

***Supplementary Tables***

**Supplemental Table 1: Renal complications and related deaths among diabetic patients, Stratified by Sex and Race, in Older Adults in the United States, 1999 to 2020**

Deaths									
Year	Overall	Women	Men	White	Black or African American	Asian or Pacific Islander	American Indian or Alaska Native	Hispanic or Latino	Population
1999	2300	1263	1037	1625	368	64	29	210	140230363
2000	2570	1393	1177	1767	446	57	39	253	142092916
2001	2599	1383	1216	1807	395	78	45	263	144833606
2002	2618	1344	1274	1828	409	78	36	256	146858382
2003	2621	1331	1290	1844	393	70	38	273	148846634
2004	2806	1384	1422	1907	471	90	36	297	150938828
2005	3175	1525	1650	2122	572	114	35	326	153292737
2006	4759	2273	2486	3267	802	149	72	458	155624180
2007	6783	3288	3495	4681	1203	223	63	604	157690314
2008	8363	3968	4395	5817	1337	325	94	778	159587617
2009	10056	4742	5314	7065	1608	341	113	911	161383674
2010	12252	5908	6344	8629	1935	424	126	1121	162828035
2011	18854	9317	9537	12158	3401	647	305	2305	164802438
2012	18897	9263	9634	11767	3578	737	335	2437	166516716
2013	45253	21261	23992	29867	7579	1763	615	5340	168240727
2014	45794	21206	24588	30289	7559	1748	601	5488	170292776
2015	48255	22097	26158	31819	7864	1954	687	5772	172416615
2016	49933	22798	27135	32613	8287	1993	760	6140	173964174
2017	53296	24087	29209	34573	8902	2293	797	6606	176104659
2018	54006	24287	29719	35039	8908	2431	786	6727	177613416
2019	56648	25448	31200	37190	9156	2466	785	6933	179040846
2020	73966	32898	41068	46001	12930	3421	1145	10332	180565367
<b>Total</b>	<b>525,804</b>	<b>242,464</b>	<b>283,340</b>	<b>343,675</b>	<b>88,103</b>	<b>21,466</b>	<b>7,542</b>	<b>63,830</b>	<b>3,553,765,020</b>

NH, non-Hispanic.

**Supplemental Table 2: Renal complications and related deaths among diabetic patients, Stratified by Place of Death in Older Adults in the United States, 1999 to 2020**

<b>Deaths</b>				
<b>Year</b>	<b>Medical Facility</b>	<b>Nursing Home/Long-term Care Facility</b>	<b>Hospices</b>	<b>Home</b>
1999	1,258	496	-	479
2000	1,467	515	-	523
2001	1,428	503	-	587
2002	1,420	553	-	553
2003	1,331	555	-	641
2004	1,464	532	-	674
2005	1,571	634	63	796
2006	2,314	1015	108	1153
2007	3,134	1532	197	1666
2008	3,684	1917	238	2140
2009	4,154	2332	323	2673
2010	4,988	3006	435	3339
2011	7,361	4604	1077	5072
2012	7,086	4432	1274	5343
2013	18,669	9465	2379	12887
2014	18,787	9783	2692	13099
2015	19,599	9949	3101	14153
2016	19,614	10228	3339	15197
2017	20,212	10820	3544	16972
2018	20,336	10883	3436	17596
2019	20,845	11455	3775	18588
2020	28,449	12870	4088	25860
<b>Total</b>	<b>209,171</b>	<b>108,079</b>	<b>30,069</b>	<b>159,991</b>

**Supplemental Table 3: Annual percent change (APC) of Renal complications and related deaths among diabetic patients, related Age-Adjusted Mortality Rates per 100,000 in Older Adults in the United States, 1999 to 2020**

Year Interval	APC (95% CI)
<b>Overall</b>	
1999 to 2010	16.59 {(-33.79) - (165.42)}
2010 to 2013	55.08 (4.27 - 72.62)
2013 to 2018	1.56 {(-4.03) - (53.92)}
2018 to 2020	13.71 (3.95 - 20.90)
<b>Men</b>	
1999 to 2010	17.77 {(-36.74) - (99.34)}
2010 to 2013	48.95 {(-1.52) - (65.02)}
2013 to 2020	5.89 (1.02 - 16.18)
<b>Women</b>	
1999 to 2010	15.62 {(-25.63) - (27.41)}
2010 to 2013	52.10 (31.49 - 68.29)
2013 to 2020	2.60 (0.27 - 4.69)
<b>White</b>	
1999 to 2010	16.74 {(-40.94) - (35.73)}
2010 to 2013	51.76 (6.27 - 70.78)
2013 to 2020	4.42 (2.08 - 7.06)
<b>Black or African American</b>	
1999 to 2010	17.48 {(-16.02) - (26.89)}
2010 to 2013	47.73 (25.10 - 63.27)
2013 to 2020	3.91 (0.26 - 7.00)
<b>American Indian or Alaska Native</b>	
1999 to 2005	-2.79 {(-30.45) - (12.84)}
2005 to 2013	35.91 (29.51 - 55.89)
2013 to 2020	4.73 (1.78 - 7.60)
<b>Hispanic or Latino</b>	
1999 to 2009	11.18 {(-1.32) - (19.22)}
2009 to 2013	50.33 (28.09 - 70.14)

2013 to 2018	-0.47 {(-7.71) - (11.91)}
2018 to 2020	17.16 (5.35 - 26.04)
<b>Asian or Pacific Islander</b>	
1999 to 2010	16.85 {(-22.56) - (28.84)}
2010 to 2013	45.58 (2.88 - 60.93)
2013 to 2020	4.57 (0.79 - 9.22)
<b>Nonmetropolitann areas</b>	
1999 to 2009	14.80 {(-5.31) - (22.87)}
2009 to 2013	47.93 (34.62 - 67.98)
2013 to 2020	5.41 (2.46 - 8.19)
<b>Metropolitan area</b>	
1999 to 2010	16.23 {(-34.35) - (192.10)}
2010 to 2013	54.49 (1.78 - 72.14)
2013 to 2018	1.40 {(-4.32) - (55.78)}
2018 to 2020	13.48 (3.47 - 20.85)
<b>Northeast region</b>	
1999 to 2010	17.81 {(-10.94) - (27.34)}
2010 to 2013	54.96 (35.52 - 70.04)
2013 to 2020	2.87 {(-0.04) - (5.33)}
<b>Midwest region</b>	
1999 to 2010	17.25 {(-2.75) - (24.35)}
2010 to 2013	48.26 (30.72 - 58.23)
2013 to 2020	5.05 (1.79 - 7.73)
<b>South region</b>	
1999 to 2010	17.07 {(-27.56) - (31.26)}
2010 to 2013	47.22 (4.83 - 60.98)
2013 to 2020	5.78 (1.79 - 10.64)
<b>West region</b>	
1999 to 2010	17.73 {(-7.25) - (25.29)}
2010 to 2013	47.74 (28.67 - 57.79)
2013 to 2020	4.78 (1.65 - 7.51)

APC = annual percent change; N.H. = non-Hispanic; \* Indicates that the annual percentage change (APC) is significantly different from zero at  $\alpha = 0.05$ . AAMR = age-adjusted mortality rate.

**Supplemental Table 4: Overall and Sex-Stratified Renal complications and related deaths among diabetic patients, related Age-Adjusted Mortality Rates per 10,000 in Older Adults in the United States, 1999 to 2020**

Age-Adjusted Rate (95% CI)			
Year	Men	Women	Overall
1999	1.8 (1.7-1.9)	1.6 (1.5-1.7)	1.6 (1.6-1.7)
2000	2.0 (1.9-2.1)	1.7 (1.6-1.8)	1.8 (1.8-1.9)
2001	2.0 (1.9-2.1)	1.7 (1.6-1.8)	1.8 (1.7-1.9)
2002	2.1 (1.9-2.2)	1.6 (1.5-1.7)	1.8 (1.7-1.9)
2003	2.0 (1.9-2.1)	1.6 (1.5-1.7)	1.7 (1.7-1.8)
2004	2.2 (2.1-2.3)	1.6 (1.5-1.7)	1.8 (1.8-1.9)
2005	2.5 (2.4-2.6)	1.7 (1.6-1.8)	2.0 (2.0-2.1)
2006	3.8 (3.6-3.9)	2.5 (2.4-2.6)	3.0 (2.9-3.1)
2007	5.3 (5.1-5.5)	3.6 (3.4-3.7)	4.3 (4.2-4.4)
2008	6.5 (6.3-6.7)	4.2 (4-4.3)	5.1 (5.0-5.3)
2009	7.7 (7.5-7.9)	4.9 (4.8-5)	6.1 (6.0-6.2)
2010	9.2 (9.0-9.4)	6 (5.8-6.1)	7.3 (7.2-7.4)
2011	12.8 (12.6-13.1)	9.5 (9.3-9.6)	10.9 (10.7-11.0)
2012	12.6 (12.4-12.9)	9.2 (9-9.4)	10.7 (10.5-10.8)
2013	30.8 (30.4-31.2)	20.5 (20.2-20.8)	24.9 (24.7-25.1)
2014	30.8 (30.4-31.1)	20.1 (19.8-20.3)	24.6 (24.4-24.8)
2015	31.8 (31.4-32.2)	20.5 (20.2-20.7)	25.3 (25.1-25.6)
2016	32.3 (31.9-32.7)	20.7 (20.5-21)	25.7 (25.4-25.9)
2017	33.8 (33.4-34.2)	21.5 (21.2-21.7)	26.8 (26.5-27.0)
2018	33.5 (33.1-33.9)	21.2 (20.9-21.4)	26.5 (26.3-26.7)
2019	34.4 (34.0-34.8)	21.7 (21.4-22)	27.2 (27.0-27.4)
2020	44.2 (43.8-44.7)	27.6 (27.3-27.9)	34.9 (34.6-35.1)
Total	17.8 (17.7-17.9)	11.2 (11.1-11.2)	13.9 (13.9-13.9)

**Supplemental Table 5 Race stratified Renal complications and related deaths among diabetic patients –related Age-Adjusted Mortality Rates per 10,000 in Older Adults in the United States, 1999 to 2020**

<b>Age-Adjusted Rate (95% CI)</b>					
<b>Year</b>	<b>White</b>	<b>Black or African American</b>	<b>American Indian or Alaska Native</b>	<b>Hispanic or Latino</b>	<b>Asian or Pacific Islander</b>
1999	1.4 (1.4-1.5)	3.0 (2.7-3.3)	4.7 (3.1-6.9)	2.9 (2.5-3.3)	2.1 (1.6-2.7)
2000	1.5 (1.4-1.6)	3.6 (3.2-3.9)	5.3 (3.7-7.3)	3.3 (2.9-3.7)	1.5 (1.1-2.0)
2001	1.5 (1.4-1.6)	3.1 (2.8-3.4)	6.0 (4.3-8.1)	3.1 (2.7-3.4)	2.0 (1.6-2.5)
2002	1.5 (1.4-1.6)	3.1 (2.8-3.4)	5.0 (3.4-7.1)	3.0 (2.6-3.4)	1.8 (1.4-2.2)
2003	1.5 (1.4-1.6)	2.9 (2.6-3.2)	4.5 (3.1-6.3)	3.0 (2.6-3.4)	1.6 (1.3-2.1)
2004	1.6 (1.5-1.6)	3.5 (3.2-3.8)	4.4 (3.1-6.2)	3.2 (2.8-3.5)	1.9 (1.5-2.4)
2005	1.7 (1.6-1.8)	4.1 (3.8-4.5)	4.2 (2.9-6.0)	3.2 (2.9-3.6)	2.3 (1.8-2.7)
2006	2.6 (2.5-2.6)	5.8 (5.4-6.2)	8.8 (6.8-11.2)	4.4 (4.0-4.8)	3.0 (2.5-3.5)
2007	3.6 (3.5-3.7)	8.6 (8.1-9.1)	9.1 (6.9-11.9)	5.8 (5.3-6.3)	4.3 (3.8-4.9)
2008	4.4 (4.3-4.5)	9.3 (8.8-9.9)	10.9 (8.7-13.5)	7.2 (6.6-7.7)	6.0 (5.4-6.7)
2009	5.3 (5.2-5.4)	11.0 (10.5-11.6)	14.1 (11.3-16.8)	8.1 (7.6-8.7)	6.1 (5.5-6.8)
2010	6.4 (6.3-6.5)	13.0 (12.4-13.6)	15.5 (12.6-18.3)	9.7 (9.1-10.3)	7.4 (6.7-8.2)
2011	8.9 (8.8-9.1)	21.5 (20.7-22.2)	32.0 (28.2-35.8)	17.2 (16.4-17.9)	10.1 (9.3-10.9)
2012	8.4 (8.3-8.6)	21.8 (21.1-22.5)	33.4 (29.6-37.2)	17.5 (16.7-18.2)	10.7 (9.9-11.5)
2013	21.0 (20.7-21.2)	44.8 (43.8-45.8)	58.7 (53.8-63.6)	36.4 (35.4-37.4)	24.1 (23.0-25.3)
2014	21.0 (20.7-21.2)	43.2 (42.2-44.2)	54.9 (50.3-59.5)	35.1 (34.1-36.1)	22.2 (21.2-23.3)
2015	21.6 (21.4-21.9)	43.6 (42.6-44.6)	59.0 (54.4-63.6)	34.9 (33.9-35.8)	23.4 (22.4-24.5)
2016	21.8 (21.6-22.1)	44.5 (43.6-45.5)	64.5 (59.7-69.3)	35.3 (34.4-36.2)	22.7 (21.6-23.7)
2017	22.7 (22.5-23.0)	46.2 (45.3-47.2)	65.1 (60.4-69.8)	36.2 (35.3-37.1)	24.5 (23.4-25.5)
2018	22.6 (22.4-22.8)	45.0 (44.0-46.0)	61.6 (57.1-66.0)	35.3 (34.4-36.1)	24.9 (23.9-25.9)
2019	23.5 (23.3-23.8)	45.0 (44.1-45.9)	59.3 (55.0-63.6)	34.9 (34.0-35.7)	23.9 (23.0-24.9)
2020	28.8 (28.5-29.1)	61.9 (60.8-62.9)	82.5 (77.5-87.4)	49.6 (48.6-50.5)	31.6 (30.6-32.7)
<b>Total</b>	11.4 (11.4-11.5)	25.5 (25.3-25.7)	36.1 (35.2-36.9)	22.5 (22.4-22.7)	15.4 (15.2-15.6)

N.H. = non-Hispanic.

**Supplemental Table 6: Renal complications and related deaths among diabetic patients related Age-Adjusted Mortality Rates per 10,000, Stratified by States in Older Adults in the United States, 1999 to 2020**

<b>State</b>	<b>Age-Adjusted Rate (95% CI)</b>
Alabama	10.5 (10.3-10.8)
Alaska	12.8 (11.8-13.9)
Arizona	11.6 (11.3-11.8)
Arkansas	12.7 (12.3-13.0)
California	15.1 (15.0-15.3)
Colorado	13.8 (13.5-14.2)
Connecticut	7.0 (6.8-7.3)
Delaware	12.3 (11.6-12.9)
District of Columbia	12.7 (11.9-13.6)
Florida	10.1 (9.9-10.2)
Georgia	11.0 (10.8-11.2)
Hawaii	14.4 (13.8-14.9)
Idaho	15.9 (15.3-16.5)
Illinois	10.3 (10.2-10.5)
Indiana	16.3 (16.0-16.6)
Iowa	16.2 (15.8-16.6)
Kansas	11.8 (11.5-12.2)
Kentucky	20.1 (19.7-20.5)
Louisiana	12.9 (12.6-13.2)
Maine	12.7 (12.2-13.2)
Maryland	12.9 (12.7-13.2)
Massachusetts	7.8 (7.7-8.0)
Michigan	12.3 (12.1-12.5)
Minnesota	18.6 (18.3-19.0)
Mississippi	17.5 (17.0-17.9)

Missouri	11.8 (11.5-12.0)
Montana	13.0 (12.4-13.6)
Nebraska	17.3 (16.8-17.9)
Nevada	8.7 (8.4-9.1)
New Hampshire	12.7 (12.1-13.2)
New Jersey	9.0 (8.8-9.2)
New Mexico	12.3 (11.7-12.8)
New York	8.3 (8.1-8.4)
North Carolina	15.1 (14.8-15.3)
North Dakota	16.0 (15.2-16.8)
Ohio	15.9 (15.7-16.1)
Oklahoma	21.2 (20.8-21.7)
Oregon	18.8 (18.4-19.2)
Pennsylvania	12.3 (12.1-12.4)
Rhode Island	11.8 (11.2-12.3)
South Carolina	16.2 (15.8-16.5)
South Dakota	19.2 (18.4-20.0)
Tennessee	16.0 (15.7-16.3)
Texas	14.1 (14.0-14.3)
Utah	14.7 (14.2-15.2)
Vermont	15.0 (14.2-15.8)
Virginia	11.8 (11.6-12.0)
Washington	17.3 (17.0-17.6)
West Virginia	18.6 (18.0-19.1)
Wisconsin	15.8 (15.5-16.1)
Wyoming	12.7 (11.9-13.6)



**Supplemental Table 7: Renal complications and related deaths among diabetic patients–related Age-Adjusted Mortality Rates per 10,000, Stratified by Census Region in Older Adults in the United States, 1999 to 2020**

<b>Census Region</b>	<b>Year</b>	<b>Age-Adjusted Rate (95% CI)</b>
Northeast	1999	1.2 (1.1-1.3)
Northeast	2000	1.3 (1.2-1.5)
Northeast	2001	1.3 (1.2-1.4)
Northeast	2002	1.3 (1.2-1.4)
Northeast	2003	1.2 (1.1-1.4)
Northeast	2004	1.3 (1.2-1.4)
Northeast	2005	1.4 (1.3-1.5)
Northeast	2006	2.0 (1.8-2.1)
Northeast	2007	2.9 (2.7-3.1)
Northeast	2008	3.4 (3.2-3.6)
Northeast	2009	4.1 (3.9-4.4)
Northeast	2010	5.3 (5.1-5.6)
Northeast	2011	8.2 (7.9-8.5)
Northeast	2012	7.8 (7.5-8.1)
Northeast	2013	19.2 (18.7-19.6)
Northeast	2014	19.2 (18.7-19.6)
Northeast	2015	19.3 (18.8-19.7)
Northeast	2016	19.0 (18.6-19.5)
Northeast	2017	18.9 (18.5-19.4)
Northeast	2018	19.5 (19.0-20.0)
Northeast	2019	19.8 (19.4-20.3)
Northeast	2020	26.2 (25.7-26.7)
Northeast	<b>Total</b>	9.9 (9.8-10.0)
Midwest	1999	1.8 (1.7-2.0)
Midwest	2000	2.0 (1.8-2.1)

Midwest	2001	2.0 (1.8-2.1)
Midwest	2002	2.0 (1.8-2.1)
Midwest	2003	1.8 (1.6-1.9)
Midwest	2004	1.9 (1.7-2.0)
Midwest	2005	2.3 (2.1-2.4)
Midwest	2006	3.3 (3.1-3.5)
Midwest	2007	4.4 (4.2-4.7)
Midwest	2008	5.6 (5.4-5.9)
Midwest	2009	6.5 (6.2-6.7)
Midwest	2010	7.7 (7.4-8.0)
Midwest	2011	11.5 (11.2-11.9)
Midwest	2012	11.0 (10.7-11.3)
Midwest	2013	26.2 (25.7-26.7)
Midwest	2014	26.6 (26.1-27.1)
Midwest	2015	27.0 (26.5-27.5)
Midwest	2016	26.7 (26.2-27.2)
Midwest	2017	28.6 (28.0-29.1)
Midwest	2018	28.0 (27.5-28.5)
Midwest	2019	28.9 (28.4-29.4)
Midwest	2020	37.0 (36.4-37.6)
Midwest	<b>Total</b>	14.4 (14.3-14.4)
South	1999	1.7 (1.6-1.9)
South	2000	1.8 (1.7-1.9)
South	2001	1.8 (1.7-1.9)
South	2002	1.8 (1.7-1.9)
South	2003	1.8 (1.7-1.9)
South	2004	2.0 (1.9-2.1)
South	2005	2.1 (2.0-2.2)
South	2006	3.1 (3.0-3.3)
South	2007	4.4 (4.2-4.6)
South	2008	5.0 (4.9-5.2)
South	2009	6.2 (6.0-6.4)
South	2010	7.1 (6.9-7.3)

South	2011	11.1 (10.8-11.3)
South	2012	10.9 (10.6-11.1)
South	2013	24.7 (24.4-25.1)
South	2014	23.9 (23.6-24.3)
South	2015	24.7 (24.3-25.1)
South	2016	25.6 (25.3-26.0)
South	2017	26.5 (26.1-26.9)
South	2018	26.3 (25.9-26.7)
South	2019	27.2 (26.8-27.5)
South	2020	35.1 (34.7-35.5)
South	<b>Total</b>	14.1 (14.0-14.2)
West	1999	1.7 (1.5-1.8)
West	2000	2.2 (2.0-2.3)
West	2001	2.1 (2.0-2.3)
West	2002	2.0 (1.8-2.1)
West	2003	2.1 (2.0-2.3)
West	2004	2.2 (2.0-2.4)
West	2005	2.4 (2.2-2.5)
West	2006	3.7 (3.5-3.9)
West	2007	5.1 (4.8-5.3)
West	2008	6.4 (6.1-6.7)
West	2009	7.2 (6.9-7.5)
West	2010	9.0 (8.7-9.3)
West	2011	12.4 (12.0-12.7)
West	2012	12.4 (12.0-12.7)
West	2013	28.6 (28.1-29.2)
West	2014	28.4 (27.9-28.9)
West	2015	29.7 (29.1-30.2)
West	2016	30.2 (29.6-30.7)
West	2017	31.8 (31.3-32.4)
West	2018	31.0 (30.5-31.5)
West	2019	31.5 (31.0-32.0)
West	2020	39.3 (38.7-39.8)

West	<b>Total</b>	16.6 (16.5-16.7)
<b>Total</b>		13.9 (13.9-13.9)
<b>Supplemental Table 8: Renal complications and related deaths among diabetic patients-related Age-Adjusted Mortality Rates per 10,000, Stratified by Urban-Rural Classification in Older Adults in the United States, 1999 to 2020</b>		
<b>Age-Adjusted Rate (95% CI)</b>		
<b>Year</b>	<b>Metropolitan</b>	<b>Nonmetropolitann</b>
1999	1.6 (1.5-1.6)	1.9 (1.8-2.1)
2000	1.8 (1.7-1.8)	2.0 (1.8-2.2)
2001	1.7 (1.7-1.8)	2.0 (1.9-2.2)
2002	1.7 (1.6-1.8)	2.1 (1.9-2.3)
2003	1.7 (1.6-1.8)	2.0 (1.8-2.2)
2004	1.8 (1.7-1.9)	2.1 (1.9-2.3)
2005	2.0 (1.9-2.1)	2.3 (2.1-2.5)
2006	3.0 (2.9-3.1)	3.2 (3.0-3.5)
2007	4.2 (4.1-4.3)	4.3 (4.1-4.6)
2008	5.2 (5.1-5.3)	5.0 (4.7-5.2)
2009	6.0 (5.9-6.2)	6.2 (5.9-6.4)
2010	7.1 (7.0-7.3)	7.9 (7.5-8.2)
2011	10.4 (10.2-10.6)	13.3 (12.8-13.7)
2012	10.2 (10.1-10.4)	12.7 (12.3-13.1)
2013	23.9 (23.7-24.2)	29.4 (28.8-30.0)
2014	23.7 (23.5-24.0)	29.2 (28.6-29.8)
2015	24.3 (24.1-24.6)	30.2 (29.5-30.8)
2016	24.6 (24.4-24.9)	30.9 (30.3-31.6)
2017	25.6 (25.3-25.8)	32.6 (32.0-33.2)
2018	25.3 (25.0-25.5)	32.5 (31.9-33.2)
2019	25.8 (25.6-26.0)	34.5 (33.8-35.1)
2020	33.2 (33.0-33.5)	43.1 (42.4-43.8)
Total	13.5 (13.4-13.5)	16.0 (15.9-16.1)