Indicator 35: Tetanus Vaccination in the Past 10 Years

Internal variable name: outc35_tetanus_vacc

Definition: Since 2005, have you had a tetanus shot? (If yes, ask: "Was this Tdap, the tetanus shot that also has pertussis or whooping cough vaccine?")

Predictive models

	Mixed, demos only	Logit, no area effects	Mixed with area covariates
	b/se	b/se	b/se
Outcome 35: Tetanus Vaccination in the Past 10 Years			
NH Black vs. NH White	-0.7485*** (0.1092)	-0.7370*** (0.1004)	-0.7370*** (0.1152)
NH Asian vs. NH White	-0.3514 (0.2388)	-0.4603* (0.2234)	-0.4603 (0.2425)
NH Other vs. NH White	0.0688 (0.1689)	0.0604 (0.1805)	0.0604 (0.1655)
Hispanic vs. NH White	-0.5544*** (0.1314)	-0.5706*** (0.1728)	-0.5706*** (0.1214)
Female	0.0788 (0.0833)	0.0835 (0.0738)	0.0835 (0.0836)
Age 18-34 vs. 65+	0.4784*** (0.1152)	0.4788*** (0.1085)	0.4788*** (0.1150)
Age 35-44 vs. 65+	0.3408** (0.1079)	0.3409** (0.1192)	0.3409** (0.1109)
Age 45-54 vs. 65+	0.1973* (0.0944)	0.2062* (0.0998)	0.2062* (0.1000)
Age 55-64 vs. 65+	0.1700* (0.0838)	0.1713 (0.0902)	0.1713* (0.0837)
Crude mortality rate of nephritis, nephrotic syndrome & nephrosis per 10K		-0.0401 (0.0308)	-0.0401 (0.0272)
% Hispanic among adults 18 to 64		-0.0636*** (0.0190)	-0.0636*** (0.0117)
% black HH head receiving SNAP		0.0005 (0.0018)	0.0005 (0.0016)
Thyroid Female Rate		0.0075* (0.0034)	0.0075** (0.0023)
% pop with adequate access to physical activity, County Rankings		0.1181** (0.0408)	0.1181** (0.0352)

VA BRFSS 2014 SAE outc14_diabetes_test		-0.7540 (1.5086)	-0.7540 (1.1627)
Crude mortality rate of influenza & pneumonia per 10K		-0.5611 (0.3372)	-0.5611* (0.2270)
c.VA14SAE_outc14_diabetes_test#c.rate_cod_influenzapneumonia		0.8724 (0.5458)	0.8724* (0.3652)
% group quarter population		0.0265 (0.0323)	0.0265 (0.0272)
% Hispanic/Latino head receiving SNAP		0.0219 (0.0118)	0.0219** (0.0083)
c.ACS_pct_gq#c.ACS_pct_hisp_snap		0.0038 (0.0023)	0.0038* (0.0019)
Intercept	0.6735*** (0.0801)	0.7573 (0.9750)	0.7573 (0.7473)
Area effect variance	0.0097 (0.0166)		0.0000 (0.0000)

Number of alternative models used to estimate model error = 1.

Results

County name	County FIPS	Direct estimate	Direct 95% CI	SAE composite	SAE CI
Augusta County	51015	71.4%	(59.2%, 81.2%)	66.8%	(63.6%, 69.9%)
Bath County	51017	87.8%	(44.4%, 97.9%)	73.5%	(61.3%, 82.9%)
Caroline County	51033	62.3%	(33.0%, 84.7%)	63.9%	(59.3%, 68.3%)
Clarke County	51043	74.0%	(42.6%, 91.6%)	75.1%	(71.1%, 78.8%)
Culpeper County	51047	56.2%	(38.6%, 72.4%)	65.9%	(62.6%, 69.1%)
Fauquier County	51061	71.9%	(55.1%, 84.2%)	68.0%	(64.7%, 71.0%)
Frederick County	51069	65.2%	(49.4%, 78.2%)	66.1%	(62.2%, 69.7%)
Highland County	51091	62.8%	(19.9%, 92.0%)	69.4%	(60.6%, 76.9%)
King George County	51099	77.9%	(50.3%, 92.5%)	64.1%	(60.5%, 67.6%)
Madison County	51113	66.7%	(35.4%, 88.0%)	69.9%	(63.8%, 75.4%)
Orange County	51137	50.9%	(29.9%, 71.5%)	63.4%	(59.9%, 66.8%)
Page County	51139	64.4%	(38.1%, 84.1%)	67.4%	(62.9%, 71.6%)
Rappahannock County	51157	71.1%	(41.1%, 89.7%)	59.9%	(49.7%, 69.4%)
Rockbridge County	51163	79.6%	(59.8%, 91.1%)	64.8%	(59.2%, 70.0%)
Rockingham County	51165	65.5%	(50.9%, 77.6%)	67.8%	(63.7%, 71.7%)
Shenandoah County	51171	70.9%	(52.6%, 84.3%)	58.5%	(52.5%, 64.3%)
Spotsylvania County	51177	58.3%	(44.3%, 71.2%)	65.3%	(62.6%, 67.9%)
Stafford County	51179	68.3%	(55.2%, 79.1%)	64.2%	(60.6%, 67.6%)
Warren County	51187	48.0%	(29.4%, 67.2%)	69.1%	(65.2%, 72.8%)
Buena Vista City	51530	65.5%	(13.3%, 95.9%)	69.3%	(62.7%, 75.1%)
Fredericksburg City	51630	72.4%	(46.4%, 88.8%)	75.9%	(71.3%, 80.0%)
Harrisonburg City	51660	100.0%	(45.4%, 100.0%)	89.0%	(78.2%, 94.8%)
Lexington City	51678	100.0%	(3.7%, 100.0%)	90.0%	(81.0%, 95.0%)
Staunton City	51790	100.0%	(56.5%, 100.0%)	76.8%	(72.0%, 80.9%)
Waynesboro City	51820	86.5%	(44.7%, 95.9%)	72.2%	(66.7%, 77.2%)
Winchester City	51840	66.3%	(19.2%, 94.2%)	64.3%	(57.0%, 71.1%)

County name	County FIPS	Direct estimate	Direct 95% CI	SAE composite	SAE CI
Albemarle County	51003	71.7%	(58.7%, 81.9%)	69.8%	(66.6%, 72.7%)
Alleghany County	51005	73.4%	(50.4%, 88.2%)	70.0%	(65.0%, 74.6%)
Amherst County	51009	75.7%	(53.2%, 89.5%)	64.1%	(61.0%, 67.1%)
Appomattox County	51011	66.7%	(40.8%, 85.3%)	69.0%	(65.2%, 72.6%)
Arlington City	51013	73.1%	(61.4%, 82.3%)	75.6%	(71.9%, 78.9%)
Bedford County	51019	73.3%	(62.0%, 82.2%)	65.8%	(62.7%, 68.7%)
Botetourt County	51023	67.8%	(44.1%, 84.9%)	74.9%	(71.1%, 78.4%)
Campbell County	51031	54.5%	(40.7%, 67.7%)	58.3%	(53.0%, 63.5%)
Craig County	51045	77.5%	(28.5%, 96.7%)	77.8%	(70.7%, 83.5%)
Fairfax County	51059	71.3%	(65.4%, 76.6%)	69.7%	(68.3%, 71.0%)
Fluvanna County	51065	90.3%	(69.6%, 95.5%)	71.7%	(67.3%, 75.8%)
Greene County	51079	78.2%	(47.8%, 93.4%)	72.3%	(67.0%, 76.9%)
Loudoun County	51107	76.2%	(66.3%, 83.9%)	74.5%	(72.1%, 76.8%)
Louisa County	51109	76.6%	(52.1%, 90.7%)	66.9%	(62.2%, 71.2%)
Nelson County	51125	78.1%	(53.7%, 91.7%)	68.2%	(64.0%, 72.1%)
Prince William County	51153	63.6%	(55.9%, 70.7%)	59.6%	(56.8%, 62.4%)
Roanoke County	51161	76.9%	(65.0%, 85.6%)	74.0%	(70.1%, 77.5%)
Alexandria City	51510	70.0%	(56.5%, 80.7%)	69.0%	(64.9%, 72.9%)
Charlottesville City	51540	62.2%	(35.2%, 83.3%)	71.9%	(67.7%, 75.8%)
Covington City	51580	100.0%	(3.6%, 100.0%)	65.0%	(49.9%, 77.5%)
Fairfax City	51600	77.2%	(63.8%, 86.6%)	81.8%	(73.1%, 88.2%)
Falls Church City	51610	40.3%	(16.5%, 69.7%)	64.9%	(59.7%, 69.9%)
Lynchburg City	51680	52.2%	(37.2%, 66.8%)	67.1%	(59.0%, 74.4%)
Manassas City	51683	43.4%	(16.2%, 75.4%)	45.2%	(39.1%, 51.5%)
Manassas Park City	51685	38.0%	(4.3%, 89.2%)	39.9%	(32.4%, 47.8%)
Salem City	51775	79.4%	(35.0%, 96.5%)	73.0%	(66.4%, 78.8%)

County name	County FIPS	Direct estimate	Direct 95% CI	SAE composite	SAE CI
Bland County	51021	85.3%	(42.4%, 97.9%)	82.8%	(75.2%, 88.5%)
Buchanan County	51027	57.6%	(34.8%, 77.6%)	59.0%	(53.0%, 64.7%)
Carroll County	51035	62.1%	(37.7%, 81.7%)	58.8%	(54.0%, 63.4%)
Dickenson County	51051	67.1%	(39.3%, 86.5%)	74.7%	(69.5%, 79.3%)
Floyd County	51063	83.6%	(62.4%, 94.0%)	73.8%	(67.0%, 79.6%)
Franklin County	51067	76.2%	(55.7%, 89.1%)	71.1%	(67.5%, 74.4%)
Giles County	51071	70.2%	(50.0%, 84.8%)	70.0%	(63.8%, 75.5%)
Grayson County	51077	63.3%	(37.4%, 83.2%)	60.3%	(54.5%, 65.8%)
Henry County	51089	58.0%	(40.2%, 73.9%)	59.2%	(55.5%, 62.8%)
Lee County	51105	63.3%	(29.9%, 87.5%)	60.6%	(56.4%, 64.7%)
Montgomery County	51121	65.8%	(51.5%, 77.6%)	67.7%	(63.2%, 72.0%)
Patrick County	51141	86.5%	(62.0%, 96.2%)	67.7%	(63.4%, 71.7%)
Pittsylvania County	51143	48.4%	(36.7%, 60.2%)	54.8%	(49.5%, 60.0%)
Pulaski County	51155	83.9%	(63.7%, 92.2%)	72.0%	(66.2%, 77.1%)
Russell County	51167	45.4%	(26.0%, 66.4%)	54.5%	(47.0%, 61.8%)
Scott County	51169	55.0%	(33.9%, 74.5%)	62.0%	(57.9%, 65.9%)
Smyth County	51173	75.2%	(54.5%, 88.5%)	70.7%	(66.2%, 74.8%)
Tazewell County	51185	73.1%	(56.3%, 85.2%)	66.8%	(61.6%, 71.6%)
Washington County	51191	74.7%	(60.4%, 85.1%)	68.5%	(64.1%, 72.5%)
Wise County	51195	74.3%	(58.0%, 85.9%)	70.6%	(66.3%, 74.6%)
Wythe County	51197	68.1%	(44.0%, 85.3%)	71.4%	(67.3%, 75.2%)
Bristol City	51520	100.0%	(21.4%, 100.0%)	52.4%	(39.2%, 65.4%)
Danville City	51590	67.6%	(42.8%, 85.3%)	64.7%	(58.4%, 70.6%)
Galax City	51640	69.3%	(12.3%, 97.3%)	70.9%	(47.8%, 86.6%)
Martinsville City	51690	84.8%	(32.4%, 96.4%)	61.8%	(54.1%, 68.9%)
Norton City	51720	64.6%	(17.5%, 94.0%)	66.6%	(59.1%, 73.4%)
Radford City	51750	70.0%	(35.0%, 91.0%)	67.9%	(61.3%, 73.8%)
Roanoke City	51770	78.3%	(65.8%, 87.1%)	70.1%	(66.2%, 73.8%)

County name	County FIPS	Direct estimate	Direct 95% CI	SAE composite	SAE CI
Amelia County	51007	64.9%	(31.3%, 88.2%)	63.9%	(57.7%, 69.7%)
Brunswick County	51025	68.0%	(42.4%, 86.0%)	58.3%	(52.0%, 64.4%)
Buckingham County	51029	50.5%	(28.6%, 72.2%)	63.9%	(57.9%, 69.5%)
Charles City County	51036	77.1%	(23.6%, 97.3%)	58.6%	(53.1%, 63.9%)
Charlotte County	51037	48.2%	(27.7%, 69.4%)	58.1%	(52.0%, 63.9%)
Chesterfield County	51041	68.1%	(60.0%, 75.1%)	65.4%	(63.0%, 67.7%)
Cumberland County	51049	60.3%	(32.3%, 82.9%)	56.5%	(50.3%, 62.5%)
Dinwiddie County	51053	58.2%	(30.7%, 81.4%)	54.8%	(49.8%, 59.7%)
Goochland County	51075	66.1%	(33.0%, 88.5%)	67.0%	(63.5%, 70.3%)
Greensville County	51081	26.4%	(6.2%, 66.1%)	53.6%	(45.2%, 61.8%)
Halifax County	51083	50.5%	(32.9%, 68.1%)	57.4%	(52.8%, 61.8%)
Hanover County	51085	73.4%	(61.2%, 82.9%)	69.1%	(65.8%, 72.3%)
Henrico County	51087	66.3%	(57.1%, 74.5%)	68.0%	(64.8%, 71.0%)
Lunenburg County	51111	68.3%	(34.5%, 89.8%)	53.4%	(49.3%, 57.5%)
Mecklenburg County	51117	67.7%	(53.3%, 79.4%)	71.7%	(64.4%, 77.9%)
New Kent County	51127	55.6%	(27.4%, 80.6%)	67.5%	(62.9%, 71.8%)
Nottoway County	51135	40.1%	(15.2%, 71.4%)	64.1%	(57.6%, 70.1%)
Powhatan County	51145	68.3%	(39.9%, 87.5%)	69.3%	(63.8%, 74.3%)
Prince Edward County	51147	67.9%	(45.1%, 84.5%)	67.1%	(62.3%, 71.5%)
Prince George County	51149	64.1%	(45.3%, 79.5%)	55.3%	(49.4%, 61.0%)
Surry County	51181	72.4%	(40.1%, 91.1%)	55.2%	(47.4%, 62.8%)
Sussex County	51183	59.5%	(36.3%, 79.1%)	53.4%	(45.9%, 60.7%)
Colonial Heights City	51570	49.6%	(26.4%, 73.0%)	60.2%	(54.4%, 65.8%)
Emporia City	51595	0.0%	(0.0%, 91.8%)	57.8%	(35.8%, 77.1%)
Hopewell City	51670	75.5%	(50.8%, 90.2%)	58.2%	(53.4%, 62.9%)
Petersburg City	51730	55.5%	(36.4%, 73.1%)	61.9%	(55.4%, 68.1%)
Richmond City	51760	73.6%	(62.2%, 82.5%)	62.5%	(56.6%, 68.1%)

County name	County FIPS	Direct estimate	Direct 95% CI	SAE composite	SAE CI
Accomack County	51001	49.3%	(33.9%, 64.8%)	61.8%	(53.9%, 69.1%)
Essex County	51057	84.2%	(64.4%, 94.0%)	63.1%	(58.1%, 67.8%)
Gloucester County	51073	77.5%	(62.2%, 87.8%)	66.6%	(63.2%, 69.9%)
Isle of Wight County	51093	56.6%	(33.9%, 76.8%)	62.4%	(58.3%, 66.3%)
James City County	51095	82.1%	(69.8%, 90.1%)	78.0%	(73.8%, 81.8%)
King and Queen County	51097	64.1%	(27.7%, 89.3%)	53.2%	(46.4%, 59.9%)
King William County	51101	66.7%	(36.2%, 87.6%)	68.3%	(64.2%, 72.1%)
Lancaster County	51103	41.7%	(21.7%, 64.9%)	57.5%	(50.7%, 64.1%)
Mathews County	51115	89.0%	(58.4%, 95.0%)	68.0%	(61.3%, 74.1%)
Middlesex County	51119	72.2%	(47.1%, 88.4%)	62.8%	(57.7%, 67.8%)
Northampton County	51131	63.5%	(39.6%, 82.2%)	60.5%	(51.1%, 69.2%)
Northumberland County	51133	71.9%	(48.6%, 87.3%)	67.8%	(57.1%, 76.9%)
Richmond County	51159	69.9%	(42.0%, 88.2%)	59.2%	(51.9%, 66.1%)
Southampton County	51175	82.7%	(56.7%, 94.6%)	72.2%	(63.2%, 79.7%)
Westmoreland County	51193	62.8%	(31.0%, 86.4%)	51.8%	(44.6%, 59.0%)
York County	51199	62.2%	(45.0%, 76.8%)	67.2%	(63.7%, 70.5%)
Chesapeake City	51550	66.7%	(56.9%, 75.4%)	67.8%	(65.0%, 70.5%)
Franklin City	51620	68.2%	(37.0%, 88.7%)	67.6%	(61.4%, 73.3%)
Hampton City	51650	60.7%	(49.9%, 70.5%)	59.5%	(55.3%, 63.7%)
Newport News City	51700	59.2%	(47.2%, 70.3%)	63.9%	(59.8%, 67.8%)
Norfolk City	51710	70.4%	(60.6%, 78.6%)	64.4%	(59.6%, 68.9%)
Poquoson City	51735	92.9%	(24.1%, 98.6%)	68.7%	(62.1%, 74.6%)
Portsmouth City	51740	71.0%	(59.7%, 80.1%)	64.9%	(60.3%, 69.3%)
Suffolk City	51800	73.3%	(59.8%, 83.5%)	65.9%	(62.2%, 69.4%)
Virginia Beach City	51810	66.8%	(59.0%, 73.8%)	67.3%	(64.5%, 69.9%)
Williamsburg City	51830	67.2%	(19.4%, 94.6%)	74.3%	(67.0%, 80.5%)

Graphical representation

Tetanus Vaccination in the Past 10 Years
Central Shenandoah and Lord Fairfax HDs
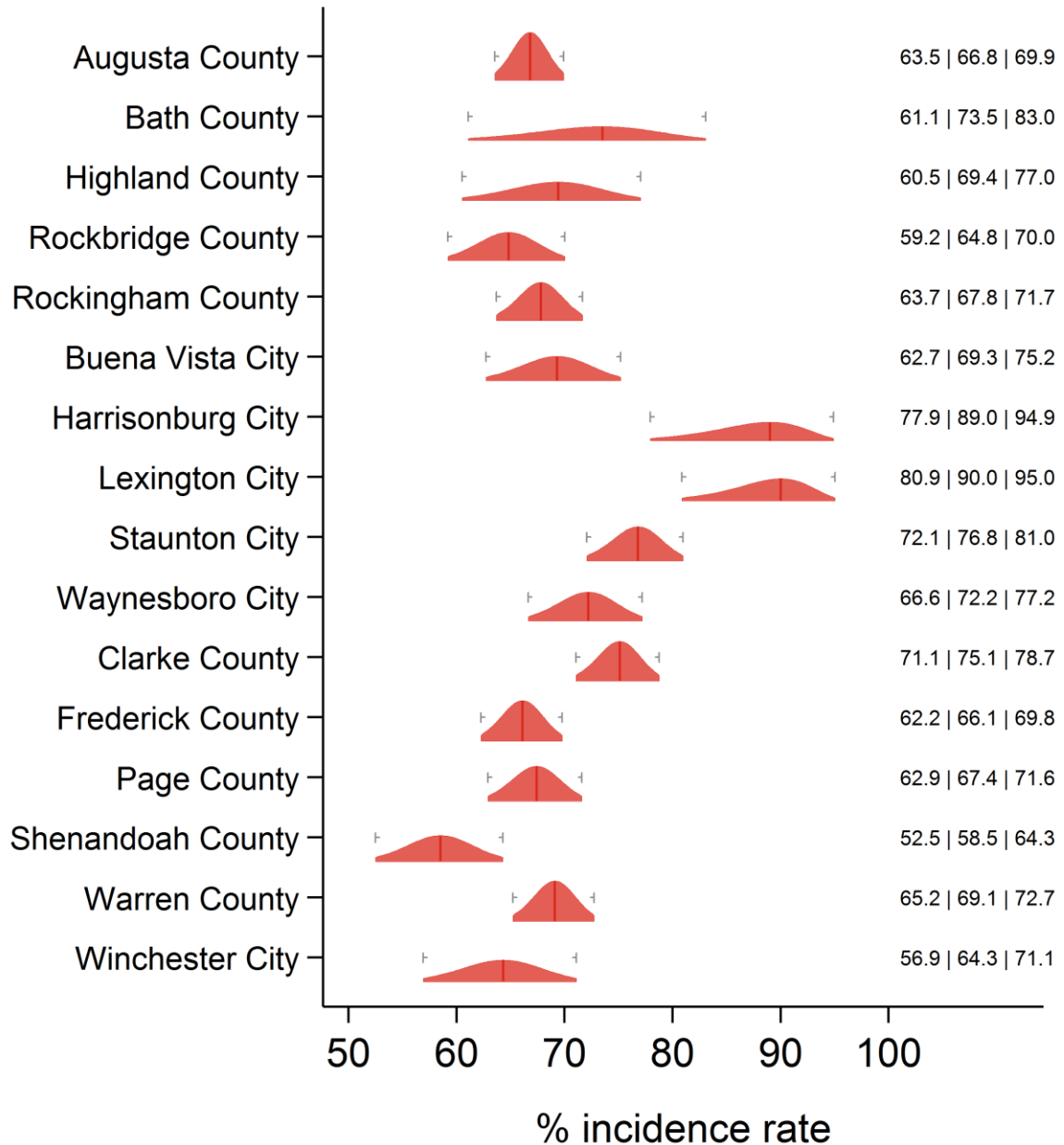
Augusta County	63.5 | 66.8 | 69.9
Bath County	61.1 | 73.5 | 83.0
Highland County	60.5 | 69.4 | 77.0
Rockbridge County	59.2 | 64.8 | 70.0
Rockingham County	63.7 | 67.8 | 71.7
Buena Vista City	62.7 | 69.3 | 75.2
Harrisonburg City	77.9 | 89.0 | 94.9
Lexington City	80.9 | 90.0 | 95.0
Staunton City	72.1 | 76.8 | 81.0
Waynesboro City	66.6 | 72.2 | 77.2
Clarke County	71.1 | 75.1 | 78.7
Frederick County	62.2 | 66.1 | 69.8
Page County	62.9 | 67.4 | 71.6
Shenandoah County	52.5 | 58.5 | 64.3
Warren County	65.2 | 69.1 | 72.7
Winchester City	56.9 | 64.3 | 71.1

% incidence rate

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

Tetanus Vaccination in the Past 10 Years
Rappahannock/Rapidan and Rappahannock HDs
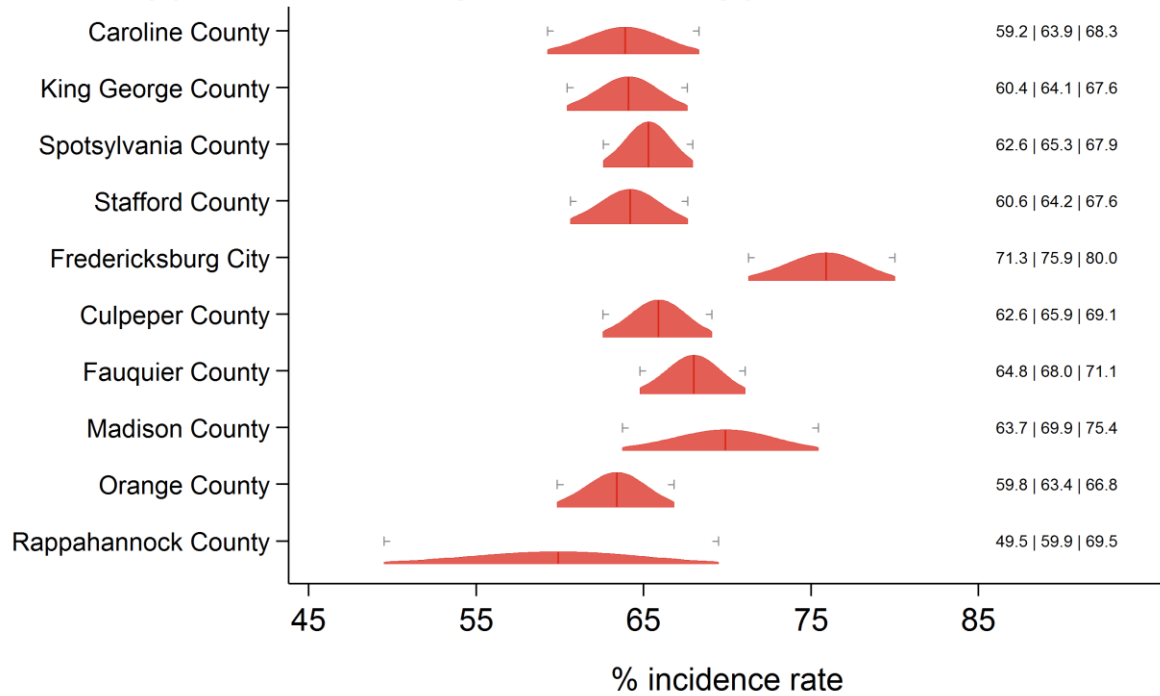
County	LCB	Point	UCB
Caroline County	59.2	63.9	68.3
King George County	60.4	64.1	67.6
Spotsylvania County	62.6	65.3	67.9
Stafford County	60.6	64.2	67.6
Fredericksburg City	71.3	75.9	80.0
Culpeper County	62.6	65.9	69.1
Fauquier County	64.8	68.0	71.1
Madison County	63.7	69.9	75.4
Orange County	59.8	63.4	66.8
Rappahannock County	49.5	59.9	69.5

% incidence rate

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

Tetanus Vaccination in the Past 10 Years
Thomas Jefferson and Piedmont HDs

County	LCB	Point	UCB
Albemarle County	66.6	69.8	72.8
Fluvanna County	67.3	71.7	75.8
Greene County	67.1	72.3	77.0
Louisa County	62.3	66.9	71.2
Nelson County	64.0	68.2	72.1
Charlottesville City	67.6	71.9	75.8
Amelia County	57.7	63.9	69.7
Buckingham County	57.9	63.9	69.5
Charlotte County	52.0	58.1	64.0
Cumberland County	50.3	56.5	62.5
Lunenburg County	49.3	53.4	57.5
Nottoway County	57.6	64.1	70.1
Prince Edward County	62.3	67.1	71.6

% incidence rate

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

Tetanus Vaccination in the Past 10 Years
Alexandria, Fairfax, Arlington, Loudon, Prince William HDs

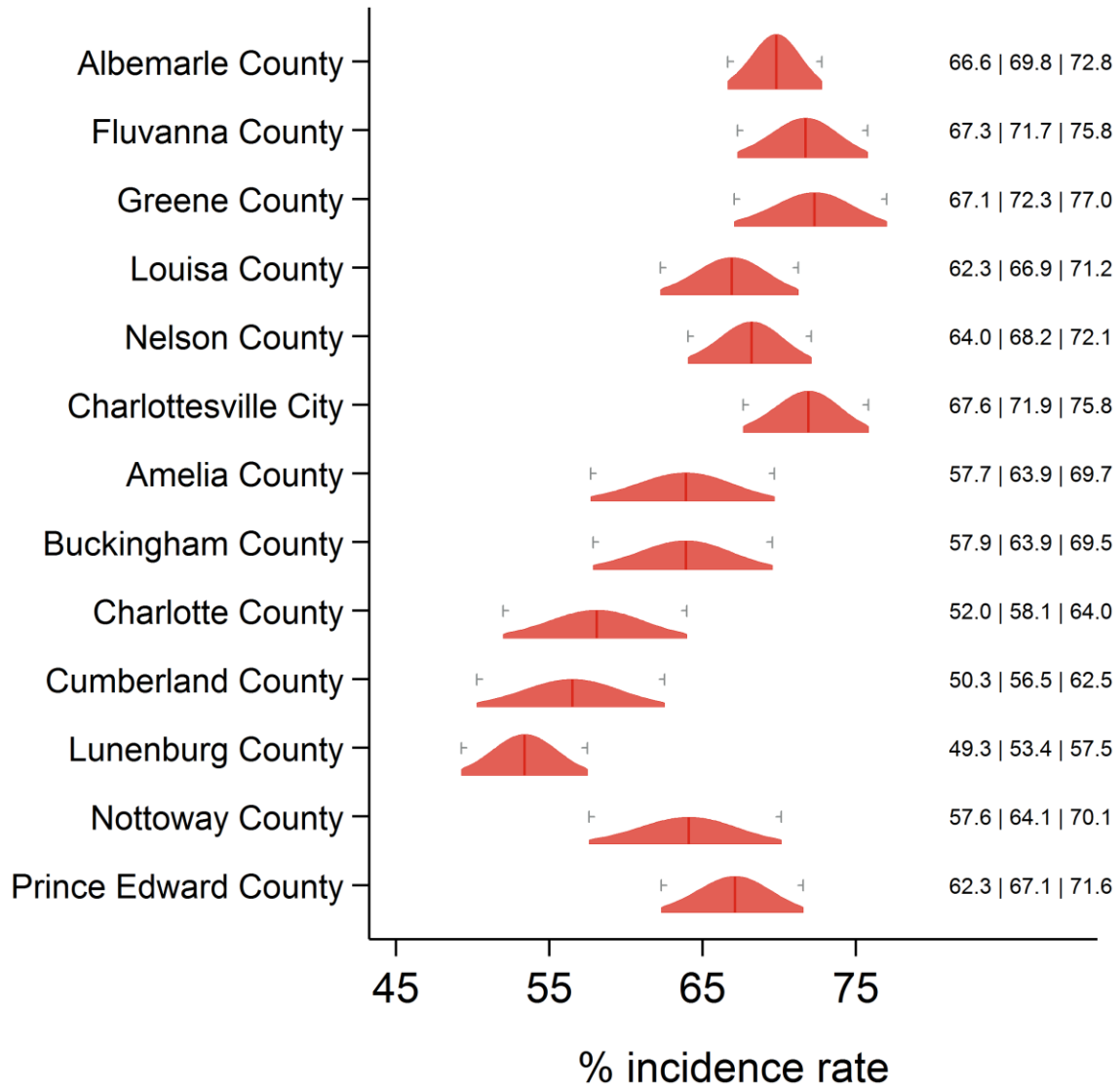| Health District	LCB | Point Estimate | UCB
Alexandria City	64.9 | 69.0 | 72.8
Arlington City	71.9 | 75.6 | 78.9
Fairfax County	68.3 | 69.7 | 71.0
Fairfax City	72.9 | 81.8 | 88.2
Falls Church City	59.6 | 64.9 | 69.8
Loudoun County	72.1 | 74.5 | 76.8
Prince William County	56.8 | 59.6 | 62.4
Manassas City	39.1 | 45.2 | 51.5
Manassas Park City	32.4 | 39.9 | 47.9

% incidence rate

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

Tetanus Vaccination in the Past 10 Years
Alleghany, Roanoke and Central Virginia HDs

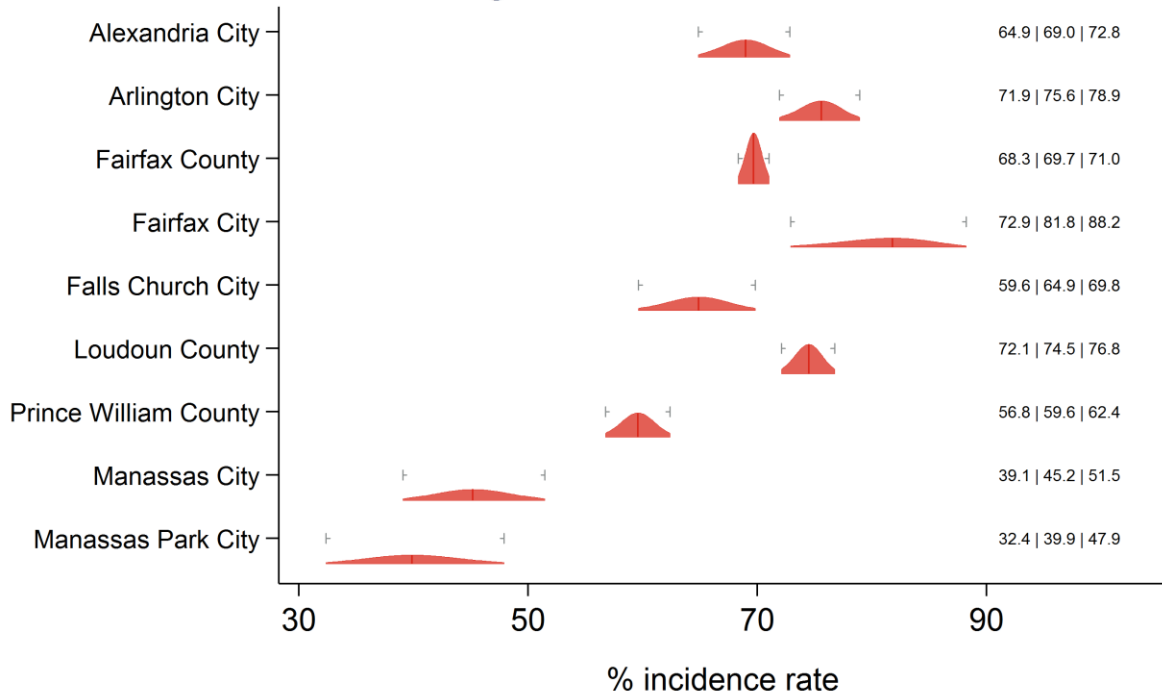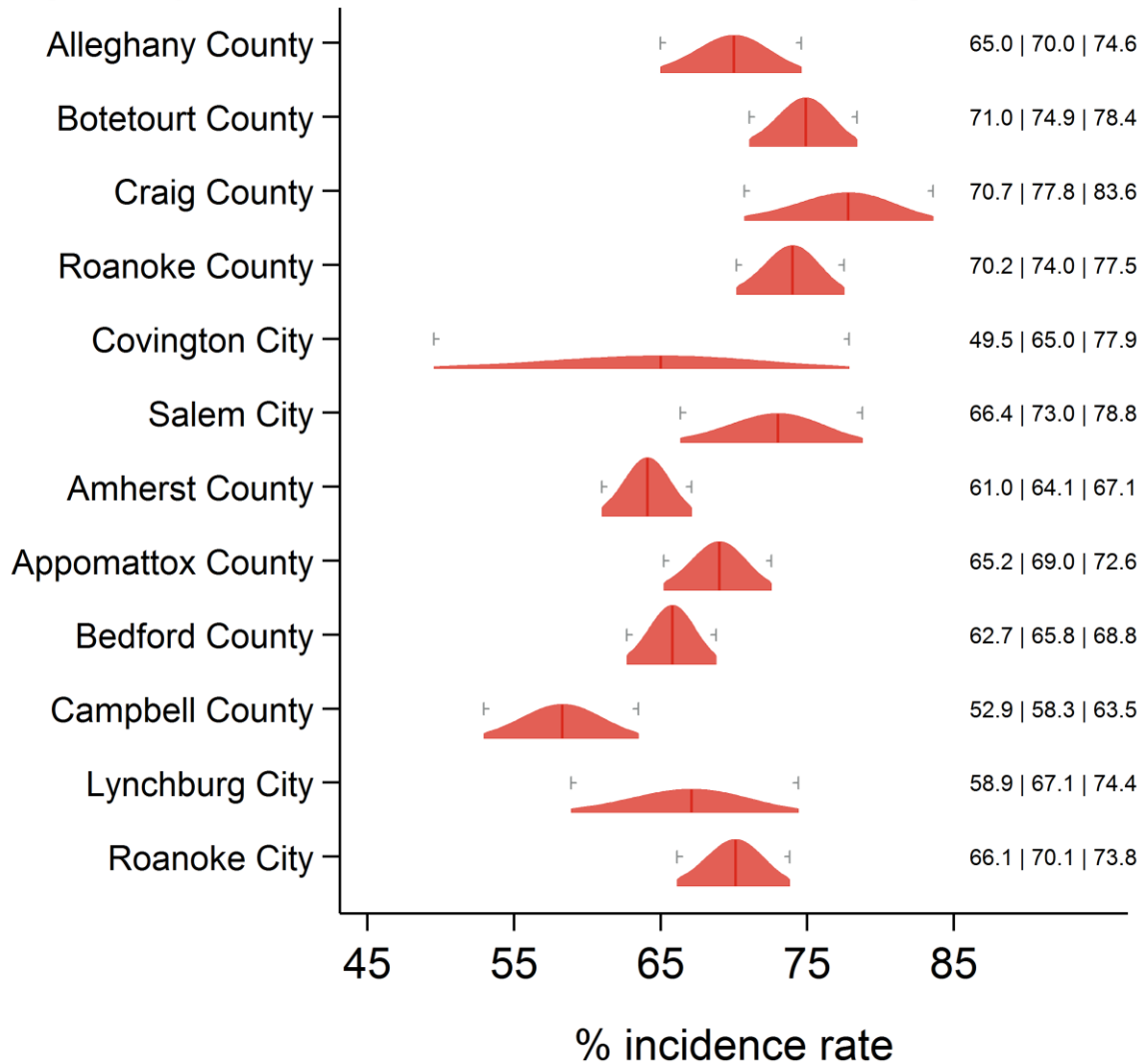| County	LCB	Point	UCB
Alleghany County	65.0	70.0	74.6
Botetourt County	71.0	74.9	78.4
Craig County	70.7	77.8	83.6
Roanoke County	70.2	74.0	77.5
Covington City	49.5	65.0	77.9
Salem City	66.4	73.0	78.8
Amherst County	61.0	64.1	67.1
Appomattox County	65.2	69.0	72.6
Bedford County	62.7	65.8	68.8
Campbell County	52.9	58.3	63.5
Lynchburg City	58.9	67.1	74.4
Roanoke City	66.1	70.1	73.8

% incidence rate

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

Tetanus Vaccination in the Past 10 Years
Cumberland Plateau and Lenowisco HDs

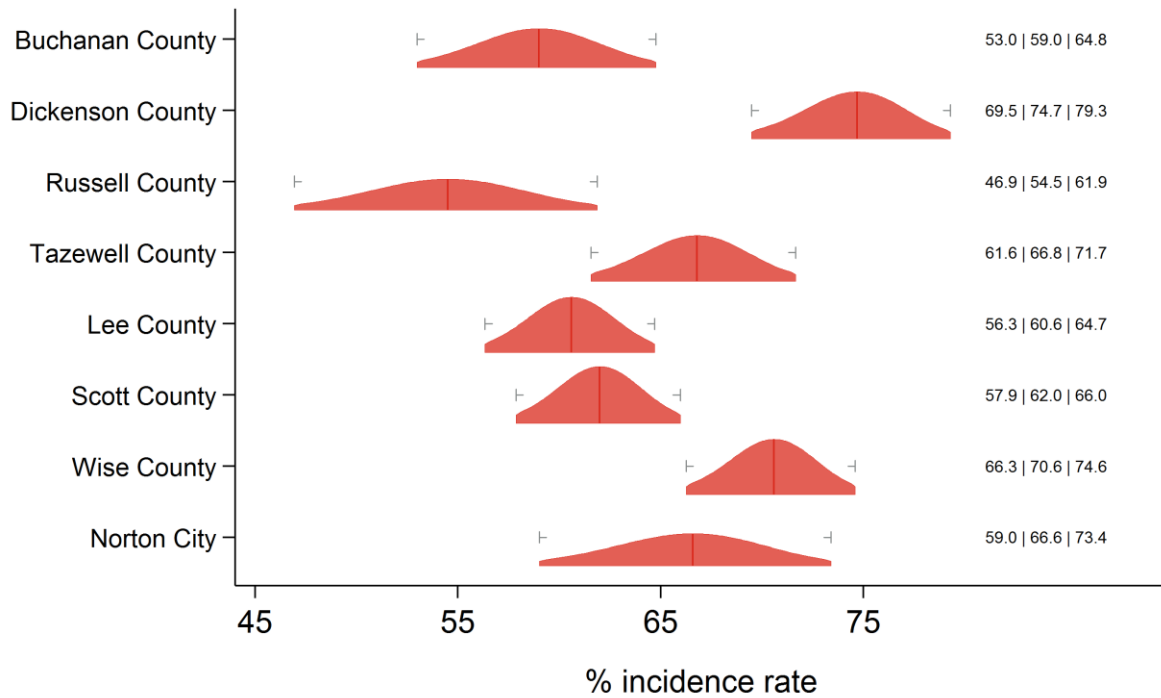| County		LCB | Point | UCB
Buchanan County		53.0 | 59.0 | 64.8
Dickenson County		69.5 | 74.7 | 79.3
Russell County		46.9 | 54.5 | 61.9
Tazewell County		61.6 | 66.8 | 71.7
Lee County		56.3 | 60.6 | 64.7
Scott County		57.9 | 62.0 | 66.0
Wise County		66.3 | 70.6 | 74.6
Norton City		59.0 | 66.6 | 73.4

% incidence rate

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

Tetanus Vaccination in the Past 10 Years
Pittsylvania/Danville, Southside and West Piedmont HDs

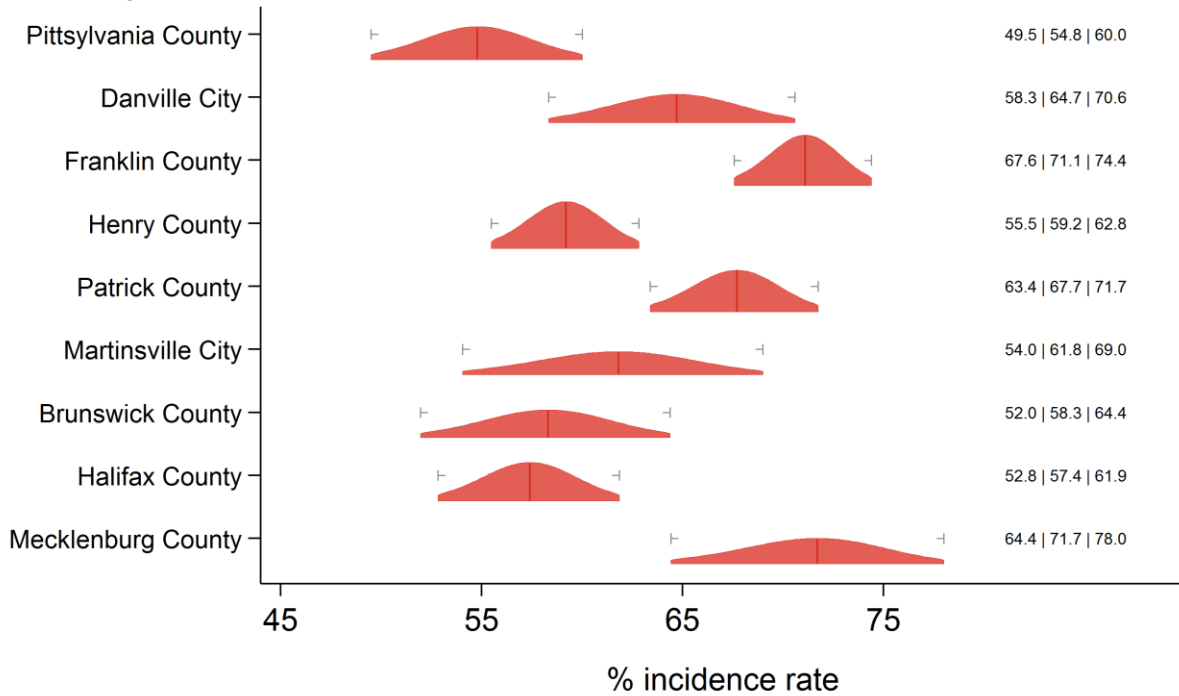|	
Pittsylvania County	49.5 | 54.8 | 60.0
Danville City	58.3 | 64.7 | 70.6
Franklin County	67.6 | 71.1 | 74.4
Henry County	55.5 | 59.2 | 62.8
Patrick County	63.4 | 67.7 | 71.7
Martinsville City	54.0 | 61.8 | 69.0
Brunswick County	52.0 | 58.3 | 64.4
Halifax County	52.8 | 57.4 | 61.9
Mecklenburg County	64.4 | 71.7 | 78.0

% incidence rate

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

Tetanus Vaccination in the Past 10 Years
New River and Mount Rogers HDs

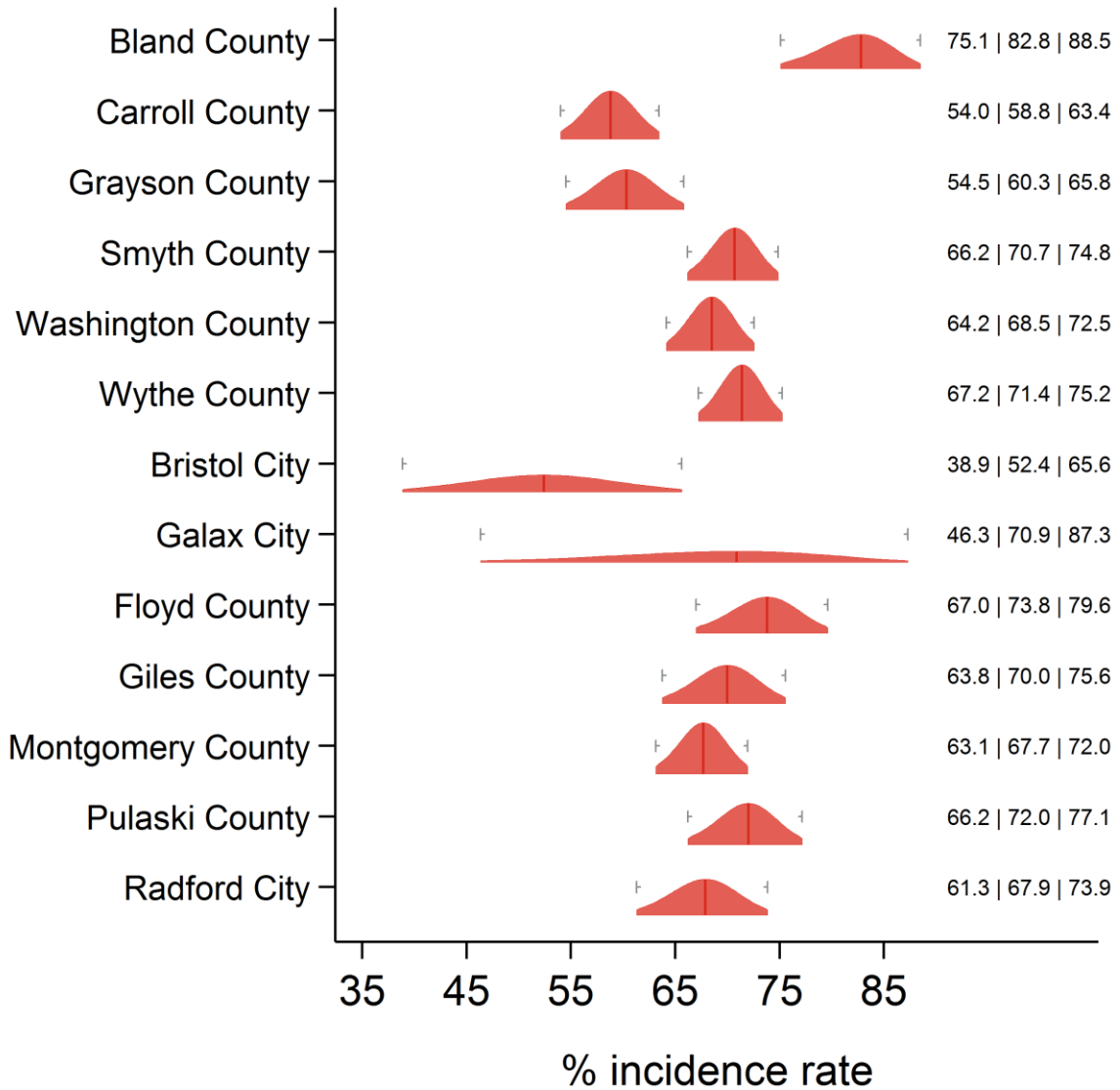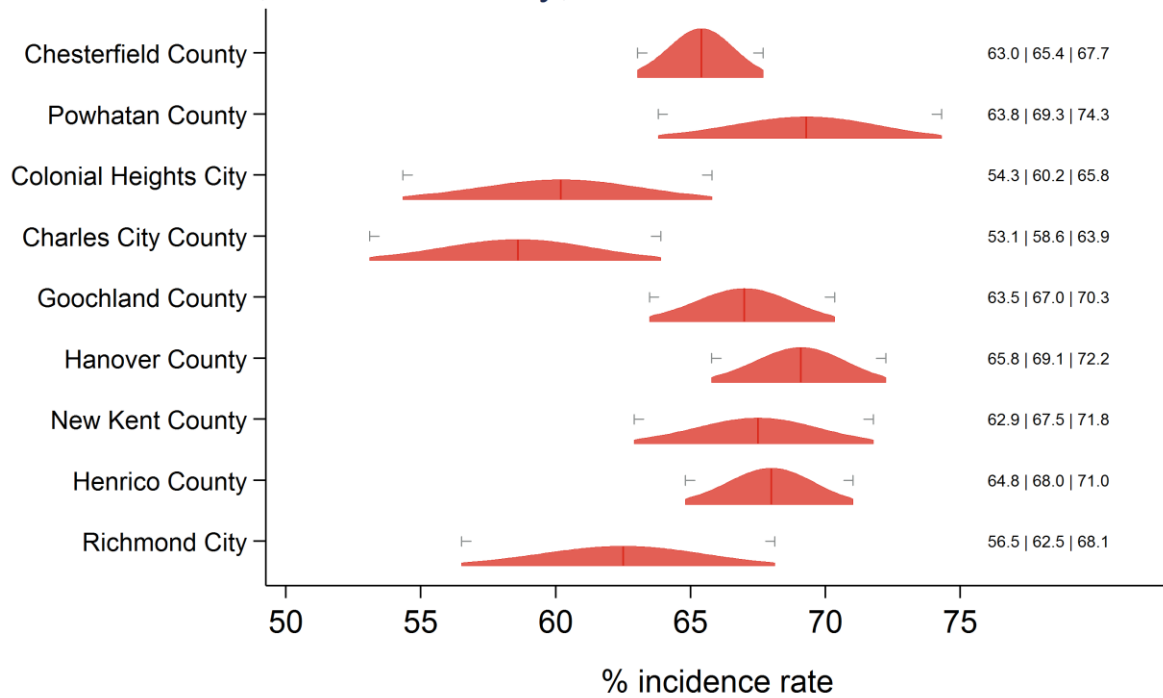| County/City	2-sided 95% LCB | Point Estimate | 2-sided 95% UCB
Bland County	75.1 | 82.8 | 88.5
Carroll County	54.0 | 58.8 | 63.4
Grayson County	54.5 | 60.3 | 65.8
Smyth County	66.2 | 70.7 | 74.8
Washington County	64.2 | 68.5 | 72.5
Wythe County	67.2 | 71.4 | 75.2
Bristol City	38.9 | 52.4 | 65.6
Galax City	46.3 | 70.9 | 87.3
Floyd County	67.0 | 73.8 | 79.6
Giles County	63.8 | 70.0 | 75.6
Montgomery County	63.1 | 67.7 | 72.0
Pulaski County	66.2 | 72.0 | 77.1
Radford City	61.3 | 67.9 | 73.9

% incidence rate

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

Tetanus Vaccination in the Past 10 Years
Chesterfield, Chickahominy, Henrico and Richmond HDs

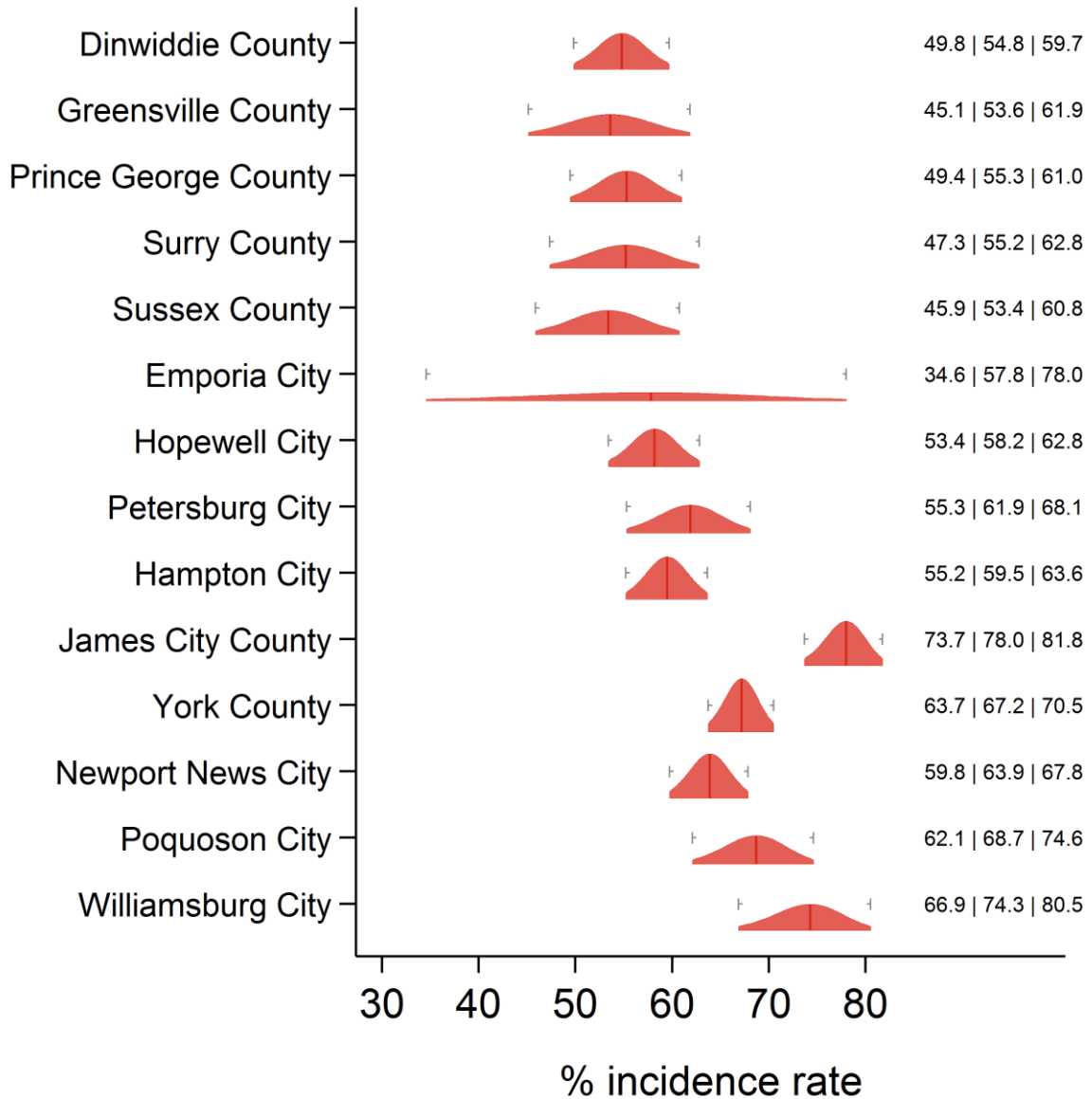| County	2-sided 95% LCB	Point Estimate	2-sided 95% UCB
Chesterfield County	63.0	65.4	67.7
Powhatan County	63.8	69.3	74.3
Colonial Heights City	54.3	60.2	65.8
Charles City County	53.1	58.6	63.9
Goochland County	63.5	67.0	70.3
Hanover County	65.8	69.1	72.2
New Kent County	62.9	67.5	71.8
Henrico County	64.8	68.0	71.0
Richmond City	56.5	62.5	68.1

% incidence rate

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

Tetanus Vaccination in the Past 10 Years
Crater, Peninsula and Hampton HDs

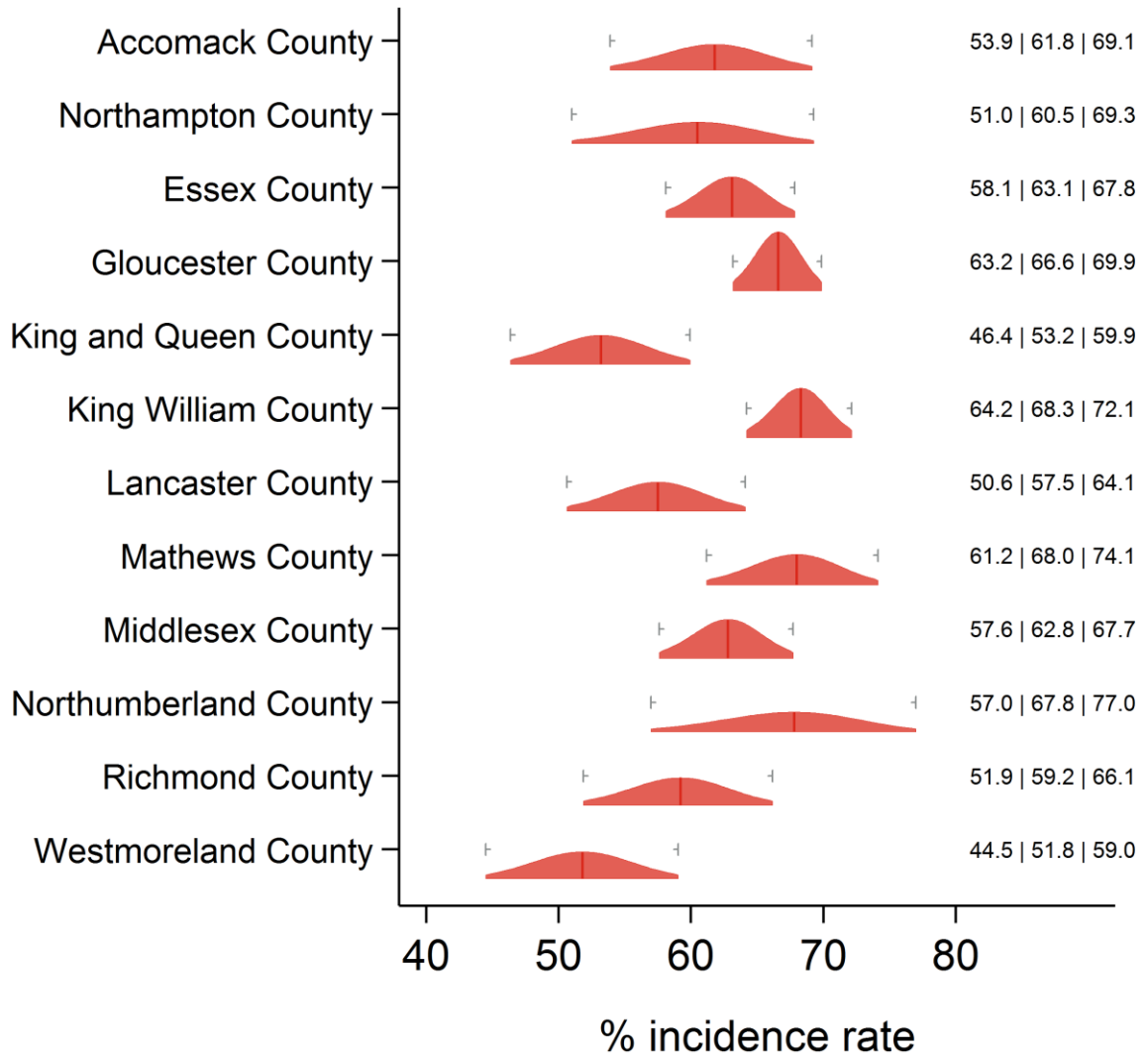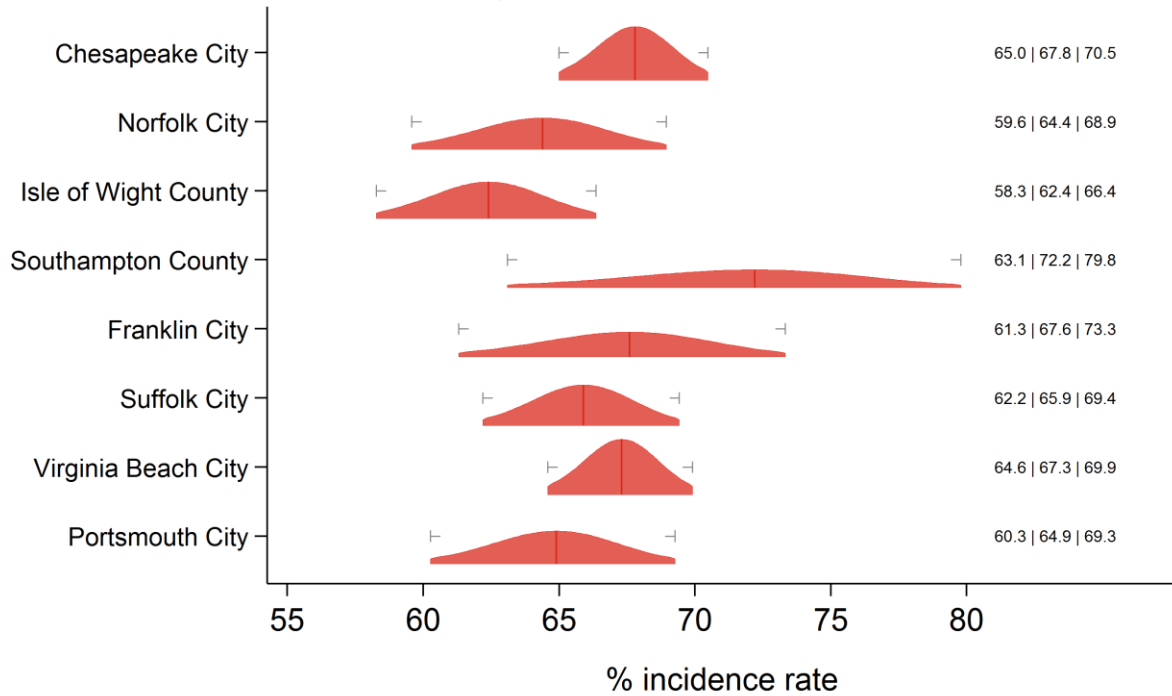| Location	LCB | Point | UCB
Dinwiddie County	49.8 | 54.8 | 59.7
Greensville County	45.1 | 53.6 | 61.9
Prince George County	49.4 | 55.3 | 61.0
Surry County	47.3 | 55.2 | 62.8
Sussex County	45.9 | 53.4 | 60.8
Emporia City	34.6 | 57.8 | 78.0
Hopewell City	53.4 | 58.2 | 62.8
Petersburg City	55.3 | 61.9 | 68.1
Hampton City	55.2 | 59.5 | 63.6
James City County	73.7 | 78.0 | 81.8
York County	63.7 | 67.2 | 70.5
Newport News City	59.8 | 63.9 | 67.8
Poquoson City	62.1 | 68.7 | 74.6
Williamsburg City	66.9 | 74.3 | 80.5

% incidence rate

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

Tetanus Vaccination in the Past 10 Years
Eastern Shore and Three Rivers HDs

County	2-sided 95% LCB	Point Estimate	2-sided 95% UCB
Accomack County	53.9	61.8	69.1
Northampton County	51.0	60.5	69.3
Essex County	58.1	63.1	67.8
Gloucester County	63.2	66.6	69.9
King and Queen County	46.4	53.2	59.9
King William County	64.2	68.3	72.1
Lancaster County	50.6	57.5	64.1
Mathews County	61.2	68.0	74.1
Middlesex County	57.6	62.8	67.7
Northumberland County	57.0	67.8	77.0
Richmond County	51.9	59.2	66.1
Westmoreland County	44.5	51.8	59.0

% incidence rate

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

Tetanus Vaccination in the Past 10 Years
Norfolk,Portsmouth,Chesapeake,VA Beach,W. Tidewater HDs

Chesapeake City	65.0 | 67.8 | 70.5
Norfolk City	59.6 | 64.4 | 68.9
Isle of Wight County	58.3 | 62.4 | 66.4
Southampton County	63.1 | 72.2 | 79.8
Franklin City	61.3 | 67.6 | 73.3
Suffolk City	62.2 | 65.9 | 69.4
Virginia Beach City	64.6 | 67.3 | 69.9
Portsmouth City	60.3 | 64.9 | 69.3

% incidence rate

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: 54 areas.

Direct estimate is outside the 95% SAE Wilson CI: 79 areas.

SAE estimate is inside the 95% direct Wilson CI: 130 areas.

SAE estimate is outside the 95% direct Wilson CI: 3 areas.

SAE Wilson 95% CI is fully inside the 95% direct Wilson CI: 122 areas.

SAE Wilson 95% CI partially overlaps with the 95% direct Wilson CI: 11 areas.

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

SAE standard error is less that the direct standard error: 127 areas.

SAE standard error is greater that the (nonzero) direct standard error: 0 areas.

Direct standard error is zero: 6 areas.

Proportion of SAE variance due to ACS sampling error: min = 0.78%; med = 16.50%; max = 53.35%.

Proportion of SAE variance due to sampling error in regression coefficient estimates: min = 46.65%; med = 83.50%; max = 99.22%.

Proportion of SAE variance due to model selection: min = 0.00%; med = 0.00%; max = 0.00%.

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