



# KCRS22 **Kidney Cancer Research Summit**

## **Impact of race and payor status on patterns of utilization of partial and radical nephrectomy in patients with localized renal cell carcinoma**

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# Background

- Incidence of early-stage renal cell carcinoma (RCC) is on the rise.<sup>1</sup>
- Ethnic minorities have a heavier RCC burden.<sup>2</sup>
- Prospective trials have shown similar oncologic outcomes with partial nephrectomy (PN) and radical nephrectomy (RN) in patients with early stage RCC.<sup>3, 4</sup>
- PN patients have a lower likelihood to develop long term kidney and cardiovascular disease.<sup>5</sup>

1. World J Oncol. 2020 Jun; 11(3): 79–87. 2. Clin Genitourin Cancer. 2019 Feb; 17(1): e195–e202. 3. Eur Urol. 2011Apr;59(4):543-52.  
4. Eur Urol. 2017 Apr;71(4):606-617. 5. Can Urol Assoc J. 2020 Dec; 14(12): 392–397

# Hypothesis

- Ethnic minorities may not have access to minimally invasive procedures<sup>1</sup> or are avoided due to a higher time of convalescence, higher rate of some postoperative complications and costs.<sup>2, 3</sup>

**Patients that stem from minority groups, as well as non-private insurance have less access to PN and therefore have a higher rate of RN**

1. PLOS Medicine 19(2): e1003937 2. Eur Urol. 2017 Apr;71(4):606-617. 3. World J Urol (2013) 31:1211–1217

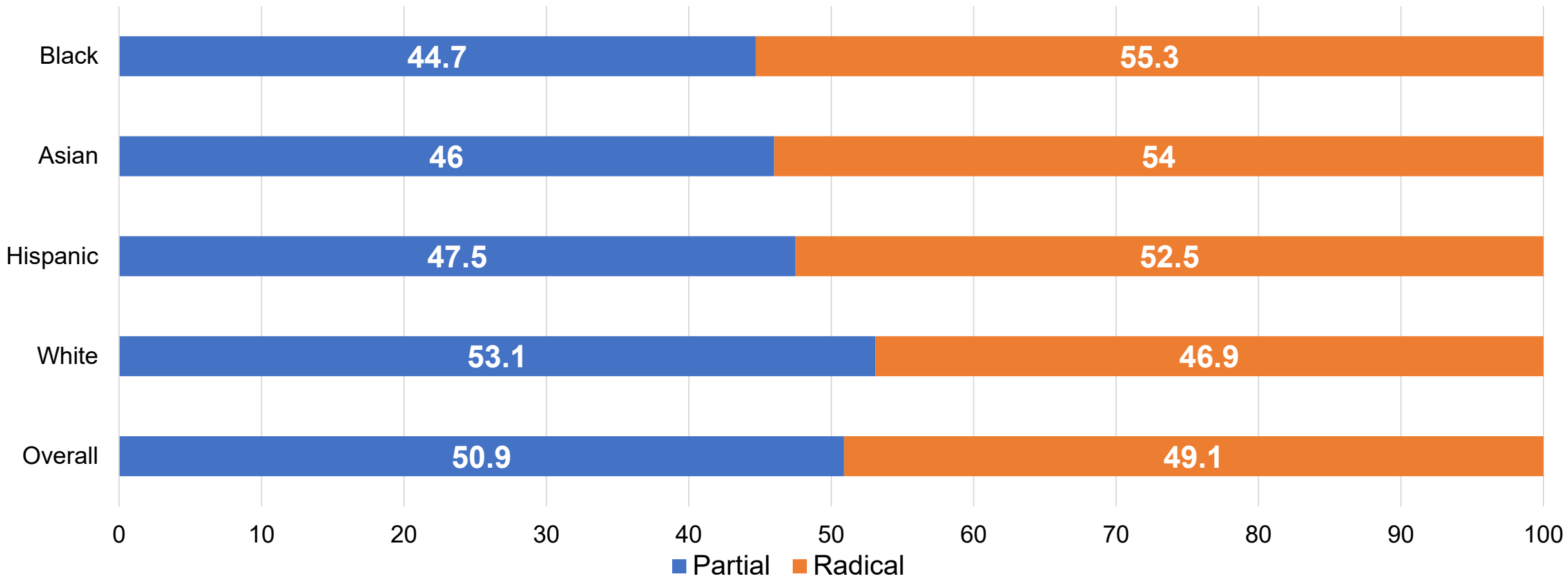
# Methods

- California Office of Statewide Health Planning and Development (OSHPD) database from 01.01.2012 to 12.31.2018
- CPT and ICD-9/10 codes to identify patients with RCC undergoing RN and PN.
- Univariate and multivariate analyses were conducted to determine the association between demographic data and procedure type.

# Results: Demographic characteristics

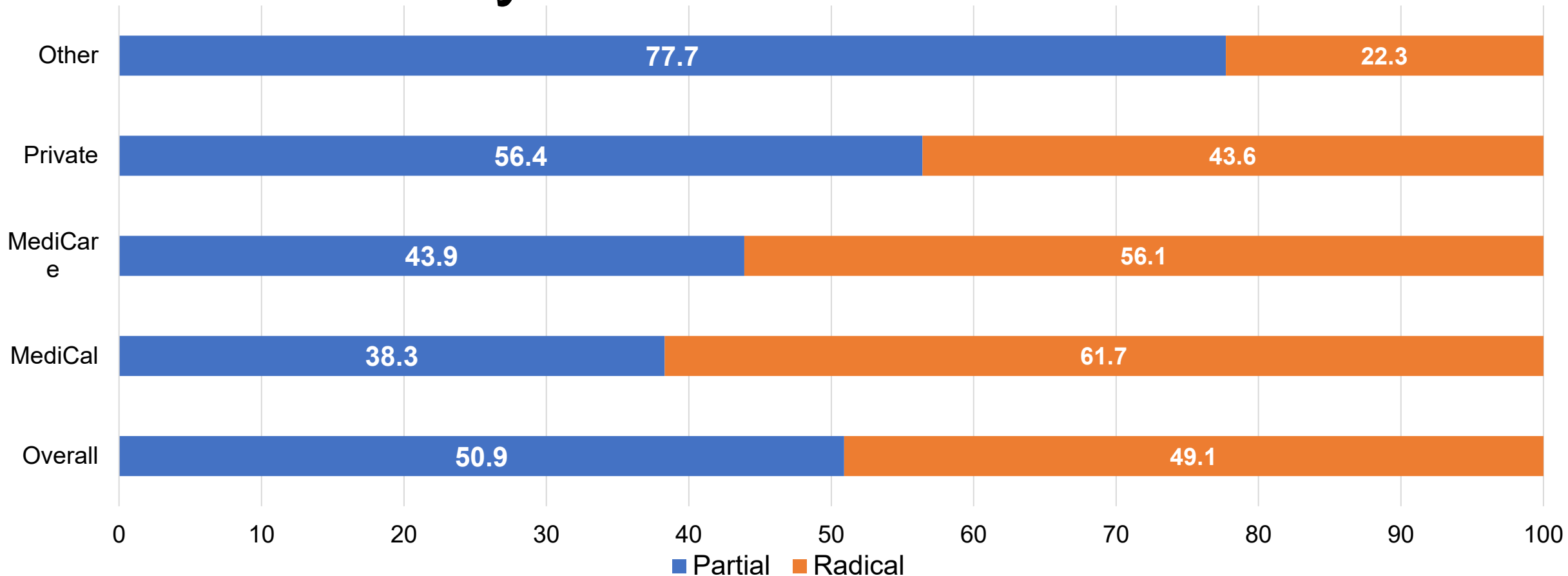
Total N (%)	31,093	Total N (%)	31,093
<b>Age mean</b>	57 years	<b>Payor status</b>	
<b>Sex</b>		MediCal	4,744 (15.2%)
Male	17,807 (57%)	MediCare	11,471 (36.9%)
Female	13,286 (43%)	Private	12,063 (38.8%)
<b>Nephrectomy</b>		Other	2,815 (9.1%)
Partial	18,840 (50.9%)	<b>Comorbidities</b>	
Radical	12,253 (49.1%)	Hypertension	10,801 (34.7%)
<b>Race</b>		Diabetes mellitus	4,995 (16.1%)
Non-Hispanic White	16,142 (51.9%)	Chronic kidney disease	3,093 (9.9%)
Black	2,032 (9.0%)	Frailty	201 (0.6%)
Asian	2,795 (6.5%)	<b>Type of Center</b>	
Hispanic	8,645 (27.8%)	Academic	13,234 (42.6%)
		Non-academic	17,859 (57.4%)

# Results: Race



P<0.01 by uni- and multivariate analysis

# Results: Payor status



P<0.01 by univariate analysis

# Conclusions

- Race and payor status may have an influence on utilization of PN versus RN.
- Highest rate of PN among Whites and patients with private insurance.
- Multiple potential confounders (latency of diagnosis, tumor size/complexity).
- Access to care could be a driver of this phenomenon.



# Acknowledgements



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Dr. Kai Dallas



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