



Internal variable name: outc14_diabetes_test

Section 1: Definition

Definition: Have you had a test for high blood sugar or diabetes within the past three years?

Section 2: Predictive models

	Mixed,	Logit, no	Mixed with area
	demos only	area effects	covariates
	b/se	b/se	b/se
Outcome 14: Have you had a test for high blood sugar			
or diabetes within the past three years?			
Non-Hispanic Black vs. Non-Hispanic White	0.1919*	0.2160*	0.2160**
	(0.0754)	(0.1027)	(0.0766)
Non-Hispanic Asian vs. Non-Hispanic White	-0.5831*	-0.5350**	-0.5350*
	(0.2439)	(0.2022)	(0.2501)
Non-Hispanic Other vs. Non-Hispanic White	-0.0142	0.0149	0.0149
	(0.1309)	(0.1669)	(0.1317)
Hispanic vs. Non-Hispanic White	0.0084	0.0634	0.0634
	(0.2038)	(0.1621)	(0.2054)
Female	-0.0352	-0.0376	-0.0376
	(0.0603)	(0.0681)	(0.0608)
Age 18-24 vs. 65+	-1.8462***	-1.8275***	-1.8275***
	(0.1601)	(0.1431)	(0.1625)
Age 25-34 vs. 65+	-0.9337***	-0.9141***	-0.9141***
	(0.0944)	(0.1093)	(0.0928)
Age 35-44 vs. 65+	-0.6288***	-0.6167***	-0.6167***
	(0.1148)	(0.1000)	(0.1157)
Age 45-54 vs. 65+	-0.2024*	-0.1885*	-0.1885*
	(0.0789)	(0.0952)	(0.0775)
Age 55-64 vs. 65+	0.0669	0.0753	0.0753
	(0.1021)	(0.0941)	(0.1000)
% education below High School, population 25+ years		0.0215*	0.0215
old			
		(0.0109)	(0.0111)
% speaking English less than very well		-0.0419***	-0.0419***
		(0.0106)	(0.0077)
% Non-Hispanic minority among adults 18 to 64		0.0063	0.0063*
		(0.0032)	(0.0031)





Stomach Cancer Male Rate		0.0156**	0.0156**
		(0.0053)	(0.0048)
% Households with children receiving SSI, cash		-0.0213***	-0.0213**
transfers, SNAP			
		(0.0062)	(0.0066)
Stomach Cancer Female Rate		0.0134	0.0134
		(0.0096)	(0.0096)
Esophagus Cancer Female Rate		-0.0580	-0.0580
		(0.0356)	(0.0329)
{% HHs with children receiving SSI, cash transfers,		0.0009	0.0009
SNAP}			
interacted with {Esophagus Cancer Female Rate}		(0.0012)	(0.0011)
Intercept	0.8912***	0.9894***	0.9894***
	(0.0718)	(0.1591)	(0.1602)
Area effect variance	0.0144		0.0000
	(0.0153)		(0.0000)

Number of alternative models used to estimate model error = 13.





Section 3: Results

County name	County FIPS	Direct	Direct 95% CI	SAE	SAE 95% CI
		estimate		composite	
Augusta County	51015	52.5%	(41.8%, 63.0%)	58.9%	(55.2%, 62.4%)
Bath County	51017	91.3%	(57.0%, 96.6%)	72.1%	(64.1%, 78.9%)
Caroline County	51033	74.7%	(49.4%, 89.9%)	66.2%	(61.7%, 70.5%)
Clarke County	51043	67.0%	(39.0%, 86.5%)	64.4%	(58.5%, 69.9%)
Culpeper County	51047	56.9%	(40.3%, 72.0%)	62.1%	(58.6%, 65.6%)
Fauquier County	51061	70.4%	(55.9%, 81.7%)	61.8%	(58.6%, 65.0%)
Frederick County	51069	71.1%	(59.2%, 80.7%)	61.3%	(56.7%, 65.6%)
Highland County	51091	0.0%	(0.0%, 89.1%)	75.0%	(62.3%, 84.4%)
King George County	51099	71.7%	(38.5%, 91.1%)	63.7%	(59.6%, 67.7%)
Madison County	51113	58.6%	(34.4%, 79.3%)	57.6%	(53.8%, 61.3%)
Orange County	51137	47.8%	(29.1%, 67.0%)	61.2%	(57.5%, 64.7%)
Page County	51139	59.1%	(24.3%, 86.6%)	56.4%	(50.2%, 62.3%)
Rappahannock County	51157	75.3%	(43.1%, 92.5%)	52.3%	(39.4%, 65.0%)
Rockbridge County	51163	83.9%	(60.9%, 94.6%)	67.0%	(62.9%, 70.9%)
Rockingham County	51165	69.6%	(56.6%, 80.1%)	59.5%	(55.0%, 63.9%)
Shenandoah County	51171	49.8%	(33.9%, 65.8%)	59.0%	(54.6%, 63.2%)
Spotsylvania County	51177	48.8%	(35.4%, 62.4%)	56.2%	(51.2%, 61.2%)
Stafford County	51179	53.1%	(41.7%, 64.2%)	60.8%	(56.9%, 64.6%)
Warren County	51187	77.5%	(54.2%, 90.9%)	58.9%	(55.0%, 62.6%)
Buena Vista City	51530	100.0%	(0.6%, 100.0%)	56.0%	(51.6%, 60.3%)
Fredericksburg City	51630	77.6%	(52.9%, 91.5%)	50.5%	(43.2%, 57.7%)
Harrisonburg City	51660	66.4%	(29.6%, 90.3%)	49.0%	(44.6%, 53.3%)
Lexington City	51678	100.0%	(0.6%, 100.0%)	79.8%	(70.0%, 87.0%)
Staunton City	51790	53.3%	(17.8%, 85.7%)	63.7%	(56.8%, 70.0%)
Waynesboro City	51820	57.2%	(23.3%, 85.4%)	66.0%	(58.2%, 72.9%)
Winchester City	51840	38.9%	(17.6%, 65.4%)	48.3%	(42.3%, 54.3%)





County name	County FIPS	Direct	Direct 95% CI	SAE	SAE 95% CI
		estimate		composite	
Albemarle County	51003	68.2%	(57.4%, 77.3%)	58.9%	(56.1%, 61.7%)
Alleghany County	51005	54.9%	(35.4%, 72.9%)	59.2%	(55.2%, 63.0%)
Amherst County	51009	69.2%	(47.1%, 85.0%)	62.1%	(56.2%, 67.7%)
Appomattox County	51011	67.5%	(39.5%, 86.8%)	64.8%	(60.9%, 68.6%)
Arlington City	51013	55.0%	(43.2%, 66.2%)	55.2%	(51.9%, 58.4%)
Bedford County	51019	67.5%	(52.3%, 79.6%)	61.5%	(57.7%, 65.0%)
Botetourt County	51023	66.5%	(50.2%, 79.6%)	65.9%	(59.1%, 72.0%)
Campbell County	51031	65.2%	(46.6%, 80.1%)	54.2%	(50.3%, 58.1%)
Craig County	51045	35.6%	(5.6%, 83.8%)	64.2%	(52.1%, 74.7%)
Fairfax County	51059	54.9%	(48.3%, 61.5%)	53.1%	(50.3%, 56.0%)
Fluvanna County	51065	43.5%	(22.1%, 67.7%)	58.8%	(53.5%, 63.9%)
Greene County	51079	70.4%	(38.5%, 90.1%)	63.0%	(57.1%, 68.5%)
Loudoun County	51107	46.8%	(38.7%, 55.1%)	54.2%	(51.4%, 57.0%)
Louisa County	51109	74.2%	(54.5%, 87.3%)	63.7%	(59.2%, 67.9%)
Nelson County	51125	72.1%	(49.7%, 87.1%)	68.2%	(63.8%, 72.3%)
Prince William County	51153	56.5%	(47.6%, 65.1%)	54.0%	(51.4%, 56.7%)
Roanoke County	51161	50.8%	(40.5%, 61.1%)	62.8%	(59.1%, 66.3%)
Alexandria City	51510	50.9%	(37.4%, 64.4%)	51.2%	(47.7%, 54.8%)
Charlottesville City	51540	49.0%	(22.2%, 76.4%)	56.9%	(51.7%, 61.9%)
Covington City	51580	.%	(.%, .%)	68.8%	(62.3%, 74.6%)
Fairfax City	51600	44.3%	(30.2%, 59.4%)	48.4%	(44.6%, 52.2%)
Falls Church City	51610	45.2%	(10.9%, 84.7%)	57.5%	(52.2%, 62.6%)
Lynchburg City	51680	44.7%	(28.3%, 62.4%)	46.0%	(39.8%, 52.3%)
Manassas City	51683	62.8%	(29.9%, 87.0%)	48.0%	(42.9%, 53.1%)
Manassas Park City	51685	18.1%	(0.4%, 97.5%)	49.9%	(42.5%, 57.4%)
Salem City	51775	25.3%	(7.3%, 59.1%)	46.8%	(39.0%, 54.8%)





County name	County FIPS	Direct	Direct 95% CI	SAE	SAE 95% CI
		estimate		composite	
Bland County	51021	69.5%	(22.2%, 94.8%)	55.5%	(50.3%, 60.6%)
Buchanan County	51027	64.8%	(45.2%, 80.4%)	54.6%	(47.6%, 61.5%)
Carroll County	51035	60.7%	(40.7%, 77.7%)	61.7%	(57.2%, 66.0%)
Dickenson County	51051	63.7%	(42.7%, 80.5%)	60.3%	(54.6%, 65.6%)
Floyd County	51063	52.4%	(31.2%, 72.8%)	53.6%	(49.6%, 57.6%)
Franklin County	51067	69.4%	(52.3%, 82.4%)	63.8%	(60.6%, 66.8%)
Giles County	51071	34.2%	(15.6%, 59.4%)	56.3%	(51.5%, 61.0%)
Grayson County	51077	40.8%	(20.6%, 64.8%)	51.4%	(44.6%, 58.1%)
Henry County	51089	64.8%	(48.7%, 78.0%)	63.0%	(59.1%, 66.7%)
Lee County	51105	46.0%	(26.1%, 67.2%)	60.2%	(54.7%, 65.5%)
Montgomery County	51121	44.7%	(32.6%, 57.4%)	51.0%	(46.8%, 55.2%)
Patrick County	51141	46.9%	(27.4%, 67.3%)	65.1%	(60.9%, 69.1%)
Pittsylvania County	51143	56.5%	(45.0%, 67.4%)	59.7%	(56.4%, 62.9%)
Pulaski County	51155	57.1%	(36.8%, 75.3%)	57.3%	(52.5%, 62.0%)
Russell County	51167	50.9%	(31.7%, 69.8%)	57.9%	(52.7%, 63.0%)
Scott County	51169	53.8%	(37.1%, 69.8%)	59.2%	(54.6%, 63.5%)
Smyth County	51173	37.7%	(22.3%, 56.2%)	55.7%	(50.9%, 60.3%)
Tazewell County	51185	53.9%	(37.6%, 69.4%)	60.0%	(56.3%, 63.6%)
Washington County	51191	63.6%	(47.7%, 77.0%)	65.1%	(61.3%, 68.7%)
Wise County	51195	69.5%	(54.4%, 81.3%)	65.9%	(59.3%, 71.9%)
Wythe County	51197	79.1%	(63.6%, 89.1%)	62.7%	(57.9%, 67.2%)
Bristol City	51520	52.0%	(16.6%, 85.5%)	48.8%	(41.6%, 56.1%)
Danville City	51590	75.4%	(43.5%, 92.4%)	62.8%	(57.0%, 68.3%)
Galax City	51640	75.9%	(19.7%, 97.6%)	50.6%	(41.8%, 59.4%)
Martinsville City	51690	55.6%	(15.7%, 89.4%)	56.0%	(49.7%, 62.2%)
Norton City	51720	35.9%	(3.7%, 89.2%)	48.6%	(41.8%, 55.3%)
Radford City	51750	15.0%	(3.2%, 70.3%)	46.8%	(42.0%, 51.6%)
Roanoke City	51770	57.7%	(44.7%, 69.7%)	54.1%	(50.0%, 58.3%)





County name	County FIPS	Direct	Direct 95% CI	SAE	SAE 95% CI
		estimate		composite	
Amelia County	51007	57.0%	(27.5%, 82.2%)	69.3%	(63.3%, 74.7%)
Brunswick County	51025	75.8%	(38.5%, 94.0%)	65.7%	(58.3%, 72.5%)
Buckingham County	51029	73.1%	(45.8%, 89.7%)	63.3%	(56.8%, 69.4%)
Charles City County	51036	88.5%	(49.2%, 98.4%)	66.9%	(59.0%, 74.0%)
Charlotte County	51037	88.6%	(63.1%, 97.3%)	58.7%	(54.1%, 63.2%)
Chesterfield County	51041	63.0%	(55.2%, 70.1%)	60.2%	(57.9%, 62.3%)
Cumberland County	51049	87.0%	(48.3%, 95.1%)	64.8%	(53.0%, 75.0%)
Dinwiddie County	51053	65.5%	(40.5%, 84.1%)	63.0%	(57.6%, 68.2%)
Goochland County	51075	54.5%	(29.6%, 77.3%)	64.6%	(60.5%, 68.5%)
Greensville County	51081	85.3%	(44.9%, 94.7%)	64.4%	(57.9%, 70.4%)
Halifax County	51083	68.1%	(50.1%, 81.9%)	63.5%	(59.5%, 67.3%)
Hanover County	51085	62.4%	(51.2%, 72.4%)	66.1%	(62.0%, 69.9%)
Henrico County	51087	60.8%	(53.7%, 67.6%)	60.1%	(58.0%, 62.2%)
Lunenburg County	51111	59.6%	(24.8%, 86.8%)	59.0%	(53.1%, 64.5%)
Mecklenburg County	51117	67.6%	(48.1%, 82.5%)	70.4%	(65.5%, 74.8%)
New Kent County	51127	77.9%	(53.5%, 91.6%)	66.1%	(61.0%, 70.8%)
Nottoway County	51135	42.2%	(20.3%, 67.7%)	58.3%	(52.9%, 63.5%)
Powhatan County	51145	75.7%	(46.4%, 91.8%)	70.9%	(65.4%, 75.8%)
Prince Edward County	51147	66.8%	(39.6%, 86.0%)	64.1%	(58.1%, 69.7%)
Prince George County	51149	50.2%	(30.7%, 69.6%)	66.7%	(62.2%, 70.9%)
Surry County	51181	38.5%	(10.9%, 76.3%)	66.5%	(60.2%, 72.3%)
Sussex County	51183	38.0%	(15.8%, 66.8%)	64.2%	(51.0%, 75.6%)
Colonial Heights City	51570	64.6%	(22.9%, 91.8%)	61.2%	(54.7%, 67.3%)
Emporia City	51595	52.6%	(2.8%, 97.8%)	59.8%	(51.0%, 68.0%)
Hopewell City	51670	49.4%	(21.7%, 77.6%)	56.1%	(51.3%, 60.9%)
Petersburg City	51730	52.7%	(34.4%, 70.4%)	67.3%	(58.7%, 74.8%)
Richmond City	51760	49.5%	(40.2%, 58.9%)	50.5%	(46.1%, 54.9%)





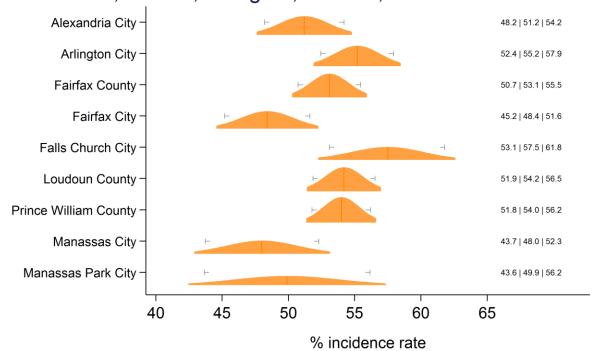
County name	County FIPS	Direct	Direct 95% CI	SAE	SAE 95% CI
		estimate		composite	
Accomack County	51001	48.0%	(27.4%, 69.4%)	63.6%	(58.1%, 68.8%)
Essex County	51057	78.9%	(41.0%, 92.3%)	71.8%	(63.2%, 79.1%)
Gloucester County	51073	66.1%	(47.9%, 80.6%)	65.3%	(62.0%, 68.5%)
Isle of Wight County	51093	65.4%	(46.7%, 80.2%)	70.8%	(66.1%, 75.1%)
James City County	51095	60.4%	(45.1%, 74.0%)	62.9%	(58.9%, 66.6%)
King and Queen County	51097	31.5%	(6.0%, 76.8%)	60.0%	(56.4%, 63.4%)
King William County	51101	60.1%	(31.2%, 83.3%)	62.0%	(58.4%, 65.5%)
Lancaster County	51103	80.5%	(56.1%, 92.1%)	64.6%	(60.6%, 68.3%)
Mathews County	51115	60.5%	(36.1%, 80.6%)	54.4%	(47.1%, 61.6%)
Middlesex County	51119	87.0%	(50.4%, 97.8%)	67.1%	(63.4%, 70.7%)
Northampton County	51131	69.5%	(47.4%, 85.2%)	72.6%	(65.8%, 78.5%)
Northumberland County	51133	64.0%	(35.0%, 85.4%)	69.7%	(64.7%, 74.2%)
Richmond County	51159	49.1%	(30.5%, 68.1%)	60.8%	(50.8%, 70.0%)
Southampton County	51175	84.8%	(63.8%, 94.7%)	70.2%	(64.8%, 75.0%)
Westmoreland County	51193	79.7%	(46.3%, 94.7%)	53.1%	(48.1%, 58.1%)
York County	51199	63.6%	(45.9%, 78.3%)	63.3%	(59.2%, 67.3%)
Chesapeake City	51550	62.6%	(53.6%, 70.8%)	61.3%	(58.4%, 64.1%)
Franklin City	51620	50.7%	(29.6%, 71.5%)	68.4%	(60.4%, 75.4%)
Hampton City	51650	55.9%	(44.9%, 66.2%)	60.0%	(56.5%, 63.3%)
Newport News City	51700	51.2%	(39.8%, 62.6%)	53.9%	(50.9%, 56.9%)
Norfolk City	51710	52.3%	(42.6%, 61.8%)	52.1%	(49.1%, 55.2%)
Poquoson City	51735	55.8%	(7.5%, 95.2%)	67.7%	(62.1%, 72.9%)
Portsmouth City	51740	66.8%	(53.2%, 78.0%)	59.1%	(54.8%, 63.4%)
Suffolk City	51800	68.2%	(52.9%, 80.4%)	62.9%	(59.6%, 66.1%)
Virginia Beach City	51810	58.2%	(50.3%, 65.8%)	55.4%	(52.3%, 58.5%)
Williamsburg City	51830	28.8%	(4.3%, 78.5%)	49.0%	(41.0%, 57.1%)





Section 4: Graphical representation

Tested for diabetes in past 3 years Alexandria, Fairfax, Arlington, Loudon, Prince William HDs

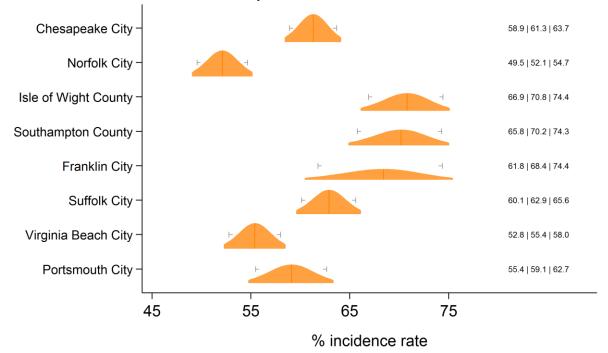


Text at right: 1-sided 95% LCB | Point Estimate | 1-sided 95% UCB Gray markers: 90% confidence interval





Tested for diabetes in past 3 years Norfolk,Portsmouth,Chesapeake,VA Beach,W. Tidewater HDs



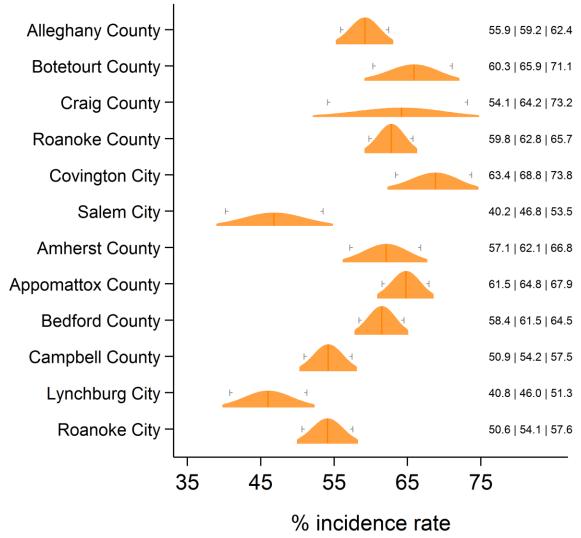
Text at right: 1-sided 95% LCB | Point Estimate | 1-sided 95% UCB

Gray markers: 90% confidence interval





Tested for diabetes in past 3 years Alleghany, Roanoke and Central Virginia HDs

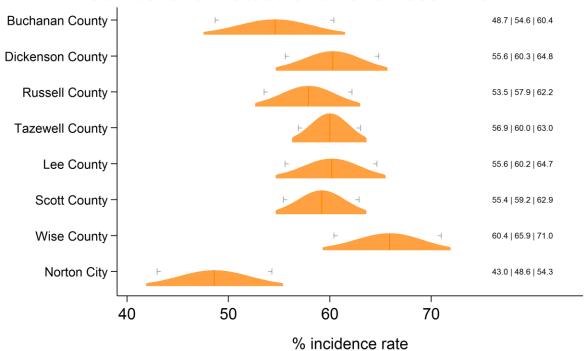


Text at right: 1-sided 95% LCB | Point Estimate | 1-sided 95% UCB Gray markers: 90% confidence interval





Tested for diabetes in past 3 years Cumberland Plateau and Lenowisco HDs

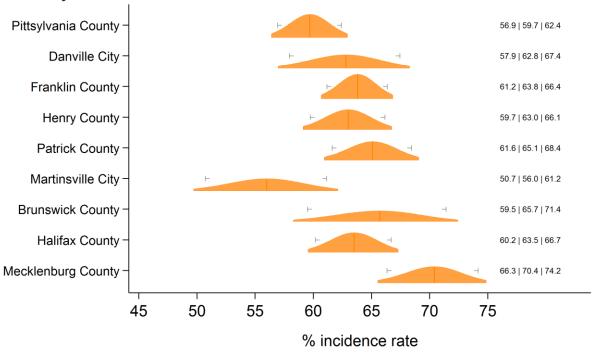


Text at right: 1-sided 95% LCB | Point Estimate | 1-sided 95% UCB Gray markers: 90% confidence interval





Tested for diabetes in past 3 years Pittsylvania/Danville, Southside and West Piedmont HDs



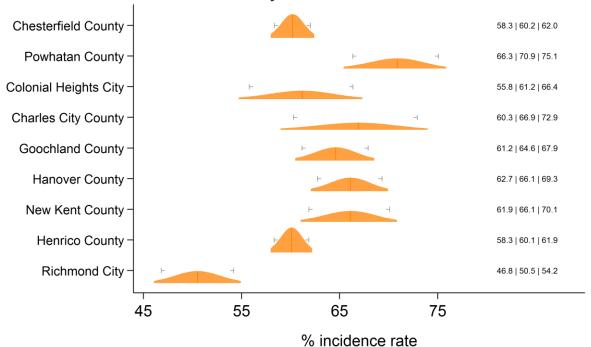
Text at right: 1-sided 95% LCB | Point Estimate | 1-sided 95% UCB

Gray markers: 90% confidence interval





Tested for diabetes in past 3 years Chesterfield, Chickahominy, Henrico and Richmond HDs



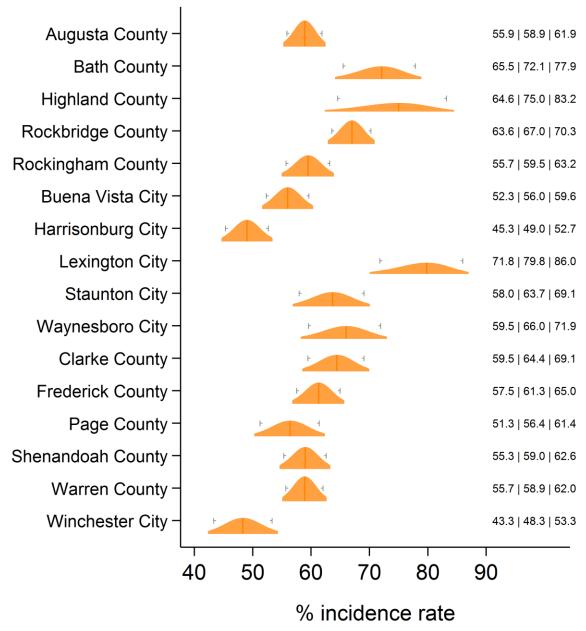
Text at right: 1-sided 95% LCB | Point Estimate | 1-sided 95% UCB

Gray markers: 90% confidence interval





Tested for diabetes in past 3 years Central Shenandoah and Lord Fairfax HDs



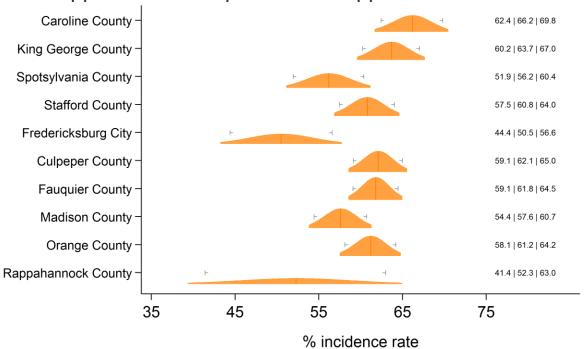
Text at right: 1-sided 95% LCB | Point Estimate | 1-sided 95% UCB Gray markers: 90% confidence interval

oray mamoro: 0070 00 maono o merva





Tested for diabetes in past 3 years Rappahannock/Rapidan and Rappahannock HDs

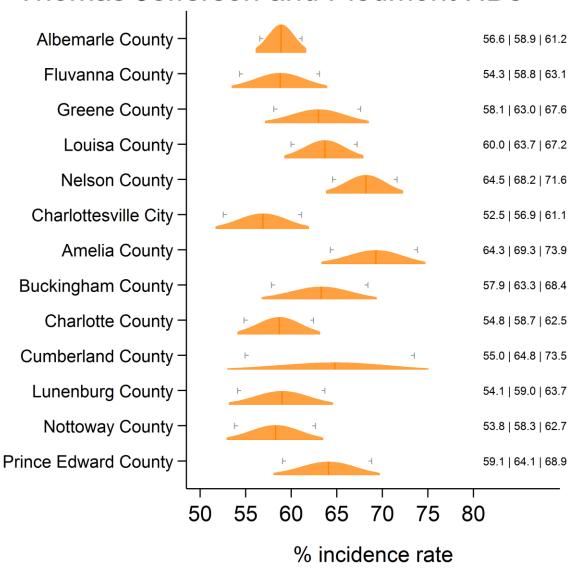


Text at right: 1-sided 95% LCB | Point Estimate | 1-sided 95% UCB Gray markers: 90% confidence interval





Tested for diabetes in past 3 years Thomas Jefferson and Piedmont HDs

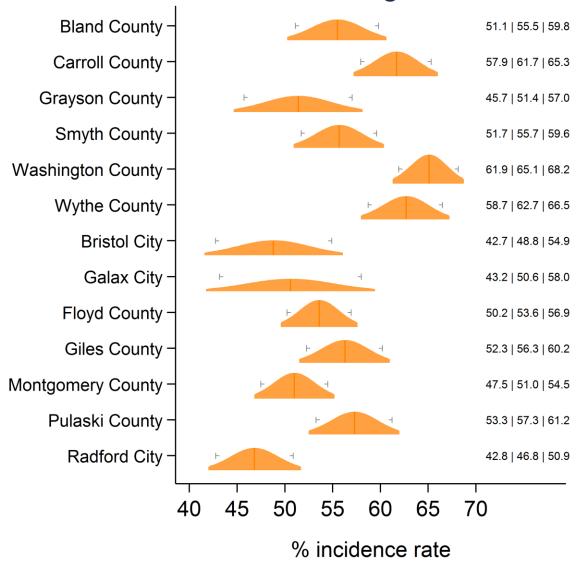


Text at right: 1-sided 95% LCB | Point Estimate | 1-sided 95% UCB Gray markers: 90% confidence interval





Tested for diabetes in past 3 years New River and Mount Rogers HDs

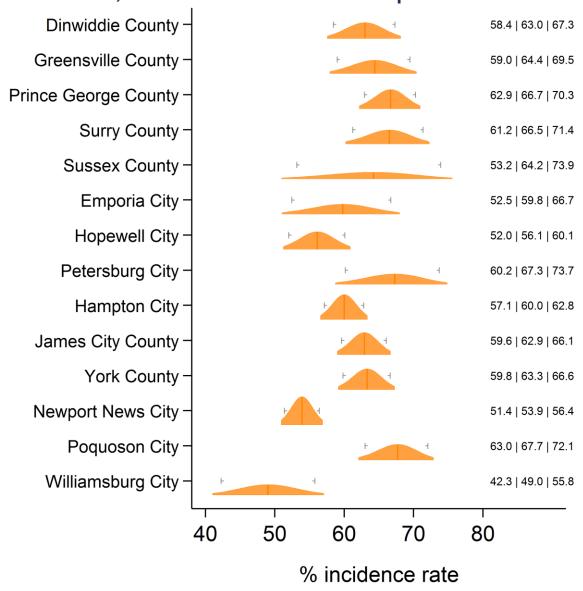


Text at right: 1-sided 95% LCB | Point Estimate | 1-sided 95% UCB Gray markers: 90% confidence interval





Tested for diabetes in past 3 years Crater, Peninsula and Hampton HDs



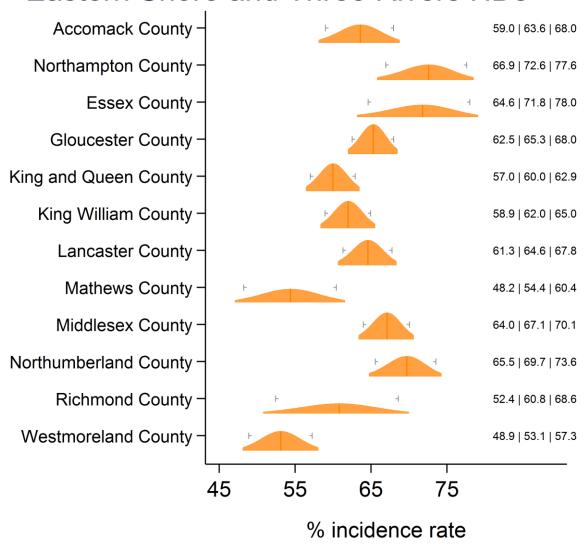
Text at right: 1-sided 95% LCB | Point Estimate | 1-sided 95% UCB

Gray markers: 90% confidence interval





Tested for diabetes in past 3 years 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: 43 areas.

Direct estimate is outside the 95% SAE Wilson CI: 90 areas.

SAE estimate is inside the 95% direct Wilson CI: 129 areas.

SAE estimate is outside the 95% direct Wilson CI: 4 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 that the direct standard error: 129 areas.

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

Direct standard error is zero: 4 areas.

Proportion of SAE variance due to ACS sampling error: min = 1.17%; med = 13.17%; max = 36.50%.

Proportion of SAE variance to sampling error in regression coefficient estimates: min = 62.97%; med = 84.75%; max = 97.57%.

Proportion of SAE variance due to model selection: min = 0.04%; med = 1.15%; max = 18.55%.