

# Geographic Differences in HIV+ Kidney Transplant Waitlist Characteristics

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## Introduction

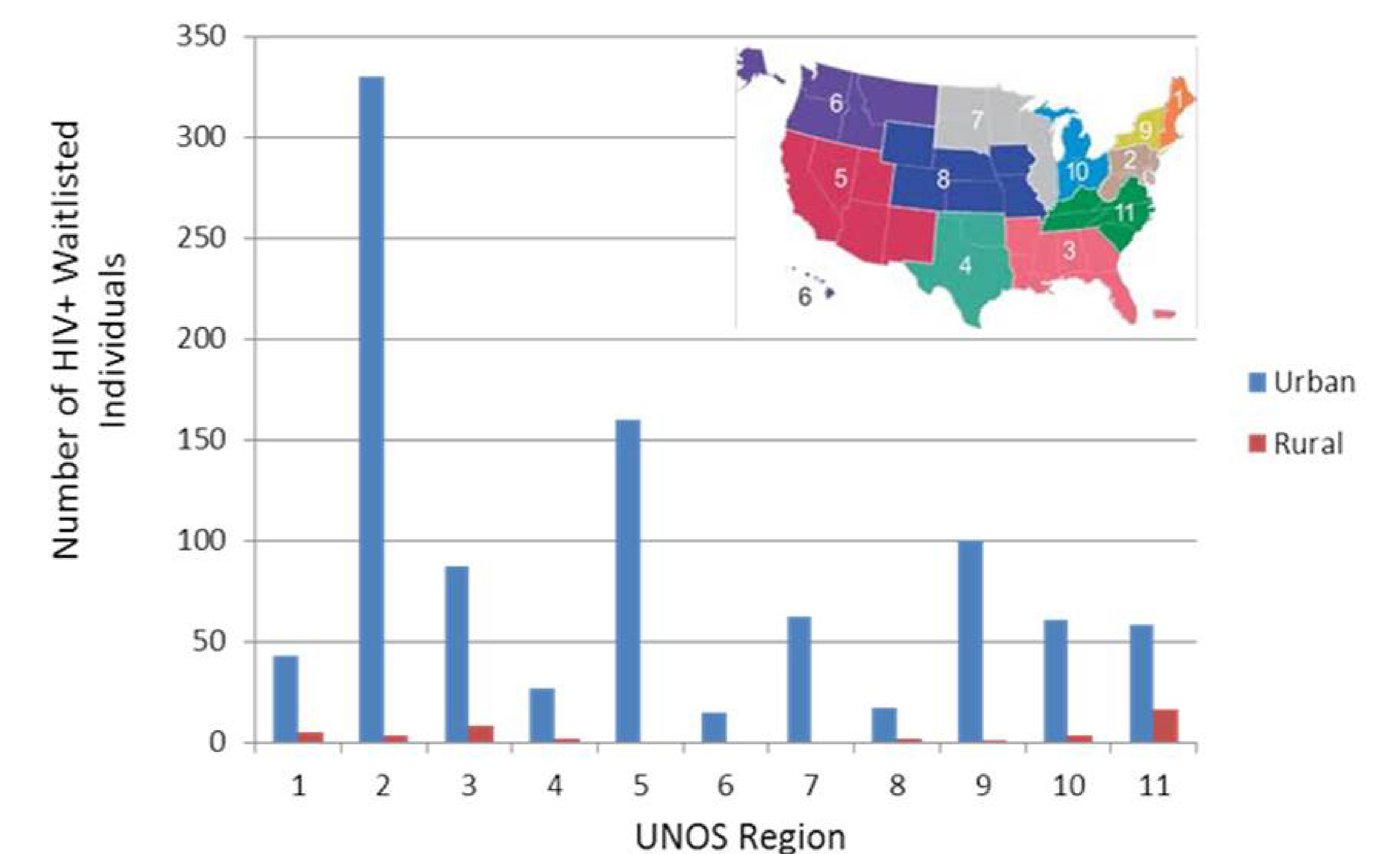
- Excellent outcomes have been reported among HIV+ kidney transplant (KT) recipients
- OPTN currently does not collect HIV-status at time of listing
- Previous studies have shown that rurality is associated with decreased access to KT
- No study has examined the geographic differences in HIV+ candidates

## Methods

- **Study population** Adult HIV+ KT listings between 1/1/2001 and 10/1/2012 (obtained from SRTR, n=1000)
- **Rurality** based on Rural Urban Commuting Area zip codes as defined by the US census
- **Analysis Design**
  - IMS pharmacy fills (01/01/2001-10/01/2012) were linked with SRTR data
  - Candidates with  $\geq 1$  antiretroviral fill unique to HIV treatment prior to or while on kidney waitlist were identified
  - 94% of candidates had  $>1$  HIV+ medication fill, and simultaneous listings were collapsed
  - Geographic differences in descriptive characteristics were compared across UNOS defined regions and in rural vs. urban settings

## Results

Characteristics	HIV positive (n=1,000)	HIV-negative (n=90,590)	P-value
Number (%)			
Age at listing (years)			
18-34	93 (9.3%)	7,381 (8.2%)	<0.0001
35-49	555 (55.5%)	25,766 (29.4%)	
50-64	326 (32.6%)	41,793 (46.1%)	
65+	26 (2.6%)	15,650 (17.3%)	
Gender			<0.0001
Male	777 (77.7%)	53,725 (59.3%)	
Female	223 (22.3%)	36,865 (40.7%)	
Race			<0.0001
White	192 (19.2%)	49,062 (54.2%)	
African-American	715 (71.5%)	22,648 (25.0%)	
Other	93 (9.3%)	18,880 (20.8%)	
Cause of kidney disease			<0.0001
Diabetes	144 (14.4%)	29,604 (32.7%)	
Hypertension	326 (32.6%)	20,245 (22.4%)	
GN	99 (9.9%)	16,159 (17.8%)	
Other	431 (43.1%)	24,582 (27.1%)	
Dialysis Status at listing			<0.0001
Pre-emptive	75 (7.5%)	22,343 (24.7%)	
On dialysis	925 (92.5%)	68,247 (75.3%)	
Poor functional status	60 (6.0%)	6135 (6.8%)	0.33
PRA > 80%	106 (10.6%)	11,557 (12.8%)	0.04
Willing to accept HCV+ kidney	133 (13.3%)	3380 (3.7%)	<0.0001
Blood group type			0.001
A	307 (30.7%)	31,583 (34.9%)	
AB	33 (3.3%)	3,823 (4.2%)	
O	175 (17.5%)	12,698 (14.0%)	
B	485 (48.5%)	42,486 (46.9%)	
Diabetes	226 (22.6%)	39,066 (43.1%)	<0.0001
Peripheral vascular disease	26 (2.6%)	4,677 (5.2%)	0.0003
Region			<0.0001
1	48 (4.8%)	3,151 (3.5%)	
2	333 (33.3%)	14,054 (15.5%)	
3	95 (9.5%)	10,205 (11.3%)	
4	29 (2.9%)	7,035 (7.8%)	
5	160 (16.0%)	16,133 (17.8%)	
6	15 (1.5%)	3,531 (3.9%)	
7	62 (6.2%)	9,401 (10.4%)	
8	19 (1.9%)	4,847 (5.4%)	
9	101 (10.1%)	6,629 (7.3%)	
10	64 (6.4%)	7,968 (8.8%)	
11	74 (7.4%)	7,636 (8.4%)	



**Figure 1. Percent of waitlist by region and residence**

- The majority of waitlisted candidates are from an urban environment (Figure)
- Three regions have never listed an HIV+ transplant candidate from a rural setting (Figure)

## Conclusion

- All eleven UNOS regions have listed at least one HIV+ candidate for KT, yet three regions have never listed an HIV+ KT candidate from a rural setting
- These findings suggest that geographic disparities in access to KT may exist among rural HIV+ ESRD patients

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