

Supplementary Table 6. Changes in type 2 diabetes mellitus related chronic kidney disease incidents according to population-level determinants of aging, population growth, and epidemiological change from 1992 to 2021 for both sexes in 204 countries

Region	Country	Overall difference	No. of person			Percent change due to		
			Aging	Population growth	Epidemiological change	Aging, %	Population growth, %	Epidemiological change, %
High SDI	Andorra	19.16	10.80	8.86	-0.50	56.38	46.25	-2.63
High SDI	Australia	8,339.96	3,001.79	4,131.51	1,206.66	35.99	49.54	14.47
High SDI	Austria	2,268.91	782.53	671.63	814.75	34.49	29.60	35.91
High SDI	Belgium	1,939.73	1,036.46	744.42	158.85	53.43	38.38	8.19
High SDI	Bermuda	29.68	13.69	3.45	12.54	46.13	11.64	42.24
High SDI	Canada	10,364.67	5,134.88	4,393.93	835.86	49.54	42.39	8.06
High SDI	Cyprus	410.84	106.69	285.59	18.56	25.97	69.51	4.52
High SDI	Czechia	2,936.20	1,043.56	269.05	1,623.59	35.54	9.16	55.30
High SDI	Denmark	1,304.29	544.75	304.83	454.70	41.77	23.37	34.86
High SDI	Estonia	297.76	84.65	-33.31	246.42	28.43	-11.19	82.76
High SDI	Finland	1,189.69	736.85	240.83	212.01	61.94	20.24	17.82
High SDI	France	13,498.92	7,632.18	4,128.47	1,738.27	56.54	30.58	12.88
High SDI	Germany	21,373.37	12,862.40	3,515.69	4,995.28	60.18	16.45	23.37
High SDI	Greenland	10.61	6.88	0.90	2.83	64.83	8.50	26.68
High SDI	Iceland	61.86	24.75	31.32	5.79	40.01	50.63	9.36
High SDI	Ireland	753.80	331.41	596.18	-173.80	43.97	79.09	-23.06
High SDI	Japan	50,559.71	41,188.55	5,487.54	3,883.62	81.47	10.85	7.68
High SDI	Kuwait	1,062.85	230.62	682.31	149.93	21.70	64.20	14.11
High SDI	Latvia	244.90	115.49	-120.40	249.82	47.16	-49.16	102.01
High SDI	Lithuania	273.58	183.62	-117.58	207.54	67.12	-42.98	75.86
High SDI	Luxembourg	140.50	13.88	108.28	18.35	9.88	77.06	13.06
High SDI	Monaco	6.93	1.78	3.56	1.59	25.65	51.38	22.97
High SDI	Netherlands	4,414.73	2,520.54	1,068.65	825.55	57.09	24.21	18.70
High SDI	New Zealand	1,535.05	479.44	809.07	246.54	31.23	52.71	16.06
High SDI	Norway	795.00	127.86	436.82	230.33	16.08	54.95	28.97
High SDI	Poland	6,393.20	3,869.03	1,226.97	1,297.19	60.52	19.19	20.29
High SDI	Puerto Rico	1,340.67	675.45	86.16	579.05	50.38	6.43	43.19
High SDI	Qatar	538.26	45.00	401.25	92.01	8.36	74.55	17.09
High SDI	Republic of Korea	17,642.60	11,649.32	4,253.02	1,740.25	66.03	24.11	9.86
High SDI	San Marino	7.77	3.53	3.60	0.64	45.39	46.37	8.23
High SDI	Saudi Arabia	9,186.85	733.14	6,000.83	2,452.88	7.98	65.32	26.70
High SDI	Singapore	2,132.66	967.06	950.03	215.56	45.35	44.55	10.11
High SDI	Slovenia	660.44	257.79	65.18	337.46	39.03	9.87	51.10
High SDI	Sweden	1,086.20	448.94	618.81	18.45	41.33	56.97	1.70
High SDI	Switzerland	2,206.49	843.64	1,002.59	360.25	38.23	45.44	16.33
High SDI	Taiwan (Province of China)	8,505.72	5,188.90	2,551.32	765.50	61.00	30.00	9.00
High SDI	United Arab Emirates	2,792.28	758.61	1,692.98	340.69	27.17	60.63	12.20
High SDI	United Kingdom	8,546.09	3,453.42	4,806.33	286.34	40.41	56.24	3.35

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Supplementary Table 6. Continued

Region		Overall difference	No. of person			Percent change due to		
Quintil	Country		Aging	Population growth	Epidemiological change	Aging, %	Population growth, %	Epidemiological change, %
High SDI	United States of America	95,158.62	39,615.92	43,935.03	11,607.68	41.63	46.17	12.20
High SDI	United States Virgin Islands	35.50	23.26	-1.45	13.70	65.51	-4.10	38.58
High-middle SDI	American Samoa	9.64	5.40	1.26	2.98	56.01	13.12	30.88
High-middle SDI	Antigua and Barbuda	27.15	6.60	11.46	9.09	24.31	42.20	33.49
High-middle SDI	Argentina	8,224.29	1,322.06	4,478.57	2,423.66	16.08	54.46	29.47
High-middle SDI	Bahamas	91.01	30.42	35.35	25.24	33.42	38.84	27.74
High-middle SDI	Bahrain	451.06	105.34	253.68	92.05	23.35	56.24	20.41
High-middle SDI	Barbados	101.52	34.68	26.52	40.32	34.16	26.12	39.72
High-middle SDI	Belarus	894.57	312.52	-67.08	649.12	34.94	-7.50	72.56
High-middle SDI	Bosnia and Herzegovina	929.03	518.35	-201.17	611.84	55.80	-21.65	65.86
High-middle SDI	Brunei Darussalam	84.64	35.04	44.84	4.76	41.39	52.98	5.63
High-middle SDI	Bulgaria	1,366.92	571.43	-429.52	1,225.02	41.80	-31.42	89.62
High-middle SDI	Chile	6,304.83	2,217.25	2,216.86	1,870.71	35.17	35.16	29.67
High-middle SDI	China	226,129.64	140,241.08	61,759.96	24,128.59	62.02	27.31	10.67
High-middle SDI	Cook Islands	4.91	2.51	0.50	1.91	51.06	10.17	38.77
High-middle SDI	Croatia	1,342.00	592.60	-115.81	865.21	44.16	-8.63	64.47
High-middle SDI	Dominica	13.08	5.21	2.41	5.45	39.85	18.44	41.71
High-middle SDI	Georgia	308.62	174.88	-281.54	415.29	56.66	-91.22	134.56
High-middle SDI	Greece	1,729.04	1,987.68	121.56	-380.20	114.96	7.03	-21.99
High-middle SDI	Guam	36.79	20.08	7.01	9.69	54.59	19.06	26.35
High-middle SDI	Hungary	2,733.23	760.91	-50.78	2,023.09	27.84	-1.86	74.02
High-middle SDI	Israel	2,429.91	522.68	1,678.60	228.63	21.51	69.08	9.41
High-middle SDI	Italy	10,957.73	8,824.43	2,208.14	-74.84	80.53	20.15	-0.68
High-middle SDI	Jordan	3,284.93	590.29	2,006.21	688.43	17.97	61.07	20.96
High-middle SDI	Kazakhstan	2,055.25	346.82	403.53	1,304.91	16.87	19.63	63.49
High-middle SDI	Lebanon	1,933.31	229.37	1,067.55	636.40	11.86	55.22	32.92
High-middle SDI	Libya	1,668.55	306.14	941.14	421.27	18.35	56.40	25.25
High-middle SDI	Malaysia	5,946.34	1,584.04	2,890.62	1,471.68	26.64	48.61	24.75
High-middle SDI	Malta	159.42	103.06	50.38	5.98	64.64	31.60	3.75
High-middle SDI	Mauritius	572.95	253.44	132.88	186.63	44.23	23.19	32.57
High-middle SDI	Montenegro	159.04	71.36	14.45	73.22	44.87	9.09	46.04
High-middle SDI	Niue	0.19	0.10	-0.08	0.18	48.74	-39.91	91.17
High-middle SDI	North Macedonia	668.01	197.56	127.08	343.38	29.57	19.02	51.40
High-middle SDI	Northern Mariana Islands	14.24	10.38	0.80	3.06	72.89	5.65	21.46
High-middle SDI	Oman	685.84	8.26	454.43	223.15	1.20	66.26	32.54
High-middle SDI	Palau	6.18	2.77	1.29	2.11	44.92	20.92	34.17

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Supplementary Table 6. Continued

Region		Overall difference	No. of person			Percent change due to		
Quintil	Country		Aging	Population growth	Epidemiological change	Aging, %	Population growth, %	Epidemiological change, %
High-middle SDI	Portugal	2,786.11	1,804.69	575.65	405.77	64.77	20.66	14.56
High-middle SDI	Republic of Moldova	333.86	132.89	-23.98	224.94	39.81	-7.18	67.38
High-middle SDI	Romania	4,430.47	1,773.30	-685.32	3,342.49	40.03	-15.47	75.44
High-middle SDI	Russian Federation	21,872.34	5,655.43	260.20	15,956.72	25.86	1.19	72.95
High-middle SDI	Saint Kitts and Nevis	18.19	3.19	8.79	6.21	17.53	48.33	34.14
High-middle SDI	Serbia	2,475.60	781.88	6.23	1,687.49	31.58	0.25	68.17
High-middle SDI	Seychelles	25.94	6.55	11.58	7.81	25.24	44.64	30.13
High-middle SDI	Slovakia	1,313.83	475.06	188.82	649.94	36.16	14.37	49.47
High-middle SDI	Spain	9,135.59	5,383.36	3,949.55	-197.32	58.93	43.23	-2.16
High-middle SDI	Trinidad and Tobago	437.25	167.02	108.31	161.92	38.20	24.77	37.03
High-middle SDI	Turkey	32,386.71	9,717.41	10,829.85	11,839.45	30.00	33.44	36.56
High-middle SDI	Ukraine	2,504.76	1,096.02	-784.00	2,192.74	43.76	-31.30	87.54
High-middle SDI	Uruguay	518.31	160.84	162.90	194.57	31.03	31.43	37.54
Middle SDI	Albania	656.56	372.91	1.79	281.86	56.80	0.27	42.93
Middle SDI	Algeria	11,734.93	2,616.16	5,656.08	3,462.69	22.29	48.20	29.51
Middle SDI	Armenia	508.90	180.06	3.14	325.71	35.38	0.62	64.00
Middle SDI	Azerbaijan	1,534.74	295.13	538.01	701.60	19.23	35.06	45.71
Middle SDI	Botswana	223.98	26.50	141.37	56.10	11.83	63.12	25.05
Middle SDI	Brazil	45,241.05	16,243.67	19,689.94	9,307.43	35.90	43.52	20.57
Middle SDI	Colombia	13,303.32	4,787.95	5,502.61	3,012.76	35.99	41.36	22.65
Middle SDI	Costa Rica	1,698.02	774.42	959.45	-35.85	45.61	56.50	-2.11
Middle SDI	Cuba	3,633.11	1,469.59	344.85	1,818.67	40.45	9.49	50.06
Middle SDI	Dominican Republic	1,792.61	455.79	690.52	646.29	25.43	38.52	36.05
Middle SDI	Ecuador	4,851.11	1,093.55	1,962.65	1,794.91	22.54	40.46	37.00
Middle SDI	Equatorial Guinea	63.98	-21.09	58.71	26.36	-32.96	91.76	41.21
Middle SDI	Fiji	129.79	60.08	39.37	30.34	46.29	30.34	23.37
Middle SDI	Gabon	119.01	-11.38	80.96	49.43	-9.56	68.03	41.53
Middle SDI	Grenada	27.68	5.65	10.16	11.87	20.41	36.71	42.87
Middle SDI	Guyana	122.55	52.43	15.41	54.71	42.78	12.58	44.64
Middle SDI	Indonesia	29,804.40	8,276.63	13,665.16	7,862.61	27.77	45.85	26.38
Middle SDI	Iran (Islamic Republic of)	23,350.07	6,819.61	11,927.26	4,603.21	29.21	51.08	19.71
Middle SDI	Iraq	8,744.80	996.23	5,583.63	2,164.94	11.39	63.85	24.76
Middle SDI	Jamaica	510.05	119.94	205.04	185.06	23.52	40.20	36.28
Middle SDI	Maldives	84.13	1.53	60.20	22.40	1.81	71.56	26.63
Middle SDI	Mexico	45,757.84	14,948.67	18,692.63	12,116.53	32.67	40.85	26.48
Middle SDI	Nauru	0.56	0.07	0.17	0.32	12.62	30.65	56.73

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Supplementary Table 6. Continued

Region		Overall difference	No. of person			Percent change due to		
Quintil	Country		Aging	Population growth	Epidemiological change	Aging, %	Population growth, %	Epidemiological change, %
Middle SDI	Palestine	889.82	11.19	653.78	224.85	1.26	73.47	25.27
Middle SDI	Panama	1,220.15	321.58	573.66	324.91	26.36	47.02	26.63
Middle SDI	Paraguay	1,360.12	205.98	731.31	422.83	15.14	53.77	31.09
Middle SDI	Peru	7,640.68	1,620.91	3,057.45	2,962.32	21.21	40.02	38.77
Middle SDI	Philippines	16,250.35	3,669.43	8,381.10	4,199.81	22.58	51.57	25.84
Middle SDI	Saint Lucia	56.31	19.19	21.16	15.95	34.08	37.58	28.33
Middle SDI	Saint Vincent and the Grenadines	27.77	11.52	6.35	9.91	41.46	22.87	35.67
Middle SDI	South Africa	7,580.79	1,729.55	3,635.65	2,215.59	22.81	47.96	29.23
Middle SDI	Sri Lanka	5,841.56	2,462.00	1,688.65	1,690.90	42.15	28.91	28.95
Middle SDI	Suriname	141.32	39.55	56.11	45.66	27.99	39.71	32.31
Middle SDI	Syrian Arab Republic	4,248.51	1,893.57	1,159.70	1,195.25	44.57	27.30	28.13
Middle SDI	Thailand	25,712.13	13,535.22	5,949.93	6,226.98	52.64	23.14	24.22
Middle SDI	Tokelau	0.14	0.02	0.01	0.11	13.66	3.63	82.71
Middle SDI	Tonga	9.54	2.52	2.38	4.64	26.40	24.98	48.63
Middle SDI	Tunisia	4,256.01	1,355.86	1,591.26	1,308.89	31.86	37.39	30.75
Middle SDI	Turkmenistan	438.85	105.44	174.95	158.46	24.03	39.87	36.11
Middle SDI	Uzbekistan	3,561.12	739.40	1,835.32	986.40	20.76	51.54	27.70
Middle SDI	Viet Nam	15,608.91	3,865.11	6,353.12	5,390.68	24.76	40.70	34.54
Low-middle SDI	Angola	1,108.06	-1.61	839.00	270.67	-0.15	75.72	24.43
Low-middle SDI	Bangladesh	13,834.37	4,404.90	6,130.00	3,299.46	31.84	44.31	23.85
Low-middle SDI	Belize	75.38	8.59	47.38	19.41	11.40	62.85	25.75
Low-middle SDI	Bhutan	76.61	26.35	26.28	23.98	34.39	34.30	31.30
Low-middle SDI	Bolivia (Plurinational State of)	1,858.29	355.53	1,001.71	501.05	19.13	53.90	26.96
Low-middle SDI	Cabo Verde	48.11	-5.02	33.16	19.97	-10.44	68.92	41.52
Low-middle SDI	Cambodia	1,658.02	355.80	839.46	462.75	21.46	50.63	27.91
Low-middle SDI	Cameroon	2,124.72	-243.38	1,873.92	494.17	-11.45	88.20	23.26
Low-middle SDI	Comoros	38.00	7.83	23.60	6.57	20.61	62.11	17.28
Low-middle SDI	Congo	274.61	1.93	192.50	80.18	0.70	70.10	29.20
Low-middle SDI	Democratic People's Republic of Korea	3,558.06	1,184.29	1,383.24	990.53	33.28	38.88	27.84
Low-middle SDI	Djibouti	65.44	15.69	39.42	10.33	23.97	60.24	15.78
Low-middle SDI	Egypt	21,632.99	2,795.08	11,293.71	7,544.20	12.92	52.21	34.87
Low-middle SDI	El Salvador	1,632.73	406.37	496.04	730.33	24.89	30.38	44.73
Low-middle SDI	Eswatini	70.61	11.78	44.90	13.92	16.69	63.60	19.71
Low-middle SDI	Ghana	1,929.87	61.23	1,375.88	492.75	3.17	71.29	25.53
Low-middle SDI	Guatemala	3,377.42	498.71	1,923.40	955.31	14.77	56.95	28.29
Low-middle SDI	Honduras	1,576.51	175.74	1,079.97	320.79	11.15	68.50	20.35

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Supplementary Table 6. Continued

Region		Overall difference	No. of person			Percent change due to		
Quintil	Country		Aging	Population growth	Epidemiological change	Aging, %	Population growth, %	Epidemiological change, %
Low-middle SDI	India	134,821.68	35,374.20	92,166.08	7,281.39	26.24	68.36	5.40
Low-middle SDI	Kenya	1,777.85	135.58	1,330.69	311.58	7.63	74.85	17.53
Low-middle SDI	Kiribati	9.13	1.24	5.25	2.64	13.56	57.49	28.95
Low-middle SDI	Kyrgyzstan	400.25	27.24	198.34	174.68	6.81	49.55	43.64
Low-middle SDI	Lao People's Democratic Republic	695.42	30.67	472.85	191.90	4.41	67.99	27.60
Low-middle SDI	Lesotho	77.56	-19.75	57.03	40.28	-25.46	73.53	51.94
Low-middle SDI	Marshall Islands	5.84	1.82	2.41	1.61	31.17	41.31	27.52
Low-middle SDI	Mauritania	269.84	-9.34	199.36	79.82	-3.46	73.88	29.58
Low-middle SDI	Micronesia (Federated States of)	12.47	4.03	2.85	5.59	32.35	22.85	44.81
Low-middle SDI	Mongolia	281.14	79.05	136.60	65.49	28.12	48.59	23.29
Low-middle SDI	Morocco	10,552.82	2,583.55	3,886.56	4,082.72	24.48	36.83	38.69
Low-middle SDI	Myanmar	6,866.85	1,904.38	2,785.27	2,177.20	27.73	40.56	31.71
Low-middle SDI	Namibia	165.90	12.35	112.35	41.20	7.44	67.72	24.84
Low-middle SDI	Nicaragua	1,692.34	391.93	863.54	436.87	23.16	51.03	25.81
Low-middle SDI	Nigeria	9,727.57	-2,142.93	8,985.24	2,885.26	-22.03	92.37	29.66
Low-middle SDI	Pakistan	13,229.24	-1,113.35	11,642.45	2,700.14	-8.42	88.01	20.41
Low-middle SDI	Samoa	21.21	5.38	8.17	7.67	25.34	38.51	36.15
Low-middle SDI	Sao Tome and Principe	14.93	-3.68	12.40	6.22	-24.64	83.00	41.64
Low-middle SDI	Sudan	4,414.92	-599.03	3,384.66	1,629.29	-13.57	76.66	36.90
Low-middle SDI	Tajikistan	520.20	24.40	287.92	207.88	4.69	55.35	39.96
Low-middle SDI	Tuvalu	1.42	0.08	0.61	0.74	5.62	42.65	51.73
Low-middle SDI	Vanuatu	27.30	3.79	16.42	7.08	13.88	60.17	25.94
Low-middle SDI	Venezuela (Bolivarian Republic of)	9,025.15	3,737.51	3,044.46	2,243.19	41.41	33.73	24.85
Low-middle SDI	Zambia	591.88	-53.84	530.68	115.05	-9.10	89.66	19.44
Low-middle SDI	Zimbabwe	559.10	10.50	457.69	90.91	1.88	81.86	16.26
Low SDI	Afghanistan	1,526.85	-2,473.18	3,138.69	861.34	-161.98	205.57	56.41
Low SDI	Benin	603.41	-85.50	555.01	133.90	-14.17	91.98	22.19
Low SDI	Burkina Faso	922.29	-182.61	852.40	252.50	-19.80	92.42	27.38
Low SDI	Burundi	305.59	-59.96	306.77	58.78	-19.62	100.39	19.23
Low SDI	Central African Republic	141.41	-11.15	117.07	35.49	-7.88	82.78	25.10
Low SDI	Chad	507.24	-199.38	592.38	114.24	-39.31	116.78	22.52
Low SDI	Côte d'Ivoire	1,446.44	151.50	1,030.74	264.20	10.47	71.26	18.27
Low SDI	Democratic Republic of the Congo	2,940.22	-263.75	2,418.82	785.15	-8.97	82.27	26.70
Low SDI	Eritrea	210.43	17.51	152.91	40.01	8.32	72.66	19.02

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Supplementary Table 6. Continued

Region		Overall difference	No. of person			Percent change due to		
Quintil	Country		Aging	Population growth	Epidemiological change	Aging, %	Population growth, %	Epidemiological change, %
Low SDI	Ethiopia	2,898.46	-261.87	2,527.93	632.40	-9.03	87.22	21.82
Low SDI	Gambia	115.02	3.46	88.03	23.53	3.01	76.54	20.45
Low SDI	Guinea	455.73	-219.98	514.06	161.65	-48.27	112.80	35.47
Low SDI	Guinea-Bissau	60.81	-14.63	63.79	11.65	-24.05	104.90	19.15
Low SDI	Haiti	1,071.17	-17.59	817.53	271.23	-1.64	76.32	25.32
Low SDI	Liberia	212.04	-157.47	287.66	81.85	-74.26	135.66	38.60
Low SDI	Madagascar	714.14	-102.47	655.56	161.05	-14.35	91.80	22.55
Low SDI	Malawi	484.42	-50.07	399.52	134.97	-10.34	82.47	27.86
Low SDI	Mali	876.76	-187.99	855.72	209.03	-21.44	97.60	23.84
Low SDI	Mozambique	677.69	-220.73	708.05	190.38	-32.57	104.48	28.09
Low SDI	Nepal	3,611.40	606.55	1,798.48	1,206.37	16.80	49.80	33.40
Low SDI	Niger	875.74	-4.05	745.74	134.06	-0.46	85.16	15.31
Low SDI	Papua New Guinea	459.26	24.53	342.50	92.23	5.34	74.58	20.08
Low SDI	Rwanda	456.88	27.80	326.20	102.88	6.09	71.40	22.52
Low SDI	Senegal	833.41	16.73	649.55	167.13	2.01	77.94	20.05
Low SDI	Sierra Leone	328.21	-103.27	336.15	95.32	-31.46	102.42	29.04
Low SDI	Solomon Islands	33.34	3.72	28.36	1.26	11.16	85.06	3.78
Low SDI	Somalia	414.51	-49.13	412.18	51.46	-11.85	99.44	12.41
Low SDI	South Sudan	179.86	-36.27	159.21	56.91	-20.16	88.52	31.64
Low SDI	Timor-Leste	128.98	39.80	60.99	28.19	30.86	47.29	21.85
Low SDI	Togo	469.59	64.44	325.33	79.83	13.72	69.28	17.00
Low SDI	Uganda	896.96	-147.39	887.16	157.19	-16.43	98.91	17.53
Low SDI	United Republic of Tanzania	1,931.58	-119.38	1,646.75	404.21	-6.18	85.25	20.93
Low SDI	Yemen	3,189.43	-88.35	2,511.69	766.10	-2.77	78.75	24.02

SDI, sociodemographic index.