Table S1. Demographics and clinical characteristics of person-visits, stratified by self- or parental-reported race. Median [interquartile range] or n (%).

Variable	*Self-reported Black race* *n=366 person-visits from* *153 participants*	*Self-reported Black, mixed race* *n=107 person-visits from* *37 participants*	*Self-reported Caucasian race* *n=1613 person-visits from* *570 participants*	*Self-reported other race* *n=284 person-visits from* *105 participants*
Demographics				
Male	263 (71.9%)	50 (46.7%)	993 (61.6%)	170 (59.9%)
Age, years	13.4 [9.5, 16.2]	13.1 [9.8, 16.4]	13.0 [9.2, 16.2]	13.5 [9.5, 16.7]
Age < 6y	40 (10.9%)	6 (5.6%)	158 (9.8%)	27 (9.5%)
Age 6 to <12	104 (28.4%)	40 (37.4%)	551 (34.2%)	80 (28.2%)
Age 12 to <18	175 (47.8%)	47 (43.9%)	710 (44%)	134 (47.2%)
Age ≥ 18y	47 (12.8%)	14 (13.1%)	194 (12%)	43 (15.1%)
Body size				
Height, cm	154 [131, 167]	152 [133, 163]	150 [130, 165]	151 [133, 166.2]
Weight, kg	54.0 [29.8, 73.5]	47.2 [30.3, 60.2]	44.6 [28.4, 60.9]	48.9 [29.7, 65.2]
Body mass index, kg/m²	21.3 [17.2, 27.2]	20.0 [15.7, 23.1]	19.1 [16.7, 23.0]	20.1 [17.1, 24.3]
Body surface area, m²	1.52 [1.04, 1.86]	1.42 [1.06, 1.66]	1.36 [1.01, 1.68]	1.44 [1.06, 1.72]
Estimated LBM without Black coefficient, kg	32.3 [19.9, 46.2]	28.7 [19.6, 39.7]	28.8 [19.7, 39.8]	30.9 [20.3, 41.7]
Estimated LBM with Black coefficient, kg	32.8 [20.2, 46.8]	29.2 [19.8, 40.2]	28.5 [19.6, 39.3]	30.4 [20.0, 41.4]
Socioeconomic				
Income < $36,000	244 (66.7%)	66 (61.7%)	488 (30.3%)	141 (50.9%)
Income $36,000 to $75,000	89 (24.3%)	22 (20.6%)	514 (31.9%)	79 (28.5%)
Income >=$75,000	33 (9%)	19 (17.8%)	611 (37.9%)	57 (20.6%)
Maternal education less than college	297 (81.1%)	67 (62.6%)	1024 (63.5%)	196 (70.8%)
Kidney disease				
Glomerular diagnosis	144 (39.3%)	26 (24.3%)	345 (21.4%)	98 (34.5%)
Serum creatinine, mg/dL	1.2 [0.9, 1.8]	1.2 [0.9, 1.4]	1.2 [0.9, 1.8]	1.2 [0.9, 1.7]
Serum cystatin c, mg/dL	1.5 [1.1, 2.1]	1.4 [1.1, 1.8]	1.7 [1.4, 2.5]	1.7 [1.4, 2.5]
Iohexol GFR, ml/min|1.73m²	52.0 [36.7, 73.8]	54.2 [42.6, 70.3]	45.7 [33.4, 61.7]	48.5 [32.1, 62.6]

Table S2. Description of missing data for key covariates among children with measured iohexol GFR, serum creatinine and serum cystatin C data.

	Age < 6y		*≥6 to <12 years*		*≥12 to <18 years*		*≥18 years*	
	Black race	*Non-Black*	*Black race*	*Non-Black*	*Black race*	*Non-Black*	*Black race*	*Non-Black*
variable	*n= 46*	*n= 185*	*n= 144*	*n= 631*	*n= 223*	*n= 843*	*n= 61*	*n= 237*
Sex	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
Tanner stage	NA[a]	NA[a]	4.9% (7)	4.6% (29)	6.8% (15)	7.3% (62)	NA[a]	NA[a]
Height	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
Weight	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
Body mass index	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
Body surface area	0% (0)	0% (0)	0.7% (1)	0% (0)	0.9% (2)	0.4% (3)	0% (0)	0% (0)
eLBM	9.2% (17)	4.3% (2)	0.7% (1)	0% (0)	0.9% (2)	0.4% (3)	NA[b]	NA[b]
Income	0% (0)	0% (0)	0% (0)	0.5% (3)	0% (0)	0.5% (4)	0% (0)	0% (0)
Maternal education	0% (0)	0% (0)	0% (0)	0.5% (3)	0% (0)	0.5% (4)	0% (0)	0% (0)

Abbreviations: Estimated lean body mass (eLBM).

[a] Tanner stage was not measured for children < 6 years of age, and young adults ≥ 18 years of age.

[b] Estimated lean body mass was not calculated for young adults because the equation was only validated for pediatric use. Reference: Foster BJ, Platt RW, Zemel BS. Development and validation of a predictive equation for lean body mass in children and adolescents. *Ann Hum Biol*. 2012;39(3):171-182. doi:10.3109/03014460.2012.681800

Table S3. Sensitivity analysis for overall and age-stratified estimated percent difference in measured GFR between self-reported Black and non-Black participants with adjustment for serum creatinine (in the log scale) and markers of body size, based on linear regression models and restricted to one randomly selected sample per individual. GFR, as the dependent variable, was log transformed and results are expressed as percent difference (95% confidence interval). Estimated lean body mass (eLBM) was calculated for children < 18 years.

Model	*Overall* *n= 190 Black* *n= 675 non-Black*	*Age < 6y* *n= 20 Black* *n= 74 non-Black*	*≥6 to <12 year* *n= 50 Black* *n= 212 non-Black*	*≥12 to <18 y* *n= 97 Black* *n= 325 non-Black*	*≥18 y* *n= 23 Black* *n= 64 non-Black*	*P-value for differences across ages*
Unadjusted	**+12.8%** **(+7.5%, +18.5%)**	+5.8% (-7.9%, +21.4%)	**+9.9%** **(+3.7%, +16.5%)**	**+12.5%** **(+6.5%, +18.7%)**	+7.4% (-1.6%, +17.1%)	0.664
Sex	**+12.1%** **(+6.8%, +17.7%)**	+4.9% (-8.6%, +20.5%)	**+9.3%** **(+3.2%, +15.8%)**	**+10.5%** **(+4.8%, +16.5%)**	+5.3% (-1.2%, +12.3%)	0.678
Age	**+11.5%** **(+7.8%, +15.4%)**	+5.1% (-4.9%, +16.1%)	**+10.8%** **(+5.0%, +17.0%)**	**+14.2%** **(+8.6%, 20%)**	+8.0% (-0.7%, 17.5%)	0.564
Tanner stage	NA	NA	**+10.0%** **(+3.7%, +16.7%)**	**+9.8%** **(+4.4%, +15.5%)**	NA	0.973
Height	**+10.5%** **(+7.1%, +13.9%)**	+6.5% (-3.0%, +17%)	**+10.2%** **(+4.4%, +16.3%)**	**+10.8%** **(+5.9%, +15.9%)**	+6.3% (-1.2%, +14.3%)	0.682
Body surface area	**+8.7%** **(+5.0%, +12.6%)**	+5.6% (-4.1%, +16.2%)	**+11.3%** **(+5.2%, +17.8%)**	**+8.8%** **(+3.3%, +14.5%)**	+4.0% (-4.9%, 13.6%)	0.373
eLBM with ancestry	**+8.9%** **(+5.1%, +12.8%)**	+6.8% (-4.0%, +18.9%)	**+10.6%** **(+4.6%, +16.9%)**	**+7.3%** **(+2.2%, +12.7%)**	NA	0.840
eLBM without ancestry	**+10.0%** **(+6.1%, +13.9%)**	+8.1% (-2.6%, +20.0%)	**+11.2%** **(+5.2%, +17.6%)**	**+8.4%** **(+3.3%, +13.9%)**	NA	0.835
Sex, age	**+10.3%** **(+6.7%, +14.1%)**	+3.7% (-6.4%, 14.8%)	**+10.2%** **(+4.4%, +16.3%)**	**+12.2%** **(+6.9%, +17.7%)**	+5.6% (-0.9%, +12.5%)	0.585
Sex, age, height	**+9.8%** **(+6.5%, +13.1%)**	+5.7% (-4.1%, +16.5%)	**+9.5%** **(+3.8%, +15.6%)**	**+10.6%** **(+5.8%, +15.7%)**	+5.5% (-1.0%, +12.4%)	0.671
Sex, age, height, eLBM without ancestry	**+10.8%** **(+7.1%, +14.6%)**	+7.8% (-2.8%, +19.6%)	**+9.9%** **(+4.2%, +15.9%)**	**+10.9%** **(+6.0%, +16.0%)**	NA	0.936
Sex, age, height, family income and maternal education	**+10.8%** **(+7.3%, +14.3%)**	+5.2% (-4.7%, +16.2%)	**+10.5%** **(+4.4%, +17.0%)**	**+11.8%** **(+6.8%, +17.1%)**	**+7.7%** **(+0.9%, +15.0%)**	0.668

Table S4. Sensitivity analysis for overall and age-stratified estimated percent difference in measured GFR between self-reported Black and non-Black participants with adjustment for serum cystatin c (in the log scale) and markers of body size, based on linear regression models and restricted to one randomly selected sample per individual. GFR, as the dependent variable, was log transformed and results are expressed as percent difference (95% confidence interval). Estimated lean body mass (eLBM) was calculated for children < 18 years.

Model	*Overall* *n= 190 Black* *n= 675 non-Black*	*Age < 6y* *n= 20 Black* *n= 74 non-Black*	*≥6 to <12 year* *n= 50 Black* *n= 212 non-Black*	*≥12 to <18 y* *n= 97 Black* *n= 325 non-Black*	*≥18 y* *n= 23 Black* *n= 64 non-Black*	*P-value for differences across ages*
Unadjusted	-2.9% (-6.0%, +0.2%)	**-10.5%** **(-17.5%, -2.9%)**	-5.7% (-11.0%, +0.08%)	-0.7% (-4.9%, 3.8%)	+1.7% (-7.6%, 11.9%)	0.125
Sex	**-3.8%** **(-6.9%, -0.7%)**	**-11.0%** **(-17.8%, -3.6%)**	**-5.9%** **(-11.3%, -0.2%)**	-2.6% (-6.7%, +1.7%)	+1.3% (-7.7%, +11.3%)	0.104
Age	-2.9% (-6.0%, +0.3%)	**-10.7%** **(-17.3%, -3.6%)**	-5.6% (-11.0%, +0.05%)	-1.4% (-5.6%, +2.9%)	+1.3% (-8.3%, +11.7%)	0.151
Tanner stage	NA	NA	**-5.9%** **(-11.4%, -0.2%)**	-1.4% (-5.7%, 3.1%)	NA	0.150
Height	**-3.1%** **(-6.1%, -0.01%)**	**-10.4%** **(-17.0%, -3.2%)**	-5.5% (-10.8%, +0.1%)	-0.7% (-5.0%, +3.7%)	+1.7% (-7.6%, +12.0%)	0.113
Body surface area	-2.9% (-6.0%, +0.2%)	**-10.5%** **(-17.1%, -3.4%)**	-4.6% (-10%, +1.1%)	-0.7% (-5.0%, +3.8%)	+0.7% (-8.7%, +11.1%)	0.173
eLBM with ancestry	**-3.3%** **(-6.4%, -0.1%)**	**-9.8%** **(-16.9%, -2.0%)**	-5.0% (-10.4%, +0.7%)	-1.3% (-5.5%, +3.2%)	NA	0.180
eLBM without ancestry	-3.1% (-6.2%, 0.1%)	**-9.5%** **(-16.7%, -1.7%)**	-4.7% (-10.1%, +1.0%)	-1.0% (-5.3%, +3.5%)	NA	0.180
Sex, age	**-3.8%** **(-6.9%, -0.7%)**	**-11.4%** **(-17.8%, -4.5%)**	**-5.9%** **(-11.3%, -0.2%)**	-3.5% (-7.5%, +0.7%)	+0.7% (-8.6%, +10.8%)	0.130
Sex, age, height	**-4.1%** **(-7.0%, -1.1%)**	**-11.9%** **(-18.3%, -4.9%)**	**-6.1%** **(-11.4%, -0.6%)**	-3.7% (-7.7%, +0.5%)	+0.5% (-8.6%, +10.5%)	0.173
Sex, age, height, eLBM without ancestry	**-4.4%** **(-7.5%, -1.1%)**	**-10.5%** **(-17.3%, -3.2%)**	-5.4% (-10.7%, +0.1%)	-3.9% (-8.0%, +0.5%)	NA	0.258
Sex, age, height, family income and maternal education	**-3.7%** **(-6.7%, -0.6%)**	**-12.5%** **(-18.7%, -6.0%)**	**-6.7%** **(-12.3%, -0.9%)**	-2.8% (-6.9%, +1.5%)	+1.3% (-7.9%, +11.4%)	0.180

Table S5. List of principal site investigators of the Chronic Kidney Disease in Children (CKiD) cohort study.

Study Investigator(s)	Institution	City	State/Province
Sahar Fathallah-Shaykh, MD	University of Alabama at Birmingham (Children's of Alabama)	Birmingham	AL
Anjali Nayak, MD; Martin Turman, MD	Phoenix Children's Hospital	Phoenix	AZ
Tom Blydt-Hansen, MD, FRCPC	British Columbia Children's Hospital	Vancouver	British Columbia, Canada
Cynthia Wong, MD; Steve Alexander, MD	Stanford University Medical Center	Palo Alto	CA
Ora Yadin, MD	University of California – Los Angeles (UCLA)	Los Angeles	CA
Elizabeth Ingulli, MD; Robert Mak, MD, PhD	University of California – San Diego (UCSD)	San Diego	CA
Cheryl Sanchez-Kazi, MD	Loma Linda University	Loma Linda	CA
Asha Moudgil, MD	Children's National Medical Center	Washington	DC
Caroline Gluck, MD	Nemours/Alfred I. duPont Hospital for Children	Wilmington	DE
Carolyn Abitbol, MD; Marissa DeFrietas, MD; Chryso Katsoufis, MD; Wacharee Seeherunvong, MD	University of Miami	Miami	FL
Larry Greenbaum, MD, PhD	Children's Healthcare of Atlanta / Emory University	Atlanta	GA
Lyndsay Harshman, MD	University of Iowa	Iowa City	IA
Craig Langman, MD	Ann & Robert H. Lurie Children's Hospital of Chicago	Chicago	IL
Sonia Krishnan, MD	University of Illinois at Chicago	Chicago	IL
Amy Wilson, MD	Riley Hospital for Children at Indiana University Health	Indianapolis	IN

Stefan Kiessling, MD; Margaret Murphy, PhD	University of Kentucky	Lexington	KY
Siddharth Shah, MD, Janice Sullivan, MD; Sushil Gupta, MD	University of Louisville (Novak Center for Children's Health)	Louisville	KY
Samir El-Dahr, MD; Stacy Drury, MD	Tulane University	New Orleans	LA
Nancy Rodig, MD	Boston Children's Hospital	Boston	MA
Allison Dart, MD MSc, FRCPC	University of Manitoba (Children's Hospital Research Institute of Manitoba)	Winnipeg	Manitoba, Canada
Meredith Atkinson, MD	Johns Hopkins University (Johns Hopkins Children's Center)	Baltimore	MD
Arlene Gerson, PhD		Baltimore	MD
Tej Matoo, MD	Children's Hospital of Michigan / Wayne State University	Detroit	MI
Zubin Modi, MD	University of Michigan	Ann Arbor	MI
Alejandro Quiroga, MD	Spectrum Health Hospitals / Helen DeVos Children's Hospital	Grand Rapids	MI
Bradley Warady, MD	Children's Mercy Hospital - Kansas City	Kansas City	MO
Rebecca Johnson, PhD	Children's Mercy Hospital	Kansas City	MO
Vikas Dharnidharka, MD	Washington University in St. Louis (St. Louis Children's Hospital)	St. Louis	MO
Stephen Hooper, PhD	University of North Carolina	Chapel Hill	NC
Susan Massengill, MD	Levine Children's Hospital	Charlottesville	NC
Liliana Gomez-Mendez, MD	East Carolina University	Greenville	NC
Matthew Hand, DO	Dartmouth-Hitchcock Medical Center	Lebanon	NH
Joann Carlson, MD	Rutgers-Robert Wood Johnson Medical School	New Brunswick	NJ

Hanan Tawadrous, MD; Roberto Jodorkovsky, MD	St. Joseph's University Medical Center	Paterson	NJ
Craig Wong, MD, MPH	University of New Mexico Health Sciences Center	Albuquerque	NM
Frederick Kaskel, MD, PhD; Shlomo Shinnar, MD, PhD	Albert Einstein College of Medicine/Montefiore Medical Center	Bronx	NY
Jeffrey Saland, MD	Icahn School of Medicine at Mount Sinai	New York	NY
Marc Lande, MD; George Schwartz, MD	University of Rochester Medical Center	Rochester	NY
Anil Mongia, MD	State University of New York, Downstate Medical Center	Brooklyn	NY
Donna Claes, MD; Mark Mitsnefes, MD	Cincinnati Children's Hospital Medical Center	Cincinnati	OH
Katherine Dell, MD	Case Western Reserve University/Cleveland Clinic Children's	Cleveland	OH
Hiren Patel, MD	Nationwide Children's Hospital	Columbus	OH
Pascale Lane, MD	Oklahoma University Health Sciences Center	Oklahoma City	OK
Rulan Parekh, MD	Hospital for Sick Children (Sick Kids)	Toronto	Ontario, Canada
Amira Al-Uzri, MD, MCR; Kelsey Richardson, MD	Oregon Health and Science University	Portland	OR
Susan Furth, MD, PhD; Larry Copelovitch, MD	Children's Hospital of Philadelphia	Philadelphia	PA
Elaine Ku, MD, MAS	University of California – San Francisco (UCSF)	San Francisco	SF
Joshua Samuels, MD	University of Texas Health Science Center at Houston	Houston	TX
Poyyapakkam Srivaths, MD	Baylor College of Medicine (Texas Children's Hospital)	Houston	TX
Samhar Al-Akash, MD	Driscoll Children's Hospital	Corpus Christi	TX

Patricia Seo-Mayer, MD	INOVA Children's Hospital / Pediatric Specialists of Virginia	Fairfax	VA
Victoria Norwood, MD	University of Virginia	Charlottesville	VA
Joseph Flynn, MD	Seattle Children's Hospital	Seattle	WA
Cynthia Pan, MD	Medical College of Wisconsin	Milwaukee	WI
Sharon Bartosh, MD	University of Wisconsin	Madison	WI