



Indicator 37: Males With a Prostate-Specific Antigen Test Past 2 Years - Ages 40+

Internal variable name: outc37_psa_test

Section 1: Definition

Definition: Have you EVER HAD a PSA test?

Section 2: Predictive models

	Mixed, demos only	Logit, no area effects	Mixed with area covariates
	b/se	b/se	b/se
Outcome 37: Ever Had PSA Test			
Non-Hispanic Black vs. Non-Hispanic White	0.0808 (0.2152)	0.1324 (0.1668)	0.1324 (0.2326)
Non-Hispanic Asian vs. Non-Hispanic White	-0.7301 (0.5322)	-0.8570* (0.4102)	-0.8570 (0.5301)
Non-Hispanic Other vs. Non-Hispanic White	0.0076 (0.2311)	-0.0139 (0.3099)	-0.0139 (0.2280)
Hispanic vs. Non-Hispanic White	0.0377 (0.4799)	0.0364 (0.3906)	0.0364 (0.4755)
Age 35-44 vs. 65+	-2.5949*** (0.1814)	-2.6588*** (0.2028)	-2.6588*** (0.1877)
Age 45-54 vs. 65+	-1.8030*** (0.1186)	-1.8536*** (0.1412)	-1.8536*** (0.1226)
Age 55-64 vs. 65+	-0.7224*** (0.1158)	-0.7457*** (0.1405)	-0.7457*** (0.1162)
Myeloma Cancer Male Rate		0.0280** (0.0107)	0.0280** (0.0087)
% below 1.5x poverty line		-0.0167 (0.0148)	-0.0167 (0.0134)
Non-stratified environmental quality index		-0.0323 (0.1882)	-0.0323 (0.1457)
{% below 1.5x poverty line} interacted with {Non-stratified environmental quality index}		-0.0079 (0.0090)	-0.0079 (0.0074)
% Households with children receiving SSI, cash transfers, SNAP		-0.0167 (0.0105)	-0.0167 (0.0097)
2010 Census Mail Return Rate		-0.0000 (0.0000)	-0.0000 (0.0000)

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{% Households with children receiving SSI, cash transfers, SNAP}		0.0000	0.0000*
interacted with {2010 Census Mail Return Rate}		(0.0000)	(0.0000)
Intercept	1.4716***	1.9534***	1.9534***
	(0.1005)	(0.2829)	(0.2299)
Area effect variance	0.0000		0.0000*
	(0.0000)		(0.0000)

Number of alternative models used to estimate model error = 15.

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Section 3: Results

County name	County FIPS	Direct estimate	Direct 95% CI	SAE composite	SAE 95% CI
Augusta County	51015	65.2%	(48.6%, 78.8%)	64.4%	(60.6%, 68.0%)
Bath County	51017	21.2%	(1.4%, 91.0%)	69.6%	(56.3%, 80.2%)
Caroline County	51033	38.2%	(12.0%, 73.7%)	53.2%	(46.9%, 59.3%)
Clarke County	51043	37.7%	(13.2%, 70.6%)	58.2%	(54.1%, 62.2%)
Culpeper County	51047	48.4%	(27.0%, 70.4%)	56.3%	(52.1%, 60.5%)
Fauquier County	51061	63.7%	(40.1%, 82.1%)	62.9%	(59.2%, 66.4%)
Frederick County	51069	73.0%	(52.9%, 86.7%)	63.3%	(59.4%, 66.9%)
Highland County	51091	.%	(.%, .%)	66.9%	(56.5%, 75.9%)
King George County	51099	65.6%	(28.5%, 90.1%)	60.7%	(54.2%, 66.8%)
Madison County	51113	55.3%	(20.0%, 86.0%)	55.1%	(50.1%, 60.0%)
Orange County	51137	53.8%	(30.0%, 76.0%)	60.9%	(57.2%, 64.6%)
Page County	51139	39.1%	(2.9%, 93.3%)	52.8%	(47.7%, 57.9%)
Rappahannock County	51157	41.8%	(7.7%, 86.1%)	58.1%	(52.5%, 63.6%)
Rockbridge County	51163	61.9%	(29.3%, 86.4%)	62.5%	(57.8%, 66.9%)
Rockingham County	51165	50.2%	(32.0%, 68.3%)	66.3%	(62.1%, 70.3%)
Shenandoah County	51171	57.5%	(26.6%, 83.5%)	56.2%	(51.9%, 60.5%)
Spotsylvania County	51177	50.2%	(30.4%, 70.0%)	60.7%	(57.1%, 64.2%)
Stafford County	51179	52.5%	(34.1%, 70.3%)	63.9%	(59.9%, 67.7%)
Warren County	51187	66.8%	(35.4%, 88.1%)	63.0%	(57.9%, 67.9%)
Buena Vista City	51530	.%	(.%, .%)	50.7%	(43.9%, 57.6%)
Fredericksburg City	51630	24.4%	(5.2%, 71.0%)	54.0%	(48.8%, 59.1%)
Harrisonburg City	51660	21.1%	(2.5%, 78.0%)	58.7%	(46.1%, 70.2%)
Lexington City	51678	.%	(.%, .%)	62.8%	(53.3%, 71.5%)
Staunton City	51790	100.0%	(0.6%, 100.0%)	56.1%	(50.7%, 61.4%)
Waynesboro City	51820	19.4%	(1.3%, 91.0%)	54.3%	(46.3%, 62.0%)
Winchester City	51840	15.2%	(3.8%, 67.8%)	46.9%	(37.7%, 56.3%)

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County name	County FIPS	Direct estimate	Direct 95% CI	SAE composite	SAE 95% CI
Albemarle County	51003	64.0%	(43.5%, 80.4%)	63.2%	(59.2%, 67.0%)
Alleghany County	51005	57.7%	(25.1%, 84.7%)	55.1%	(50.6%, 59.6%)
Amherst County	51009	24.1%	(7.2%, 65.0%)	62.0%	(57.9%, 65.9%)
Appomattox County	51011	64.3%	(15.5%, 94.7%)	54.9%	(49.3%, 60.4%)
Arlington City	51013	60.3%	(43.7%, 74.8%)	66.0%	(61.8%, 69.9%)
Bedford County	51019	67.5%	(47.3%, 82.7%)	65.7%	(62.0%, 69.2%)
Botetourt County	51023	71.4%	(39.6%, 90.5%)	68.7%	(63.7%, 73.2%)
Campbell County	51031	75.9%	(48.1%, 91.5%)	63.0%	(59.3%, 66.6%)
Craig County	51045	100.0%	(0.6%, 100.0%)	68.5%	(62.2%, 74.3%)
Fairfax County	51059	60.2%	(48.8%, 70.6%)	63.9%	(61.3%, 66.3%)
Fluvanna County	51065	82.6%	(46.3%, 94.2%)	67.1%	(61.3%, 72.3%)
Greene County	51079	78.9%	(28.5%, 97.2%)	62.1%	(56.8%, 67.2%)
Loudoun County	51107	48.7%	(37.1%, 60.5%)	57.5%	(53.0%, 61.9%)
Louisa County	51109	91.3%	(59.7%, 98.7%)	65.1%	(60.7%, 69.3%)
Nelson County	51125	50.0%	(20.3%, 79.6%)	61.1%	(56.4%, 65.6%)
Prince William County	51153	55.4%	(43.4%, 66.8%)	60.7%	(56.8%, 64.4%)
Roanoke County	51161	51.0%	(35.9%, 65.9%)	61.5%	(58.1%, 64.9%)
Alexandria City	51510	43.3%	(25.7%, 62.8%)	59.1%	(54.8%, 63.2%)
Charlottesville City	51540	59.2%	(7.1%, 96.5%)	56.6%	(45.5%, 67.1%)
Covington City	51580	100.0%	(0.6%, 100.0%)	83.4%	(65.3%, 93.0%)
Fairfax City	51600	49.9%	(28.8%, 71.0%)	53.2%	(47.0%, 59.3%)
Falls Church City	51610	100.0%	(21.1%, 100.0%)	70.7%	(60.1%, 79.4%)
Lynchburg City	51680	40.8%	(14.9%, 73.1%)	52.7%	(44.9%, 60.4%)
Manassas City	51683	85.7%	(12.8%, 98.6%)	61.2%	(54.0%, 67.9%)
Manassas Park City	51685	.%	(., .%)	59.5%	(50.1%, 68.3%)
Salem City	51775	38.8%	(6.1%, 86.8%)	63.8%	(58.9%, 68.4%)

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County name	County FIPS	Direct estimate	Direct 95% CI	SAE composite	SAE 95% CI
Bland County	51021	85.9%	(17.8%, 98.2%)	57.8%	(48.1%, 67.0%)
Buchanan County	51027	55.8%	(28.8%, 79.8%)	52.5%	(42.2%, 62.5%)
Carroll County	51035	49.1%	(23.9%, 74.8%)	53.4%	(45.9%, 60.7%)
Dickenson County	51051	85.2%	(43.7%, 96.3%)	58.0%	(48.9%, 66.6%)
Floyd County	51063	72.3%	(31.5%, 93.7%)	63.4%	(57.6%, 68.8%)
Franklin County	51067	52.3%	(28.7%, 74.9%)	56.3%	(52.2%, 60.2%)
Giles County	51071	49.8%	(16.6%, 83.1%)	60.5%	(55.6%, 65.2%)
Grayson County	51077	48.0%	(13.2%, 84.9%)	59.2%	(49.7%, 68.1%)
Henry County	51089	50.9%	(30.3%, 71.2%)	53.8%	(48.7%, 58.7%)
Lee County	51105	11.8%	(4.7%, 51.7%)	53.8%	(45.8%, 61.6%)
Montgomery County	51121	54.7%	(35.5%, 72.6%)	60.9%	(51.4%, 69.7%)
Patrick County	51141	73.6%	(34.9%, 93.5%)	55.5%	(48.7%, 62.1%)
Pittsylvania County	51143	45.2%	(29.9%, 61.5%)	57.7%	(53.5%, 61.9%)
Pulaski County	51155	76.7%	(47.9%, 92.2%)	60.5%	(56.1%, 64.8%)
Russell County	51167	77.5%	(51.9%, 91.7%)	56.8%	(51.5%, 61.8%)
Scott County	51169	57.5%	(30.9%, 80.4%)	63.4%	(57.4%, 69.1%)
Smyth County	51173	47.1%	(9.6%, 88.1%)	51.1%	(45.3%, 56.9%)
Tazewell County	51185	58.8%	(34.6%, 79.4%)	58.7%	(54.3%, 63.0%)
Washington County	51191	35.0%	(16.5%, 59.6%)	55.8%	(51.3%, 60.2%)
Wise County	51195	72.4%	(50.5%, 87.1%)	60.0%	(54.7%, 65.1%)
Wythe County	51197	55.5%	(32.1%, 76.7%)	55.0%	(49.5%, 60.4%)
Bristol City	51520	41.3%	(1.7%, 96.7%)	52.6%	(44.5%, 60.5%)
Danville City	51590	80.3%	(28.1%, 97.7%)	48.6%	(41.1%, 56.2%)
Galax City	51640	100.0%	(0.6%, 100.0%)	53.2%	(44.8%, 61.5%)
Martinsville City	51690	0.0%	(0.0%, 99.4%)	39.7%	(29.5%, 50.9%)
Norton City	51720	100.0%	(0.6%, 100.0%)	40.6%	(30.8%, 51.3%)
Radford City	51750	4.9%	(1.0%, 76.2%)	51.4%	(37.7%, 64.8%)
Roanoke City	51770	47.6%	(29.4%, 66.4%)	54.6%	(49.0%, 60.0%)

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County name	County FIPS	Direct estimate	Direct 95% CI	SAE composite	SAE 95% CI
Amelia County	51007	60.6%	(17.3%, 91.9%)	66.5%	(60.9%, 71.6%)
Brunswick County	51025	84.2%	(42.4%, 95.4%)	50.5%	(40.9%, 60.1%)
Buckingham County	51029	66.5%	(29.1%, 90.6%)	70.9%	(61.4%, 78.9%)
Charles City County	51036	90.4%	(32.3%, 97.9%)	65.2%	(59.1%, 70.8%)
Charlotte County	51037	80.0%	(14.6%, 98.0%)	54.6%	(47.6%, 61.5%)
Chesterfield County	51041	67.4%	(55.3%, 77.5%)	63.8%	(61.1%, 66.5%)
Cumberland County	51049	32.0%	(7.3%, 73.8%)	48.8%	(40.8%, 56.9%)
Dinwiddie County	51053	95.6%	(51.1%, 98.3%)	57.3%	(51.6%, 62.8%)
Goochland County	51075	65.4%	(28.2%, 90.1%)	59.9%	(54.8%, 64.7%)
Greensville County	51081	45.3%	(9.2%, 87.2%)	50.5%	(41.7%, 59.3%)
Halifax County	51083	60.8%	(27.8%, 86.2%)	55.9%	(50.5%, 61.1%)
Hanover County	51085	52.8%	(37.7%, 67.4%)	65.6%	(61.9%, 69.1%)
Henrico County	51087	58.0%	(45.7%, 69.4%)	61.7%	(58.7%, 64.6%)
Lunenburg County	51111	8.0%	(1.6%, 78.6%)	54.0%	(45.3%, 62.5%)
Mecklenburg County	51117	78.2%	(54.9%, 91.4%)	55.2%	(50.2%, 60.1%)
New Kent County	51127	66.7%	(25.8%, 92.0%)	75.0%	(67.7%, 81.2%)
Nottoway County	51135	63.1%	(22.3%, 91.1%)	53.6%	(45.6%, 61.4%)
Powhatan County	51145	55.2%	(5.7%, 96.2%)	73.7%	(66.0%, 80.2%)
Prince Edward County	51147	59.2%	(23.3%, 87.4%)	65.9%	(58.2%, 72.9%)
Prince George County	51149	70.9%	(33.7%, 92.1%)	65.4%	(60.4%, 70.1%)
Surry County	51181	100.0%	(2.8%, 100.0%)	59.1%	(52.2%, 65.6%)
Sussex County	51183	36.8%	(12.9%, 69.6%)	51.1%	(42.9%, 59.3%)
Colonial Heights City	51570	100.0%	(29.7%, 100.0%)	69.9%	(62.9%, 76.1%)
Emporia City	51595	30.8%	(1.0%, 96.5%)	38.7%	(28.5%, 50.0%)
Hopewell City	51670	53.2%	(18.2%, 85.4%)	57.3%	(51.5%, 62.9%)
Petersburg City	51730	57.7%	(20.9%, 87.6%)	55.7%	(47.6%, 63.4%)
Richmond City	51760	54.1%	(36.8%, 70.4%)	66.7%	(61.5%, 71.5%)

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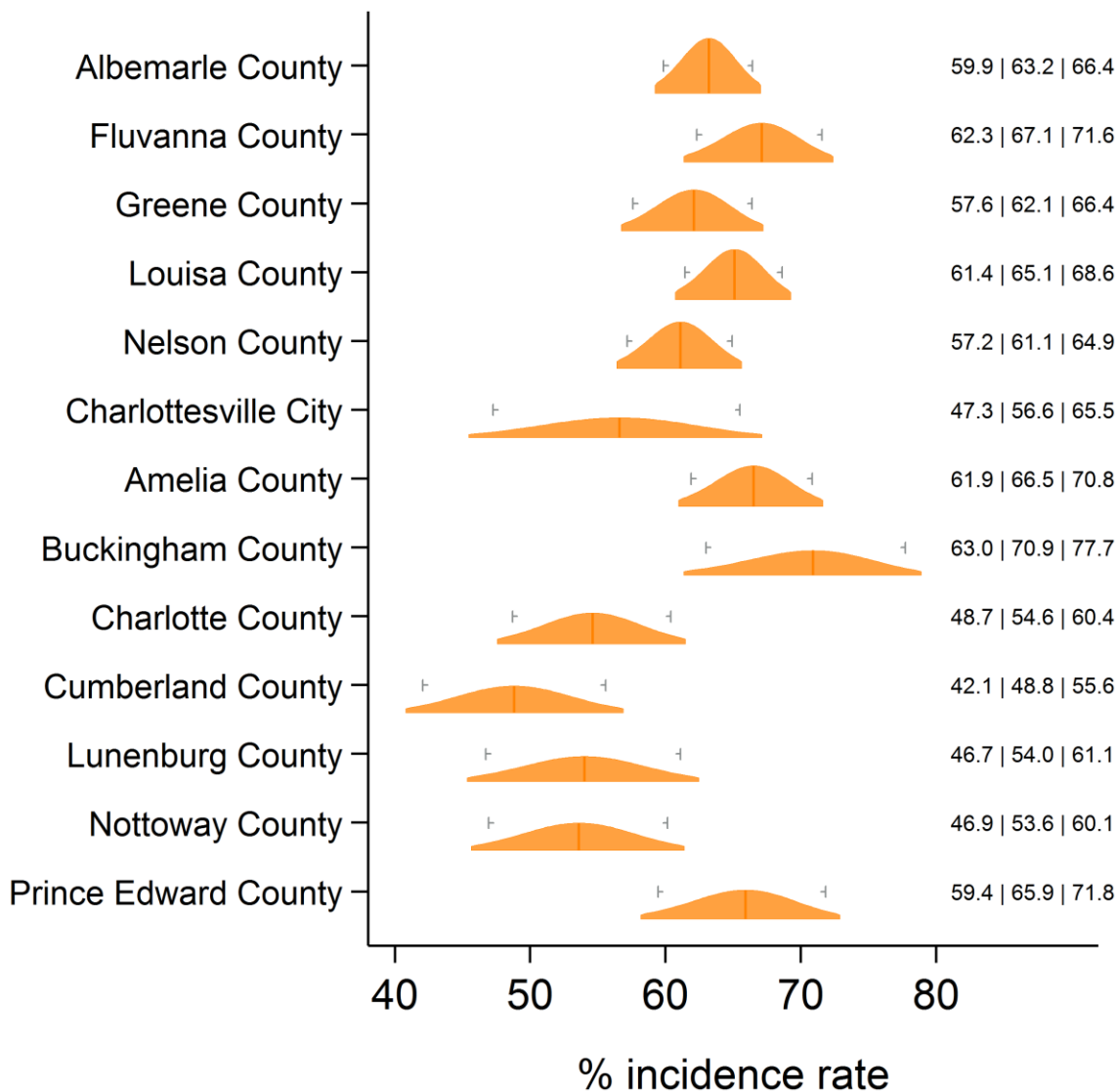


County name	County FIPS	Direct estimate	Direct 95% CI	SAE composite	SAE 95% CI
Accomack County	51001	65.7%	(46.9%, 80.7%)	65.8%	(58.7%, 72.2%)
Essex County	51057	68.8%	(15.5%, 96.4%)	55.2%	(50.2%, 60.0%)
Gloucester County	51073	45.3%	(16.6%, 77.4%)	67.9%	(63.2%, 72.3%)
Isle of Wight County	51093	65.4%	(31.1%, 88.8%)	61.3%	(56.1%, 66.4%)
James City County	51095	57.8%	(33.1%, 79.1%)	59.8%	(55.9%, 63.6%)
King and Queen County	51097	100.0%	(0.6%, 100.0%)	70.1%	(61.4%, 77.5%)
King William County	51101	57.9%	(16.4%, 90.6%)	59.0%	(54.2%, 63.7%)
Lancaster County	51103	86.9%	(45.1%, 96.2%)	63.1%	(59.2%, 66.9%)
Mathews County	51115	39.8%	(15.9%, 69.8%)	54.6%	(44.2%, 64.7%)
Middlesex County	51119	40.6%	(4.5%, 90.9%)	64.5%	(57.8%, 70.6%)
Northampton County	51131	62.8%	(29.2%, 87.4%)	59.5%	(54.0%, 64.8%)
Northumberland County	51133	32.5%	(5.8%, 80.3%)	61.5%	(55.8%, 66.8%)
Richmond County	51159	48.0%	(19.9%, 77.5%)	61.3%	(54.9%, 67.4%)
Southampton County	51175	29.1%	(8.1%, 65.4%)	60.7%	(56.4%, 64.9%)
Westmoreland County	51193	24.2%	(4.2%, 69.8%)	53.6%	(45.0%, 62.0%)
York County	51199	49.4%	(29.0%, 70.1%)	67.8%	(63.8%, 71.6%)
Chesapeake City	51550	64.3%	(50.6%, 75.9%)	62.6%	(59.4%, 65.6%)
Franklin City	51620	37.5%	(13.4%, 69.9%)	52.9%	(43.9%, 61.8%)
Hampton City	51650	49.5%	(34.8%, 64.2%)	63.0%	(59.0%, 66.8%)
Newport News City	51700	52.4%	(32.3%, 71.8%)	64.0%	(60.5%, 67.3%)
Norfolk City	51710	64.2%	(48.3%, 77.5%)	68.2%	(64.2%, 72.1%)
Poquoson City	51735	.%	(.%, .%)	65.4%	(59.9%, 70.4%)
Portsmouth City	51740	69.2%	(49.1%, 83.9%)	60.1%	(55.7%, 64.2%)
Suffolk City	51800	57.4%	(36.4%, 76.0%)	65.9%	(60.8%, 70.6%)
Virginia Beach City	51810	63.9%	(51.2%, 74.9%)	65.4%	(62.5%, 68.1%)
Williamsburg City	51830	76.6%	(21.9%, 97.5%)	77.3%	(66.1%, 85.6%)



Section 4: Graphical representation

Lifetime PSA test Thomas Jefferson and Piedmont HDs

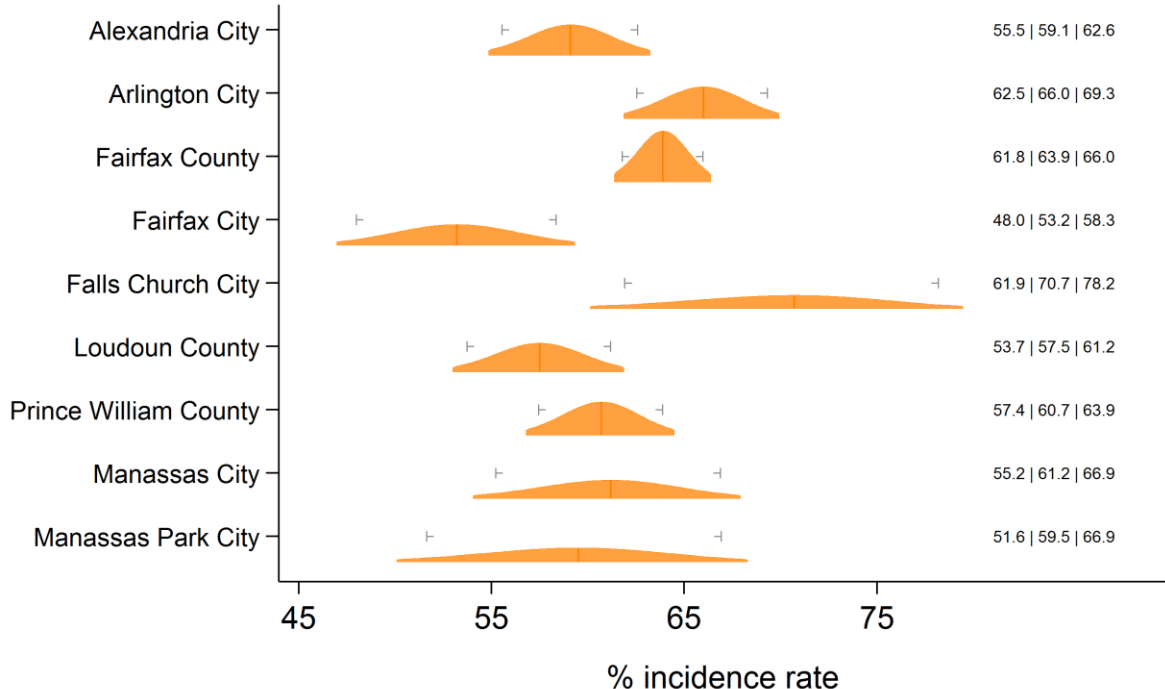


Text at right: 1-sided 95% LCB | Point Estimate | 1-sided 95% UCB
Gray markers: 90% confidence interval

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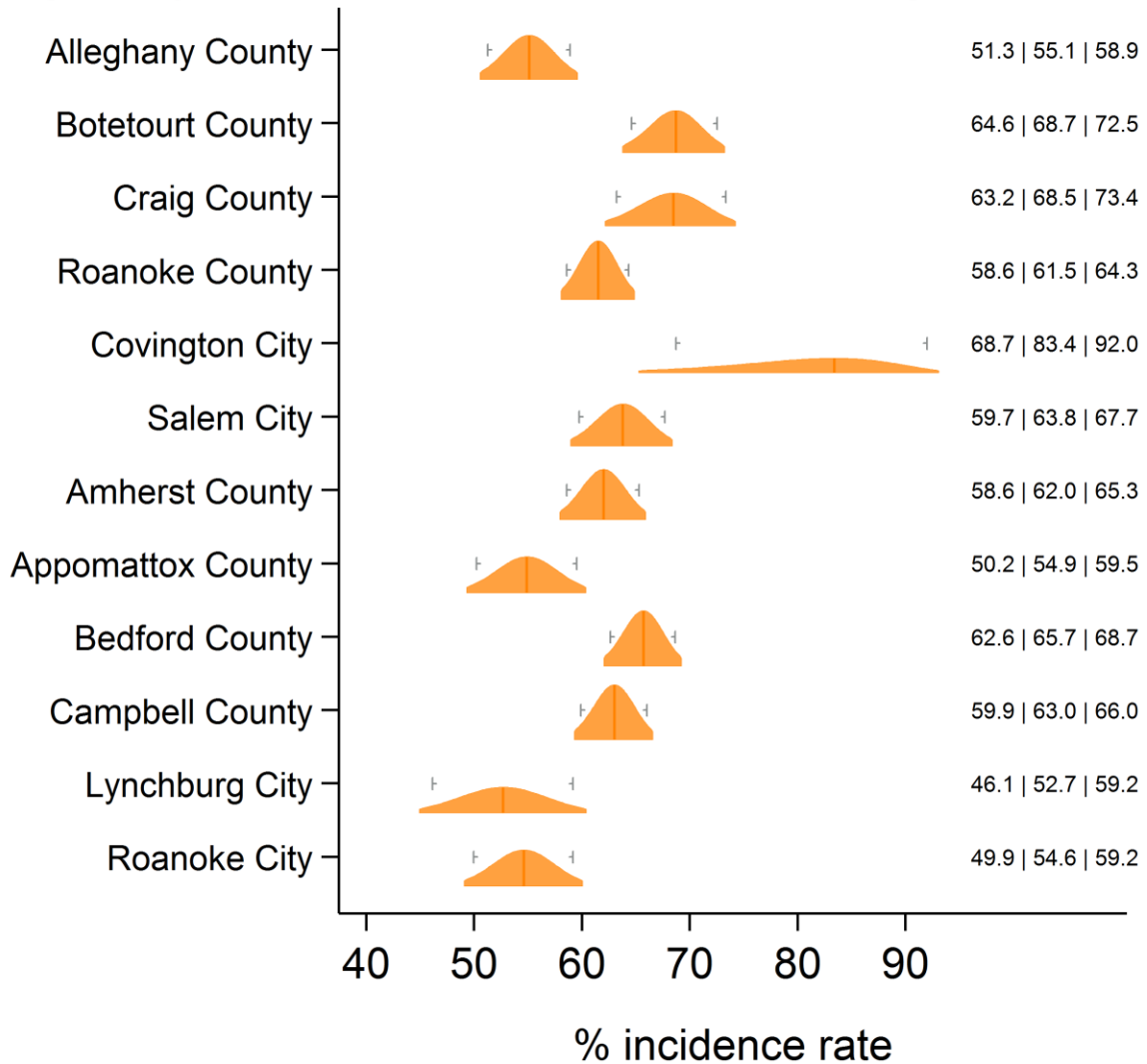
Lifetime PSA test
Alexandria, Fairfax, Arlington, Loudon, Prince William HDs



Text at right: 1-sided 95% LCB | Point Estimate | 1-sided 95% UCB
Gray markers: 90% confidence interval



Lifetime PSA test Alleghany, Roanoke and Central Virginia HDs

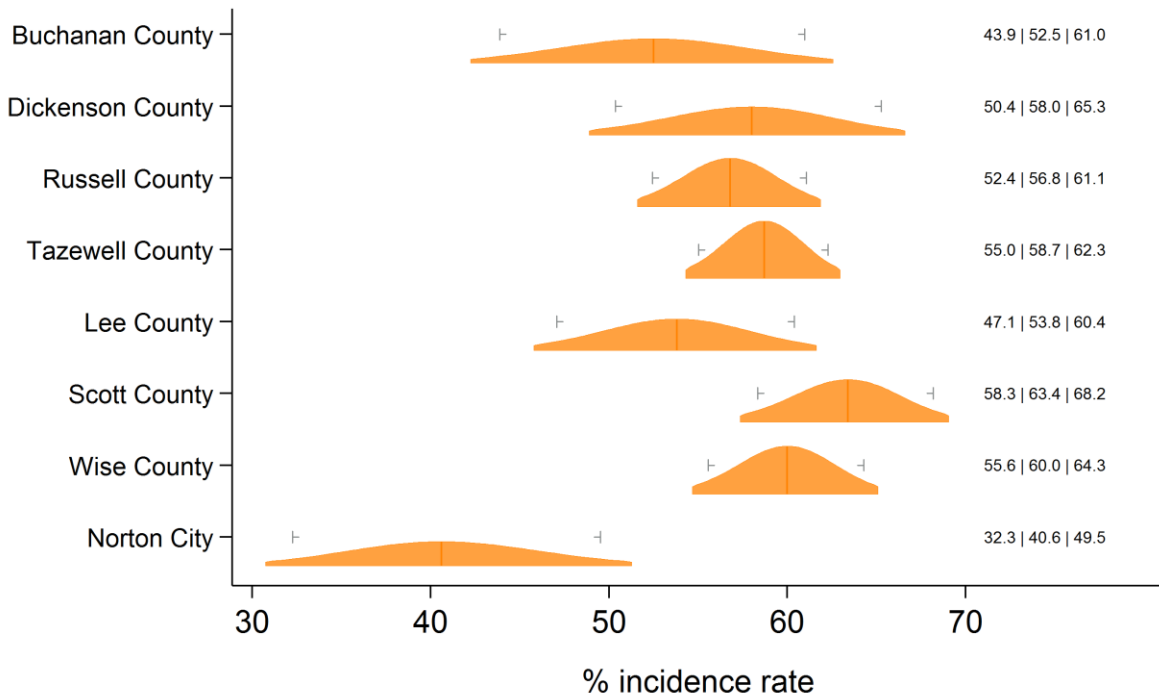


Text at right: 1-sided 95% LCB | Point Estimate | 1-sided 95% UCB
Gray markers: 90% confidence interval

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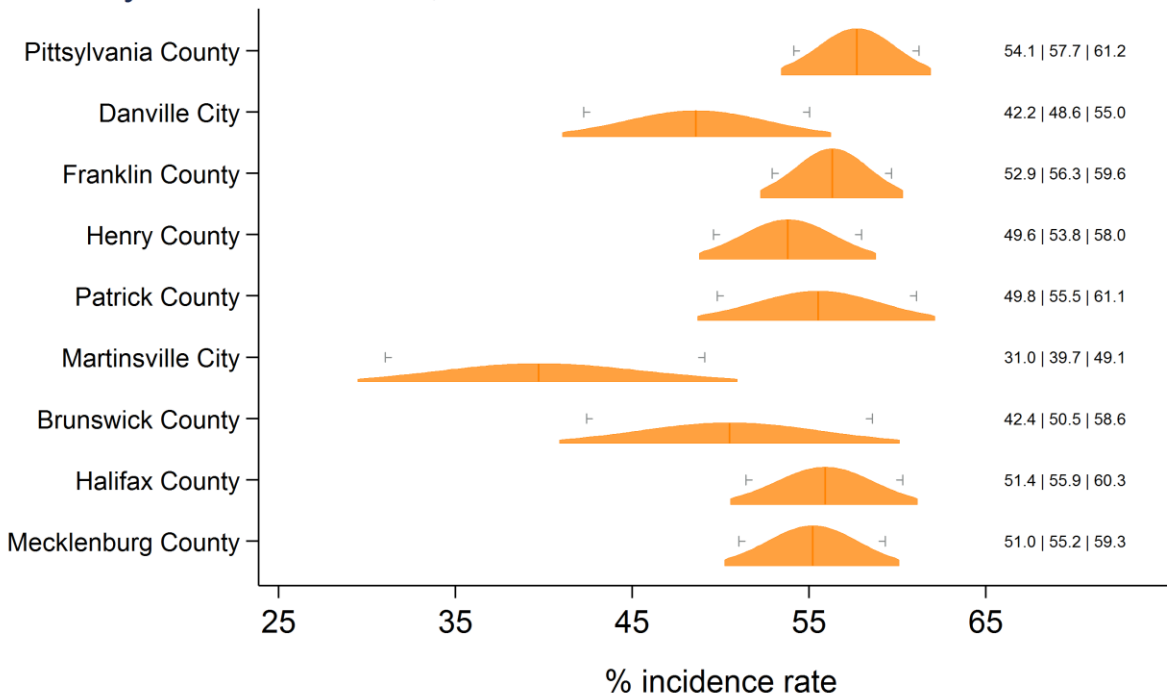
Lifetime PSA test
Cumberland Plateau and Lenowisco HDs



Text at right: 1-sided 95% LCB | Point Estimate | 1-sided 95% UCB
Gray markers: 90% confidence interval



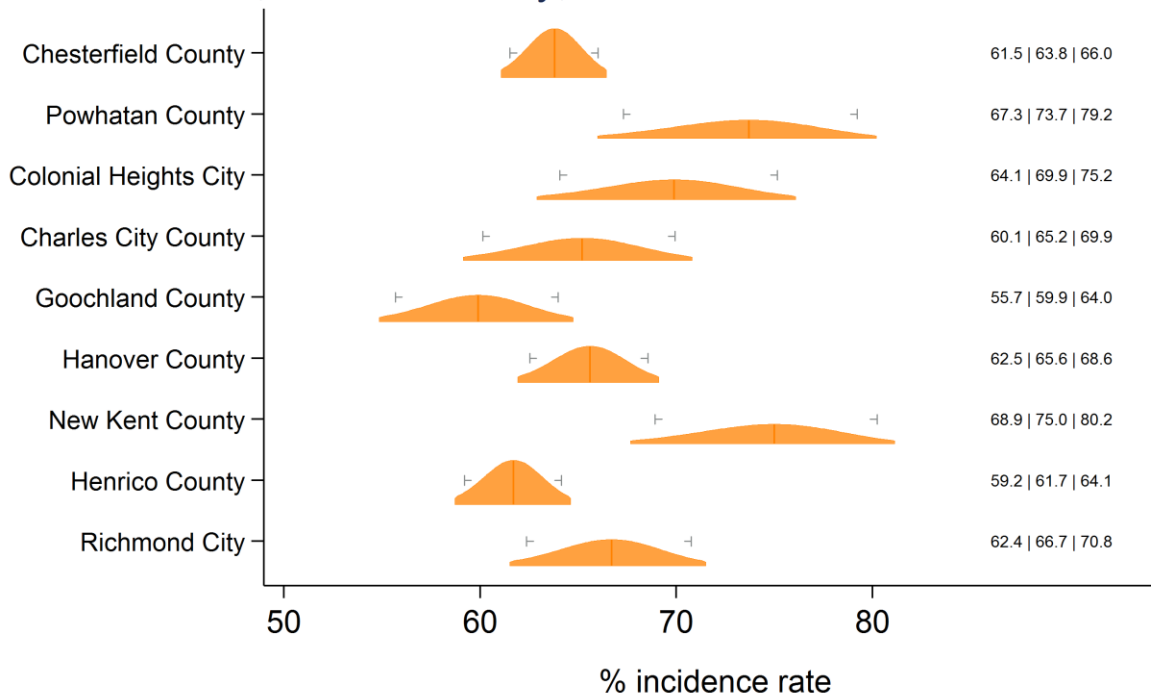
Lifetime PSA test Pittsylvania/Danville, Southside and West Piedmont HDs



Text at right: 1-sided 95% LCB | Point Estimate | 1-sided 95% UCB
 Gray markers: 90% confidence interval



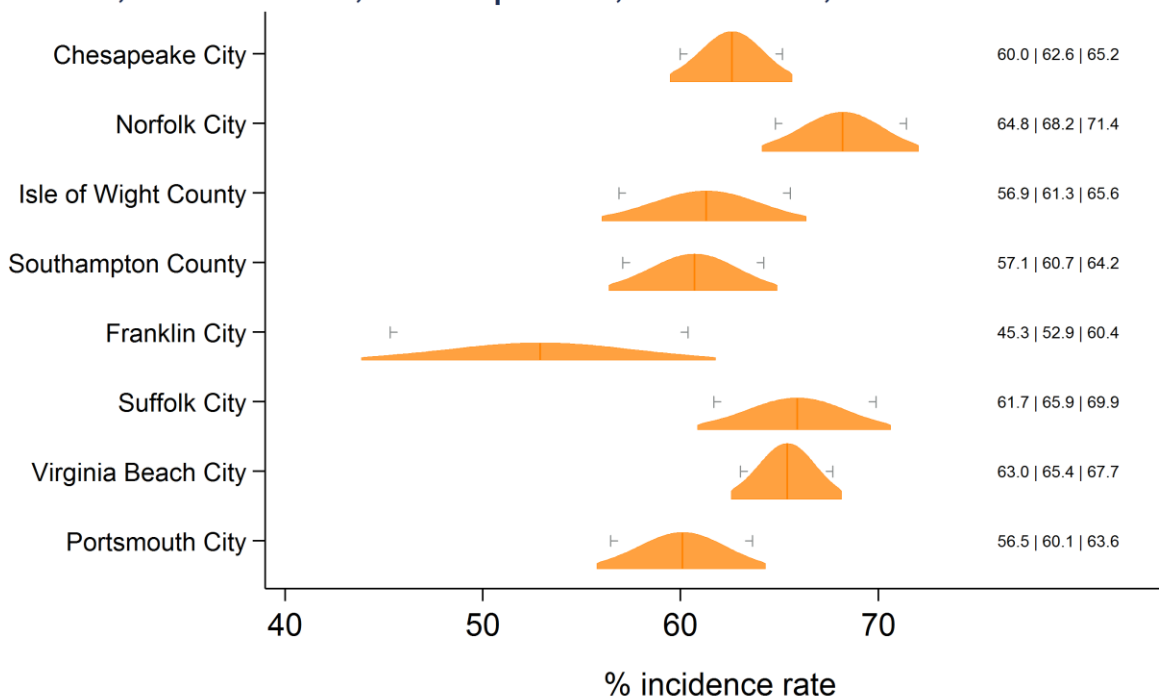
Lifetime PSA test Chesterfield, Chickahominy, Henrico and Richmond HDs



Text at right: 1-sided 95% LCB | Point Estimate | 1-sided 95% UCB
Gray markers: 90% confidence interval



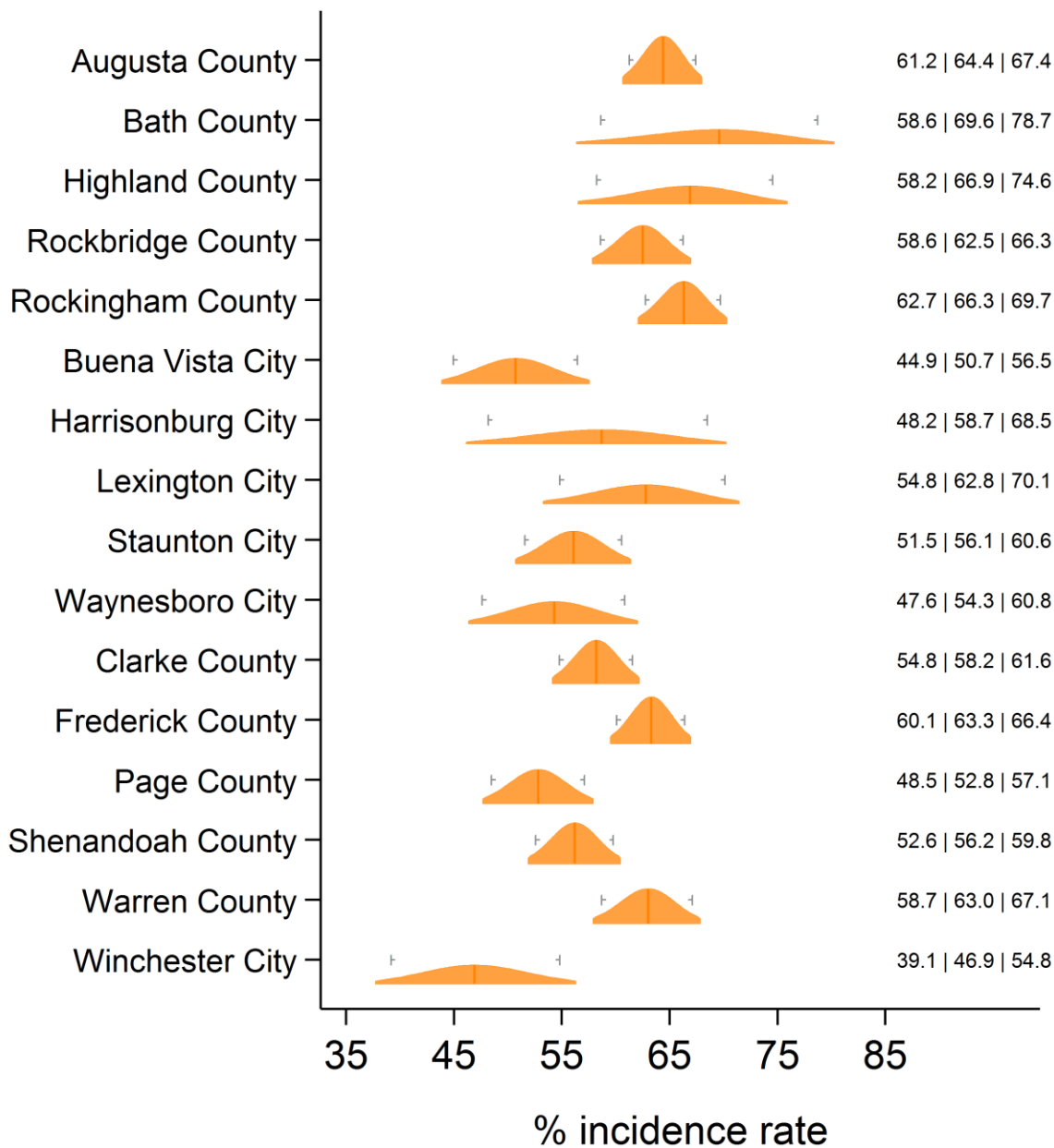
Lifetime PSA test Norfolk, Portsmouth, Chesapeake, VA Beach, W. Tidewater HDs



Text at right: 1-sided 95% LCB | Point Estimate | 1-sided 95% UCB
Gray markers: 90% confidence interval



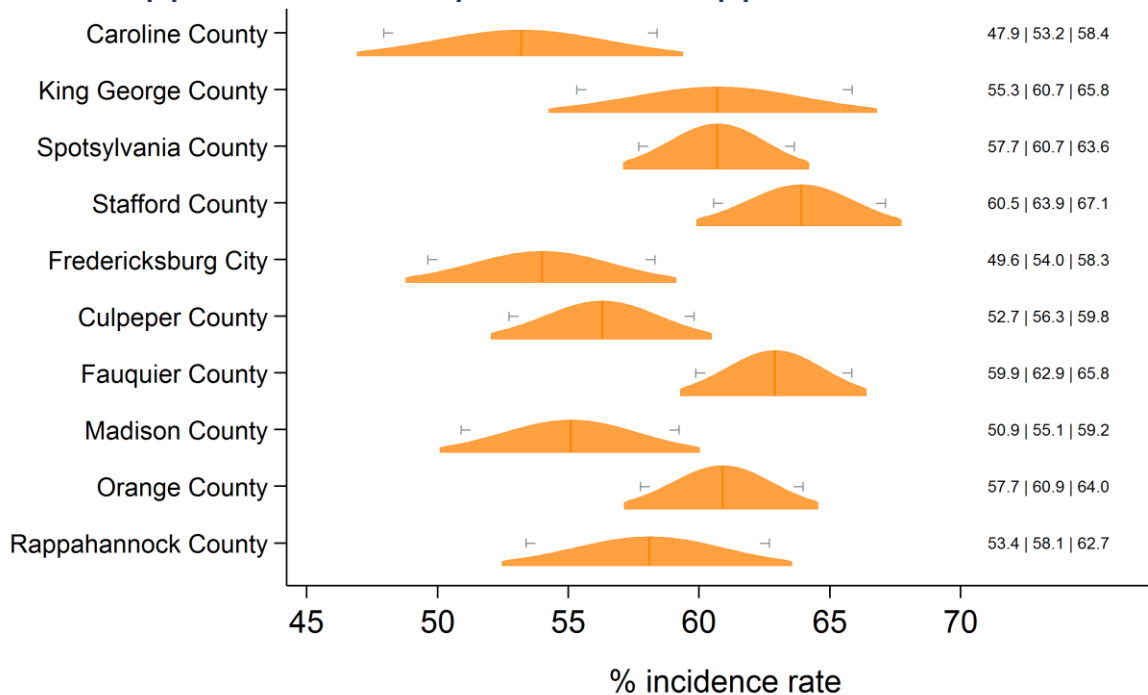
Lifetime PSA test Central Shenandoah and Lord Fairfax HDs



Text at right: 1-sided 95% LCB | Point Estimate | 1-sided 95% UCB
Gray markers: 90% confidence interval



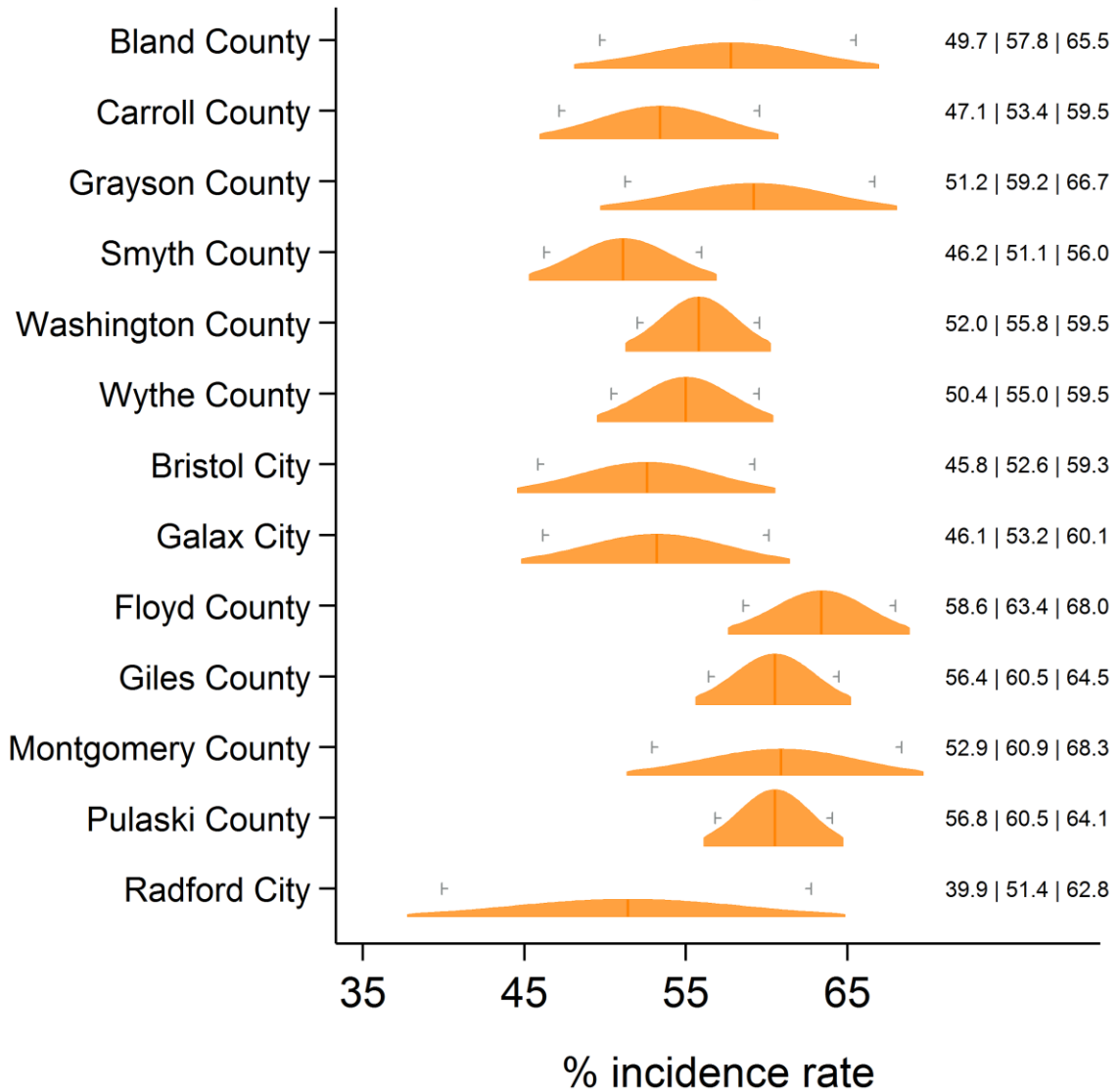
Lifetime PSA test Rappahannock/Rapidan and Rappahannock HDs



Text at right: 1-sided 95% LCB | Point Estimate | 1-sided 95% UCB
Gray markers: 90% confidence interval



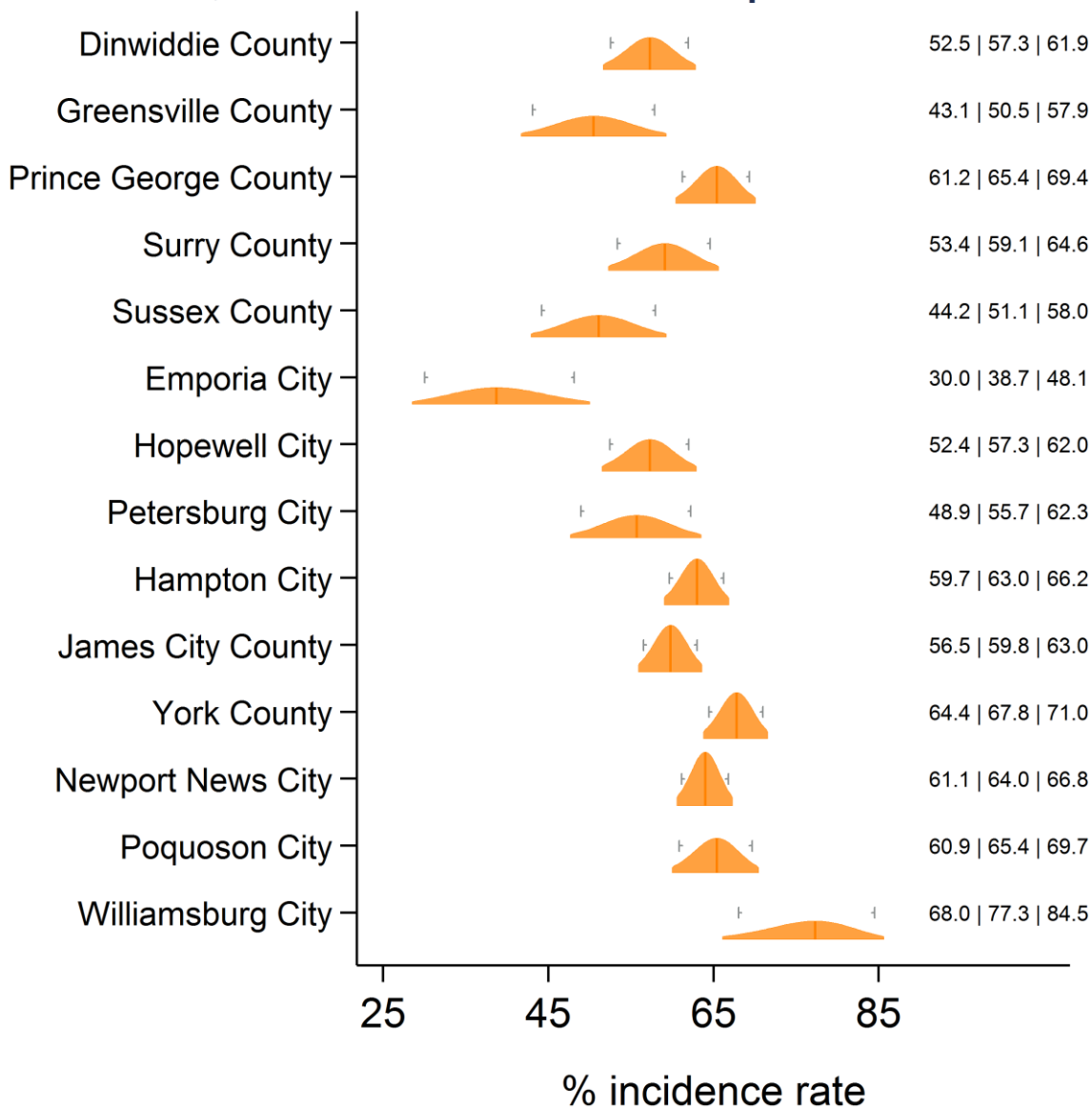
Lifetime PSA test New River and Mount Rogers HDs



Text at right: 1-sided 95% LCB | Point Estimate | 1-sided 95% UCB
Gray markers: 90% confidence interval



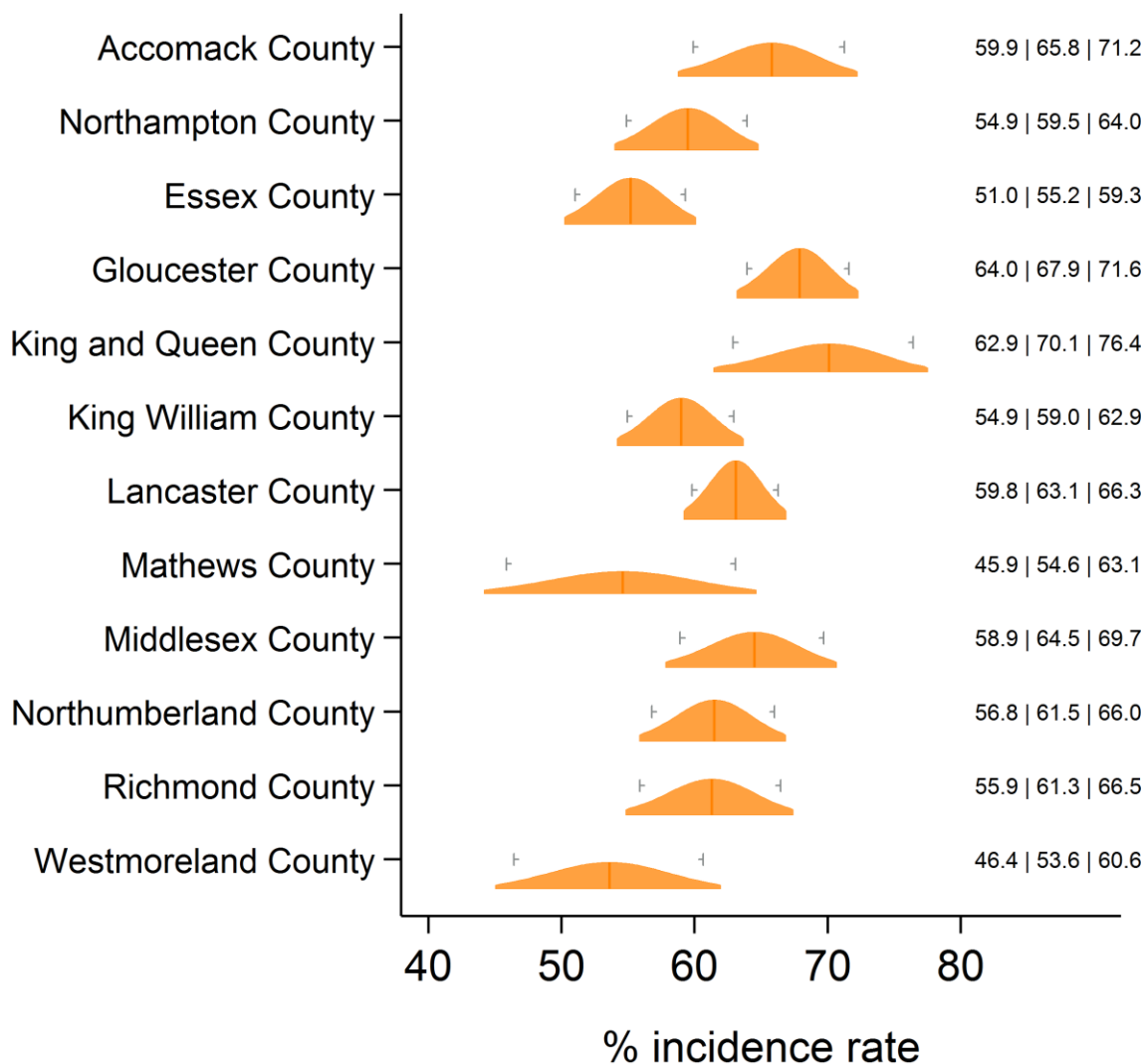
Lifetime PSA test Crater, Peninsula and Hampton HDs



Text at right: 1-sided 95% LCB | Point Estimate | 1-sided 95% UCB
Gray markers: 90% confidence interval



Lifetime PSA test Eastern Shore and Three Rivers HDs



Text at right: 1-sided 95% LCB | Point Estimate | 1-sided 95% UCB
Gray markers: 90% confidence interval



Section 5: Additional diagnostics

Direct estimate is inside the 95% SAE Wilson CI: 38 areas.

Direct estimate is outside the 95% SAE Wilson CI: 95 areas.

SAE estimate is inside the 95% direct Wilson CI: 132 areas.

SAE estimate is outside the 95% direct Wilson CI: 1 areas.

SAE Wilson 95% CI is fully inside the 95% direct Wilson CI: 114 areas.

SAE Wilson 95% CI partially overlaps with the 95% direct Wilson CI: 19 areas.

SAE Wilson 95% CI and the 95% direct Wilson CI do not overlap: 0 areas.

SAE standard error is less than the direct standard error: 117 areas.

SAE standard error is greater than the (nonzero) direct standard error: 1 areas.

Direct standard error is zero: 15 areas.

Proportion of SAE variance due to ACS sampling error: min = 1.34%; med = 12.56%; max = 41.21%.

Proportion of SAE variance to sampling error in regression coefficient estimates: min = 57.93%; med = 85.09%; max = 97.48%.

Proportion of SAE variance due to model selection: min = 0.19%; med = 1.63%; max = 10.26%.