eTable 1

Descriptive characteristics of strong heart study participants by visit

	Visit 1		Visit 2		Visit 3		P-Value
N (%)	3047	39.85	2430	31.78	2169	28.37	
Systolic blood pressure (adjusted)—mm Hg, mean (SD) [a]	128.9	20.7	131.9	21.9	135.0	20.8	<0.001
Diastolic blood pressure (adjusted)—mm Hg, mean (SD) [a]	77.6	10.8	76.1	10.9	76.2	10.5	<0.001
Pulse pressure (adjusted)—mm Hg, mean (SD) [a]	51.3	16.4	55.8	17.7	58.8	17.4	<0.001
Age—y, mean (SD)	56.4	8.1	60.2	8.0	63.7	7.9	<0.001
BMI—kg/m², mean (SD) [a]	30.5	6.0	30.9	6.3	30.8	6.2	0.001
Urinary cadmium—μg/g, mean (SD)[b]	1.5	2.2	–		–		
Log creatinine-adjusted urinary cadmium level—μg/g, mean (SD)[b]	0	0.7	–		–		
Duration of education—y, mean (SD) [a]	11.5	3.0	11.6	3.0	11.7	2.9	0.119
eGFR—mL/min/1.73 m², mean (SD) [a]	73.4	18.4	71.9	22.1	72.4	22.5	0.019
Triglycerides—mg/dL, mean (SD) [a]	149.3	(149.2)	159.0	(114.0)	159.3	(119.5)	0.003
Total cholesterol—mg/dL, mean (SD) [a]	195.5	39.5	193.9	39.1	192.2	39.6	0.006
High-density lipoprotein cholesterol—mg/dL, mean (SD) [a]	46.2	13.9	41.5	13.8	42.3	13.6	<0.001
Leisure activity per wk—METs, mean (SD) [a]	16.2	(31.2)	16.2	(29.9)	16.6	(31.9)	0.916
Smoking status—n (%) [a]							
Nonsmoker	885	29.06	535	22.71	433	20.77	<0.001
Smoker	1139	37.41	800	33.96	625	29.98	
Ex-smoker	1021	33.53	1021	43.34	1027	49.26	
Diabetes—n (%)	1289	42.30	1286	52.92	1217	56.11	<0.001
Hypertension—n (%)	1146	37.61	1081	44.63	1146	53.30	<0.001
Alcohol consumption—n (%) [a]							
Ever drank	1307	43.02	117	8.48	1226	58.97	<0.001
Never drank	452	14.88	466	33.77	397	19.10	
Current drinker	1279	42.10	797	57.75	456	21.93	
Center—n (%)							
Arizona	417	13.69	331	13.62	289	13.32	0.635
Oklahoma	1322	43.39	1085	44.65	926	42.69	
North and South Dakota	1308	42.93	1014	41.73	954	43.98	
Male—n (%)	1278	41.94	957	39.38	845	38.96	0.053
Died by study end	1266	41.55	878	36.13	624	28.77	<0.001

BMI, body mass index; eGFR, estimated glomerular filtration rate; METs, metabolic equivalent of task.

Analysis of variance and chi-squared tests were used in that table for continuous and categorical variables, respectively.

[a] Missing data (visit 1): systolic blood pressure (adjusted)— 13 (0.4%), diastolic blood pressure (adjusted)—15 (0.5%), pulse pressure (adjusted)—15 (0.5%), BMI—8 (0.3%), duration of education—3 (0.1%), eGFR—70 (2.3%), smoking status—2 (0.1%), triglycerides—22 (0.7%), total cholesterol—22 (0.7%), high-density lipoprotein cholesterol—23 (0.8%), alcohol consumption—9 (0.3%), leisure activity— 86 (2.8%); Missing data (visit 2): systolic blood pressure (adjusted)—14 (0.6%), diastolic blood pressure (adjusted)—15 (0.6%), pulse pressure (adjusted)—15 (0.5%), BMI—15 (0.6%), duration of education—2 (0.1%), eGFR—73 (3.0%), smoking status—74 (3.0%), triglycerides—48 (2.0%), total cholesterol—50 (2.1%), high-density lipoprotein cholesterol—57 (2.3%), alcohol consumption—50 (2.1%), physical activity—65 (2.7%); Missing data (visit 3): systolic blood pressure (adjusted)—57 (2.6%), diastolic blood pressure (adjusted)—55 (2.5%), pulse pressure (adjusted)—57 (2.6%), BMI—81 (3.7%), duration of education—1 (0.0%), eGFR—78 (3.6%), smoking status—84 (3.9%), triglycerides—81 (3.7%), total cholesterol—81 (3.7%), high-density lipoprotein cholesterol—81 (3.7%), alcohol consumption—90 (4.1%), physical activity—56 (2.6%).

[b] Cadmium was measured once at the start of the study.

eTable 2

Hazard ratios and 95% confidence intervals for the association between creatinine-adjusted urinary cadmium level and risk of hypertension, only including individuals with smoking data, n = 2864

	Unadjusted	Adjusted for Smoking	Model 2	Model 2 + Smoking
Continuous	1.03 (0.95–1.10)	1.02 (0.94–1.10)	1.10 (1.01–1.20)	1.09 (1.00–1.19)
First quintile	1.00 (Ref)	Ref	1.00 (Ref)	Ref
Second quintile	0.99 (0.85–1.15)	0.98 (0.84–1.14)	1.04 (0.89–1.22)	1.03 (0.88–1.21)
Third quintile	0.94 (0.81–1.10)	0.93 (0.80–1.09)	1.04 (0.89–1.23)	1.03 (0.87–1.22)
Fourth quintile	1.03 (0.88–1.21)	1.01 (0.86–1.19)	1.15 (0.97–1.36)	1.13 (0.95–1.34)
Fifth quintile	1.02 (0.87–1.20)	1.00 (0.85–1.18)	1.17 (0.97–1.40)	1.14 (0.95–1.37)

Model 2: Sex, age, center, estimated glomerular filtration rate, body mass index, education level, alcohol consumption, diabetes status, triglycerides, total cholesterol, high-density lipoprotein cholesterol level, physical activity level.

eTable 3

Estimated systolic blood pressure, diastolic blood pressure, and pulse pressure in upper and lower quintiles of creatinine-adjusted urinary cadmium by sex, fully adjusted, n = 2853

	Female		Male	
	Q1	Q5	Q1	Q5
Systolic blood pressure (mm Hg)				
0 y	127.70 (124.57–130.82)	127.65 (125.78–129.52)	132.15 (130.10–134.21)	131.86 (127.62–136.11)
5 y	130.22 (127.68–132.77)	131.29 (129.77–132.81)	132.52 (130.86–134.18)	131.47 (127.90–135.05)
10 y	132.75 (129.22–136.28)	134.92 (132.76–137.08)	132.88 (130.51–133.25)	131.08 (125.81–136.35)
Diastolic blood pressure (mm Hg)				
0 y	74.86 (73.20–76.52)	73.47 (72.48–74.47)	80.85 (79.75–81.94)	80.00 (77.74–82.25)
5 y	74.93 (73.66–76.19)	74.51 (73.75–75.27)	80.02 (79.20–80.84)	80.08 (78.30–81.86)
10 y	74.99 (73.24–76.74)	75.55 (74.47–76.62)	79.19 (78.20–80.37)	80.15 (77.52–82.79)
Pulse pressure (mm Hg)				
0 y	52.91 (50.53–55.29)	54.15 (52.72–55.57)	51.30 (49.73–52.86)	51.84 (48.60–55.07)
5 y	55.32 (53.40–57.24)	56.75 (55.60–57.90)	52.48 (51.23–53.73)	51.30 (48.60–54.01)
10 y	57.72 (54.97–60.48)	59.35 (57.66–61.03)	53.66 (51.81–55.71)	50.76 (46.65–54.88)

Systolic blood pressure: *P* for interaction, .728; diastolic blood pressure: *P* for interaction, .876; pulse pressure: *P* for interaction, .758.
Adjusted for age, age^2, center, estimated glomerular filtration rate, body mass index, smoking status, education duration, history of diabetes, triglyceride level, total cholesterol level, high-density lipoprotein cholesterol level, alcohol consumption, and physical activity.

eTable 4

Estimated systolic blood pressure, diastolic blood pressure, and pulse pressure in upper and lower quintiles of creatinine-adjusted urinary cadmium by recruiting center, fully adjusted, n = 2853

	Arizona		Oklahoma		North Dakota/South Dakota	
	Q1	Q5	Q1	Q5	Q1	Q5
Systolic blood pressure (mm Hg)						
0 y	132.48 (128.46–136.50)	136.25 (131.05–141.44)	134.59 (132.25–136.94)	130.86 (127.70–134.03)	124.95 (121.69–128.20)	124.55 (122.34–126.76)
5 y	132.33 (128.92–135.75)	136.37 (132.01–140.72)	134.89 (133.01–136.78)	134.66 (132.04–137.28)	127.81 (125.14–130.48)	127.80 (125.98–129.61)
10 y	132.19 (127.08–137.30)	136.49 (130.26–142.72)	135.20 (132.56–137.83)	138.46 (134.77–142.14)	130.67 (127.04–134.30)	131.05 (128.49–133.60)
Diastolic blood pressure (mm Hg)						
0 y	77.73 (75.60–79.85)	79.44 (76.70–82.18)	80.47 (79.24–81.71)	77.30 (75.63–78.97)	74.02 (72.30–75.74)	73.70 (72.53–74.87)
5 y	77.44 (75.74–79.14)	77.65 (75.48–79.82)	78.35 (77.41–79.29)	77.54 (76.23–78.85)	76.27 (74.94–77.60)	75.39 (74.49–76.30)
10 y	77.16 (74.62–79.90)	75.86 (72.77–78.94)	76.23 (74.93–77.53)	77.78 (75.95–79.60)	78.52 (76.73–80.30)	77.09 (75.82–78.35)
Pulse pressure (mm Hg)						
0 y	54.71 (51.65–57.77)	56.81 (52.86–60.76)	54.12 (52.33–55.90)	53.59 (51.18–56.00)	50.92 (48.44–53.39)	50.84 (49.15–52.52)
5 y	54.88 (52.30–57.47)	58.74 (55.45–62.04)	56.49 (55.07–57.91)	57.09 (55.10–59.07)	51.52 (49.51–53.54)	52.40 (51.03–53.77)
10 y	55.06 (51.07–59.06)	60.68 (55.82–65.53)	58.86 (56.81–60.91)	60.59 (57.72–63.45)	52.13 (49.31–54.96)	53.96 (51.97–55.95)

Systolic blood pressure: P for interaction (across all quintiles), .054; diastolic blood pressure: P for interaction, .017; pulse pressure: P for interaction, .335.

Adjusted for sex, age, age^2, estimated glomerular filtration rate, body mass index, smoking status, education duration, history of diabetes, triglyceride level, total cholesterol level, high-density lipoprotein cholesterol level, alcohol consumption, and physical activity.

eTable 5

Estimated systolic blood pressure, diastolic blood pressure, and pulse pressure in upper and lower quintiles of creatinine-adjusted urinary cadmium by smoking status, fully adjusted, n = 2853

	Never Smoker		Ever Smoker		Current Smoker	
	Q1	Q5	Q1	Q5	Q1	Q5
Systolic blood pressure (mm Hg)						
0 y	133.66 (131.14–136.17)	130.43 (127.20–133.65)	132.15 (129.44–134.86)	129.03 (125.61–132.45)	124.05 (120.29–127.81)	125.12 (122.84–127.39)
5 y	133.70 (131.88–135.52)	132.75 (130.55–134.94)	133.07 (130.76–135.39)	135.94 (132.93–138.95)	127.79 (124.84–130.74)	127.48 (125.61–129.36)
10 y	133.75 (131.25–136.25)	135.06 (132.12–138.00)	133.99 (130.43–137.55)	142.85 (138.11–147.60)	131.53 (126.73–136.32)	129.85 (126.92–132.78)
Diastolic blood pressure (mm Hg)						
0 y	78.49 (77.14–79.83)	76.55 (74.82–78.28)	79.02 (77.56–80.47)	77.70 (75.86–79.54)	76.10 (74.07–78.12)	73.28 (72.06–74.50)
5 y	77.86 (76.94–78.78)	77.18 (76.05–78.30)	78.27 (77.11–79.44)	78.65 (77.13–80.17)	76.44 (74.92–79.23)	74.46 (73.52–75.41)
10 y	77.23 (75.98–78.49)	77.81 (76.31–79.30)	77.53 (75.75–79.31)	79.60 (77.22–81.98)	76.78 (74.32–79.23)	75.65 (74.16–77.13)
Pulse pressure (mm Hg)						
0 y	55.15 (53.22–57.08)	53.83 (51.35–56.30)	53.18 (51.11–55.26)	51.32 (48.69–53.95)	48.09 (45.19–50.99)	51.77 (50.03–53.51)
5 y	55.82 (54.44–57.21)	55.49 (53.81–57.16)	54.86 (53.09–56.62)	57.32 (55.02–59.62)	51.37 (49.10–53.63)	52.94 (51.51–54.37)
10 y	56.50 (54.54–58.46)	57.15 (54.84–59.45)	56.53 (53.74–59.32)	63.32 (59.60–67.05)	54.65 (50.87–58.42)	54.11 (51.82–56.41)

Systolic blood pressure: P for interaction (across all quintiles), .043; diastolic blood pressure: P for interaction, .996; pulse pressure: P for interaction, .014.

Adjusted for sex, age, age^2, center, estimated glomerular filtration rate, body mass index, education duration, history of diabetes, triglyceride level, total cholesterol level, high-density lipoprotein cholesterol level, alcohol consumption and physical activity.

eTable 6

Estimated systolic blood pressure, diastolic blood pressure, and pulse pressure, not adjusted for antihypertensive medication, in upper and lower quintiles of creatinine-adjusted urinary cadmium by smoking status, fully adjusted, n = 2853

	Q1	Q2	Q3	Q4	Q5
Systolic blood pressure (mm Hg)					
0 y	128.55 (126.53–130.57)	129.64 (127.75–131.54)	127.76 (125.85–129.67)	126.92 (125.06–128.78)	128.83 (126.88–130.78)
5 y	129.72 (128.11–131.33)	131.31 (129.84–132.79)	129.68 (128.19–131.18)	129.26 (127.79–130.74)	131.69 (130.11–133.27)
10 y	130.89 (128.69–133.10)	132.99 (130.89–135.09)	131.60 (129.44–133.76)	131.61 (129.49–133.73)	134.56 (132.34–136.77)
Diastolic blood pressure (mm Hg)					
0 y	76.95 (75.86–78.04)	77.65 (76.61–78.68)	75.51 (74.48–76.55)	76.58 (75.57–77.59)	76.13 (75.07–77.19)
5 y	76.67 (75.85–77.50)	76.99 (76.24–77.74)	76.09 (75.33–76.86)	76.73 (75.97–77.49)	77.03 (76.22–77.84)
10 y	76.40 (75.26–77.54)	76.34 (75.25–77.42)	76.68 (75.56–77.80)	76.88 (75.78–77.98)	77.94 (76.79–79.09)
Pulse pressure (mm Hg)					
0 y	51.60 (50.09–53.12)	52.01 (50.59–53.44)	52.22 (50.79–53.65)	50.41 (49.02–51.81)	52.67 (51.21–54.13)
5 y	53.04 (51.84–54.25)	54.33 (53.22–55.43)	53.54 (52.42–54.66)	52.59 (51.48–53.70)	54.59 (53.41–55.77)
10 y	54.49 (52.78–56.19)	56.64 (55.01–58.27)	54.86 (53.18–56.54)	54.77 (53.12–56.41)	56.51 (54.80–58.23)

Systolic blood pressure: *P* for interaction (across all quintiles), .077; diastolic blood pressure: *P* for interaction, .002; pulse pressure: *P* for interaction, .915.

Adjusted for sex, age, age^2, center, estimated glomerular filtration rate, body mass index, smoking status, education duration, history of diabetes, triglyceride level, total cholesterol level, high-density lipoprotein cholesterol level, alcohol consumption, and physical activity.

eTable 7

Estimated systolic blood pressure, diastolic blood pressure, and pulse pressure in upper and lower quintiles of creatinine-adjusted urinary cadmium by smoking status, excluding individuals with a history of heart conditions, fully adjusted, n = 2784

	Q1	Q2	Q3	Q4	Q5
Systolic blood pressure (mm Hg)					
0 y	128.55 (126.53–130.57)	129.64 (127.75–131.54)	127.76 (125.85–129.67)	126.92 (125.06–128.78)	128.83 (126.88–130.78)
5 y	129.72 (128.11–131.33)	131.31 (129.84–132.79)	129.68 (128.19–131.18)	129.26 (127.79–130.74)	131.69 (130.11–133.27)
10 y	130.89 (128.69–133.10)	132.99 (130.89–135.09)	131.60 (129.44–133.76)	131.61 (129.49–133.73)	134.56 (132.34–136.77)
Diastolic blood pressure (mm Hg)					
0 y	76.95 (75.86–78.04)	77.65 (76.61–78.68)	75.51 (74.48–76.55)	76.58 (75.57–77.59)	76.13 (75.07–77.19)
5 y	76.67 (75.85–77.50)	76.99 (76.24–77.74)	76.09 (75.33–76.86)	76.73 (75.97–77.49)	77.03 (76.22–77.84)
10 y	76.40 (75.26–77.54)	76.34 (75.25–77.42)	76.68 (75.56–77.80)	76.88 (75.78–77.98)	77.94 (76.79–79.09)
Pulse pressure (mm Hg)					
0 y	51.60 (50.09–53.12)	52.01 (50.59–53.44)	52.22 (50.79–53.65)	50.41 (49.02–51.81)	52.67 (51.21–54.13)
5 y	53.04 (51.84–54.25)	54.33 (53.22–55.43)	53.54 (52.42–54.66)	52.59 (51.48–53.70)	54.59 (53.41–55.77)
10 y	54.49 (52.78–56.19)	56.64 (55.01–58.28)	54.86 (53.18–56.54)	54.77 (53.12–56.41)	56.51 (54.80–58.23)

Systolic blood pressure: *P* for interaction (across all quintiles), .422; diastolic blood pressure: *P* for interaction, .017; pulse pressure: *P* for interaction, .573.

Adjusted for sex, age, age^2, center, estimated glomerular filtration rate, body mass index, smoking status, education duration, history of diabetes, triglyceride level, total cholesterol level, high-density lipoprotein cholesterol level, alcohol consumption, and physical activity.

eTable 8
Estimated systolic blood pressure, diastolic blood pressure, pulse pressure in upper and lower quintiles of creatinine-adjusted urinary cadmium by smoking status, excluding individuals with baseline hypertension, fully adjusted, n = 1790

	Q1	Q2	Q3	Q4	Q5
Systolic blood pressure (mm Hg)					
0 y	116.84 (115.22–118.45)	116.97 (115.52–118.42)	115.87 (114.48–117.25)	115.97 (114.60–117.34)	116.93 (115.52–118.34)
5 y	121.94 (120.51–123.37)	122.62 (121.35–123.89)	122.84 (121.61–124.06)	121.67 (120.42–122.92)	124.13 (122.85–125.41)
10 y	127.04 (124.59–129.48)	128.27 (120.02–130.52)	129.81 (127.60–132.02)	127.37 (125.11–129.62)	131.33 (129.12–133.54)
Diastolic blood pressure (mm Hg)					
0 y	72.31 (71.27–73.35)	72.55 (71.61–73.49)	71.21 (70.32–72.11)	71.60 (70.71–72.49)	71.28 (70.37–72.19)
5 y	73.46 (72.66–74.27)	73.60 (72.89–74.30)	73.50 (72.82–74.18)	73.49 (72.80–74.19)	73.83 (73.12–74.55)
10 y	74.62 (73.36–75.88)	74.64 (73.49–75.79)	75.79 (74.65–76.92)	75.39 (74.23–76.55)	76.38 (75.24–77.52)
Pulse pressure (mm Hg)					
0 y	44.54 (43.22–45.86)	44.48 (43.29–45.66)	44.66 (43.53–45.79)	44.34 (43.22–45.46)	45.55 (44.40–46.71)
5 y	48.57 (47.43–49.70)	49.06 (48.05–50.07)	49.33 (48.36–50.30)	48.19 (47.19–49.18)	50.20 (49.18–51.21)
10 y	52.59 (50.69–54.50)	53.64 (51.89–55.72)	54.00 (52.28–55.72)	52.04 (50.28–53.79)	54.84 (53.11–56.56)

Systolic blood pressure: *P* for interaction (across all quintiles), .138; diastolic blood pressure: *P* for interaction, .015; pulse pressure: *P* for interaction, .730.

Adjusted for sex, age, age^2, center, estimated glomerular filtration rate, body mass index, smoking status, education duration, history of diabetes, triglyceride level, total cholesterol level, high-density lipoprotein cholesterol level, alcohol consumption, and physical activity.

eTable 9
Estimated systolic blood pressure, diastolic blood pressure, and pulse pressure in upper and lower quintiles of creatinine-adjusted urinary cadmium by smoking status, adjusted for packs per year, fully adjusted, n = 1905

	Q1	Q2	Q3	Q4	Q5
Systolic blood pressure (mm Hg)					
0 y	128.74 (126.35–131.13)	128.03 (128.03–130.10)	127.10 (125.04–130.10)	126.88 (124.88–128.88)	127.69 (125.64–129.74)
5 y	129.93 (127.96–131.90)	130.35 (128.68–132.02)	129.90 (128.68–132.02)	129.03 (127.41–130.65)	130.65 (128.94–132.36)
10 y	131.13 (128.39–133.87)	132.67 (130.26–135.09)	132.71 (130.26–135.09)	131.18 (128.83–133.53)	133.61 (131.17–136.06)
Diastolic blood pressure (mm Hg)					
0 y	77.12 (75.83–78.41)	77.30 (76.19–78.42)	75.78 (74.66–76.90)	76.07 (74.99–77.15)	75.04 (73.94–76.16)
5 y	76.99 (76.01–77.97)	76.92 (76.09–77.75)	76.31 (75.49–77.13)	76.23 (75.43–77.04)	76.04 (75.18–76.89)
10 y	76.85 (75.49–78.22)	76.54 (75.33–77.75)	76.85 (75.65–78.04)	76.40 (75.23–77.58)	77.04 (75.81–78.26)
Pulse pressure (mm Hg)					
0 y	51.64 (49.86–53.43)	50.78 (49.24–52.33)	51.32 (49.77–52.86)	50.84 (49.35–52.34)	52.59 (51.06–54.12)
5 y	52.92 (51.47–54.38)	53.43 (52.20–54.67)	53.59 (52.38–54.81)	52.80 (51.60–54.00)	54.50 (53.23–55.77)
10 y	54.20 (52.10–56.31)	56.09 (54.22–57.95)	55.87 (54.02–57.72)	54.76 (52.95–56.57)	56.41 (54.53–58.29)

Systolic blood pressure: *P* for interaction (across all quintiles), .511; diastolic blood pressure: *P* for interaction, .105; pulse pressure: *P* for interaction, .594.

Adjusted for sex, age, age^2, center, estimated glomerular filtration rate, body mass index, smoking status, education duration, history of diabetes, triglyceride level, total cholesterol level, high-density lipoprotein cholesterol level, alcohol consumption, physical activity, and packs per year.
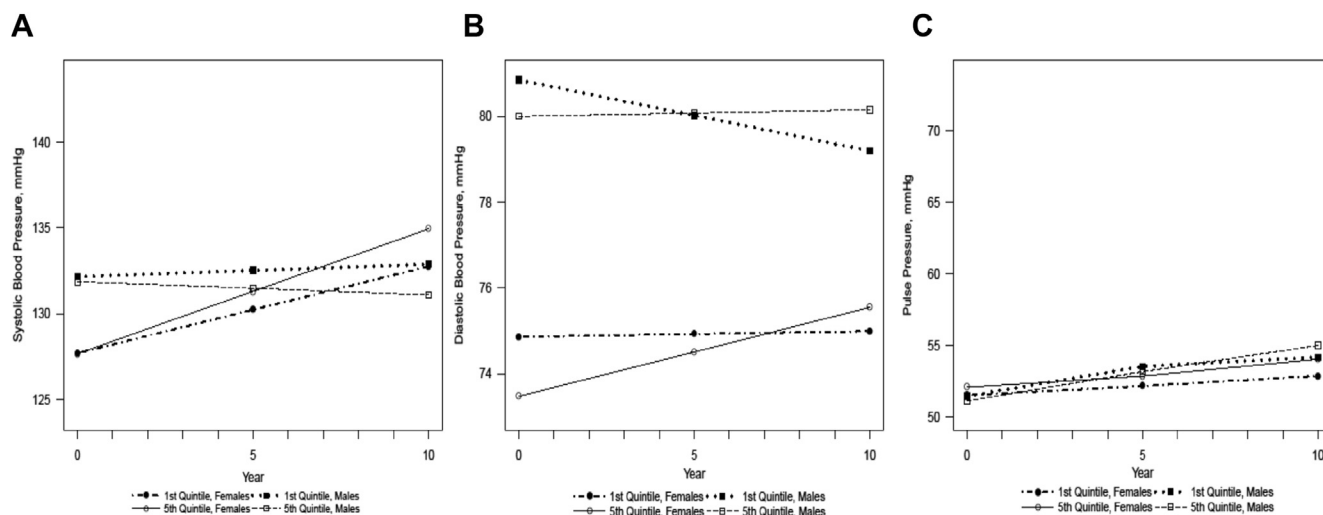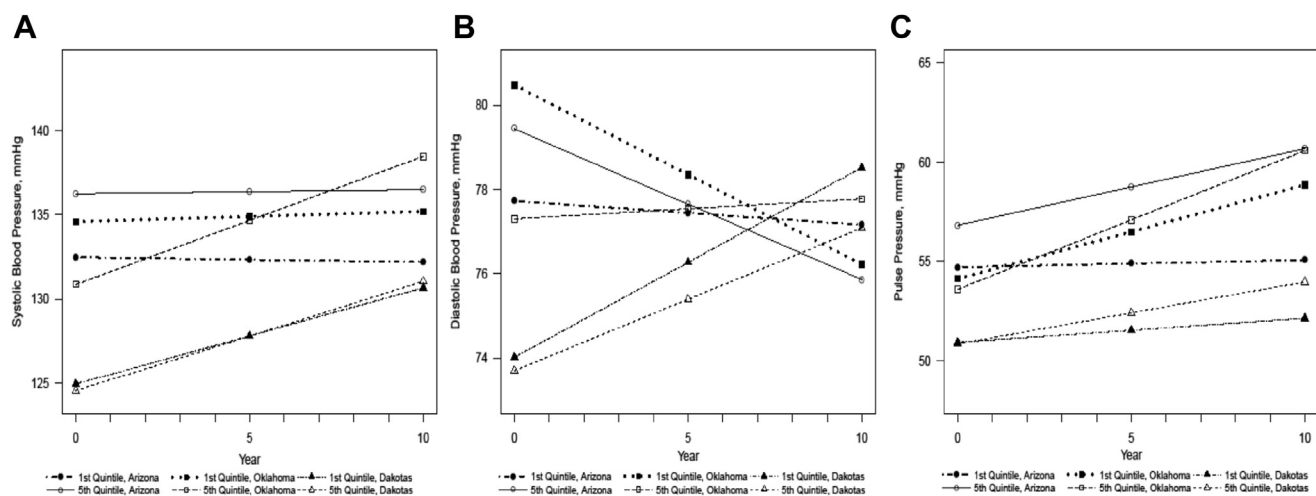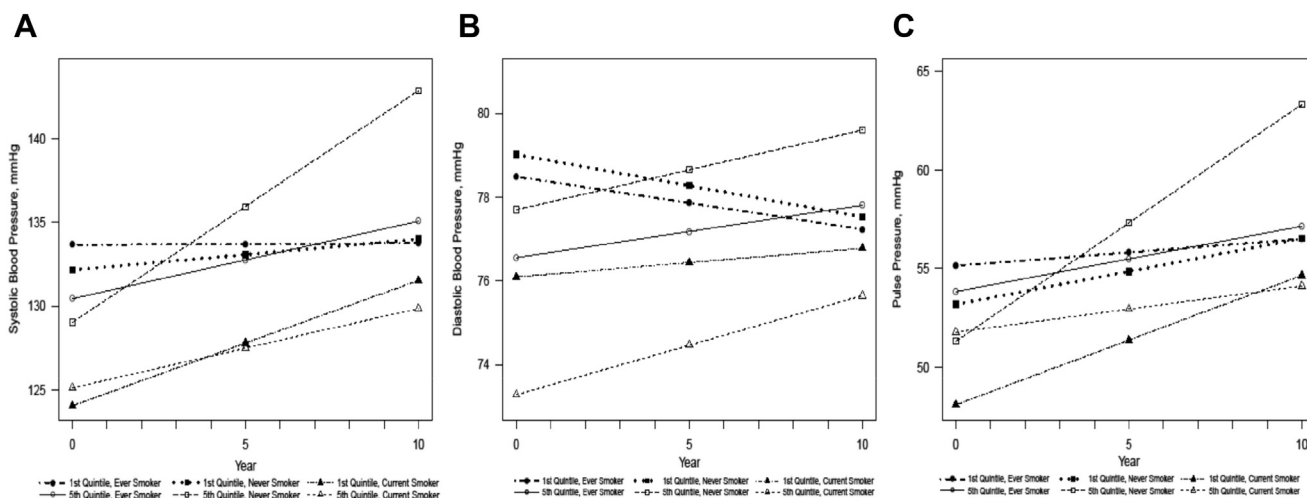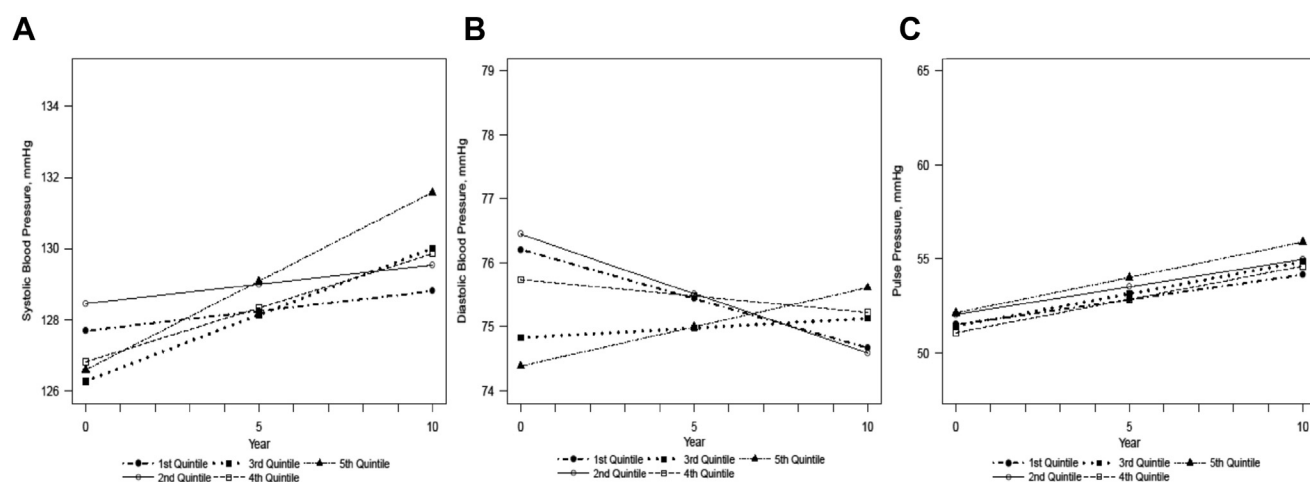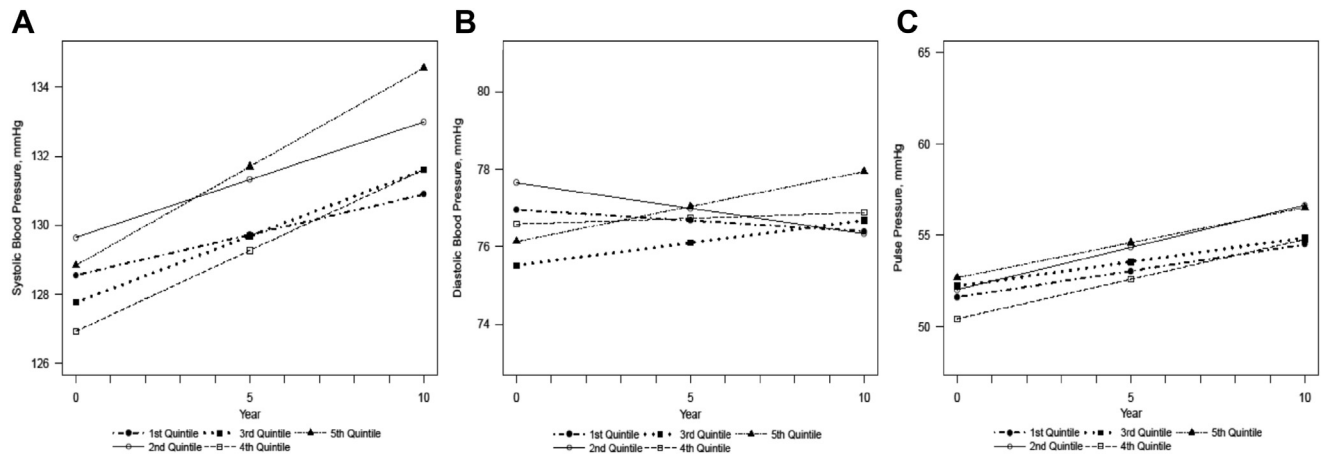
eFigure 1. Estimated (A) systolic blood pressure, (B) diastolic blood pressure, (C) pulse pressure, in upper and lower quintiles of creatinine-adjusted urinary cadmium by sex, fully adjusted, n = 2853. (A) *P* for interaction (across all quintiles): .728; (B) *P* for interaction: .876; (C) *P* for interaction: .758. N: males—Q1 = 394, Q2 = 284, Q3 = 233, Q4 = 189, Q5 = 93; females—Q1 = 169, Q2 = 297, Q3 = 346, Q4 = 389, Q5 = 459. Adjusted for age, age^2, center, estimated glomerular filtration rate, body mass index, smoking status, education duration, history of diabetes, triglyceride level, total cholesterol level, high-density lipoprotein cholesterol level, alcohol consumption, and physical activity.

eFigure 2. Estimated (A) systolic blood pressure, (B) diastolic blood pressure, (C) pulse pressure, in upper and lower quintiles of creatinine-adjusted urinary cadmium by recruiting center, fully adjusted, n = 2853. (A) *P* for interaction (across all quintiles): .054; (B) *P* for interaction: .017; (C) *P* for interaction: .335. N: Arizona— Q1 = 98, Q2 = 100, Q3 = 80, Q4 = 59, Q5 = 57; Oklahoma— Q1 = 303, Q2 = 294, Q3 = 239, Q4 = 259, Q5 = 157; South Dakota— Q1 = 162, Q2 = 187, Q3 = 260, Q4 = 260, Q5 = 338. Adjusted for sex, age, age^2, estimated glomerular filtration rate, body mass index, smoking status, education duration, history of diabetes, triglyceride level, total cholesterol level, high-density lipoprotein cholesterol level, alcohol consumption, and physical activity.
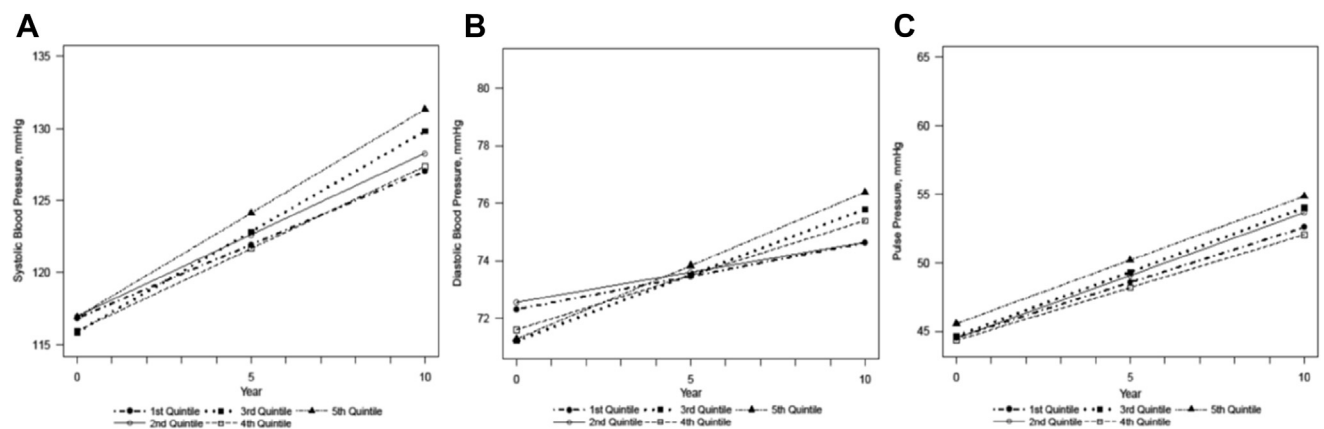
eFigure 3. Estimated (A) systolic blood pressure, (B) diastolic blood pressure, (C) pulse pressure, in upper and lower quintiles of creatinine-adjusted urinary cadmium by smoking status, fully adjusted, n = 2853. (A) *P* for interaction (across all quintiles): .043; (B) *P* for interaction: .996; (C) *P* for interaction: .014. N: ever—Q1 = 243, Q2 = 233, Q3 = 191, Q4 = 157, Q5 = 132; never— Q1 = 211, Q2 = 168, Q3 = 173, Q4 = 154, Q5 = 124; current—Q1 = 109, Q2 = 180, Q3 = 215, Q4 = 267, Q5 = 296. Adjusted for sex, age, age^2, center, estimated glomerular filtration rate, body mass index, education duration, history of diabetes, triglyceride level, total cholesterol level, high-density lipoprotein cholesterol level, alcohol consumption, and physical activity.
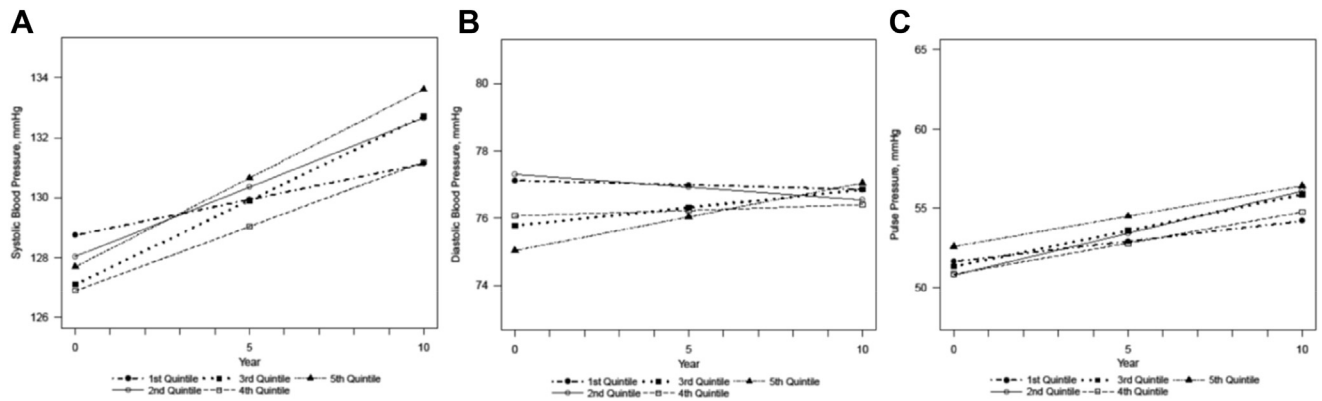

eFigure 4. Estimated (A) systolic blood pressure, (B) diastolic blood pressure, (C) pulse pressure, not adjusted for antihypertensive medication, in upper and lower quintiles of creatinine-adjusted urinary cadmium by smoking status, fully adjusted, n = 2853. (A) *P* for interaction (across all quintiles): .077; (B) *P* for interaction: .002; (C) *P* for interaction: .915. N: Q1 = 563, Q2 = 581, Q3 = 579, Q4 = 578, Q5 = 552. Adjusted for sex, age, age^2, center, estimated glomerular filtration rate, body mass index, smoking status, education duration, history of diabetes, triglyceride level, total cholesterol level, high-density lipoprotein cholesterol level, alcohol consumption and physical activity.

eFigure 5. Estimated (A) systolic blood pressure, (B) diastolic blood pressure, (C) pulse pressure in upper and lower quintiles of creatinine-adjusted urinary cadmium by smoking status, excluding individuals with a history of heart conditions, fully adjusted, n = 2784. (A) *P* for interaction (across all quintiles): .422; (B) *P* for interaction: .017; (C) *P* for interaction: .573. N: Q1 = 424, Q2 = 431, Q3 = 242, Q4 = 440, Q5 = 426. Adjusted for sex, age, age^2, center, estimated glomerular filtration rate, body mass index, smoking status, education duration, history of diabetes, triglyceride level, total cholesterol level, high-density lipoprotein cholesterol level, alcohol consumption, and physical activity.

eFigure 6. Estimated (A) systolic blood pressure, (B) diastolic blood pressure, (C) pulse pressure in upper and lower quintiles of creatinine-adjusted urinary cadmium by smoking status, excluding individuals with baseline hypertension, fully adjusted, n = 1790. (A) *P* for interaction (across all quintiles): .138; (B) *P* for interaction: .015; (C) *P* for interaction: .730. N: Q1 = 314, Q2 = 347, Q3 = 380, Q4 = 366, Q5 = 383. Adjusted for sex, age, age^2, center, estimated glomerular filtration rate, body mass index, smoking status, education duration, history of diabetes, triglyceride level, total cholesterol level, high-density lipoprotein cholesterol level, alcohol consumption, and physical activity.

A   **B**   **C**

eFigure 7. Estimated (A) systolic blood pressure, (B) diastolic blood pressure, (C) pulse pressure in upper and lower quintiles of creatinine-adjusted urinary cadmium by smoking status, adjusted for packs per year, fully adjusted, n = 1905 (A) *P* for interaction (across all quintiles): .511; (B) *P* for interaction: .105; (C) *P* for interaction: .594 N: Q1 = 318, Q2 = 389, Q3 = 385, Q4 = 401, Q5 = 412. Adjusted for sex, age, age^2, center, estimated glomerular filtration rate, body mass index, smoking status, education duration, history of diabetes, triglyceride level, total cholesterol level, high-density lipoprotein cholesterol level, alcohol consumption, physical activity, and packs per year.