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Supplementary Table 1: List of Age-inappropriate Diagnoses by Age Category

Age 0-364 Days

1. Lupus Erythematosus
2. Nephropathy due to Heroin Abuse and Related Drugs
3. Post Partum Renal Failure
4. Gouty Nephropathy
5. Wegeners Granulomatosis
6. Scleroderma
7. Analgesic Nephropathy

Age 1-2 Years

1. Nephropathy due to Heroin Abuse and Related Drugs

Age 3-10 Years

1. Nephropathy due to Heroin Abuse and Related Drugs
2. Multiple Myeloma

Age 11-14 Years

1. Amyloidosis
2. Multiple Myeloma

Age 15-17 Years

1. Amyloidosis
2. Multiple Myeloma

Supplementary Table 2: Exclusions due to Height above the 97th Percentile or Age Inappropriate Diagnosis

	Age 0	Ages 1-2	Ages 3-10	Ages 11-14	Ages 15-17	All Ages
	N	N	N	N	N	N
All cases in data base	2,787	1,924	7,401	7,706	9,858	29,676
Exclusions						
Height >97 th Percentile	403	129	418	186	0	1,136
Age Inappropriate Diagnosis	150	23	90	33	3	314
Either (Total Excluded)	480	147	490	219	3	1,339
Percent Excluded	17.2%	7.6%	6.6%	2.8%	0.03%	4.5%
Included in final analysis	2,307	1,777	6,911	7,487	9,855	28,337

Supplementary Table 3: Survival Rates by Race

Race	5- Year Survival Rates, 95% Confidence Intervals	10- Year Survival Rates, 95% Confidence Intervals	20- Year Survival Rates, 95% Confidence Intervals	30- Year Survival Rates, 95% Confidence Intervals
Black	87% (86%, 88%)	78% (77%, 79%)	59% (58%, 61%)	39% (37%, 41%)
White	92% (91%, 92%)	86% (86%, 87%)	72% (72%, 73%)	57% (56%, 58%)
Risk Difference	5%	8%	13%	18%
Log-Rank P Value	<0.001	<0.001	<0.001	<0.001

Supplementary Table 4: Cumulative Incidence of First Transplant by Race

Race	5- Year Cumulative Incidence of First Transplant, 95% Confidence Intervals	10- Year Cumulative Incidence of First Transplant, 95% Confidence Intervals	20- Year Cumulative Incidence of First Transplant, 95% Confidence Intervals	30- Year Cumulative Incidence of First Transplant, 95% Confidence Intervals
Black	75% (74%, 76%)	83% (82%, 84%)	89% (88%, 90%)	91% (89%, 92%)
White	87% (87%, 88%)	92% (91%, 92%)	94% (94%, 95%)	95% (95%, 96%)
Risk Difference	12%	9%	5%	4%
Log-Rank P Value	<0.001	<0.001	<0.001	<0.001

Supplementary Table 5: Death Censored Graft Survival of First Transplant by Race

Race	5- Year Death Censored Graft Survival of First Transplant, 95% Confidence Intervals	10- Year Death Censored Graft Survival of First Transplant, 95% Confidence Intervals	20- Year Death Censored Graft Survival of First Transplant, 95% Confidence Intervals	30- Year Death Censored Graft Survival of First Transplant, 95% Confidence Intervals
Black	63% (62%, 65%)	31% (30%, 33%)	6% (6%, 7%)	0.1% (0.1%, 0.1%)
White	72% (71%, 72%)	45% (44%, 45%)	13% (12%, 13%)	3% (3%, 3%)
Risk Difference	9%	14%	7%	3%
Log-Rank P Value	<0.001	<0.001	<0.001	<0.001

Supplementary Table 6: Death Censored Graft Survival of Second Transplant by Race

Race	5- Year Death Censored Graft Survival of Second Transplant, 95% Confidence Intervals	10- Year Death Censored Graft Survival of Second Transplant, 95% Confidence Intervals	20- Year Death Censored Graft Survival of Second Transplant, 95% Confidence Intervals	30- Year Death Censored Graft Survival of Second Transplant, 95% Confidence Intervals
Black	51% (48%, 54%)	19% (17%, 21%)	2% (1%, 3%)	<0.1% (<0.1%, <0.1%)
White	60% (59%, 62%)	35% (34%, 36%)	6% (5%, 7%)	0.3% (0.3%, 0.3%)
Risk Difference	9%	16%	4%	0.3%
Log-Rank P Value	<0.001	<0.001	<0.001	<0.001

Supplementary Table 7. Multivariable Results and Simulated Results for 30-year Mortality, Cumulative Incidence of Transplant, Number of Transplants, Total Time on Transplant, Death Censored Graft Survival for the First and Second Transplant, and Mortality During the First and Second Transplant with Median Income Excluded as a Covariate

	Black patients with ESRD in childhood (vs White)		
	Observed	Simulated mediational G-formula	Percent mediated by G-formula
Mortality†	aHR=1.58 (95% CI 1.49-1.66)	aHR=1.40 (95% CI 1.22-1.55)	44%
Cumulative incidence of first transplant††	aHR=0.67 (95% CI 0.64-0.69)		
Cumulative incidence of second transplant††	aHR=0.56 (95% CI 0.53-0.60)		
Number of transplants†††	aIRR=0.87 (95% CI 0.84-0.89)		
Time with transplant as mode of RRT†††	aIRR=0.74 (95% CI 0.72-0.76)		
First graft survival ††	aHR=1.30 (95% CI 1.26-1.34)		
Second graft survival††	aHR=1.37 (95% CI 1.29-1.46)		
Mortality during first transplant†	aHR=1.50 (95% CI 1.40-1.60)		
Mortality during second transplant†	aHR=1.30 (95% CI 1.16-1.47)		

All models Adjusted for: Age (continuous), sex, era, cause of ESRD, and insurance status

† Employed a Cox proportional hazards model

†† Employed a Cox proportional hazards model accounting for competing risk of death

††† Employed a zero-inflated negative binomial model with inverse probability of mortality weights

aHR - Adjusted hazard ratio

CI - Confidence interval

aIRR - Adjusted incidence rate ratio