



Outcome 11: Ever had skin cancer

Internal variable name: outc11_skin_cancer

Section 1: Definition

Definition: (Ever told) you had skin cancer?

Section 2: Predictive models

	Mixed, demos only	Logit, no area effects	Mixed with area covariates
	b/se	b/se	b/se
Outcome 11: Ever had skin cancer			
Non-Hispanic Black vs. Non-Hispanic White	-2.8723*** (0.3757)	-2.8234*** (0.3765)	-2.8234*** (0.3779)
Non-Hispanic Asian vs. Non-Hispanic White	-3.5591** (1.0659)	-3.5891*** (1.0116)	-3.5891** (1.0741)
Non-Hispanic Other vs. Non-Hispanic White	-0.9361** (0.3201)	-0.9123** (0.3132)	-0.9123** (0.3196)
Hispanic vs. Non-Hispanic White	-1.2739* (0.5559)	-1.2616* (0.6024)	-1.2616* (0.5453)
Female	-0.1639 (0.0984)	-0.1640 (0.1028)	-0.1640 (0.0983)
Age 18-24 vs. 65+	-4.0569*** (0.9925)	-4.0421*** (1.0045)	-4.0421*** (0.9937)
Age 25-34 vs. 65+	-3.3426*** (0.4034)	-3.3437*** (0.4244)	-3.3437*** (0.3992)
Age 35-44 vs. 65+	-2.0847*** (0.1857)	-2.0964*** (0.2405)	-2.0964*** (0.1842)
Age 45-54 vs. 65+	-1.3510*** (0.1560)	-1.3751*** (0.1583)	-1.3751*** (0.1540)
Age 55-64 vs. 65+	-0.9907*** (0.1150)	-1.0047*** (0.1206)	-1.0047*** (0.1168)
% education Bachelor+, population 25+ years old		0.0141* (0.0059)	0.0141* (0.0063)
% speaking English less than very well		-0.0245 (0.0230)	-0.0245 (0.0196)
% moved past year, population 1+ years old		-0.0130 (0.0100)	-0.0130 (0.0085)
Esophagus Cancer Male Rate		0.0240* (0.0105)	0.0240* (0.0101)

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Stomach Cancer Female Rate		0.0285 (0.0173)	0.0285* (0.0137)
{Esophagus Cancer Male Rate}		-0.0013 (0.0016)	-0.0013 (0.0018)
Interacted with {Stomach Cancer Female Rate}			
All Sites Cancer Male Rate		0.0043* (0.0019)	0.0043* (0.0017)
Square of {All Sites Cancer Male Rate}		-0.0000** (0.0000)	-0.0000** (0.0000)
Intercept	-1.2339*** (0.0910)	-2.5845*** (0.5328)	-2.5845*** (0.4854)
Area effect variance	0.0000 (0.0000)		0.0000*** (0.0000)

Number of alternative models used to estimate model error = 11.



Section 3: Results

County name	County FIPS	Direct estimate	Direct 95% CI	SAE composite	SAE 95% CI
Augusta County	51015	2.2%	(1.3%, 6.5%)	7.5%	(6.2%, 9.1%)
Bath County	51017	12.0%	(3.7%, 46.9%)	9.5%	(6.5%, 13.5%)
Caroline County	51033	5.8%	(1.2%, 22.8%)	7.6%	(5.4%, 10.6%)
Clarke County	51043	0.0%	(0.0%, 20.3%)	9.4%	(5.2%, 16.4%)
Culpeper County	51047	7.8%	(2.9%, 19.3%)	6.8%	(5.9%, 7.8%)
Fauquier County	51061	9.5%	(5.8%, 18.3%)	8.6%	(7.1%, 10.4%)
Frederick County	51069	6.5%	(3.2%, 12.9%)	7.4%	(6.4%, 8.5%)
Highland County	51091	0.0%	(0.0%, 83.2%)	13.5%	(6.9%, 24.6%)
King George County	51099	2.7%	(1.2%, 26.3%)	6.4%	(4.9%, 8.3%)
Madison County	51113	1.6%	(1.1%, 21.5%)	8.3%	(6.9%, 10.0%)
Orange County	51137	15.6%	(6.4%, 33.3%)	7.4%	(6.1%, 8.9%)
Page County	51139	21.5%	(6.7%, 50.9%)	7.1%	(5.9%, 8.5%)
Rappahannock County	51157	20.7%	(6.5%, 49.3%)	6.2%	(4.9%, 7.9%)
Rockbridge County	51163	14.4%	(5.3%, 33.3%)	6.8%	(5.3%, 8.8%)
Rockingham County	51165	7.5%	(3.5%, 15.7%)	5.9%	(5.0%, 6.9%)
Shenandoah County	51171	5.9%	(3.4%, 16.5%)	6.6%	(5.5%, 7.9%)
Spotsylvania County	51177	3.7%	(2.3%, 10.5%)	5.5%	(5.0%, 6.2%)
Stafford County	51179	4.5%	(2.5%, 10.2%)	5.4%	(4.7%, 6.3%)
Warren County	51187	1.0%	(0.6%, 15.0%)	6.3%	(5.3%, 7.4%)
Buena Vista City	51530	0.0%	(-0.0%, 89.6%)	7.5%	(5.3%, 10.6%)
Fredericksburg City	51630	2.2%	(1.1%, 21.9%)	2.8%	(1.5%, 5.3%)
Harrisonburg City	51660	0.0%	(0.0%, 32.5%)	2.9%	(1.7%, 5.1%)
Lexington City	51678	0.0%	(0.0%, 99.4%)	0.0%	(0.0%, 96.0%)
Staunton City	51790	15.5%	(4.5%, 55.6%)	8.0%	(3.9%, 15.8%)
Waynesboro City	51820	5.1%	(2.7%, 37.3%)	5.6%	(2.9%, 10.6%)
Winchester City	51840	0.0%	(0.0%, 23.5%)	5.5%	(4.1%, 7.3%)

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County name	County FIPS	Direct estimate	Direct 95% CI	SAE composite	SAE 95% CI
Albemarle County	51003	8.7%	(5.0%, 14.8%)	6.6%	(5.0%, 8.8%)
Alleghany County	51005	4.2%	(2.2%, 18.5%)	4.9%	(3.2%, 7.3%)
Amherst County	51009	7.0%	(1.5%, 26.4%)	7.9%	(6.3%, 9.8%)
Appomattox County	51011	7.5%	(3.4%, 26.9%)	6.6%	(5.4%, 8.2%)
Arlington City	51013	10.5%	(6.3%, 17.0%)	5.1%	(3.5%, 7.5%)
Bedford County	51019	10.8%	(5.6%, 20.0%)	7.4%	(6.3%, 8.5%)
Botetourt County	51023	9.3%	(3.8%, 20.7%)	10.6%	(7.4%, 14.8%)
Campbell County	51031	6.3%	(2.0%, 18.6%)	4.3%	(3.2%, 5.7%)
Craig County	51045	6.2%	(1.3%, 75.6%)	12.0%	(6.9%, 20.0%)
Fairfax County	51059	5.5%	(3.5%, 8.6%)	4.9%	(4.2%, 5.8%)
Fluvanna County	51065	4.6%	(0.8%, 23.8%)	5.8%	(4.5%, 7.5%)
Greene County	51079	0.0%	(0.0%, 21.7%)	4.4%	(3.5%, 5.5%)
Loudoun County	51107	3.8%	(2.5%, 7.1%)	5.4%	(4.5%, 6.5%)
Louisa County	51109	9.1%	(3.0%, 24.6%)	6.8%	(5.8%, 7.9%)
Nelson County	51125	13.2%	(4.3%, 33.6%)	8.3%	(6.6%, 10.4%)
Prince William County	51153	2.7%	(1.9%, 5.7%)	3.2%	(2.7%, 3.8%)
Roanoke County	51161	7.9%	(5.6%, 13.0%)	8.8%	(7.7%, 10.1%)
Alexandria City	51510	2.8%	(2.3%, 8.7%)	3.8%	(2.9%, 5.1%)
Charlottesville City	51540	0.0%	(0.0%, 23.6%)	1.1%	(0.2%, 4.9%)
Covington City	51580	0.0%	(0.0%, 99.4%)	0.6%	(0.0%, 8.1%)
Fairfax City	51600	2.2%	(1.5%, 7.4%)	3.7%	(2.8%, 4.9%)
Falls Church City	51610	0.0%	(0.0%, 62.3%)	6.9%	(4.4%, 10.7%)
Lynchburg City	51680	2.3%	(1.6%, 12.9%)	5.6%	(4.3%, 7.4%)
Manassas City	51683	17.7%	(3.7%, 54.3%)	2.6%	(1.7%, 4.1%)
Manassas Park City	51685	0.0%	(-0.0%, 96.8%)	1.6%	(0.7%, 3.3%)
Salem City	51775	6.8%	(2.6%, 53.3%)	4.3%	(3.3%, 5.5%)

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County name	County FIPS	Direct estimate	Direct 95% CI	SAE composite	SAE 95% CI
Bland County	51021	4.2%	(1.7%, 45.5%)	6.2%	(4.6%, 8.4%)
Buchanan County	51027	3.8%	(0.9%, 15.4%)	5.7%	(3.7%, 8.6%)
Carroll County	51035	15.5%	(7.2%, 30.1%)	7.2%	(5.3%, 9.6%)
Dickenson County	51051	6.5%	(1.3%, 26.9%)	6.8%	(5.4%, 8.5%)
Floyd County	51063	5.4%	(1.4%, 18.5%)	5.1%	(4.0%, 6.4%)
Franklin County	51067	6.5%	(3.6%, 18.9%)	6.6%	(5.3%, 8.2%)
Giles County	51071	7.2%	(4.4%, 28.4%)	5.4%	(4.5%, 6.6%)
Grayson County	51077	16.2%	(5.5%, 39.1%)	5.1%	(3.6%, 7.2%)
Henry County	51089	8.7%	(5.5%, 17.3%)	6.0%	(4.7%, 7.5%)
Lee County	51105	8.1%	(2.5%, 23.1%)	5.2%	(3.8%, 7.2%)
Montgomery County	51121	4.6%	(3.0%, 11.2%)	5.8%	(4.1%, 8.2%)
Patrick County	51141	4.2%	(1.7%, 20.5%)	4.3%	(2.9%, 6.2%)
Pittsylvania County	51143	6.1%	(4.2%, 11.7%)	6.4%	(4.9%, 8.4%)
Pulaski County	51155	5.2%	(3.3%, 16.1%)	5.8%	(4.8%, 6.9%)
Russell County	51167	2.5%	(1.4%, 15.0%)	6.5%	(5.2%, 8.1%)
Scott County	51169	7.7%	(2.2%, 23.2%)	5.8%	(4.2%, 7.8%)
Smyth County	51173	2.1%	(1.5%, 14.4%)	7.9%	(6.6%, 9.3%)
Tazewell County	51185	6.0%	(3.3%, 15.0%)	6.7%	(5.3%, 8.4%)
Washington County	51191	10.1%	(4.6%, 20.9%)	8.5%	(7.3%, 9.9%)
Wise County	51195	7.6%	(3.6%, 15.3%)	8.9%	(6.5%, 12.1%)
Wythe County	51197	7.5%	(2.7%, 19.3%)	7.2%	(5.7%, 9.0%)
Bristol City	51520	0.0%	(0.0%, 40.4%)	9.9%	(6.7%, 14.6%)
Danville City	51590	2.8%	(1.8%, 21.0%)	6.9%	(3.9%, 12.2%)
Galax City	51640	17.8%	(2.3%, 78.9%)	7.2%	(3.9%, 12.9%)
Martinsville City	51690	0.0%	(0.0%, 47.8%)	4.2%	(2.7%, 6.5%)
Norton City	51720	19.8%	(2.4%, 79.2%)	11.0%	(3.8%, 27.5%)
Radford City	51750	0.0%	(0.0%, 56.8%)	3.3%	(1.9%, 5.8%)
Roanoke City	51770	3.7%	(2.6%, 9.0%)	3.9%	(2.9%, 5.3%)

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County name	County FIPS	Direct estimate	Direct 95% CI	SAE composite	SAE 95% CI
Amelia County	51007	4.7%	(2.3%, 28.2%)	4.5%	(3.4%, 6.0%)
Brunswick County	51025	15.8%	(4.3%, 43.7%)	5.9%	(4.0%, 8.6%)
Buckingham County	51029	8.5%	(2.8%, 22.9%)	6.3%	(4.8%, 8.1%)
Charles City County	51036	10.0%	(1.5%, 45.6%)	6.2%	(4.5%, 8.5%)
Charlotte County	51037	6.0%	(2.8%, 35.4%)	5.5%	(4.5%, 6.8%)
Chesterfield County	51041	6.6%	(4.2%, 10.3%)	5.7%	(5.0%, 6.5%)
Cumberland County	51049	2.8%	(1.3%, 29.4%)	4.8%	(3.7%, 6.2%)
Dinwiddie County	51053	5.0%	(3.0%, 21.5%)	3.7%	(2.8%, 4.8%)
Goochland County	51075	5.9%	(3.0%, 25.9%)	8.7%	(7.0%, 10.8%)
Greensville County	51081	1.4%	(0.8%, 38.4%)	3.2%	(2.4%, 4.4%)
Halifax County	51083	6.2%	(4.0%, 16.2%)	5.0%	(4.0%, 6.2%)
Hanover County	51085	8.6%	(5.9%, 14.6%)	8.4%	(7.0%, 10.0%)
Henrico County	51087	5.2%	(3.1%, 8.6%)	5.4%	(4.9%, 6.1%)
Lunenburg County	51111	0.0%	(-0.0%, 29.3%)	4.1%	(3.1%, 5.4%)
Mecklenburg County	51117	8.5%	(3.6%, 18.8%)	7.0%	(4.1%, 11.8%)
New Kent County	51127	2.0%	(1.1%, 24.1%)	3.5%	(2.4%, 5.1%)
Nottoway County	51135	8.7%	(4.4%, 31.5%)	6.4%	(4.5%, 8.9%)
Powhatan County	51145	16.1%	(3.4%, 51.1%)	8.1%	(6.8%, 9.6%)
Prince Edward County	51147	12.0%	(4.1%, 30.2%)	7.1%	(4.3%, 11.6%)
Prince George County	51149	11.5%	(5.3%, 23.1%)	4.3%	(3.5%, 5.3%)
Surry County	51181	17.2%	(3.1%, 57.6%)	4.2%	(2.9%, 6.0%)
Sussex County	51183	2.4%	(1.4%, 28.0%)	3.3%	(2.5%, 4.5%)
Colonial Heights City	51570	0.0%	(0.0%, 39.4%)	4.3%	(3.6%, 5.2%)
Emporia City	51595	0.0%	(0.0%, 68.6%)	3.5%	(2.7%, 4.6%)
Hopewell City	51670	7.2%	(3.4%, 32.9%)	3.0%	(2.2%, 4.2%)
Petersburg City	51730	0.0%	(0.0%, 11.5%)	1.6%	(0.6%, 4.0%)
Richmond City	51760	4.8%	(3.2%, 9.0%)	2.8%	(2.3%, 3.4%)

Indicator 11: Ever had Skin Cancer

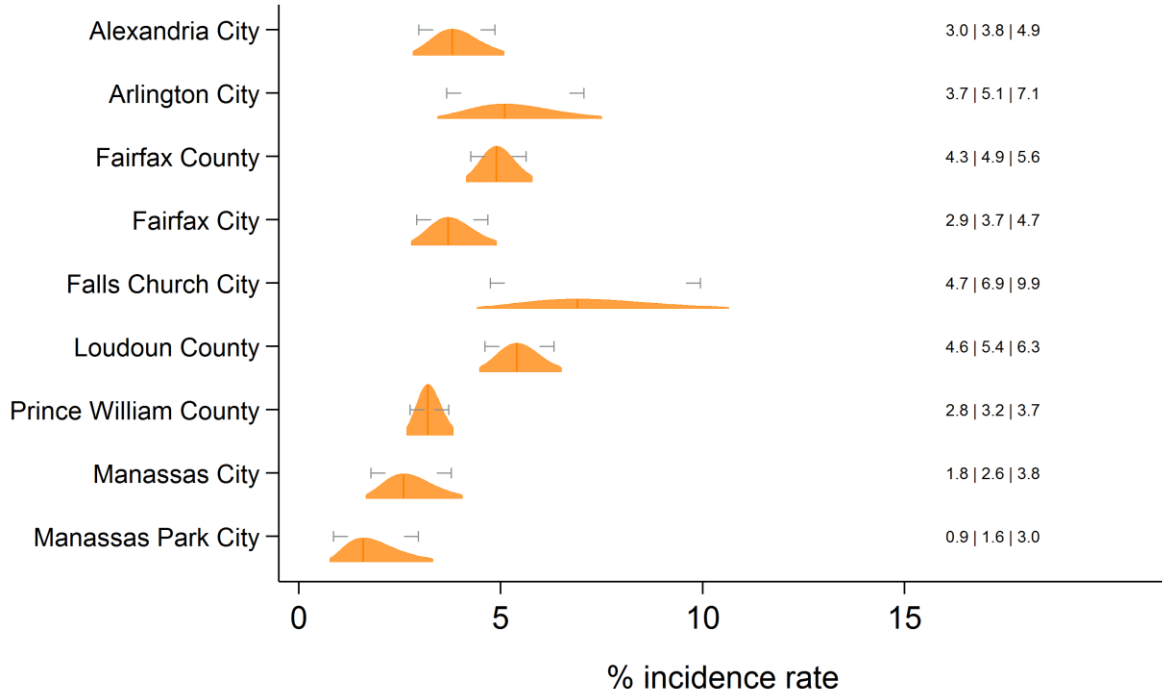


County name	County FIPS	Direct estimate	Direct 95% CI	SAE composite	SAE 95% CI
Accomack County	51001	3.4%	(2.4%, 17.1%)	5.8%	(4.2%, 7.9%)
Essex County	51057	6.9%	(2.9%, 35.1%)	9.0%	(4.4%, 17.6%)
Gloucester County	51073	4.0%	(2.6%, 16.4%)	7.6%	(6.3%, 9.1%)
Isle of Wight County	51093	5.1%	(1.6%, 14.5%)	5.0%	(4.3%, 5.9%)
James City County	51095	11.8%	(5.5%, 23.7%)	9.5%	(7.4%, 12.1%)
King and Queen County	51097	0.0%	(0.0%, 58.6%)	5.9%	(4.4%, 7.9%)
King William County	51101	6.0%	(3.1%, 28.6%)	5.7%	(4.4%, 7.3%)
Lancaster County	51103	2.2%	(1.1%, 27.6%)	7.8%	(6.4%, 9.4%)
Mathews County	51115	6.8%	(2.4%, 26.7%)	7.1%	(5.5%, 9.1%)
Middlesex County	51119	2.3%	(1.0%, 49.5%)	6.7%	(5.2%, 8.6%)
Northampton County	51131	4.3%	(2.9%, 20.2%)	6.8%	(5.5%, 8.5%)
Northumberland County	51133	30.5%	(11.9%, 58.8%)	12.2%	(7.9%, 18.4%)
Richmond County	51159	2.3%	(1.4%, 15.7%)	4.4%	(3.0%, 6.3%)
Southampton County	51175	2.1%	(1.3%, 30.2%)	5.0%	(3.9%, 6.5%)
Westmoreland County	51193	6.7%	(1.7%, 22.6%)	7.9%	(6.4%, 9.8%)
York County	51199	4.7%	(2.3%, 13.9%)	8.6%	(6.8%, 10.8%)
Chesapeake City	51550	7.1%	(4.0%, 12.4%)	5.1%	(4.4%, 5.8%)
Franklin City	51620	0.0%	(0.0%, 14.7%)	2.1%	(1.3%, 3.5%)
Hampton City	51650	6.5%	(3.8%, 10.7%)	3.6%	(3.1%, 4.2%)
Newport News City	51700	3.3%	(1.9%, 8.6%)	3.0%	(2.4%, 3.8%)
Norfolk City	51710	3.8%	(2.1%, 6.6%)	2.9%	(2.4%, 3.6%)
Poquoson City	51735	0.0%	(-0.0%, 61.6%)	9.7%	(7.5%, 12.4%)
Portsmouth City	51740	1.8%	(1.4%, 7.4%)	3.1%	(2.5%, 3.8%)
Suffolk City	51800	4.6%	(3.0%, 11.5%)	4.5%	(3.8%, 5.3%)
Virginia Beach City	51810	4.3%	(3.0%, 7.5%)	5.1%	(4.5%, 5.8%)
Williamsburg City	51830	0.0%	(0.0%, 55.7%)	0.0%	(-0.0%, 100.0%)



Section 4: Graphical representation

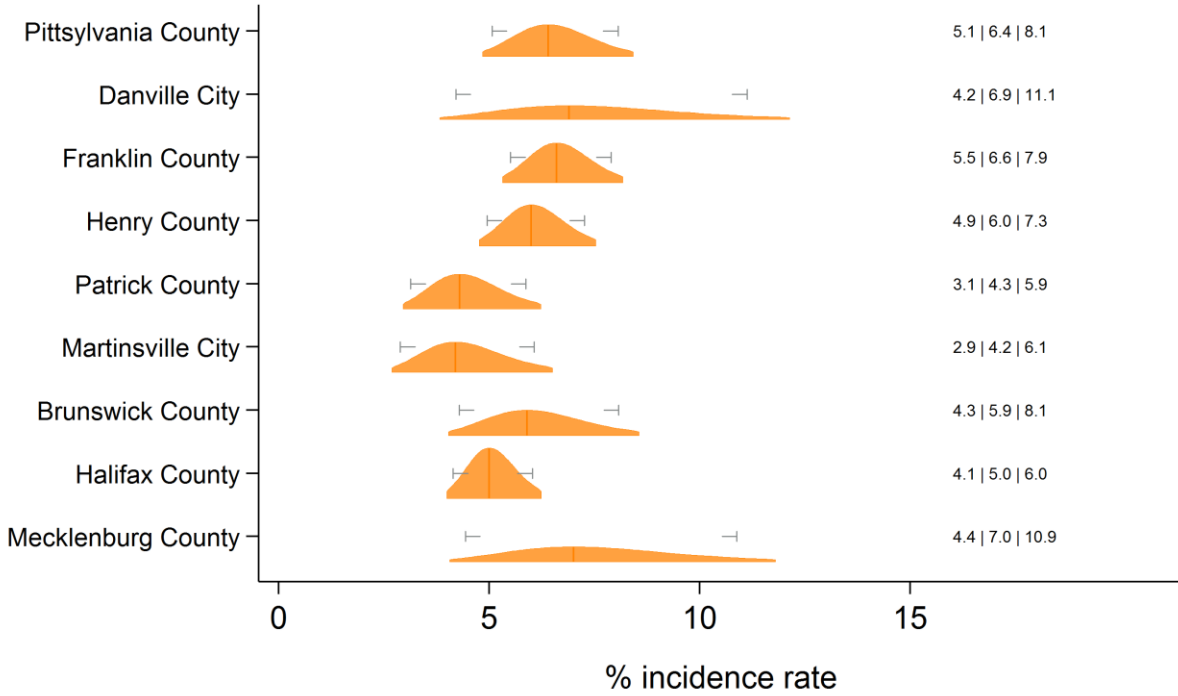
Lifetime skin cancer
Alexandria, Fairfax, Arlington, Loudon, Prince William HDs



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



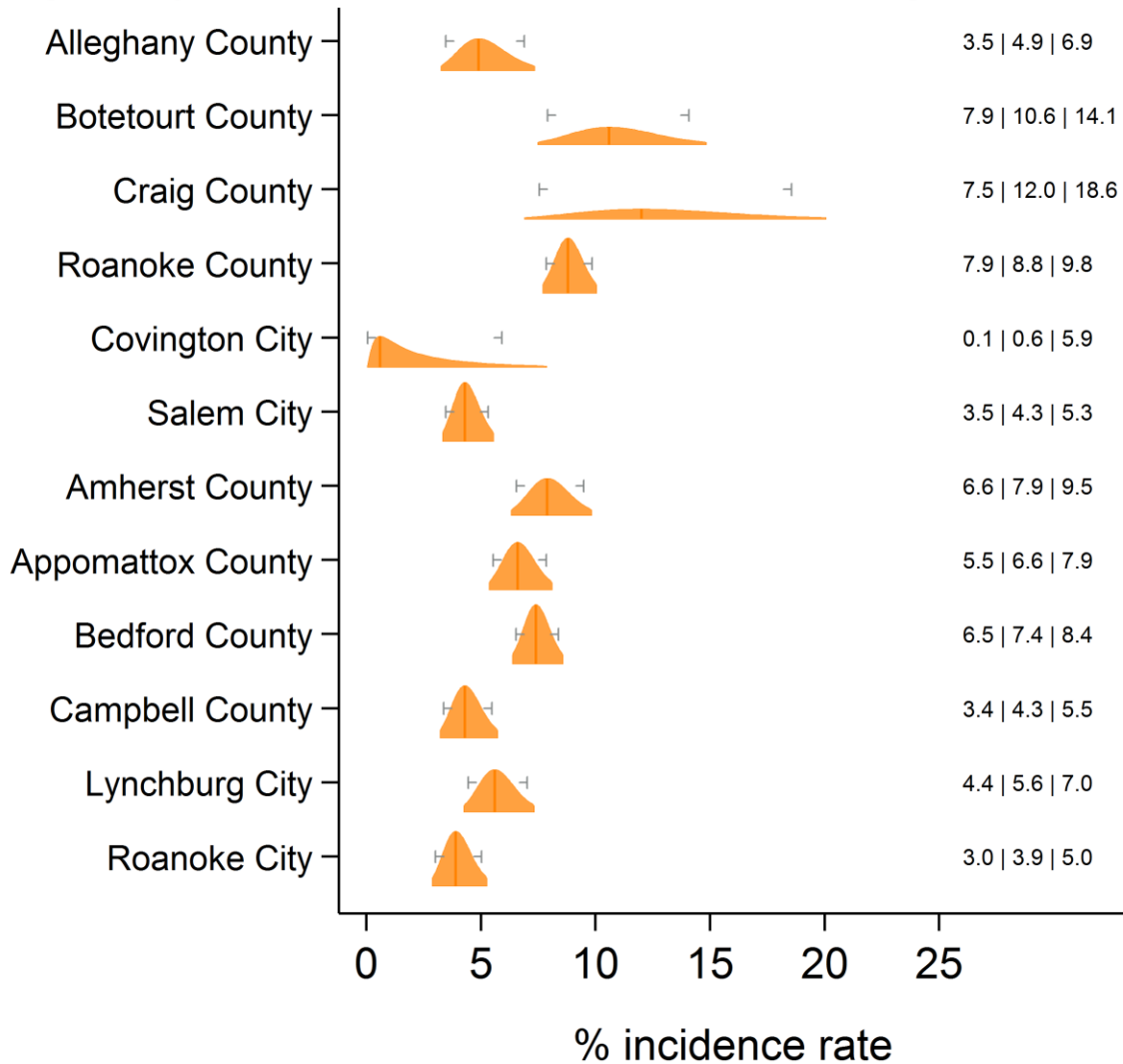
Lifetime skin cancer Pittsylvania/Danville, Southside and West Piedmont HDs



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



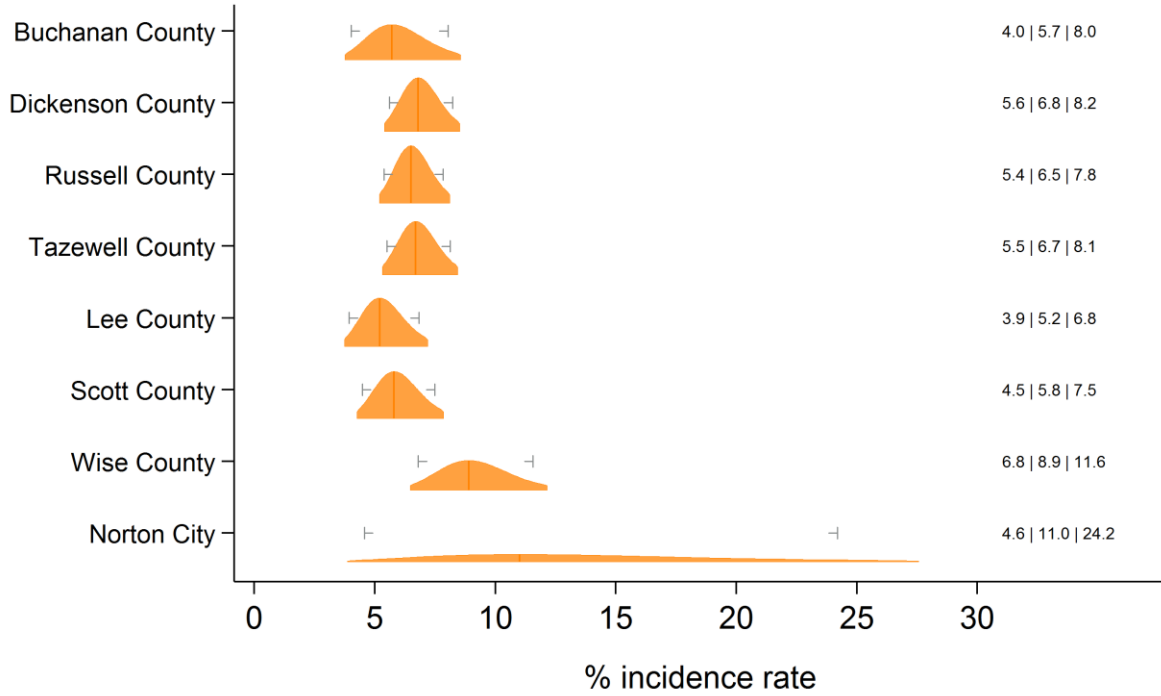
Lifetime skin cancer Alleghany, Roanoke and Central Virginia HDs



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



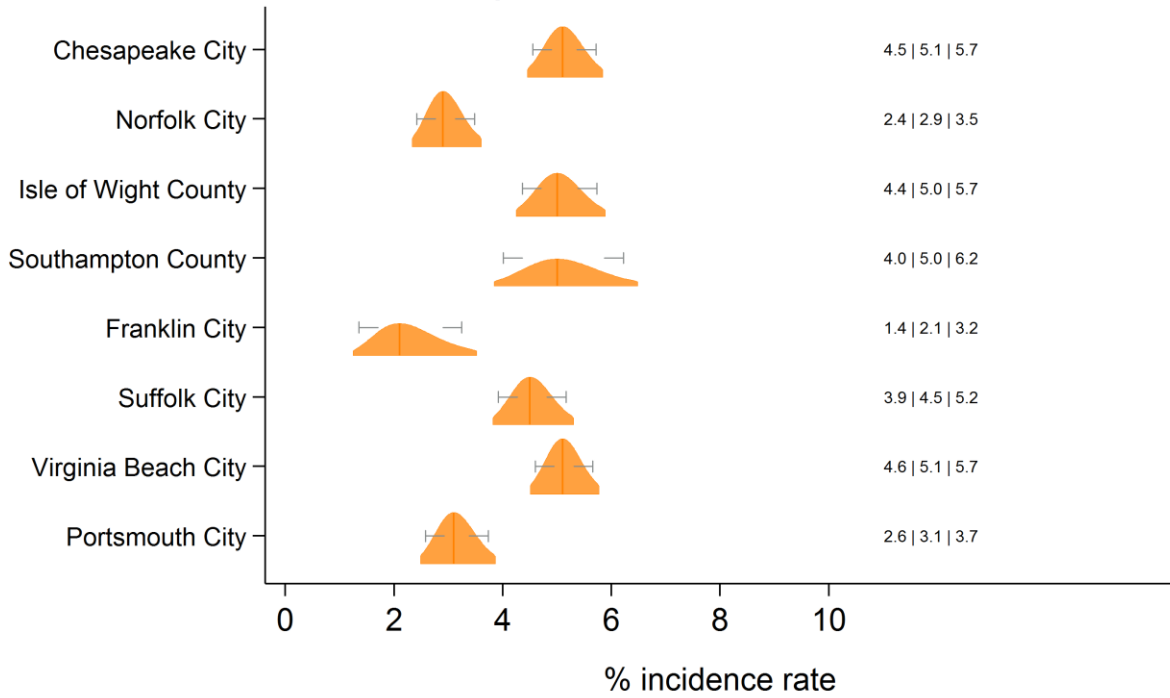
Lifetime skin cancer Cumberland Plateau and Lenowisco HDs



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



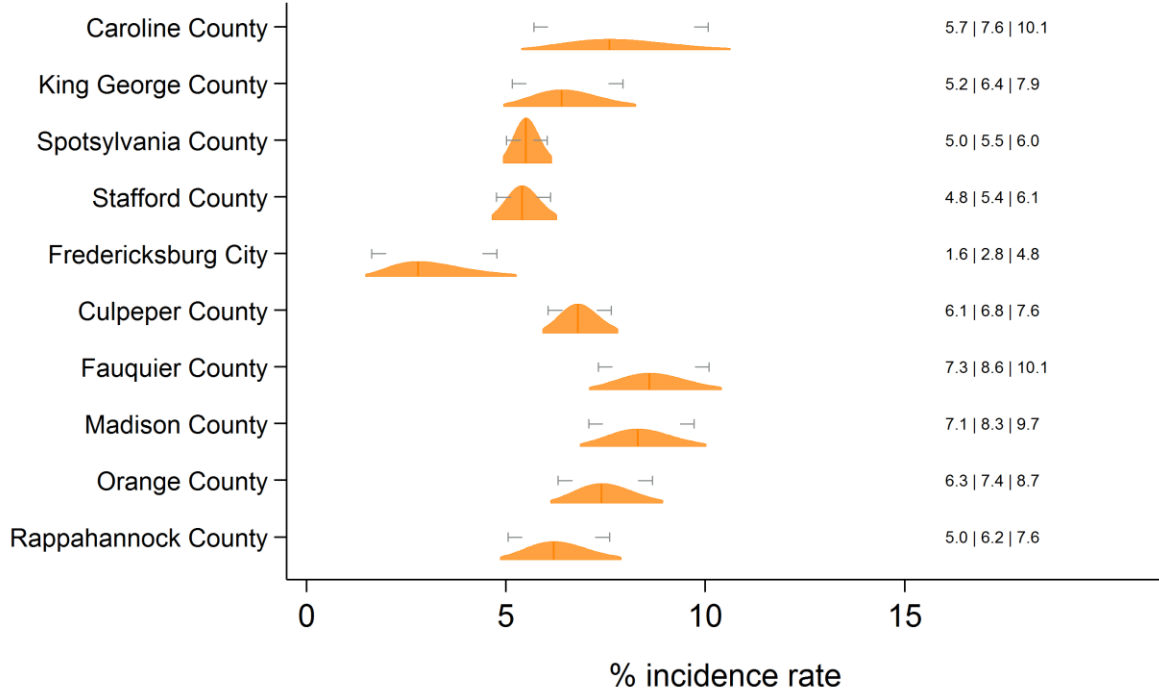
Lifetime skin cancer Norfolk, Portsmouth, Chesapeake, VA Beach, W. Tidewater HDs



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



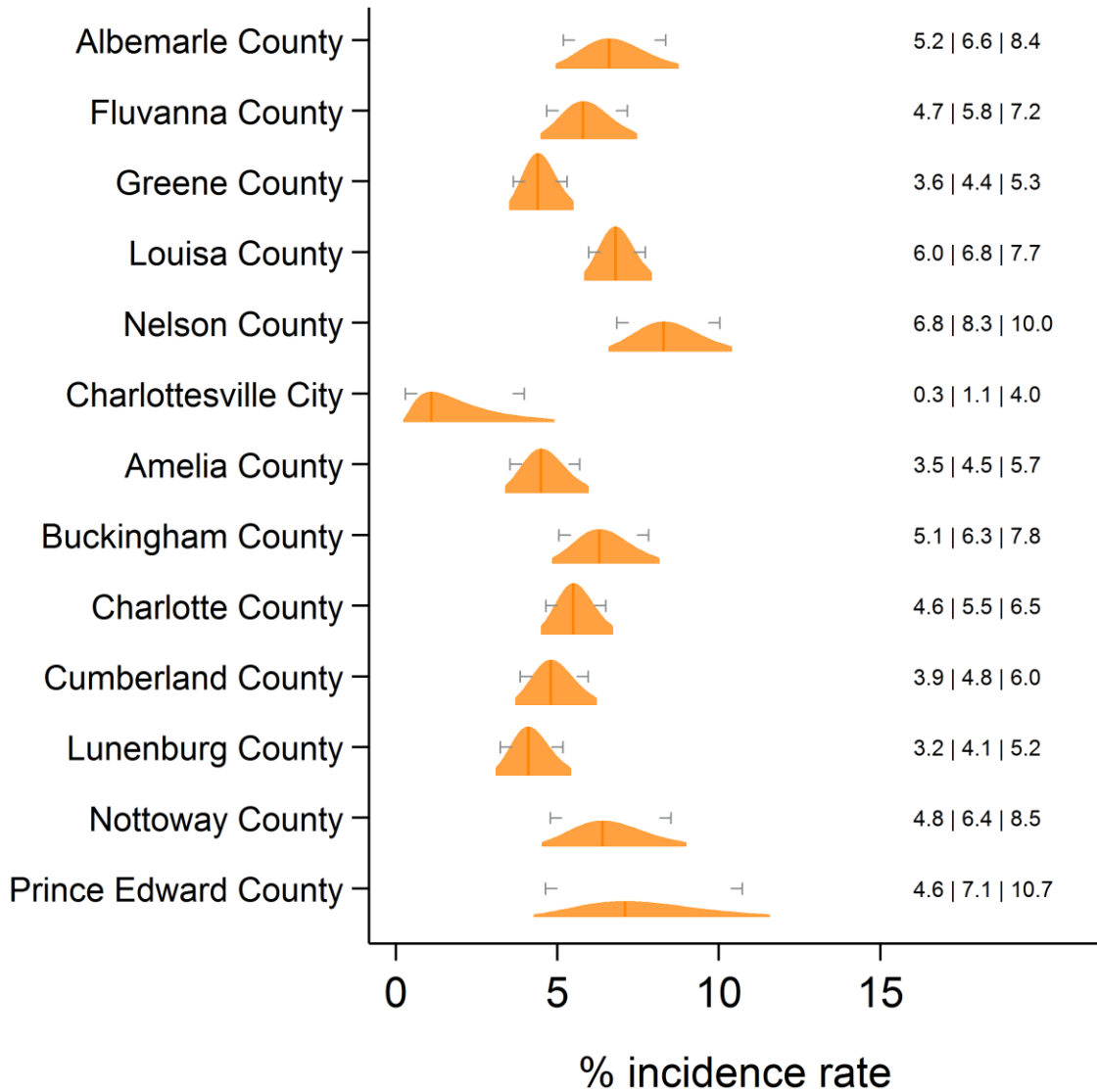
Lifetime skin cancer Rappahannock/Rapidan and Rappahannock HDs



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



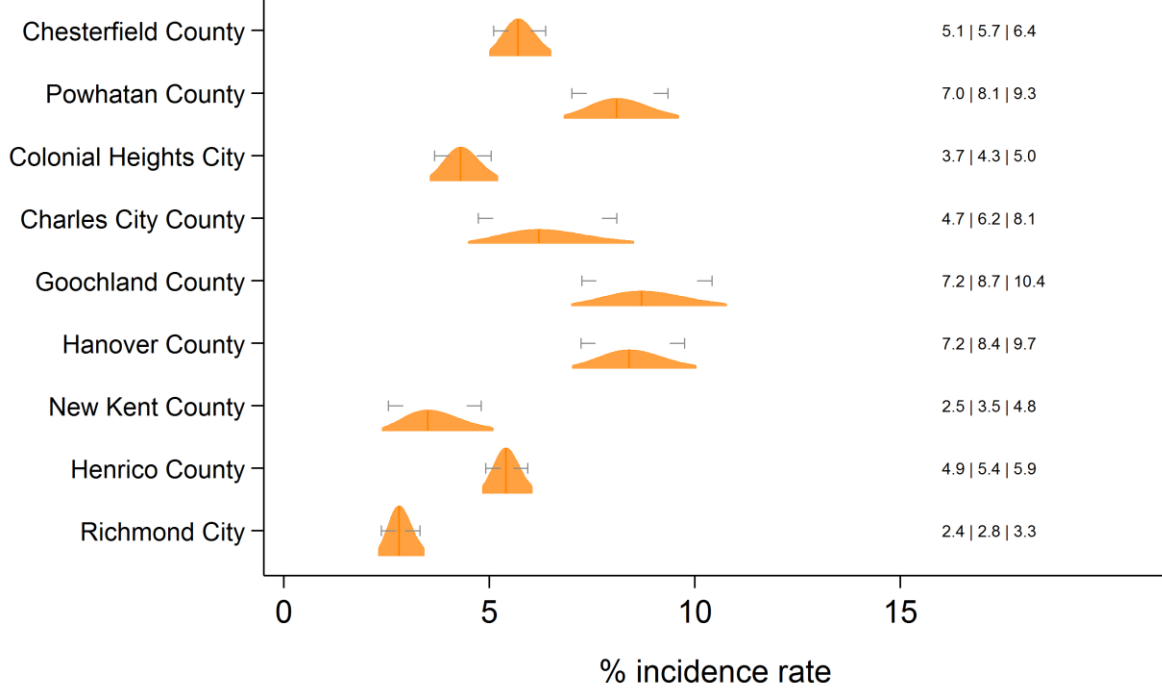
Lifetime skin cancer Thomas Jefferson and Piedmont HDs



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



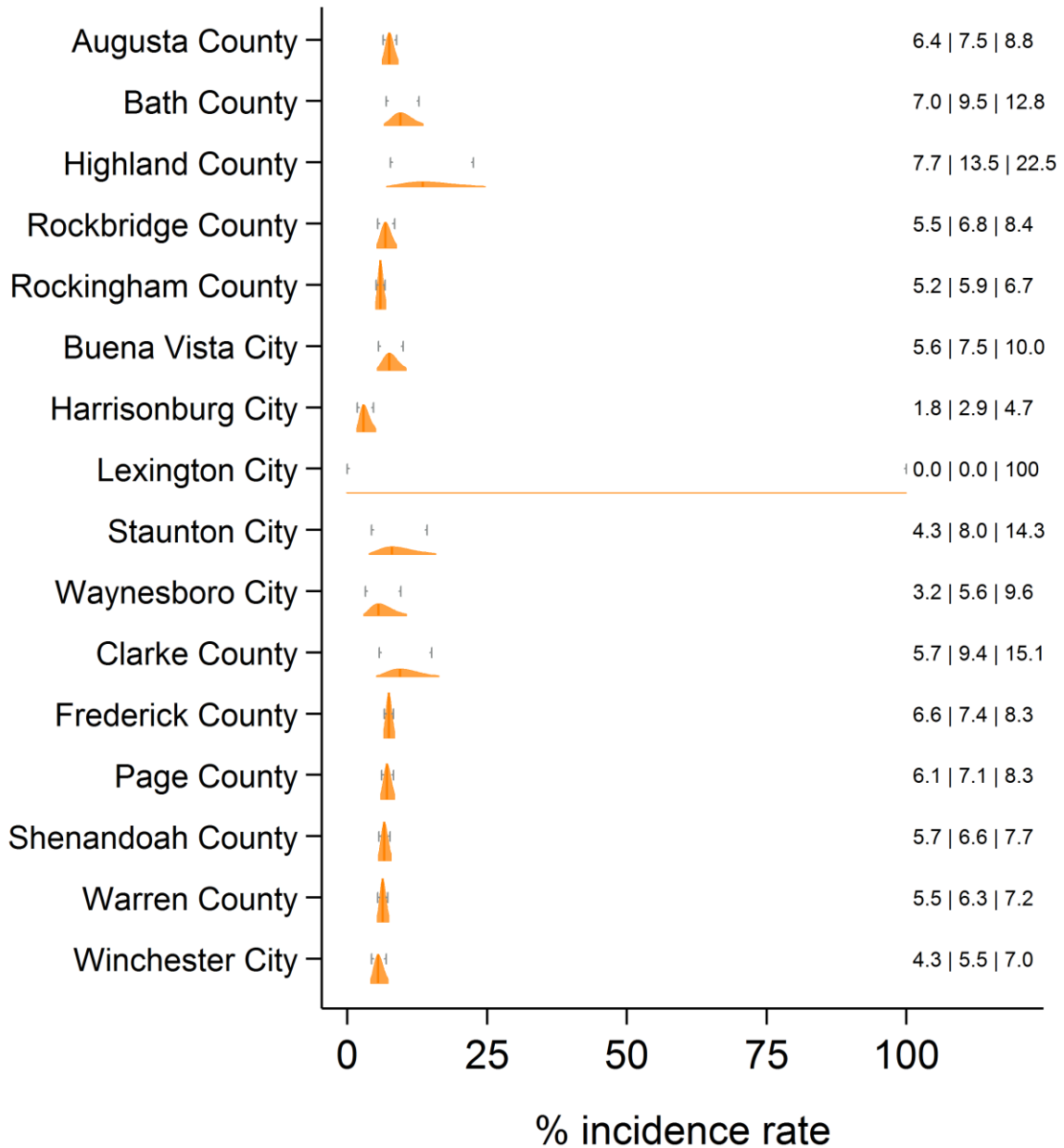
Lifetime skin cancer Chesterfield, Chickahominy, Henrico and Richmond HDs



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



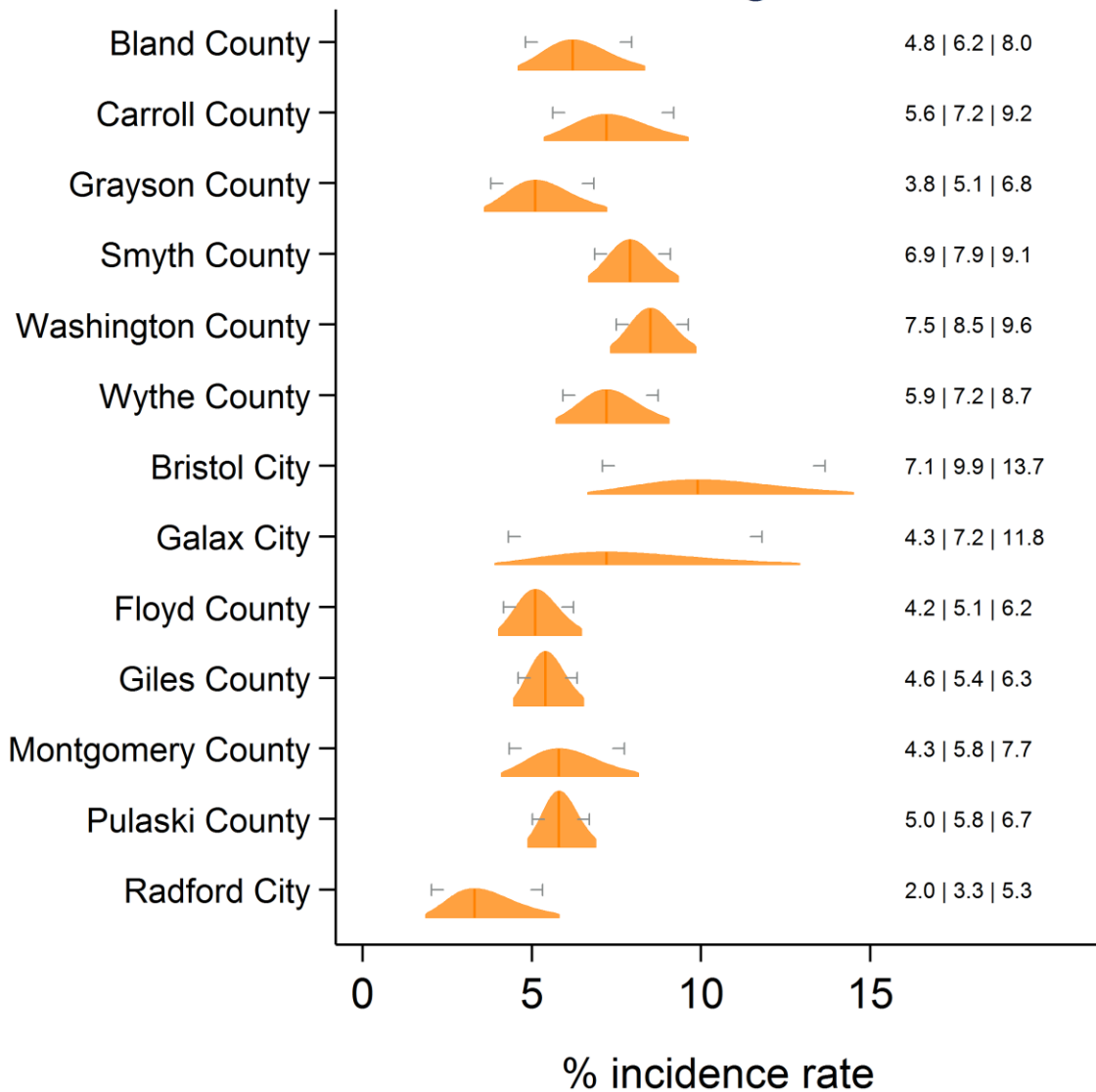
Lifetime skin cancer Central Shenandoah and Lord Fairfax HDs



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



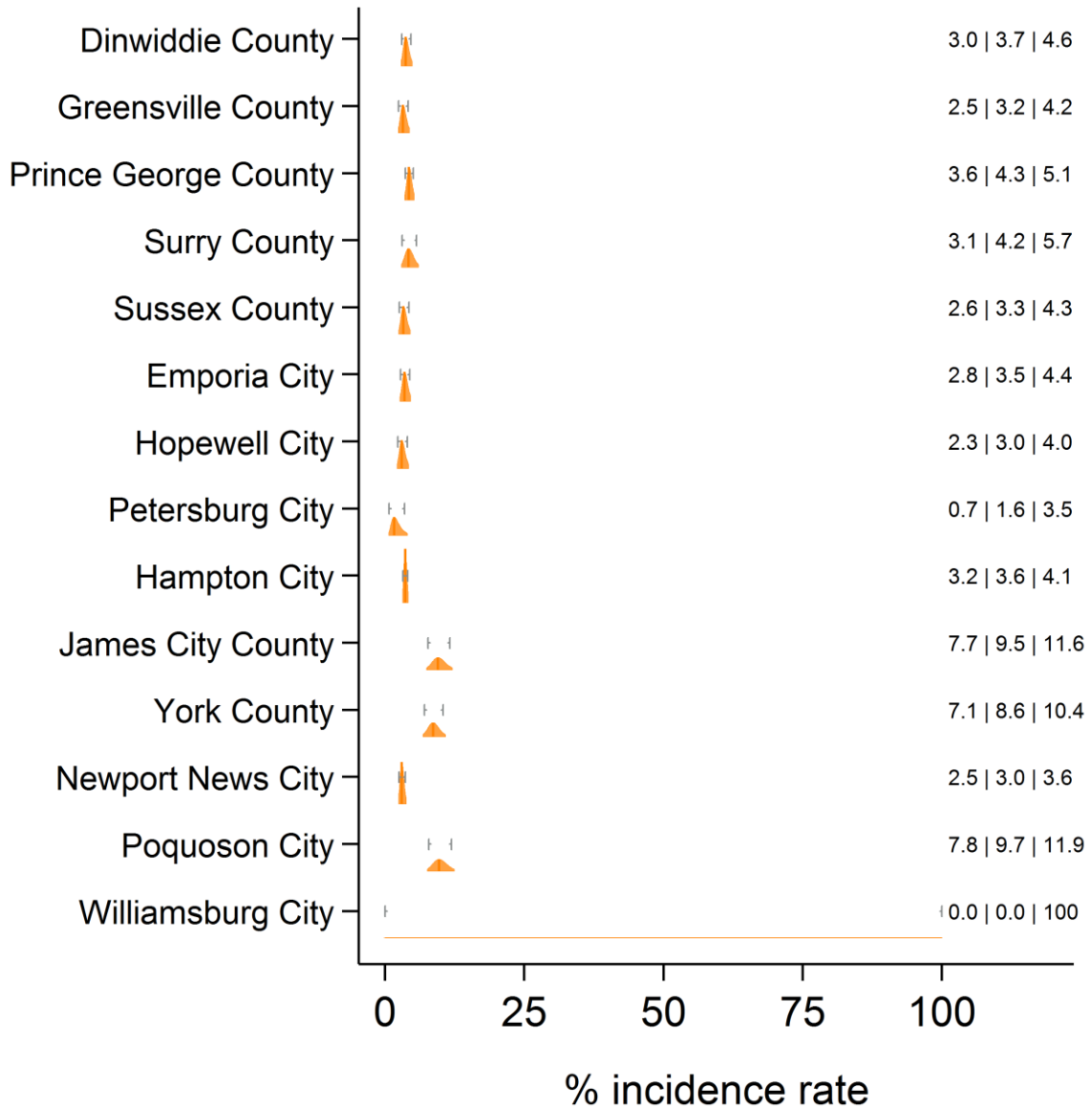
Lifetime skin cancer New River and Mount Rogers HDs



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



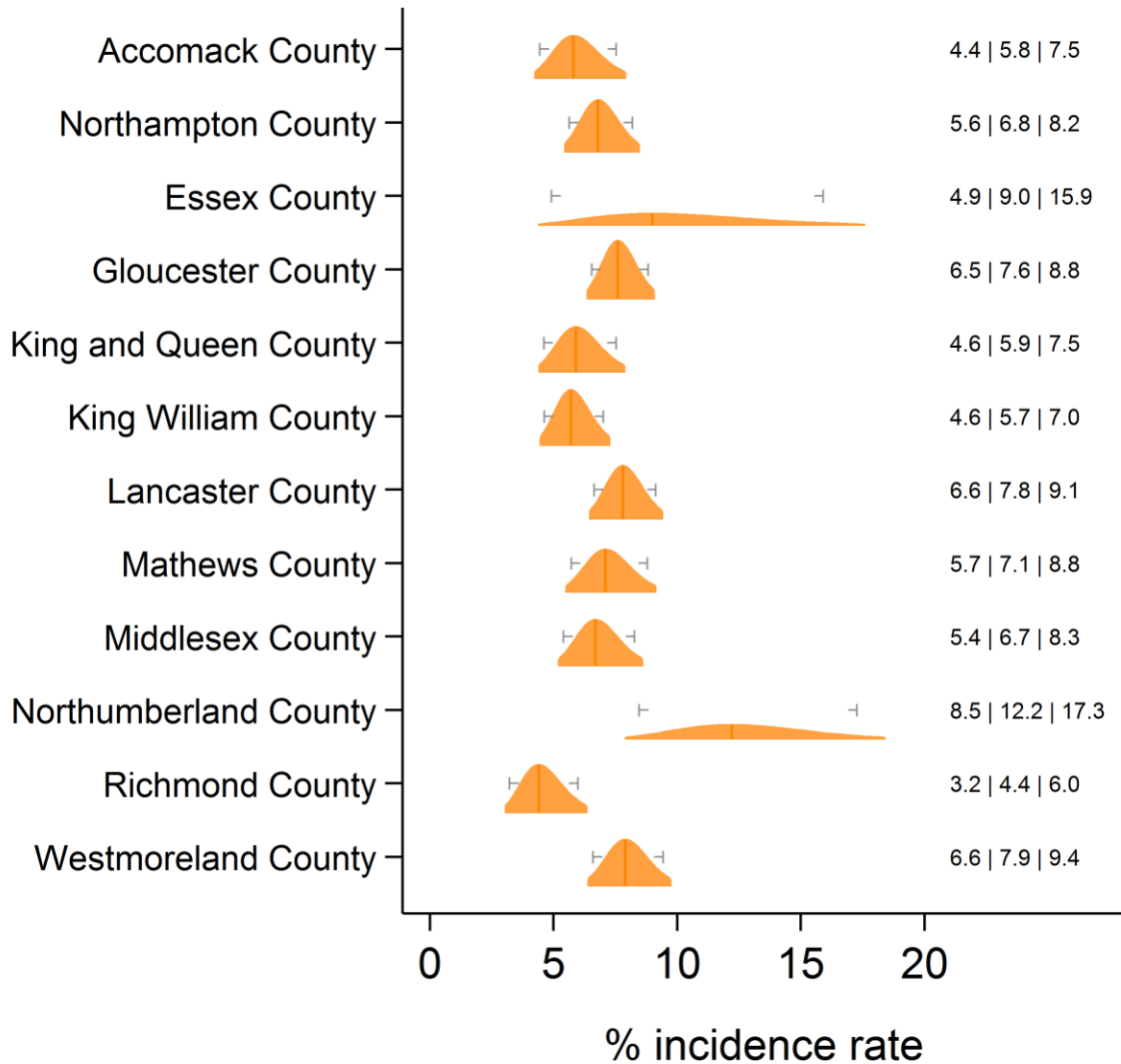
Lifetime skin cancer Crater, Peninsula and Hampton HDs



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



Lifetime skin cancer 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: 48 areas.

Direct estimate is outside the 95% SAE Wilson CI: 85 areas.

SAE estimate is inside the 95% direct Wilson CI: 123 areas.

SAE estimate is outside the 95% direct Wilson CI: 10 areas.

SAE Wilson 95% CI is fully inside the 95% direct Wilson CI: 112 areas.

SAE Wilson 95% CI partially overlaps with the 95% direct Wilson CI: 21 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: 110 areas.

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

Direct standard error is zero: 22 areas.

Proportion of SAE variance due to ACS sampling error: min = 0.00%; med = 2.57%; max = 19.38%.

Proportion of SAE variance to sampling error in regression coefficient estimates: min = 0.00%; med = 86.80%; max = 98.34%.

Proportion of SAE variance due to model selection: min = 0.61%; med = 10.00%; max = 100.00%.