

SUPPLEMENTAL TABLES:**Supplemental Table 1:** Renal Failure and Essential Hypertension-related mortalities in Older Adults stratified by Sex and Race, in the United States, 1999 to 2020

Deaths									
Year	Overall	Women	Men	NH White	NH Black	Asian or Pacific Islander	Hispanic	American Indian or Alaska Native	Population
1999	4250	2511	1739	3233	671	121	189	17	34797841
2000	13857	7990	5867	10427	2433	332	589	49	34991753
2001	14759	8513	6246	11085	2564	334	698	50	35290291
2002	15423	8938	6485	11544	2649	368	764	56	35522207
2003	16374	9319	7055	12436	2629	431	781	57	35863529
2004	16902	9600	7302	12724	2754	493	837	59	36203319
2005	17805	10126	7679	13499	2847	445	908	77	36649798
2006	16776	9484	7292	12867	2530	435	854	66	37164107
2007	16164	9101	7063	12367	2374	484	855	61	37825711
2008	15433	8571	6862	11871	2193	461	839	48	38777621
2009	14509	8050	6459	11213	1969	438	827	40	39623175
2010	14096	7869	6227	10797	1953	450	805	64	40267984
2011	25016	13784	11232	18385	3922	868	1683	113	41394141
2012	25766	14081	11685	18859	4005	899	1830	101	43145356
2013	4603	2530	2073	3425	626	191	333	24	44704074
2014	3966	2180	1786	3059	462	144	261	35	46243211

2015	4307	2352	1955	3279	533	142	319	22	47760852
2016	4379	2308	2071	3277	549	175	343	22	49244195
2017	4842	2530	2312	3660	595	184	361	33	50858679
2018	5215	2731	2484	3969	602	186	420	27	52431193
2019	5914	3068	2846	4422	797	191	458	31	54058263
2020	6797	3545	3252	5037	944	224	543	40	55659365
Total	267153	149181	117972	201435	40601	7996	15497	1092	9.28E+08

Supplemental Table 2: Annual percent change of Renal Failure and Essential Hypertension-related Age-Adjusted Mortality Rates per 100,000, in only Adults in the United States, 1999 to 2020

Year Interval	APC (95% CI)	P-value
Overall		
1999-2012	2.0578(-0.6920 to 5.9362)	0.120776
2012-2015	-47.1826*(-55.6280 to -29.5220)	0.001200
2015-2020	13.1388(-2.2701 to 59.9240)	0.091982
Men		
1999-2012	2.6138(-0.4151 to 6.9918)	0.078784
2012-2015	-48.2701*(-58.3188 to -29.7901)	0.003599
2015-2020	14.6061(-5.3991 to 73.9890)	0.126375
Female		
1999-2012	2.3780(-0.8160 to 6.8634)	0.109178
2012-2015	-49.6525*(-63.3535 to -26.6418)	0.023595
2015-2020	15.7770(-10.0863 to 126.8262)	0.145971
American Indian or Alaska Native		
1999-2012	1.1871(-1.4030 to 4.6807)	0.282344
2012-2015	-43.4298*(-52.9906 to -24.9102)	0.009598
2015-2020	8.2087(-6.5406 to 54.9079)	0.207159
Black		
1999-2012	0.8752(-2.3553 to 5.3252)	0.463507
2012-2015	-53.7780*(-65.8614 to -33.1535)	0.004799
2015-2020	17.8486(-4.6575 to 121.3580)	0.103979
White		
1999-2012	2.4221(-0.3149 to 6.2753)	0.075185
2012-2015	-50.9145*(-61.7781 to -31.3106)	0.002799
2015-2020	21.0102(-0.7512 to 116.8268)	0.056789
Hispanic		
1999-2012	2.7011(-0.3301 to 7.2657)	0.073585
2012-2015	-49.0485*(-58.8080 to -31.4012)	0.000800
2015-2020	13.3766(-1.9554 to 61.3940)	0.086783
Asian		
1999-2012	1.5393(-1.1368 to 5.5107)	0.203559
2012-2015	-50.1743*(-59.1143 to -33.6102)	0.000400
2015-2020	8.2323(-6.8915 to 54.9520)	0.223155
Urban Areas		
1999-2012	2.6666(-0.2563 to 7.0201)	0.071986

2012-2015	-52.7958*(-64.3101 to -32.7339)	0.002799
2015-2020	21.6037(-2.2561 to 129.0455)	0.077984
Rural Areas		
1999-2012	2.5476(-0.3407 to 6.9850)	0.071186
2012-2015	-48.2381*(-60.8582 to -28.3490)	0.011598
2015-2020	16.3343(-4.2118 to 112.4489)	0.101580
Northeast		
1999-2012	2.5390(-0.3336 to 6.4011)	0.073185
2012-2015	-51.2726*(-62.7248 to -31.7064)	0.005999
2015-2020	15.4379(-5.4535 to 96.0308)	0.122376
Midwest		
1999-2012	1.8033(-1.0917 to 5.9884)	0.169166
2012-2015	-48.6604*(-59.9715 to -27.3413)	0.007199
2015-2020	15.0149(-4.5019 to 94.2162)	0.114777
South		
1999-2012	1.1549(-1.8774 to 5.9131)	0.344331
2012-2015	-48.7403*(-59.3121 to -29.1923)	0.003599
2015-2020	19.0884(-1.9954 to 88.1933)	0.070386
West		
1999-2012	3.5811*(0.6888 to 7.5889)	0.011998
2012-2015	-47.8740*(-57.3352 to -30.1965)	0.001200
2015-2020	11.4290(-3.2927 to 56.4904)	0.118776

Supplemental Table 3: Overall and Sex-Stratified Renal Failure and Essential Hypertension -related Age-Adjusted Mortality Rates per 100,000, in Older Adults in the United States, 1999 to 2020

Age-Adjusted Rate (95% CI)			
Year	Men	Women	Overall
1999	14.2 (13.5 to 14.9)	11.4 (11.0 to 11.9)	12.4 (12.0 to 12.7)
2000	46.4 (45.2 to 47.6)	36.0 (35.2 to 36.7)	39.8 (39.1 to 40.5)
2001	48.8 (47.5 to 50.0)	37.9 (37.1 to 38.7)	41.9 (41.2 to 42.5)
2002	49.8 (48.6 to 51.1)	39.3 (38.5 to 40.1)	43.3 (42.6 to 43.9)
2003	53.2 (52.0 to 54.5)	40.5 (39.7 to 41.3)	45.2 (44.5 to 45.9)
2004	54.2 (53.0 to 55.5)	41.3 (40.4 to 42.1)	46.1 (45.4 to 46.8)
2005	55.7 (54.4 to 56.9)	42.7 (41.9 to 43.6)	47.6 (46.9 to 48.3)
2006	51.6 (50.4 to 52.8)	39.3 (38.5 to 40.1)	44.0 (43.3 to 44.6)
2007	48.7 (47.6 to 49.8)	36.9 (36.1 to 37.6)	41.5 (40.8 to 42.1)
2008	46.1 (45.0 to 47.2)	34.1 (33.4 to 34.9)	38.7 (38.1 to 39.3)
2009	42.2 (41.1 to 43.2)	31.5 (30.8 to 32.2)	35.7 (35.1 to 36.3)
2010	39.8 (38.8 to 40.8)	30.4 (29.7 to 31.1)	34.1 (33.5 to 34.6)
2011	68.8 (67.5 to 70.1)	52.3 (51.4 to 53.2)	58.8 (58.1 to 59.6)
2012	69.2 (67.9 to 70.4)	52.0 (51.2 to 52.9)	58.9 (58.2 to 59.7)
2013	11.9 (11.4 to 12.5)	9.2 (8.9 to 9.6)	10.3 (10.0 to 10.6)
2014	9.9 (9.5 to 10.4)	7.7 (7.4 to 8.1)	8.6 (8.4 to 8.9)
2015	10.6 (10.1 to 11.0)	8.2 (7.8 to 8.5)	9.1 (8.9 to 9.4)
2016	10.8 (10.4 to 11.3)	7.9 (7.6 to 8.3)	9.1 (8.9 to 9.4)
2017	11.7 (11.3 to 12.2)	8.5 (8.1 to 8.8)	9.8 (9.5 to 10.1)
2018	12.2 (11.7 to 12.7)	9.0 (8.7 to 9.4)	10.3 (10.1 to 10.6)
2019	13.6 (13.1 to 14.1)	9.9 (9.6 to 10.3)	11.4 (11.1 to 11.7)
2020	15.2 (14.7 to 15.7)	11.3 (10.9 to 11.6)	12.9 (12.6 to 13.2)
Total	33.3 (33.1 to 33.5)	26.0 (25.9 to 26.2)	28.9 (28.8 to 29.0)

Supplemental Table 4: Renal Failure and Essential Hypertension -related Age-Adjusted Mortality Rates per 100,000, Stratified by Census Region, in Older Adults in the United States, 1999 to 2020.

Year	Age-Adjusted Rate (95% CI) - Northeast	Age-Adjusted Rate (95% CI) - Midwest	Age-Adjusted Rate (95% CI) - South	Age-Adjusted Rate (95% CI) - West
1999	10.8 (10 to 11.5)	14.5 (13.7 to 15.3)	8.5 (8 to 9)	18.5 (17.4 to 19.5)
2000	31.4 (30.1 to 32.7)	42.5 (41.1 to 43.9)	41.6(40.5 to 42.8)	42.4 (40.9 to 44)
2001	33.8 (32.4 to 35.1)	44.9 (43.4 to 46.3)	43 (41.9 to 44.2)	44.5 (42.9 to 46.1)
2002	34.1 (32.8 to 35.4)	45.7 (44.3 to 47.1)	44.6 (43.4 to 45.8)	47.5(45.9 to 49.1)
2003	34.9 (33.6 to 36.3)	48.7 (47.3 to 50.2)	46 (44.8 to 47.2)	50.4 (48.8 to 52)
2004	36.1 (34.7 to 37.4)	50.1 (48.6 to 51.6)	45.4(44.2 to 46.6)	52.8 (51.2 to 54.5)
2005	35.8 (34.5 to 37.1)	51.6 (50.1 to 53.1)	49.6 (48.4 to 50.8)	51.7 (50.1 to 53.3)
2006	33.5 (32.2 to 34.8)	48.7 (47.2 to 50.1)	43.6 (42.5 to 44.7)	49.6 (48.1 to 51.2)
2007	32.5 (31.3 to 33.7)	46.4 (45 to 47.8)	40.1 (39.1 to 41.2)	46.7 (45.2 to 48.2)
2008	30.2 (29 to 31.4)	43.2 (41.9 to 44.5)	37.4 (36.4 to 38.4)	44.1 (42.7 to 45.6)
2009	28.5 (27.4 to 29.7)	38.1 (36.8 to 39.3)	35.5 (34.5 to 36.5)	40.2 (38.8 to 41.5)
2010	27.9 (26.8 to 29)	35.6 (34.4 to 36.8)	33.9 (32.9 to 34.8)	38.4 (37.1 to 39.7)
2011	47.7 (46.2 to 49.2)	60.7 (59.2 to 62.3)	55.5 (54.3 to 56.7)	72.6 (70.8 to 74.3)
2012	46.9 (45.4 to 48.3)	59.2 (57.6 to 60.7)	57 (55.8 to 58.2)	72.7 (71 to 74.5)
2013	8.5 (7.9 to 9.1)	10.5 (9.9 to 11.2)	9.6 (9.2 to 10.1)	12.6 (11.9 to 13.4)
2014	6.3 (5.8 to 6.8)	9.4 (8.8 to 10)	8.1 (7.7 to 8.6)	10.5 (9.9 to 11.2)
2015	6.5 (6 to 7)	9.5 (8.9 to 10.1)	9 (8.6 to 9.5)	11.3 (10.7 to 12)
2016	6.6 (6.1 to 7.2)	9.6 (9 to 10.2)	9 (8.5 to 9.4)	11 (10.3 to 11.6)
2017	7.3 (6.8 to 7.9)	10.7 (10.1 to 11.3)	9.2 (8.7 to 9.6)	12.2 (11.5 to 12.8)
2018	7.5 (7 to 8.1)	10.7 (10.1 to 11.3)	10.6(10.1 to 11.1)	11.9 (11.2 to 12.5)
2019	8 (7.4 to 8.5)	11.6 (11 to 12.3)	12 (11.6 to 12.5)	13.1 (12.5 to 13.8)
2020	8.4 (7.8 to 9)	13.2 (12.5 to 13.8)	14.3(13.8 to 14.8)	14 (13.3 to 14.7)
Total	23 (22.8 to 23.3)	31.4 (31.2 to 31.6)	28.3(28.1 to 28.5)	32.8 (32.6 to 33.1)

Supplemental Table 5: Race-Stratified Renal Failure and Essential Hypertension-related Age-Adjusted Mortality Rates per 100,000 in Older Adults in the United States, 1999 to 2020.

Year	White	Black	Asian or Pacific Islander	Hispanic	American Indian or Alaska Native
1999	10.9 (10.5 to 11.3)	25.4 (23.4 to 27.3)	19.0 (15.5 to 22.5)	13.3 (11.4 to 15.3)	37.6 (9.8 to 27.1)
2000	34.9 (34.2 to 35.5)	90.6 (87 to 94.2)	47.6 (42.4 to 52.9)	39.2 (36.0 to 42.4)	40.2 (29.5 to 53.5)
2001	36.7 (36.0 to 37.4)	94.6 (90.9 to 98.3)	43.5 (38.7 to 48.3)	44.4 (41.0 to 47.7)	40.6 (30.0 to 53.6)
2002	37.9 (37.2 to 38.6)	97.4 (93.7 to 101.1)	45.8 (41.0 to 50.6)	46.1 (42.8 to 49.5)	45.9 (34.5 to 59.9)
2003	40.3 (39.5 to 41.0)	95.2 (91.5 to 98.8)	50.2 (45.3 to 55.0)	45.1 (41.9 to 48.3)	43.4 (32.7 to 56.5)
2004	40.8 (40.1 to 41.5)	98.5 (94.8 to 102.2)	54.5 (49.6 to 59.4)	46.2 (43.0 to 49.4)	43.8 (33.1 to 56.9)
2005	42.6 (41.8 to 43.3)	99.9 (96.2 to 103.5)	45.7 (41.4 to 50.1)	47.6 (44.5 to 50.8)	56.0 (43.9 to 70.4)
2006	39.9 (39.2 to 40.6)	87.2 (83.8 to 90.6)	42.5 (38.4 to 46.5)	42.6 (39.7 to 45.5)	48.4 (37.2 to 61.8)
2007	37.6 (36.9 to 38.2)	79.9 (76.7 to 83.1)	44.8 (40.8 to 48.8)	40.7 (37.9 to 43.5)	42.3 (32.1 to 54.7)
2008	35.5 (34.8 to 36.1)	72.0 (69 to 75)	40.3 (36.6 to 44.0)	37.5 (34.9 to 40.0)	30.1 (22.0 to 40.3)
2009	33.0 (32.3 to 33.6)	62.7 (59.9 to 65.5)	36.2 (32.8 to 39.6)	35.0 (32.6 to 37.4)	26.8 (19.0 to 36.6)
2010	31.4 (30.8 to 31.9)	60.7 (58 to 63.4)	35.7 (32.4 to 39.1)	32.6 (30.4 to 34.9)	39.2 (30.0 to 50.3)

2011	52.2 (51.4 to 52.9)	117.0 (113.3 to 120.7)	61.9 (57.8 to 66.1)	62.4 (59.4 to 65.4)	62.9 (51.0 to 74.8)
2012	52.4 (51.6 to 53.1)	114.9 (111.3 to 118.5)	59.3 (55.4 to 63.2)	64.0 (61.0 to 66.9)	54.6 (43.7 to 65.5)
2013	9.4 (9.0 to 9.7)	17.4 (16 to 18.8)	11.9 (10.2 to 13.6)	11.0 (9.9 to 12.2)	12.0 (7.6 to 18.1)
2014	8.2 (7.9 to 8.5)	12.5 (11.3 to 13.6)	8.1 (6.8 to 9.5)	8.1 (7.1 to 9.1)	16.2 (11.1 to 22.7)
2015	8.7 (8.4 to 9.0)	13.7 (12.6 to 14.9)	7.6 (6.3 to 8.8)	9.3 (8.3 to 10.3)	9.5 (5.9 to 14.5)
2016	8.6 (8.3 to 8.9)	13.6 (12.5 to 14.8)	8.7 (7.4 to 10.0)	9.5 (8.5 to 10.5)	8.9 (5.5 to 13.7)
2017	9.5 (9.2 to 9.8)	14.2 (13 to 15.3)	8.4 (7.2 to 9.7)	9.4 (8.5 to 10.4)	13.8 (9.4 to 19.5)
2018	10.0 (9.7 to 10.3)	13.9 (12.7 to 15)	8.2 (7.0 to 9.4)	10.4 (9.4 to 11.4)	9.1 (5.9 to 13.3)
2019	10.9 (10.6 to 11.3)	17.8 (16.5 to 19)	7.8 (6.7 to 8.9)	10.9 (9.9 to 11.9)	11.3 (7.6 to 16.2)
2020	12.3 (12.0 to 12.7)	20.3 (18.9 to 21.6)	8.7 (7.5 to 9.8)	12.3 (11.2 to 13.3)	12.9 (9.1 to 17.7)
Total	26.5 (26.4 to 26.6)	54.7 (54.2 to 55.3)	25.8 (25.2 to 26.3)	26.6 (26.2 to 27.0)	27.4 (25.8 to 29.1)

Supplemental Table 6: Renal Failure and Essential Hypertension -related Age-Adjusted Mortality Rates per 100,000, Stratified by Urban-Rural Classification, in Older Adults in the United States, 1999 to 2020.

Year	Urban Age-Adjusted Rate (95% CI)	Rural Age-Adjusted Rate (95% CI)
1999	12.6(12.2 to 13.1)	11.3 (10.5 to 12.1)
2000	39.1(38.4 to 39.8)	42.8 (41.3 to 44.4)
2001	41.2(40.5 to 42)	44.3 (42.7 to 45.9)
2002	42.6(41.9 to 43.4)	45.6 (44 to 47.2)
2003	43.8(43 to 44.5)	51.5 (49.8 to 53.2)
2004	44.7(44 to 45.5)	52(50.3 to 53.7)
2005	45.8(45.1 to 46.6)	55.4(53.6 to 57.1)
2006	42.6(41.8 to 43.3)	50.1 (48.5 to 51.8)
2007	39.9(39.2 to 40.6)	48.3 (46.7 to 49.9)
2008	36.9(36.2 to 37.5)	47.1 (45.5 to 48.7)
2009	33.9(33.3 to 34.5)	43.8 (42.3 to 45.3)
2010	31.9(31.3 to 32.5)	44 (42.5 to 45.5)
2011	58.2(57.4 to 59)	61.9 (60.1 to 63.7)
2012	58.3(57.5 to 59.1)	61.6(59.9 to 63.4)
2013	10(9.7 to 10.3)	11.8 (11 to 12.5)
2014	8.3(8 to 8.5)	10.4 (9.7 to 11.1)
2015	8.7(8.4 to 9)	11.2 (10.5 to 12)
2016	8.9(8.6 to 9.2)	10.4(9.7 to 11.1)
2017	9.4(9.1 to 9.7)	11.9 (11.1 to 12.6)
2018	9.9(9.6 to 10.2)	12.3 (11.6 to 13.1)
2019	10.9(10.6 to 11.2)	14.1 (13.4 to 14.9)
2020	12.3(11.9 to 12.6)	16 (15.2 to 16.9)
Total	28(27.8 to 28.1)	33.4 (33.1 to 33.7)

Supplemental Table 7: Cardiomyopathy–related Age-Adjusted Mortality Rates per 100,000, Stratified by States in Adults aged ≥25 in the United States, 1999 to 2024

State	AAMR	Upper 95% CI	Lower 95% CI
Alabama	25.8	24.9	26.6
Alaska	22.7	19.7	25.7
Arizona	23.3	22.6	24
Arkansas	28.1	27	29.1
California	39.8	39.4	40.2
Colorado	22.6	21.8	23.5
Connecticut	16.8	16.1	17.6
Delaware	26.3	24.4	28.2
District of Columbia	39.5	36.4	42.5
Florida	18.5	18.2	18.8
Georgia	24.5	23.8	25.2
Hawaii	26.9	25.4	28.4
Idaho	26.2	24.7	27.7
Illinois	26.2	25.6	26.7
Indiana	31.9	31.1	32.7
Iowa	35.2	34.1	36.3
Kansas	22.2	21.2	23.1
Kentucky	28.3	27.4	29.2
Louisiana	22.5	21.6	23.3
Maine	24	22.6	25.4
Maryland	32.8	31.9	33.7
Massachusetts	16.6	16.1	17.2
Michigan	28.7	28.1	29.3
Minnesota	30.7	29.9	31.6
Mississippi	39.2	37.9	40.6
Missouri	28.6	27.8	29.3
Montana	19.8	18.3	21.3
Nebraska	34.8	33.3	36.3

Nevada	15.7	14.8	16.7
New Hampshire	26.9	25.3	28.5
New Jersey	22.7	22.1	23.2
New Mexico	18.1	17	19.2
New York	22.8	22.4	23.2
North Carolina	31.4	30.7	32.1
North Dakota	46.5	43.8	49.1
Ohio	41.3	40.7	42
Oklahoma	38.4	37.2	39.5
Oregon	31.9	30.9	32.9
Pennsylvania	26.3	25.8	26.8
Rhode Island	31.7	29.9	33.5
South Carolina	33.9	32.9	34.9
South Dakota	37.5	35.3	39.7
Tennessee	39.4	38.5	40.3
Texas	34.5	34	35
Utah	15.9	14.8	16.9
Vermont	39.8	37.1	42.6
Virginia	23.2	22.5	23.8
Washington	35.8	35	36.7
West Virginia	37.1	35.6	38.6
Wisconsin	26.9	26.2	27.6
Wyoming	19.3	17.1	21.5

Supplemental Table 8: Renal Failure and Essential Hypertension-related Mortality, Stratified by Place of Death, in Older Adults in the United States, 1999 to 2020

Deaths				
Year	Medical Facility	Nursing Home/Long-term Care Facility	Hospice Facility	Home
1999	2286	1229	-	640
2000	7143	4121	-	2238
2001	7628	4277	-	2420
2002	7606	4745	-	2585
2003	7865	5012	20	2886
2004	7805	5300	28	3072
2005	8025	5520	194	3338
2006	7313	5181	271	3345
2007	6907	4978	465	3268
2008	6394	4711	417	3156
2009	5701	4301	538	3143
2010	5619	4170	563	3211
2011	9303	7337	1188	6136
2012	9173	7350	1444	6653
2013	2233	1114	268	817
2014	1888	1031	260	688
2015	1955	1072	330	832
2016	1978	1037	368	853
2017	2004	1148	435	1066
2018	2125	1247	483	1187
2019	2248	1313	568	1562
2020	2257	1397	544	2282
Total	115456	77591	8384	55378