

Defining the Burden of Cancer:

A  project in

Collaboration with 

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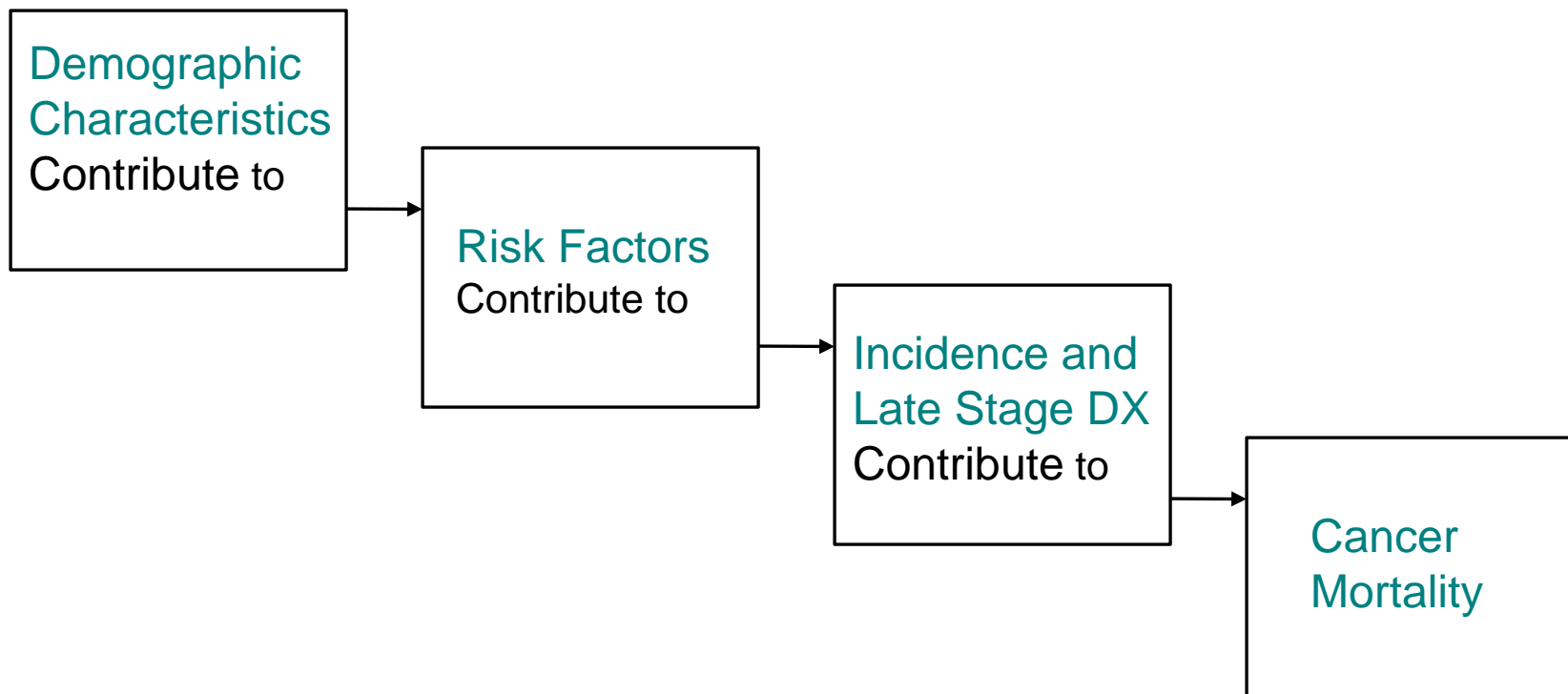
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(This project is supported by NAACCR)

Project Objectives

- Build an index of the burden of cancer that can be used to rank all of the states.
- Build the index separately for lung, breast, colorectal and cervical cancer.
- Construct the index using demographic data from the U.S. Census; risk factor data from the BRFSS; and incidence, stage at diagnosis, and mortality data from the NAACCR CINA data file.
- Explore the role literacy, risk behaviors (smoking or not being screened), incidence, stage at diagnosis and mortality contribute to the burden of these cancers.
- Use the index to identify the states with the highest disease burden (greatest disparities) for lung, breast, colorectal and cervical cancer.

Combining Data from Multiple Sources



Logic Model

Methodology (Data)

- **Two year incidence rates** (2008-2009) for lung, breast, colorectal and cervical cancer and the **proportion of cases with late stage diagnosis** for colorectal and breast cancer were calculated using data from the NAACCR CINA data file.
- Data from Kansas and Vermont were excluded.
- **Five year mortality rates** (2005-2009) were also calculated from data supplied by NAACCR.
- **Five year** (2006-2010) **poverty rates** (the proportion of people in each state living below the federal poverty index) and **literacy rates** (the proportion of the population in each state with a college degree) were obtained from the U.S. Census Quick Facts website.

Methodology (Data continued)

- Five year risk factor rates (2005-2009) were obtained from the CDC BRFSS.
- The risk factor variables obtained from the CDC BRFSS include:
 - **smoking** (the % of the population in each state that currently smoke)
 - **mammography screening** (the % of women in each state age 50+ who have had a mammogram in the past two years)
 - **colorectal cancer screening** (the % of the population in each state age 50+ who have ever had a colonoscopy or sigmoidoscopy)
 - **PAP test screening** (the % of women in each state age 18+ who have had a PAP test in the last 3 years)
 - **Obesity** (the average BMI for each state)
 - **Exercise** (the % of the population in each state who exercise at least once a week)
 - **Diet** (the % of the population in each state that eat 5 fruits and/or vegetables daily)

Methodology (Approach)

- The association between the demographic, risk, incidence, stage at diagnosis and mortality variables were explored using bivariate regression models.
- Variables with R-Squared values .25 or greater were used to construct the initial index for each type of cancer.
- The index was created using a simple rank sum technique. States were ranked from the highest to lowest cancer burden and placed into five groups with red being the states with the highest burden of cancer and green being those states with the lowest cancer burden.

Highest Burden

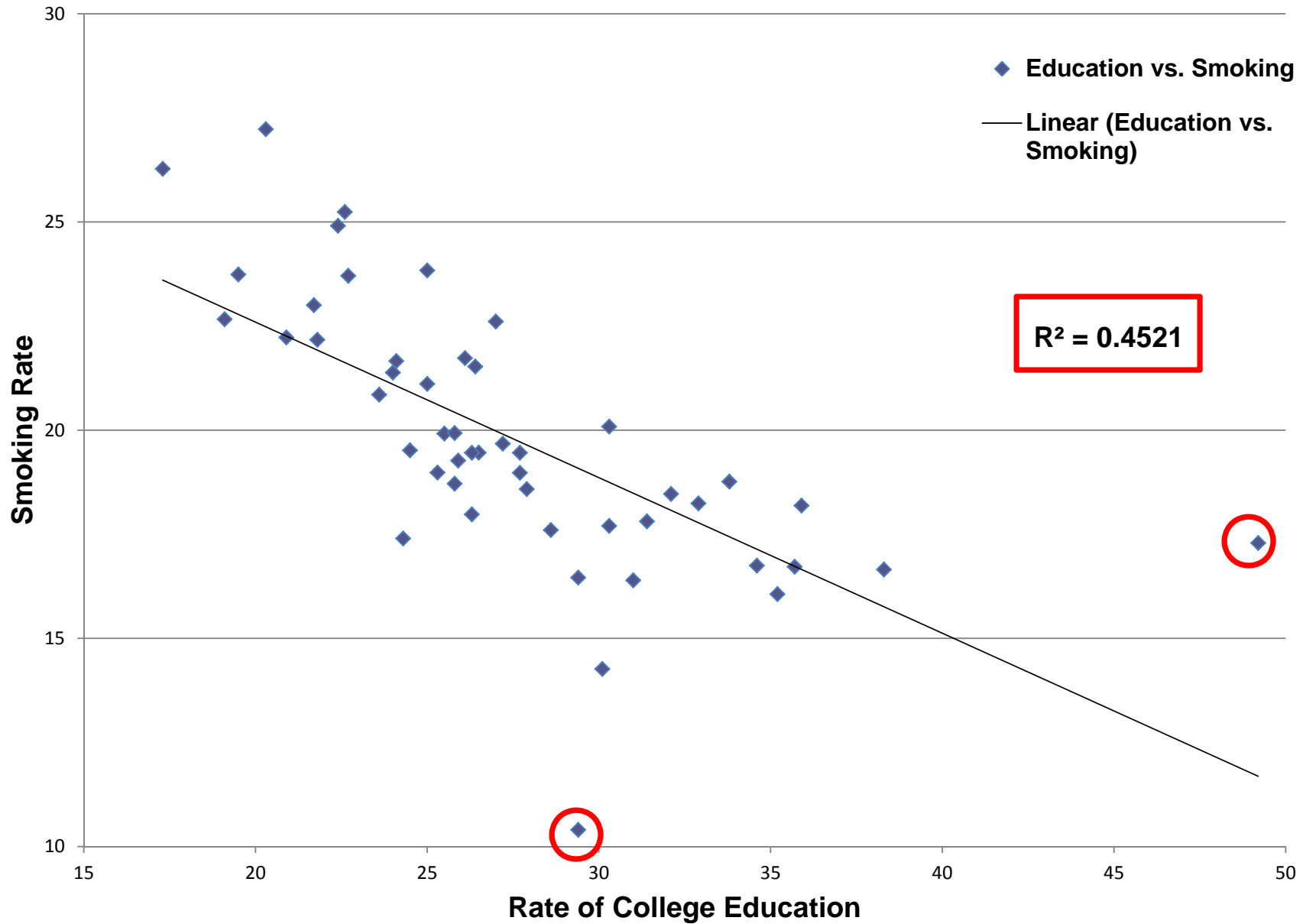
Lowest Burden

- Other potential risk factors and population characteristics (exercise, obesity, diet and poverty) were added to the original models to investigate their impact on the index.

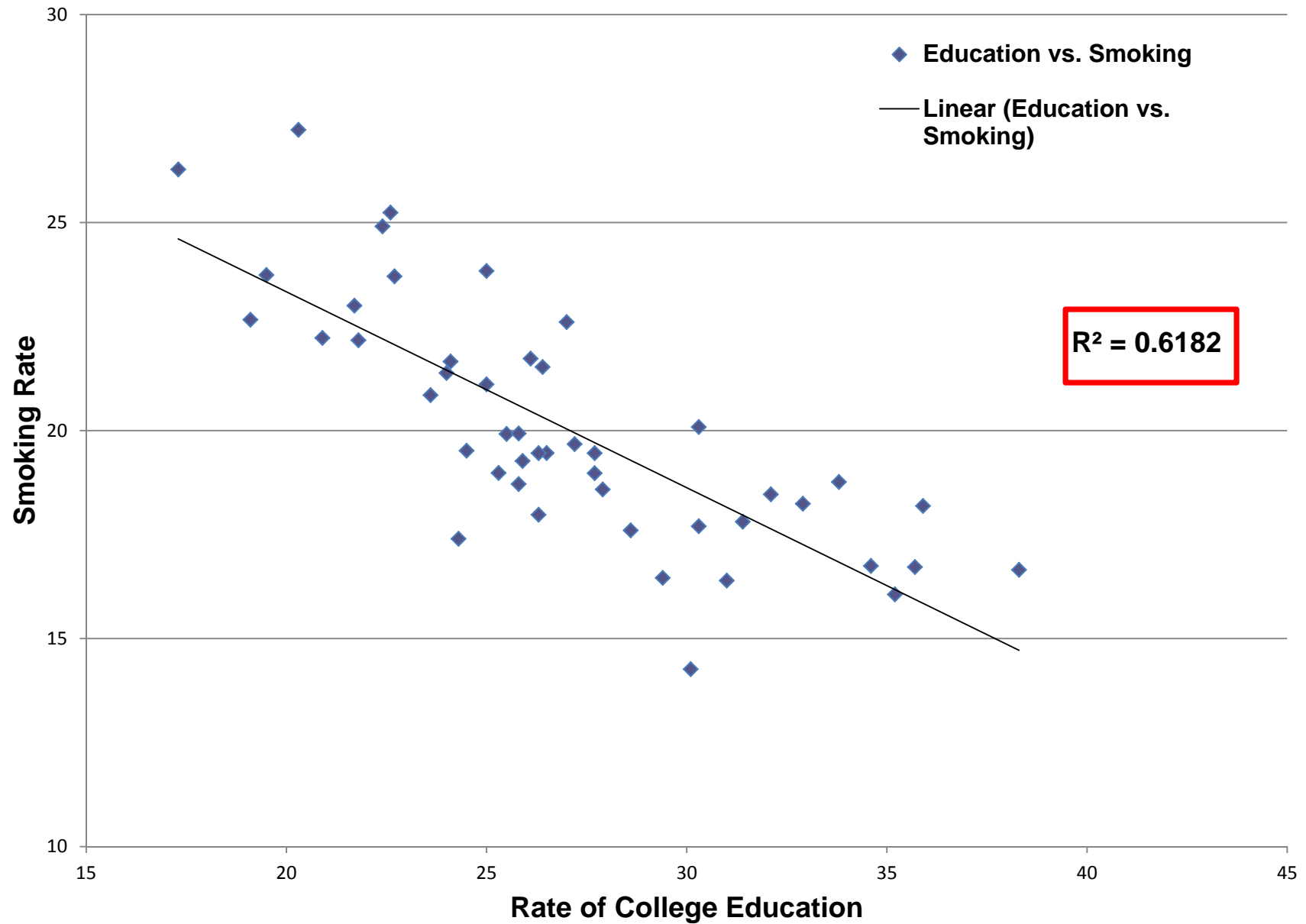


Lung Cancer

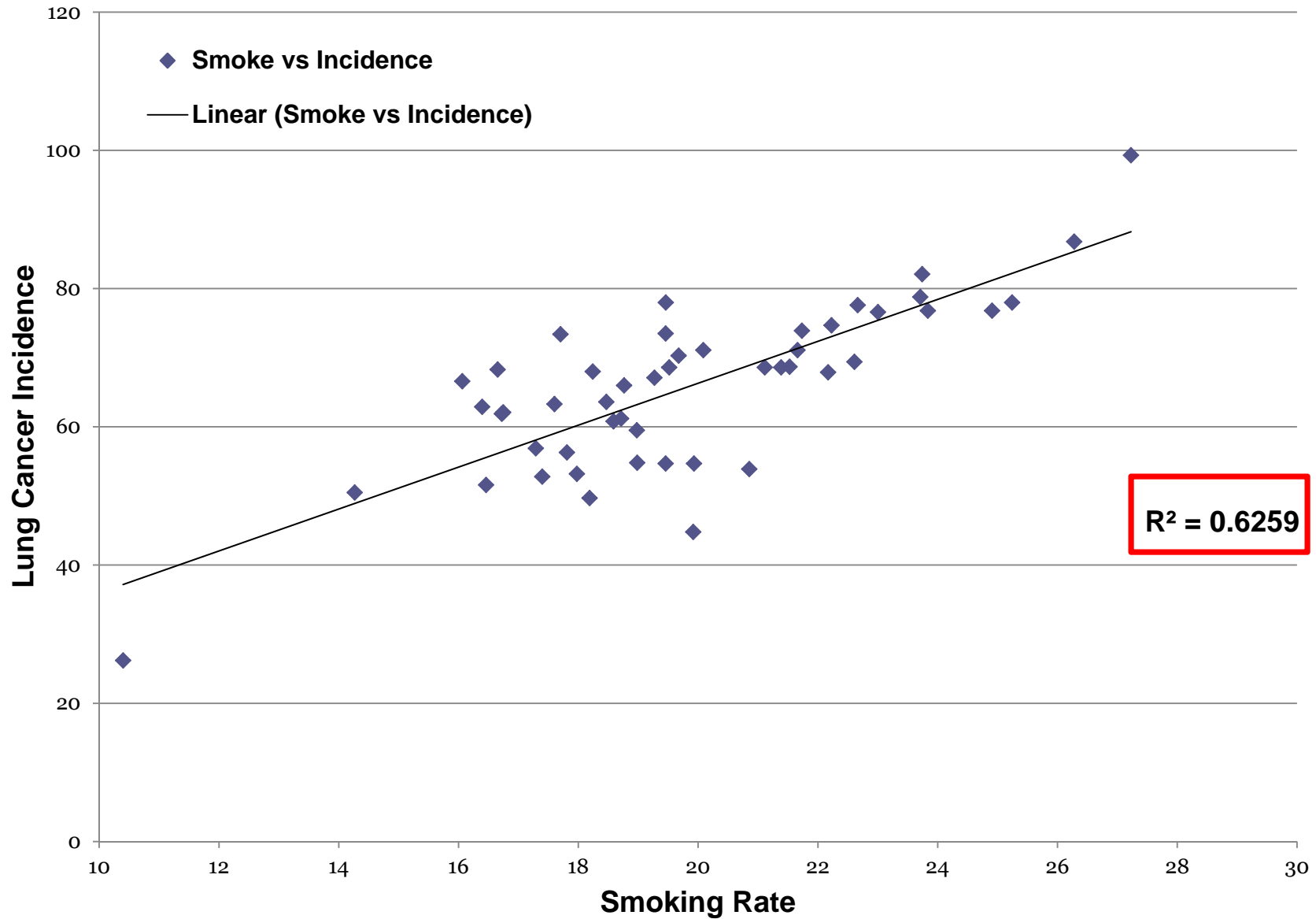
College Education vs Smoking Rate



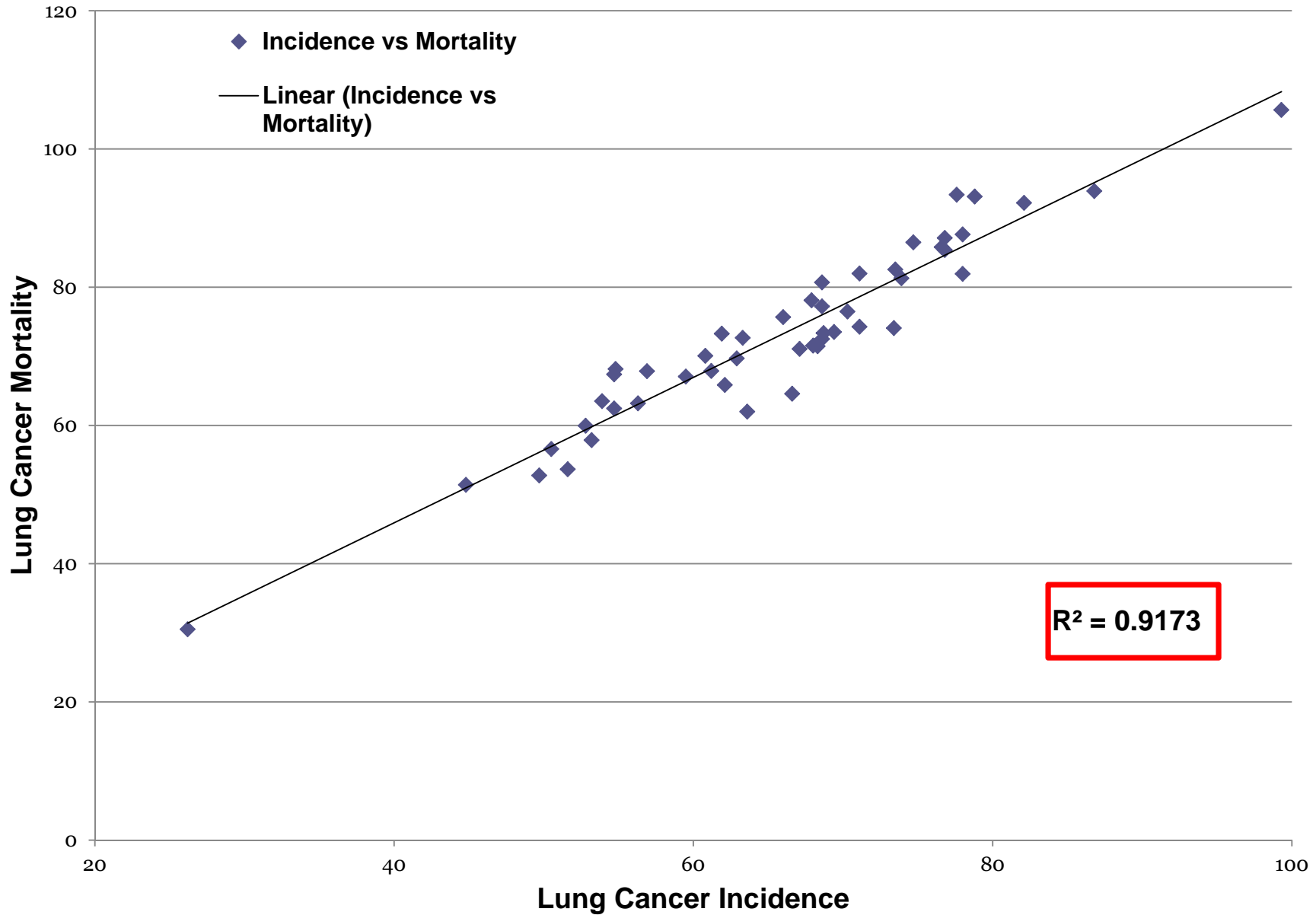
College Education vs Smoking Rate



Smoking Rate vs Lung Cancer Incidence



Lung Cancer Incidence vs Mortality



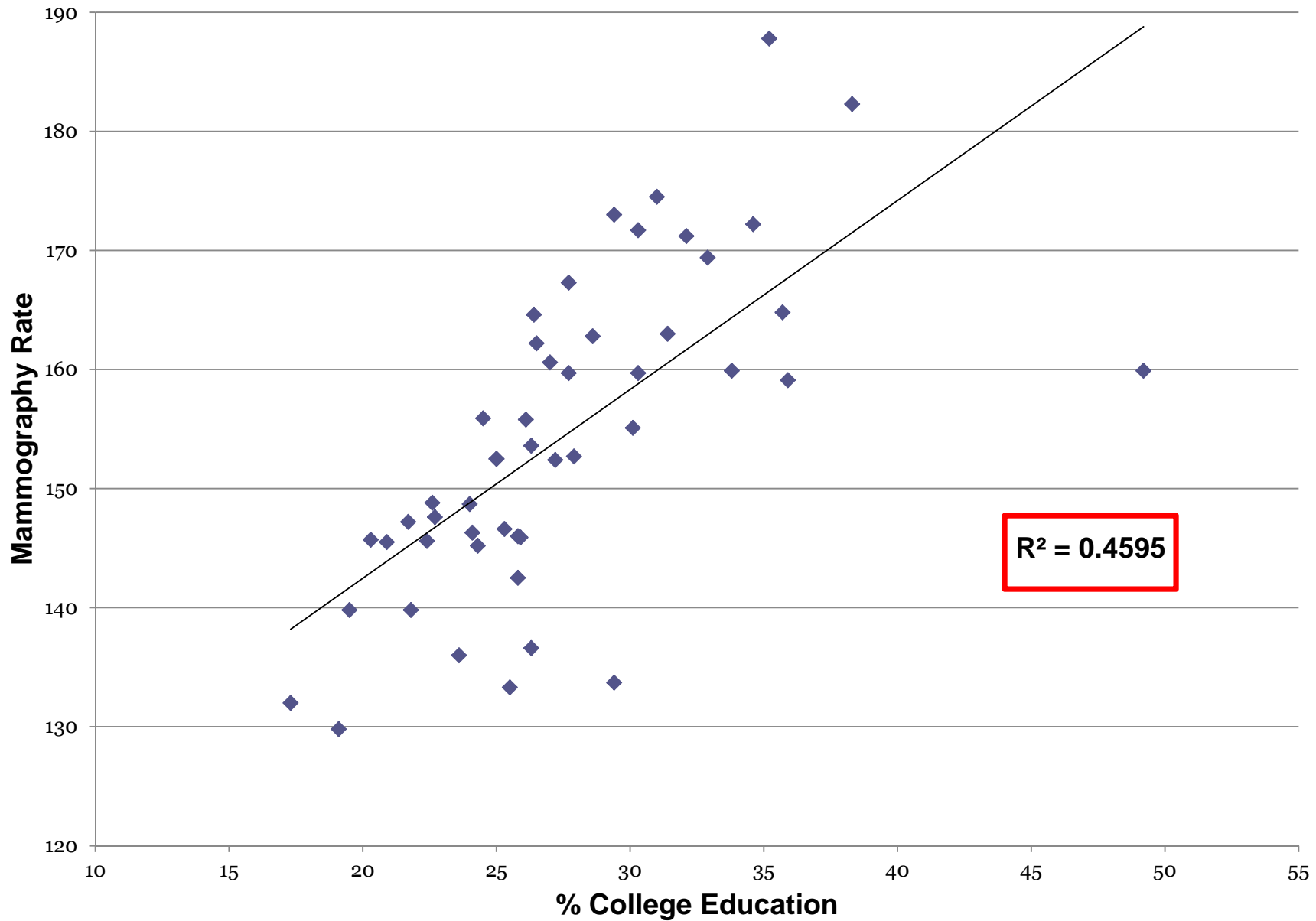
Lung Cancer Rank for States 2008-09									
State	College Ed+		Current Smoker (2005-09)		Age Adjusted Incidence		Age Adjusted Mortality		Overall Rank
	%	Rank	%	Rank	Rate	Rank	Rate	Rank	
Kentucky	20.3	4	27.2	1	105.7	1	99.3	1	7
West Virginia	17.3	1	26.3	2	93.9	2	86.8	2	7
Mississippi	19.5	3	23.7	6	92.2	5	82.1	3	17
Arkansas	19.1	2	22.7	9	93.4	3	77.6	7	21
Oklahoma	22.6	9	25.2	3	87.6	6	78.0	5	23
Tennessee	22.7	10	23.7	7	93.1	4	78.8	4	25
Indiana	22.4	8	24.9	4	87.1	7	76.8	8	27
Alabama	21.7	6	23.0	8	85.8	9	76.6	10	33
Louisiana	20.9	5	22.2	11	86.5	8	74.7	11	35
Missouri	25	17	23.8	5	85.4	10	76.8	9	41
Ohio	24.1	13	21.7	14	82.0	12	71.1	15	54
Nevada	21.8	7	22.2	12	78.1	16	67.9	25	60
North Carolina	26.1	23	21.7	13	81.3	14	73.9	12	62
South Carolina	24	12	21.4	16	80.7	15	68.6	20	63
Maine	26.5	27	19.5	24	81.9	13	78.0	6	70
Michigan	25	16	21.1	17	77.2	17	68.6	21	71
Alaska	27	28	22.6	10	73.5	22	69.4	18	78
Delaware	27.7	30	19.5	26	82.6	11	73.5	13	80
Pennsylvania	26.4	26	21.5	15	73.4	23	68.7	19	83
Georgia	27.2	29	19.7	22	76.5	18	70.3	17	86
Iowa	24.5	15	19.5	23	72.5	26	68.6	22	86
Illinois	30.3	37	20.1	19	74.3	20	71.1	16	92
Florida	25.9	22	19.3	27	71.1	29	67.1	26	104

Lung Cancer Rank for States 2008-09									
State	College Ed+		Current Smoker		Age Adjusted Incidence		Age Adjusted Mortality		Overall Rank
	%	Rank	%	Rank	Rate	Rank	Rate	Rank	
Wyoming	23.6	11	20.9	18	63.5	39	53.9	42	110
Rhode Island	30.3	38	17.7	38	74.1	21	73.4	14	111
Wisconsin	25.8	21	19.9	20	67.4	35	54.7	40	116
South Dakota	25.3	18	19.0	28	68.2	32	54.8	39	117
Texas	25.8	20	18.7	31	67.9	33	61.2	34	118
Virginia	33.8	43	18.8	30	75.7	19	66.0	28	120
Oregon	28.6	33	17.6	39	72.7	25	63.3	30	127
New Hampshire	32.9	42	18.2	34	71.6	27	68.0	24	127
Montana	27.9	32	18.6	32	70.1	30	60.8	35	129
Nebraska	27.7	31	19.0	29	67.1	36	59.5	36	132
North Dakota	26.3	25	19.5	25	62.5	41	54.7	41	132
New Mexico	25.5	19	19.9	21	51.4	48	44.8	48	136
Idaho	24.3	14	17.4	40	60.0	43	52.8	44	141
Massachusetts	38.3	48	16.7	44	71.5	28	68.3	23	143
New York	32.1	41	18.5	33	62.0	42	63.6	29	145
Maryland	35.7	46	16.7	43	73.3	24	61.9	33	146
Washington	31	39	16.4	46	69.7	31	62.9	31	147
Arizona	26.3	24	18.0	36	57.9	44	53.2	43	147
New Jersey	34.6	44	16.7	42	65.9	37	62.1	32	155
Minnesota	31.4	40	17.8	37	63.2	40	56.3	38	155
Connecticut	35.2	45	16.1	47	64.6	38	66.6	27	157
Washington DC	49.2	49	17.3	41	67.9	34	56.9	37	161
Hawaii	29.4	34	16.5	45	53.7	46	51.6	45	170
California	30.1	36	14.3	48	56.6	45	50.5	46	175
Colorado	35.9	47	18.2	35	52.8	47	49.7	47	176
Utah	29.4	35	10.4	49	30.5	49	26.2	49	182

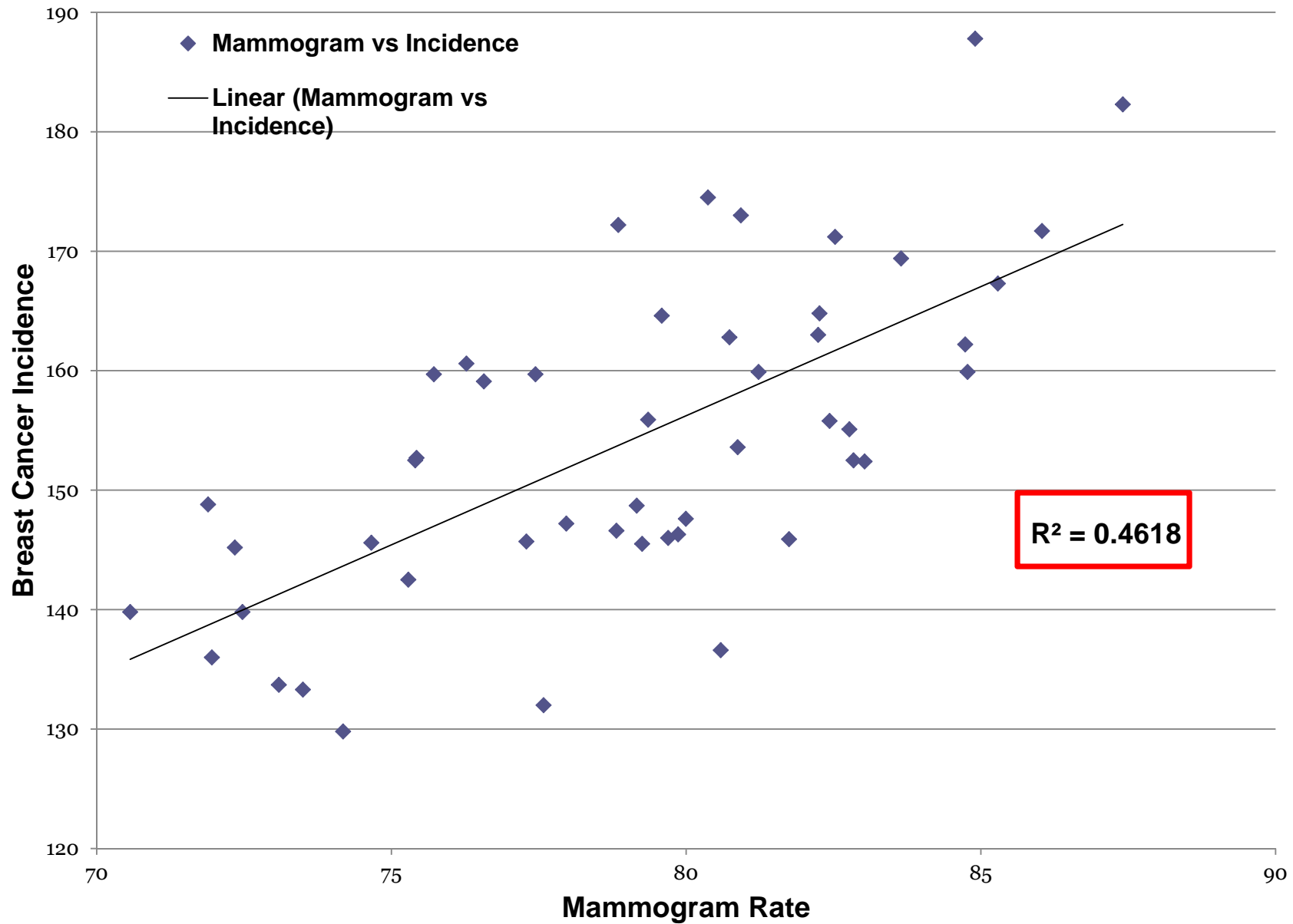


Breast Cancer

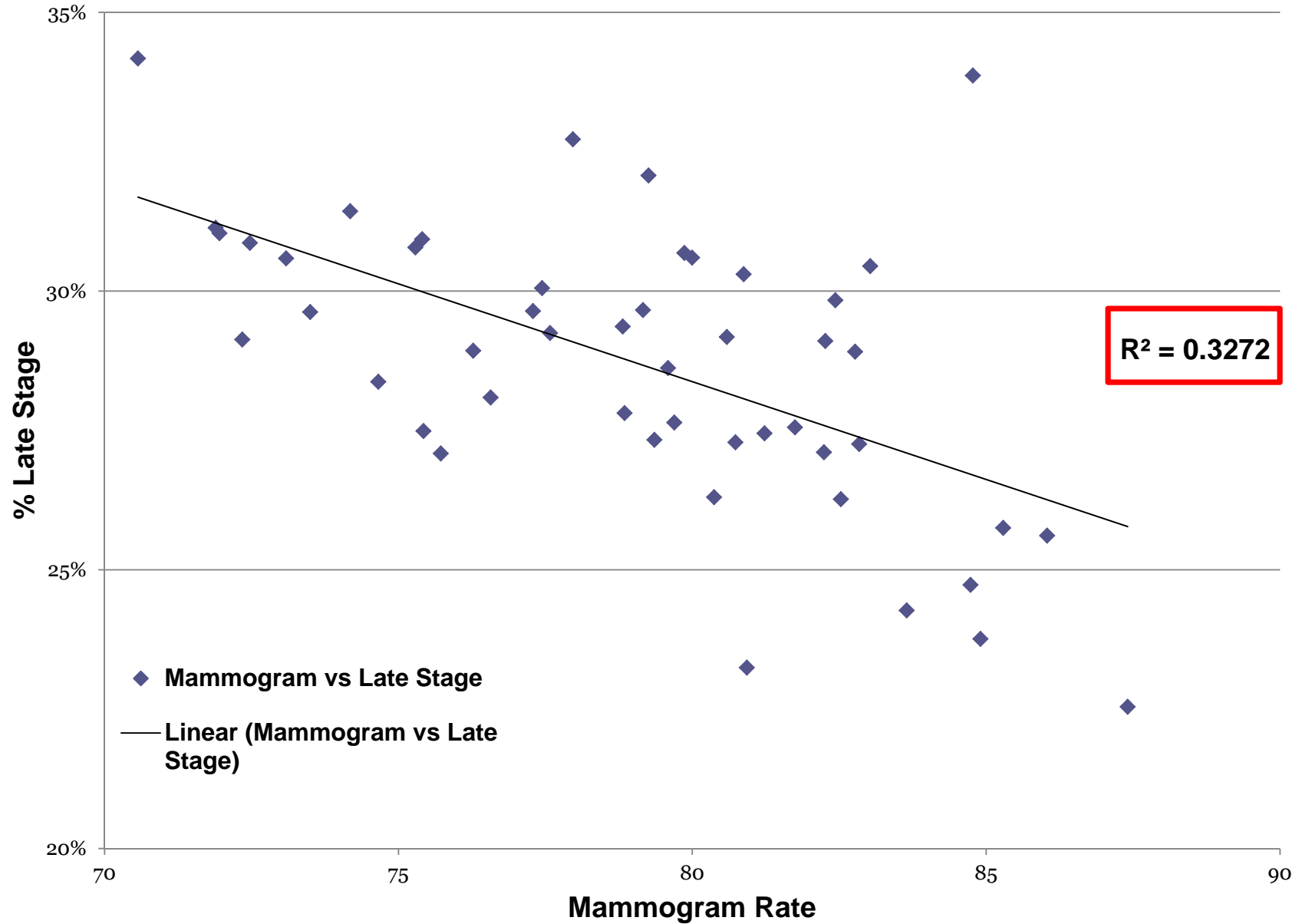
% College Education vs Mammography Rate



Mammogram vs Breast Cancer Incidence



Mammogram vs % Late Stage



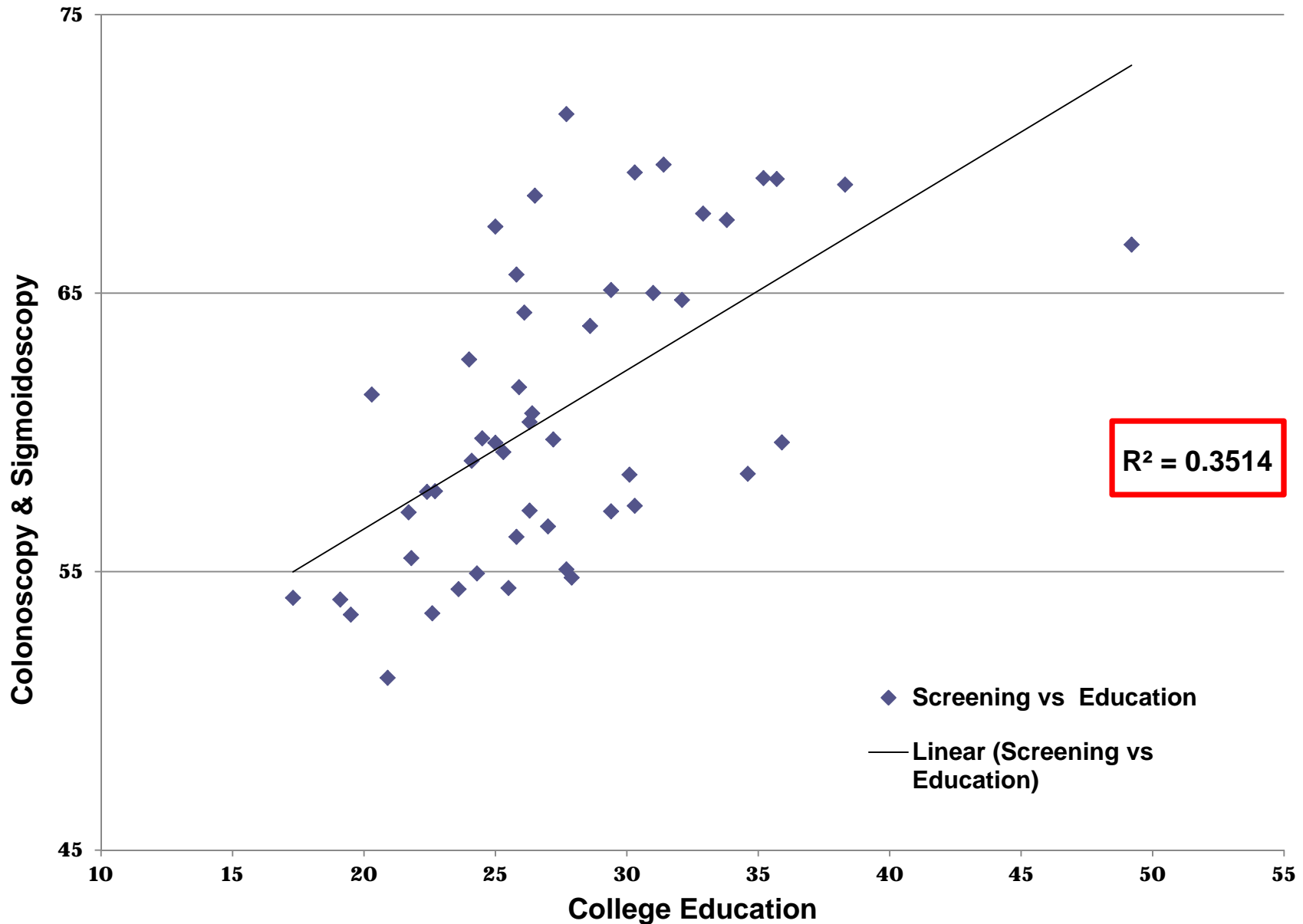
Female Breast Cancer Rank for States 2008-09									
State	College Ed+		Mammogram Rate		Adj. Incidence		% Late Stage		Overall Rank
	%	Rank	%	Rank	Rate	Rank	Rate	Rank	
Mississippi	19.5	3	70.6	1	139.8	7	34.2%	1	12
Arkansas	19.1	2	74.2	8	129.8	1	31.4%	5	16
Wyoming	23.6	11	72.0	3	136.0	5	31.0%	7	26
Nevada	21.8	7	72.5	5	139.8	8	30.9%	9	29
Oklahoma	22.6	9	71.9	2	148.8	21	31.1%	6	38
Louisiana	20.9	5	79.3	23	145.5	11	32.1%	4	43
West Virginia	17.3	1	77.6	18	132.0	2	29.2%	22	43
Alabama	21.7	6	78.0	19	147.2	18	32.7%	3	46
New Mexico	25.5	19	73.5	7	133.3	3	29.6%	20	49
Texas	25.8	20	75.3	10	142.5	9	30.8%	10	49
Idaho	24.3	14	72.3	4	145.2	10	29.1%	24	52
Kentucky	20.3	4	77.3	16	145.7	13	29.6%	19	52
Indiana	22.4	8	74.7	9	145.6	12	28.4%	29	58
Utah	29.4	35	73.1	6	133.7	4	30.6%	13	58
Missouri	25.0	17	75.4	11	152.5	23	30.9%	8	59
Ohio	24.1	13	79.9	27	146.3	16	30.7%	11	67
Tennessee	22.7	10	80.0	28	147.6	19	30.6%	12	69
South Carolina	24.0	12	79.2	22	148.7	20	29.7%	18	72
South Dakota	25.3	18	78.8	20	146.6	17	29.4%	21	76
Arizona	26.3	24	80.6	30	136.6	6	29.2%	23	83
Wisconsin	25.8	21	79.7	26	146.0	15	27.6%	32	94
North Dakota	26.3	25	80.9	32	153.6	26	30.3%	15	98
Illinois	30.3	37	77.4	17	159.7	32	30.1%	16	102

Female Breast Cancer Rank for States 2008-09									
State	College Ed+		Mammogram Rate		Adj. Incidence		% Late Stage		Overall Rank
	%	Rank	%	Rank	Rate	Rank	Rate	Rank	
Alaska	27.0	28	76.3	14	160.6	35	28.9%	26	103
Montana	27.9	32	75.4	12	152.7	25	27.5%	34	103
Florida	25.9	22	81.7	35	145.9	14	27.6%	33	104
Iowa	24.5	15	79.4	24	155.9	29	27.3%	36	104
North Carolina	26.1	23	82.4	38	155.8	28	29.8%	17	106
Georgia	27.2	29	83.0	42	152.4	22	30.4%	14	107
Nebraska	27.7	31	75.7	13	159.7	31	27.1%	40	115
Pennsylvania	26.4	26	79.6	25	164.6	39	28.6%	28	118
Michigan	25.0	16	82.8	41	152.5	24	27.3%	38	119
Colorado	35.9	47	76.6	15	159.1	30	28.1%	30	122
Washington DC	49.2	49	84.8	45	159.9	33	33.9%	2	129
California	30.1	36	82.8	40	155.1	27	28.9%	27	130
Oregon	28.6	33	80.7	31	162.8	37	27.3%	37	138
New Jersey	34.6	44	78.8	21	172.2	45	27.8%	31	141
Virginia	33.8	43	81.2	34	159.9	34	27.4%	35	146
Maryland	35.7	46	82.3	37	164.8	40	29.1%	25	148
Maine	26.5	27	84.7	44	162.2	36	24.7%	45	152
Minnesota	31.4	40	82.2	36	163.0	38	27.1%	39	153
Washington	31.0	39	80.4	29	174.5	47	26.3%	41	156
Delaware	27.7	30	85.3	47	167.3	41	25.8%	43	161
Hawaii	29.4	34	80.9	33	173.0	46	23.2%	48	161
New York	32.1	41	82.5	39	171.2	43	26.3%	42	165
New Hampshire	32.9	42	83.6	43	169.4	42	24.3%	46	173
Rhode Island	30.3	38	86.0	48	171.7	44	25.6%	44	174
Connecticut	35.2	45	84.9	46	187.8	49	23.8%	47	187
Massachusetts	38.3	48	87.4	49	182.3	48	22.5%	49	194

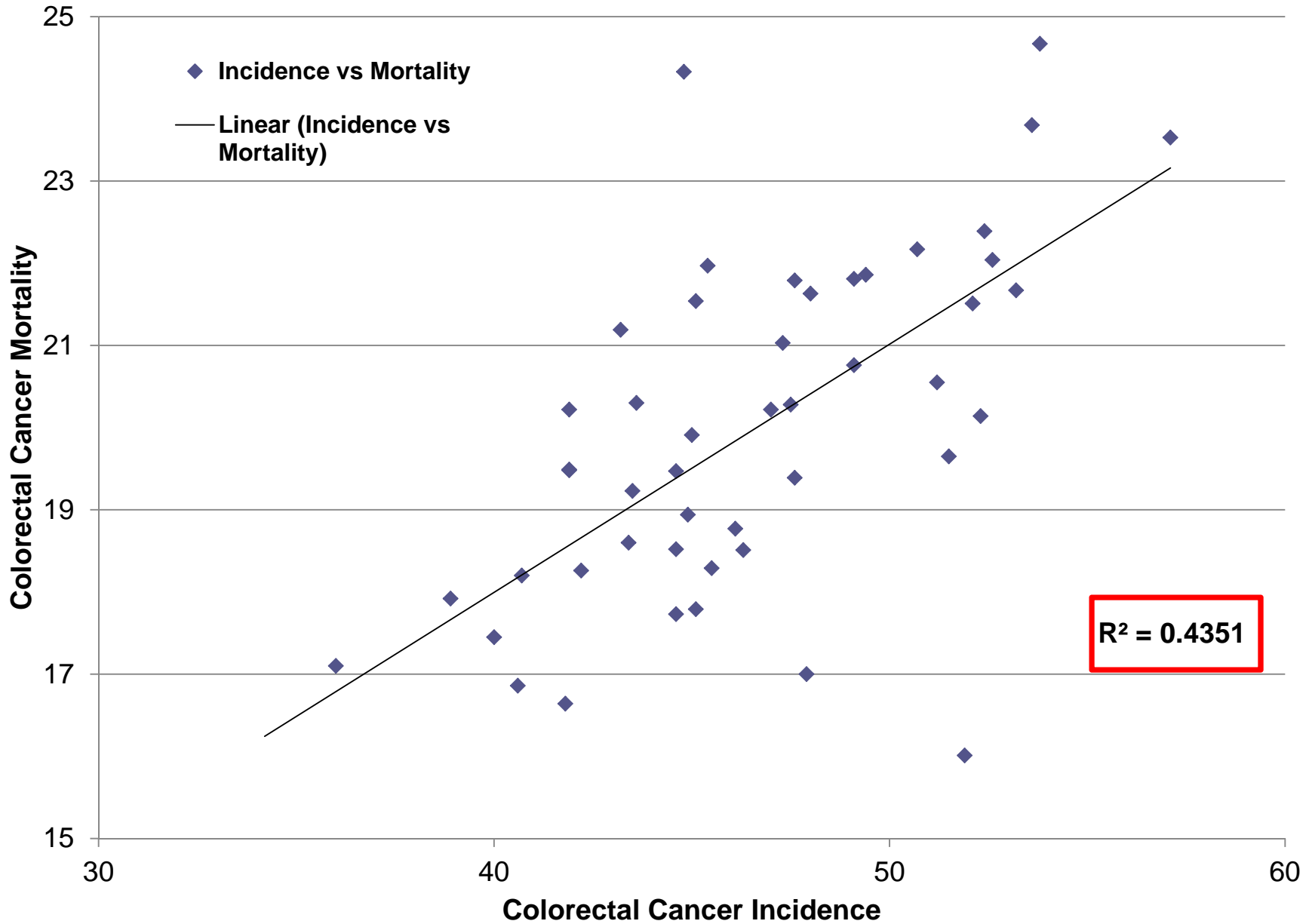


Colorectal Cancer

College Education vs. Screening Rate



Colorectal Cancer Incidence vs Mortality



Colorectal Cancer Rank for States 2008-09									
State	College Ed+		Colonoscopy		Incidence		Mortality		Overall Index
	%	Rank	%	Rank	Rate	Rank	Rate	Rank	
Mississippi	19.5	3	53.5	2	53.8	2	24.7	1	8
Louisiana	20.9	5	51.2	1	53.6	3	23.7	3	12
West Virginia	17.3	1	54.1	5	52.4	6	22.4	5	17
Kentucky	20.3	4	61.4	30	57.1	1	23.5	4	39
Arkansas	19.1	2	54.0	4	45.4	26	22.0	8	40
Oklahoma	22.6	9	53.5	3	48.0	16	21.6	13	41
Alabama	21.7	6	57.1	14	52.1	8	21.5	15	43
Indiana	22.4	8	57.9	18	49.1	14	21.8	10	50
Nebraska	27.7	31	55.1	10	50.7	12	22.2	6	59
Nevada	21.8	7	55.5	11	45.1	27	21.5	14	59
Ohio	24.1	13	59.0	22	47.6	18	21.8	11	64
Illinois	30.3	37	57.4	17	52.6	5	22.0	7	66
Tennessee	22.7	10	57.9	19	47.3	21	21.0	17	67
Pennsylvania	26.4	26	60.7	29	53.2	4	21.7	12	71
Alaska	27.0	28	56.6	13	52.3	7	20.1	24	72
Iowa	24.5	15	59.8	27	51.2	11	20.6	19	72
Missouri	25.0	17	59.6	24	49.1	15	20.8	18	74
North Dakota	26.3	25	57.2	16	51.5	10	19.7	26	77
Wyoming	23.6	11	54.4	6	41.9	40	19.5	27	84
South Dakota	25.3	18	59.3	23	47.0	22	20.2	23	86
New Jersey	34.6	44	58.5	21	49.4	13	21.9	9	87
Texas	25.8	20	56.2	12	43.5	36	19.2	31	99
Montana	27.9	32	54.8	8	45.5	25	18.3	37	102

Colorectal Cancer Rank for States 2008-09									
State	College Ed+		Colonoscopy		Incidence		Mortality		Overall Index
	%	Rank	%	Rank	Rate	Rank	Rate	Rank	
Hawaii	29.4	34	57.2	15	51.9	9	16.0	48	106
South Carolina	24.0	12	62.6	32	41.9	41	20.2	22	107
Maine	26.5	27	68.5	43	47.5	20	20.3	21	111
Michigan	25.0	16	67.4	40	43.6	35	20.3	20	111
New Mexico	25.5	19	54.4	7	38.9	47	17.9	40	113
Idaho	24.3	14	54.9	9	40.6	45	16.9	46	114
Georgia	27.2	29	59.7	26	44.6	33	19.5	29	117
North Carolina	26.1	23	64.3	34	44.9	30	18.9	32	119
Washington DC	49.2	49	66.7	39	44.8	31	24.3	2	121
Florida	25.9	22	61.6	31	43.4	37	18.6	34	124
New York	32.1	41	64.8	35	47.6	19	19.4	30	125
California	30.1	36	58.5	20	44.6	32	17.7	42	130
Delaware	27.7	30	71.4	49	45.0	29	19.9	25	133
Wisconsin	25.8	21	65.7	38	40.7	44	18.2	39	142
New Hampshire	32.9	42	67.9	42	46.3	23	18.5	36	143
Oregon	28.6	33	63.8	33	42.2	39	18.3	38	143
Arizona	26.3	24	60.4	28	36.0	48	17.1	44	144
Maryland	35.7	46	69.1	45	43.2	38	21.2	16	145
Massachusetts	38.3	48	68.9	44	46.1	24	18.8	33	149
Connecticut	35.2	45	69.1	46	47.9	17	17.0	45	153
Rhode Island	30.3	38	69.3	47	44.6	34	18.5	35	154
Virginia	33.8	43	67.6	41	41.9	42	19.5	28	154
Minnesota	31.4	40	69.6	48	45.1	28	17.8	41	157
Colorado	35.9	47	59.6	25	40.0	46	17.5	43	161
Washington	31.0	39	65.0	36	41.8	43	16.6	47	165
Utah	29.4	35	65.1	37	34.2	49	14.5	49	170



Cervical Cancer

Cervical Cancer Rank for States 2008-09									
State	College Ed+		Pap test		Incidence		Mortality		Overall Index
	%	Rank	%	Rank	Rate	Rank	Rate	Rank	
Arkansas	19.1	2	80.7	8	10.4	1	4.5	4	15
Louisiana	20.9	5	80.5	7	9.8	4	4.9	2	18
Oklahoma	22.6	9	80.4	6	10.3	2	4.1	7	24
West Virginia	17.3	1	82.3	14	10.1	3	4.1	8	26
Mississippi	19.5	3	83.3	25	9.5	5	5.7	1	34
Texas	25.8	20	80.8	9	9.4	6	4.2	6	41
Alabama	21.7	6	82.3	15	8.6	17	4.3	5	43
Kentucky	20.3	4	82.4	16	8.7	15	3.9	11	46
Wyoming	23.6	11	79.6	3	9.0	11	3.4	22	47
Nevada	21.8	7	80.1	5	8.0	22	3.8	14	48
Indiana	22.4	8	79.8	4	7.3	28	3.4	20	60
Tennessee	22.7	10	84.9	35	9.0	10	4.0	9	64
Florida	25.9	22	83.1	23	9.3	7	3.8	12	64
Missouri	25.0	17	81.4	10	7.8	25	3.7	17	69
New Mexico	25.5	19	81.9	12	7.8	24	3.7	16	71
South Carolina	24.0	12	86.4	41	8.6	16	4.0	10	79
Ohio	24.1	13	83.0	22	7.6	27	3.6	18	80
Illinois	30.3	37	83.7	27	8.9	12	3.7	15	91
Idaho	24.3	14	77.2	2	5.5	47	3.0	31	94
Pennsylvania	26.4	26	82.4	18	7.9	23	3.2	28	95
Hawaii	29.4	34	82.4	17	9.1	8	2.7	36	95
New Jersey	34.6	44	81.9	13	8.3	19	3.4	21	97
Alaska	27.0	28	85.3	37	8.7	13	3.3	24	102

Cervical Cancer Rank for States 2008-09									
State	College Ed+		Pap test		Incidence		Mortality		Overall Index
	%	Rank	%	Rank	Rate	Rank	Rate	Rank	
Michigan	25.0	16	82.9	21	7.1	33	2.8	34	104
Georgia	27.2	29	87.5	46	8.3	18	3.8	13	106
Delaware	27.7	30	86.5	42	9.0	9	3.2	26	107
North Dakota	26.3	25	83.7	28	8.7	14	2.4	42	109
New York	32.1	41	84.2	31	8.2	20	3.4	19	111
California	30.1	36	84.1	30	8.1	21	3.3	25	112
Iowa	24.5	15	85.1	36	7.2	30	2.9	32	113
Oregon	28.6	33	82.5	19	7.7	26	2.7	38	116
Arizona	26.3	24	83.2	24	6.7	37	2.7	37	122
Montana	27.9	32	81.8	11	6.6	39	2.6	40	122
North Carolina	26.1	23	86.8	43	7.0	34	3.3	23	123
Nebraska	27.7	31	82.7	20	7.2	31	2.3	44	126
South Dakota	25.3	18	83.8	29	6.7	36	2.3	45	128
Washington DC	49.2	49	89.1	49	7.2	29	4.7	3	130
Washington	31.0	39	83.3	26	7.1	32	2.9	33	130
Utah	29.4	35	74.2	1	4.8	49	1.9	48	133
Wisconsin	25.8	21	84.5	33	5.5	46	2.5	41	141
Virginia	33.8	43	84.4	32	6.2	42	3.1	29	146
Maryland	35.7	46	85.9	39	6.6	38	3.2	27	150
Maine	26.5	27	87.7	48	6.3	41	2.8	35	151
New Hampshire	32.9	42	87.1	45	5.6	44	3.1	30	161
Colorado	35.9	47	84.7	34	6.1	43	2.7	39	163
Rhode Island	30.3	38	87.0	44	6.7	35	2.1	46	163
Minnesota	31.4	40	86.1	40	6.4	40	2.1	47	167
Connecticut	35.2	45	85.3	38	5.6	45	2.4	43	171
Massachusetts	38.3	48	87.6	47	5.4	48	1.9	49	192

Summary of top ten states with the highest burden for each type of cancer

Lung
Kentucky
West Virginia
Mississippi
Tennessee
Oklahoma
Arkansas
Indiana
Alabama
Louisiana
Missouri

Breast
Mississippi
Arkansas
Oklahoma
Louisiana
West Virginia
Alabama
Texas
Kentucky
Nevada
Tennessee

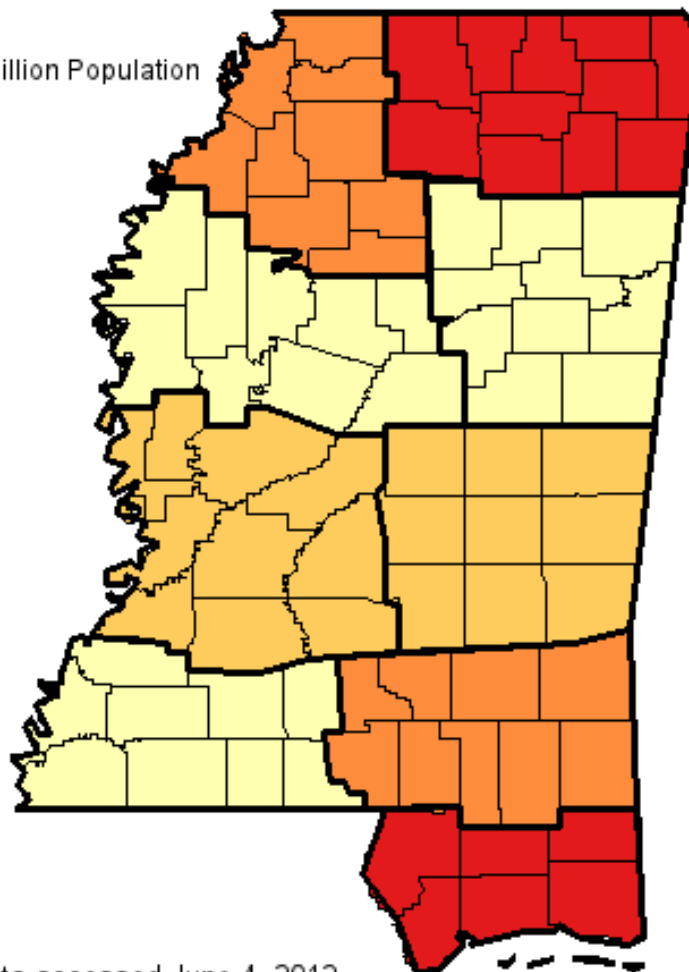
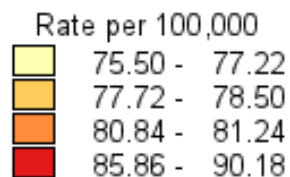
Colorectal
Mississippi
Louisiana
West Virginia
Oklahoma
Kentucky
Alabama
Arkansas
Indiana
Illinois
Nebraska

Cervical
Arkansas
Louisiana
Oklahoma
West Virginia
Mississippi
Texas
Alabama
Kentucky
Nevada
Wyoming

Age-Adjusted Invasive Cancer Incidence Rates in Mississippi Lung and Bronchus, 2005-2009 By Public Health District

Age-Adjusted to the 2000 U.S. Standard Million Population

Mississippi Rate: 81.10



Data accessed June 4, 2012.
Based on data released February 8, 2012.
Copyright (C) 2012 Mississippi Cancer Registry

The population estimates for 2005 are adjusted to account for population shifts due to Hurricane Katrina. For more information on the population adjustments, go to (<http://www.seer.cancer.gov/popdata/>).

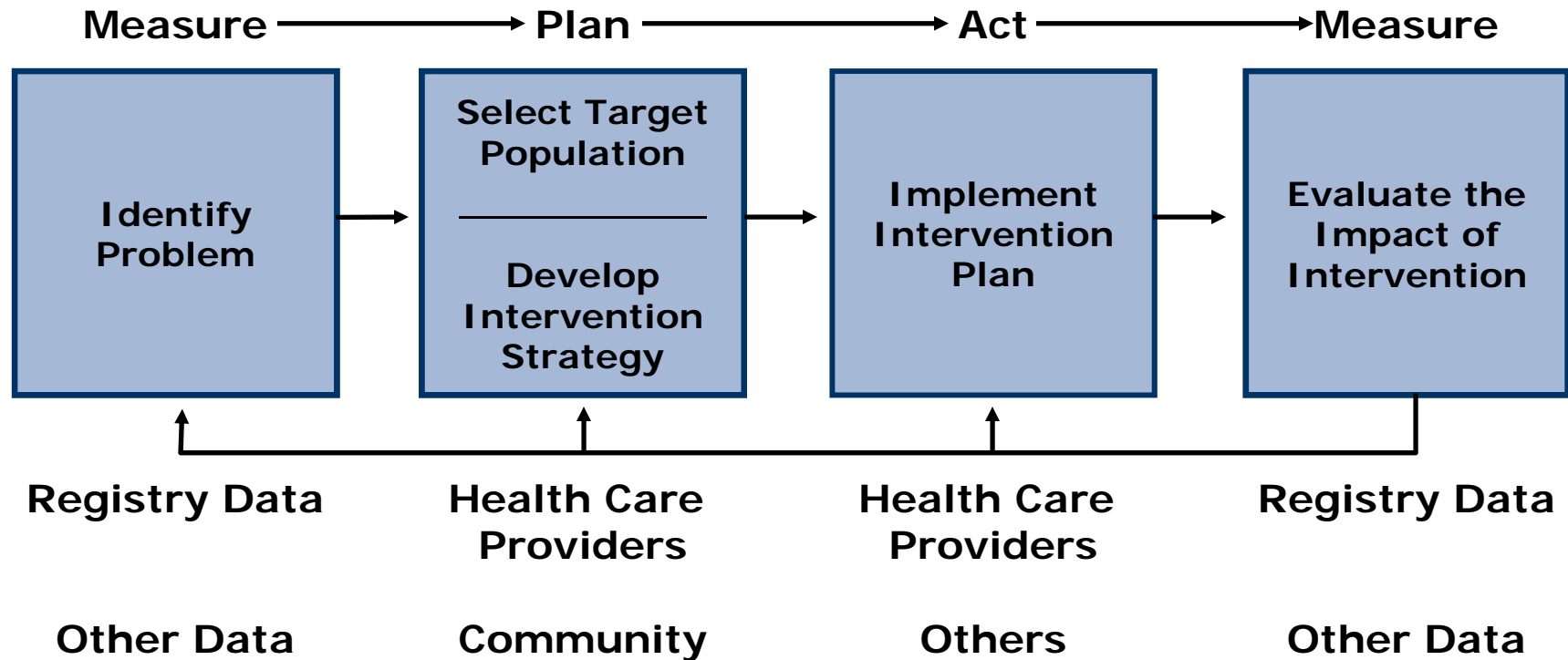
Cancer Control in Kentucky

The Kentucky Cancer Registry develops a profile of the cancer burden for the major cancers in each of the states 15 Area Development Districts (ADD's) and presents these data annually to the District Cancer Councils that have been established in each ADD



(Cancer control can be defined as “activities designed to reduce morbidity and mortality from cancer”)

Model for Cancer Control

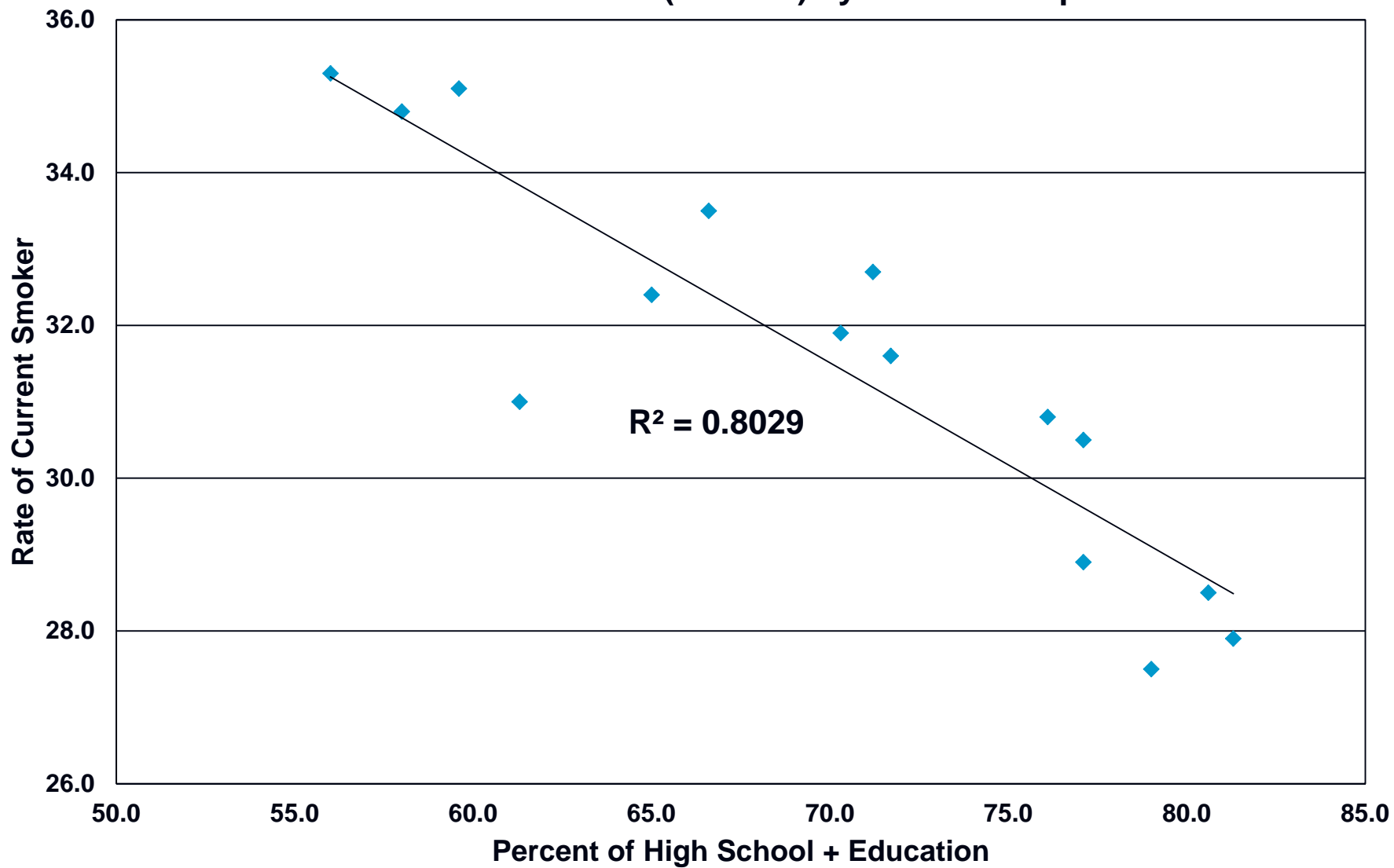


Kentucky Cancer Program

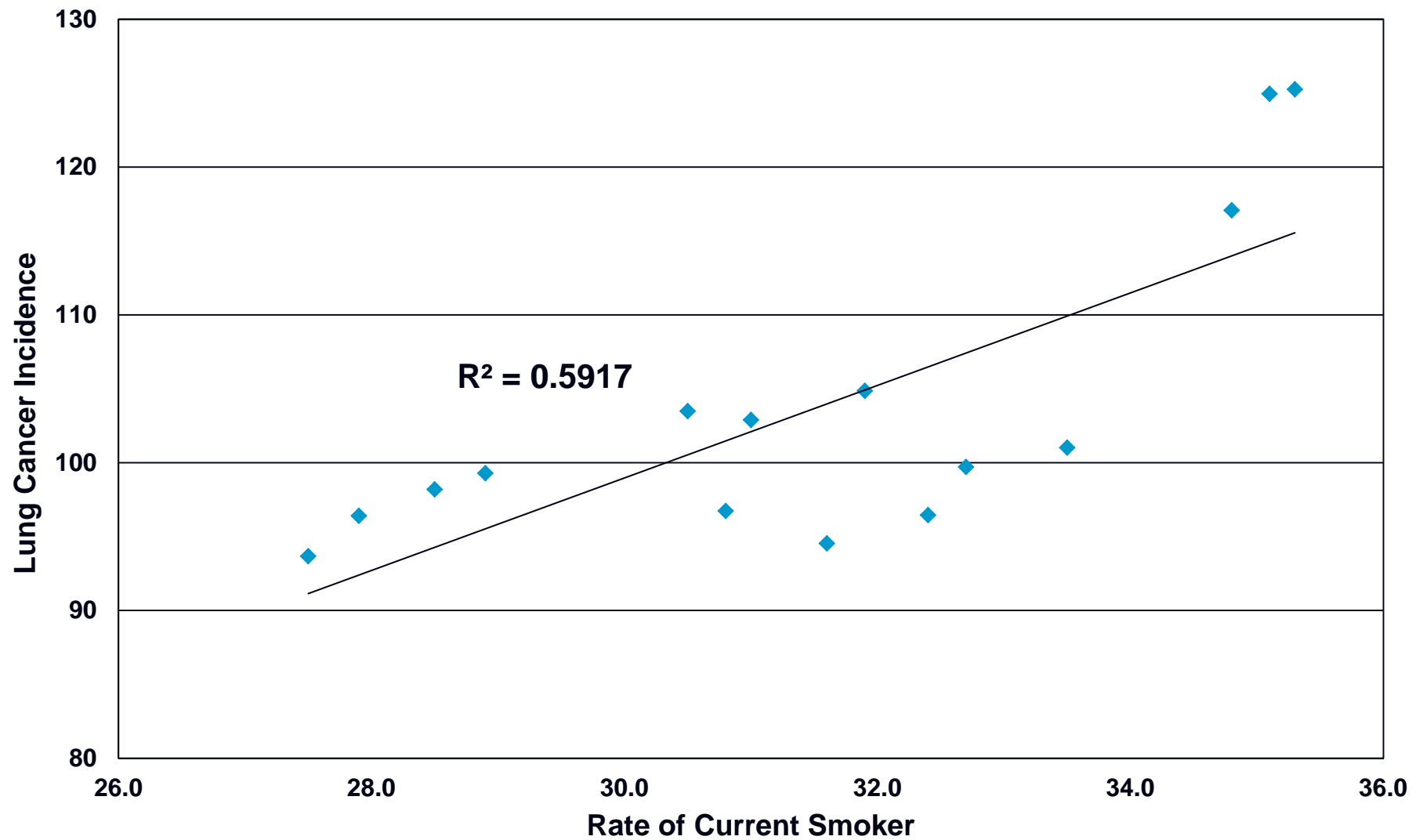
Lung Cancer By Area Development District in KY 2004-08

Area Development District	High School Education (%)	Under Poverty Level (%)	Current Smoker (%)	Age-Adjusted Incidence		Late Stage Incidence (%)	Age-Adjusted Mortality	
				N	Adj. Rate		N	Adj. Rate
US	80.4	12.4	19.96	292,495	62	79.73%	229,103*	52.5*
KENTUCKY	74.1	15.8	27.6	22692	100.84	80.7%	16766	75.06
BARREN RIVER	70.3	16.7	30.9	1525	104.86	82.8%	1125	77.8
BIG SANDY	59.6	27.9	31.4	1083	124.96	82.6%	823	96.15
BLUEGRASS	79.0	13.1	24.9	3391	93.67	80.8%	2545	71.17
BUFFALO TRACE	66.6	19.6	33.5	331	101.02	79.4%	247	76.3
CUMBERLAND VALLEY	58.0	29.1	30.4	1552	117.08	81.3%	1143	87.37
FIVECO	71.2	18.8	30.9	846	99.71	79.4%	629	74.54
GATEWAY	65.0	21.2	29.5	411	96.45	81.8%	338	80.32
GREEN RIVER	77.1	13.7	27.2	1246	103.49	79.8%	924	76.82
KENTUCKY RIVER	56.0	31.0	33.3	827	125.26	85.1%	633	97.43
KIPDA	81.3	11.5	24.8	4593	96.4	78.7%	3308	69.79
LAKE CUMBERLAND	61.3	23.0	28.8	1289	102.89	78.6%	981	78.5
LINCOLN TRAIL	76.1	12.9	30.2	1267	96.73	79.5%	846	65.96
NORTHERN KENTUCKY	80.6	9.0	27.0	1926	98.19	82.1%	1464	75.4
PENNYRILE	71.7	15.9	30.3	1169	94.54	82.7%	860	70.02
PURCHASE	77.1	15.0	27.0	1236	99.29	81.4%	900	71.6

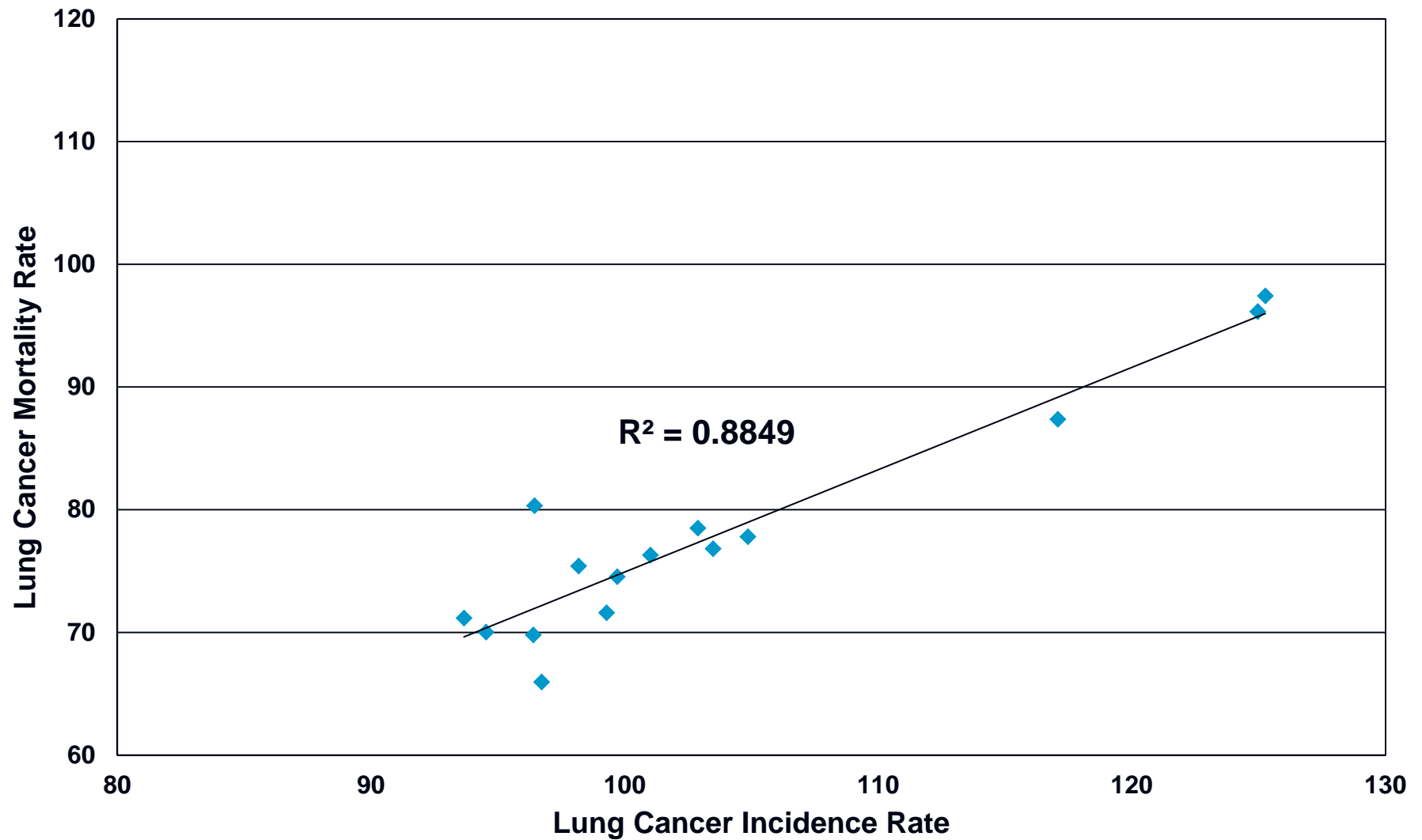
Education vs. Current Smoker (2001-05) by Area Development Districts



Current Smoker (2001-05) vs. Lung Cancer Incidence by Area Development Districts



Lung Cancer Incidence vs. Mortality by Area Development Districts



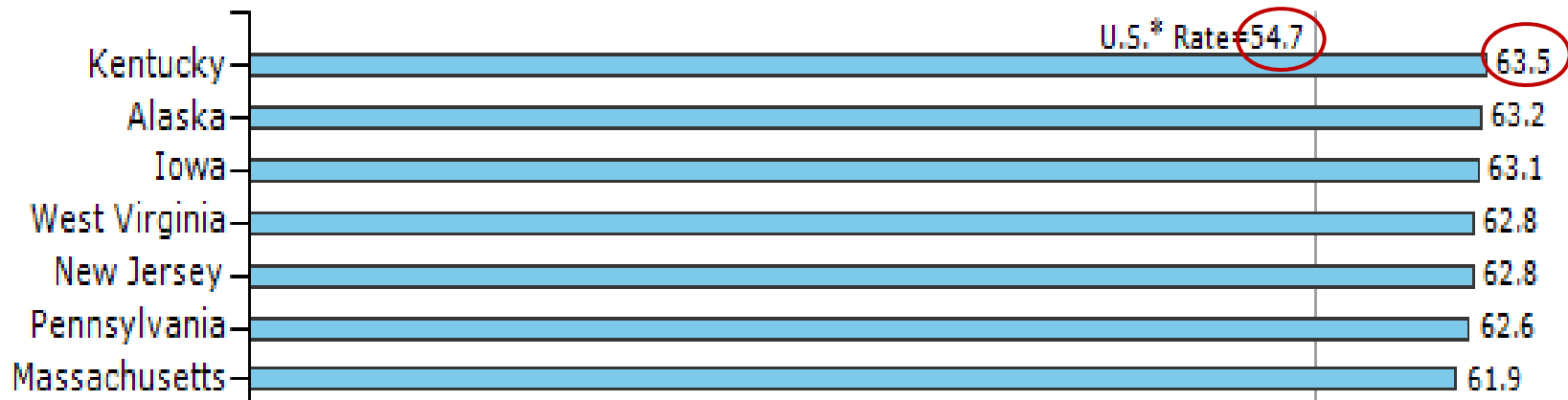
Lung Cancer Rank for Area Development District in KY 2004-08


Area Development District	High School Ed. +		Current Smoker (2001-05)		Age-Adjusted Incidence		Age Adjusted Mortality		Overall Rank
	%	Rank	%	Rank	Rate	Rank	Rate	Rank	
KENTUCKY RIVER	56.0	1	35.3	1	125.26	1	97.43	1	4
BIG SANDY	59.6	3	35.1	2	124.96	2	96.15	2	9
CUMBERLAND VALLEY	58.0	2	34.8	3	117.08	3	87.37	3	11
BARREN RIVER	70.3	7	31.9	7	104.86	4	77.8	6	24
LAKE CUMBERLAND	61.3	4	31.0	9	102.89	6	78.5	5	24
BUFFALO TRACE	66.6	6	33.5	4	101.02	7	76.3	8	25
GATEWAY	65.0	5	32.4	6	96.45	12	80.32	4	27
FIVECO	71.2	8	32.7	5	99.71	8	74.54	10	31
GREEN RIVER	77.1	11	30.5	11	103.49	5	76.82	7	34
PENNYRILE	71.7	9	31.6	8	94.54	14	70.02	13	44
PURCHASE	77.1	12	28.9	12	99.29	9	71.6	11	44
LINCOLN TRAIL	76.1	10	30.8	10	96.73	11	65.96	15	46
NORTHERN KENTUCKY	80.6	14	28.5	13	98.19	10	75.4	9	46
BLUEGRASS	79.0	13	27.5	15	93.67	15	71.17	12	55
KIPDA	81.3	15	27.9	14	96.4	13	69.79	14	56

An Example


In 2001, Kentucky had the highest colorectal cancer incidence rate in the U.S. compared to all of the other states

Rankings by State: 2001, Male and Female, Colon and Rectum



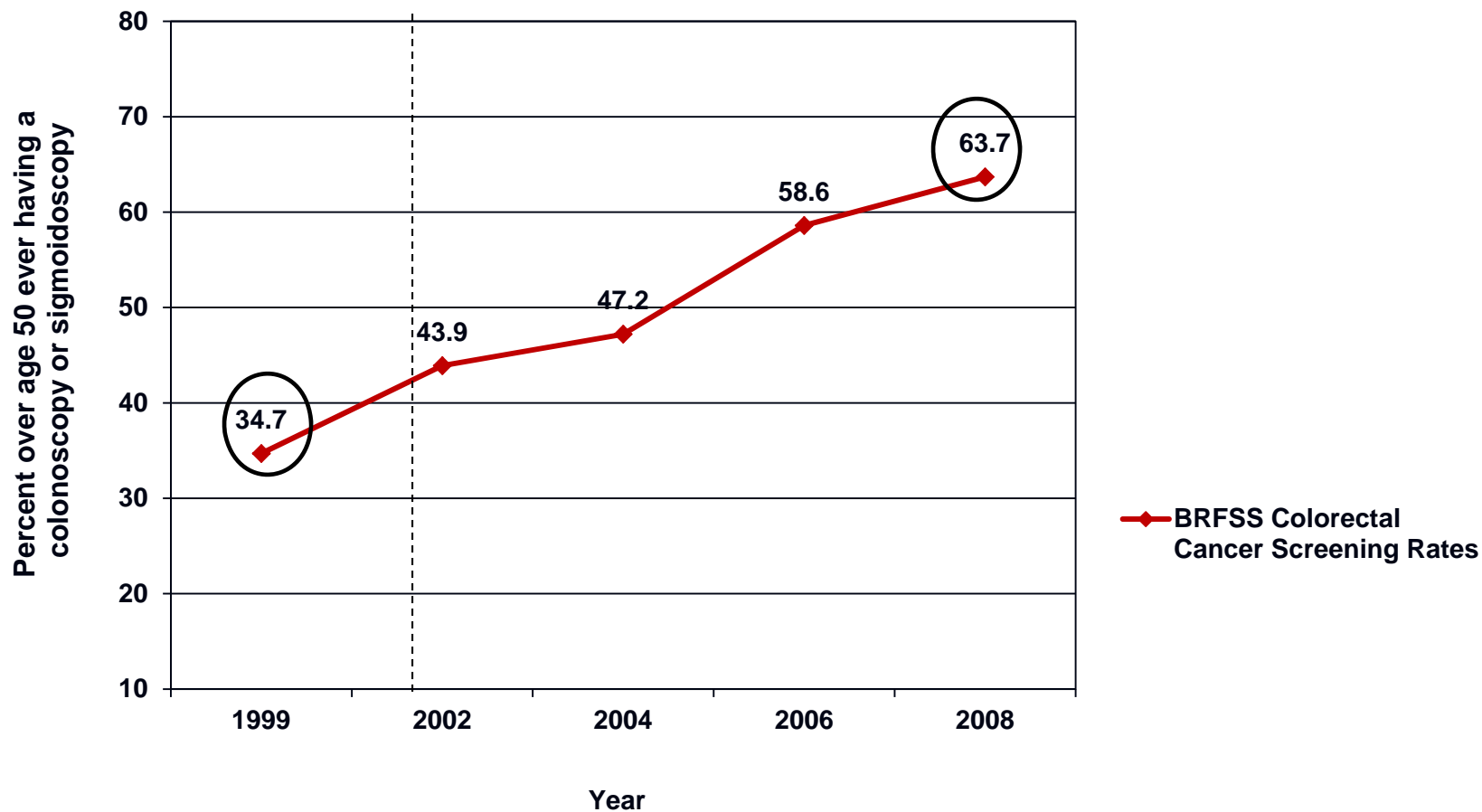


In 2001, it was also noted that Kentucky was ranked 49th in colorectal cancer screening compared to all other states with the second to the lowest rate (34.7% of the age eligible population).




Using the process for cancer control that was previously described, data about the burden of colorectal cancer was assembled and presented to each of the 15 District Cancer Councils. Following these presentations, all of the District Cancer Councils have implemented cancer control programs aimed at increasing colorectal cancer screening for age eligible people living in Kentucky.

BRFSS Colorectal Cancer Screening Rates Kentucky 1999-2008

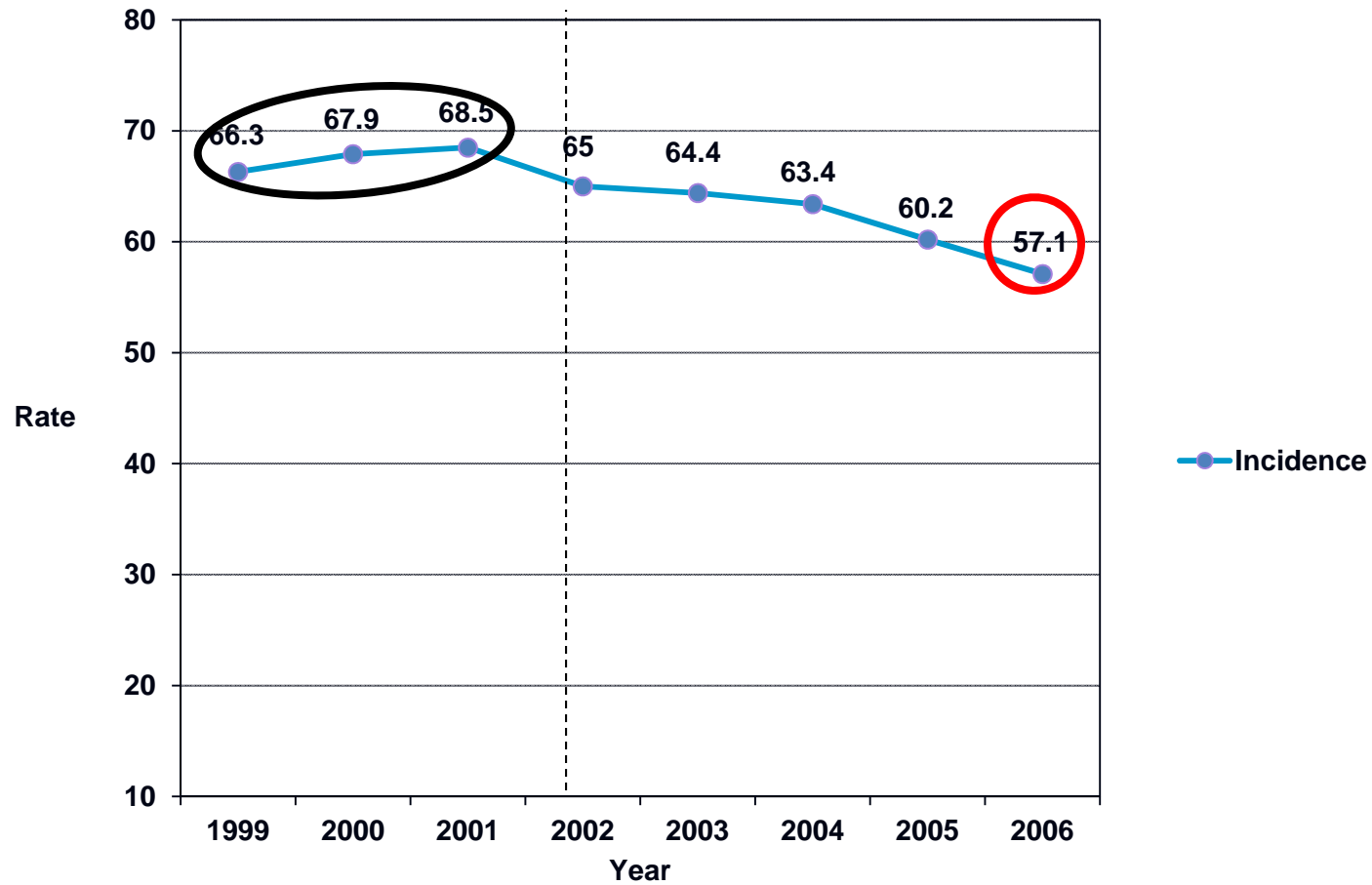


Source: CDC/BRFSS Website, Accessed Jan. 2010



By 2008, Kentucky was ranked 23rd among all states in colorectal cancer screening. This is a remarkable improvement not matched by any other state. In other words, no state improved it's colorectal cancer screening rate in such a short period of time more then Kentucky.

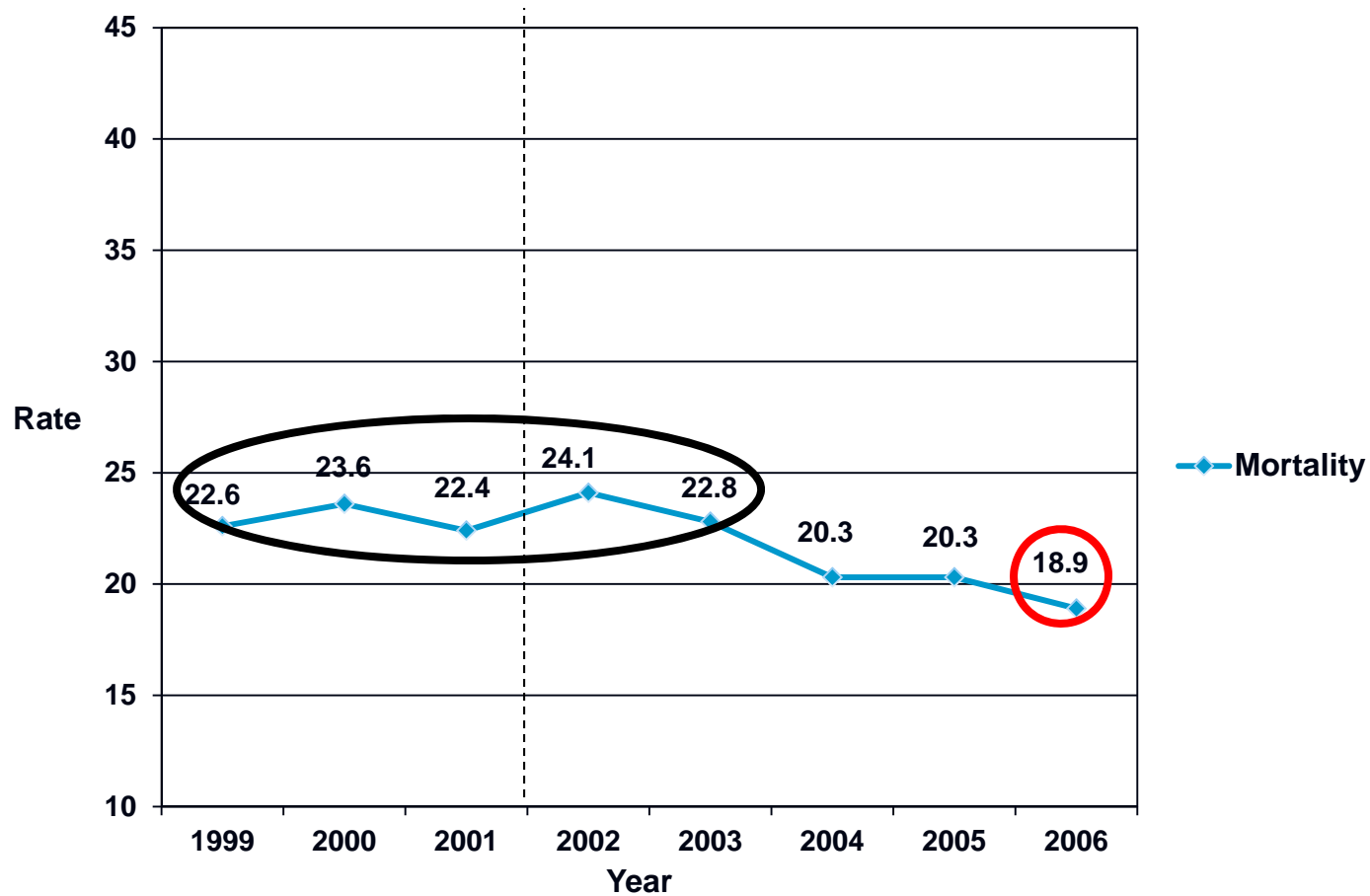
Colorectal Cancer Incidence, Kentucky (1999-2006)



P<.05

Source: KCR Website, Accessed Jan. 2010

Colorectal Cancer Mortality, Kentucky (1999-2006)



P<.05

Source: KCR Website, Accessed Jan. 2010

A scenic view of a forested mountain range with a wooden balcony in the foreground. The balcony has a dark wood railing with a decorative pattern of diagonal slats. The background shows rolling hills covered in dense green trees, with a layer of mist or fog settling in the valleys. The sky is bright and overcast.

Thank You!

Questions
The End