3.41 (3.21–3.60)
2006	2.33 (2.26–2.41)	3.05 (2.87–3.23)
2007	2.23 (2.15–2.30)	2.87 (2.70–3.05)
2008	2.03 (1.97–2.10)	2.87 (2.70–3.04)
2009	1.85 (1.79–1.92)	2.56 (2.39–2.72)
2010	1.71 (1.65–1.78)	2.22 (2.06–2.37)
2011	1.65 (1.59–1.71)	2.26 (2.11–2.41)
2012	1.51 (1.46–1.57)	2.16 (2.01–2.30)
2013	1.45 (1.40–1.51)	2.00 (1.86–2.14)
2014	1.33 (1.28–1.39)	1.80 (1.66–1.93)
2015	1.24 (1.19–1.29)	1.71 (1.58–1.84)
2016	1.47 (1.41–1.52)	2.09 (1.95–2.23)
2017	1.73 (1.68–1.79)	2.37 (2.22–2.52)
2018	2.33 (2.27–2.40)	3.16 (2.98–3.33)
2019	4.10 (4.01–4.18)	5.16 (4.94–5.38)
2020	4.17 (4.09–4.26)	5.42 (5.19–5.64)
Overall	2.45 (2.44 - 2.47)	3.21 (3.17- 3.25)

AAMR: Age-Adjusted Mortality Rate