



## Indicator 34: Pap Test 18+ Past 3 Years

Internal variable name: outc34\_pap\_test

### Section 1: Definition

Definition: Women respondents aged 18+ who have had a pap test in the past three years

### Section 2: Predictive models

	Mixed, demos only	Logit, no area effects	Mixed with area covariates
	b/se	b/se	b/se
Outcome 34: Pap Test 18+			
Non-Hispanic Black vs. Non-Hispanic White	0.1009 (0.1586)	-0.0313 (0.1875)	-0.0313 (0.1726)
Non-Hispanic Asian vs. Non-Hispanic White	-0.8194*** (0.2353)	-0.9309** (0.3126)	-0.9309*** (0.2281)
Non-Hispanic Other vs. Non-Hispanic White	0.6046 (0.3643)	0.4452 (0.4044)	0.4452 (0.3544)
Hispanic vs. Non-Hispanic White	0.3142 (0.2947)	0.1568 (0.3064)	0.1568 (0.2928)
Age 18-24 vs. 65+	-0.0837 (0.2020)	-0.0395 (0.1983)	-0.0395 (0.2029)
Age 25-34 vs. 65+	1.5423*** (0.1833)	1.6033*** (0.1994)	1.6033*** (0.1928)
Age 35-44 vs. 65+	1.4358*** (0.1777)	1.4862*** (0.1943)	1.4862*** (0.1809)
Age 45-54 vs. 65+	1.2120*** (0.1527)	1.2269*** (0.1675)	1.2269*** (0.1550)
Age 55-64 vs. 65+	1.0686*** (0.1179)	1.1087*** (0.1611)	1.1087*** (0.1208)
% below 1.5x poverty line		-0.0729*** (0.0114)	-0.0729*** (0.0102)
% Hispanic among adults 18 to 64		0.0205 (0.0461)	0.0205 (0.0398)
% Non-Hispanic minority among adults 18 to 64		0.0260** (0.0080)	0.0260*** (0.0075)
Compound % lacking kitchen or complete plumbing		0.1916* (0.0937)	0.1916* (0.0770)
% without health insurance, total population		0.1139***	0.1139***



		(0.0314)	(0.0251)
{% Hispanic among adults 18 to 64}		-0.0026	-0.0026
interacted with {% Non-Hispanic minority among adults 18 to 64}		(0.0016)	(0.0015)
Uterus Cancer Female Rate		0.0210*	0.0210**
		(0.0101)	(0.0076)
Crude mortality rate of nephritis nephrotic syndrome per 10,000		0.1656	0.1656*
		(0.1033)	(0.0697)
{Uterus Cancer Female Rate}		-0.0042	-0.0042
interacted with {Crude mortality rate of nephritis nephrotic syndrome per 10,000}		(0.0039)	(0.0027)
Intercept	0.4826***	-0.4635	-0.4635
	(0.0916)	(0.3997)	(0.2804)
Area effect variance	0.0534		0.0000
	(0.0664)		(0.0000)

Number of alternative models used to estimate model error = 3.



### Section 3: Results

County name	County FIPS	Direct estimate	Direct 95% CI	SAE composite	SAE 95% CI
Augusta County	51015	75.6%	(55.7%, 88.4%)	75.5%	(70.9%, 79.7%)
Bath County	51017	100.0%	(21.1%, 100.0%)	88.5%	(71.9%, 95.9%)
Caroline County	51033	82.5%	(35.7%, 97.6%)	86.6%	(82.2%, 90.0%)
Clarke County	51043	58.1%	(13.9%, 92.3%)	78.1%	(72.6%, 82.7%)
Culpeper County	51047	67.3%	(41.3%, 85.8%)	82.6%	(78.2%, 86.2%)
Fauquier County	51061	91.8%	(73.2%, 95.6%)	84.0%	(79.9%, 87.5%)
Frederick County	51069	70.8%	(51.9%, 84.4%)	81.8%	(76.5%, 86.1%)
Highland County	51091	100.0%	(5.7%, 100.0%)	66.5%	(48.5%, 80.8%)
King George County	51099	89.0%	(35.9%, 97.7%)	86.2%	(81.7%, 89.8%)
Madison County	51113	73.6%	(36.0%, 93.2%)	80.2%	(72.8%, 86.0%)
Orange County	51137	94.5%	(68.5%, 97.4%)	83.9%	(79.3%, 87.7%)
Page County	51139	87.1%	(39.0%, 96.0%)	71.9%	(65.0%, 78.0%)
Rappahannock County	51157	59.6%	(10.3%, 95.0%)	81.1%	(74.0%, 86.6%)
Rockbridge County	51163	75.9%	(32.6%, 93.3%)	80.1%	(75.1%, 84.4%)
Rockingham County	51165	84.9%	(67.5%, 93.8%)	82.9%	(77.5%, 87.3%)
Shenandoah County	51171	87.4%	(62.4%, 95.3%)	78.8%	(72.6%, 84.0%)
Spotsylvania County	51177	73.7%	(49.9%, 88.7%)	84.2%	(80.3%, 87.4%)
Stafford County	51179	87.4%	(71.0%, 95.2%)	83.1%	(79.4%, 86.2%)
Warren County	51187	95.0%	(54.4%, 97.8%)	83.0%	(78.2%, 86.9%)
Buena Vista City	51530	0.0%	(0.0%, 99.4%)	66.3%	(51.4%, 78.6%)
Fredericksburg City	51630	79.0%	(27.3%, 97.4%)	82.3%	(77.1%, 86.6%)
Harrisonburg City	51660	82.3%	(22.1%, 96.9%)	40.9%	(27.2%, 56.2%)
Lexington City	51678	0.0%	(0.0%, 99.4%)	53.3%	(29.9%, 75.3%)
Staunton City	51790	89.1%	(32.2%, 97.8%)	84.6%	(77.9%, 89.5%)
Waynesboro City	51820	67.7%	(25.2%, 92.9%)	76.0%	(69.6%, 81.4%)
Winchester City	51840	100.0%	(24.6%, 100.0%)	76.2%	(66.5%, 83.9%)

Indicator 34: Pap Test 18+ Past 3 Years



County name	County FIPS	Direct estimate	Direct 95% CI	SAE composite	SAE 95% CI
Albemarle County	51003	78.8%	(63.1%, 89.0%)	69.7%	(65.4%, 73.6%)
Alleghany County	51005	48.3%	(20.3%, 77.5%)	67.7%	(60.0%, 74.6%)
Amherst County	51009	83.8%	(43.7%, 94.2%)	81.8%	(77.6%, 85.3%)
Appomattox County	51011	80.5%	(45.7%, 92.9%)	81.5%	(70.2%, 89.2%)
Arlington City	51013	83.6%	(68.0%, 92.4%)	83.3%	(78.6%, 87.1%)
Bedford County	51019	82.9%	(57.7%, 94.5%)	73.9%	(68.9%, 78.3%)
Botetourt County	51023	73.6%	(47.6%, 89.5%)	70.7%	(65.1%, 75.7%)
Campbell County	51031	67.8%	(40.8%, 86.5%)	74.9%	(70.1%, 79.2%)
Craig County	51045	86.3%	(15.6%, 98.4%)	67.4%	(56.3%, 76.9%)
Fairfax County	51059	82.6%	(74.1%, 88.7%)	81.4%	(77.9%, 84.4%)
Fluvanna County	51065	89.1%	(42.0%, 97.7%)	84.7%	(77.3%, 90.0%)
Greene County	51079	84.1%	(37.3%, 97.9%)	79.8%	(75.3%, 83.8%)
Loudoun County	51107	82.4%	(70.6%, 90.1%)	83.1%	(80.1%, 85.7%)
Louisa County	51109	71.1%	(40.4%, 89.2%)	88.2%	(81.8%, 92.5%)
Nelson County	51125	82.5%	(43.0%, 95.4%)	82.7%	(78.1%, 86.6%)
Prince William County	51153	75.6%	(62.9%, 85.0%)	81.4%	(75.4%, 86.2%)
Roanoke County	51161	73.8%	(57.4%, 85.5%)	71.9%	(67.5%, 75.9%)
Alexandria City	51510	89.7%	(72.3%, 96.7%)	83.8%	(79.3%, 87.4%)
Charlottesville City	51540	57.9%	(24.4%, 85.4%)	62.0%	(54.0%, 69.5%)
Covington City	51580	.%	(.%, .%)	93.5%	(76.2%, 98.5%)
Fairfax City	51600	74.3%	(55.5%, 87.1%)	72.2%	(67.2%, 76.7%)
Falls Church City	51610	100.0%	(3.3%, 100.0%)	76.7%	(68.4%, 83.4%)
Lynchburg City	51680	67.9%	(33.7%, 89.8%)	65.1%	(58.5%, 71.2%)
Manassas City	51683	95.8%	(24.0%, 99.1%)	86.9%	(76.9%, 92.9%)
Manassas Park City	51685	100.0%	(0.6%, 100.0%)	76.1%	(60.6%, 86.9%)
Salem City	51775	46.2%	(11.2%, 85.4%)	75.2%	(70.0%, 79.8%)

Indicator 34: Pap Test 18+ Past 3 Years



County name	County FIPS	Direct estimate	Direct 95% CI	SAE composite	SAE 95% CI
Bland County	51021	82.6%	(19.1%, 97.9%)	76.4%	(70.8%, 81.2%)
Buchanan County	51027	71.7%	(46.7%, 88.0%)	60.4%	(48.7%, 71.1%)
Carroll County	51035	68.4%	(40.6%, 87.2%)	66.6%	(55.6%, 76.0%)
Dickenson County	51051	67.1%	(38.8%, 86.8%)	69.6%	(58.2%, 79.0%)
Floyd County	51063	53.8%	(22.3%, 82.6%)	67.8%	(58.7%, 75.7%)
Franklin County	51067	87.5%	(62.9%, 96.7%)	75.7%	(71.1%, 79.8%)
Giles County	51071	69.1%	(29.2%, 91.4%)	80.2%	(69.6%, 87.8%)
Grayson County	51077	62.5%	(21.4%, 91.1%)	56.9%	(45.7%, 67.4%)
Henry County	51089	67.6%	(48.3%, 82.3%)	71.7%	(65.9%, 76.8%)
Lee County	51105	56.4%	(27.4%, 81.7%)	66.8%	(56.5%, 75.7%)
Montgomery County	51121	64.5%	(46.6%, 79.1%)	48.7%	(39.4%, 58.2%)
Patrick County	51141	62.7%	(30.1%, 86.8%)	64.3%	(56.8%, 71.2%)
Pittsylvania County	51143	83.6%	(71.0%, 91.4%)	75.5%	(70.4%, 79.9%)
Pulaski County	51155	80.4%	(52.5%, 93.9%)	73.9%	(65.4%, 80.8%)
Russell County	51167	68.3%	(28.9%, 92.0%)	67.7%	(59.8%, 74.7%)
Scott County	51169	79.5%	(58.7%, 91.4%)	73.0%	(64.9%, 79.8%)
Smyth County	51173	33.5%	(15.4%, 58.2%)	61.3%	(52.7%, 69.2%)
Tazewell County	51185	60.6%	(37.7%, 79.6%)	72.7%	(65.8%, 78.6%)
Washington County	51191	88.1%	(67.4%, 94.8%)	70.8%	(63.8%, 77.0%)
Wise County	51195	77.9%	(58.5%, 89.8%)	70.9%	(65.5%, 75.7%)
Wythe County	51197	86.7%	(58.4%, 96.8%)	78.6%	(68.7%, 86.0%)
Bristol City	51520	56.8%	(16.8%, 89.5%)	65.4%	(56.3%, 73.5%)
Danville City	51590	76.3%	(35.3%, 95.0%)	71.6%	(65.1%, 77.4%)
Galax City	51640	100.0%	(8.3%, 100.0%)	65.0%	(41.7%, 82.8%)
Martinsville City	51690	29.2%	(4.8%, 81.6%)	61.3%	(50.0%, 71.5%)
Norton City	51720	100.0%	(0.6%, 100.0%)	75.3%	(60.2%, 86.1%)
Radford City	51750	25.6%	(1.4%, 89.3%)	15.4%	(7.6%, 28.7%)
Roanoke City	51770	79.1%	(63.0%, 89.3%)	76.8%	(71.7%, 81.3%)

Indicator 34: Pap Test 18+ Past 3 Years



County name	County FIPS	Direct estimate	Direct 95% CI	SAE composite	SAE 95% CI
Amelia County	51007	100.0%	(71.9%, 100.0%)	87.4%	(78.2%, 93.1%)
Brunswick County	51025	93.9%	(61.5%, 97.5%)	74.8%	(66.7%, 81.5%)
Buckingham County	51029	80.0%	(36.2%, 96.6%)	76.0%	(68.4%, 82.3%)
Charles City County	51036	51.1%	(2.6%, 97.6%)	92.4%	(86.4%, 95.8%)
Charlotte County	51037	97.7%	(24.3%, 99.5%)	90.3%	(84.6%, 94.0%)
Chesterfield County	51041	88.7%	(80.3%, 93.8%)	85.4%	(82.7%, 87.7%)
Cumberland County	51049	99.0%	(55.0%, 99.5%)	87.5%	(82.1%, 91.4%)
Dinwiddie County	51053	95.9%	(59.0%, 98.0%)	85.9%	(80.3%, 90.0%)
Goochland County	51075	87.9%	(56.8%, 94.6%)	82.6%	(76.9%, 87.2%)
Greensville County	51081	64.8%	(11.8%, 96.2%)	75.1%	(61.6%, 85.0%)
Halifax County	51083	89.2%	(72.8%, 96.2%)	76.5%	(71.1%, 81.1%)
Hanover County	51085	75.6%	(56.2%, 88.3%)	79.8%	(76.3%, 82.9%)
Henrico County	51087	89.0%	(82.6%, 93.2%)	85.8%	(82.7%, 88.4%)
Lunenburg County	51111	90.4%	(46.6%, 96.6%)	77.0%	(71.8%, 81.5%)
Mecklenburg County	51117	75.7%	(32.0%, 95.4%)	80.4%	(75.0%, 84.8%)
New Kent County	51127	85.0%	(44.6%, 95.8%)	83.0%	(77.6%, 87.3%)
Nottoway County	51135	88.0%	(43.4%, 96.3%)	79.9%	(74.9%, 84.2%)
Powhatan County	51145	80.7%	(29.8%, 97.6%)	76.9%	(71.7%, 81.3%)
Prince Edward County	51147	84.3%	(50.0%, 96.7%)	73.7%	(68.1%, 78.7%)
Prince George County	51149	73.9%	(31.2%, 94.7%)	73.6%	(68.5%, 78.2%)
Surry County	51181	61.7%	(8.0%, 96.8%)	81.5%	(71.5%, 88.6%)
Sussex County	51183	46.0%	(4.1%, 94.5%)	67.2%	(57.7%, 75.5%)
Colonial Heights City	51570	100.0%	(6.2%, 100.0%)	87.6%	(82.3%, 91.5%)
Emporia City	51595	0.0%	(0.0%, 90.3%)	77.7%	(50.3%, 92.3%)
Hopewell City	51670	93.9%	(31.8%, 98.5%)	91.0%	(85.1%, 94.6%)
Petersburg City	51730	89.6%	(60.6%, 98.0%)	90.1%	(83.7%, 94.2%)
Richmond City	51760	82.4%	(70.7%, 90.1%)	80.4%	(75.2%, 84.7%)

Indicator 34: Pap Test 18+ Past 3 Years

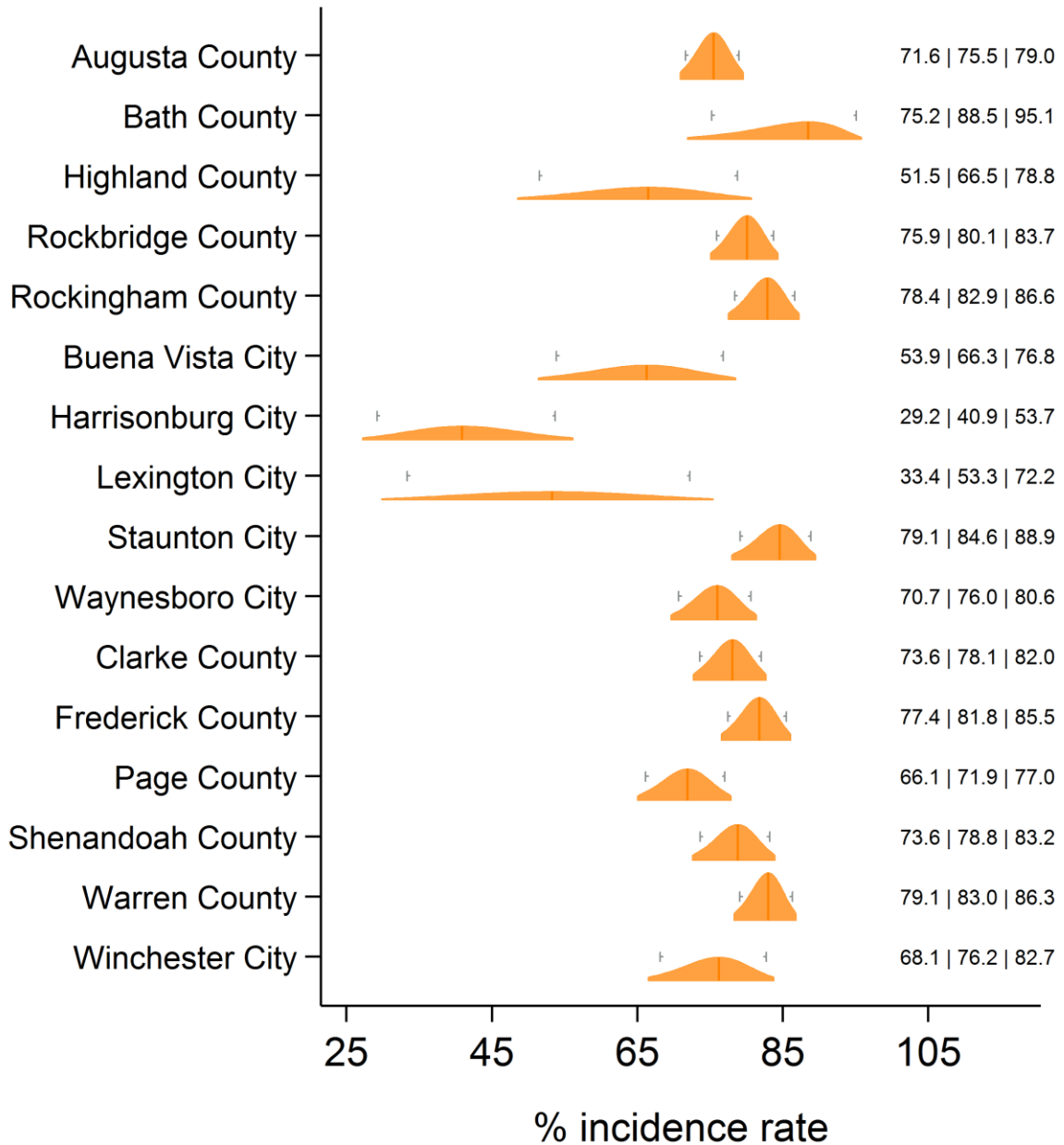


County name	County FIPS	Direct estimate	Direct 95% CI	SAE composite	SAE 95% CI
Accomack County	51001	87.3%	(71.0%, 95.1%)	81.4%	(74.1%, 87.0%)
Essex County	51057	84.5%	(35.7%, 95.9%)	74.7%	(67.3%, 81.0%)
Gloucester County	51073	87.0%	(58.7%, 96.9%)	84.4%	(80.1%, 87.9%)
Isle of Wight County	51093	87.0%	(64.0%, 96.2%)	86.1%	(82.3%, 89.3%)
James City County	51095	68.8%	(42.6%, 86.7%)	72.0%	(67.5%, 76.1%)
King and Queen County	51097	100.0%	(19.0%, 100.0%)	81.0%	(74.1%, 86.5%)
King William County	51101	95.5%	(47.7%, 98.4%)	83.0%	(76.4%, 88.0%)
Lancaster County	51103	78.6%	(41.6%, 95.0%)	87.4%	(80.2%, 92.2%)
Mathews County	51115	69.7%	(34.2%, 91.1%)	80.1%	(72.1%, 86.3%)
Middlesex County	51119	39.9%	(3.9%, 91.7%)	78.9%	(70.2%, 85.6%)
Northampton County	51131	93.6%	(60.0%, 96.5%)	84.3%	(78.0%, 89.1%)
Northumberland County	51133	93.8%	(50.4%, 98.0%)	87.4%	(72.1%, 94.9%)
Richmond County	51159	72.6%	(35.1%, 92.8%)	71.4%	(59.8%, 80.7%)
Southampton County	51175	61.4%	(21.1%, 90.4%)	83.9%	(76.9%, 89.0%)
Westmoreland County	51193	77.9%	(46.5%, 92.0%)	80.3%	(74.0%, 85.3%)
York County	51199	79.1%	(50.6%, 93.3%)	74.7%	(70.9%, 78.2%)
Chesapeake City	51550	84.2%	(70.9%, 92.1%)	81.8%	(78.8%, 84.6%)
Franklin City	51620	94.1%	(64.3%, 97.3%)	91.4%	(83.8%, 95.7%)
Hampton City	51650	76.0%	(59.1%, 87.4%)	79.2%	(73.9%, 83.6%)
Newport News City	51700	90.8%	(74.7%, 97.1%)	78.8%	(73.2%, 83.6%)
Norfolk City	51710	77.0%	(64.9%, 85.9%)	73.5%	(67.3%, 79.0%)
Poquoson City	51735	96.0%	(11.1%, 99.6%)	78.3%	(73.4%, 82.6%)
Portsmouth City	51740	78.2%	(56.7%, 90.8%)	83.0%	(77.9%, 87.2%)
Suffolk City	51800	81.8%	(60.5%, 92.9%)	86.8%	(82.3%, 90.2%)
Virginia Beach City	51810	82.4%	(72.1%, 89.4%)	79.7%	(77.4%, 81.7%)
Williamsburg City	51830	0.0%	(0.0%, 99.4%)	70.0%	(55.5%, 81.4%)



Section 4: Graphical representation

## Pap test in past 3 years (women 18+) Central Shenandoah and Lord Fairfax HDs

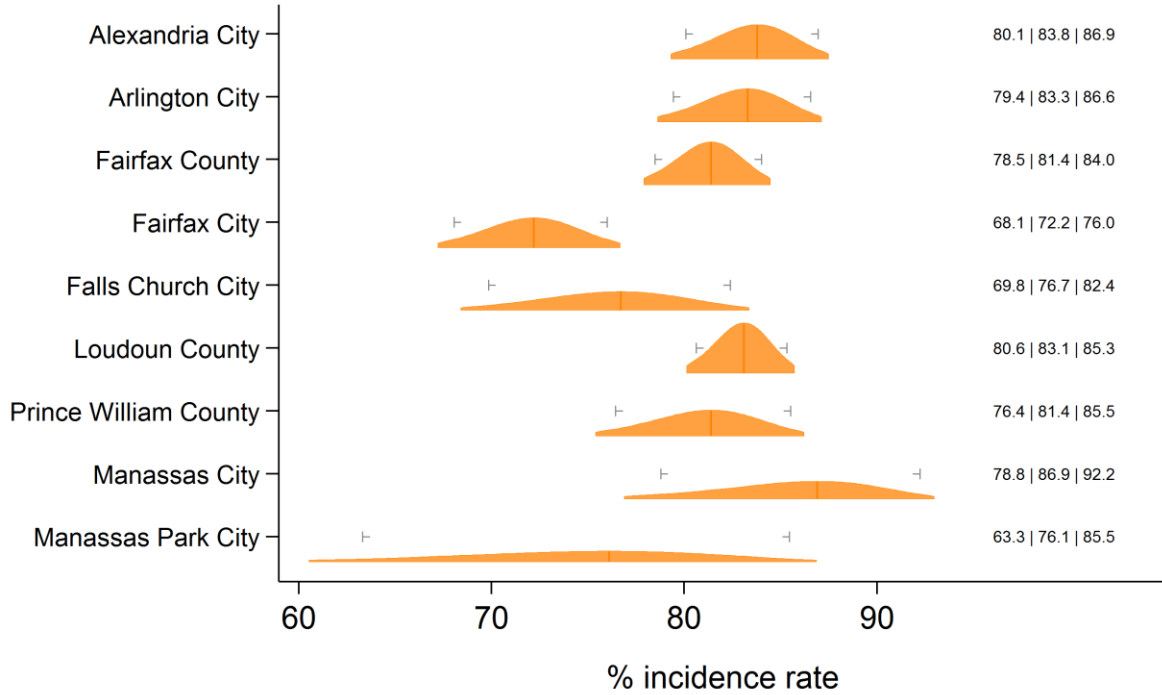


Text at right: 1-sided 95% LCB | Point Estimate | 1-sided 95% UCB  
 Gray markers: 90% confidence interval





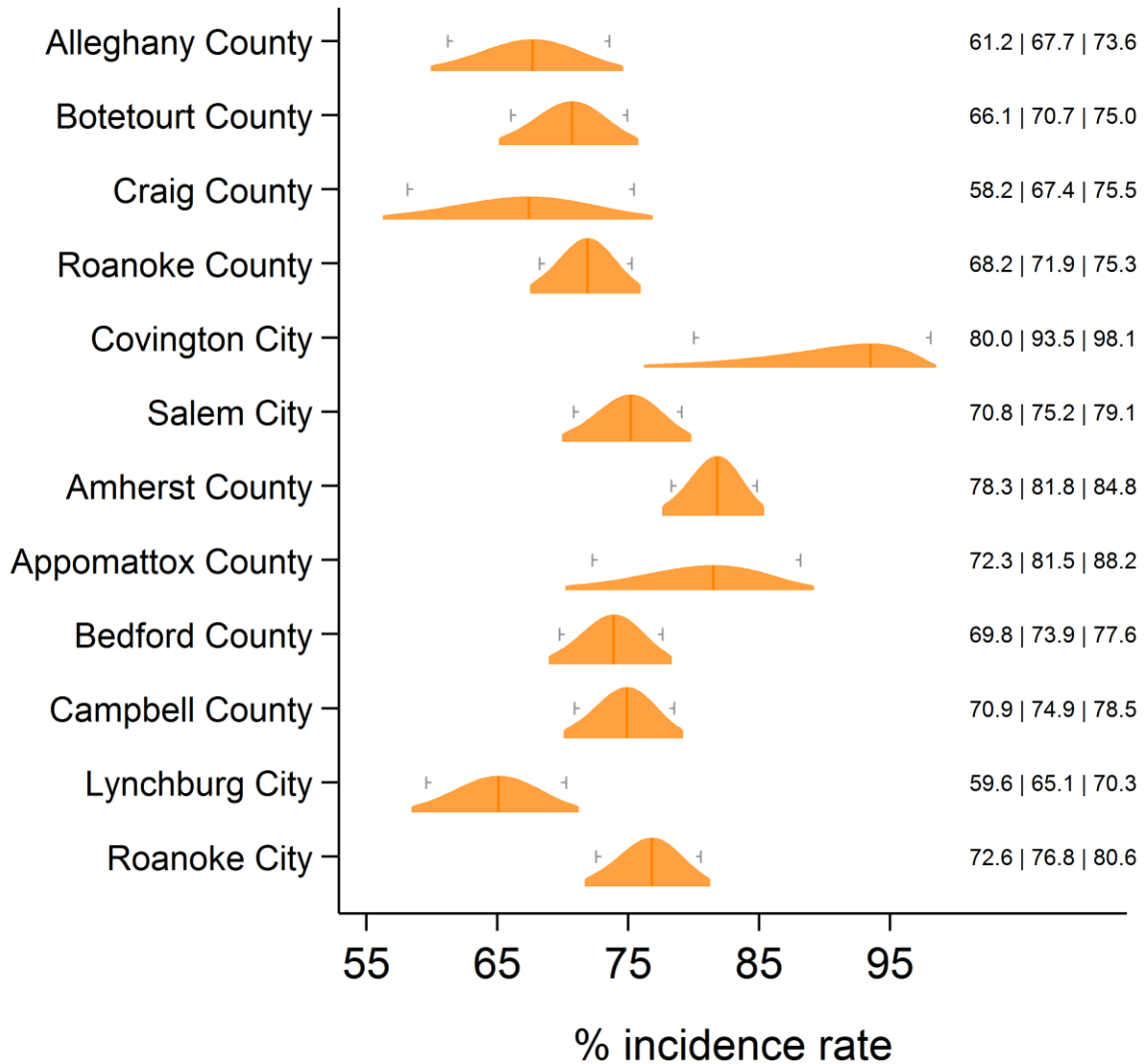
### Pap test in past 3 years (women 18+) Alexandria, Fairfax, Arlington, Loudon, Prince William HDs



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



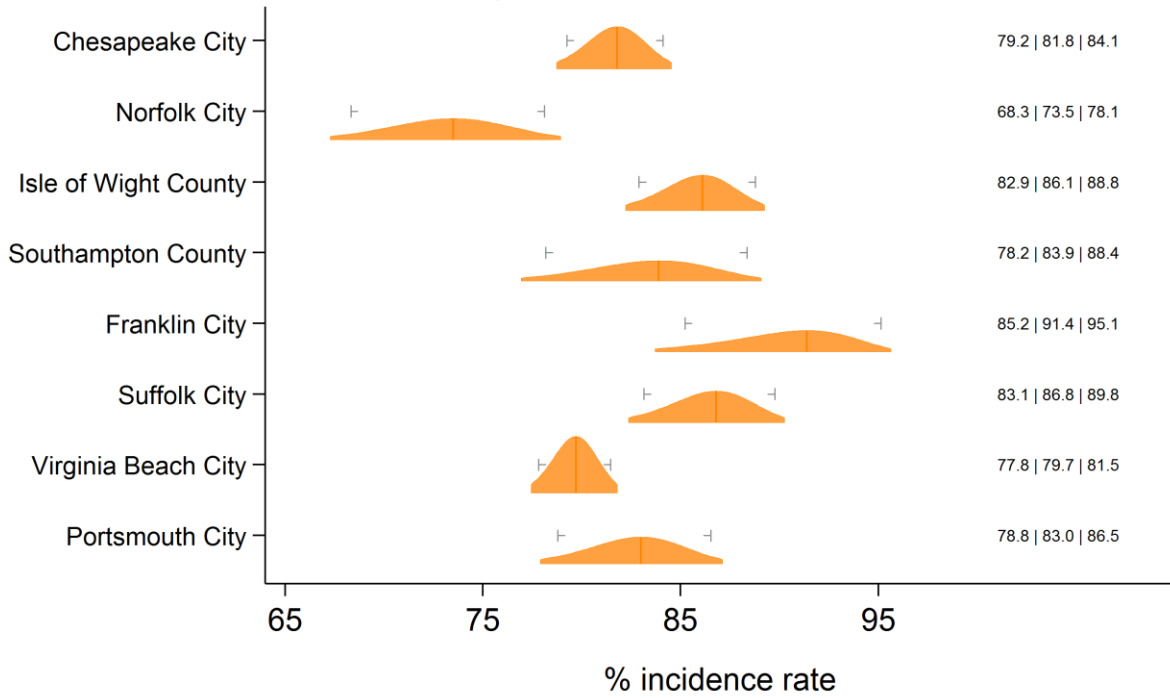
## Pap test in past 3 years (women 18+) Alleghany, Roanoke and Central Virginia HDs



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



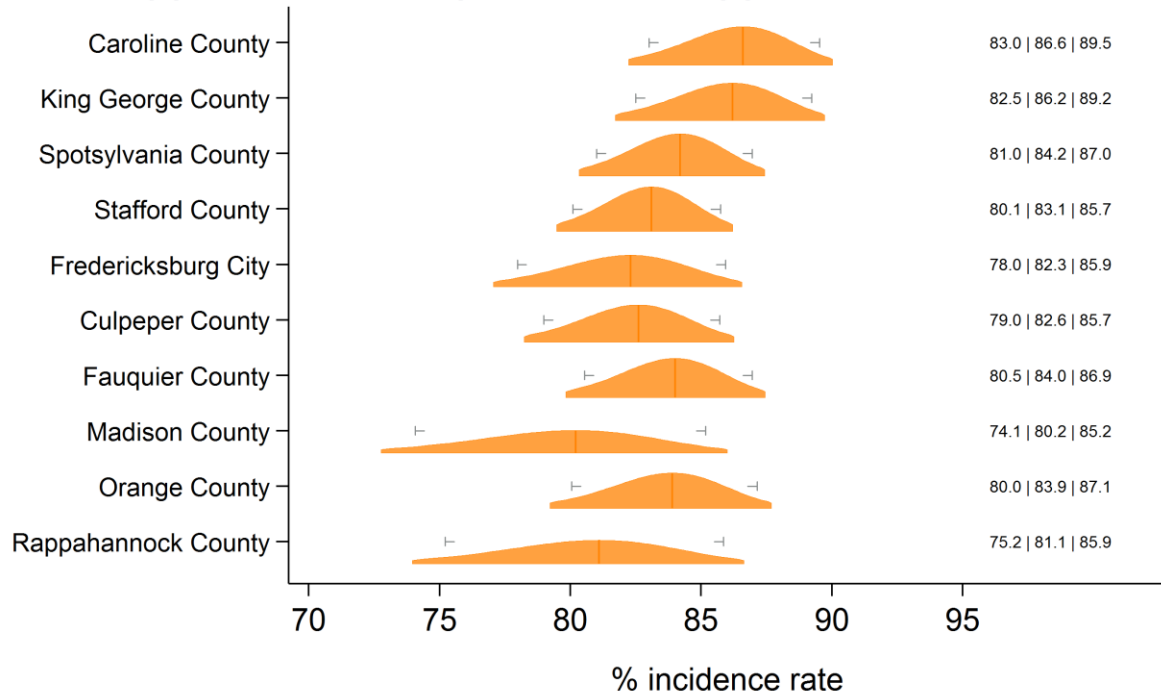
### Pap test in past 3 years (women 18+) Norfolk, Portsmouth, Chesapeake, VA Beach, W. Tidewater HDs



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



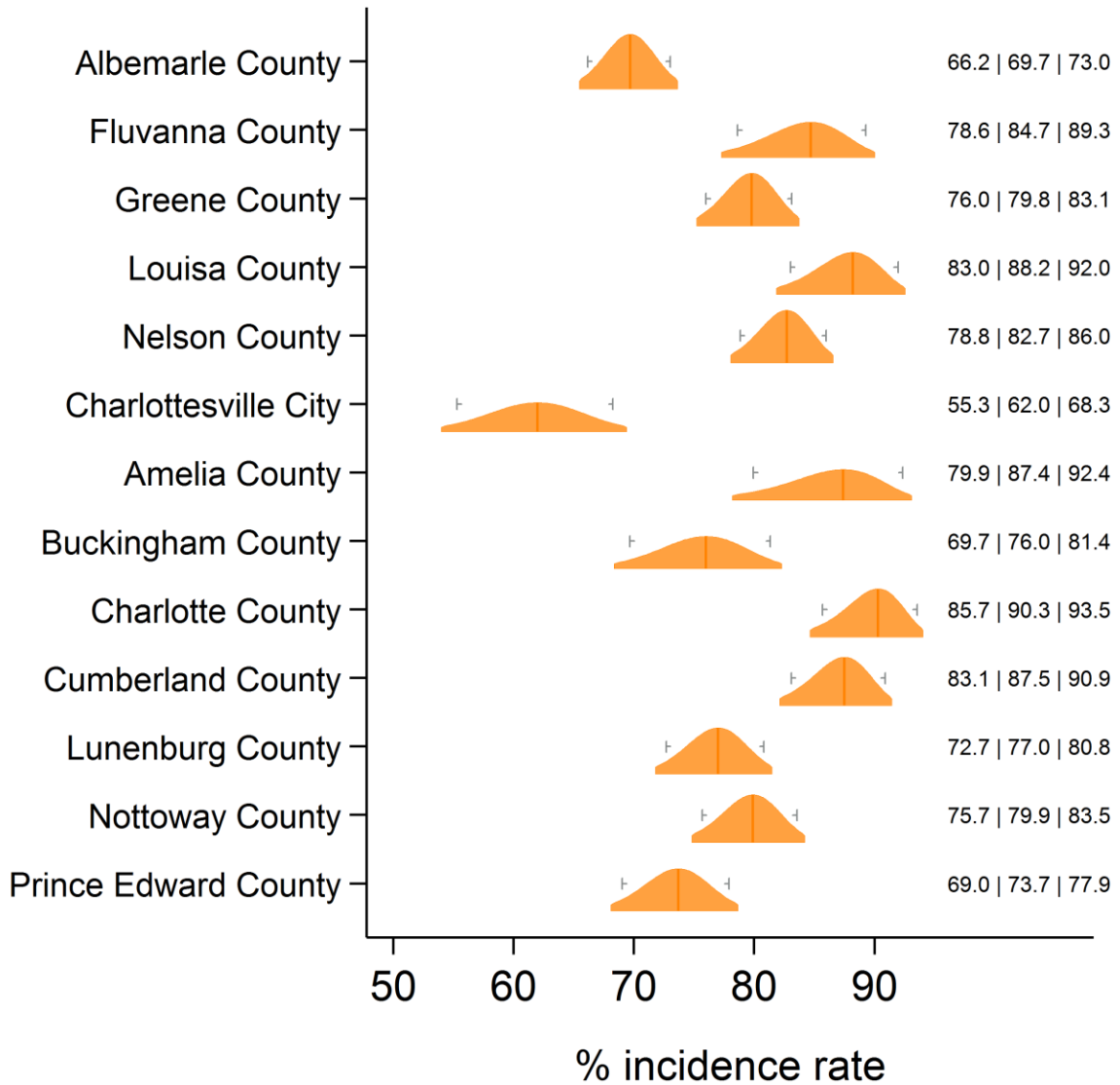
### Pap test in past 3 years (women 18+) Rappahannock/Rapidan and Rappahannock HDs



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



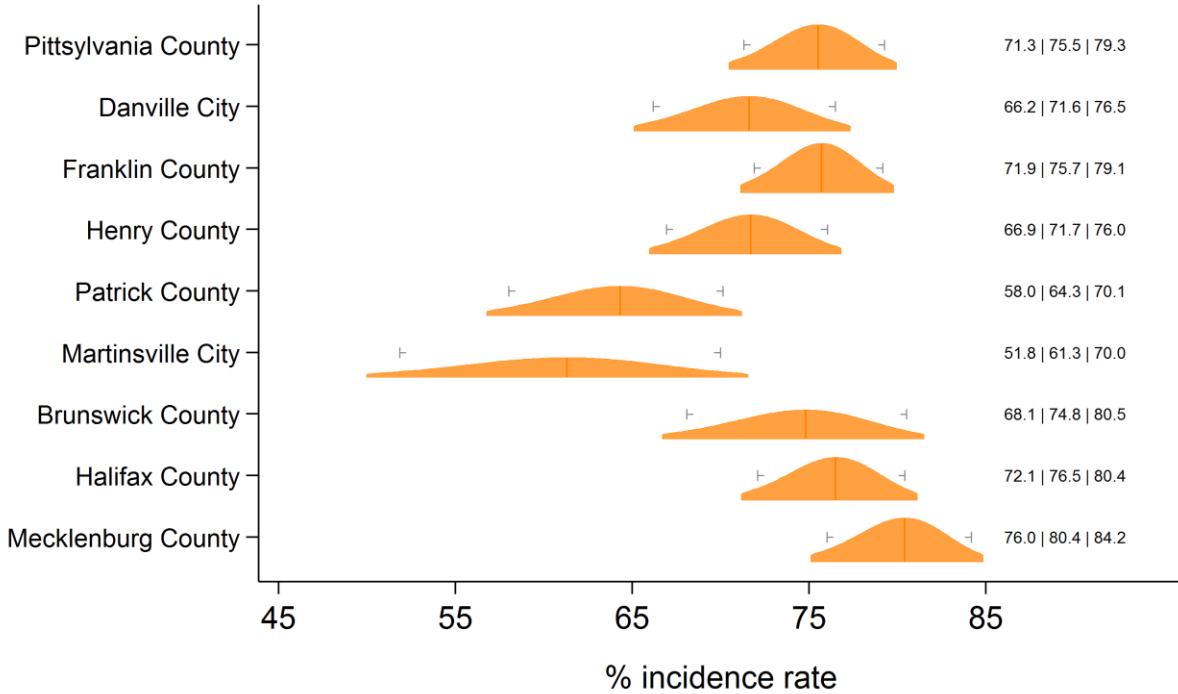
## Pap test in past 3 years (women 18+) Thomas Jefferson and Piedmont HDs



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



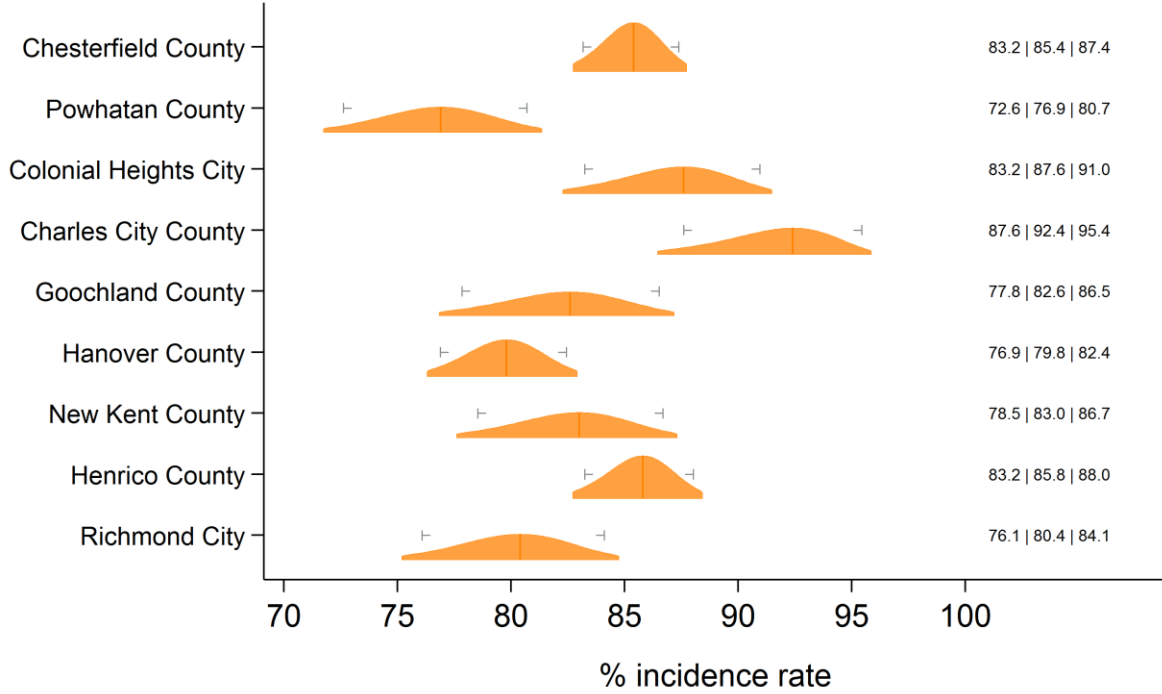
### Pap test in past 3 years (women 18+) Pittsylvania/Danville, Southside and West Piedmont HDs



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



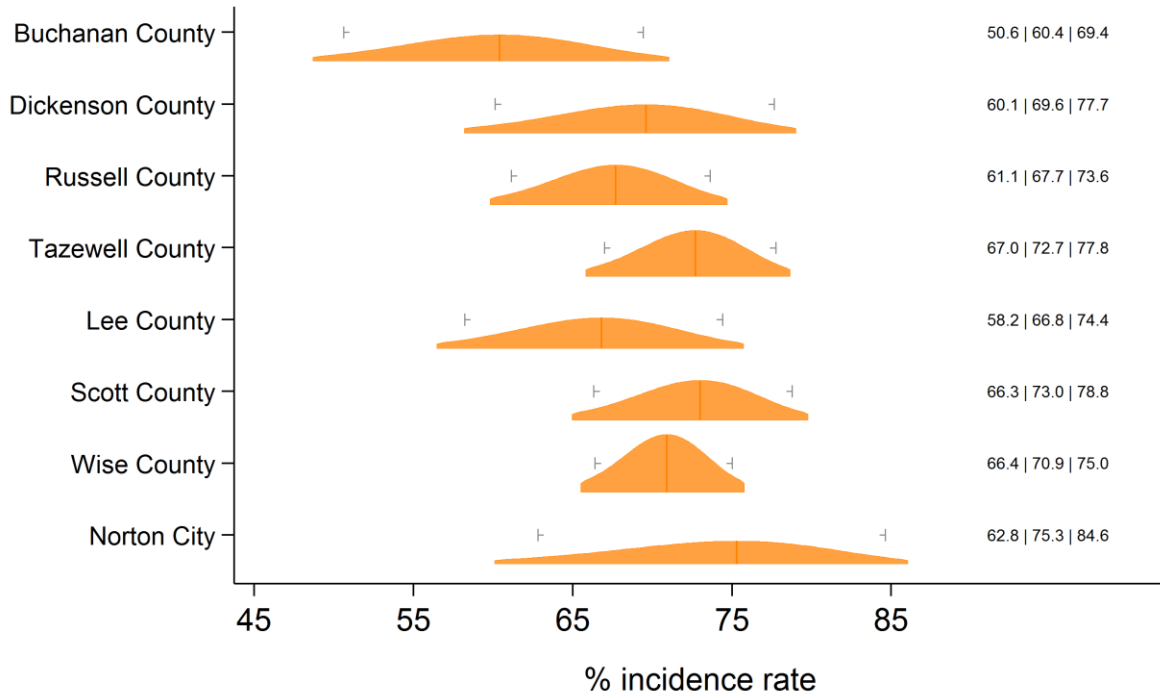
### Pap test in past 3 years (women 18+) Chesterfield, Chickahominy, Henrico and Richmond HDs



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



### Pap test in past 3 years (women 18+) Cumberland Plateau and Lenowisco HDs

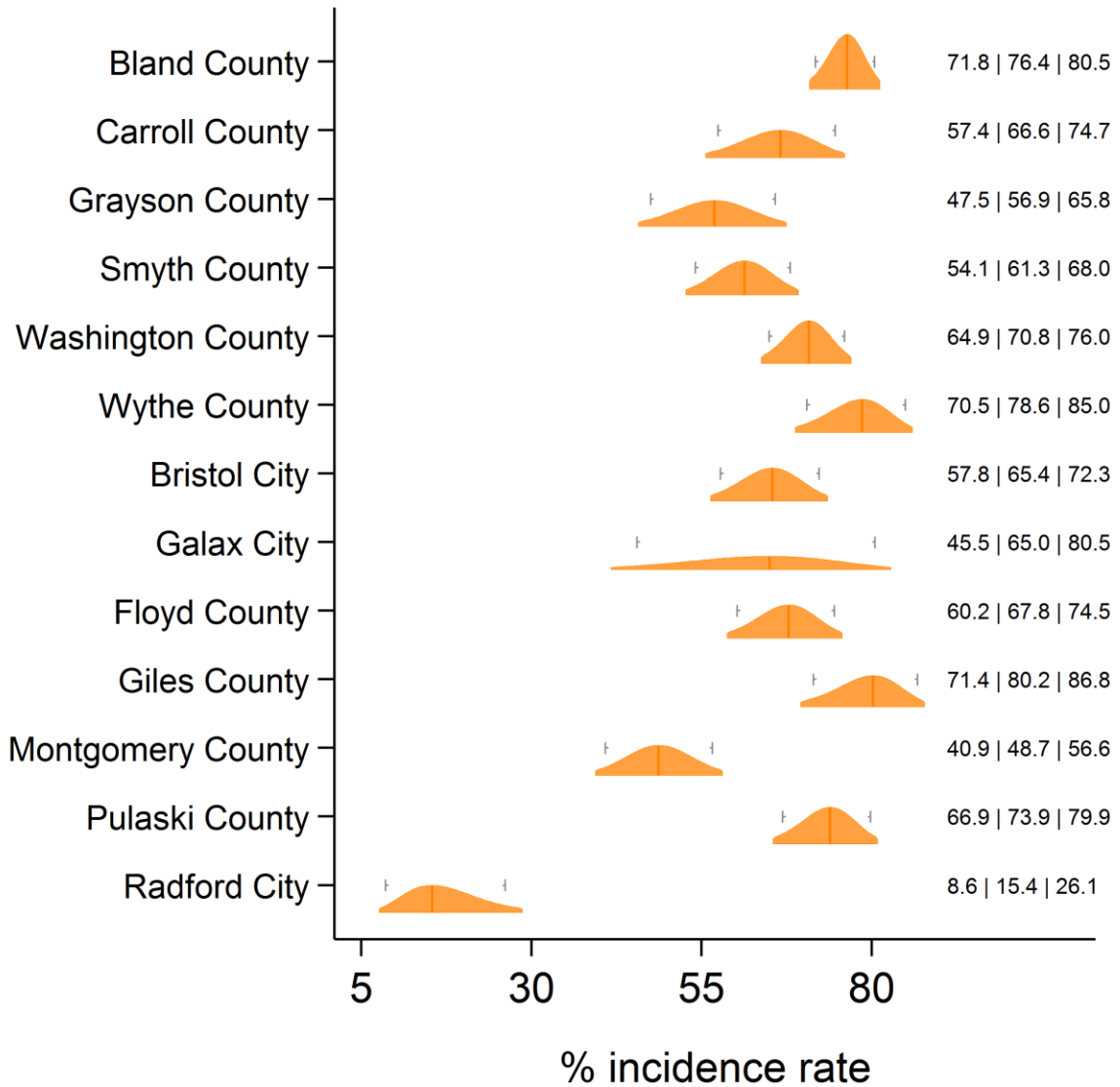


Text at right: 1-sided 95% LCB | Point Estimate | 1-sided 95% UCB  
 Gray markers: 90% confidence interval





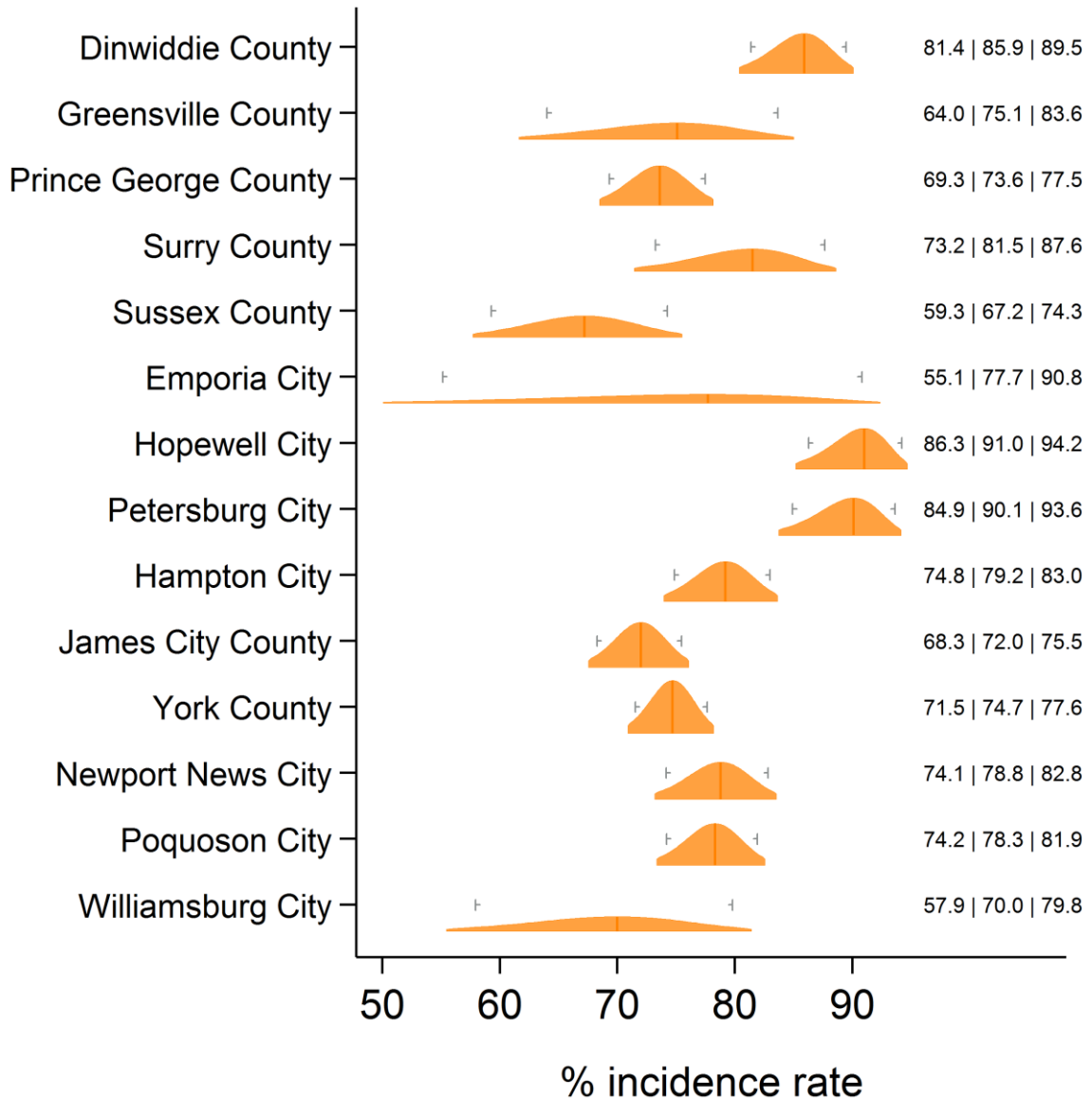
## Pap test in past 3 years (women 18+) New River and Mount Rogers HDs



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



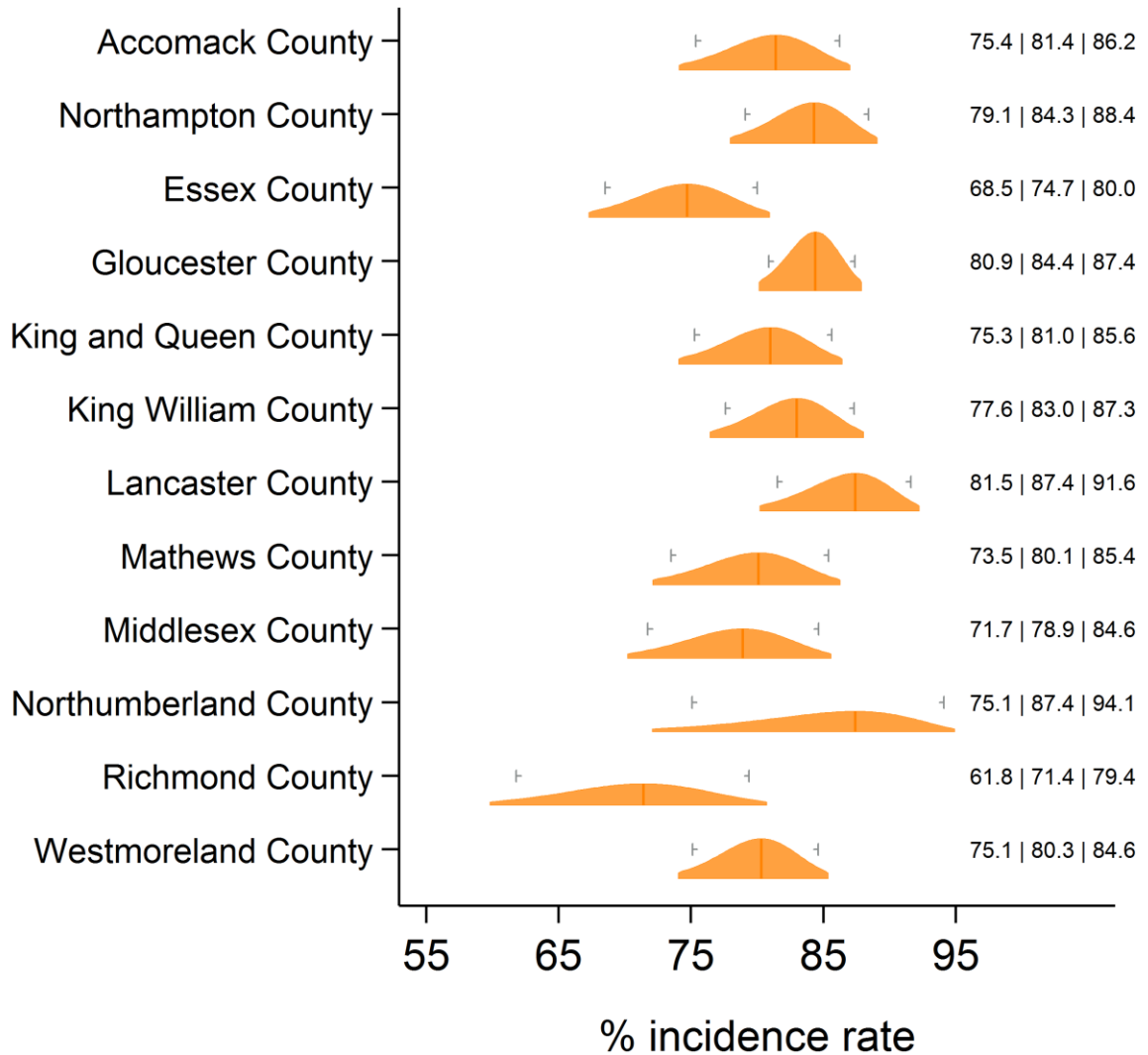
## Pap test in past 3 years (women 18+) Crater, Peninsula and Hampton HDs



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



## Pap test in past 3 years (women 18+) 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: 53 areas.

Direct estimate is outside the 95% SAE Wilson CI: 80 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: 121 areas.

SAE Wilson 95% CI partially overlaps with the 95% direct Wilson CI: 12 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 = 0.31%; med = 19.41%; max = 66.27%.

Proportion of SAE variance to sampling error in regression coefficient estimates: min = 32.35%; med = 77.06%; max = 98.75%.

Proportion of SAE variance due to model selection: min = 0.03%; med = 1.75%; max = 34.55%.