



Purpose

- Prostatic urethral lift (PUL), approved by CMS in 2013, preserves antegrade ejaculation and shortens operative and catheterization time compared to other BPH surgical approaches.³
- We hypothesized PUL utilization has increased and sought to understand contemporary practice patterns associated with its use by U.S. urologists over time.

Methods

- We obtained de-identified American Board of Urology certification and recertification case logs from Jan 2015- Oct 2021 for surgeries performed with an International Classification of Diseases (ICD 9 and 10) indication for BPH.
- We identified 4,131 urologists performing 48,610 BPH surgeries and used Current Procedural Terminology (CPT) codes to distinguish surgical approaches.
- We identified 786 urologists performing 7,895 PUL. 24 urologists performed PUL exclusively and 3,345 urologists did not perform PUL.
- A logistic regression model assessed factors associated with PUL use.

Results

- The number of annual PUL performed during the period ranged from 101 to 2,852.
- PUL comprised 1.6% of BPH surgeries in 2015, increasing to 32.5% in 2020 (Figure).
- In adjusted analyses (Table), factors associated with higher odds of performing PUL included andrology sub-specialization (odds ratio [OR] 4.01, 95% CI 1.94-8.29); practice area population >1,000,000 (OR 1.55, 95% CI 1.01-2.38); and government (OR 4.22, 95% CI 1.83-9.74), private practice group (OR 2.68, 95% CI 1.53-4.68), and salaried hospital employment (OR 1.94, 95% CI 1.00-3.96).
- The operative year (OR 1.66 per year, 95% CI 1.54-1.80) and surgeon BPH surgical volume (OR 1.02 per case increase, 95% CI 1.01-1.02) were associated with increased odds. Region, surgeon age, surgeon gender, certification status, and patient age were not associated with PUL use.

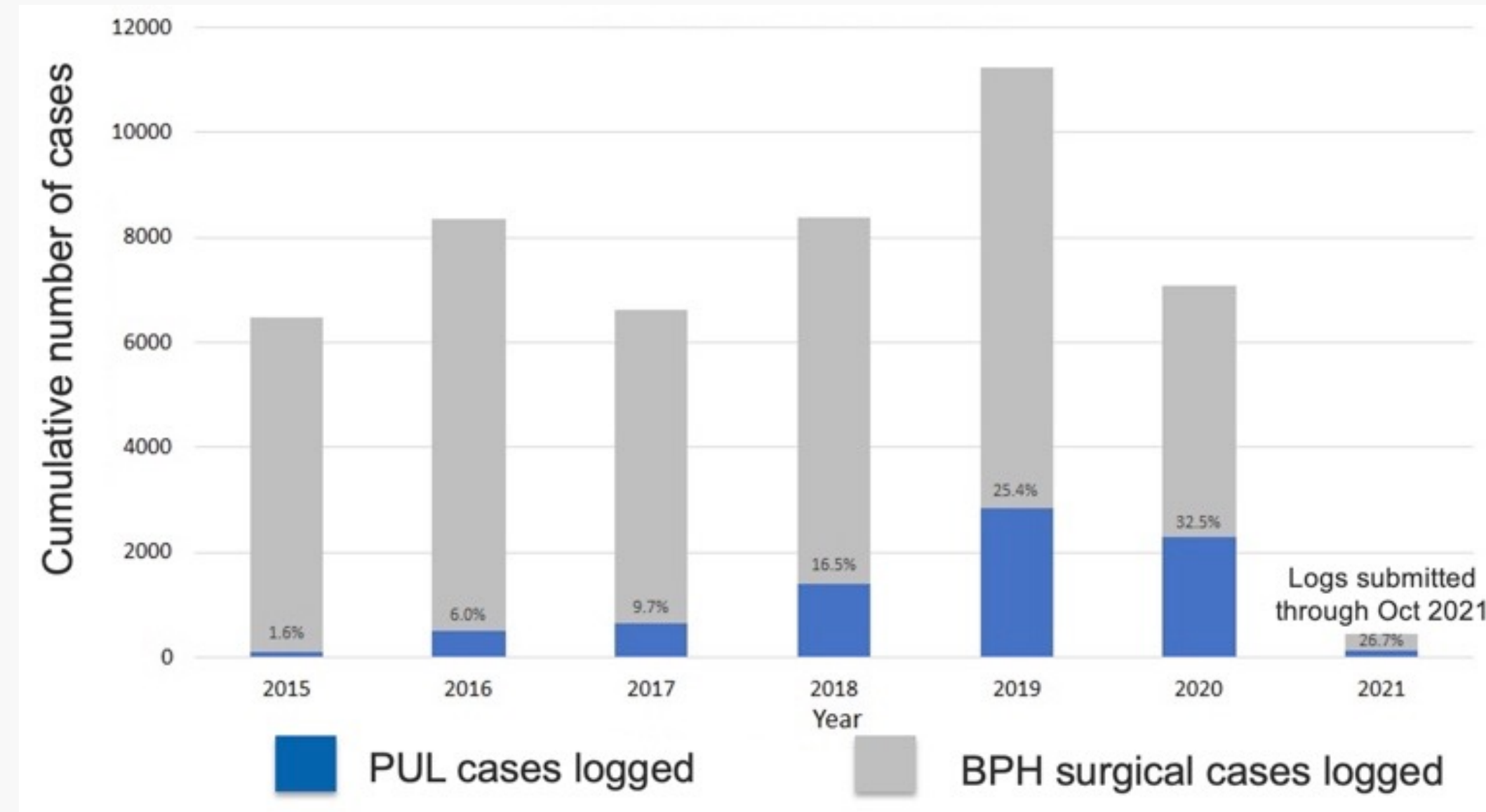


Figure: PUL cumulative case log volume as a fraction of cumulative BPH surgical case log volume over time

Covariate	OR	95% CI	p-value
Male gender (referent = female)	1.56	0.95, 2.59	0.082
Initial certification (referent = re-certification)	1.01	0.62, 1.64	0.964
Practice type (referent = academic facility)			
Government	4.22	1.83, 9.74	< 0.001
Private practice group	2.68	1.53, 4.68	< 0.001
Private practice managed care - HMO	1.67	0.64, 4.39	0.299
Private practice solo	1.73	0.86, 3.49	0.127
Salaried hospital	1.94	1.01, 3.76	0.049
Unknown	2.45	1.08, 5.58	0.032
Surgeon Specialty (referent = general)			
Andrology	4.01	1.94, 8.29	< 0.001
Endourology	0.40	0.20, 0.80	0.010
Female	1.20	0.71, 2.03	0.486
Oncology	0.78	0.43, 1.41	0.411
Pediatric	0.80	0.14, 4.71	0.803
Urolithiasis	1.22	0.50, 2.95	0.658
Unknown	0.48	0.24, 0.95	0.036
Practice Area (referent = less than 100,000)			
100,000 - 250,000	1.20	0.75, 1.91	0.456
250,001 - 500,000	0.98	0.60, 1.58	0.924
500,001 - 1,000,000	1.12	0.68, 1.82	0.658
Over 1,000,000	1.55	1.01, 2.38	0.045
Unknown	1.37	0.73, 2.58	0.330
Practice region (referent = South Central)			
International	0.21	0.01, 3.55	0.282
Mid-Atlantic	1.02	0.55, 1.87	0.951
New England	0.79	0.44, 1.42	0.425
North Central	0.90	0.54, 1.52	0.695
Southeastern	0.73	0.44, 1.21	0.222
Western	0.85	0.48, 1.48	0.556
Unknown	0.91	0.53, 1.55	0.721
Surgeon age (continuous)	0.99	0.96, 1.01	0.240
Patient age (continuous)	1.00	0.99, 1.00	0.106
Case year (year-to-year)	1.66	1.54, 1.80	< 0.001
BPH operative case volume (continuous)	1.02	1.01, 1.02	< 0.001

Table. Logistic regression model of factors associated with PUL

Conclusions

- Use of PUL increased and currently comprises **one third** of all BPH surgeries.
- Factors associated with increased PUL included BPH surgeon volume, andrology sub-specialization, and non-academic practice types.