

Table S-1: Population characteristics of non-pregnant US adults Page 2

Table S-2: GFR-dependent drug dosing adjustments for chronic kidney disease Page 3

**Table S-3: Observed changes to GFR-dependent clinical decisions in NHANES (2001-2018)
..... Page 4**

**Table S-4: Survey adjusted national projections of changes to GFR-dependent clinical decisions in the
US, 2001-2018 Page 9**

**Figure S-1. Secular trends in chronic kidney disease prevalence by race/ethnicity with new and prior
GFR estimating equations, 2001-2018 Page 14**

**Figure S-2. Enrichment of Black participants in eGFR development data affects CKD prevalence and
pharmacologic recommendations for both Black and Non-Black individuals
..... Page 16**

Table S-1: Population characteristics of non-pregnant US adults**A. By Race/Ethnicity**

	White	Hispanic	Black	Asian/Other	Total
NHANES 2001-2018—no.	18,598	11,812	9,522	4,428	44,360
US Population Equivalent—no.	154,416,741	32,604,393	26,603,289	16,486,364	230,110,787
Age (IQR)—year	47 (27)	38 (23)	42 (26)	42 (25)	45 (26)
Female—%	50.5	48.8	54.2	50.9	50.7
PIR (IQR)	3.57 (3.1)	1.58 (2.0)	1.88 (2.5)	2.95 (3.5)	2.99 (3.5)
Serum Cr (IQR)—mg/dL	0.86 (0.3)	0.77 (0.2)	0.90 (0.3)	0.80 (0.3)	0.85 (0.3)
Urine ACR (IQR)—mg/g	6.2 (6.6)	6.7 (7.8)	6.2 (8.7)	6.5 (7.7)	6.3 (7.0)
All Heart Disease—%	8.0	4.2	8.2	7.1	7.5
Hypertension—%	44.4	32.9	52.0	40.8	43.4
SBP (IQR)—mmHg	120 (20)	117 (20)	122 (24)	118 (20)	119 (20)
DBP (IQR)—mmHg	72 (14)	70 (14)	72 (16)	72 (13)	72 (14)
Obesity—%	34.4	38.2	45.5	22.6	35.4
BMI (IQR)—kg/m.sq	27.5 (8.1)	28.4 (7.4)	29.2 (9.9)	25.4 (7.1)	27.6 (8.2)
Diabetes—%	7.6	9.2	11.6	10.3	8.5
Taking Insulin—%	2.2	2.2	3.5	1.9	2.3
HbA1c (IQR)—%	5.4 (0.5)	5.4 (0.5)	5.5 (0.6)	5.5 (0.6)	5.4 (0.6)

B. By Missingness of Serum Creatinine

	Missing	Present	Total
NHANES 2001-2018—no.	5,032	44,360	49,392
US Population Equivalent—no.	12,435,807	217,674,980	230,110,787
Age (IQR)—year	40 (28)	45 (27)	45 (26)
Female—%	53.4	50.6	50.7
PIR (IQR)	2.43 (3.1)	3.01 (3.5)	2.97 (3.5)
Serum Cr (IQR)—mg/dL	—	0.85 (0.3)	0.85 (0.3)
Urine ACR (IQR)—mg/g	6.9 (9.1)	6.3 (7.0)	6.3 (7.1)
All Heart Disease—%	7.4	7.5	7.5
Hypertension—%	42.2	43.5	43.4
SBP (IQR)—mmHg	120 (22)	119 (20)	120 (20)
DBP (IQR)—mmHg	72 (14)	72 (14)	72 (14)
Obesity—%	34.8	35.5	35.5
BMI (IQR)—kg/m.sq	27.3 (9.2)	27.7 (8.2)	27.6 (8.3)
Diabetes—%	8.8	8.6	8.6
Taking Insulin—%	2.8	2.4	2.4
HbA1c (IQR)—%	5.5 (0.6)	5.4 (0.6)	5.4 (0.6)

A. The median and interquartile range is reported for several demographic characteristics, medical conditions, and laboratory values. Weights in each survey cycle were scaled to be representative of the U.S. population. Missing serum creatinine measurements were accounted for using stratified reweighting, where weights from respondents with missing values were redistributed evenly to respondents of the same race, gender, and age strata with recorded values.

B. Summary statistics on relevant demographic and medical characteristics were not significantly different between adults with and without serum creatinine values.

Abbreviations: ACR: albumin-creatinine ratio; BMI: body mass index; Cr: creatinine; DBP: diastolic blood pressure; HbA1c: glycohemoglobin, IQR: interquartile range; NHANES: National Health and Nutrition Examination Survey; PIR: poverty-income ratio, defined as the ratio of family income to poverty guidelines; SBP: systolic blood pressure.

Table S-2: GFR-dependent drug dosing adjustments for chronic kidney disease

Drug	Class	No. in NHANES	0-24% Reduction	24-49% Reduction	50-99% Reduction	Contraindicated	Usual Dosage
Analgesics							
Codeine	Opioids	188	60+	0-60			Not specified
Fentanyl	Opioids	33	60+	0-60			Not specified
Hydrocodone	Opioids	1238	60+	0-60			Not specified
Hydromorphone	Opioids	29	60+	0-60			Not specified
Oxycodone	Opioids	495	60+	0-60			Not specified
Oxymorphone	Opioids	9	60+	0-60			Not specified
Pentazocine	Opioids	4	60+	0-60			Not specified
Tapentadol	Opioids	4	60+	0-60			Not specified
Tramadol	Opioids	570	60+	0-60			Not specified
Antibiotics							
Cefaclor	Cephalosporins	6	50+	10-50	0-10		250 to 500 mg every 8 hours
Cefadroxil	Cephalosporins	4	50+	10-50	0-10		0.5 to 1 g every 12 hours
Cefixime	Cephalosporins	1	50+	10-50	0-10		200 mg every 12 hours
Cefpodoxime	Cephalosporins	1	50+		0-50		100 to 400 mg every 12 hours
Cefprozil	Cephalosporins	2	50+		0-50		250 to 500 mg every 12 hours
Cefuroxime	Cephalosporins	17	10+	0-10			0.75 to 1.5 g every 8 hours
Cephalexin	Cephalosporins	150	10+		0-10		250 to 500 mg every 6 to 8 hours
Clarithromycin	Macrolides	54	50+	10-50	0-10		250 to 500 mg every 12 hours (Biaxin); 1 g daily (Biaxin XL)
Nitrofurantoin	Nitrofurans	83	50+			0-50	500 to 1,000 mg every 6 hours
Amoxicillin	Penicillins	408	10+			0-10	250 to 500 mg every 8 hours
Ampicillin	Penicillins	13	50+	10-50	0-10		0.25 to 2 g every 6 hours
Ampicillin/sulbactam	Penicillins	13	50+	10-50	0-10		1 to 2 g ampicillin and 0.5 to 1 g sulbactam every 6 to 8 hours
Ciprofloxacin	Quinolones	139	50+	10-50	0-10		400 mg IV or 500 to 750 mg orally every 12 hours
Gatifloxacin	Quinolones	10	50+		0-50		400 mg every 24 hours
Gemifloxacin	Quinolones	1	50+	10-50	0-10		320 mg every 24 hours
Levofloxacin	Quinolones	53	50+	10-50	0-10		250 to 750 mg every 24 hours
Ofloxacin	Quinolones	6	50+		0-50		200 to 400 mg every 12 hours
Sulfamethoxazole	Sulfas	150	50+	10-50	0-10		1 g every 8 to 12 hours
Sulfisoxazole	Sulfas	1	50+	10-50	0-10		1 to 2 g every 6 hours
Trimethoprim	Sulfas	146	10+		0-10		100 mg every 12 hours
Tetracycline	Tetracyclines	39	50+	10-50	0-10		250 to 500 mg two to four times daily
Anticoagulant							
Enoxaparin	LMWHs	5	30+			0-30	Not specified
Warfarin	Coumarins	591	30+			0-30	Not specified
Anticonvulsants							
Gabapentin	Gabapentinoids	825	60+			0-60	300 to 600 mg three times daily
Antihyperglycemics							
Metformin	Biguanides	3051	30+			0-30	Not specified
Canagliflozin	SGLT2 inhibitors	29	30+			0-30	Not specified
Dapagliflozin	SGLT2 inhibitors	13	30+			0-30	Not specified
Empagliflozin	SGLT2 inhibitors	13	30+			0-30	Not specified
Chlorpropamide	Sulfonylureas	9	50+			0-50	100 to 500 mg daily
Gliclazide	Sulfonylureas	1	30+	0-30			Not specified
Glimepiride	Sulfonylureas	359	60+			0-60	Not specified
Glipizide	Sulfonylureas	882	60+			0-60	Not specified
Glyburide	Sulfonylureas	532	60+			0-60	Not specified
Antihypertensives							
Benazepril	ACE inhibitors	612	50+	10-50	0-10		10 mg daily
Captopril	ACE inhibitors	99	50+	10-50	0-10		25 mg every 8 hours
Enalapril	ACE inhibitors	336	10+		0-10		5 to 10 mg every 12 hours
Lisinopril	ACE inhibitors	3426	50+	10-50	0-10		5 to 10 mg daily
Quinapril	ACE inhibitors	239	10+	0-10			10 to 20 mg daily
Ramipril	ACE inhibitors	267	50+	10-50	0-10		5 to 10 mg daily
Candesartan	ARBs	67	45+	0-45			Not specified
Eprosartan	ARBs	3	45+	0-45			Not specified
Irbesartan	ARBs	239	45+	0-45			Not specified
Losartan	ARBs	1209	45+	0-45			Not specified
Olmesartan	ARBs	299	45+	0-45			Not specified
Telmisartan	ARBs	113	45+	0-45			Not specified
Valsartan	ARBs	737	45+	0-45			Not specified
Acebutolol	Beta blockers	13	50+		0-50		400 to 600 mg once or twice daily
Atenolol	Beta blockers	1242	50+		0-50		5 to 100 mg daily
Bisoprolol	Beta blockers	107	50+	10-50	0-10		10 mg daily
Nadolol	Beta blockers	36	50+		0-50		40 to 80 mg daily
Amiloride	Diuretics	22	50+		10-50	0-10	5 mg daily
Spironolactone	Diuretics	281	50+		10-50	0-10	50 to 100 mg daily
Triamterene	Diuretics	576	10+			0-10	50 to 100 twice daily
Fluvastatin	Statins	62	30+			0-30	20 to 80 mg daily (sustained release)
Pravastatin	Statins	737	30+	0-30			10 to 20 mg daily; maximal dosage: 40 mg daily
Rosuvastatin	Statins	535	30+		0-30		5 to 40 mg daily

Table of glomerular filtration rate (GFR)-dependent drug dosing and contraindication recommendations. Each drug with an adjustment across a GFR threshold is categorized into four groups: 0-24% Reduction, 25-49% Reduction, 50-99% Reduction, and Contraindication. When dose adjustment is expressed as a range (e.g., 30-50% reduction), the midpoint is used. Data are derived from the 2007 American Association of Family Physicians (AAFP) Annual Clinical Focus on Management of Chronic Illness and the 2012 Kidney Disease Improving Global Outcomes (KDIGO) Clinical Practice Guideline for the Evaluation and Management of Chronic Kidney Disease. Drugs in the following classes were derived from KDIGO guidelines: opioids, low-molecular-weight-heparins (LMWHs), warfarin, metformin, sodium-glucose cotransporter-2 (SGLT2) inhibitors, sulfonylureas besides chlorpropamide, and angiotensin-II receptor blockers (ARBs). The remainder were derived from AAFP guidelines. Tabulated drugs with GFR thresholds of less than 30 ml/min/1.73 m² did not contribute to any observed changes and are not listed.

Table S-3: Observed changes to GFR-dependent clinical decisions in NHANES (2001-2018)

A. Among Black Adults, from 2006 MDRD

Implication	GFR Thresholds	2006 MDRD	2021 CKD-EPI	Difference	% Change
	<i>ml/min/1.73 m.sq.</i>	<i>no. (%)</i>	<i>no. (%)</i>	<i>no. (95% CI)</i>	<i>% (95% CI)</i>
Chronic Kidney Disease Diagnosis	<60	1,638 (17.202)	1,843 (19.355)	205 (167.66, 242.34)	12.52 (10.57, 14.46)
Ineligible to Donate Kidney	<60	3,849 (40.422)	3,967 (41.661)	118 (92.07, 143.93)	3.07 (2.49, 3.65)
Dose Reduction for Any Drug	<30, <45, <50, <60	269 (2.825)	374 (3.928)	105 (82.83, 127.17)	39.03 (29.87, 48.2)
Medical Nutrition Therapy Covered	13-50	198 (2.079)	296 (3.109)	98 (78.9, 117.1)	49.49 (38.35, 60.64)
Dose Reduction for ACE Inhibitors	<50	95 (0.998)	137 (1.439)	42 (30.24, 53.76)	44.21 (29.42, 59)
Dose Reduction for Opioids	<60	68 (0.714)	94 (0.987)	26 (16.4, 35.6)	38.24 (22.64, 53.83)
Dose Reduction for Antihyperglycemics	<30, <50, <60	44 (0.462)	58 (0.609)	14 (6.67, 21.33)	31.82 (11.79, 51.85)
Dose Reduction for ARBs	<45	61 (0.641)	84 (0.882)	23 (13.6, 32.4)	37.7 (20.26, 55.15)
Dose Reduction for Anticonvulsants	<60	39 (0.410)	47 (0.494)	8 (3.2, 12.8)	20.51 (8.64, 32.38)
Dose Reduction for Beta-Blockers	<50	24 (0.252)	31 (0.326)	7 (1.81, 12.19)	29.17 (4.15, 54.18)
Kidney Disease Education Covered	15-29	28 (0.294)	41 (0.431)	13 (2.82, 23.18)	46.43 (1.29, 91.56)
Nephrologist Referral	<30	350 (3.676)	370 (3.886)	20 (10.4, 29.6)	5.71 (2.92, 8.51)
Dose Reduction for Antibacterials	<50	11 (0.116)	13 (0.137)	2 (-0.77, 4.77)	18.18 (-8.83, 45.19)
Eligible for Kidney Transplant	<20	70 (0.735)	79 (0.830)	9 (2.5, 15.5)	12.86 (3.31, 22.41)
Dose Reduction for Anticoagulants	<30	8 (0.084)	11 (0.116)	3 (-0.39, 6.39)	37.5 (-12.26, 87.26)
Dose Reduction for Diuretics	<30	23 (0.242)	29 (0.305)	6 (1.2, 10.8)	26.09 (0.69, 51.48)
Pre-emptive Arteriovenous Fistula	<18	65 (0.683)	73 (0.767)	8 (2.46, 13.54)	12.31 (3.99, 20.63)
Dose Reduction for Statins	<30	16 (0.168)	19 (0.200)	3 (-0.39, 6.39)	18.75 (-5.56, 43.06)

B. Among Black Adults, from 2009 CKD-EPI

Implication	GFR Thresholds	2009 CKD-EPI	2021 CKD-EPI	Difference	% Change
	<i>ml/min/1.73 m.sq.</i>	<i>no. (%)</i>	<i>no. (%)</i>	<i>no. (95% CI)</i>	<i>% (95% CI)</i>
Chronic Kidney Disease Diagnosis	<60	1,658 (17.412)	1,843 (19.355)	185 (150.66, 219.34)	11.16 (9.33, 12.98)
Ineligible to Donate Kidney	<60	3,852 (40.454)	3,967 (41.661)	115 (91.16, 138.84)	2.98 (2.44, 3.53)
Dose Reduction for Any Drug	<30, <45, <50, <60	291 (3.056)	374 (3.928)	83 (60.65, 105.35)	28.52 (20.18, 36.87)
Medical Nutrition Therapy Covered	13-50	234 (2.457)	296 (3.109)	62 (46.44, 77.56)	26.5 (19.46, 33.53)
Dose Reduction for ACE Inhibitors	<50	111 (1.166)	137 (1.439)	26 (15.26, 36.74)	23.42 (13.05, 33.79)
Dose Reduction for Opioids	<60	69 (0.725)	94 (0.987)	25 (15.6, 34.4)	36.23 (21.59, 50.88)
Dose Reduction for Antihyperglycemics	<30, <50, <60	46 (0.483)	58 (0.609)	12 (5.21, 18.79)	26.09 (9.51, 42.67)
Dose Reduction for ARBs	<45	64 (0.672)	84 (0.882)	20 (11.23, 28.77)	31.25 (15.68, 46.82)
Dose Reduction for Anticonvulsants	<60	40 (0.420)	47 (0.494)	7 (2.62, 11.38)	17.5 (6.62, 28.38)
Dose Reduction for Beta-Blockers	<50	27 (0.284)	31 (0.326)	4 (0.08, 7.92)	14.81 (-0.89, 30.52)
Kidney Disease Education Covered	15-29	35 (0.368)	41 (0.431)	6 (-1.84, 13.84)	17.14 (-7.1, 41.39)
Nephrologist Referral	<30	359 (3.770)	370 (3.886)	11 (3.93, 18.07)	3.06 (1.09, 5.04)
Dose Reduction for Antibacterials	<50	11 (0.116)	13 (0.137)	2 (-0.77, 4.77)	18.18 (-8.83, 45.19)
Eligible for Kidney Transplant	<20	75 (0.788)	79 (0.830)	4 (0.08, 7.92)	5.33 (0.06, 10.61)
Dose Reduction for Anticoagulants	<30	10 (0.105)	11 (0.116)	1 (-0.96, 2.96)	10 (-10.56, 30.56)
Dose Reduction for Diuretics	<30	23 (0.242)	29 (0.305)	6 (1.2, 10.8)	26.09 (1.65, 50.52)
Pre-emptive Arteriovenous Fistula	<18	65 (0.683)	73 (0.767)	8 (2.46, 13.54)	12.31 (3.69, 20.92)
Dose Reduction for Statins	<30	18 (0.189)	19 (0.200)	1 (-0.96, 2.96)	5.56 (-5.6, 16.71)

C. Among Non-Black Adults, from 2006 MDRD

Implication	GFR Thresholds	2006 MDRD	2021 CKD-EPI	Difference	% Change
	<i>ml/min/1.73 m.sq.</i>	<i>no. (%)</i>	<i>no. (%)</i>	<i>no. (95% CI)</i>	<i>% (95% CI)</i>
Chronic Kidney Disease Diagnosis	<60	5,657 (16.238)	4,789 (13.746)	-868 (-943.6, -792.4)	-15.34 (-16.44, -14.24)
Ineligible to Donate Kidney	<60	11,027 (31.652)	10,415 (29.896)	-612 (-672.7, -551.3)	-5.55 (-6.04, -5.06)
Dose Reduction for Any Drug	<30, <45, <50, <60	957 (2.747)	680 (1.952)	-277 (-314.95, -239.05)	-28.94 (-31.83, -26.06)
Medical Nutrition Therapy Covered	13-50	847 (2.431)	611 (1.754)	-236 (-272.93, -199.07)	-27.86 (-31.2, -24.53)
Dose Reduction for ACE Inhibitors	<50	320 (0.919)	226 (0.649)	-94 (-113.6, -74.4)	-29.38 (-34.35, -24.4)
Dose Reduction for Opioids	<60	242 (0.695)	164 (0.471)	-78 (-96.8, -59.2)	-32.23 (-37.97, -26.5)
Dose Reduction for Antihyperglycemics	<30, <50, <60	166 (0.476)	119 (0.342)	-47 (-59.85, -34.15)	-28.31 (-34.62, -22.01)
Dose Reduction for ARBs	<45	159 (0.456)	127 (0.365)	-32 (-45, -19)	-20.13 (-27.67, -12.58)
Dose Reduction for Anticonvulsants	<60	142 (0.408)	95 (0.273)	-47 (-60.15, -33.85)	-33.1 (-41.53, -24.66)
Dose Reduction for Beta-Blockers	<50	139 (0.399)	98 (0.281)	-41 (-53.24, -28.76)	-29.5 (-36.19, -22.81)
Kidney Disease Education Covered	15-29	93 (0.267)	72 (0.207)	-21 (-30.8, -11.2)	-22.58 (-31.14, -14.02)
Nephrologist Referral	<30	1,228 (3.525)	1,210 (3.473)	-18 (-26.32, -9.68)	-1.47 (-2.14, -0.8)
Dose Reduction for Antibacterials	<50	30 (0.0861)	23 (0.066)	-7 (-12.19, -1.81)	-23.33 (-38.11, -8.55)
Eligible for Kidney Transplant	<20	90 (0.258)	80 (0.230)	-10 (-16.2, -3.8)	-11.11 (-17.75, -4.47)
Dose Reduction for Anticoagulants	<30	19 (0.0545)	16 (0.0459)	-3 (-6.39, 0.39)	-15.79 (-32.87, 1.29)
Dose Reduction for Diuretics	<30	52 (0.149)	41 (0.118)	-11 (-18.07, -3.93)	-21.15 (-32.67, -9.64)
Pre-emptive Arteriovenous Fistula	<18	76 (0.218)	70 (0.201)	-6 (-10.8, -1.2)	-7.89 (-14.22, -1.57)
Dose Reduction for Statins	<30	14 (0.0402)	11 (0.0316)	-3 (-6.39, 0.39)	-21.43 (-42.92, 0.07)

D. Among Non-Black Adults, from 2009 CKD-EPI

Implication	GFR Thresholds	2009 CKD-EPI	2021 CKD-EPI	Difference	% Change
	<i>ml/min/1.73 m.sq.</i>	<i>no. (%)</i>	<i>no. (%)</i>	<i>no. (95% CI)</i>	<i>% (95% CI)</i>
Chronic Kidney Disease Diagnosis	<60	5,281 (15.159)	4,789 (13.746)	-492 (-540.68, -443.32)	-9.32 (-10.11, -8.52)
Ineligible to Donate Kidney	<60	10,770 (30.915)	10,415 (29.896)	-355 (-396.11, -313.89)	-3.3 (-3.64, -2.96)
Dose Reduction for Any Drug	<30, <45, <50, <60	885 (2.540)	680 (1.952)	-205 (-238.55, -171.45)	-23.16 (-26.07, -20.26)
Medical Nutrition Therapy Covered	13-50	846 (2.428)	611 (1.754)	-235 (-270.01, -199.99)	-27.78 (-31, -24.55)
Dose Reduction for ACE Inhibitors	<50	305 (0.875)	226 (0.649)	-79 (-96.86, -61.14)	-25.9 (-30.7, -21.1)
Dose Reduction for Opioids	<60	204 (0.586)	164 (0.471)	-40 (-53.86, -26.14)	-19.61 (-25.32, -13.89)
Dose Reduction for Antihyperglycemics	<30, <50, <60	151 (0.433)	119 (0.342)	-32 (-42.74, -21.26)	-21.19 (-27.29, -15.09)
Dose Reduction for ARBs	<45	160 (0.459)	127 (0.365)	-33 (-45.55, -20.45)	-20.62 (-27.86, -13.38)
Dose Reduction for Anticonvulsants	<60	119 (0.342)	95 (0.273)	-24 (-33.99, -14.01)	-20.17 (-28.44, -11.9)
Dose Reduction for Beta-Blockers	<50	131 (0.376)	98 (0.281)	-33 (-43.18, -22.82)	-25.19 (-31.32, -19.06)
Kidney Disease Education Covered	15-29	100 (0.287)	72 (0.207)	-28 (-40.4, -15.6)	-28 (-37.98, -18.02)
Nephrologist Referral	<30	1,241 (3.562)	1,210 (3.473)	-31 (-43.55, -18.45)	-2.5 (-3.48, -1.52)
Dose Reduction for Antibacterials	<50	28 (0.0804)	23 (0.066)	-5 (-9.38, -0.62)	-17.86 (-31.64, -4.07)
Eligible for Kidney Transplant	<20	94 (0.270)	80 (0.230)	-14 (-21.33, -6.67)	-14.89 (-21.86, -7.92)
Dose Reduction for Anticoagulants	<30	20 (0.0574)	16 (0.0459)	-4 (-7.92, -0.08)	-20 (-38.18, -1.82)
Dose Reduction for Diuretics	<30	53 (0.152)	41 (0.118)	-12 (-19.33, -4.67)	-22.64 (-34.06, -11.22)
Pre-emptive Arteriovenous Fistula	<18	78 (0.224)	70 (0.201)	-8 (-12.8, -3.2)	-10.26 (-16.52, -3.99)
Dose Reduction for Statins	<30	15 (0.0431)	11 (0.0316)	-4 (-7.92, -0.08)	-26.67 (-49.05, -4.29)

E. Among White Adults, from 2006 MDRD

Implication	GFR Thresholds	2006 MDRD	2021 CKD-EPI	Difference	% Change
	<i>ml/min/1.73 m.sq.</i>	<i>no. (%)</i>	<i>no. (%)</i>	<i>no. (95% CI)</i>	<i>% (95% CI)</i>
Chronic Kidney Disease Diagnosis	<60	3,321 (17.857)	2,672 (14.367)	-649 (-723.68, -574.32)	-19.54 (-21.03, -18.06)
Ineligible to Donate Kidney	<60	6,158 (33.111)	5,687 (30.579)	-471 (-529.8, -412.2)	-7.65 (-8.41, -6.88)
Dose Reduction for Any Drug	<30, <45, <50, <60	657 (3.533)	469 (2.522)	-188 (-219.48, -156.52)	-28.61 (-32.01, -25.22)
Medical Nutrition Therapy Covered	13-50	635 (3.414)	456 (2.452)	-179 (-211.32, -146.68)	-28.19 (-32.12, -24.26)
Dose Reduction for ACE Inhibitors	<50	221 (1.188)	159 (0.855)	-62 (-77.92, -46.08)	-28.05 (-34.06, -22.05)
Dose Reduction for Opioids	<60	176 (0.946)	122 (0.656)	-54 (-70.63, -37.37)	-30.68 (-37.55, -23.81)
Dose Reduction for Antihyperglycemics	<30, <50, <60	103 (0.554)	76 (0.409)	-27 (-37.18, -16.82)	-26.21 (-34.52, -17.91)
Dose Reduction for ARBs	<45	95 (0.511)	70 (0.376)	-25 (-35.55, -14.45)	-26.32 (-35.72, -16.91)
Dose Reduction for Anticonvulsants	<60	101 (0.543)	70 (0.376)	-31 (-42.26, -19.74)	-30.69 (-40.1, -21.29)
Dose Reduction for Beta-Blockers	<50	103 (0.554)	73 (0.393)	-30 (-40.37, -19.63)	-29.13 (-36.26, -21.99)
Kidney Disease Education Covered	15-29	60 (0.323)	44 (0.237)	-16 (-23.84, -8.16)	-26.67 (-36.61, -16.73)
Nephrologist Referral	<30	665 (3.576)	653 (3.511)	-12 (-19.33, -4.67)	-1.8 (-2.91, -0.7)
Dose Reduction for Antibacterials	<50	23 (0.124)	17 (0.0914)	-6 (-10.8, -1.2)	-26.09 (-43.24, -8.94)
Eligible for Kidney Transplant	<20	38 (0.204)	37 (0.199)	-1 (-2.96, 0.96)	-2.63 (-7.73, 2.46)
Dose Reduction for Anticoagulants	<30	13 (0.0699)	11 (0.0591)	-2 (-4.77, 0.77)	-15.38 (-36.3, 5.43)
Dose Reduction for Diuretics	<30	36 (0.194)	31 (0.167)	-5 (-10.19, 0.19)	-13.89 (-25.81, -1.97)
Pre-emptive Arteriovenous Fistula	<18	33 (0.177)	32 (0.172)	-1 (-2.96, 0.96)	-3.03 (-8.89, 2.84)
Dose Reduction for Statins	<30	8 (0.043)	7 (0.0376)	-1 (-2.96, 0.96)	-12.5 (-35.42, 10.42)

F. Among White Adults, from 2009 CKD-EPI

Implication	GFR Thresholds	2009 CKD-EPI	2021 CKD-EPI	Difference	% Change
	<i>ml/min/1.73 m.sq.</i>	<i>no. (%)</i>	<i>no. (%)</i>	<i>no. (95% CI)</i>	<i>% (95% CI)</i>
Chronic Kidney Disease Diagnosis	<60	3,055 (16.426)	2,672 (14.367)	-383 (-431.13, -334.87)	-12.54 (-13.67, -11.4)
Ineligible to Donate Kidney	<60	5,972 (32.111)	5,687 (30.579)	-285 (-325.12, -244.88)	-4.77 (-5.3, -4.25)
Dose Reduction for Any Drug	<30, <45, <50, <60	609 (3.275)	469 (2.522)	-140 (-166.66, -113.34)	-22.99 (-26.33, -19.64)
Medical Nutrition Therapy Covered	13-50	636 (3.420)	456 (2.452)	-180 (-209.98, -150.02)	-28.3 (-31.99, -24.61)
Dose Reduction for ACE Inhibitors	<50	211 (1.135)	159 (0.855)	-52 (-66.4, -37.6)	-24.64 (-30.38, -18.91)
Dose Reduction for Opioids	<60	149 (0.801)	122 (0.656)	-27 (-39.4, -14.6)	-18.12 (-25.32, -10.92)
Dose Reduction for Antihyperglycemics	<30, <50, <60	97 (0.522)	76 (0.409)	-21 (-29.54, -12.46)	-21.65 (-29.44, -13.86)
Dose Reduction for ARBs	<45	96 (0.516)	70 (0.376)	-26 (-36.37, -15.63)	-27.08 (-36.27, -17.89)
Dose Reduction for Anticonvulsants	<60	87 (0.468)	70 (0.376)	-17 (-25.08, -8.92)	-19.54 (-28.29, -10.8)
Dose Reduction for Beta-Blockers	<50	98 (0.527)	73 (0.393)	-25 (-33.98, -16.02)	-25.51 (-32.39, -18.63)
Kidney Disease Education Covered	15-29	65 (0.349)	44 (0.237)	-21 (-31.18, -10.82)	-32.31 (-44.3, -20.32)
Nephrologist Referral	<30	675 (3.629)	653 (3.511)	-22 (-33.09, -10.91)	-3.26 (-4.86, -1.66)
Dose Reduction for Antibacterials	<50	21 (0.113)	17 (0.0914)	-4 (-7.92, -0.08)	-19.05 (-35.02, -3.07)
Eligible for Kidney Transplant	<20	42 (0.226)	37 (0.199)	-5 (-9.38, -0.62)	-11.9 (-21.53, -2.28)
Dose Reduction for Anticoagulants	<30	14 (0.0753)	11 (0.0591)	-3 (-6.39, 0.39)	-21.43 (-44.01, 1.15)
Dose Reduction for Diuretics	<30	37 (0.199)	31 (0.167)	-6 (-11.54, -0.46)	-16.22 (-28.08, -4.35)
Pre-emptive Arteriovenous Fistula	<18	36 (0.194)	32 (0.172)	-4 (-7.92, -0.08)	-11.11 (-21.76, -0.46)
Dose Reduction for Statins	<30	9 (0.0484)	7 (0.0376)	-2 (-4.77, 0.77)	-22.22 (-49.38, 4.94)

G. Among Hispanic Adults, from 2006 MDRD

Implication	GFR Thresholds	2006 MDRD	2021 CKD-EPI	Difference	% Change
	<i>ml/min/1.73 m.sq.</i>	<i>no. (%)</i>	<i>no. (%)</i>	<i>no. (95% CI)</i>	<i>% (95% CI)</i>
Chronic Kidney Disease Diagnosis	<60	1,741 (14.739)	1,585 (13.419)	-156 (-189.15, -122.85)	-8.96 (-10.28, -7.64)
Ineligible to Donate Kidney	<60	3,746 (31.714)	3,642 (30.833)	-104 (-129.78, -78.22)	-2.78 (-3.33, -2.22)
Dose Reduction for Any Drug	<30, <45, <50, <60	217 (1.837)	150 (1.270)	-67 (-86.5, -47.5)	-30.88 (-37.78, -23.97)
Medical Nutrition Therapy Covered	13-50	152 (1.287)	111 (0.940)	-41 (-56.8, -25.2)	-26.97 (-34.34, -19.61)
Dose Reduction for ACE Inhibitors	<50	76 (0.643)	50 (0.423)	-26 (-37.09, -14.91)	-34.21 (-44.73, -23.69)
Dose Reduction for Opioids	<60	45 (0.381)	26 (0.220)	-19 (-27.98, -10.02)	-42.22 (-57.06, -27.38)
Dose Reduction for Antihyperglycemics	<30, <50, <60	48 (0.406)	34 (0.288)	-14 (-20.79, -7.21)	-29.17 (-40.74, -17.6)
Dose Reduction for ARBs	<45	47 (0.398)	40 (0.339)	-7 (-12.19, -1.81)	-14.89 (-25.6, -4.19)
Dose Reduction for Anticonvulsants	<60	30 (0.254)	17 (0.144)	-13 (-19.5, -6.5)	-43.33 (-64.97, -21.69)
Dose Reduction for Beta-Blockers	<50	24 (0.203)	18 (0.152)	-6 (-11.54, -0.46)	-25 (-45, -5)
Kidney Disease Education Covered	15-29	24 (0.203)	22 (0.186)	-2 (-5.92, 1.92)	-8.33 (-23.67, 7)
Nephrologist Referral	<30	433 (3.666)	430 (3.640)	-3 (-6.39, 0.39)	-0.69 (-1.45, 0.06)
Dose Reduction for Antibacterials	<50	7 (0.0593)	6 (0.0508)	-1 (-2.96, 0.96)	-14.29 (-40.21, 11.64)
Eligible for Kidney Transplant	<20	39 (0.330)	32 (0.271)	-7 (-12.19, -1.81)	-17.95 (-30.72, -5.17)
Dose Reduction for Anticoagulants	<30	4 (0.0339)	4 (0.0339)	—	—
Dose Reduction for Diuretics	<30	12 (0.102)	7 (0.0593)	-5 (-9.38, -0.62)	-41.67 (-71.17, -12.16)
Pre-emptive Arteriovenous Fistula	<18	32 (0.271)	28 (0.237)	-4 (-8.8, 0.8)	-12.5 (-26.95, 1.95)
Dose Reduction for Statins	<30	3 (0.0254)	1 (0.00847)	-2 (-4.77, 0.77)	-66.67 (-120.01, -13.32)

H. Among Hispanic Adults, from 2009 CKD-EPI

Implication	GFR Thresholds	2009 CKD-EPI	2021 CKD-EPI	Difference	% Change
	<i>ml/min/1.73 m.sq.</i>	<i>no. (%)</i>	<i>no. (%)</i>	<i>no. (95% CI)</i>	<i>% (95% CI)</i>
Chronic Kidney Disease Diagnosis	<60	1,661 (14.062)	1,585 (13.419)	-76 (-98, -54)	-4.58 (-5.57, -3.58)
Ineligible to Donate Kidney	<60	3,696 (31.290)	3,642 (30.833)	-54 (-72.49, -35.51)	-1.46 (-1.87, -1.05)
Dose Reduction for Any Drug	<30, <45, <50, <60	200 (1.693)	150 (1.270)	-50 (-67.96, -32.04)	-25 (-32.09, -17.91)
Medical Nutrition Therapy Covered	13-50	151 (1.278)	111 (0.940)	-40 (-56.4, -23.6)	-26.49 (-34.23, -18.75)
Dose Reduction for ACE Inhibitors	<50	72 (0.610)	50 (0.423)	-22 (-31.99, -12.01)	-30.56 (-40.96, -20.15)
Dose Reduction for Opioids	<60	38 (0.322)	26 (0.220)	-12 (-19.33, -4.67)	-31.58 (-46.36, -16.8)
Dose Reduction for Antihyperglycemics	<30, <50, <60	40 (0.339)	34 (0.288)	-6 (-10.8, -1.2)	-15 (-25.44, -4.56)
Dose Reduction for ARBs	<45	47 (0.398)	40 (0.339)	-7 (-12.19, -1.81)	-14.89 (-25.6, -4.19)
Dose Reduction for Anticonvulsants	<60	22 (0.186)	17 (0.144)	-5 (-9.38, -0.62)	-22.73 (-43.14, -2.32)
Dose Reduction for Beta-Blockers	<50	23 (0.195)	18 (0.152)	-5 (-9.38, -0.62)	-21.74 (-39.31, -4.16)
Kidney Disease Education Covered	15-29	24 (0.203)	22 (0.186)	-2 (-6.8, 2.8)	-8.33 (-27.24, 10.57)
Nephrologist Referral	<30	434 (3.674)	430 (3.640)	-4 (-7.92, -0.08)	-0.92 (-1.8, -0.04)
Dose Reduction for Antibacterials	<50	7 (0.0593)	6 (0.0508)	-1 (-2.96, 0.96)	-14.29 (-40.21, 11.64)
Eligible for Kidney Transplant	<20	39 (0.330)	32 (0.271)	-7 (-12.19, -1.81)	-17.95 (-29.5, -6.4)
Dose Reduction for Anticoagulants	<30	4 (0.0339)	4 (0.0339)	—	—
Dose Reduction for Diuretics	<30	12 (0.102)	7 (0.0593)	-5 (-9.38, -0.62)	-41.67 (-71.17, -12.16)
Pre-emptive Arteriovenous Fistula	<18	31 (0.262)	28 (0.237)	-3 (-6.39, 0.39)	-9.68 (-20.52, 1.17)
Dose Reduction for Statins	<30	3 (0.0254)	1 (0.00847)	-2 (-4.77, 0.77)	-66.67 (-120.01, -13.32)

I. Among Asian/Other Adults, from 2006 MDRD

Implication	GFR Thresholds	2006 MDRD	2021 CKD-EPI	Difference	% Change
	<i>ml/min/1.73 m.sq.</i>	<i>no. (%)</i>	<i>no. (%)</i>	<i>no. (95% CI)</i>	<i>% (95% CI)</i>
Chronic Kidney Disease Diagnosis	<60	595 (13.437)	532 (12.014)	-63 (-79.51, -46.49)	-10.59 (-13.16, -8.02)
Ineligible to Donate Kidney	<60	1,123 (25.361)	1,086 (24.526)	-37 (-48.26, -25.74)	-3.3 (-4.26, -2.33)
Dose Reduction for Any Drug	<30, <45, <50, <60	83 (1.874)	61 (1.378)	-22 (-31.99, -12.01)	-26.51 (-36.37, -16.64)
Medical Nutrition Therapy Covered	13-50	60 (1.355)	44 (0.994)	-16 (-24.32, -7.68)	-26.67 (-38.06, -15.27)
Dose Reduction for ACE Inhibitors	<50	23 (0.519)	17 (0.384)	-6 (-10.8, -1.2)	-26.09 (-42.7, -9.48)
Dose Reduction for Opioids	<60	21 (0.474)	16 (0.361)	-5 (-9.38, -0.62)	-23.81 (-42.56, -5.06)
Dose Reduction for Antihyperglycemics	<30, <50, <60	15 (0.339)	9 (0.203)	-6 (-11.54, -0.46)	-40 (-68.15, -11.85)
Dose Reduction for ARBs	<45	17 (0.384)	17 (0.384)	—	—
Dose Reduction for Anticonvulsants	<60	11 (0.248)	8 (0.181)	-3 (-6.39, 0.39)	-27.27 (-54.47, -0.07)
Dose Reduction for Beta-Blockers	<50	12 (0.271)	7 (0.158)	-5 (-9.38, -0.62)	-41.67 (-67.13, -16.2)
Kidney Disease Education Covered	15-29	9 (0.203)	6 (0.136)	-3 (-6.39, 0.39)	-33.33 (-67.38, 0.72)
Nephrologist Referral	<30	130 (2.936)	127 (2.868)	-3 (-6.39, 0.39)	-2.31 (-4.86, 0.25)
Dose Reduction for Antibacterials	<50	0 (0.000)	0 (0.000)	—	—
Eligible for Kidney Transplant	<20	13 (0.294)	11 (0.248)	-2 (-4.77, 0.77)	-15.38 (-35.27, 4.5)
Dose Reduction for Anticoagulants	<30	2 (0.0452)	1 (0.0226)	-1 (-2.96, 0.96)	-50 (-119.3, 19.3)
Dose Reduction for Diuretics	<30	4 (0.0903)	3 (0.0678)	-1 (-2.96, 0.96)	-25 (-67.43, 17.43)
Pre-emptive Arteriovenous Fistula	<18	11 (0.248)	10 (0.226)	-1 (-2.96, 0.96)	-9.09 (-26.23, 8.05)
Dose Reduction for Statins	<30	3 (0.0678)	3 (0.0678)	—	—

J. Among Asian/Other Adults, from 2009 CKD-EPI

Implication	GFR Thresholds	2009 CKD-EPI	2021 CKD-EPI	Difference	% Change
	<i>ml/min/1.73 m.sq.</i>	<i>no. (%)</i>	<i>no. (%)</i>	<i>no. (95% CI)</i>	<i>% (95% CI)</i>
Chronic Kidney Disease Diagnosis	<60	565 (12.760)	532 (12.014)	-33 (-43.18, -22.82)	-5.84 (-7.54, -4.14)
Ineligible to Donate Kidney	<60	1,102 (24.887)	1,086 (24.526)	-16 (-23.33, -8.67)	-1.45 (-2.11, -0.8)
Dose Reduction for Any Drug	<30, <45, <50, <60	76 (1.716)	61 (1.378)	-15 (-23.08, -6.92)	-19.74 (-29.32, -10.16)
Medical Nutrition Therapy Covered	13-50	59 (1.332)	44 (0.994)	-15 (-23.08, -6.92)	-25.42 (-36.59, -14.26)
Dose Reduction for ACE Inhibitors	<50	22 (0.497)	17 (0.384)	-5 (-9.38, -0.62)	-22.73 (-38.82, -6.63)
Dose Reduction for Opioids	<60	17 (0.384)	16 (0.361)	-1 (-2.96, 0.96)	-5.88 (-17.15, 5.38)
Dose Reduction for Antihyperglycemics	<30, <50, <60	14 (0.316)	9 (0.203)	-5 (-10.19, 0.19)	-35.71 (-64.73, -6.7)
Dose Reduction for ARBs	<45	17 (0.384)	17 (0.384)	—	—
Dose Reduction for Anticonvulsants	<60	10 (0.226)	8 (0.181)	-2 (-4.77, 0.77)	-20 (-45.4, 5.4)
Dose Reduction for Beta-Blockers	<50	10 (0.226)	7 (0.158)	-3 (-6.39, 0.39)	-30 (-55.4, -4.6)
Kidney Disease Education Covered	15-29	11 (0.248)	6 (0.136)	-5 (-9.38, -0.62)	-45.45 (-77.44, -13.47)
Nephrologist Referral	<30	132 (2.981)	127 (2.868)	-5 (-9.38, -0.62)	-3.79 (-6.97, -0.6)
Dose Reduction for Antibacterials	<50	0 (0.000)	0 (0.000)	—	—
Eligible for Kidney Transplant	<20	13 (0.294)	11 (0.248)	-2 (-4.77, 0.77)	-15.38 (-35.27, 4.5)
Dose Reduction for Anticoagulants	<30	2 (0.0452)	1 (0.0226)	-1 (-2.96, 0.96)	-50 (-119.3, 19.3)
Dose Reduction for Diuretics	<30	4 (0.0903)	3 (0.0678)	-1 (-2.96, 0.96)	-25 (-67.43, 17.43)
Pre-emptive Arteriovenous Fistula	<18	11 (0.248)	10 (0.226)	-1 (-2.96, 0.96)	-9.09 (-26.23, 8.05)
Dose Reduction for Statins	<30	3 (0.0678)	3 (0.0678)	—	—

A. Changes to GFR-dependent clinical decisions for Black adults in NHANES 2001-2018 when switching from the 2006 MDRD equation to the 2021 CKD-EPI equation. Estimates are not survey-weighted. Clinical recommendations are primarily from the 2012 KDIGO Clinical Practice Guidelines, with some exceptions. Pre-emptive arteriovenous fistula practices and SGLT2 inhibitor guidelines were derived from the literature (see methods) and medical nutritional therapy and kidney disease education coverage were derived from the Medicare Part B Benefit Policy.

B. Same as table S-3A, but modeling a change from the 2009 CKD-EPI equation to the 2021 CKD-EPI equation.

C-D. Same as table S-3A and S-3B, but among Non-Black Adults.

E-F. Same as table S-3A and S-3B, but among White Adults.

G-H. Same as table S-3A and S-3B, but among Hispanic Adults.

I-J. Same as table S-3A and S-3B, but among Asian/Other Adults.

Abbreviations: ACE: angiotensin-converting enzyme; ARB: angiotensin receptor blocker; CKD: chronic kidney disease; CKD-EPI: CKD Epidemiology Collaboration; eGFR: estimated glomerular filtration rate; KDIGO: Kidney Disease Improving Global Outcomes; MDRD: Modification of Diet in Renal Disease; NHANES: National Health and Nutrition Examination Survey.

Table S-4: Survey adjusted national projections of changes to GFR-dependent clinical decisions in the US, 2001-2018

A. Among Black Adults, from 2006 MDRD

Implication	GFR Thresholds	2006 MDRD	2021 CKD-EPI	Difference	% Change
	<i>ml/min/1.73 m.sq.</i>	<i>no. (%)</i>	<i>no. (%)</i>	<i>no. (95% CI)</i>	<i>% (95% CI)</i>
Chronic Kidney Disease Diagnosis	<60	3,978,760 (14.956)	4,412,284 (16.585)	433,524 (350,081, 516,966)	10.9 (9.07, 12.72)
Ineligible to Donate Kidney	<60	10,266,439 (38.591)	10,512,583 (39.516)	246,144 (189,465, 302,823)	2.4 (1.92, 2.88)
Dose Reduction for Any Drug	<30, <45, <50, <60	583,209 (2.192)	805,545 (3.028)	222,336 (169,319, 275,352)	38.12 (28.58, 47.67)
Medical Nutrition Therapy Covered	13-50	378,775 (1.424)	562,428 (2.114)	183,653 (144,724, 222,582)	48.49 (36.08, 60.9)
Dose Reduction for ACE Inhibitors	<50	200,464 (0.754)	285,835 (1.074)	85,371 (57,999, 112,743)	42.59 (27.3, 57.87)
Dose Reduction for Opioids	<60	145,322 (0.546)	206,534 (0.776)	61,211 (36,722, 85,701)	42.12 (24.17, 60.07)
Dose Reduction for Antihyperglycemics	<30, <50, <60	99,887 (0.375)	126,787 (0.477)	26,900 (12,146, 41,653)	26.93 (9.44, 44.42)
Dose Reduction for ARBs	<45	132,055 (0.496)	178,438 (0.671)	46,383 (26,520, 66,245)	35.12 (18.25, 52)
Dose Reduction for Anticonvulsants	<60	78,605 (0.295)	95,405 (0.359)	16,800 (7,092, 26,507)	21.37 (9, 33.74)
Dose Reduction for Beta-Blockers	<50	59,959 (0.225)	76,136 (0.286)	16,176 (2,943, 29,410)	26.98 (2.29, 51.66)
Kidney Disease Education Covered	15-29	49,089 (0.185)	71,303 (0.268)	22,213 (2,915, 41,511)	45.25 (-3.37, 93.87)
Nephrologist Referral	<30	847,831 (3.187)	889,600 (3.344)	41,769 (19,787, 63,750)	4.93 (2.29, 7.57)
Dose Reduction for Antibacterials	<50	29,689 (0.112)	31,631 (0.119)	1,941 (-749.98, 4,632)	6.54 (-3.31, 16.39)
Eligible for Kidney Transplant	<20	168,834 (0.635)	184,643 (0.694)	15,809 (3,777, 27,840)	9.36 (2.16, 16.57)
Dose Reduction for Anticoagulants	<30	17,004 (0.0639)	21,266 (0.0799)	4,263 (-585.34, 9,111)	25.07 (-9.23, 59.37)
Dose Reduction for Diuretics	<30	57,324 (0.215)	68,341 (0.257)	11,017 (1,139, 20,895)	19.22 (-1.64, 40.07)
Pre-emptive Arteriovenous Fistula	<18	157,547 (0.592)	174,754 (0.657)	17,207 (4,103, 30,312)	10.92 (2.72, 19.12)
Dose Reduction for Statins	<30	38,393 (0.144)	45,464 (0.171)	7,071 (-1,029, 15,171)	18.42 (-5.38, 42.21)

B. Among Black Adults, from 2009 CKD-EPI

Implication	GFR Thresholds	2009 CKD-EPI	2021 CKD-EPI	Difference	% Change
	<i>ml/min/1.73 m.sq.</i>	<i>no. (%)</i>	<i>no. (%)</i>	<i>no. (95% CI)</i>	<i>% (95% CI)</i>
Chronic Kidney Disease Diagnosis	<60	3,981,873 (14.968)	4,412,284 (16.585)	430,411 (347,102, 513,719)	10.81 (8.86, 12.76)
Ineligible to Donate Kidney	<60	10,245,910 (38.514)	10,512,583 (39.516)	266,673 (208,949, 324,396)	2.6 (2.09, 3.12)
Dose Reduction for Any Drug	<30, <45, <50, <60	622,201 (2.339)	805,545 (3.028)	183,344 (130,793, 235,895)	29.47 (20.58, 38.35)
Medical Nutrition Therapy Covered	13-50	451,811 (1.698)	562,428 (2.114)	110,617 (81,208, 140,026)	24.48 (17.29, 31.68)
Dose Reduction for ACE Inhibitors	<50	233,614 (0.878)	285,835 (1.074)	52,221 (29,403, 75,039)	22.35 (12.36, 32.35)
Dose Reduction for Opioids	<60	145,749 (0.548)	206,534 (0.776)	60,785 (35,803, 85,766)	41.7 (23.08, 60.33)
Dose Reduction for Antihyperglycemics	<30, <50, <60	100,198 (0.377)	126,787 (0.477)	26,589 (10,408, 42,769)	26.54 (8.62, 44.45)
Dose Reduction for ARBs	<45	135,275 (0.508)	178,438 (0.671)	43,163 (22,759, 63,567)	31.91 (15.31, 48.5)
Dose Reduction for Anticonvulsants	<60	77,859 (0.293)	95,405 (0.359)	17,546 (5,561, 29,530)	22.54 (6.37, 38.7)
Dose Reduction for Beta-Blockers	<50	67,806 (0.255)	76,136 (0.286)	8,329 (-1,475, 18,134)	12.28 (-3.14, 27.7)
Kidney Disease Education Covered	15-29	62,676 (0.236)	71,303 (0.268)	8,627 (-6,039, 23,292)	13.76 (-11.3, 38.83)
Nephrologist Referral	<30	861,644 (3.239)	889,600 (3.344)	27,955 (8,387, 47,524)	3.24 (0.97, 5.52)
Dose Reduction for Antibacterials	<50	26,232 (0.0986)	31,631 (0.119)	5,399 (-3,450, 14,247)	20.58 (-15.23, 56.39)
Eligible for Kidney Transplant	<20	178,958 (0.673)	184,643 (0.694)	5,685 (32.25, 11,338)	3.18 (-0.06, 6.41)
Dose Reduction for Anticoagulants	<30	19,848 (0.0746)	21,266 (0.0799)	1,418 (-1,361, 4,198)	7.15 (-7.68, 21.97)
Dose Reduction for Diuretics	<30	53,866 (0.202)	68,341 (0.257)	14,474 (1,489, 27,460)	26.87 (-1.61, 55.35)
Pre-emptive Arteriovenous Fistula	<18	153,914 (0.579)	174,754 (0.657)	20,841 (4,964, 36,717)	13.54 (2.86, 24.22)
Dose Reduction for Statins	<30	42,595 (0.160)	45,464 (0.171)	2,869 (-2,754, 8,491)	6.74 (-6.89, 20.36)

C. Among Non-Black Adults, from 2006 MDRD

Implication	GFR Thresholds	2006 MDRD	2021 CKD-EPI	Difference	% Change
	<i>ml/min/1.73 m.sq.</i>	<i>no. (%)</i>	<i>no. (%)</i>	<i>no. (95% CI)</i>	<i>% (95% CI)</i>
Chronic Kidney Disease Diagnosis	<60	27,949,202 (13.734)	22,437,308 (11.025)	-5,511,894 (-6,162,844, -4,860,944)	-19.72 (-21.43, -18.01)
Ineligible to Donate Kidney	<60	58,625,709 (28.808)	54,662,362 (26.860)	-3,963,346 (-4,463,108, -3,463,585)	-6.76 (-7.49, -6.03)
Dose Reduction for Any Drug	<30, <45, <50, <60	4,332,079 (2.129)	2,858,398 (1.405)	-1,473,681 (-1,732,091, -1,215,272)	-34.02 (-38, -30.04)
Medical Nutrition Therapy Covered	13-50	3,546,479 (1.743)	2,504,419 (1.231)	-1,042,060 (-1,233,338, -850,782)	-29.38 (-33.57, -25.2)
Dose Reduction for ACE Inhibitors	<50	1,377,923 (0.677)	922,634 (0.453)	-455,290 (-575,309, -335,271)	-33.04 (-39.93, -26.15)
Dose Reduction for Opioids	<60	1,311,931 (0.645)	834,313 (0.410)	-477,618 (-638,627, -316,609)	-36.41 (-44.74, -28.07)
Dose Reduction for Antihyperglycemics	<30, <50, <60	637,435 (0.313)	405,277 (0.199)	-232,158 (-320,261, -144,055)	-36.42 (-47.07, -25.77)
Dose Reduction for ARBs	<45	653,010 (0.321)	468,619 (0.230)	-184,391 (-271,746, -97,036)	-28.24 (-39.41, -17.06)
Dose Reduction for Anticonvulsants	<60	646,848 (0.318)	429,009 (0.211)	-217,840 (-298,866, -136,813)	-33.68 (-43.71, -23.64)
Dose Reduction for Beta-Blockers	<50	618,751 (0.304)	414,164 (0.204)	-204,587 (-280,010, -129,164)	-33.06 (-42.36, -23.77)
Kidney Disease Education Covered	15-29	343,412 (0.169)	256,453 (0.126)	-86,959 (-130,918, -43,000)	-25.32 (-35.35, -15.3)
Nephrologist Referral	<30	5,723,236 (2.812)	5,647,440 (2.775)	-75,796 (-116,186, -35,406)	-1.32 (-2.04, -0.61)
Dose Reduction for Antibacterials	<50	144,698 (0.0711)	91,312 (0.0449)	-53,386 (-99,698, -7,074)	-36.9 (-58.76, -15.03)
Eligible for Kidney Transplant	<20	306,779 (0.151)	281,821 (0.138)	-24,958 (-43,745, -6,172)	-8.14 (-14.28, -2)
Dose Reduction for Anticoagulants	<30	91,461 (0.0449)	73,841 (0.0363)	-17,620 (-40,126, 4,886)	-19.26 (-41.16, 2.63)
Dose Reduction for Diuretics	<30	244,040 (0.120)	212,990 (0.105)	-31,051 (-55,664, -6,437)	-12.72 (-21.69, -3.76)
Pre-emptive Arteriovenous Fistula	<18	255,049 (0.125)	238,858 (0.117)	-16,190 (-34,642, 2,262)	-6.35 (-13.59, 0.89)
Dose Reduction for Statins	<30	43,365 (0.0213)	38,028 (0.0187)	-5,337 (-12,293, 1,618)	-12.31 (-28.15, 3.54)

D. Among Non-Black Adults, from 2009 CKD-EPI

Implication	GFR Thresholds	2009 CKD-EPI	2021 CKD-EPI	Difference	% Change
	<i>ml/min/1.73 m.sq.</i>	<i>no. (%)</i>	<i>no. (%)</i>	<i>no. (95% CI)</i>	<i>% (95% CI)</i>
Chronic Kidney Disease Diagnosis	<60	25,008,079 (12.289)	22,437,308 (11.025)	-2,570,771 (-2,908,041, -2,233,501)	-10.28 (-11.42, -9.14)
Ineligible to Donate Kidney	<60	56,509,496 (27.768)	54,662,362 (26.860)	-1,847,134 (-2,126,912, -1,567,356)	-3.27 (-3.71, -2.82)
Dose Reduction for Any Drug	<30, <45, <50, <60	3,791,902 (1.863)	2,858,398 (1.405)	-933,505 (-1,110,733, -756,277)	-24.62 (-28.19, -21.04)
Medical Nutrition Therapy Covered	13-50	3,465,596 (1.703)	2,504,419 (1.231)	-961,177 (-1,137,305, -785,049)	-27.74 (-31.87, -23.6)
Dose Reduction for ACE Inhibitors	<50	1,262,101 (0.620)	922,634 (0.453)	-339,468 (-437,484, -241,451)	-26.9 (-33.32, -20.47)
Dose Reduction for Opioids	<60	1,008,932 (0.496)	834,313 (0.410)	-174,620 (-265,764, -83,475)	-17.31 (-25.06, -9.56)
Dose Reduction for Antihyperglycemics	<30, <50, <60	564,292 (0.277)	405,277 (0.199)	-159,015 (-230,969, -87,060)	-28.18 (-38.83, -17.53)
Dose Reduction for ARBs	<45	653,412 (0.321)	468,619 (0.230)	-184,793 (-269,737, -99,848)	-28.28 (-39.05, -17.51)
Dose Reduction for Anticonvulsants	<60	524,986 (0.258)	429,009 (0.211)	-95,977 (-146,207, -45,746)	-18.28 (-27.26, -9.3)
Dose Reduction for Beta-Blockers	<50	548,487 (0.270)	414,164 (0.204)	-134,323 (-184,357, -84,289)	-24.49 (-32.29, -16.69)
Kidney Disease Education Covered	15-29	361,517 (0.178)	256,453 (0.126)	-105,064 (-156,851, -53,276)	-29.06 (-40.3, -17.82)
Nephrologist Referral	<30	5,761,052 (2.831)	5,647,440 (2.775)	-113,612 (-164,218, -63,006)	-1.97 (-2.85, -1.09)
Dose Reduction for Antibacterials	<50	120,737 (0.0593)	91,312 (0.0449)	-29,425 (-61,471, 2,620)	-24.37 (-44.85, -3.9)
Eligible for Kidney Transplant	<20	323,987 (0.159)	281,821 (0.138)	-42,166 (-72,010, -12,323)	-13.02 (-21.4, -4.63)
Dose Reduction for Anticoagulants	<30	90,183 (0.0443)	73,841 (0.0363)	-16,342 (-33,138, 454.57)	-18.12 (-35.77, -0.48)
Dose Reduction for Diuretics	<30	245,442 (0.121)	212,990 (0.105)	-32,452 (-57,218, -7,686)	-13.22 (-22.17, -4.27)
Pre-emptive Arteriovenous Fistula	<18	270,676 (0.133)	238,858 (0.117)	-31,818 (-62,612, -1,024)	-11.76 (-22.52, -0.98)
Dose Reduction for Statins	<30	47,876 (0.0235)	38,028 (0.0187)	-9,848 (-21,097, 1,401)	-20.57 (-42.26, 1.12)

E. Among White Adults, from 2006 MDRD

Implication	GFR Thresholds	2006 MDRD	2021 CKD-EPI	Difference	% Change
	<i>ml/min/1.73 m.sq.</i>	<i>no. (%)</i>	<i>no. (%)</i>	<i>no. (95% CI)</i>	<i>% (95% CI)</i>
Chronic Kidney Disease Diagnosis	<60	21,943,431 (14.211)	16,966,772 (10.988)	-4,976,659 (-5,628,182, -4,325,135)	-22.68 (-24.75, -20.61)
Ineligible to Donate Kidney	<60	45,642,691 (29.558)	42,031,764 (27.220)	-3,610,926 (-4,103,847, -3,118,006)	-7.91 (-8.82, -7)
Dose Reduction for Any Drug	<30, <45, <50, <60	3,729,148 (2.415)	2,442,103 (1.582)	-1,287,044 (-1,535,738, -1,038,351)	-34.51 (-38.97, -30.06)
Medical Nutrition Therapy Covered	13-50	3,125,043 (2.024)	2,198,326 (1.424)	-926,718 (-1,107,738, -745,698)	-29.66 (-34.19, -25.12)
Dose Reduction for ACE Inhibitors	<50	1,189,179 (0.770)	802,271 (0.520)	-386,908 (-500,362, -273,453)	-32.54 (-40.06, -25.02)
Dose Reduction for Opioids	<60	1,154,756 (0.748)	732,623 (0.474)	-422,133 (-583,751, -260,515)	-36.56 (-46.04, -27.08)
Dose Reduction for Antihyperglycemics	<30, <50, <60	528,751 (0.342)	341,151 (0.221)	-187,600 (-271,654, -103,546)	-35.48 (-47.7, -23.26)
Dose Reduction for ARBs	<45	518,147 (0.336)	342,267 (0.222)	-175,880 (-262,369, -89,392)	-33.94 (-46.58, -21.31)
Dose Reduction for Anticonvulsants	<60	548,952 (0.356)	368,412 (0.239)	-180,540 (-258,331, -102,749)	-32.89 (-44.1, -21.67)
Dose Reduction for Beta-Blockers	<50	547,694 (0.355)	359,447 (0.233)	-188,248 (-262,933, -113,563)	-34.37 (-44.52, -24.22)
Kidney Disease Education Covered	15-29	271,561 (0.176)	205,671 (0.133)	-65,889 (-103,411, -28,368)	-24.26 (-34.78, -13.75)
Nephrologist Referral	<30	4,341,853 (2.812)	4,284,312 (2.775)	-57,541 (-95,586, -19,495)	-1.32 (-2.21, -0.44)
Dose Reduction for Antibacterials	<50	132,562 (0.0858)	80,396 (0.0521)	-52,166 (-98,417, -5,916)	-39.35 (-62.59, -16.11)
Eligible for Kidney Transplant	<20	204,836 (0.133)	197,959 (0.128)	-6,877 (-20,356, 6,602)	-3.36 (-9.84, 3.13)
Dose Reduction for Anticoagulants	<30	77,417 (0.0501)	64,950 (0.0421)	-12,466 (-32,579, 7,646)	-16.1 (-39.76, 7.55)
Dose Reduction for Diuretics	<30	206,854 (0.134)	182,978 (0.118)	-23,876 (-47,609, -142,36)	-11.54 (-21.37, -1.72)
Pre-emptive Arteriovenous Fistula	<18	171,187 (0.111)	166,470 (0.108)	-4,717 (-13,962, 4,528)	-2.76 (-8.13, 2.62)
Dose Reduction for Statins	<30	30,772 (0.0199)	27,556 (0.0178)	-3,216 (-9,518, 3,087)	-10.45 (-30.43, 9.53)

F. Among White Adults, from 2009 CKD-EPI

Implication	GFR Thresholds	2009 CKD-EPI	2021 CKD-EPI	Difference	% Change
	<i>ml/min/1.73 m.sq.</i>	<i>no. (%)</i>	<i>no. (%)</i>	<i>no. (95% CI)</i>	<i>% (95% CI)</i>
Chronic Kidney Disease Diagnosis	<60	19,310,532 (12.505)	16,966,772 (10.988)	-2,343,760 (-2,684,022, -2,003,498)	-12.14 (-13.56, -10.72)
Ineligible to Donate Kidney	<60	43,746,908 (28.330)	42,031,764 (27.220)	-1,715,143 (-1,995,162, -1,435,125)	-3.92 (-4.47, -3.37)
Dose Reduction for Any Drug	<30, <45, <50, <60	3,249,163 (2.104)	2,442,103 (1.582)	-807,060 (-978,331, -635,788)	-24.84 (-28.91, -20.77)
Medical Nutrition Therapy Covered	13-50	3,051,063 (1.976)	2,198,326 (1.424)	-852,737 (-1,017,974, -687,500)	-27.95 (-32.36, -23.54)
Dose Reduction for ACE Inhibitors	<50	1,081,434 (0.700)	802,271 (0.520)	-279,162 (-370,253, -188,071)	-25.81 (-32.81, -18.82)
Dose Reduction for Opioids	<60	884,995 (0.573)	732,623 (0.474)	-152,373 (-242,838, -61,907)	-17.22 (-26.03, -8.41)
Dose Reduction for Antihyperglycemics	<30, <50, <60	469,355 (0.304)	341,151 (0.221)	-128,204 (-195,464, -60,944)	-27.32 (-39.2, -15.43)
Dose Reduction for ARBs	<45	517,506 (0.335)	342,267 (0.222)	-175,240 (-259,299, -91,181)	-33.86 (-46.28, -21.45)
Dose Reduction for Anticonvulsants	<60	449,365 (0.291)	368,412 (0.239)	-80,953 (-129,099, -32,807)	-18.02 (-27.91, -8.12)
Dose Reduction for Beta-Blockers	<50	484,827 (0.314)	359,447 (0.233)	-125,380 (-175,180, -75,580)	-25.86 (-34.54, -17.18)
Kidney Disease Education Covered	15-29	282,804 (0.183)	205,671 (0.133)	-77,133 (-121,252, -33,015)	-27.27 (-39.52, -15.03)
Nephrologist Referral	<30	4,375,862 (2.834)	4,284,312 (2.775)	-91,550 (-139,394, -43,706)	-2.09 (-3.2, -0.98)
Dose Reduction for Antibacterials	<50	108,602 (0.0703)	80,396 (0.0521)	-28,205 (-60,161, 3,751)	-25.97 (-48.29, -3.66)
Eligible for Kidney Transplant	<20	227,137 (0.147)	197,959 (0.128)	-29,178 (-57,163, -1,193)	-12.85 (-23.95, -1.74)
Dose Reduction for Anticoagulants	<30	76,139 (0.0493)	64,950 (0.0421)	-11,188 (-24,609, 2,232)	-14.7 (-32.06, 2.67)
Dose Reduction for Diuretics	<30	208,255 (0.135)	182,978 (0.118)	-25,277 (-49,169, -1,385)	-12.14 (-21.92, -2.36)
Pre-emptive Arteriovenous Fistula	<18	193,711 (0.125)	166,470 (0.108)	-27,241 (-58,151, 3,668)	-14.06 (-28.97, 0.84)
Dose Reduction for Statins	<30	35,283 (0.0228)	27,556 (0.0178)	-7,727 (-18,584, 3,131)	-21.9 (-49.95, 6.16)

G. Among Hispanic Adults, from 2006 MDRD

Implication	GFR Thresholds	2006 MDRD	2021 CKD-EPI	Difference	% Change
	<i>ml/min/1.73 m.sq.</i>	<i>no. (%)</i>	<i>no. (%)</i>	<i>no. (95% CI)</i>	<i>% (95% CI)</i>
Chronic Kidney Disease Diagnosis	<60	3,914,988 (12.008)	3,590,288 (11.012)	-324,700 (-404,793, -244,607)	-8.29 (-10.01, -6.58)
Ineligible to Donate Kidney	<60	8,909,910 (27.327)	8,676,915 (26.613)	-232,995 (-301,505, -164,486)	-2.62 (-3.32, -1.91)
Dose Reduction for Any Drug	<30, <45, <50, <60	345,421 (1.059)	233,827 (0.717)	-111,594 (-149,682, -73,507)	-32.31 (-40.75, -23.86)
Medical Nutrition Therapy Covered	13-50	204,242 (0.626)	155,788 (0.478)	-48,454 (-70,174, -26,733)	-23.72 (-31.52, -15.92)
Dose Reduction for ACE Inhibitors	<50	112,967 (0.346)	74,045 (0.227)	-38,922 (-57,336, -20,508)	-34.45 (-46.22, -22.69)
Dose Reduction for Opioids	<60	79,842 (0.245)	46,017 (0.141)	-33,826 (-53,550, -14,102)	-42.37 (-58.85, -25.88)
Dose Reduction for Antihyperglycemics	<30, <50, <60	66,329 (0.203)	38,652 (0.119)	-27,677 (-50,321, -5,033)	-41.73 (-63.05, -20.4)
Dose Reduction for ARBs	<45	78,739 (0.241)	70,229 (0.215)	-8,510 (-15,184, -1,836)	-10.81 (-19.36, -2.26)
Dose Reduction for Anticonvulsants	<60	62,858 (0.193)	35,686 (0.109)	-27,172 (-45,944, -8,400)	-43.23 (-67.96, -18.5)
Dose Reduction for Beta-Blockers	<50	40,917 (0.125)	35,867 (0.110)	-5,050 (-10,133, 33.67)	-12.34 (-24.68, 0)
Kidney Disease Education Covered	15-29	36,133 (0.111)	30,631 (0.0939)	-5,502 (-15,142, 4,139)	-15.23 (-38.88, 8.43)
Nephrologist Referral	<30	932,179 (2.859)	928,560 (2.848)	-3,619 (-7,843, 603.87)	-0.39 (-0.82, 0.05)
Dose Reduction for Antibacterials	<50	12,136 (0.0372)	10,916 (0.0335)	-1,220 (-3,611, 1,171)	-10.05 (-29.53, 9.42)
Eligible for Kidney Transplant	<20	68,932 (0.211)	54,926 (0.168)	-14,006 (-25,777, -2,234)	-20.32 (-36.01, -4.62)
Dose Reduction for Anticoagulants	<30	6,774 (0.0208)	6,774 (0.0208)	—	—
Dose Reduction for Diuretics	<30	16,395 (0.0503)	11,453 (0.0351)	-4,942 (-9,780, -104.81)	-30.14 (-58.23, -2.06)
Pre-emptive Arteriovenous Fistula	<18	54,926 (0.168)	44,851 (0.138)	-10,075 (-26,695, 6,544)	-18.34 (-46.67, 9.98)
Dose Reduction for Statins	<30	5,997 (0.0184)	3,875 (0.0119)	-2,122 (-5,063, 820.01)	-35.38 (-90.27, 19.51)

H. Among Hispanic Adults, from 2009 CKD-EPI

Implication	GFR Thresholds	2009 CKD-EPI	2021 CKD-EPI	Difference	% Change
	<i>ml/min/1.73 m.sq.</i>	<i>no. (%)</i>	<i>no. (%)</i>	<i>no. (95% CI)</i>	<i>% (95% CI)</i>
Chronic Kidney Disease Diagnosis	<60	3,712,131 (11.385)	3,590,288 (11.012)	-121,843 (-164,223, -79,463)	-3.28 (-4.28, -2.28)
Ineligible to Donate Kidney	<60	8,758,023 (26.861)	8,676,915 (26.613)	-81,108 (-111,562, -50,654)	-0.93 (-1.24, -0.61)
Dose Reduction for Any Drug	<30, <45, <50, <60	311,045 (0.954)	233,827 (0.717)	-77,218 (-108,367, -46,069)	-24.82 (-32.95, -16.7)
Medical Nutrition Therapy Covered	13-50	205,948 (0.632)	155,788 (0.478)	-50,160 (-72,805, -27,514)	-24.36 (-32.47, -16.24)
Dose Reduction for ACE Inhibitors	<50	107,773 (0.331)	74,045 (0.227)	-33,727 (-50,246, -17,208)	-31.3 (-42.91, -19.68)
Dose Reduction for Opioids	<60	63,510 (0.195)	46,017 (0.141)	-17,493 (-28,603, -6,383)	-27.54 (-41.19, -13.9)
Dose Reduction for Antihyperglycemics	<30, <50, <60	54,791 (0.168)	38,652 (0.119)	-16,139 (-36,999, 4,722)	-29.45 (-57.08, -1.83)
Dose Reduction for ARBs	<45	79,782 (0.245)	70,229 (0.215)	-9,553 (-16,906, -2,200)	-11.97 (-21.2, -2.75)
Dose Reduction for Anticonvulsants	<60	43,642 (0.134)	35,686 (0.109)	-7,956 (-15,601, -309.95)	-18.23 (-37.09, 0.63)
Dose Reduction for Beta-Blockers	<50	39,419 (0.121)	35,867 (0.110)	-3,551 (-6,884, -218.56)	-9.01 (-17.91, -0.11)
Kidney Disease Education Covered	15-29	33,751 (0.104)	30,631 (0.0939)	-3,120 (-14,850, 8,610)	-9.24 (-42.08, 23.59)
Nephrologist Referral	<30	933,558 (2.863)	928,560 (2.848)	-4,998 (-10,011, 15.66)	-0.54 (-1.06, -0.01)
Dose Reduction for Antibacterials	<50	12,136 (0.0372)	10,916 (0.0335)	-1,220 (-3,611, 1,171)	-10.05 (-29.53, 9.42)
Eligible for Kidney Transplant	<20	63,839 (0.196)	54,926 (0.168)	-8,913 (-17,561, -264.21)	-13.96 (-26.26, -1.66)
Dose Reduction for Anticoagulants	<30	6,774 (0.0208)	6,774 (0.0208)	—	—
Dose Reduction for Diuretics	<30	16,395 (0.0503)	11,453 (0.0351)	-4,942 (-9,780, -104.81)	-30.14 (-58.23, -2.06)
Pre-emptive Arteriovenous Fistula	<18	48,030 (0.147)	44,851 (0.138)	-3,179 (-6,930, 572.07)	-6.62 (-15.29, 2.05)
Dose Reduction for Statins	<30	5,997 (0.0184)	3,875 (0.0119)	-2,122 (-5,063, 820.01)	-35.38 (-90.27, 19.51)

I. Among Asian/Other Adults, from 2006 MDRD

Implication	GFR Thresholds	2006 MDRD	2021 CKD-EPI	Difference	% Change
	<i>ml/min/1.73 m.sq.</i>	<i>no. (%)</i>	<i>no. (%)</i>	<i>no. (95% CI)</i>	<i>% (95% CI)</i>
Chronic Kidney Disease Diagnosis	<60	2,090,783 (12.682)	1,880,248 (11.405)	-210,535 (-284,827, -136,243)	-10.07 (-13.58, -6.56)
Ineligible to Donate Kidney	<60	4,073,108 (24.706)	3,953,683 (23.982)	-119,425 (-167,722, -71,127)	-2.93 (-4.09, -1.77)
Dose Reduction for Any Drug	<30, <45, <50, <60	257,510 (1.562)	182,467 (1.107)	-75,043 (-115,295, -34,790)	-29.14 (-41.26, -17.03)
Medical Nutrition Therapy Covered	13-50	217,194 (1.317)	150,305 (0.912)	-66,889 (-105,338, -28,440)	-30.8 (-45.11, -16.48)
Dose Reduction for ACE Inhibitors	<50	75,777 (0.460)	46,317 (0.281)	-29,460 (-56,502, -2,418)	-38.88 (-63.52, -14.24)
Dose Reduction for Opioids	<60	77,333 (0.469)	55,673 (0.338)	-21,659 (-43,966, 647.75)	-28.01 (-52.21, -3.8)
Dose Reduction for Antihyperglycemics	<30, <50, <60	42,355 (0.257)	25,474 (0.155)	-16,881 (-32,478, -1,285)	-39.86 (-69.44, -10.27)
Dose Reduction for ARBs	<45	56,124 (0.340)	56,124 (0.340)	—	—
Dose Reduction for Anticonvulsants	<60	35,038 (0.213)	24,911 (0.151)	-10,128 (-21,944, 1,689)	-28.91 (-58.56, 0.75)
Dose Reduction for Beta-Blockers	<50	30,139 (0.183)	18,850 (0.114)	-11,289 (-21,925, -653.92)	-37.46 (-64.97, -9.94)
Kidney Disease Education Covered	15-29	35,719 (0.217)	20,151 (0.122)	-15,568 (-34,246, 3,111)	-43.58 (-84.28, -2.89)
Nephrologist Referral	<30	449,204 (2.725)	434,568 (2.636)	-14,636 (-31,233, 1,962)	-3.26 (-6.85, 0.34)
Dose Reduction for Antibacterials	<50	0 (0.000)	0 (0.000)	—	—
Eligible for Kidney Transplant	<20	33,011 (0.200)	28,935 (0.176)	-4,076 (-9,792, 1,641)	-12.35 (-29.52, 4.83)
Dose Reduction for Anticoagulants	<30	7,270 (0.0441)	2,117 (0.0128)	-5,153 (-15,254, 4,947)	-70.89 (-128.09, -13.68)
Dose Reduction for Diuretics	<30	20,792 (0.126)	18,559 (0.113)	-2,232 (-6,608, 2,143)	-10.74 (-32.5, 11.02)
Pre-emptive Arteriovenous Fistula	<18	28,935 (0.176)	27,537 (0.167)	-1,398 (-4,137, 1,342)	-4.83 (-14.52, 4.86)
Dose Reduction for Statins	<30	6,596 (0.040)	6,596 (0.040)	—	—

J. Among Asian/Other Adults, from 2009 CKD-EPI

Implication	GFR Thresholds	2009 CKD-EPI	2021 CKD-EPI	Difference	% Change
	<i>ml/min/1.73 m.sq.</i>	<i>no. (%)</i>	<i>no. (%)</i>	<i>no. (95% CI)</i>	<i>% (95% CI)</i>
Chronic Kidney Disease Diagnosis	<60	1,985,416 (12.043)	1,880,248 (11.405)	-105,168 (-146,894, -63,442)	-5.3 (-7.39, -3.2)
Ineligible to Donate Kidney	<60	4,004,566 (24.290)	3,953,683 (23.982)	-50,883 (-78,982, -22,784)	-1.27 (-1.97, -0.57)
Dose Reduction for Any Drug	<30, <45, <50, <60	231,695 (1.405)	182,467 (1.107)	-49,227 (-81,485, -16,970)	-21.25 (-33.28, -9.21)
Medical Nutrition Therapy Covered	13-50	208,585 (1.265)	150,305 (0.912)	-58,280 (-93,297, -23,263)	-27.94 (-41.87, -14.01)
Dose Reduction for ACE Inhibitors	<50	72,895 (0.442)	46,317 (0.281)	-26,578 (-53,024, -133.05)	-36.46 (-61.95, -10.97)
Dose Reduction for Opioids	<60	60,427 (0.367)	55,673 (0.338)	-4,754 (-14,071, 4,563)	-7.87 (-22.76, 7.03)
Dose Reduction for Antihyperglycemics	<30, <50, <60	40,147 (0.244)	25,474 (0.155)	-14,673 (-29,656, 311.03)	-36.55 (-66.89, -6.2)
Dose Reduction for ARBs	<45	56,124 (0.340)	56,124 (0.340)	—	—
Dose Reduction for Anticonvulsants	<60	31,979 (0.194)	24,911 (0.151)	-7,068 (-17,251, 3,114)	-22.1 (-50.89, 6.69)
Dose Reduction for Beta-Blockers	<50	24,241 (0.147)	18,850 (0.114)	-5,391 (-11,754, 970.8)	-22.24 (-44.48, -0.01)
Kidney Disease Education Covered	15-29	44,961 (0.273)	20,151 (0.122)	-24,810 (-47,507, -2,113)	-55.18 (-89.89, -20.48)
Nephrologist Referral	<30	451,632 (2.739)	434,568 (2.636)	-17,064 (-34,006, -121.18)	-3.78 (-7.39, -0.16)
Dose Reduction for Antibacterials	<50	0 (0.000)	0 (0.000)	—	—
Eligible for Kidney Transplant	<20	33,011 (0.200)	28,935 (0.176)	-4,076 (-9,792, 1,641)	-12.35 (-29.52, 4.83)
Dose Reduction for Anticoagulants	<30	7,270 (0.0441)	2,117 (0.0128)	-5,153 (-15,254, 4,947)	-70.89 (-128.09, -13.68)
Dose Reduction for Diuretics	<30	20,792 (0.126)	18,559 (0.113)	-2,232 (-6,608, 2,143)	-10.74 (-32.5, 11.02)
Pre-emptive Arteriovenous Fistula	<18	28,935 (0.176)	27,537 (0.167)	-1,398 (-4,137, 1,342)	-4.83 (-14.52, 4.86)
Dose Reduction for Statins	<30	6,596 (0.040)	6,596 (0.040)	—	—

A. Changes to GFR-dependent clinical decisions for Black adults in NHANES 2001-2018 when computed using the 2021 CKD-EPI equation rather than the 2006 MDRD equation. Estimates are not survey-weighted. Clinical recommendations are primarily from the 2012 KDIGO Clinical Practice Guidelines, with some exceptions. Pre-emptive arteriovenous fistula practices and SGLT2 inhibitor guidelines were derived from the literature (see methods) and medical nutritional therapy and kidney disease education coverage were derived from the Medicare Part B Benefit Policy.

B. Same as table S-4A, but modeling a change from the 2009 CKD-EPI equation.

C-D. Same as table S-4A and S-4B, but among Non-Black Adults.

E-F. Same as table S-4A and S-4B, but among White Adults.

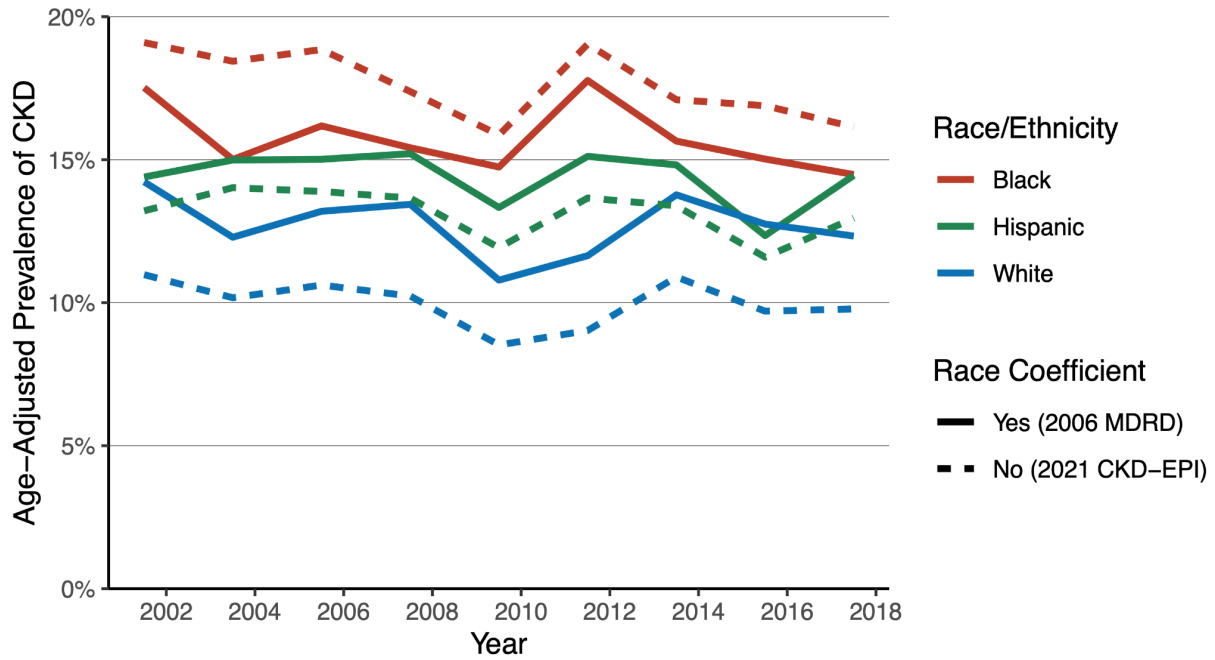
G-H. Same as table S-4A and S-4B, but among Hispanic Adults.

I-J. Same as table S-4A and S-4B, but among Asian/Other Adults.

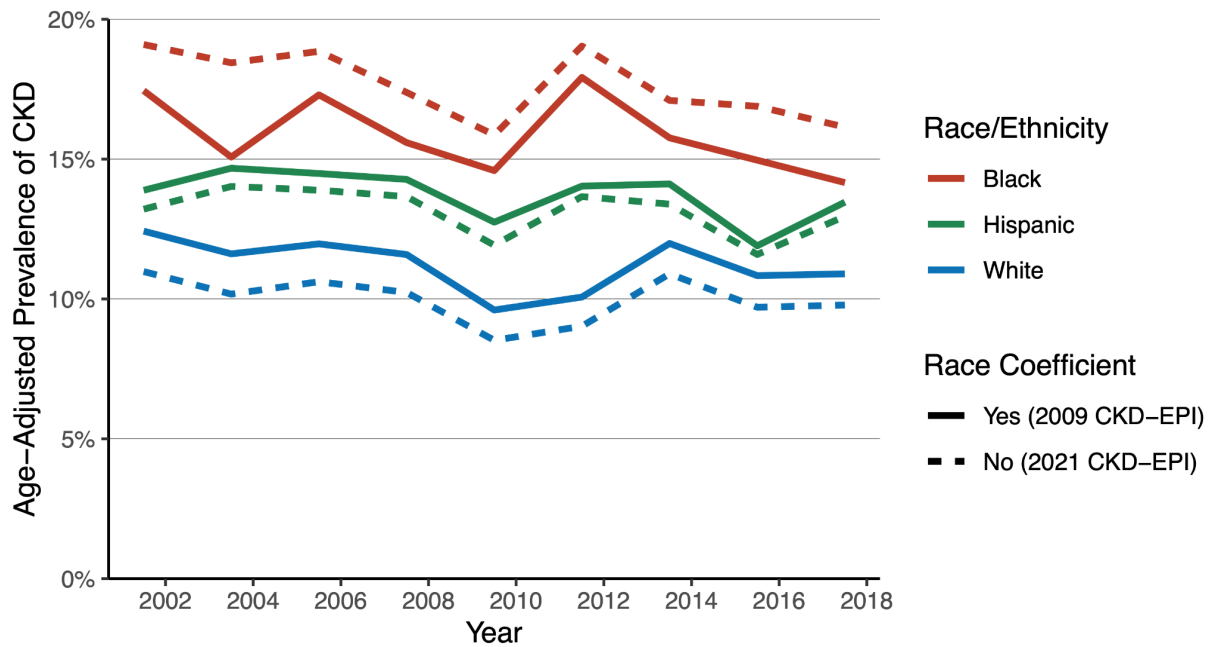
Abbreviations: ACE: angiotensin-converting enzyme; ARB: angiotensin receptor blocker; CKD: chronic kidney disease; CKD-EPI: CKD Epidemiology Collaboration; eGFR: estimated glomerular filtration rate; KDIGO: Kidney Disease Improving Global Outcomes; MDRD: Modification of Diet in Renal Disease; NHANES: National Health and Nutrition Examination Survey.

Figure S-1. Secular trends in chronic kidney disease prevalence by race/ethnicity with new and prior GFR estimating equations, 2001-2018

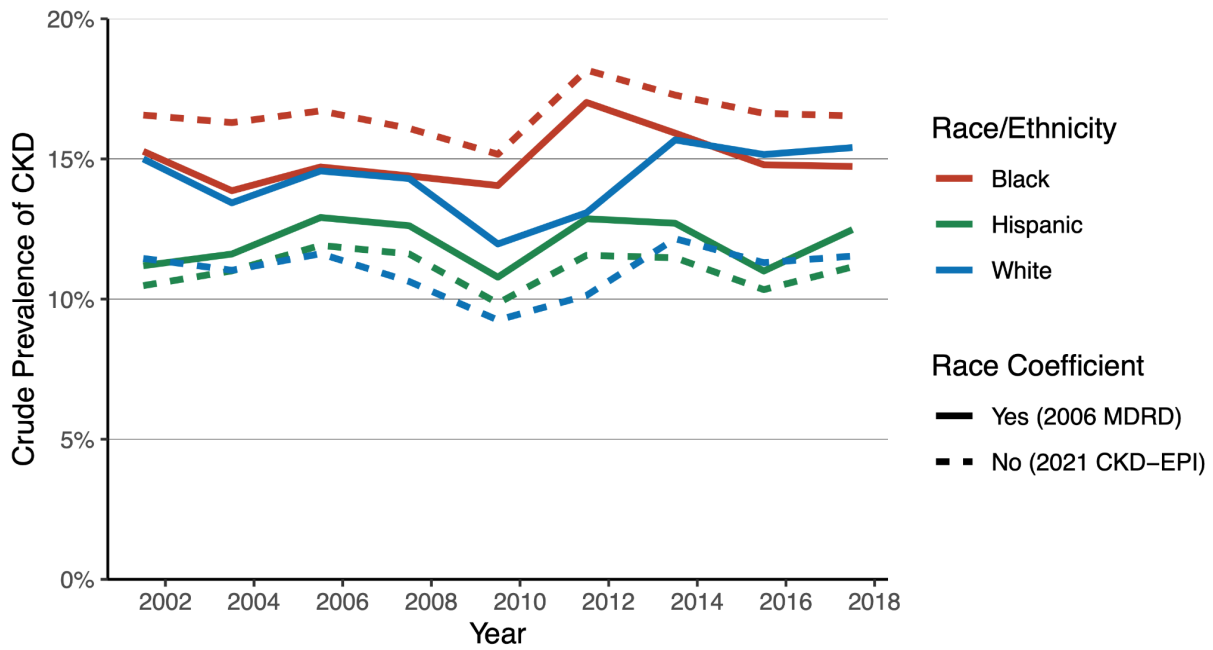
A. Age-Adjusted Prevalence of CKD, from 2006 MDRD



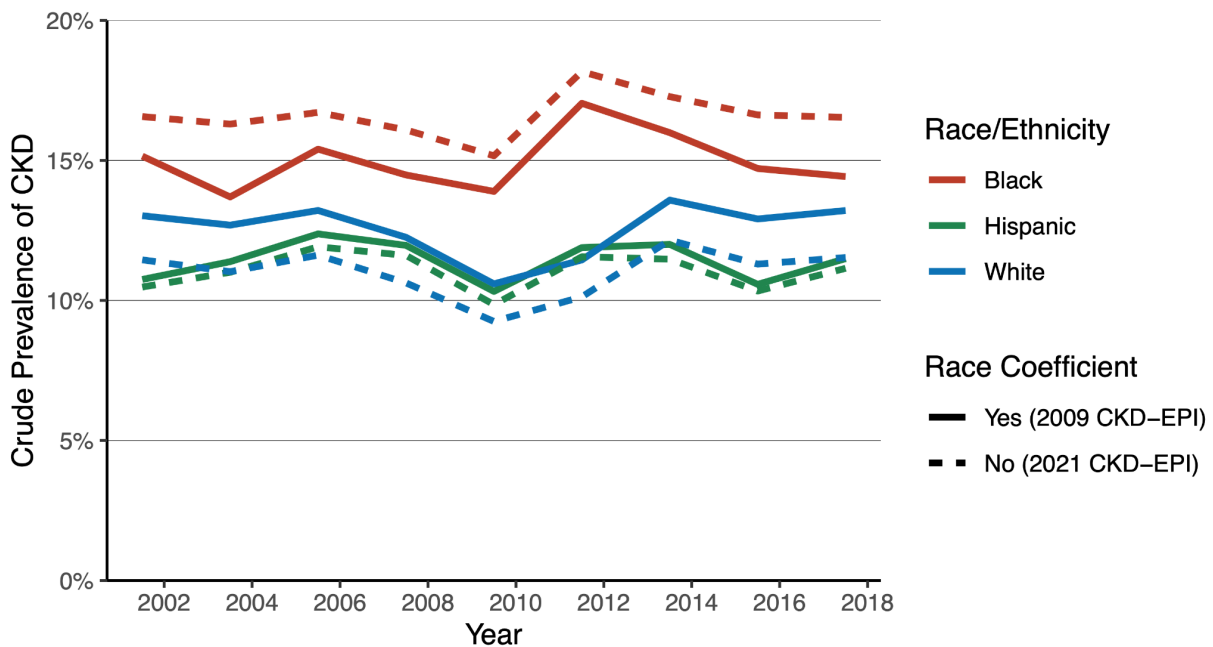
B. Age-Adjusted Prevalence of CKD, from 2009 CKD-EPI



C. Crude Prevalence of CKD, from 2006 MDRD



D. Crude Prevalence of CKD, from 2009 CKD-EPI



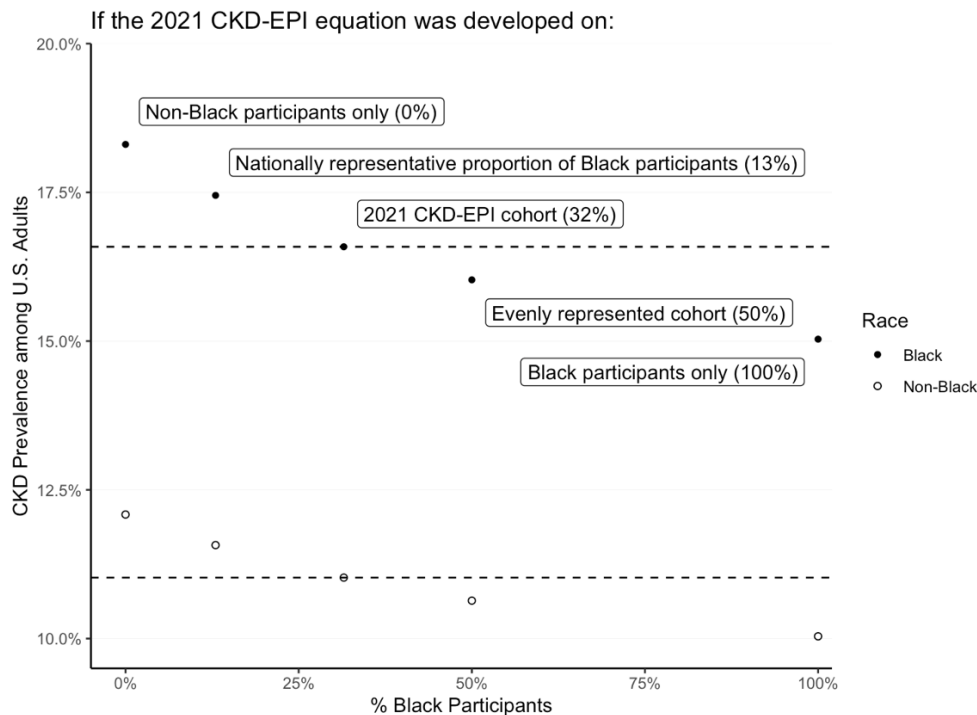
A. Age-adjusted chronic kidney disease (CKD) prevalence during National Health and Nutrition Examination Survey (NHANES) survey waves between 2001-2018, separated by race/ethnicity and estimated glomerular filtration rate (eGFR) equation. Chronic kidney disease was defined as eGFR less than 60 ml/min/1.73 m² or urine albumin-creatinine ratio > 30 mg/g without the chronicity requirement. Displayed eGFR equations include the 2006 Modification of Diet in Renal Disease (MDRD) equation and the 2021 CKD-Epidemiology Collaboration (CKD-EPI) equation. Age adjustment involves reweighting age groups using standard population distributions derived from the 2000 U.S. Census to control for changes in age distribution over time and between race/ethnicity groups. Asian/Other data were removed due to instability from low sample size.

B. Same as figure S-1A, but modeling a change from the 2009 CKD-EPI equation to the 2021 CKD-EPI equation.

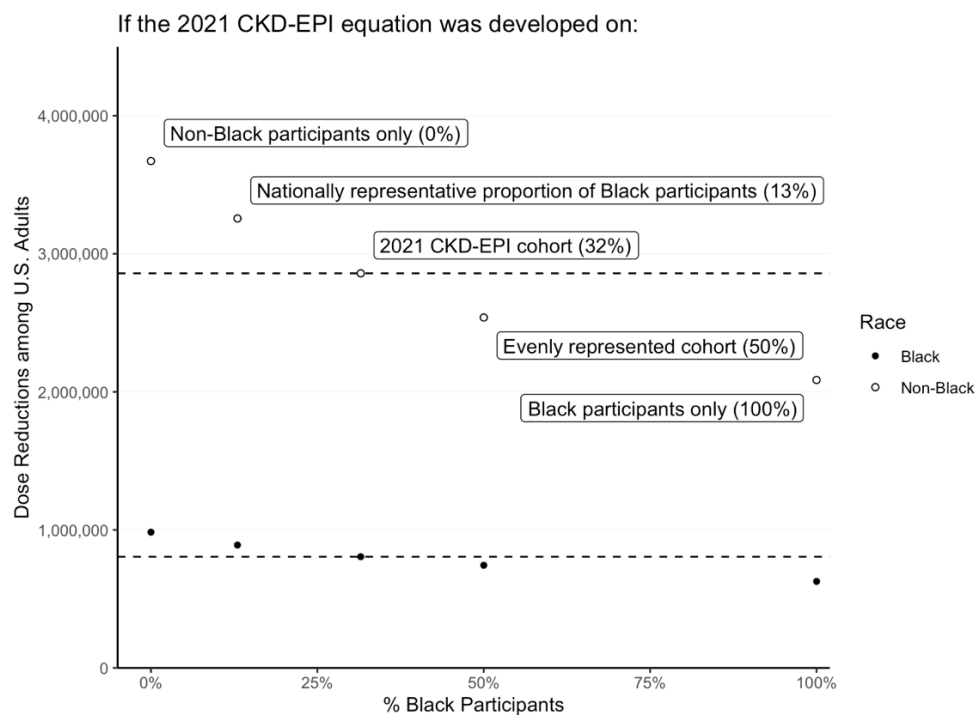
C-D. Same as figure S-1A and S-1B, but displaying crude prevalence (no age adjustment).

Figure S-2. Enrichment of Black participants in eGFR development data affects CKD prevalence and pharmacologic recommendations for both Black and Non-Black individuals

A. Effect on CKD prevalence



B. Effect on recommended dose reduction



A. Prevalence of chronic kidney disease (CKD) and **B.** number of individuals with recommended dose reduction for a drug they are taking among both Black and Non-Black adults, shown against proportion of Black participants for five race-free equations. Candidate equations were developed using the CKD-Epidemiology Collaboration (CKD-EPI) cohort with non-Black individuals resampled to the given proportion of Black participants. Equations developed using greater proportions of Black participants resulted in lower prevalence of CKD and fewer individuals with recommended dose reductions among all race/ethnicity groups.