



Indicator 35: Colon Cancer Screening 50+

Internal variable name: outc35_colon_test

Section 1: Definition

Definition: Respondents aged 50 or older who have had a sigmoidoscopy or colonoscopy

Section 2: Predictive models

	Mixed, demos only	Logit, no area effects	Mixed with area covariates
	b/se	b/se	b/se
Outcome 35: Colon Cancer Screening 50+			
Non-Hispanic Black vs. Non-Hispanic White	-0.2231* (0.1090)	-0.3018* (0.1213)	-0.3018** (0.1008)
Non-Hispanic Asian vs. Non-Hispanic White	-0.3352 (0.2322)	-0.3738 (0.3466)	-0.3738 (0.2271)
Non-Hispanic Other vs. Non-Hispanic White	-0.2111 (0.2315)	-0.2001 (0.2134)	-0.2001 (0.2317)
Hispanic vs. Non-Hispanic White	-0.1498 (0.3166)	-0.1941 (0.2882)	-0.1941 (0.3215)
Female	0.2451** (0.0823)	0.2450** (0.0822)	0.2450** (0.0832)
Age 45-54 vs. 65+	-0.9806*** (0.0863)	-1.0134*** (0.1062)	-1.0134*** (0.0850)
Age 55-64 vs. 65+	-0.2326** (0.0831)	-0.2369** (0.0916)	-0.2369** (0.0831)
% below 1.5x poverty line		-0.0315*** (0.0055)	-0.0315*** (0.0055)
% speaking English less than very well		-0.0186 (0.0135)	-0.0186 (0.0122)
% Non-Hispanic minority among adults 18 to 64		-0.0104 (0.0103)	-0.0104 (0.0108)
Non-stratified water domain index		-0.1469** (0.0538)	-0.1469** (0.0438)
Melanoma Cancer Female Rate		0.0065 (0.0042)	0.0065 (0.0040)
Square of {% Non-Hispanic minority among adults 18 to 64}		0.0004* (0.0002)	0.0004* (0.0002)
Intercept	1.2021***	1.6419***	1.6419***



Area effect variance	(0.0914) 0.0169 (0.0298)	(0.2140)	(0.2211) 0.0000 (0.0000)
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Number of alternative models used to estimate model error = 10.

Section 3: Results

County name	County FIPS	Direct estimate	Direct 95% CI	SAE composite	SAE 95% CI
Augusta County	51015	77.1%	(66.2%, 85.3%)	77.1%	(73.4%, 80.4%)
Bath County	51017	55.7%	(18.6%, 87.3%)	64.8%	(59.7%, 69.6%)
Caroline County	51033	85.8%	(57.3%, 96.5%)	69.6%	(65.3%, 73.5%)
Clarke County	51043	45.5%	(18.8%, 75.1%)	72.7%	(68.0%, 76.9%)
Culpeper County	51047	65.7%	(47.8%, 80.0%)	72.1%	(68.8%, 75.2%)
Fauquier County	51061	84.0%	(69.0%, 92.5%)	74.0%	(69.8%, 77.8%)
Frederick County	51069	75.5%	(62.5%, 85.1%)	74.3%	(70.6%, 77.7%)
Highland County	51091	23.3%	(1.4%, 92.0%)	74.0%	(68.6%, 78.7%)
King George County	51099	68.8%	(30.9%, 91.6%)	76.9%	(72.4%, 80.8%)
Madison County	51113	45.1%	(20.6%, 72.1%)	71.5%	(67.7%, 74.9%)
Orange County	51137	67.0%	(44.5%, 83.7%)	69.5%	(64.8%, 73.9%)
Page County	51139	79.0%	(51.8%, 93.0%)	66.9%	(62.2%, 71.4%)
Rappahannock County	51157	70.2%	(25.3%, 94.2%)	75.2%	(71.1%, 79.0%)
Rockbridge County	51163	69.2%	(42.8%, 87.1%)	70.2%	(66.3%, 73.8%)
Rockingham County	51165	75.4%	(62.8%, 84.8%)	75.8%	(71.2%, 79.9%)
Shenandoah County	51171	78.8%	(57.5%, 91.1%)	69.1%	(64.4%, 73.5%)
Spotsylvania County	51177	65.5%	(47.1%, 80.2%)	76.2%	(72.3%, 79.7%)
Stafford County	51179	71.7%	(56.7%, 83.1%)	74.4%	(70.4%, 78.0%)
Warren County	51187	56.0%	(31.4%, 77.9%)	68.5%	(63.3%, 73.3%)
Buena Vista City	51530	100.0%	(0.6%, 100.0%)	70.7%	(60.0%, 79.5%)
Fredericksburg City	51630	64.4%	(31.0%, 87.9%)	71.5%	(66.8%, 75.8%)
Harrisonburg City	51660	29.1%	(4.1%, 79.7%)	56.8%	(45.8%, 67.3%)
Lexington City	51678	0.0%	(0.0%, 99.4%)	90.8%	(45.3%, 99.2%)
Staunton City	51790	70.7%	(26.5%, 94.2%)	72.5%	(67.3%, 77.2%)
Waynesboro City	51820	76.3%	(30.0%, 96.0%)	69.7%	(65.5%, 73.6%)
Winchester City	51840	55.3%	(19.9%, 86.0%)	63.5%	(57.7%, 69.0%)

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County name	County FIPS	Direct estimate	Direct 95% CI	SAE composite	SAE 95% CI
Albemarle County	51003	76.8%	(65.2%, 85.4%)	74.2%	(70.8%, 77.3%)
Alleghany County	51005	47.5%	(29.2%, 66.6%)	69.6%	(63.8%, 74.8%)
Amherst County	51009	81.1%	(58.0%, 90.7%)	74.4%	(70.7%, 77.7%)
Appomattox County	51011	66.5%	(40.7%, 85.2%)	68.9%	(63.6%, 73.7%)
Arlington City	51013	78.1%	(63.7%, 87.8%)	76.8%	(73.3%, 79.9%)
Bedford County	51019	75.3%	(61.1%, 85.6%)	72.6%	(69.1%, 75.8%)
Botetourt County	51023	84.9%	(65.1%, 94.4%)	78.0%	(74.0%, 81.6%)
Campbell County	51031	72.2%	(53.5%, 85.4%)	70.9%	(66.8%, 74.7%)
Craig County	51045	24.0%	(0.6%, 96.9%)	71.9%	(65.9%, 77.3%)
Fairfax County	51059	72.4%	(64.3%, 79.2%)	71.2%	(67.6%, 74.6%)
Fluvanna County	51065	68.1%	(37.5%, 88.4%)	77.7%	(73.6%, 81.3%)
Greene County	51079	64.9%	(34.5%, 86.6%)	78.3%	(72.5%, 83.2%)
Loudoun County	51107	66.6%	(55.3%, 76.3%)	72.9%	(69.5%, 76.1%)
Louisa County	51109	68.6%	(44.5%, 85.6%)	68.7%	(63.9%, 73.2%)
Nelson County	51125	69.0%	(40.8%, 87.8%)	71.4%	(66.3%, 76.1%)
Prince William County	51153	64.4%	(54.3%, 73.3%)	71.1%	(68.0%, 74.0%)
Roanoke County	51161	73.5%	(63.9%, 81.3%)	75.1%	(71.5%, 78.4%)
Alexandria City	51510	78.4%	(63.4%, 88.4%)	74.9%	(70.9%, 78.5%)
Charlottesville City	51540	65.5%	(23.0%, 92.3%)	67.8%	(61.6%, 73.4%)
Covington City	51580	100.0%	(0.6%, 100.0%)	73.1%	(67.2%, 78.4%)
Fairfax City	51600	70.2%	(53.7%, 82.7%)	73.6%	(69.2%, 77.5%)
Falls Church City	51610	69.3%	(20.1%, 95.3%)	75.4%	(70.0%, 80.1%)
Lynchburg City	51680	59.1%	(36.3%, 78.6%)	67.7%	(62.9%, 72.2%)
Manassas City	51683	85.6%	(40.5%, 98.1%)	69.0%	(62.3%, 75.0%)
Manassas Park City	51685	.%	(.%, .%)	64.3%	(55.0%, 72.6%)
Salem City	51775	67.9%	(30.2%, 91.2%)	78.2%	(71.0%, 84.1%)

Indicator 35: Colon Cancer Screening 50 +



County name	County FIPS	Direct estimate	Direct 95% CI	SAE composite	SAE 95% CI
Bland County	51021	91.5%	(41.2%, 97.8%)	74.4%	(68.3%, 79.7%)
Buchanan County	51027	64.6%	(44.5%, 80.6%)	66.1%	(60.8%, 71.0%)
Carroll County	51035	60.6%	(40.6%, 77.6%)	58.5%	(52.3%, 64.4%)
Dickenson County	51051	77.1%	(53.8%, 89.4%)	69.6%	(63.8%, 74.8%)
Floyd County	51063	66.3%	(40.8%, 84.8%)	70.8%	(66.5%, 74.8%)
Franklin County	51067	60.9%	(41.8%, 77.2%)	65.4%	(60.3%, 70.3%)
Giles County	51071	84.5%	(50.6%, 96.7%)	69.6%	(64.4%, 74.2%)
Grayson County	51077	41.4%	(18.6%, 68.6%)	62.7%	(56.7%, 68.4%)
Henry County	51089	64.4%	(50.6%, 76.1%)	63.2%	(58.0%, 68.1%)
Lee County	51105	24.7%	(10.0%, 49.2%)	60.9%	(54.9%, 66.6%)
Montgomery County	51121	65.6%	(52.6%, 76.6%)	64.3%	(58.9%, 69.4%)
Patrick County	51141	90.5%	(71.0%, 95.6%)	62.8%	(57.5%, 67.8%)
Pittsylvania County	51143	61.2%	(50.1%, 71.2%)	64.4%	(59.9%, 68.6%)
Pulaski County	51155	74.4%	(55.6%, 87.1%)	67.3%	(62.3%, 71.9%)
Russell County	51167	74.0%	(53.2%, 87.8%)	62.4%	(56.9%, 67.7%)
Scott County	51169	78.9%	(63.8%, 88.8%)	64.5%	(59.0%, 69.7%)
Smyth County	51173	80.0%	(53.0%, 93.4%)	65.4%	(60.0%, 70.5%)
Tazewell County	51185	75.4%	(61.7%, 85.4%)	67.2%	(61.9%, 72.1%)
Washington County	51191	65.1%	(47.3%, 79.5%)	72.2%	(67.8%, 76.3%)
Wise County	51195	60.8%	(45.0%, 74.6%)	65.3%	(60.0%, 70.2%)
Wythe County	51197	59.3%	(39.2%, 76.7%)	67.7%	(63.7%, 71.4%)
Bristol City	51520	22.7%	(5.0%, 71.3%)	62.7%	(56.8%, 68.2%)
Danville City	51590	88.8%	(66.5%, 95.2%)	72.9%	(66.5%, 78.5%)
Galax City	51640	100.0%	(9.2%, 100.0%)	65.4%	(54.3%, 75.1%)
Martinsville City	51690	17.4%	(2.0%, 82.6%)	71.6%	(65.8%, 76.7%)
Norton City	51720	75.6%	(12.6%, 97.9%)	66.6%	(60.5%, 72.1%)
Radford City	51750	39.1%	(1.5%, 96.6%)	52.3%	(44.0%, 60.6%)
Roanoke City	51770	59.7%	(45.9%, 72.0%)	69.1%	(63.8%, 74.0%)

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County name	County FIPS	Direct estimate	Direct 95% CI	SAE composite	SAE 95% CI
Amelia County	51007	44.9%	(11.3%, 84.0%)	71.6%	(67.4%, 75.5%)
Brunswick County	51025	80.1%	(55.2%, 92.9%)	77.6%	(69.1%, 84.3%)
Buckingham County	51029	52.4%	(28.8%, 74.9%)	71.1%	(66.4%, 75.3%)
Charles City County	51036	73.8%	(39.2%, 92.5%)	83.6%	(76.7%, 88.8%)
Charlotte County	51037	83.2%	(48.8%, 96.3%)	64.5%	(59.2%, 69.5%)
Chesterfield County	51041	76.5%	(68.5%, 83.0%)	78.3%	(75.4%, 81.0%)
Cumberland County	51049	66.3%	(32.2%, 89.0%)	60.9%	(54.7%, 66.8%)
Dinwiddie County	51053	80.8%	(63.1%, 91.2%)	73.2%	(68.6%, 77.3%)
Goochland County	51075	71.8%	(42.4%, 89.8%)	77.6%	(73.1%, 81.5%)
Greensville County	51081	88.5%	(49.3%, 98.4%)	79.3%	(70.7%, 85.9%)
Halifax County	51083	54.9%	(35.2%, 73.2%)	62.0%	(56.2%, 67.4%)
Hanover County	51085	71.5%	(60.0%, 80.7%)	72.4%	(68.0%, 76.4%)
Henrico County	51087	68.9%	(60.2%, 76.4%)	74.7%	(71.0%, 78.0%)
Lunenburg County	51111	87.8%	(52.6%, 95.2%)	64.7%	(59.9%, 69.2%)
Mecklenburg County	51117	76.8%	(55.4%, 89.8%)	67.9%	(63.4%, 72.0%)
New Kent County	51127	68.3%	(40.2%, 87.3%)	75.7%	(71.5%, 79.5%)
Nottoway County	51135	83.2%	(61.5%, 93.2%)	70.9%	(64.8%, 76.3%)
Powhatan County	51145	80.4%	(46.8%, 95.1%)	78.6%	(74.6%, 82.2%)
Prince Edward County	51147	53.7%	(29.8%, 76.1%)	62.1%	(56.7%, 67.2%)
Prince George County	51149	74.0%	(52.7%, 87.9%)	77.5%	(72.6%, 81.8%)
Surry County	51181	100.0%	(38.0%, 100.0%)	79.5%	(74.6%, 83.8%)
Sussex County	51183	68.6%	(38.5%, 88.4%)	81.6%	(73.5%, 87.6%)
Colonial Heights City	51570	80.2%	(27.6%, 97.7%)	75.5%	(71.0%, 79.5%)
Emporia City	51595	37.5%	(2.9%, 92.3%)	80.4%	(67.6%, 89.0%)
Hopewell City	51670	69.1%	(34.4%, 90.5%)	73.1%	(69.2%, 76.7%)
Petersburg City	51730	75.0%	(50.0%, 90.0%)	90.8%	(75.2%, 97.0%)
Richmond City	51760	76.5%	(66.3%, 84.4%)	73.4%	(68.2%, 78.1%)

Indicator 35: Colon Cancer Screening 50 +

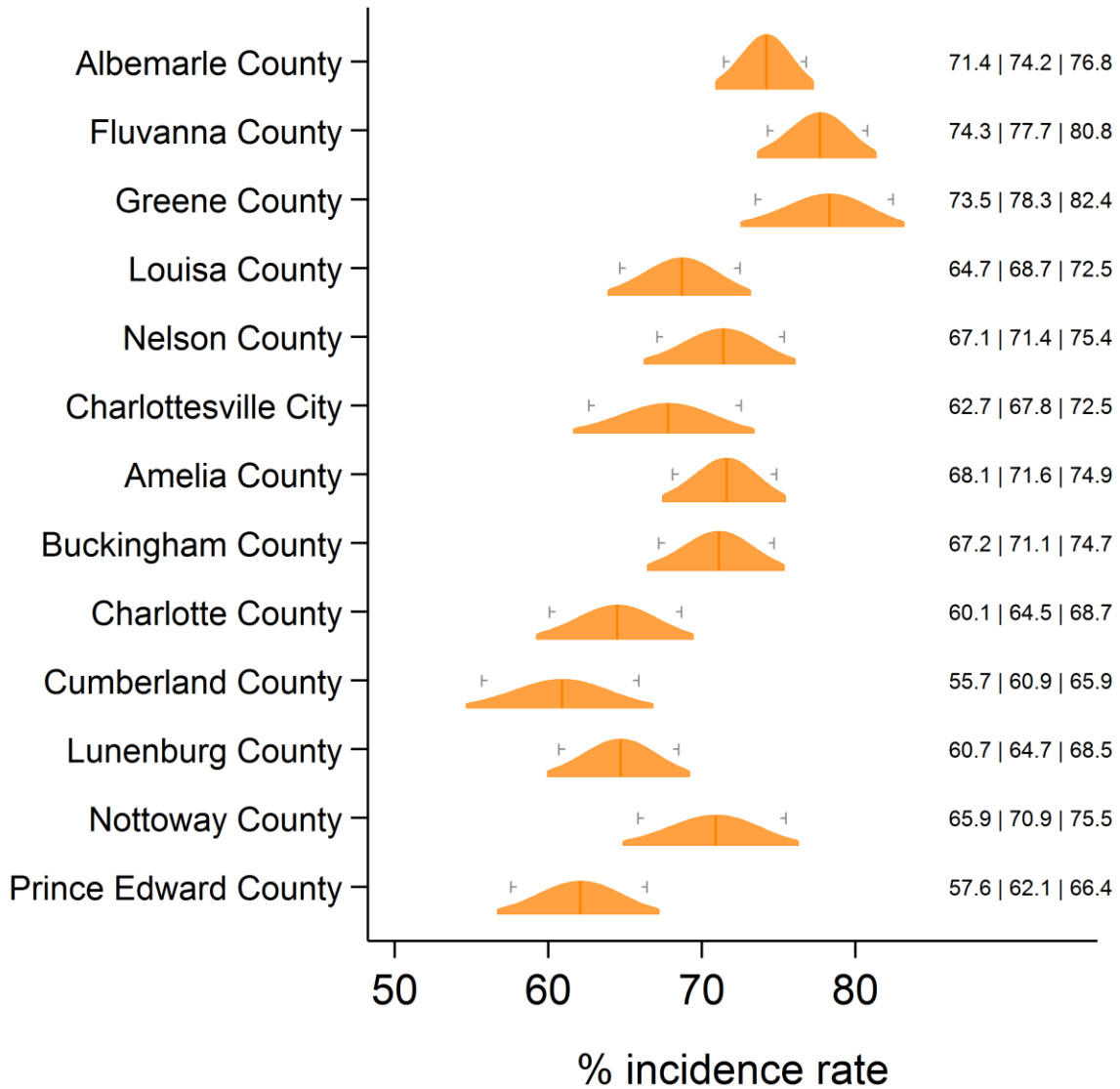


County name	County FIPS	Direct estimate	Direct 95% CI	SAE composite	SAE 95% CI
Accomack County	51001	74.7%	(61.9%, 84.4%)	64.2%	(57.3%, 70.6%)
Essex County	51057	92.2%	(61.3%, 97.0%)	75.5%	(71.6%, 79.0%)
Gloucester County	51073	55.7%	(31.9%, 77.2%)	78.6%	(74.9%, 81.9%)
Isle of Wight County	51093	86.7%	(70.1%, 92.5%)	77.5%	(73.6%, 81.0%)
James City County	51095	86.0%	(67.1%, 94.9%)	74.7%	(71.4%, 77.8%)
King and Queen County	51097	81.5%	(25.6%, 98.3%)	72.1%	(67.6%, 76.2%)
King William County	51101	82.8%	(48.7%, 94.0%)	78.6%	(74.3%, 82.3%)
Lancaster County	51103	69.0%	(31.6%, 91.5%)	70.4%	(65.5%, 74.9%)
Mathews County	51115	74.0%	(50.3%, 88.9%)	75.8%	(71.2%, 79.8%)
Middlesex County	51119	93.9%	(27.8%, 98.5%)	78.9%	(73.6%, 83.4%)
Northampton County	51131	56.0%	(32.1%, 77.4%)	68.0%	(61.5%, 73.9%)
Northumberland County	51133	80.9%	(48.6%, 95.0%)	67.7%	(62.4%, 72.6%)
Richmond County	51159	44.7%	(22.7%, 69.1%)	67.3%	(63.0%, 71.3%)
Southampton County	51175	40.4%	(15.7%, 71.2%)	70.7%	(65.9%, 75.1%)
Westmoreland County	51193	58.7%	(20.5%, 88.7%)	67.4%	(62.9%, 71.5%)
York County	51199	81.3%	(66.9%, 90.3%)	79.2%	(75.4%, 82.6%)
Chesapeake City	51550	83.7%	(75.7%, 89.5%)	79.5%	(76.0%, 82.6%)
Franklin City	51620	84.3%	(62.6%, 94.5%)	78.7%	(69.2%, 85.9%)
Hampton City	51650	80.4%	(71.2%, 87.2%)	81.1%	(75.1%, 85.9%)
Newport News City	51700	74.3%	(60.6%, 84.5%)	78.5%	(74.3%, 82.1%)
Norfolk City	51710	75.7%	(66.2%, 83.3%)	74.5%	(70.5%, 78.2%)
Poquoson City	51735	96.0%	(22.0%, 99.2%)	83.7%	(77.5%, 88.5%)
Portsmouth City	51740	92.2%	(82.9%, 94.9%)	80.8%	(74.3%, 86.0%)
Suffolk City	51800	68.7%	(54.1%, 80.4%)	81.0%	(76.4%, 84.8%)
Virginia Beach City	51810	79.6%	(70.8%, 86.3%)	78.9%	(76.0%, 81.6%)
Williamsburg City	51830	79.5%	(27.4%, 97.6%)	76.5%	(68.3%, 83.1%)



Section 4: Graphical representation

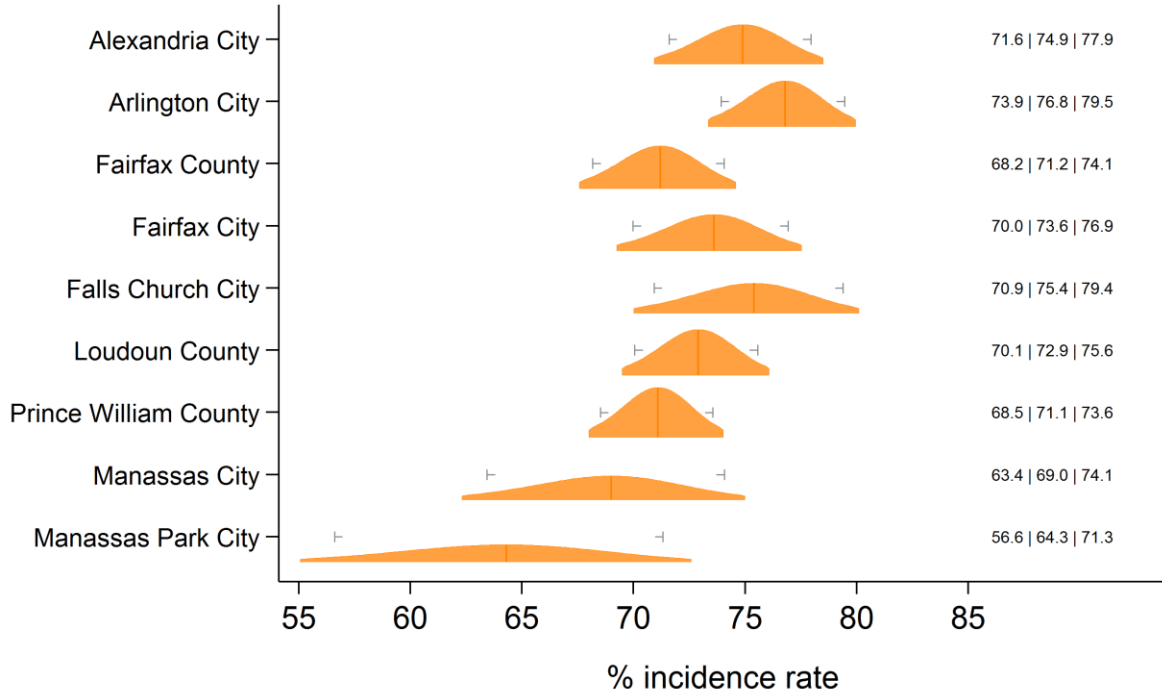
Sigmoidoscopy / colonoscopy (50+) Thomas Jefferson and Piedmont HDs



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



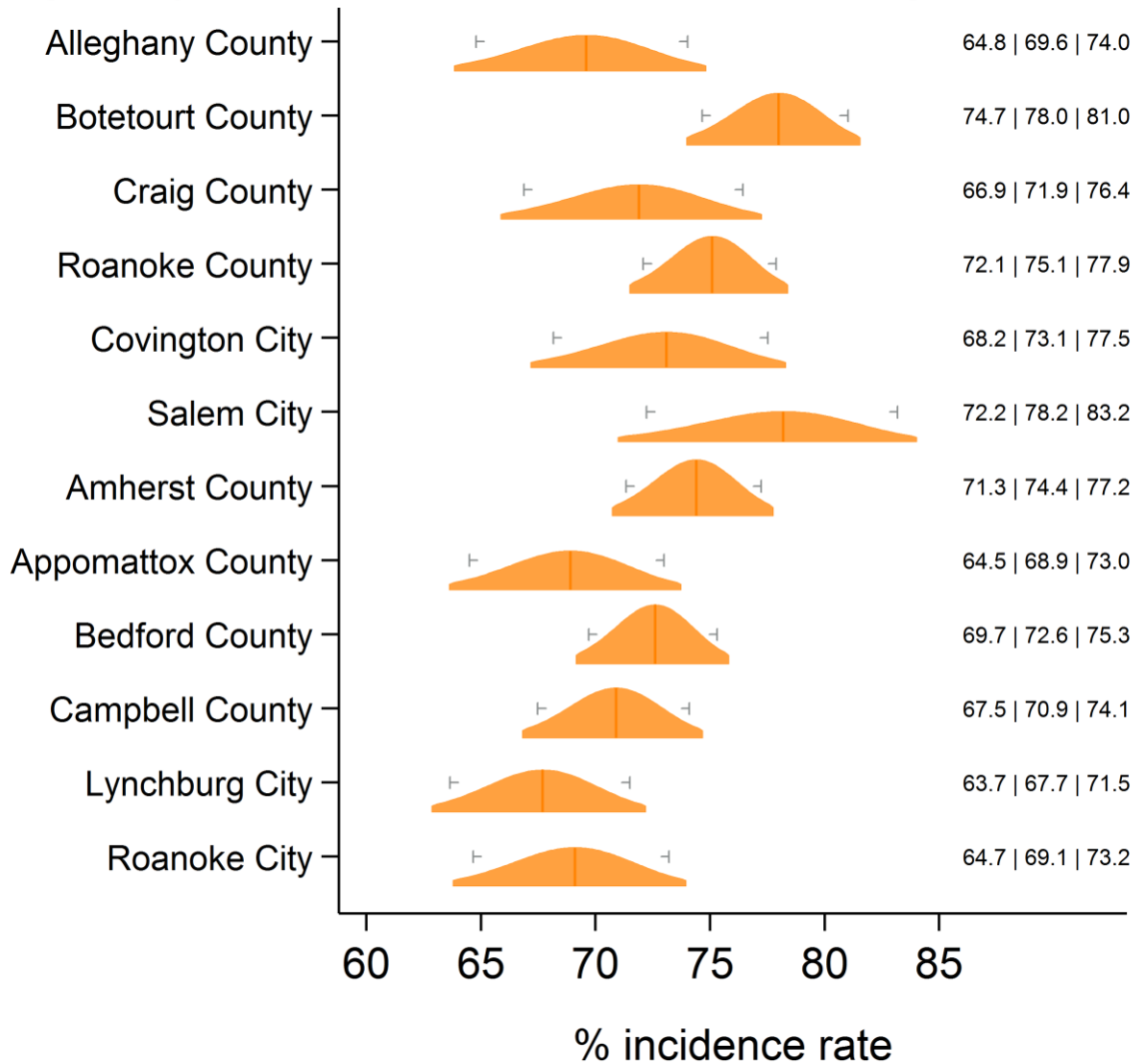
Sigmoidoscopy / colonoscopy (50+) Alexandria, Fairfax, Arlington, Loudon, Prince William HDs



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



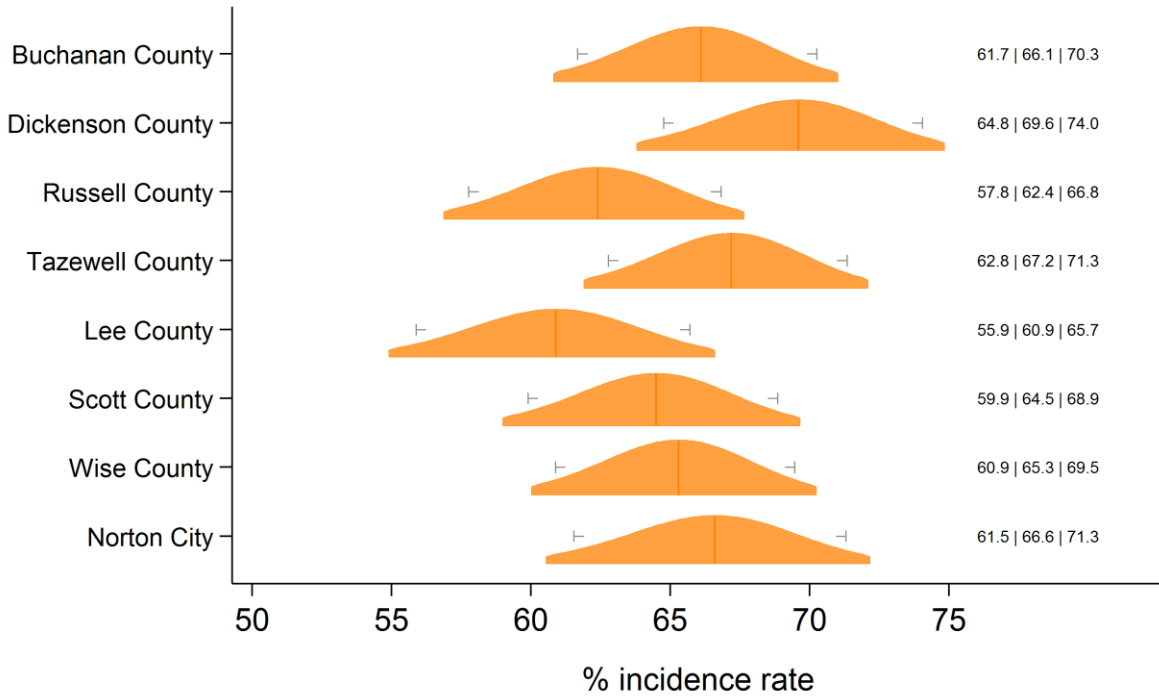
Sigmoidoscopy / colonoscopy (50+) Alleghany, Roanoke and Central Virginia HDs



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



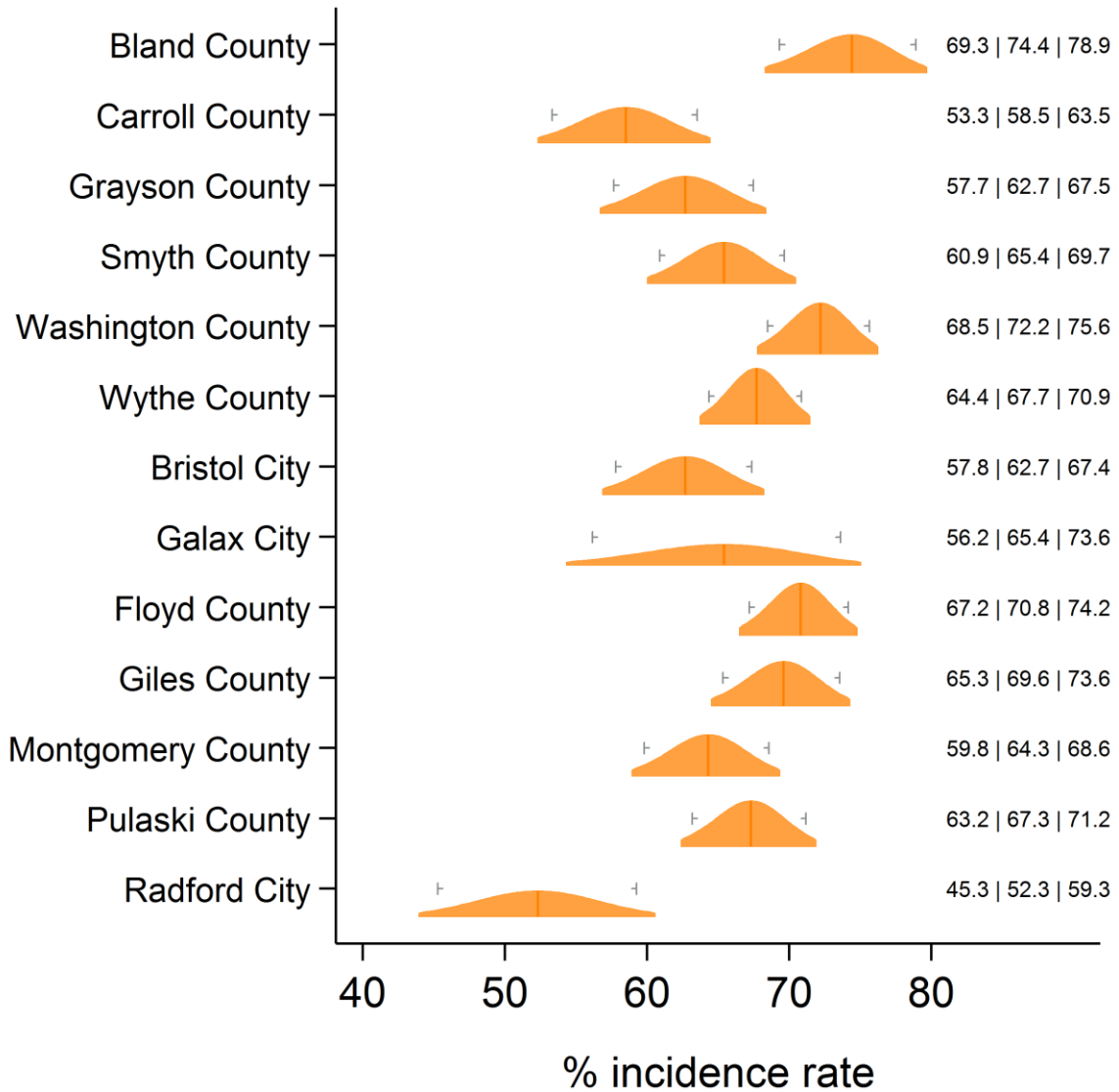
Sigmoidoscopy / colonoscopy (50+) Cumberland Plateau and Lenowisco HDs



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



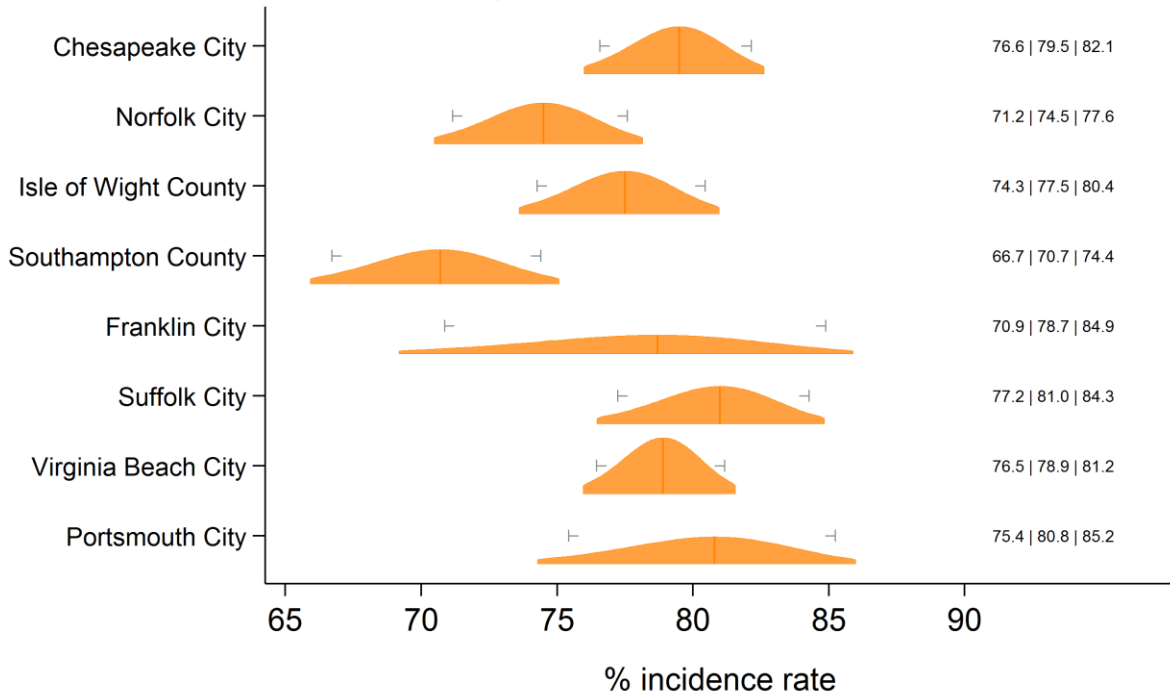
Sigmoidoscopy / colonoscopy (50+) New River and Mount Rogers HDs



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



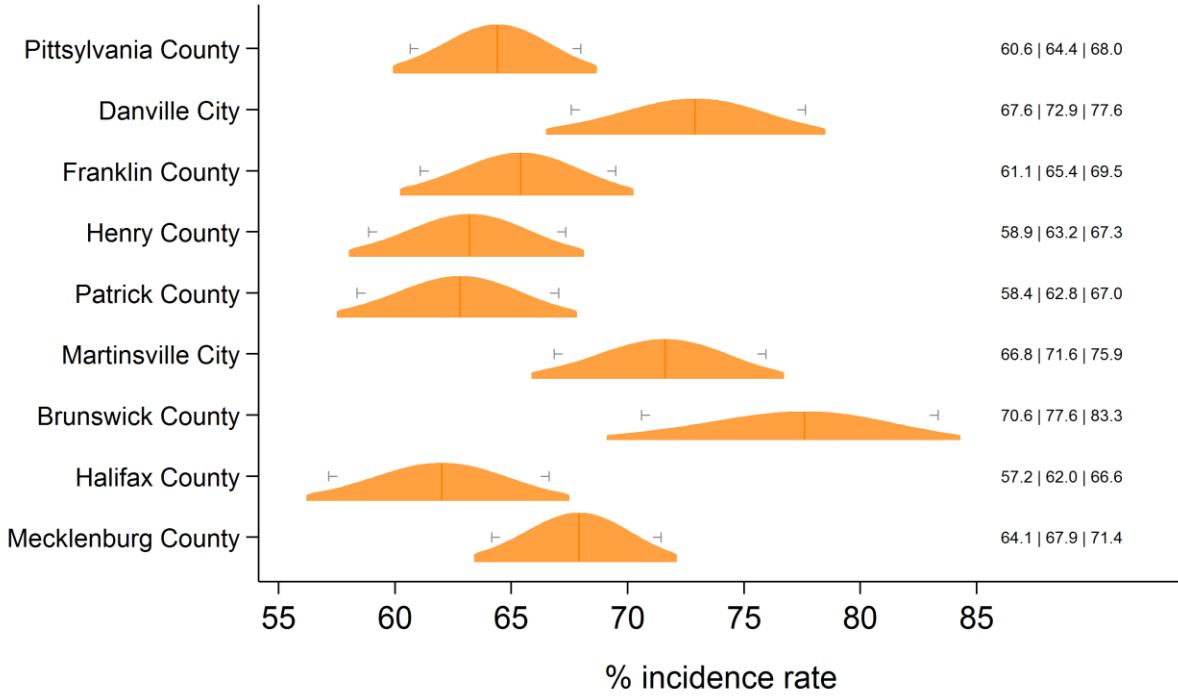
Sigmoidoscopy / colonoscopy (50+) Norfolk, Portsmouth, Chesapeake, VA Beach, W. Tidewater HDs



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



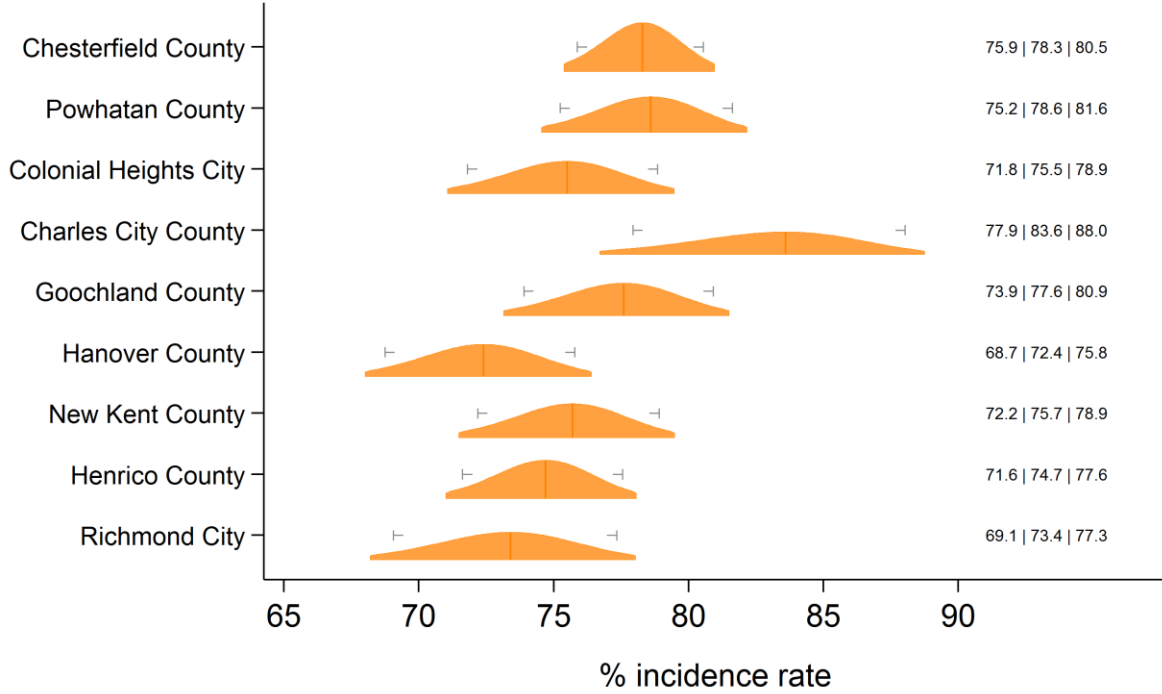
Sigmoidoscopy / colonoscopy (50+) Pittsylvania/Danville, Southside and West Piedmont HDs



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



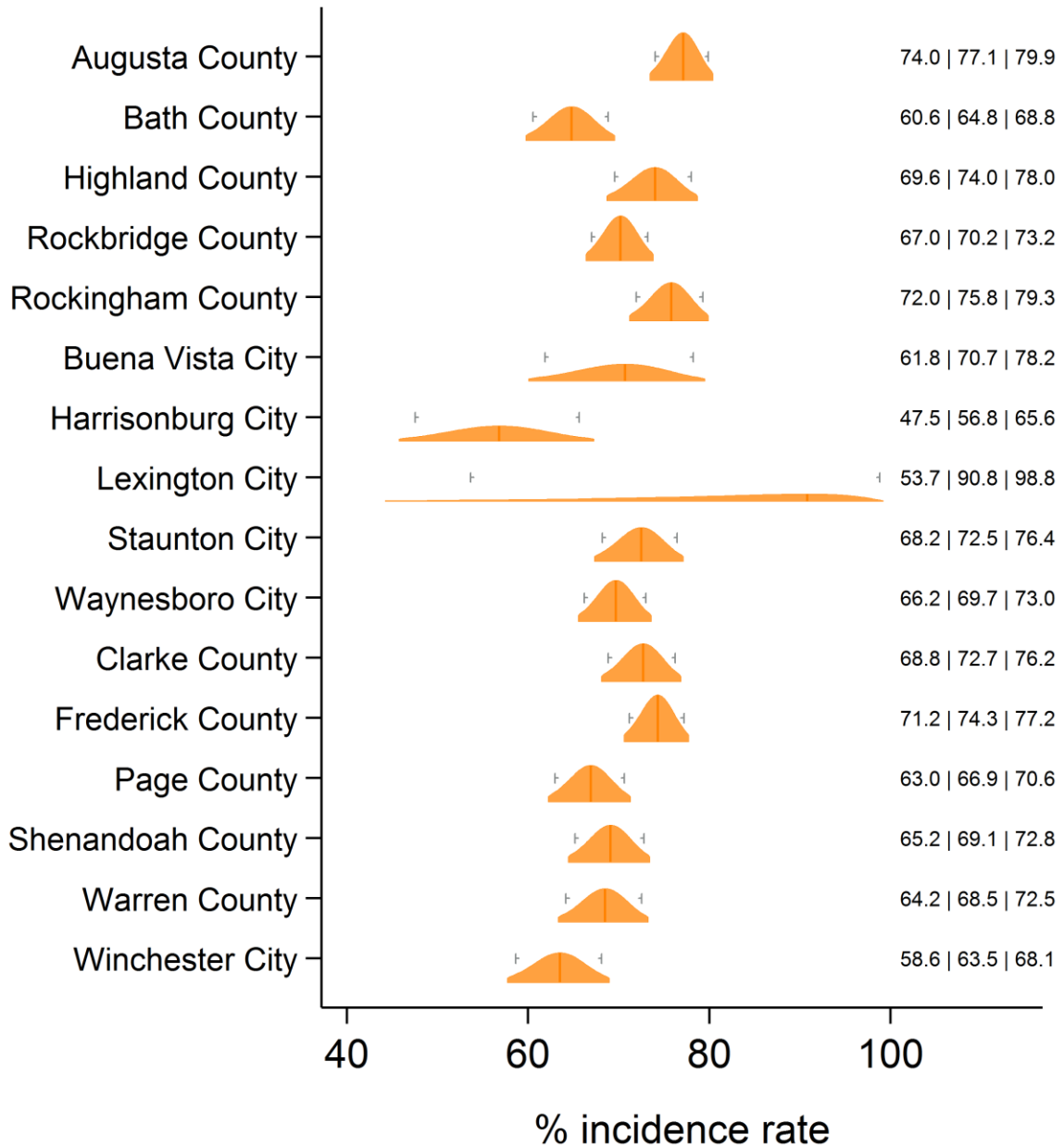
Sigmoidoscopy / colonoscopy (50+) Chesterfield, Chickahominy, Henrico and Richmond HDs



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



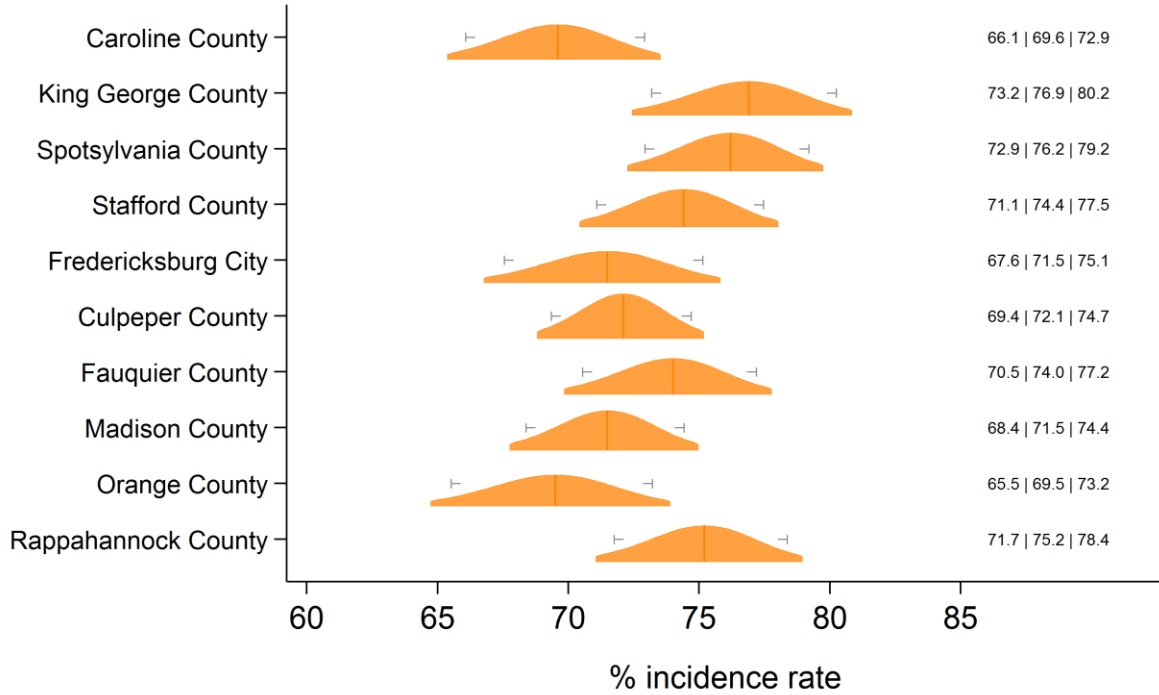
Sigmoidoscopy / colonoscopy (50+) Central Shenandoah and Lord Fairfax HDs



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



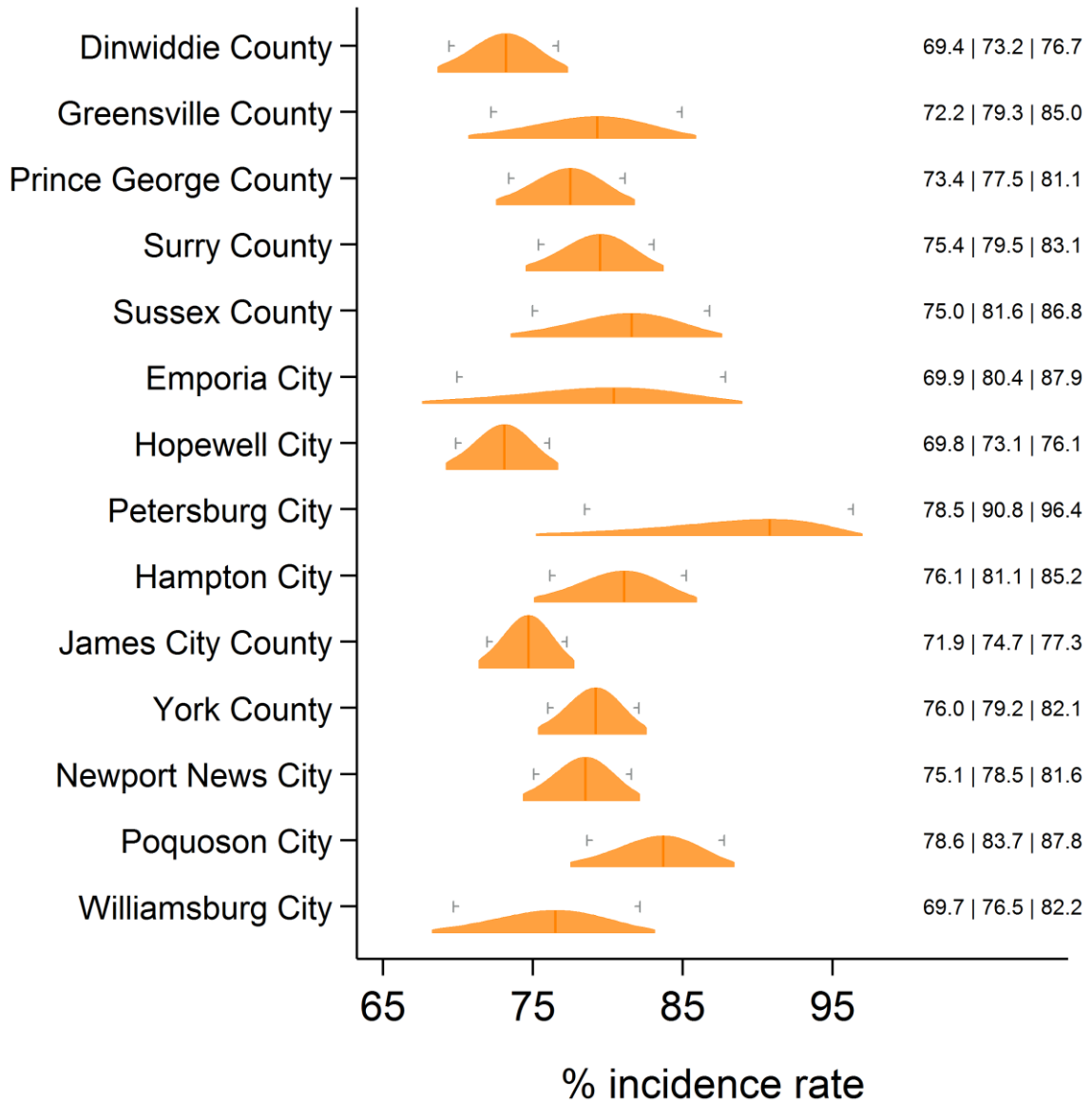
Sigmoidoscopy / colonoscopy (50+) Rappahannock/Rapidan and Rappahannock HDs



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



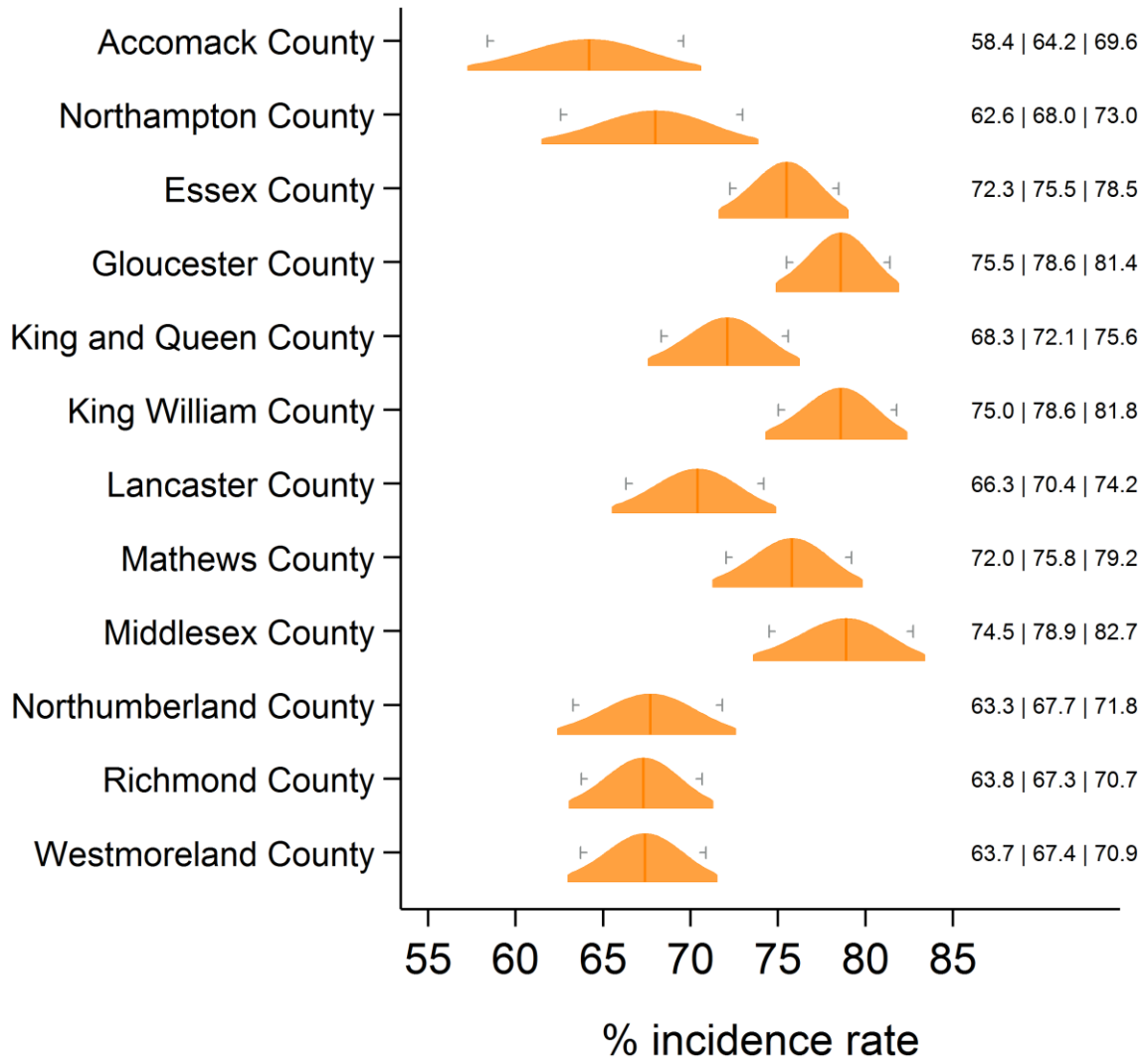
Sigmoidoscopy / colonoscopy (50+) Crater, Peninsula and Hampton HDs



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



Sigmoidoscopy / colonoscopy (50+) 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: 42 areas.

Direct estimate is outside the 95% SAE Wilson CI: 91 areas.

SAE estimate is inside the 95% direct Wilson CI: 126 areas.

SAE estimate is outside the 95% direct Wilson CI: 7 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: 126 areas.

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

Direct standard error is zero: 6 areas.

Proportion of SAE variance due to ACS sampling error: min = 1.37%; med = 21.28%; max = 56.50%.

Proportion of SAE variance to sampling error in regression coefficient estimates: min = 43.16%; med = 75.17%; max = 94.67%.

Proportion of SAE variance due to model selection: min = 0.21%; med = 2.07%; max = 46.99%.