

Indicator 15: Diagnosed with Depression

Internal variable name: outc15_depression

Definition: (Ever told) you that you have a depressive disorder, including depression, major depression, dysthymia, or minor depression?

Predictive models

	Mixed, demos only	Logit, no area effects	Mixed with area covariates
	b/se	b/se	b/se
Outcome 15: Diagnosed with Depression			
NH Black vs. NH White	-0.5932*** (0.1132)	-0.5931*** (0.1111)	-0.5931*** (0.1208)
NH Asian vs. NH White	-0.9389** (0.2828)	-0.9175** (0.3018)	-0.9175** (0.2841)
NH Other vs. NH White	-0.2678 (0.1958)	-0.2437 (0.1703)	-0.2437 (0.1967)
Hispanic vs. NH White	-0.8900*** (0.1591)	-0.8763*** (0.1927)	-0.8763*** (0.1592)
Female	0.6471*** (0.0663)	0.6479*** (0.0778)	0.6479*** (0.0656)
Age 18-34 vs. 65+	0.5009*** (0.1222)	0.4902*** (0.1077)	0.4902*** (0.1211)
Age 35-44 vs. 65+	0.6424*** (0.1103)	0.6423*** (0.1163)	0.6423*** (0.1104)
Age 45-54 vs. 65+	0.4076*** (0.1089)	0.4008*** (0.1054)	0.4008*** (0.1070)
Age 55-64 vs. 65+	0.4229*** (0.0944)	0.4204*** (0.0955)	0.4204*** (0.0956)
Crude mortality rate of chronic lower respiratory disease per 10K		0.0646** (0.0239)	0.0646* (0.0275)
VA BRFSS 2014 SAE outc16_diabetes_diag		-1.3473 (1.6657)	-1.3473 (1.6284)
Testis Male Rate		0.0335 (0.0251)	0.0335 (0.0236)
VA BRFSS 2014 SAE outc31_falls		3.2638** (1.0207)	3.2638** (1.1432)
Variance of road density within county		-0.2902** (0.0925)	-0.2902** (0.0947)
VA BRFSS 2014 SAE outc7_heart_attack		11.1286* (4.5748)	11.1283** (4.1172)
Stroke hospitalization rate per 1K		0.2840***	0.2840***

c.VA14SAE_outc7_heart_attack#c.hosp_rate_Stroke		(0.0856)	(0.0673)
		-4.0074***	-4.0073***
		(1.1349)	(0.9692)
o.Testis Male Rate		0.0000	
		(.)	
o.VA BRFSS 2014 SAE outc16_diabetes_diag		0.0000	
		(.)	
c.TestisMaleRate#c.VA14SAE_outc16_diabetes_diag		-0.4284*	-0.4284*
		(0.1935)	(0.1797)
Intercept	-1.9805***	-2.0058***	-2.0057***
	(0.0816)	(0.5954)	(0.5340)
Area effect variance			
	0.0654		0.0000
	(0.0446)		(0.0000)

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

Results

County name	County FIPS	Direct estimate	Direct 95% CI	SAE composite	SAE CI
Augusta County	51015	27.2%	(17.5%, 39.7%)	22.7%	(19.9%, 25.9%)
Bath County	51017	8.1%	(1.9%, 45.5%)	12.1%	(8.3%, 17.4%)
Caroline County	51033	16.4%	(6.0%, 46.0%)	15.3%	(12.9%, 18.2%)
Clarke County	51043	14.0%	(3.7%, 40.8%)	21.0%	(18.5%, 23.7%)
Culpeper County	51047	19.7%	(10.3%, 34.4%)	18.7%	(16.5%, 21.1%)
Fauquier County	51061	21.2%	(10.7%, 37.4%)	20.8%	(18.5%, 23.4%)
Frederick County	51069	13.0%	(5.8%, 26.6%)	21.7%	(19.8%, 23.8%)
Highland County	51091	0.0%	(0.0%, 47.5%)	3.8%	(1.1%, 12.4%)
King George County	51099	30.2%	(5.3%, 76.9%)	15.7%	(11.4%, 21.3%)
Madison County	51113	13.8%	(3.4%, 42.2%)	19.1%	(15.9%, 22.8%)
Orange County	51137	1.4%	(0.8%, 15.9%)	21.5%	(17.7%, 25.9%)
Page County	51139	23.3%	(7.8%, 52.3%)	19.2%	(15.2%, 24.1%)
Rappahannock County	51157	6.4%	(1.0%, 32.0%)	17.6%	(14.6%, 21.0%)
Rockbridge County	51163	20.0%	(8.3%, 41.0%)	21.5%	(18.4%, 25.0%)
Rockingham County	51165	12.9%	(7.5%, 21.3%)	22.1%	(19.0%, 25.7%)
Shenandoah County	51171	25.5%	(13.9%, 42.1%)	20.6%	(17.3%, 24.4%)
Spotsylvania County	51177	16.1%	(9.0%, 27.4%)	17.4%	(15.6%, 19.4%)
Stafford County	51179	10.3%	(6.0%, 17.1%)	14.2%	(12.5%, 16.2%)
Warren County	51187	8.5%	(2.9%, 22.5%)	18.0%	(15.7%, 20.5%)
Buena Vista City	51530	38.1%	(10.6%, 76.2%)	20.3%	(12.4%, 31.6%)
Fredericksburg City	51630	16.6%	(8.2%, 39.0%)	24.1%	(19.6%, 29.2%)
Harrisonburg City	51660	37.4%	(10.8%, 74.7%)	27.7%	(22.1%, 34.1%)
Lexington City	51678	0.0%	(0.0%, 96.3%)	17.2%	(10.8%, 26.4%)
Staunton City	51790	5.2%	(1.8%, 47.6%)	16.5%	(11.6%, 22.8%)
Waynesboro City	51820	3.5%	(1.5%, 44.7%)	33.2%	(26.8%, 40.2%)
Winchester City	51840	8.9%	(2.8%, 64.7%)	28.5%	(22.6%, 35.2%)

County name	County FIPS	Direct estimate	Direct 95% CI	SAE composite	SAE CI
Albemarle County	51003	18.0%	(10.9%, 28.3%)	17.2%	(14.4%, 20.3%)
Alleghany County	51005	23.6%	(9.8%, 46.8%)	25.7%	(19.5%, 33.1%)
Amherst County	51009	14.2%	(5.5%, 32.0%)	17.0%	(14.2%, 20.2%)
Appomattox County	51011	11.6%	(5.0%, 32.4%)	13.0%	(9.4%, 17.9%)
Arlington City	51013	18.2%	(11.7%, 27.1%)	19.5%	(17.2%, 22.0%)
Bedford County	51019	17.1%	(9.6%, 28.8%)	16.0%	(13.8%, 18.5%)
Botetourt County	51023	9.2%	(2.5%, 28.4%)	18.7%	(15.6%, 22.4%)
Campbell County	51031	11.8%	(6.5%, 20.6%)	17.2%	(14.7%, 19.9%)
Craig County	51045	43.0%	(7.6%, 87.3%)	14.9%	(11.9%, 18.5%)
Fairfax County	51059	16.4%	(13.6%, 19.5%)	14.7%	(13.8%, 15.8%)
Fluvanna County	51065	31.8%	(14.0%, 57.1%)	19.0%	(16.0%, 22.4%)
Greene County	51079	68.0%	(40.4%, 87.0%)	18.8%	(13.6%, 25.4%)
Loudoun County	51107	13.4%	(9.1%, 19.4%)	13.5%	(12.2%, 15.0%)
Louisa County	51109	30.6%	(15.3%, 51.9%)	20.2%	(17.0%, 23.7%)
Nelson County	51125	8.8%	(3.9%, 37.2%)	14.9%	(11.2%, 19.5%)
Prince William County	51153	15.5%	(11.4%, 20.6%)	13.6%	(12.6%, 14.6%)
Roanoke County	51161	26.9%	(17.5%, 39.0%)	19.1%	(16.5%, 22.0%)
Alexandria City	51510	17.2%	(10.8%, 26.3%)	18.5%	(16.9%, 20.2%)
Charlottesville City	51540	12.5%	(4.9%, 28.3%)	23.2%	(15.0%, 34.1%)
Covington City	51580	85.3%	(10.0%, 98.8%)	89.0%	(62.5%, 97.5%)
Fairfax City	51600	15.8%	(8.4%, 27.7%)	19.8%	(16.8%, 23.3%)
Falls Church City	51610	16.5%	(5.7%, 39.0%)	15.8%	(12.4%, 19.8%)
Lynchburg City	51680	34.4%	(22.4%, 48.8%)	27.0%	(23.8%, 30.4%)
Manassas City	51683	4.6%	(2.0%, 37.2%)	18.3%	(16.0%, 20.8%)
Manassas Park City	51685	15.5%	(1.6%, 66.7%)	14.2%	(11.4%, 17.6%)
Salem City	51775	25.5%	(5.9%, 65.3%)	22.7%	(17.1%, 29.5%)

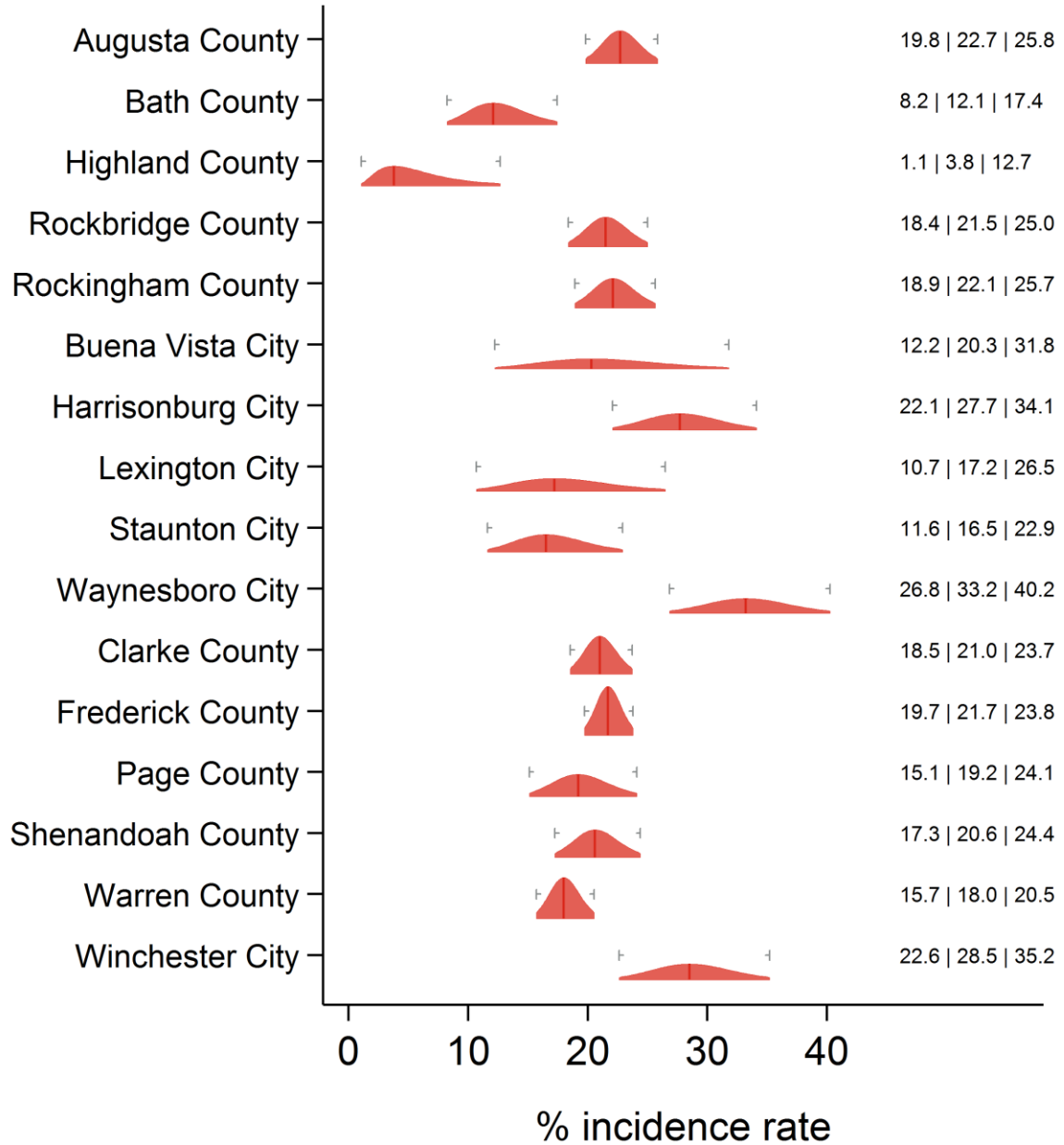
County name	County FIPS	Direct estimate	Direct 95% CI	SAE composite	SAE CI
Bland County	51021	11.2%	(2.5%, 38.8%)	18.6%	(14.3%, 23.8%)
Buchanan County	51027	30.2%	(15.3%, 51.0%)	34.6%	(26.4%, 43.9%)
Carroll County	51035	32.3%	(17.3%, 52.0%)	26.4%	(22.4%, 30.8%)
Dickenson County	51051	66.7%	(45.0%, 83.1%)	44.9%	(32.7%, 57.7%)
Floyd County	51063	18.7%	(7.7%, 39.0%)	14.9%	(10.2%, 21.1%)
Franklin County	51067	23.0%	(11.6%, 40.7%)	21.7%	(19.0%, 24.8%)
Giles County	51071	24.7%	(12.1%, 44.0%)	25.0%	(20.3%, 30.2%)
Grayson County	51077	6.4%	(2.8%, 29.1%)	16.6%	(12.8%, 21.2%)
Henry County	51089	18.7%	(10.1%, 31.9%)	13.8%	(11.5%, 16.6%)
Lee County	51105	34.1%	(14.8%, 60.6%)	28.5%	(23.7%, 33.9%)
Montgomery County	51121	23.1%	(13.1%, 37.6%)	24.4%	(20.4%, 28.8%)
Patrick County	51141	19.7%	(6.2%, 47.5%)	16.4%	(13.2%, 20.1%)
Pittsylvania County	51143	18.7%	(11.7%, 28.4%)	13.9%	(11.8%, 16.2%)
Pulaski County	51155	44.3%	(24.8%, 65.7%)	23.9%	(18.9%, 29.6%)
Russell County	51167	27.8%	(14.6%, 46.3%)	22.7%	(19.8%, 25.9%)
Scott County	51169	28.5%	(13.6%, 50.2%)	39.1%	(30.6%, 48.4%)
Smyth County	51173	30.1%	(13.4%, 54.5%)	21.2%	(18.0%, 24.7%)
Tazewell County	51185	25.1%	(13.8%, 41.3%)	30.3%	(25.5%, 35.5%)
Washington County	51191	17.4%	(10.2%, 28.1%)	17.4%	(14.4%, 20.8%)
Wise County	51195	35.6%	(22.6%, 51.1%)	35.0%	(28.3%, 42.5%)
Wythe County	51197	7.6%	(2.0%, 25.2%)	19.6%	(15.3%, 24.8%)
Bristol City	51520	43.6%	(7.3%, 88.3%)	39.6%	(29.1%, 51.2%)
Danville City	51590	10.9%	(3.4%, 29.6%)	14.3%	(10.9%, 18.6%)
Galax City	51640	30.7%	(2.7%, 87.7%)	32.0%	(18.4%, 49.5%)
Martinsville City	51690	67.4%	(22.9%, 93.5%)	29.1%	(23.1%, 35.9%)
Norton City	51720	45.4%	(9.5%, 86.8%)	27.8%	(20.1%, 37.2%)
Radford City	51750	45.4%	(13.9%, 81.1%)	35.2%	(25.3%, 46.6%)
Roanoke City	51770	22.6%	(14.4%, 33.5%)	26.6%	(22.8%, 30.8%)

County name	County FIPS	Direct estimate	Direct 95% CI	SAE composite	SAE CI
Amelia County	51007	13.7%	(4.3%, 35.8%)	20.9%	(17.6%, 24.5%)
Brunswick County	51025	8.6%	(2.8%, 32.1%)	24.2%	(19.6%, 29.4%)
Buckingham County	51029	14.4%	(5.7%, 31.6%)	10.5%	(8.4%, 13.1%)
Charles City County	51036	14.7%	(2.3%, 63.4%)	20.2%	(17.2%, 23.5%)
Charlotte County	51037	28.4%	(14.7%, 47.6%)	13.2%	(10.3%, 16.8%)
Chesterfield County	51041	22.7%	(16.4%, 30.6%)	18.2%	(16.9%, 19.6%)
Cumberland County	51049	11.8%	(5.8%, 33.2%)	17.6%	(14.6%, 21.1%)
Dinwiddie County	51053	17.9%	(7.1%, 38.4%)	18.9%	(16.6%, 21.4%)
Goochland County	51075	9.7%	(1.9%, 36.9%)	20.8%	(17.6%, 24.5%)
Greensville County	51081	34.2%	(10.8%, 69.2%)	16.8%	(12.5%, 22.1%)
Halifax County	51083	15.4%	(7.0%, 30.7%)	15.0%	(12.1%, 18.3%)
Hanover County	51085	25.5%	(15.4%, 39.1%)	20.7%	(18.8%, 22.7%)
Henrico County	51087	17.7%	(12.3%, 24.6%)	19.2%	(17.6%, 21.0%)
Lunenburg County	51111	2.9%	(1.7%, 30.2%)	10.6%	(7.8%, 14.3%)
Mecklenburg County	51117	16.9%	(8.9%, 29.8%)	16.2%	(12.5%, 20.7%)
New Kent County	51127	28.9%	(11.5%, 56.0%)	22.1%	(19.0%, 25.5%)
Nottoway County	51135	11.7%	(4.4%, 27.6%)	14.1%	(10.7%, 18.2%)
Powhatan County	51145	17.8%	(5.1%, 46.5%)	20.3%	(17.6%, 23.3%)
Prince Edward County	51147	21.1%	(11.4%, 35.9%)	23.4%	(18.9%, 28.6%)
Prince George County	51149	10.0%	(6.2%, 23.6%)	15.7%	(12.5%, 19.5%)
Surry County	51181	26.4%	(6.0%, 67.0%)	11.9%	(8.9%, 15.6%)
Sussex County	51183	5.4%	(3.2%, 21.4%)	14.0%	(11.8%, 16.4%)
Colonial Heights City	51570	31.7%	(15.4%, 54.3%)	25.5%	(19.2%, 33.0%)
Emporia City	51595	62.9%	(3.5%, 98.6%)	41.3%	(29.4%, 54.2%)
Hopewell City	51670	28.6%	(11.8%, 54.6%)	34.7%	(24.4%, 46.6%)
Petersburg City	51730	30.8%	(16.2%, 50.6%)	28.0%	(22.5%, 34.3%)
Richmond City	51760	27.6%	(18.6%, 38.9%)	22.7%	(20.1%, 25.5%)

County name	County FIPS	Direct estimate	Direct 95% CI	SAE composite	SAE CI
Accomack County	51001	14.9%	(8.2%, 25.6%)	12.5%	(7.8%, 19.4%)
Essex County	51057	34.9%	(12.0%, 67.8%)	33.3%	(24.9%, 42.9%)
Gloucester County	51073	19.0%	(10.6%, 31.6%)	17.4%	(15.4%, 19.6%)
Isle of Wight County	51093	29.9%	(14.0%, 52.9%)	16.4%	(14.2%, 19.0%)
James City County	51095	5.9%	(2.6%, 12.5%)	13.9%	(10.7%, 17.8%)
King and Queen County	51097	36.1%	(13.1%, 67.9%)	27.5%	(19.7%, 37.1%)
King William County	51101	33.5%	(12.0%, 65.1%)	29.7%	(24.0%, 36.1%)
Lancaster County	51103	6.7%	(3.3%, 44.0%)	11.8%	(7.3%, 18.6%)
Mathews County	51115	28.1%	(10.4%, 56.7%)	17.0%	(9.0%, 29.7%)
Middlesex County	51119	13.3%	(3.9%, 36.6%)	11.7%	(7.0%, 18.8%)
Northampton County	51131	24.5%	(9.6%, 50.0%)	16.1%	(12.3%, 20.8%)
Northumberland County	51133	19.5%	(8.7%, 38.1%)	17.3%	(11.2%, 25.7%)
Richmond County	51159	32.1%	(10.9%, 64.6%)	19.4%	(16.5%, 22.8%)
Southampton County	51175	13.8%	(2.6%, 49.2%)	19.5%	(15.6%, 24.3%)
Westmoreland County	51193	7.2%	(3.9%, 37.4%)	3.4%	(1.6%, 7.2%)
York County	51199	11.8%	(6.1%, 21.8%)	17.3%	(15.1%, 19.7%)
Chesapeake City	51550	16.5%	(11.1%, 24.0%)	17.6%	(15.8%, 19.5%)
Franklin City	51620	9.9%	(2.7%, 30.1%)	10.7%	(5.9%, 18.8%)
Hampton City	51650	18.1%	(12.3%, 25.8%)	16.8%	(14.6%, 19.3%)
Newport News City	51700	21.1%	(14.4%, 29.9%)	19.3%	(17.4%, 21.2%)
Norfolk City	51710	26.8%	(19.0%, 36.3%)	23.8%	(20.9%, 26.9%)
Poquoson City	51735	26.3%	(4.1%, 75.0%)	16.6%	(13.4%, 20.3%)
Portsmouth City	51740	16.1%	(9.7%, 25.4%)	19.0%	(16.3%, 22.0%)
Suffolk City	51800	19.4%	(10.4%, 33.1%)	15.1%	(13.1%, 17.4%)
Virginia Beach City	51810	22.4%	(17.3%, 28.5%)	18.8%	(17.0%, 20.6%)
Williamsburg City	51830	19.2%	(3.0%, 64.8%)	30.4%	(18.7%, 45.4%)

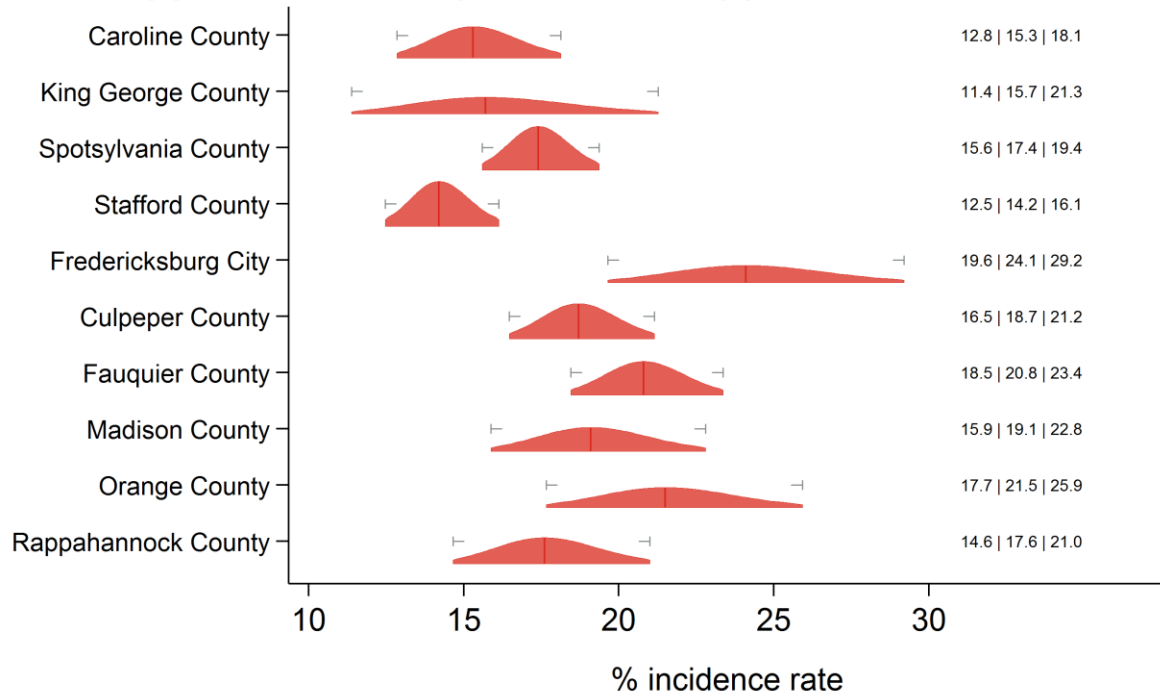
Graphical representation

Diagnosed with Depression Central Shenandoah and Lord Fairfax HDs



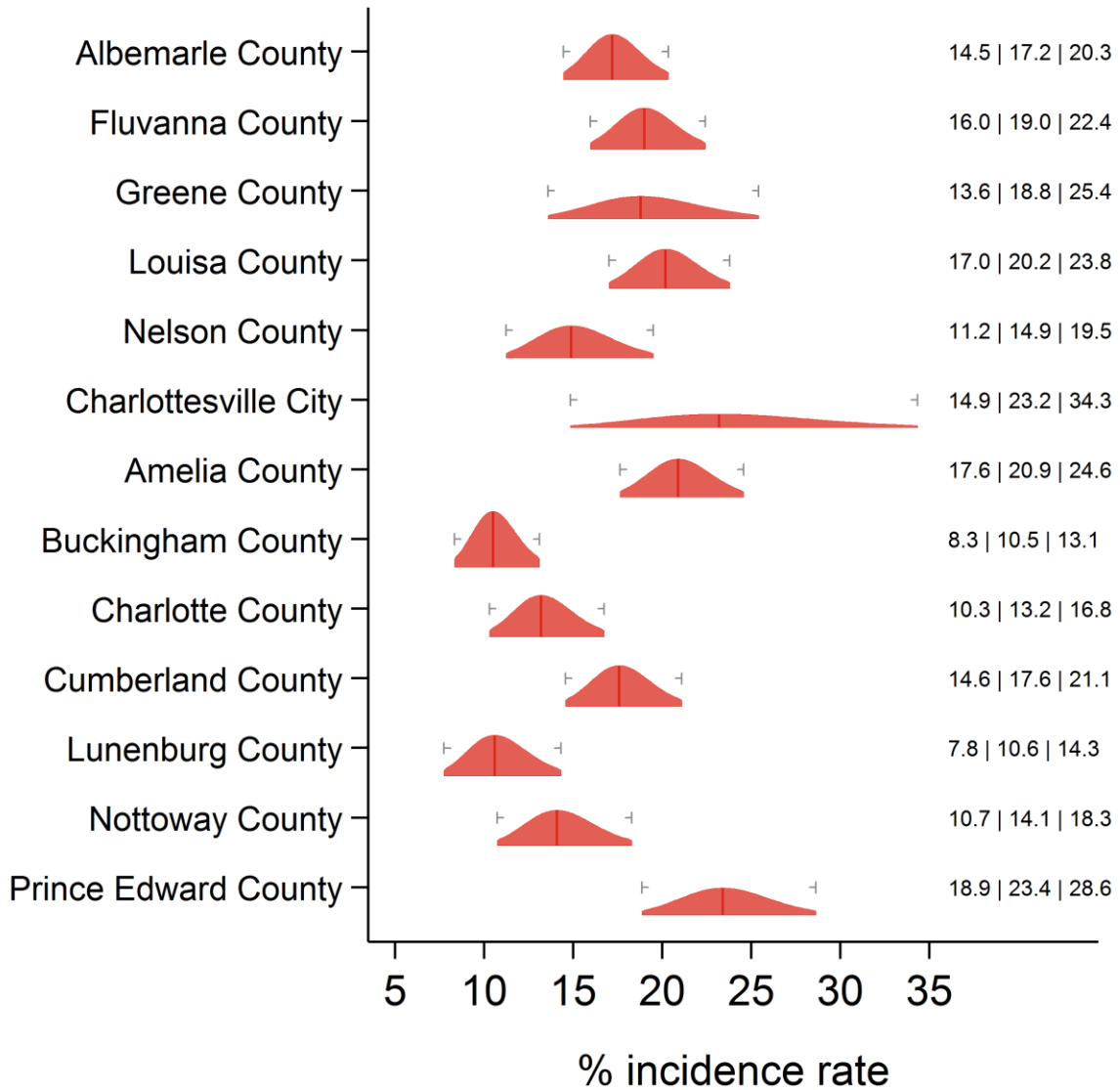
Text at right: 2-sided 95% LCB | Point Estimate | 2-sided 95% UCB
 Gray markers: 95% confidence interval

Diagnosed with Depression Rappahannock/Rapidan and Rappahannock HDs



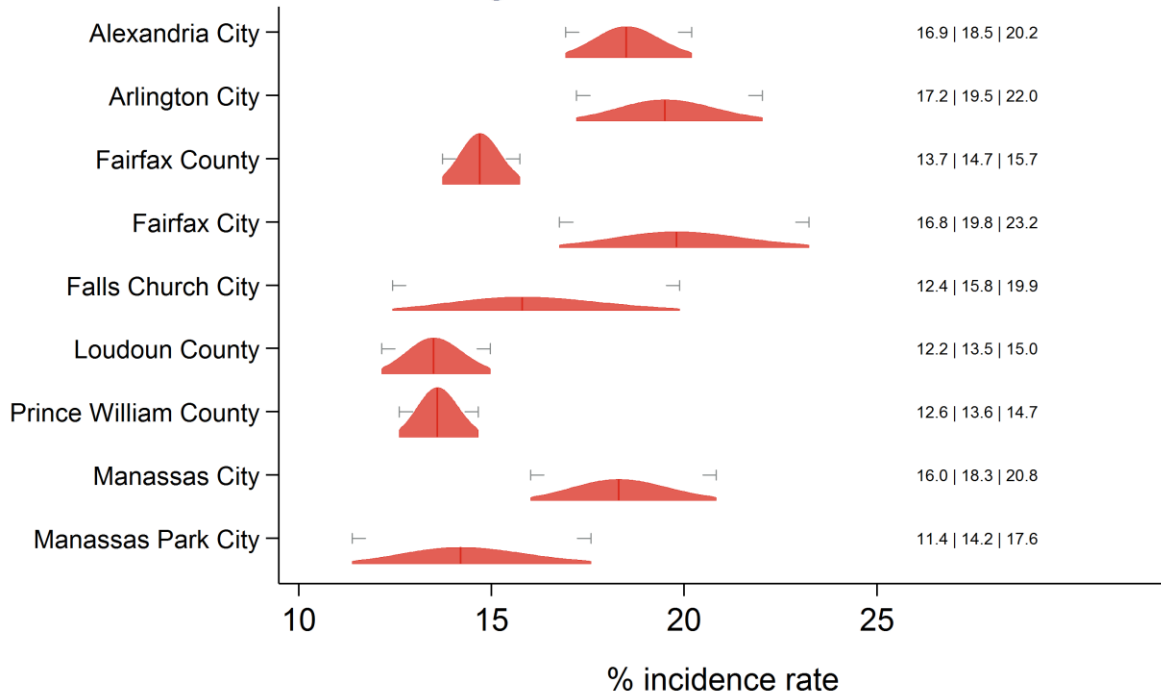
Text at right: 2-sided 95% LCB | Point Estimate | 2-sided 95% UCB
 Gray markers: 95% confidence interval

Diagnosed with Depression Thomas Jefferson and Piedmont HDs



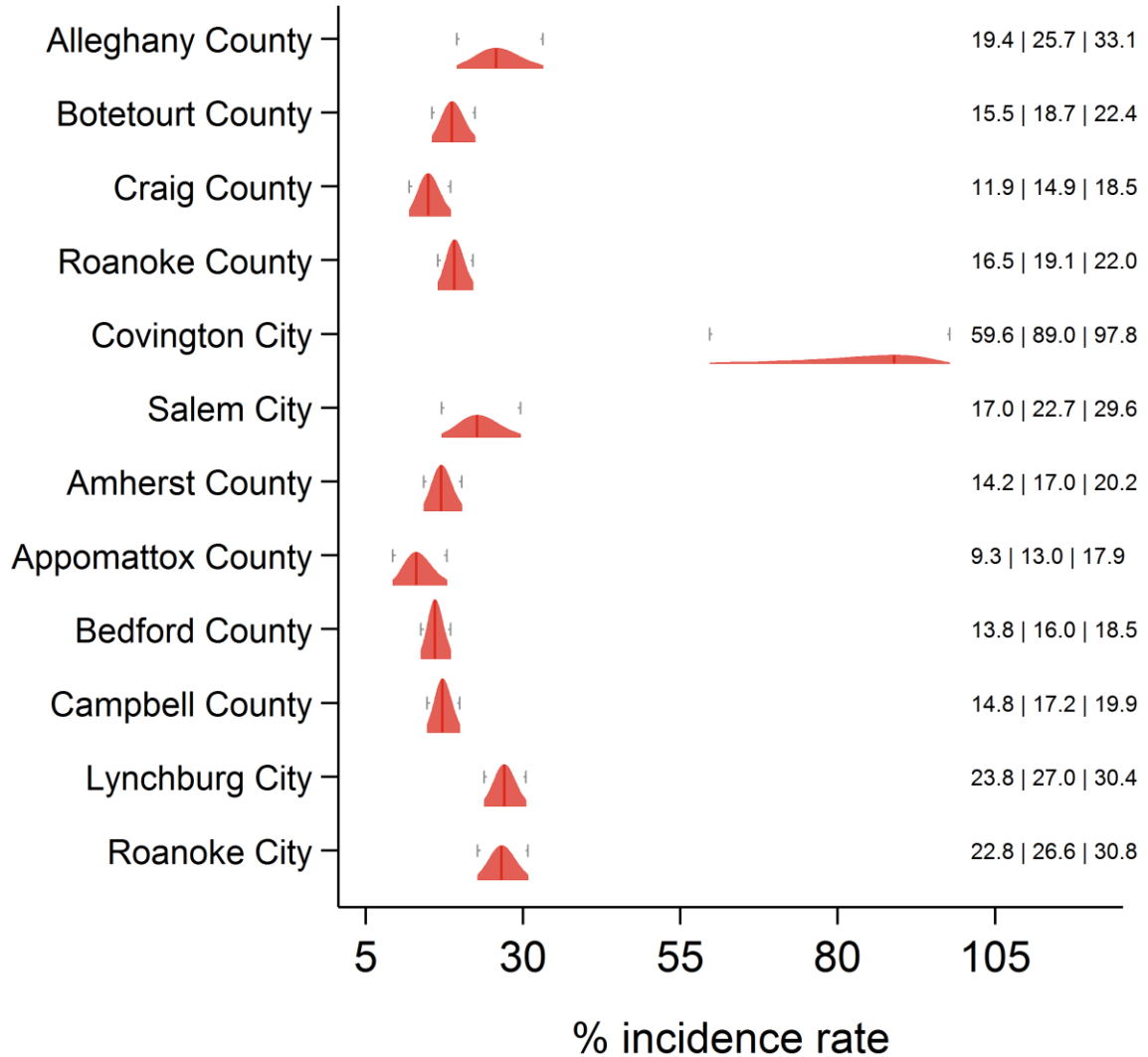
Text at right: 2-sided 95% LCB | Point Estimate | 2-sided 95% UCB
 Gray markers: 95% confidence interval

Diagnosed with Depression Alexandria, Fairfax, Arlington, Loudon, Prince William HDs



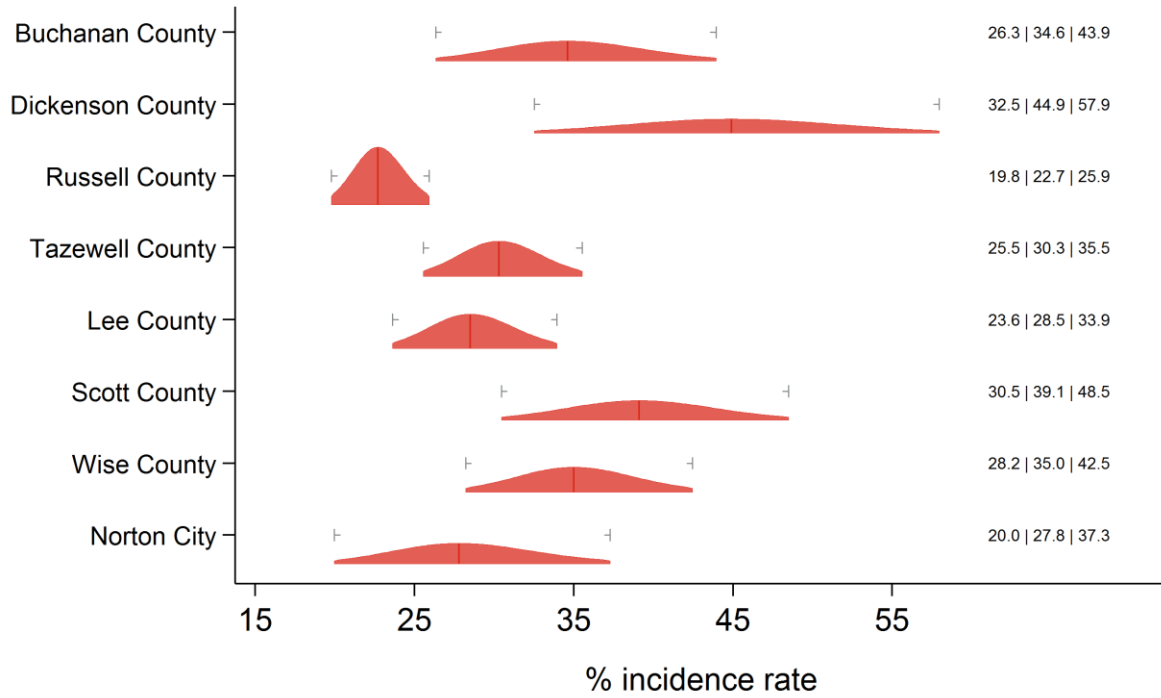
Text at right: 2-sided 95% LCB | Point Estimate | 2-sided 95% UCB
 Gray markers: 95% confidence interval

Diagnosed with Depression Alleghany, Roanoke and Central Virginia HDs



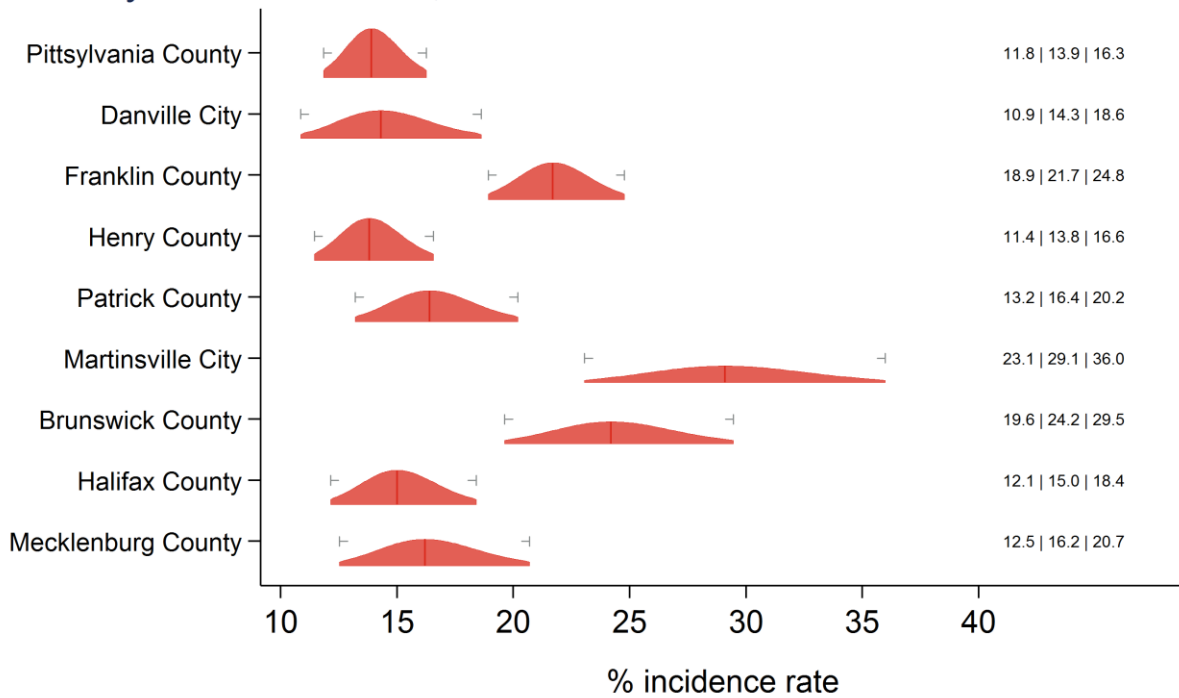
Text at right: 2-sided 95% LCB | Point Estimate | 2-sided 95% UCB
 Gray markers: 95% confidence interval

Diagnosed with Depression Cumberland Plateau and Lenowisco HDs



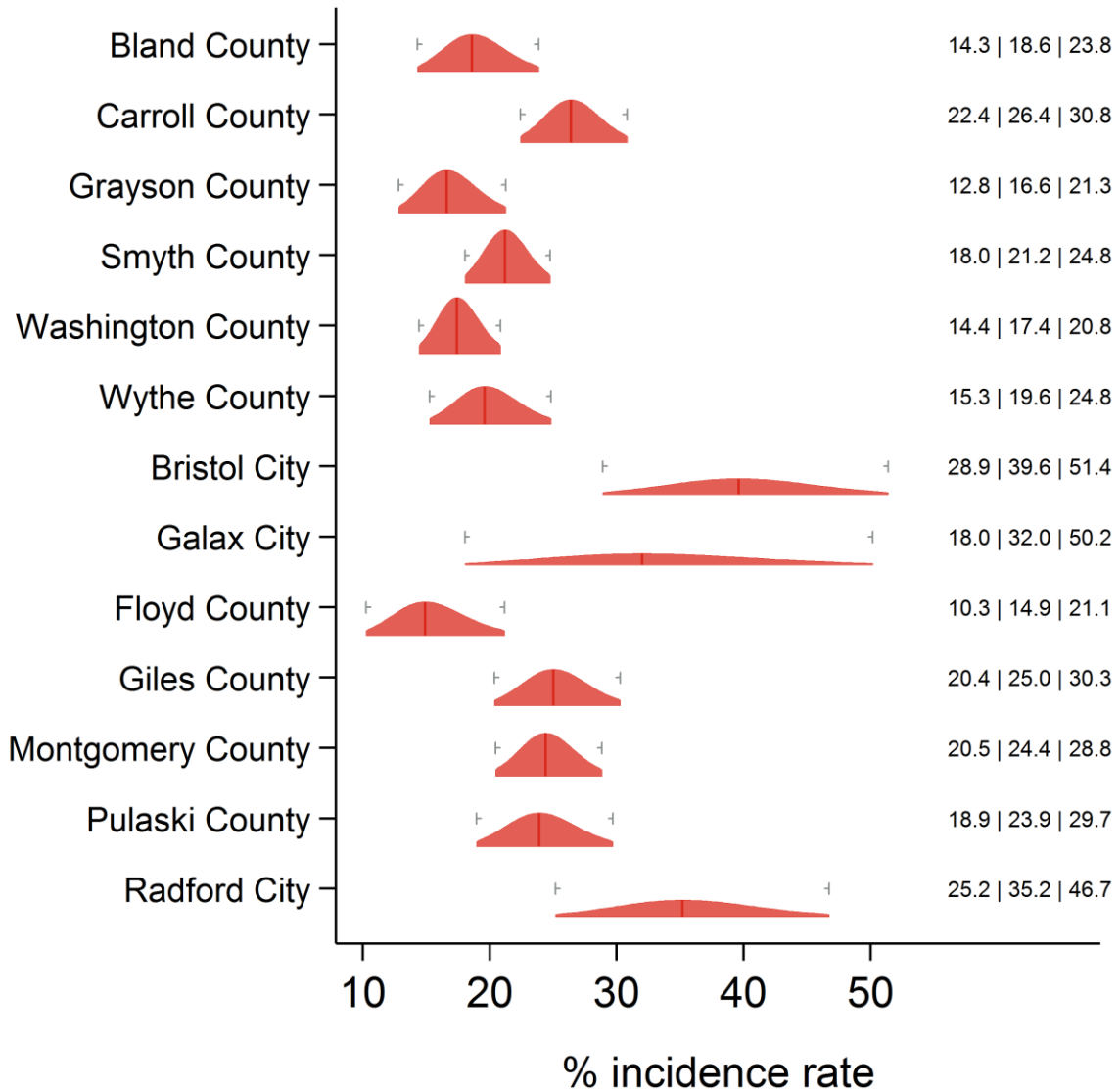
Text at right: 2-sided 95% LCB | Point Estimate | 2-sided 95% UCB
 Gray markers: 95% confidence interval

Diagnosed with Depression Pittsylvania/Danville, Southside and West Piedmont HDs



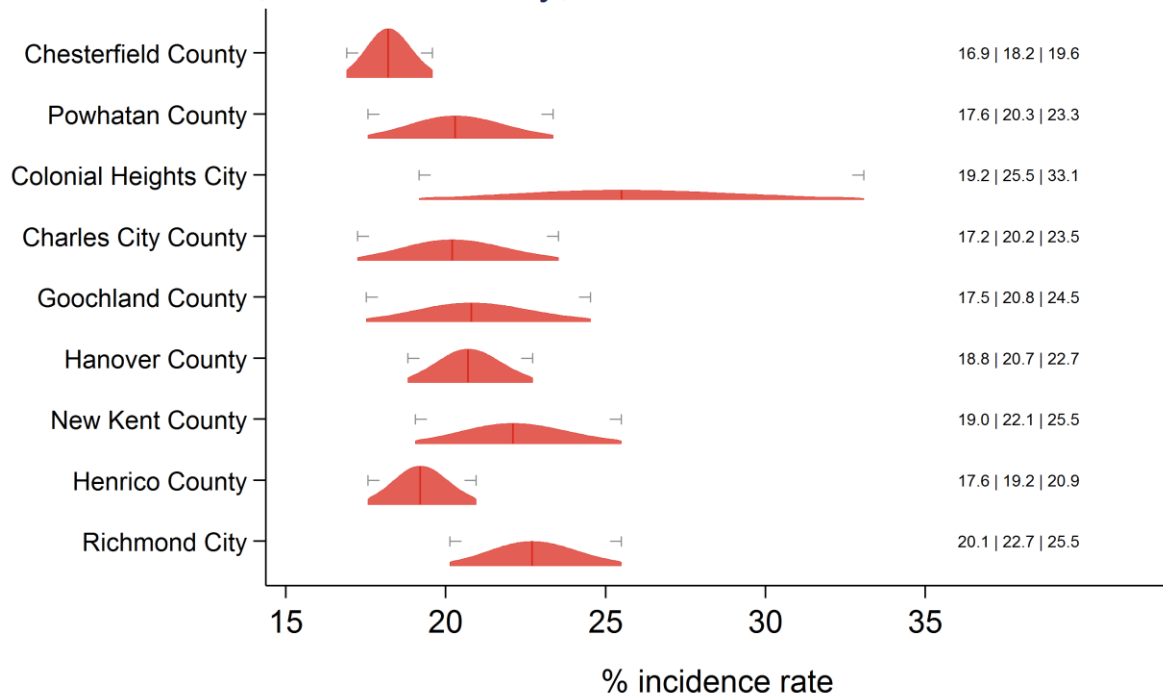
Text at right: 2-sided 95% LCB | Point Estimate | 2-sided 95% UCB
 Gray markers: 95% confidence interval

Diagnosed with Depression New River and Mount Rogers HDs



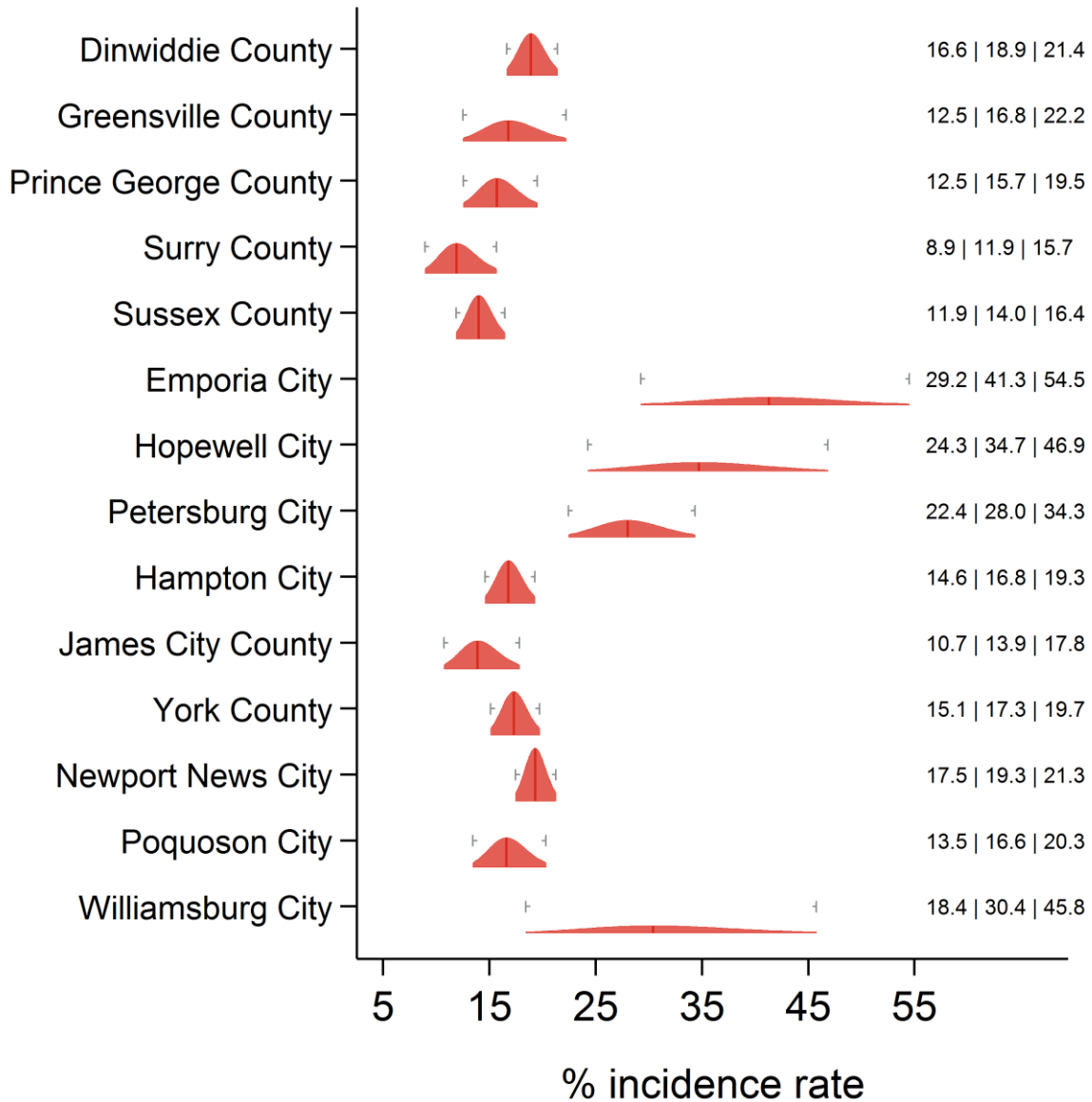
Text at right: 2-sided 95% LCB | Point Estimate | 2-sided 95% UCB
 Gray markers: 95% confidence interval

Diagnosed with Depression Chesterfield, Chickahominy, Henrico and Richmond HDs



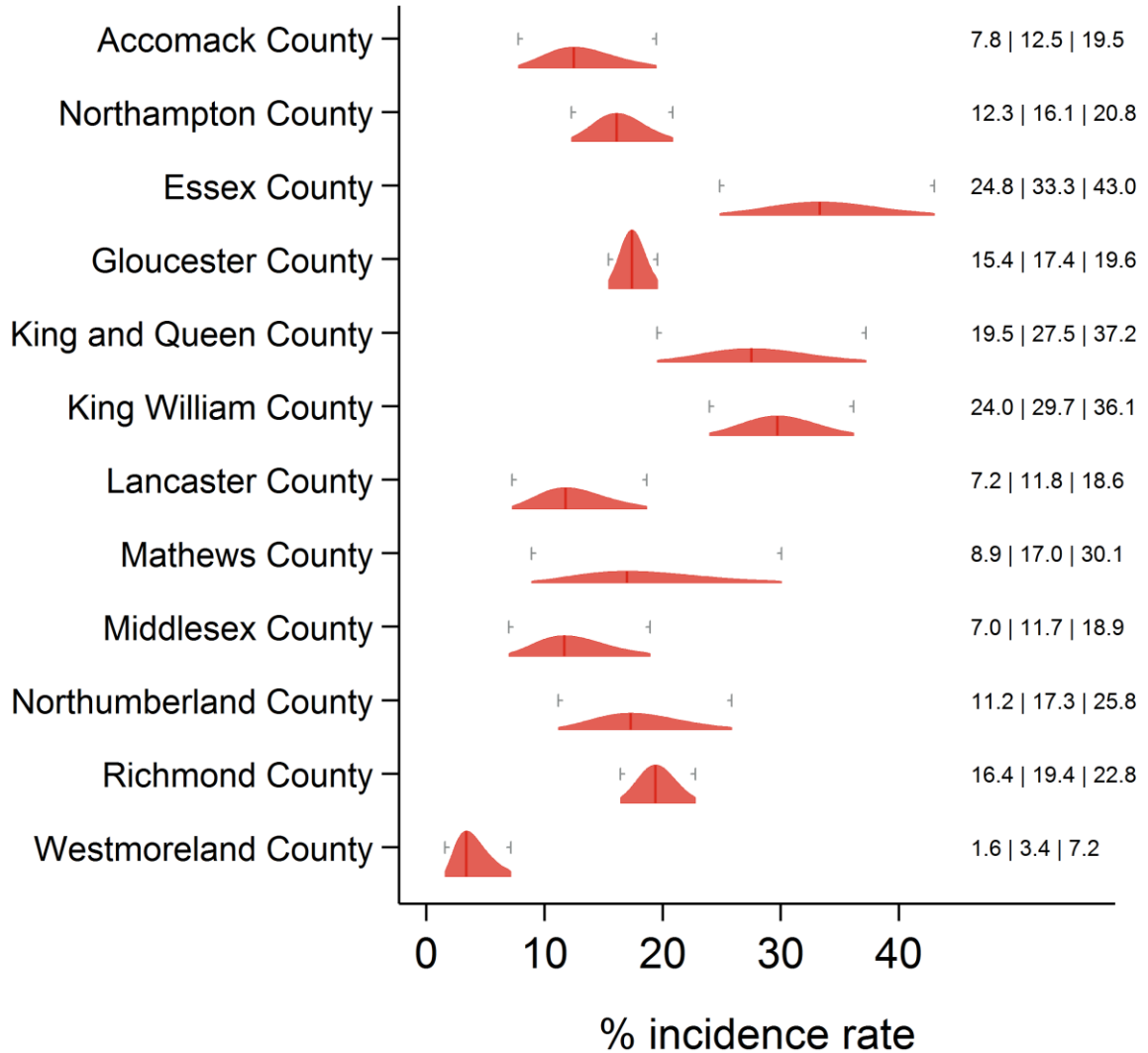
Text at right: 2-sided 95% LCB | Point Estimate | 2-sided 95% UCB
 Gray markers: 95% confidence interval

Diagnosed with Depression Crater, Peninsula and Hampton HDs



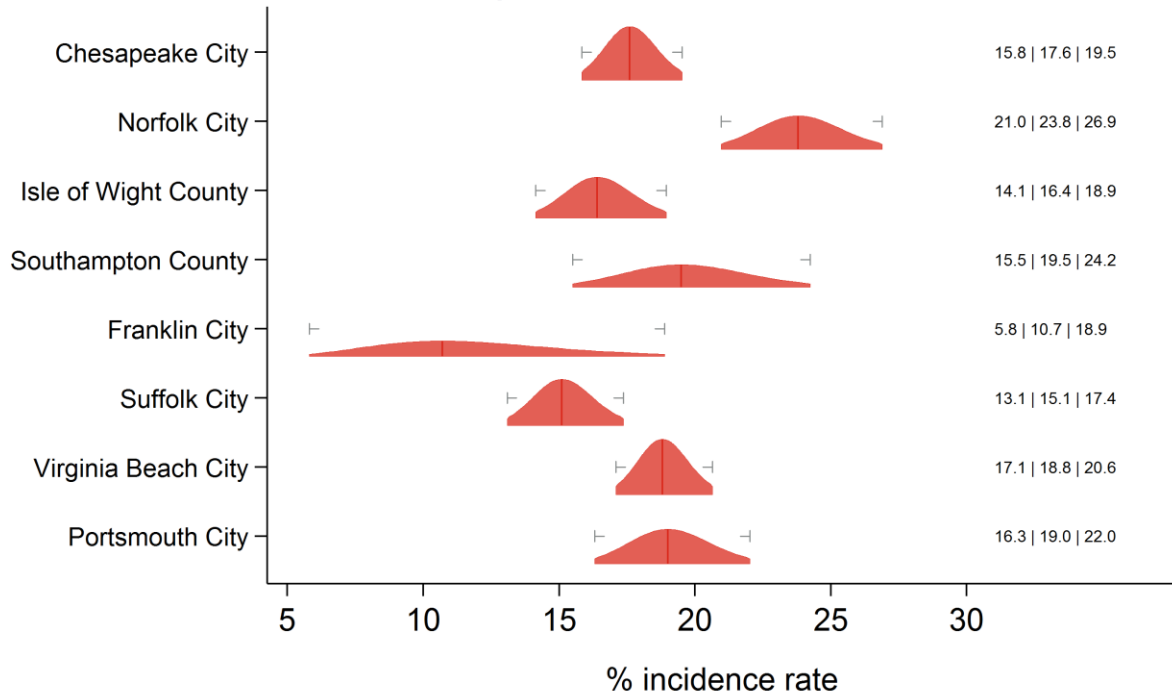
Text at right: 2-sided 95% LCB | Point Estimate | 2-sided 95% UCB
 Gray markers: 95% confidence interval

Diagnosed with Depression Eastern Shore and Three Rivers HDs



Text at right: 2-sided 95% LCB | Point Estimate | 2-sided 95% UCB
 Gray markers: 95% confidence interval

Diagnosed with Depression Norfolk, Portsmouth, Chesapeake, VA Beach, W. Tidewater HDs



Text at right: 2-sided 95% LCB | Point Estimate | 2-sided 95% UCB
 Gray markers: 95% confidence interval

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: 125 areas.

SAE estimate is outside the 95% direct Wilson CI: 8 areas.

SAE Wilson 95% CI is fully inside the 95% direct Wilson CI: 120 areas.

SAE Wilson 95% CI partially overlaps with the 95% direct Wilson CI: 13 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: 130 areas.

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

Direct standard error is zero: 2 areas.

Proportion of SAE variance due to ACS sampling error: min = 0.07%; med = 2.80%; max = 17.44%.

Proportion of SAE variance due to sampling error in regression coefficient estimates: min = 39.23%; med = 91.76%; max = 99.17%.

Proportion of SAE variance due to model selection: min = 0.31%; med = 4.55%; max = 60.71%.

Proportion of SAE variance due to area random effects: <identically zero>