

The Burden of Cancer in Kentucky (2000 – 2015)

Presented by:

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Kentucky Cancer Registry

Kentucky Cancer Summit
Louisville, Kentucky
April 24, 2018



Topic to be Covered

- The reason data is essential
- Characteristics of the Kentucky population
- The major types of cancer for which there are evidence based interventions
- Trends in lung cancer incidence and mortality
- Trends in breast cancer incidence and mortality
- Trends in colorectal cancer incidence and mortality
- Trends in cervical cancer incidence and mortality
- Other data resources

Differences (Disparities) will be explored by

- Gender (Males and Females)
- Race (Blacks and Whites)
- Place (Appalachian Kentucky and Non-Appalachian Kentucky)

Guiding Principles for Cancer Prevention and Control

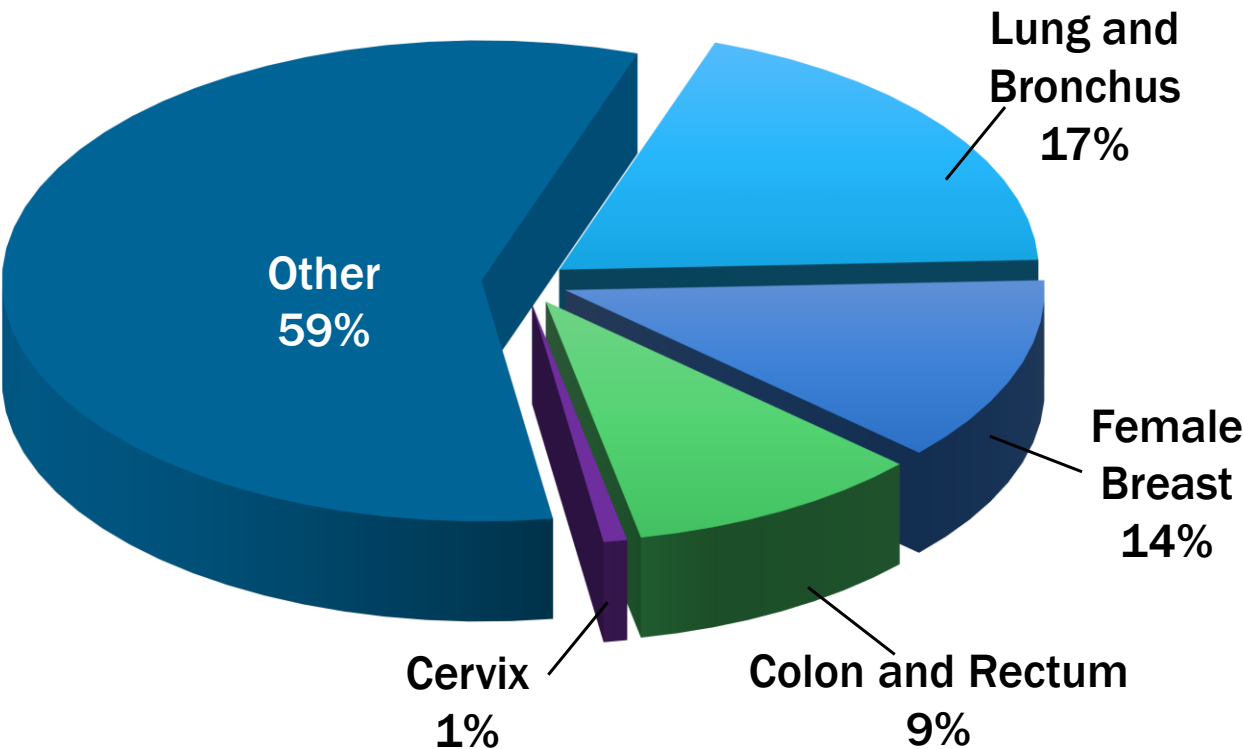
- Data Driven
- Community Engagement
- Evidence-Based Interventions

Characteristics of the Kentucky Population

Characteristic	Kentucky	United States
Population*	4,436,947	323,127,513
% White**	88.1%	77.1%
% African American**	8.3%	13.3%
% all Other Races**	3.2%	9.4%
% Below Poverty***	18.5%	13.5%
% Bachelor's Degree***	22.3%	29.8%
% Living in Rural Areas	41.0%	18.3%
% Living in Appalachia	26.7%	NA
# of New Primary Cancers 2014	29,232	NA
* U.S. Census QuickFacts 2016, ** U.S. Census QuickFacts 2015, *** U.S. Census QuickFacts 2011-2015		

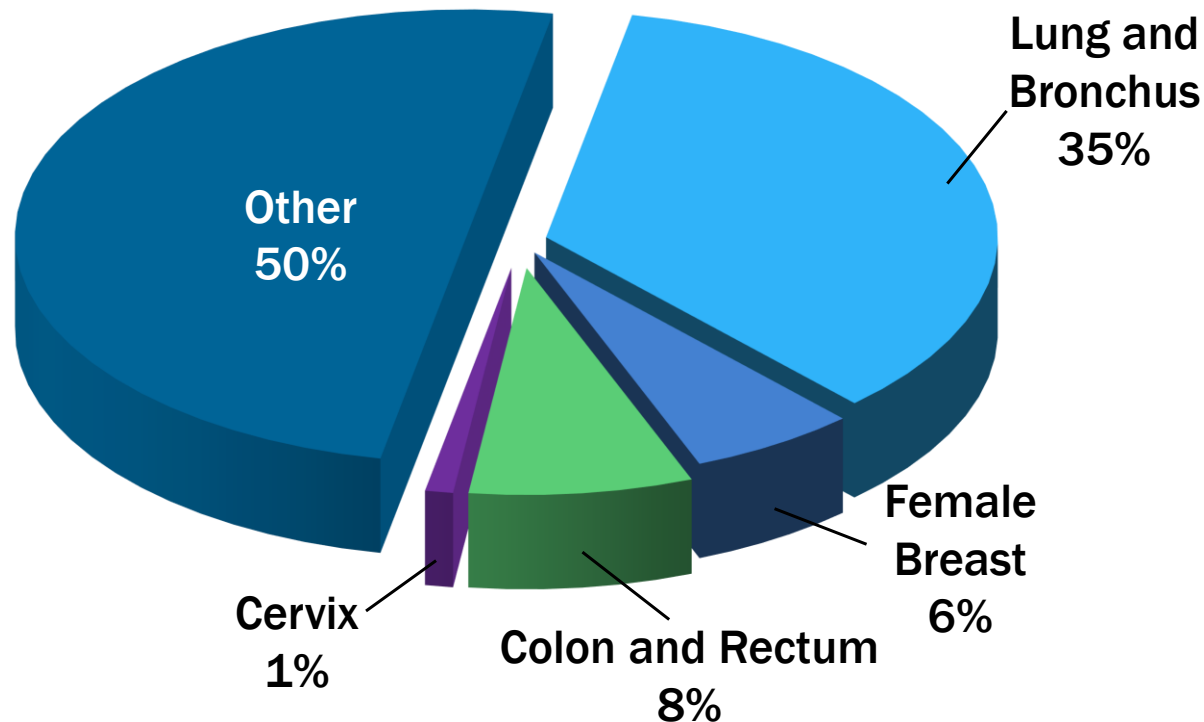
Annual Cancer Occurrence in Kentucky

Lung, Breast, Colorectal and Cervical Cancers Represent
41% of All Cancers Diagnosed in Kentucky Annually
2011-2015

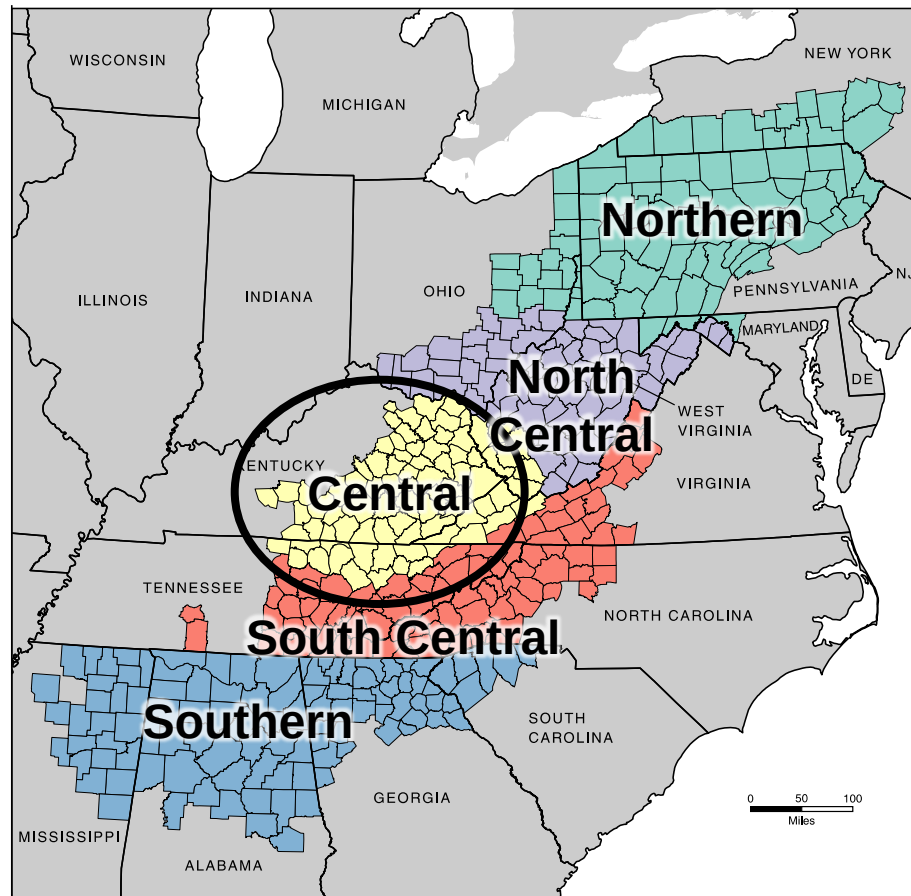


Annual Cancer Deaths in Kentucky

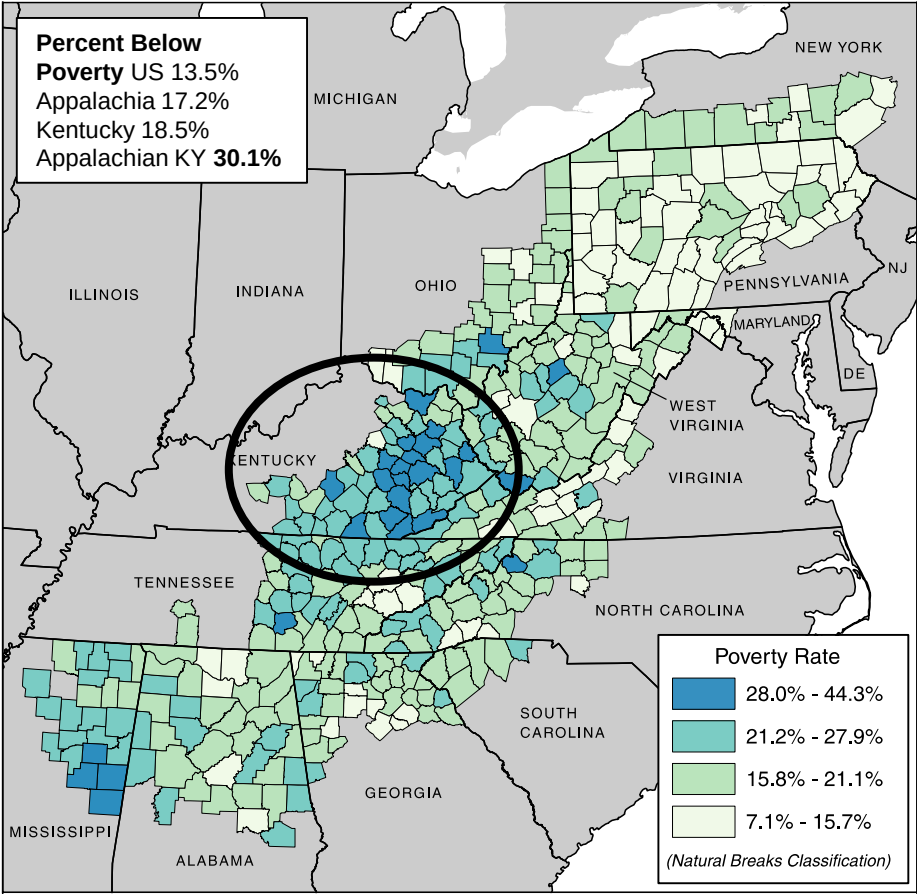
Lung, Breast Colorectal and Cervical Cancers Represent
50% of All Cancer Deaths in Kentucky
2011-2015



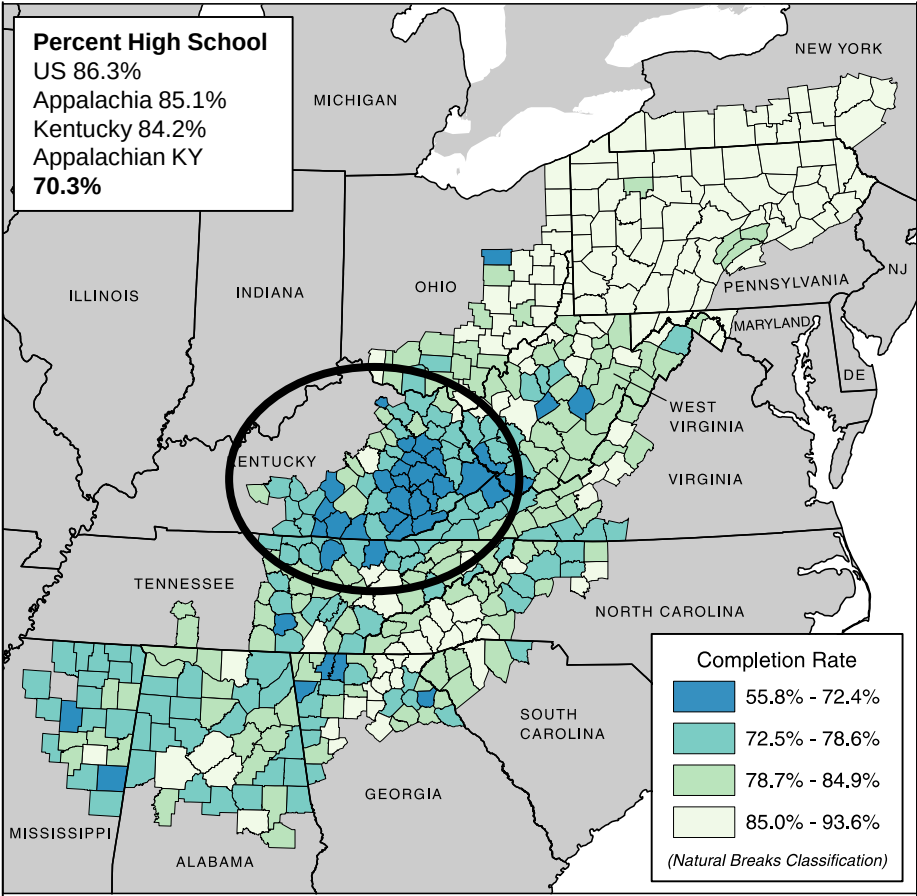
Appalachian Sub-regions



% Living Below Poverty Level (2010-2014)



% With a High School Degree (2010-2014)



Age-Adjusted **Incidence** and **Mortality** Rates 2009-2014

Incidence: U.S., Kentucky and Appalachian Kentucky

	● All Cancers	● Lung	● Colorectal	● Cervical	● Breast
U.S.	456.7	62.5	40.6	7.6	123.4
Kentucky	520.9	96.4	50.8	8.7	122.2
Appalachian Kentucky	* 534.5	* 109.2	* 54.6	* 9.6	* 113.3↓

Source: CDC/USCS Database (SEER & NPCR Combined) and Kentucky Cancer Registry (KCR).

* = $p < .05$ vs Kentucky as a whole and the U.S.

Mortality: U.S., Kentucky and Appalachian Kentucky

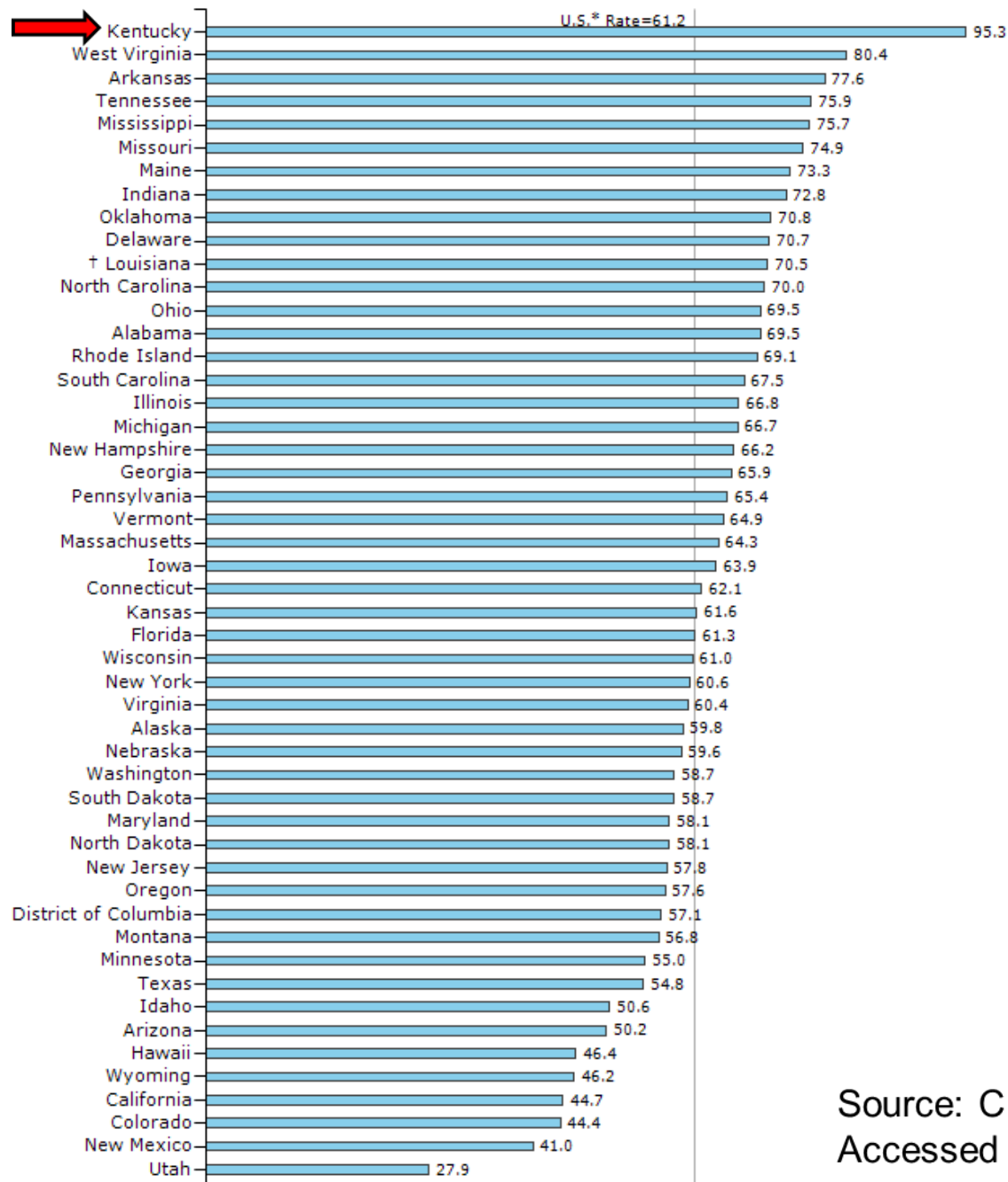
	● All Cancers	● Lung	● Colorectal	● Cervical	● Breast
U.S.	168.5	46.0	15.1	2.3	21.5
Kentucky	201.0	69.5	17.6	3.0	22.2
Appalachian Kentucky	* 226.6	* 82.1	* 20.3	* 3.6	* 24.1↑

Source: National Center for Health Statistics (NCHS) and KCR.

* = $p < .05$ vs Kentucky as a whole and the U.S.

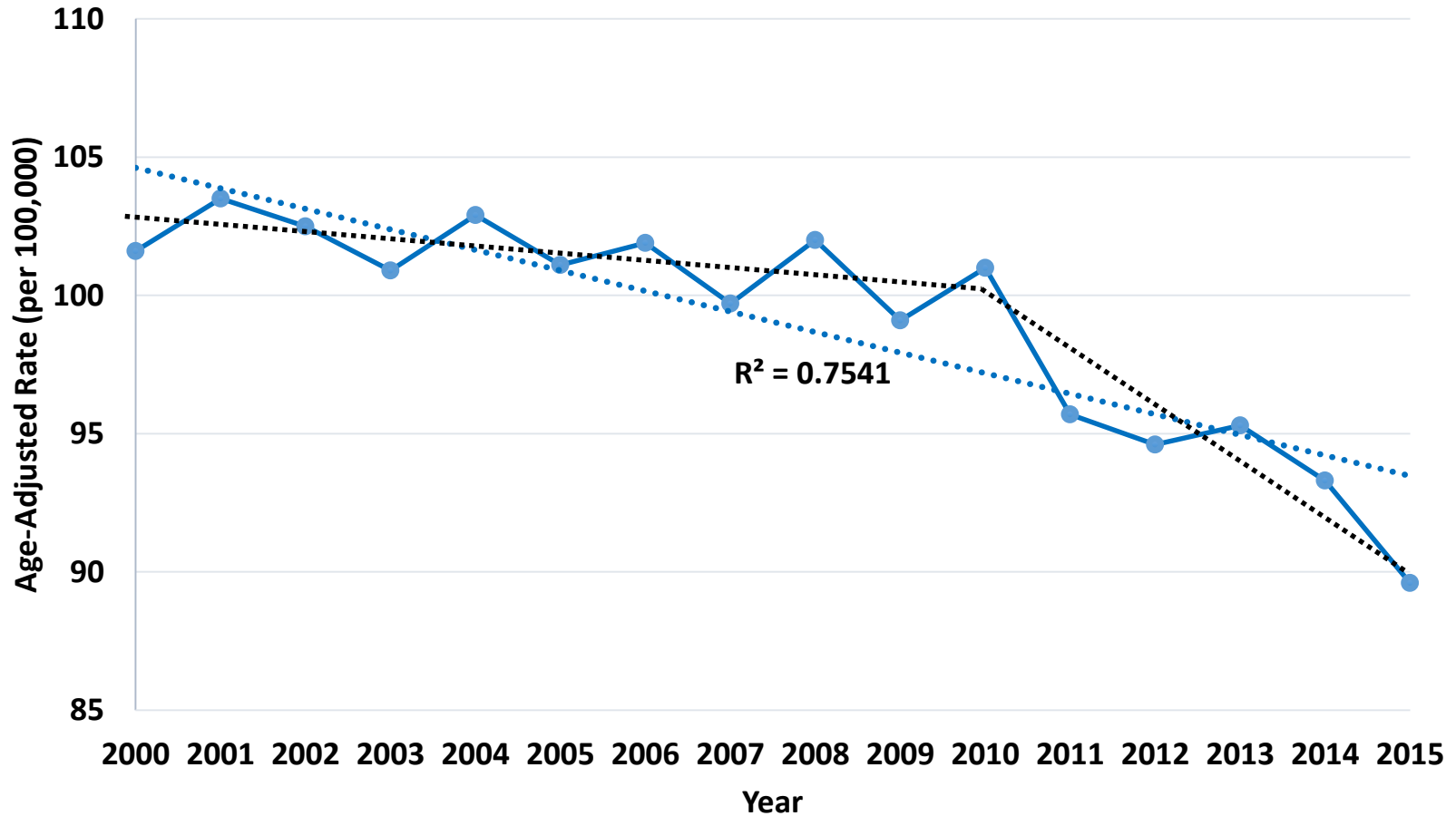
Lung Cancer **Incidence** in Kentucky

Both Genders, Lung Cancer Incidence Rates Ranked by State (2010 – 2014)

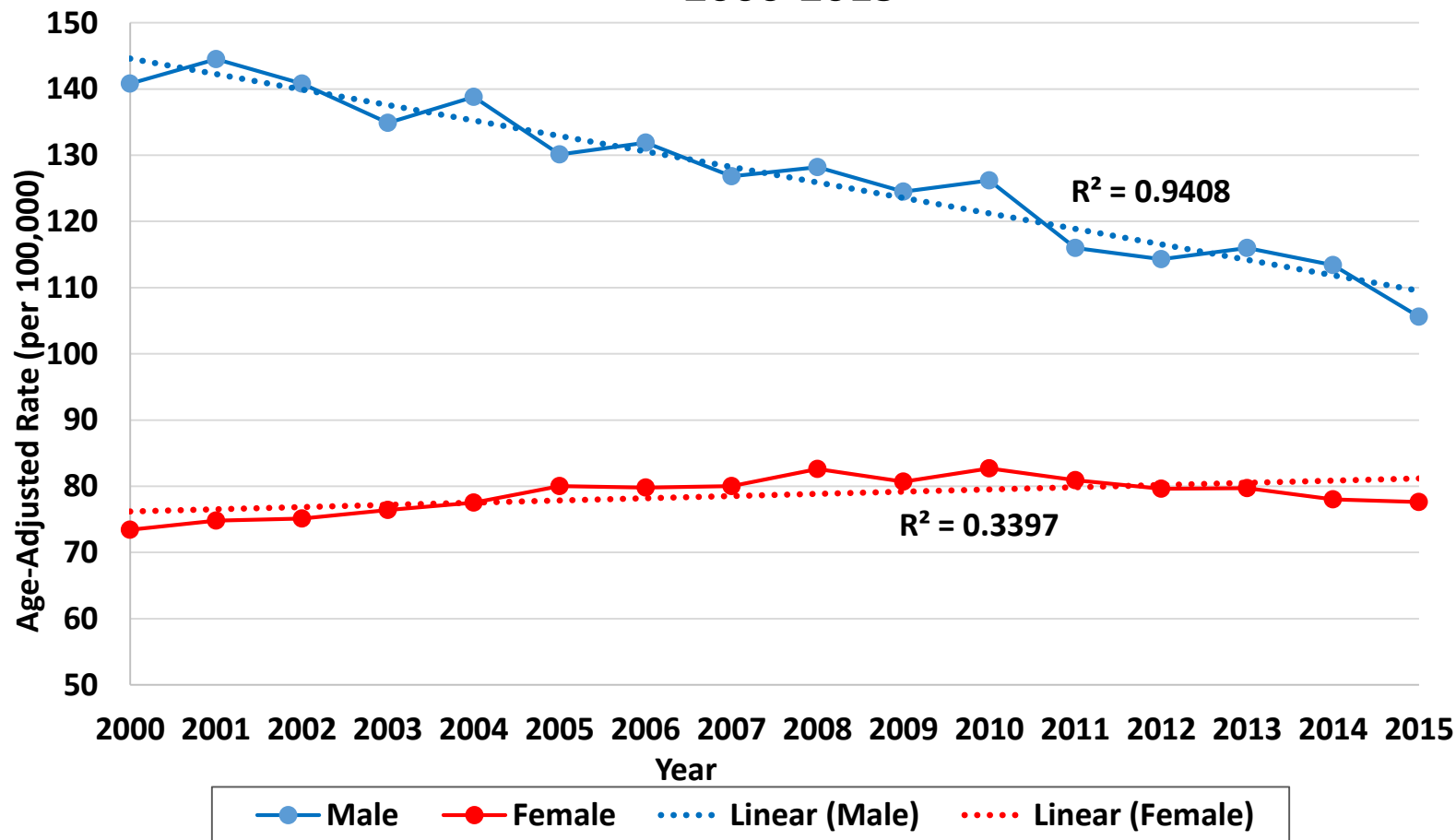


Source: CDC/USCS Website
Accessed April 20, 2018

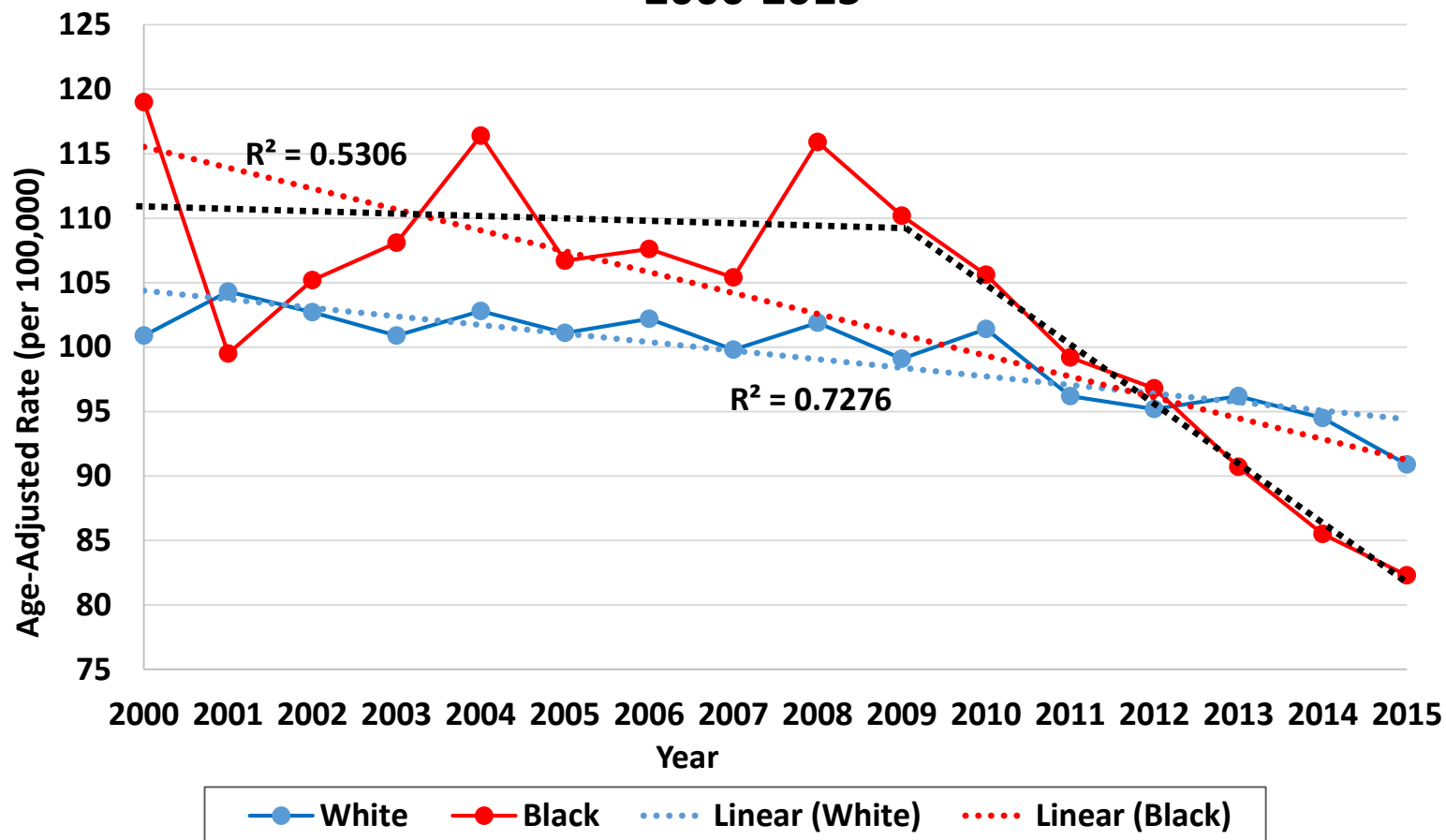
Overall Lung and Bronchus Cancer Incidence Rates 2000-2015



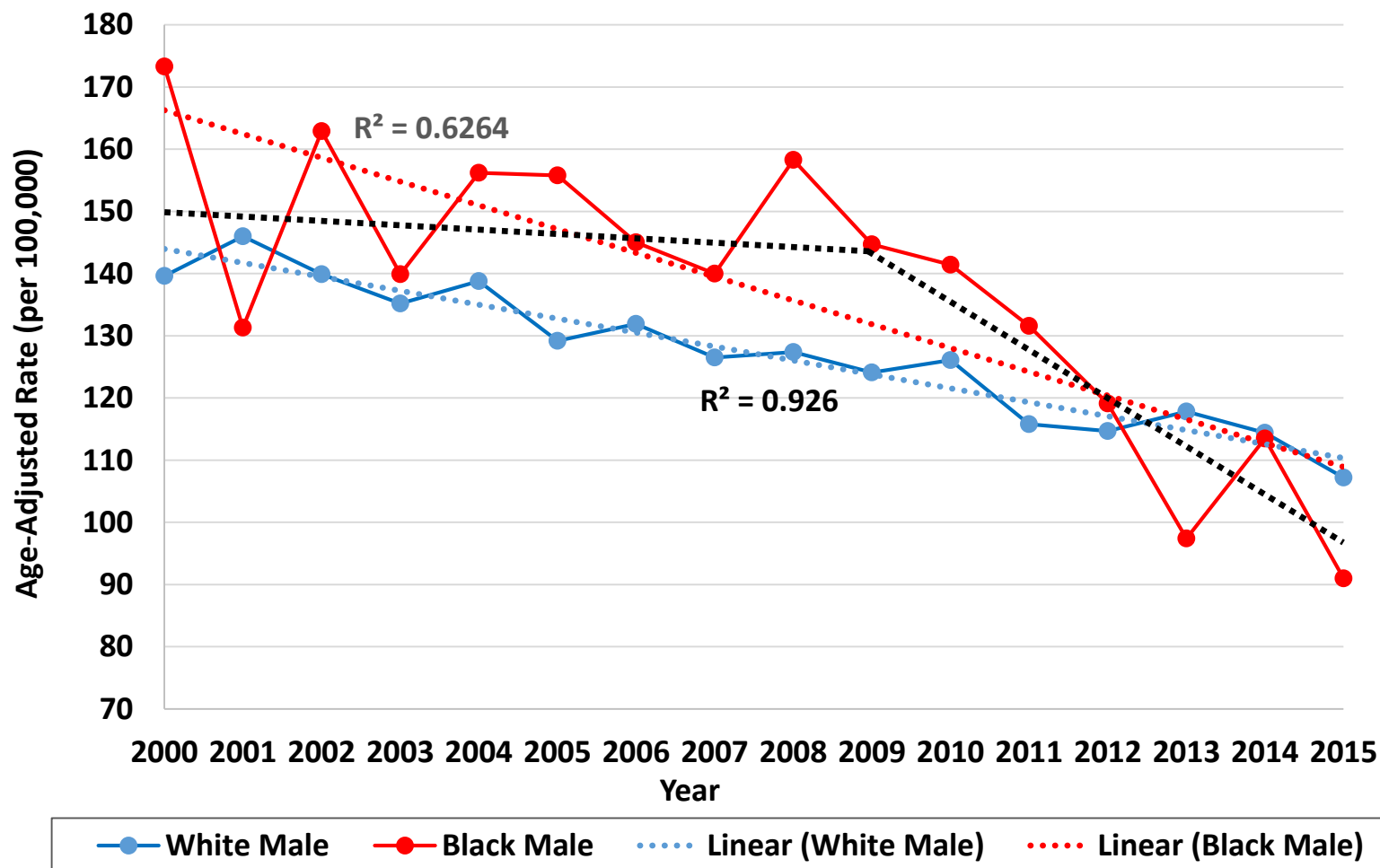
Male vs. Female Lung and Bronchus Cancer Incidence Rates 2000-2015



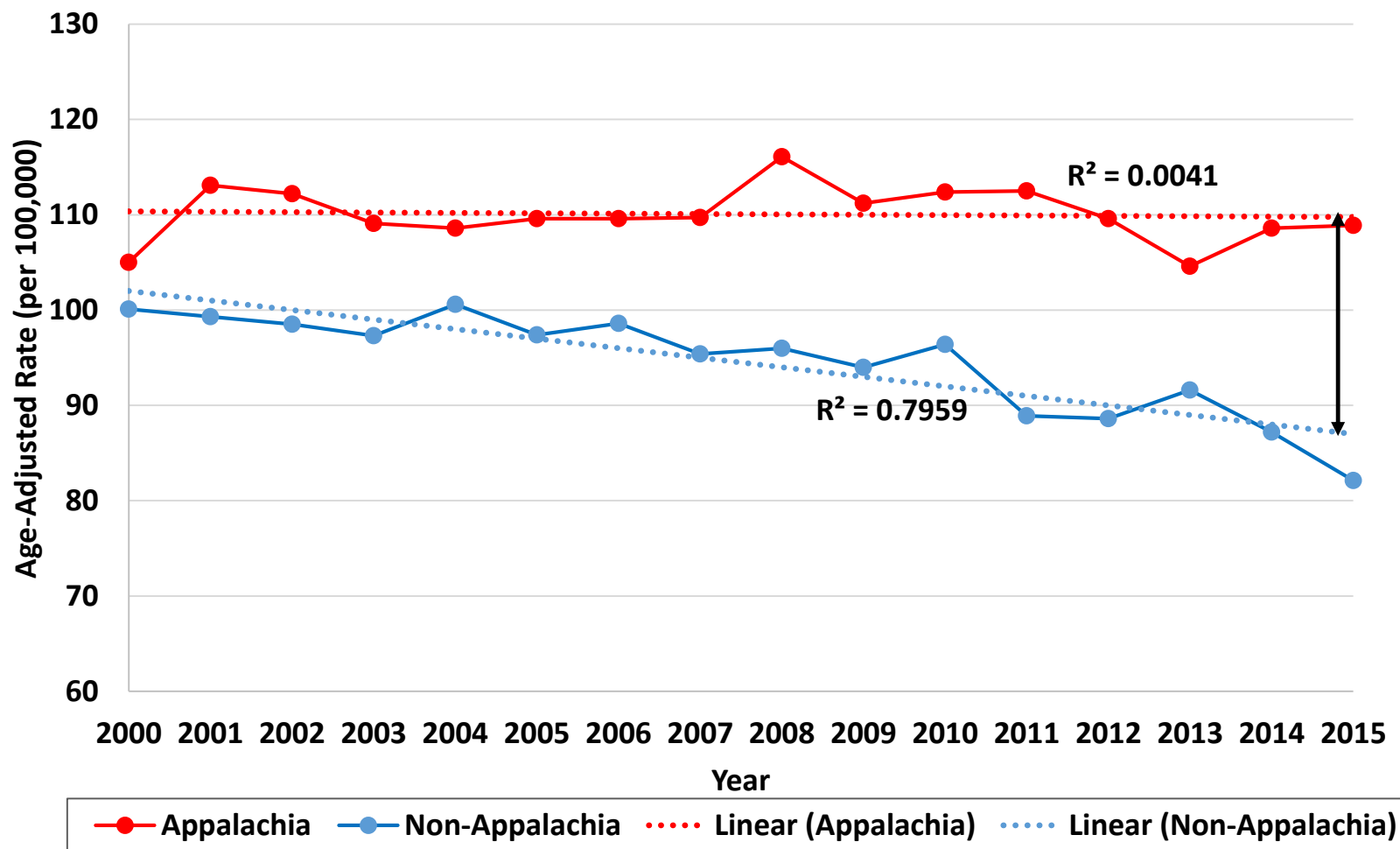
White vs. Black Lung and Bronchus Cancer Incidence Rates 2000-2015



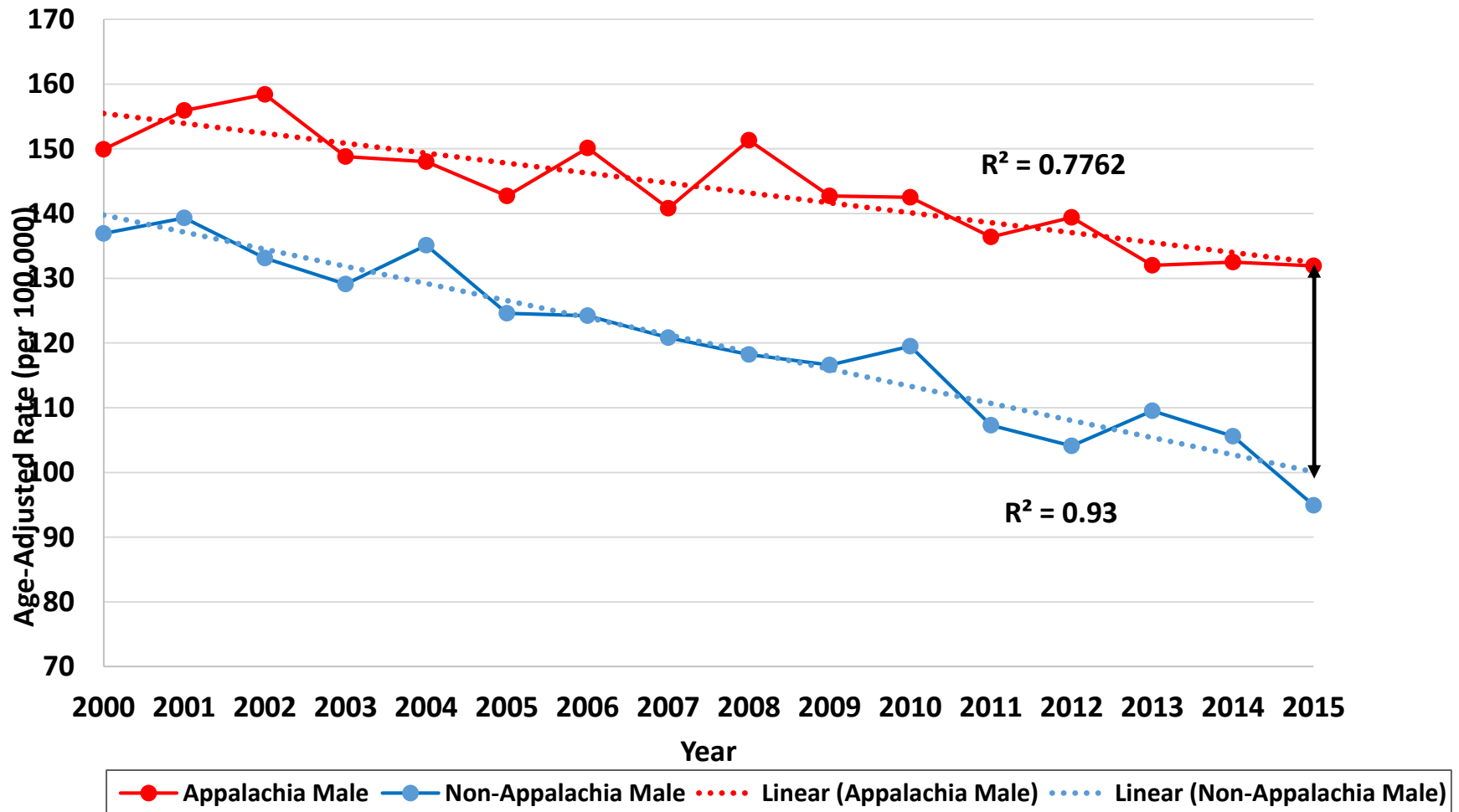
White Male vs. Black Male Lung and Bronchus Cancer Incidence Rates 2000-2015



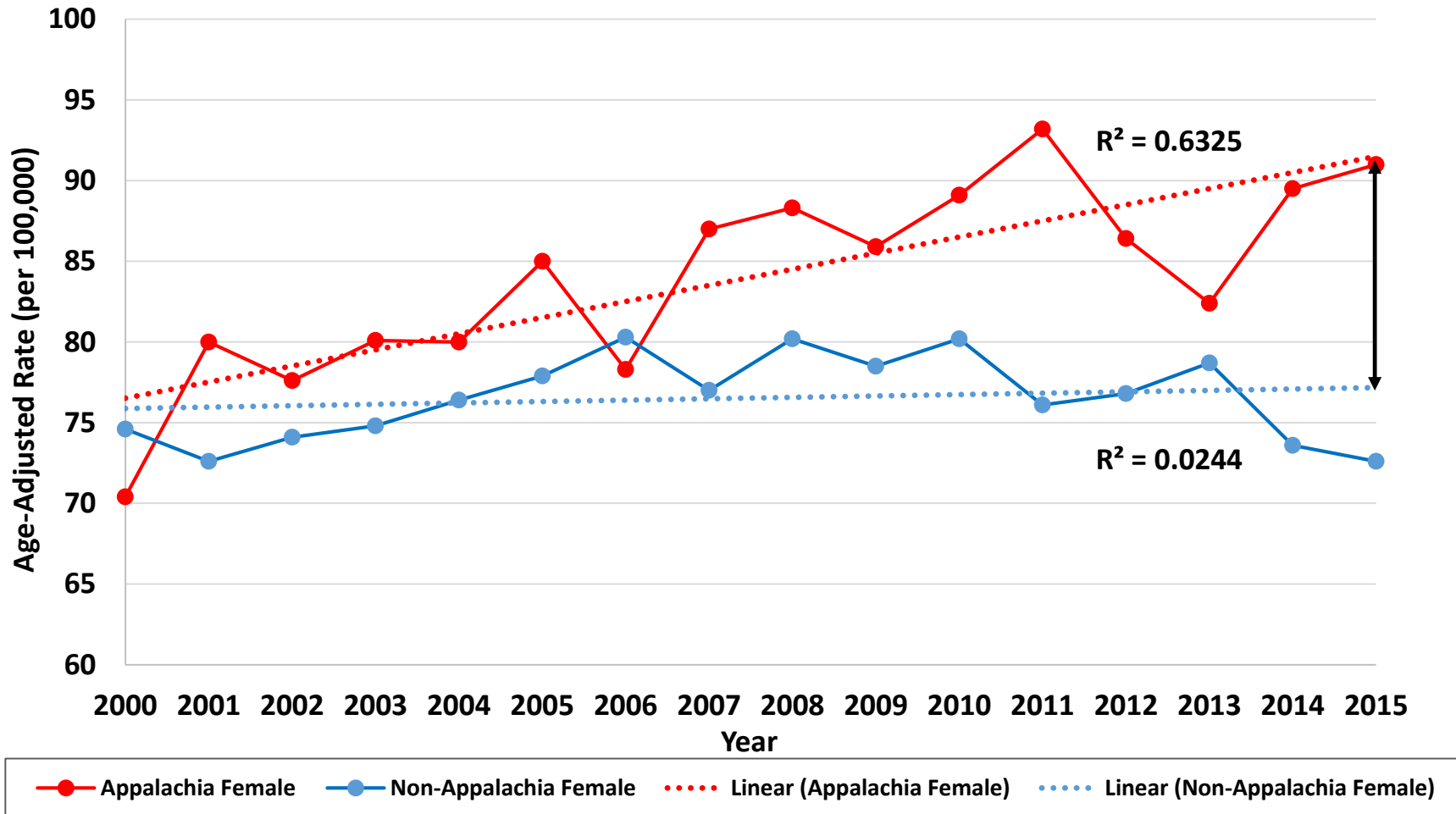
Appalachia vs. Non-Appalachia Lung and Bronchus Cancer Incidence Rates 2000-2015



Appalachian Male vs. Non-Appalachian Male Lung and Bronchus Cancer Incidence Rates 2000-2015

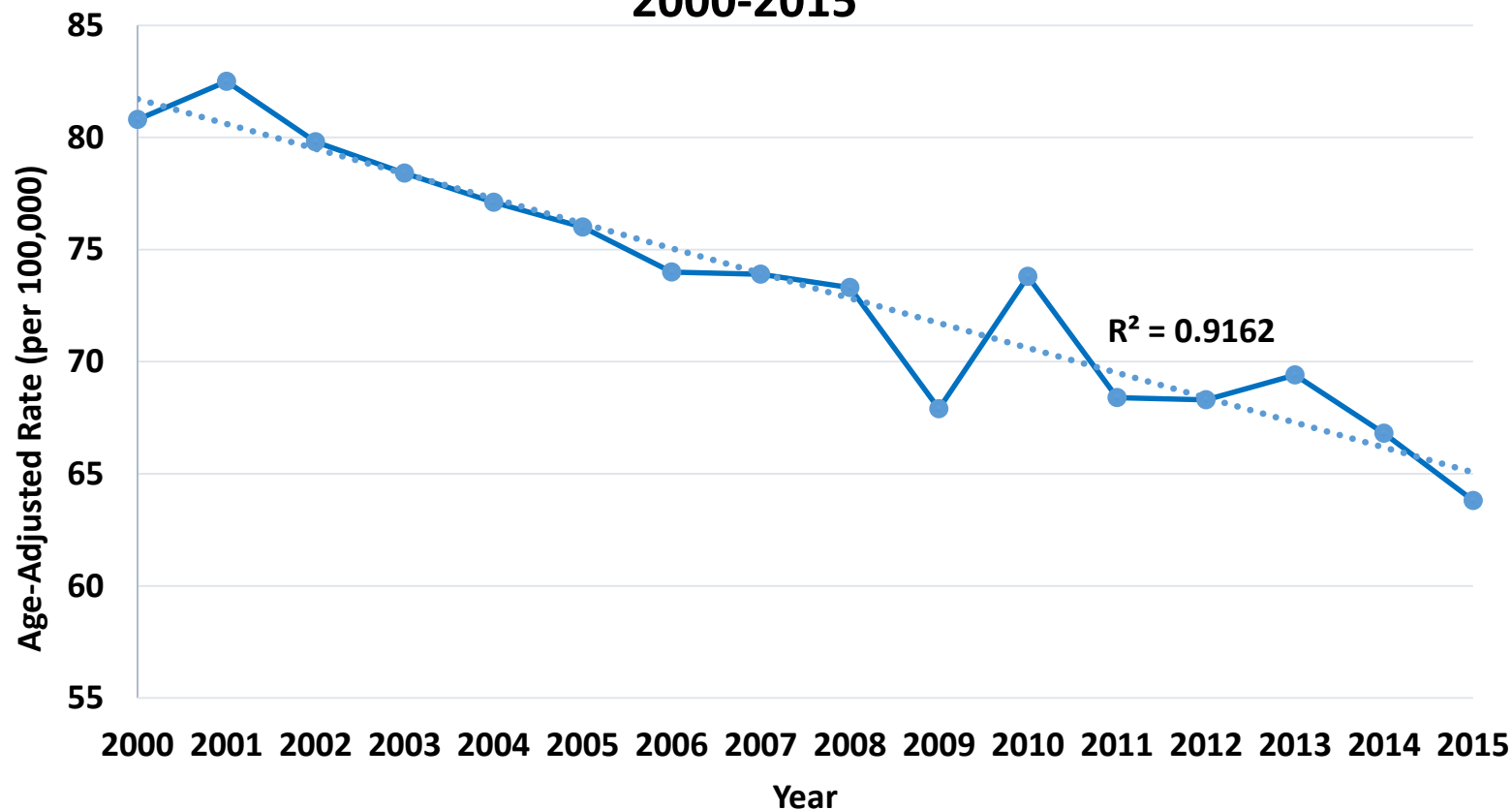


Appalachian Female vs. Non-Appalachian Female Lung and Bronchus Cancer Incidence Rates 2000-2015

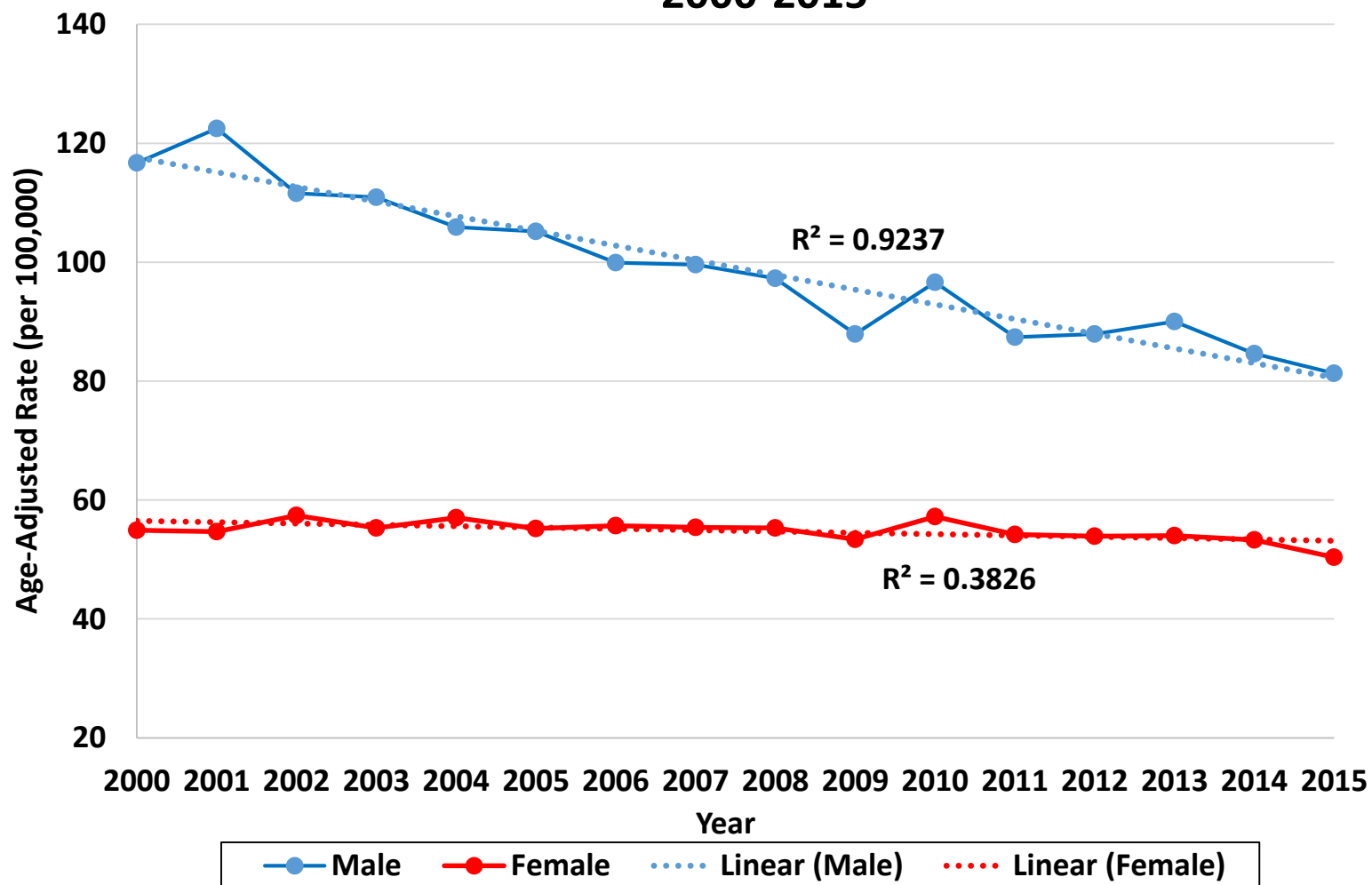


Lung Cancer **Mortality** in Kentucky

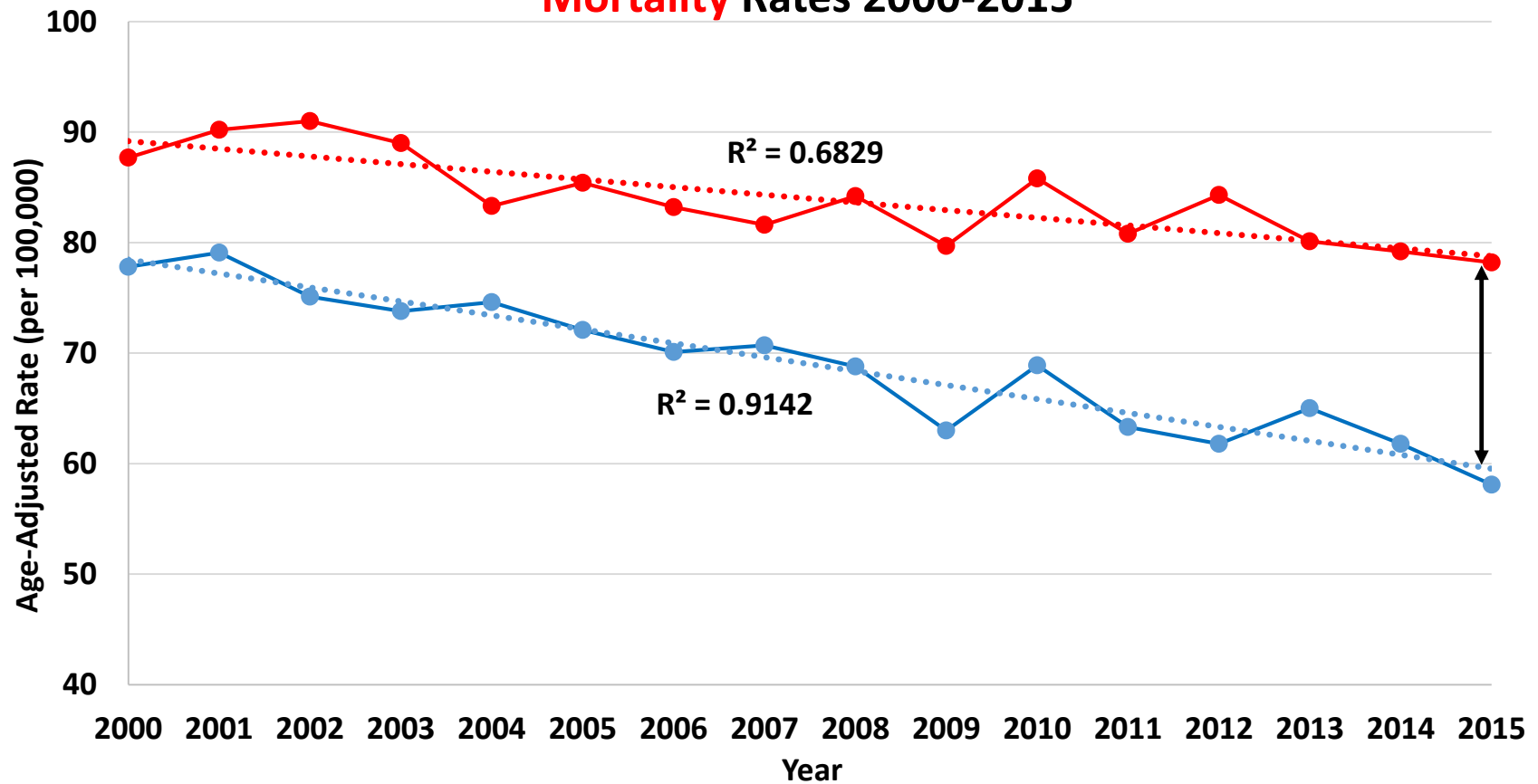
Overall Lung and Bronchus Cancer Mortality Rates 2000-2015



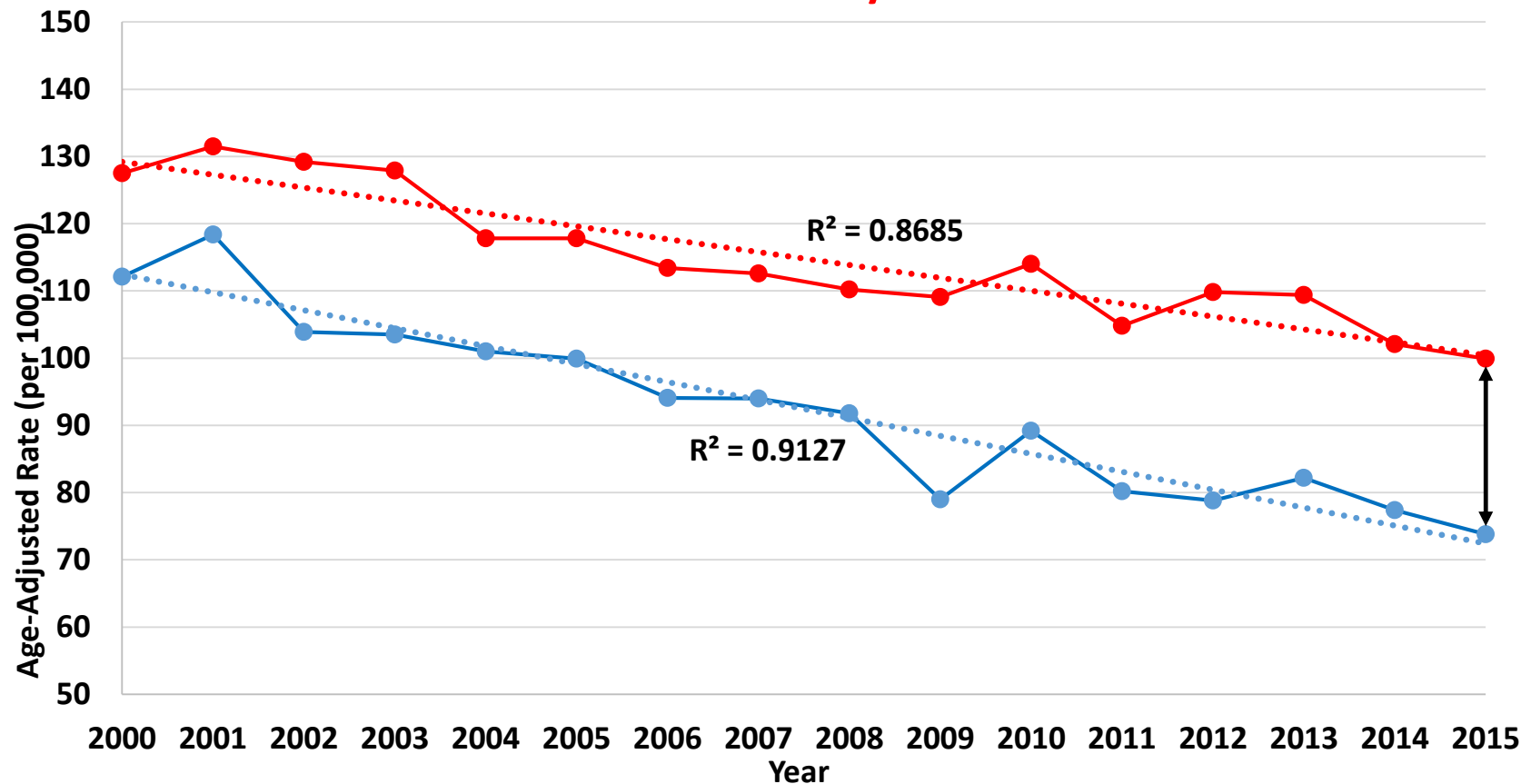
Male vs. Female Lung and Bronchus Cancer **Mortality** Rates 2000-2015



Appalachia vs. Non-Appalachia Lung and Bronchus Cancer Mortality Rates 2000-2015

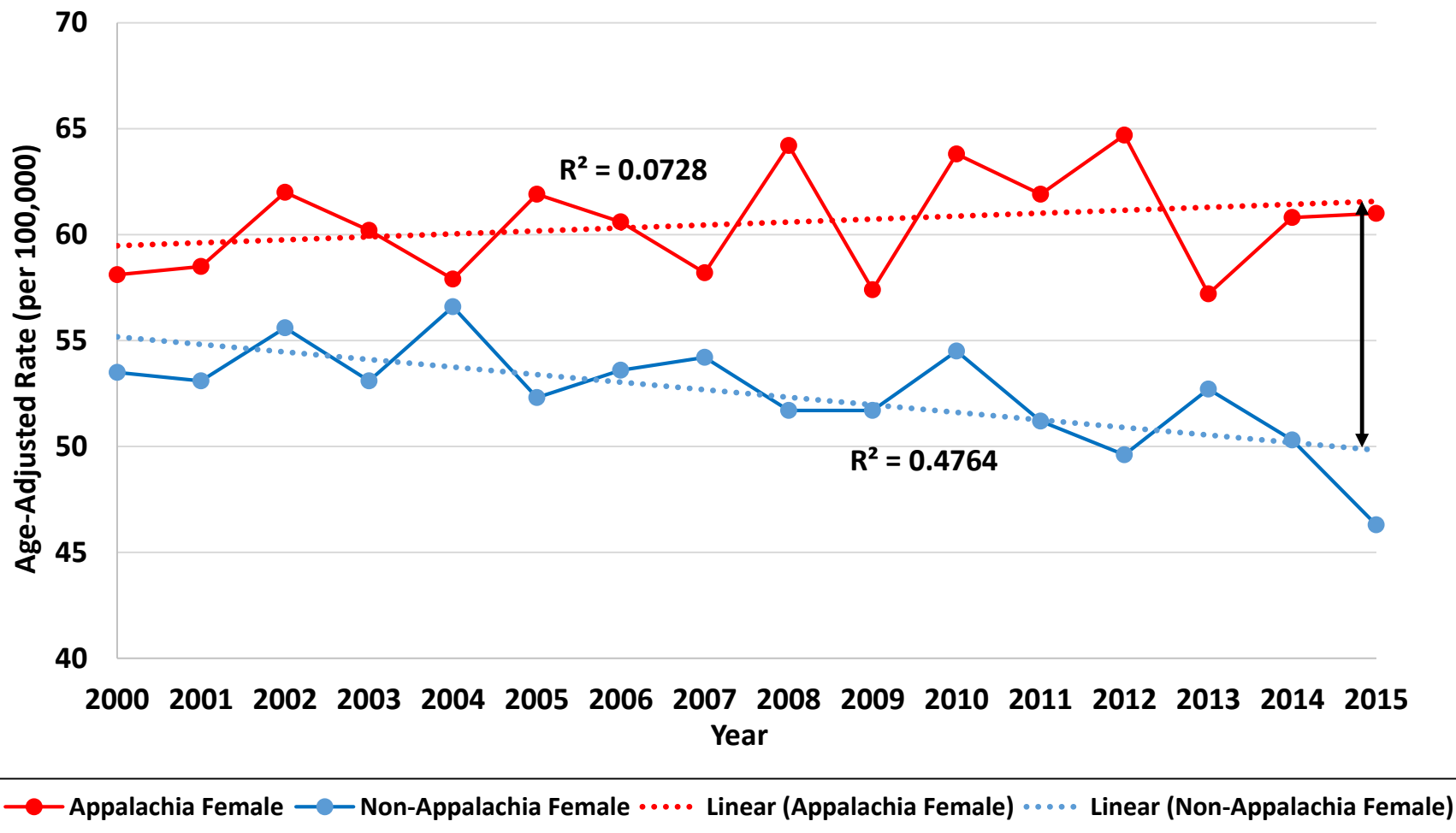


Appalachian Male vs. Non-Appalachian Male Lung and Bronchus Cancer **Mortality** Rates 2000-2015

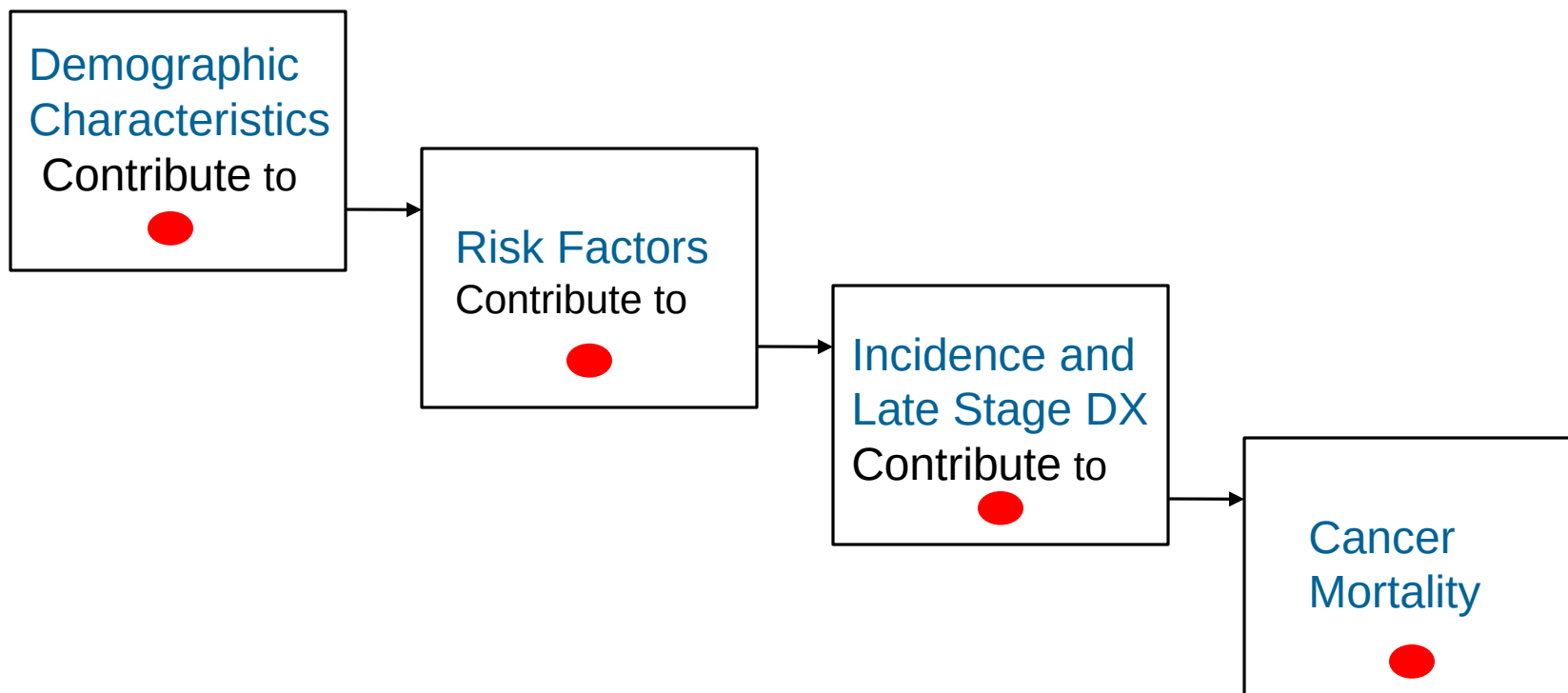


● Appalachia Male ● Non-Appalachia Male Linear (Appalachia Male) Linear (Non-Appalachia Male)

Appalachian Female vs. Non-Appalachian Female Lung and Bronchus Cancer **Mortality** Rates 2000-2015

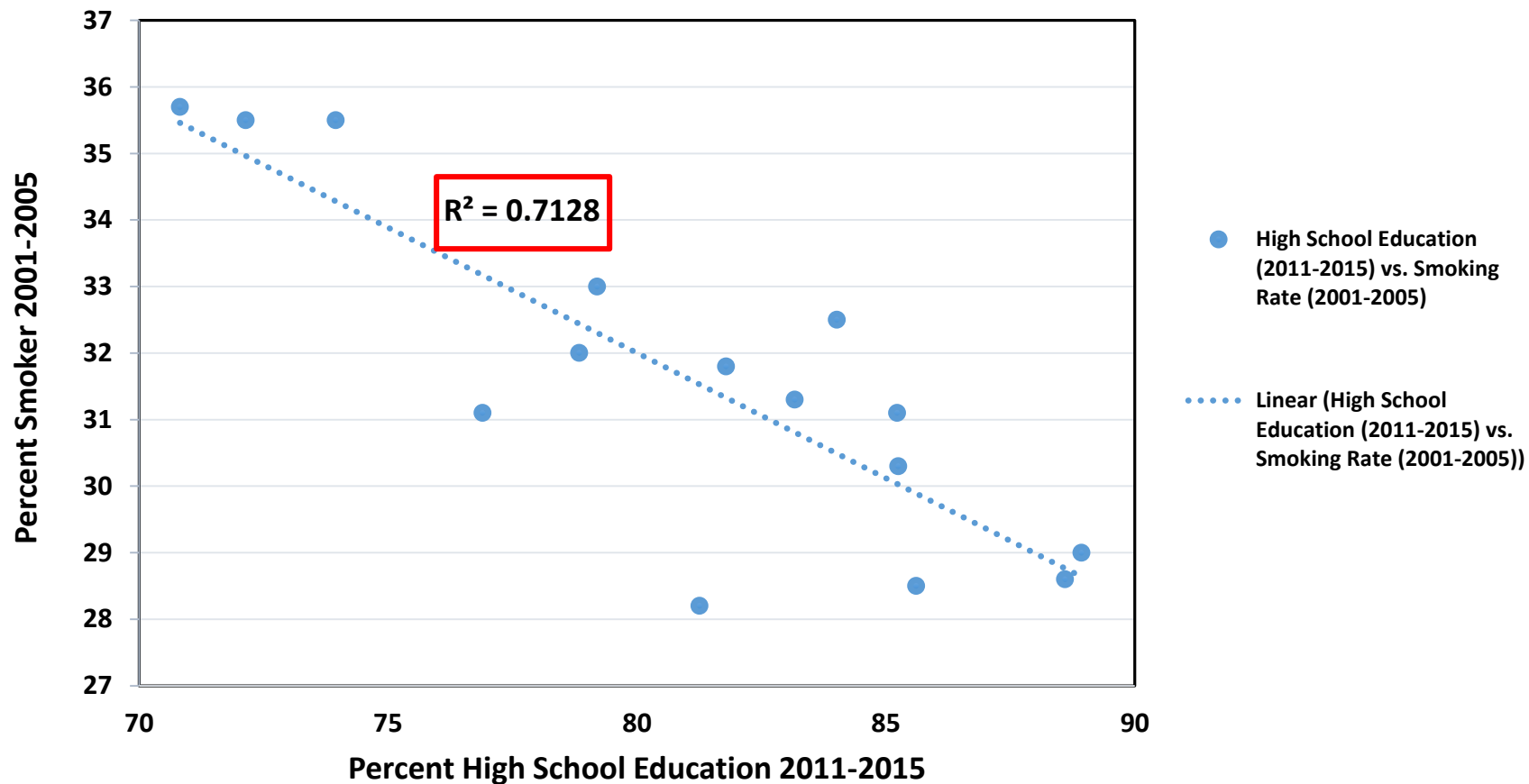


Combining Data from Multiple Sources To Create an Index of the Burden of Cancer

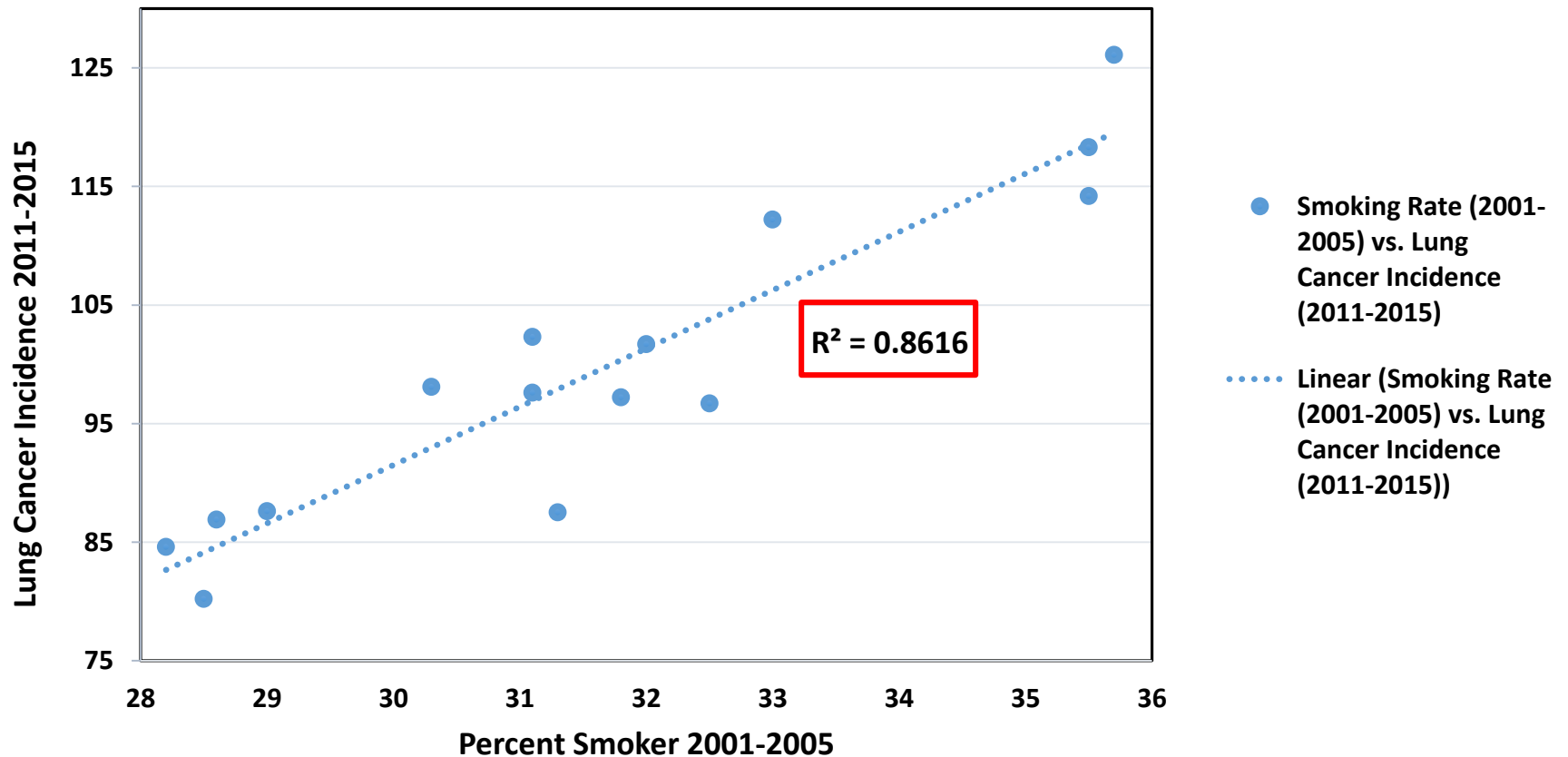


Sequence

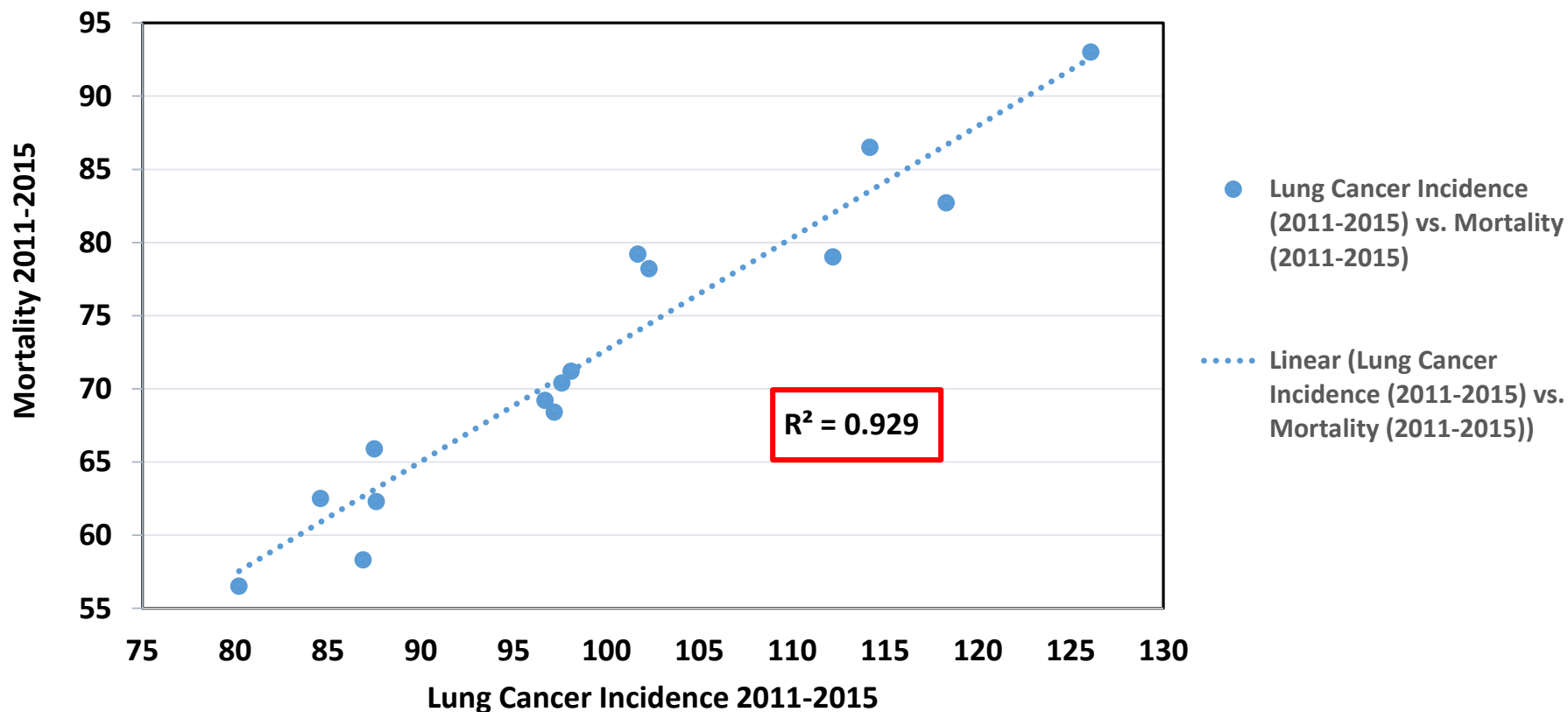
High School Education (2011-2015) vs. Smoking Rate (2001-2005)



Smoking Rate (2001-2005) vs. Lung Cancer Incidence (2011-2015)



Lung Cancer Incidence (2011-2015) vs. Mortality (2011-2015)

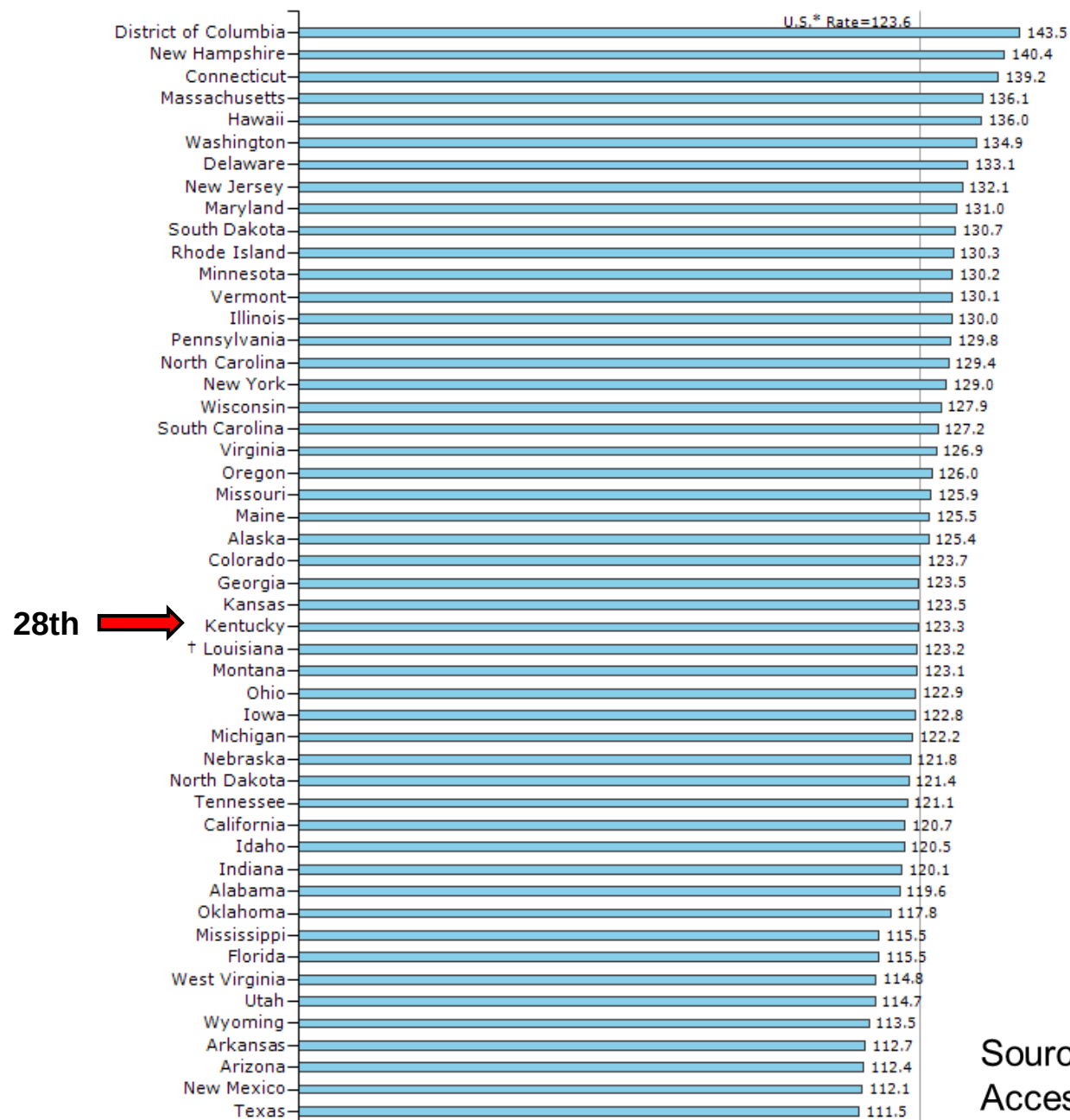


Lung Cancer by Area Development District in KY, 2011-2015

Area Development District ●	High School Education, 2011-2015 ●		Current Smoker, 2001-2005 ●		Age-Adjusted Incidence ●		Age-Adjusted Mortality ●		Overall Rank ●
	Percent	Rank	Percent	Rank	Rate	Rank	Rate	Rank	
Kentucky River	70.8	1	35.7	1	126.1	1	93	1	4
Cumberland Valley	72.1	2	35.5	3	114.2	3	86.5	2	10
Big Sandy	74.0	3	35.5	2	118.3	2	82.7	3	10
Buffalo Trace	79.2	6	33	4	112.2	4	79	5	19
Gateway	78.8	5	32	6	101.7	6	79.2	4	21
Lake Cumberland	76.9	4	31.1	9	102.3	5	78.2	6	24
Fivco	84.0	10	32.5	5	96.7	10	69.2	9	34
Barren River	81.8	8	31.8	7	97.2	9	68.4	10	34
Green River	85.3	12	30.3	11	98.1	7	71.2	7	37
Lincoln Trail	85.2	11	31.1	10	97.6	8	70.4	8	37
Pennyryle	83.2	9	31.3	8	87.5	12	65.9	11	40
Bluegrass	81.3	7	28.2	15	84.6	14	62.5	12	48
Northern Kentucky	88.9	15	29	12	87.6	11	62.3	13	51
Kipda	88.6	14	28.6	13	86.9	13	58.3	14	54
Purchase	85.6	13	28.5	14	80.2	15	56.5	15	57

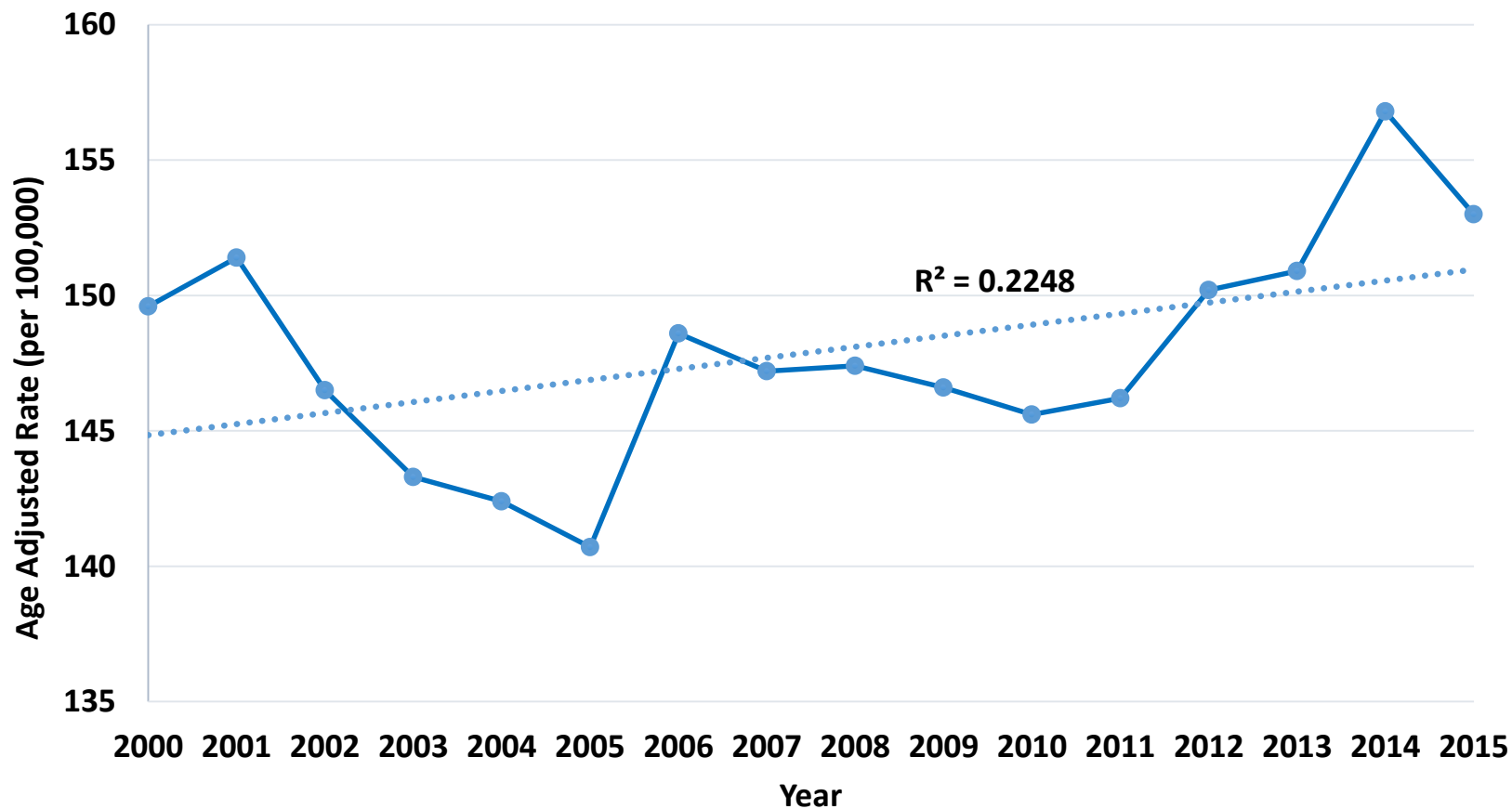
Female Breast Cancer **Incidence** Kentucky

Female Breast Cancer **Incidence** Rates Ranked by State (2010 – 2014)

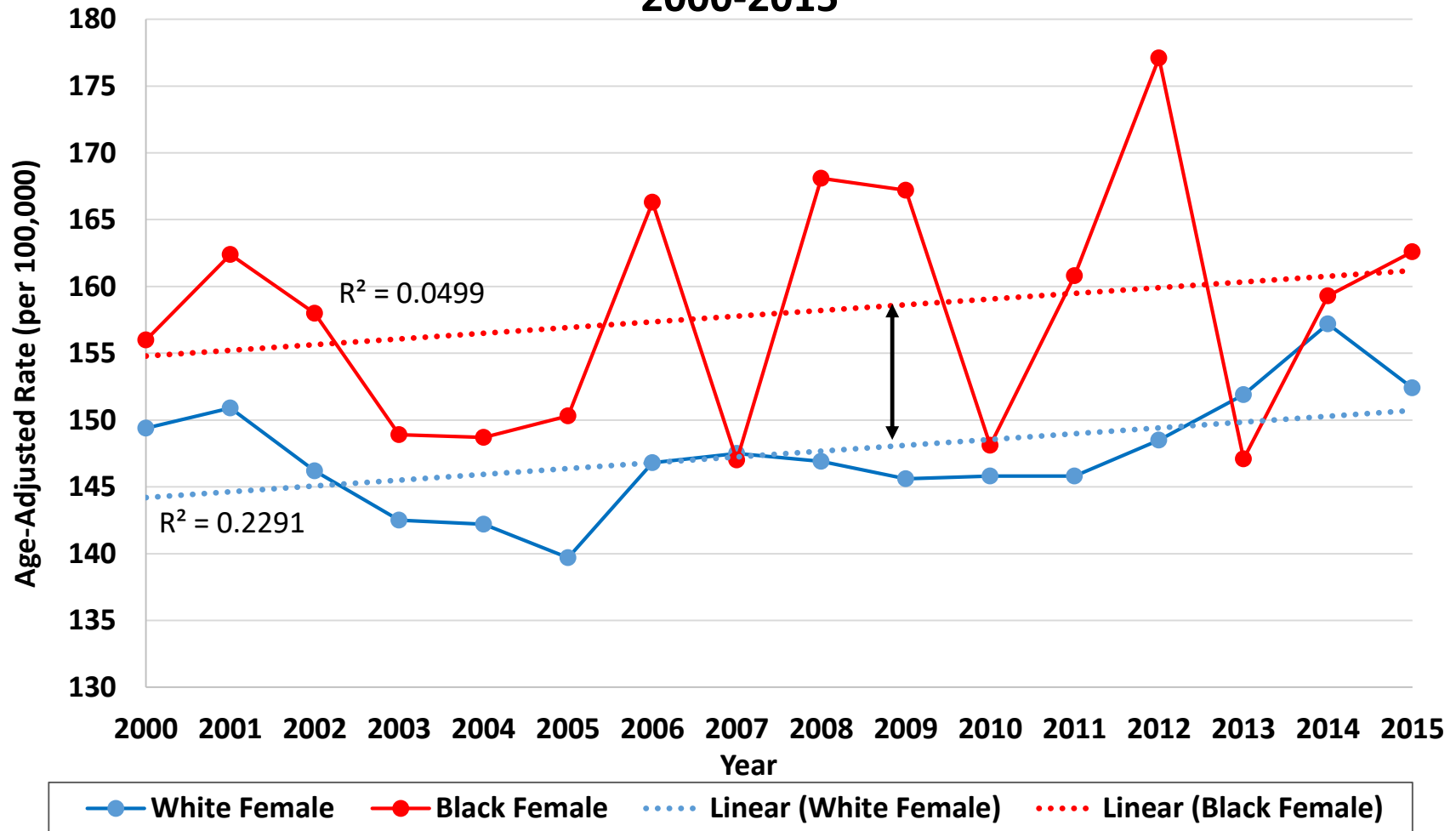


Source: CDC/USCS Website
Accessed April 20, 2018

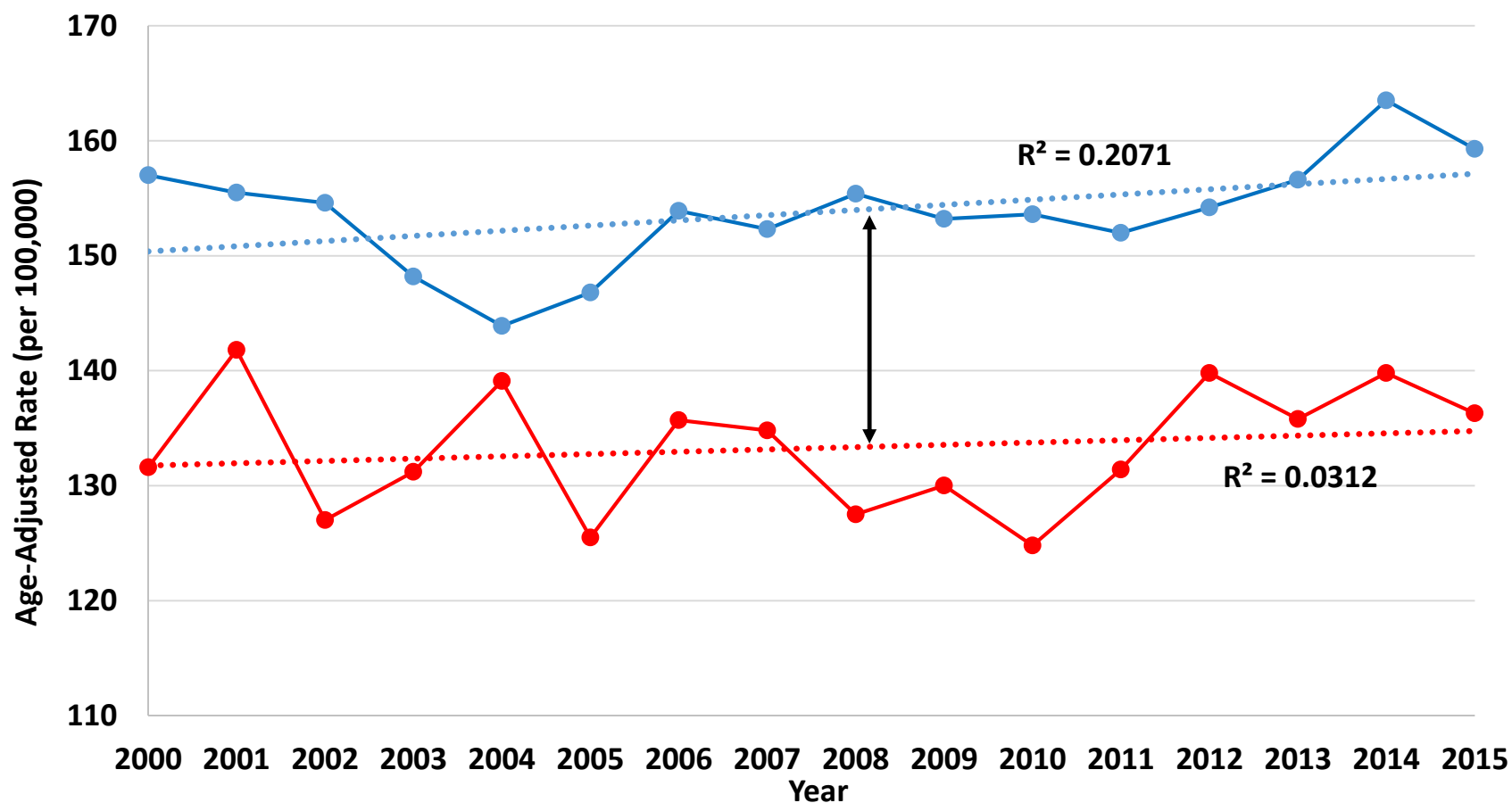
Overall Female Breast Cancer **incidence** Rates 2000-2015



White Female vs. Black Female Breast Cancer Incidence Rates 2000-2015



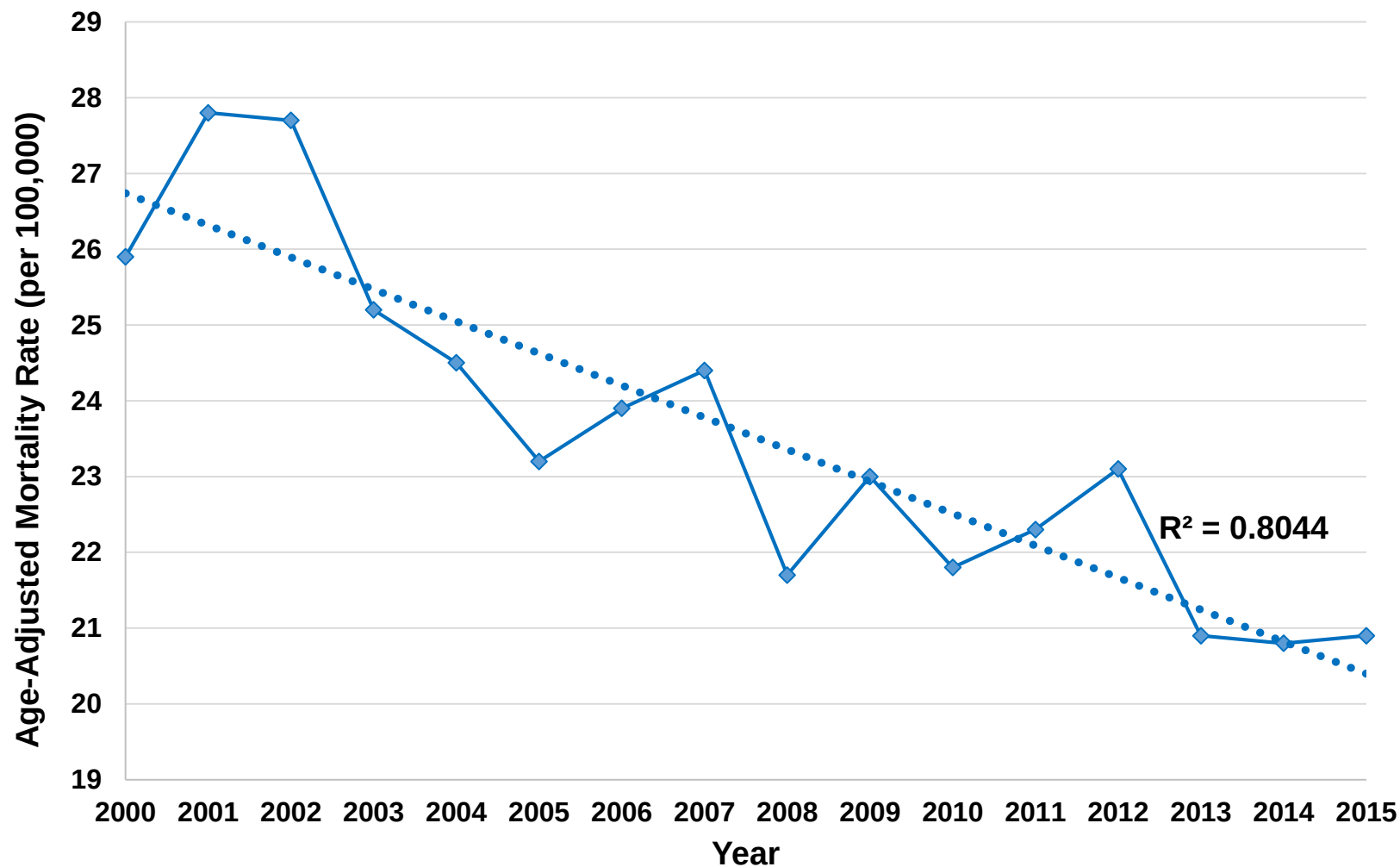
Appalachian Female vs. Non-Appalachian Female Breast Cancer incidence Rates 2000-2015



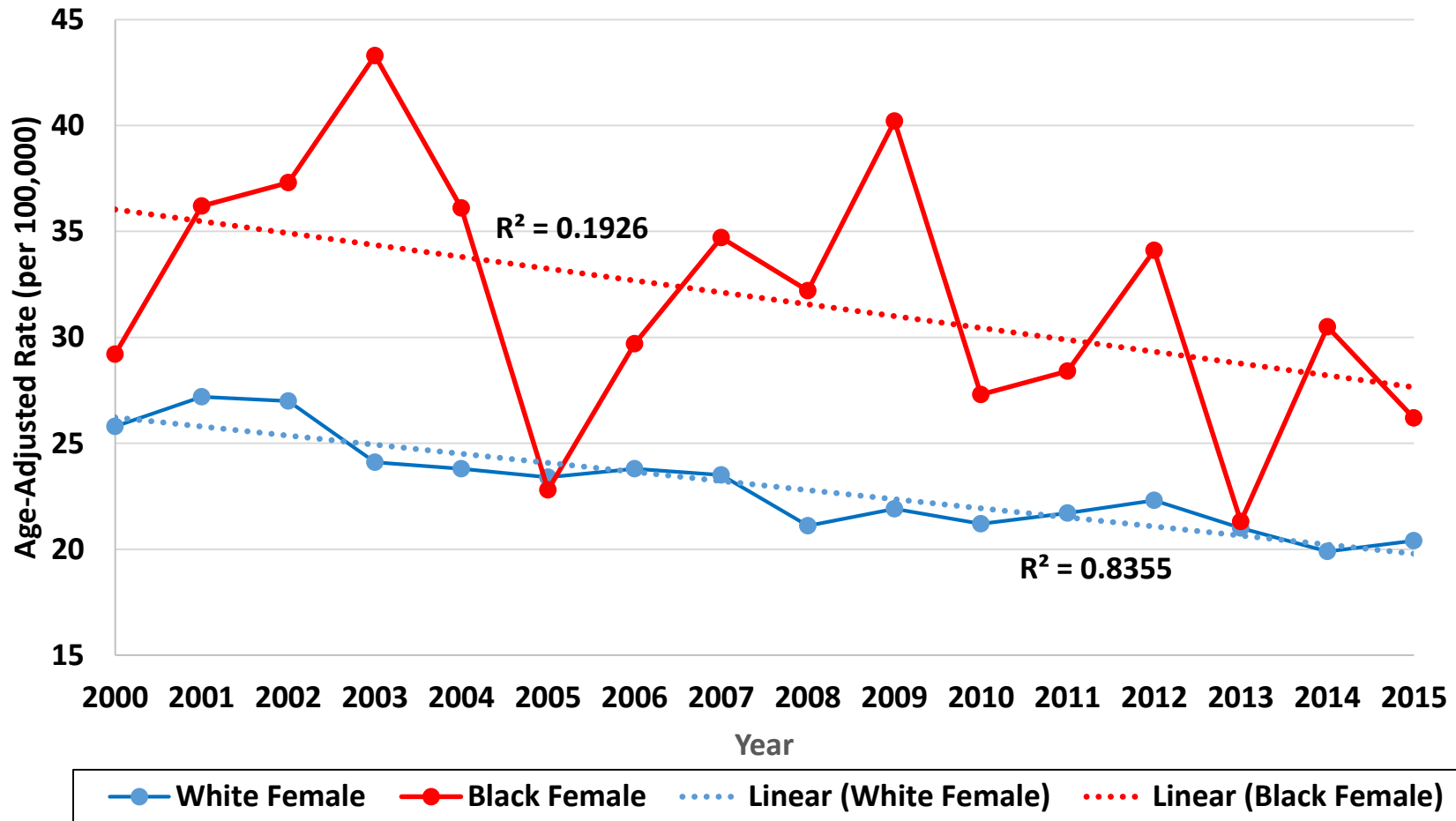
—●— Appalachia Female —●— Non-Appalachia Female Linear (Appalachia Female) Linear (Non-Appalachia Female)

Female Breast Cancer **Mortality** Kentucky

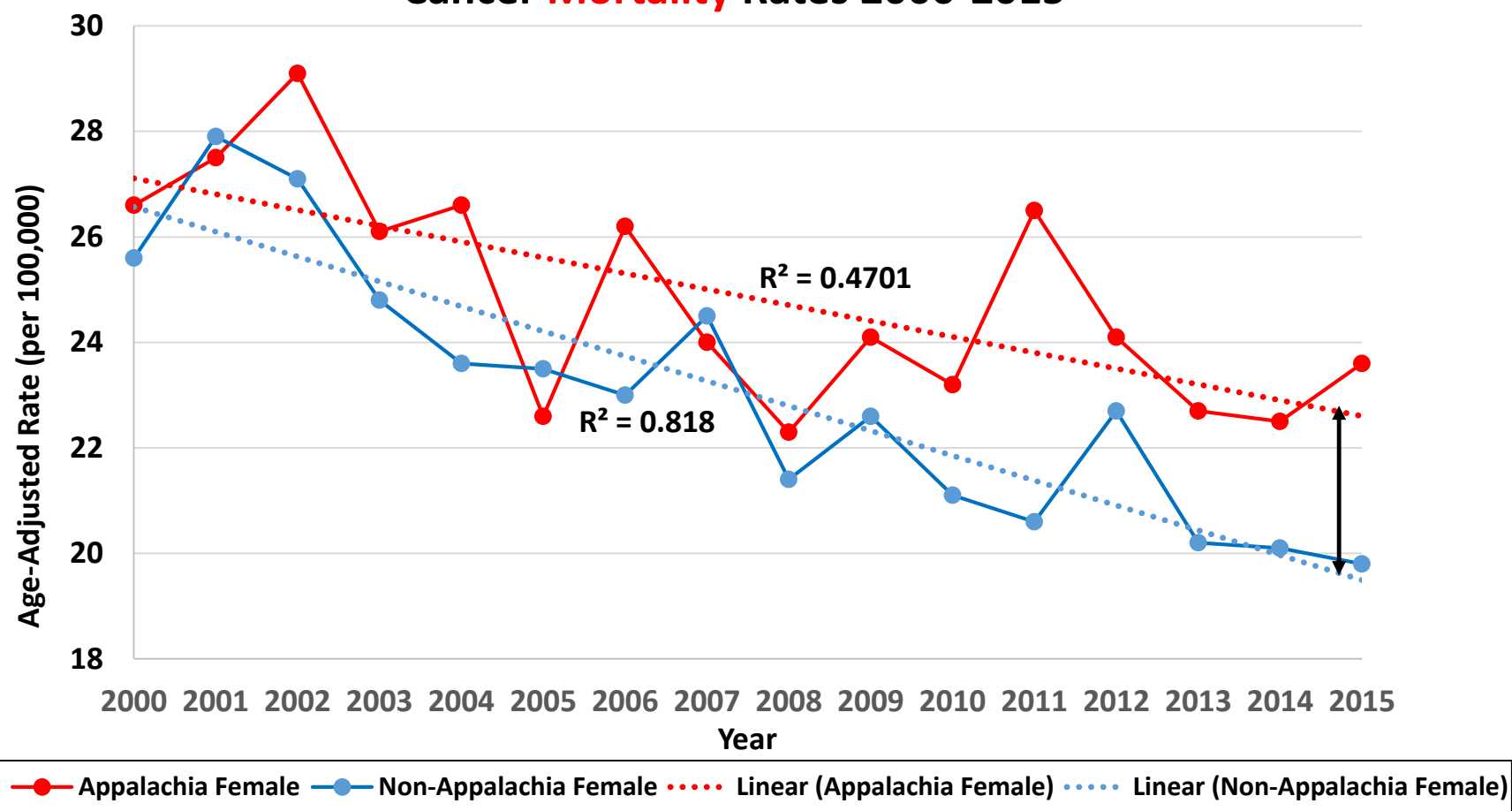
Overall Female Breast Cancer Mortality Rates, 2000-2015



White Female vs. Black Female Breast Cancer Mortality Rates 2000-2015

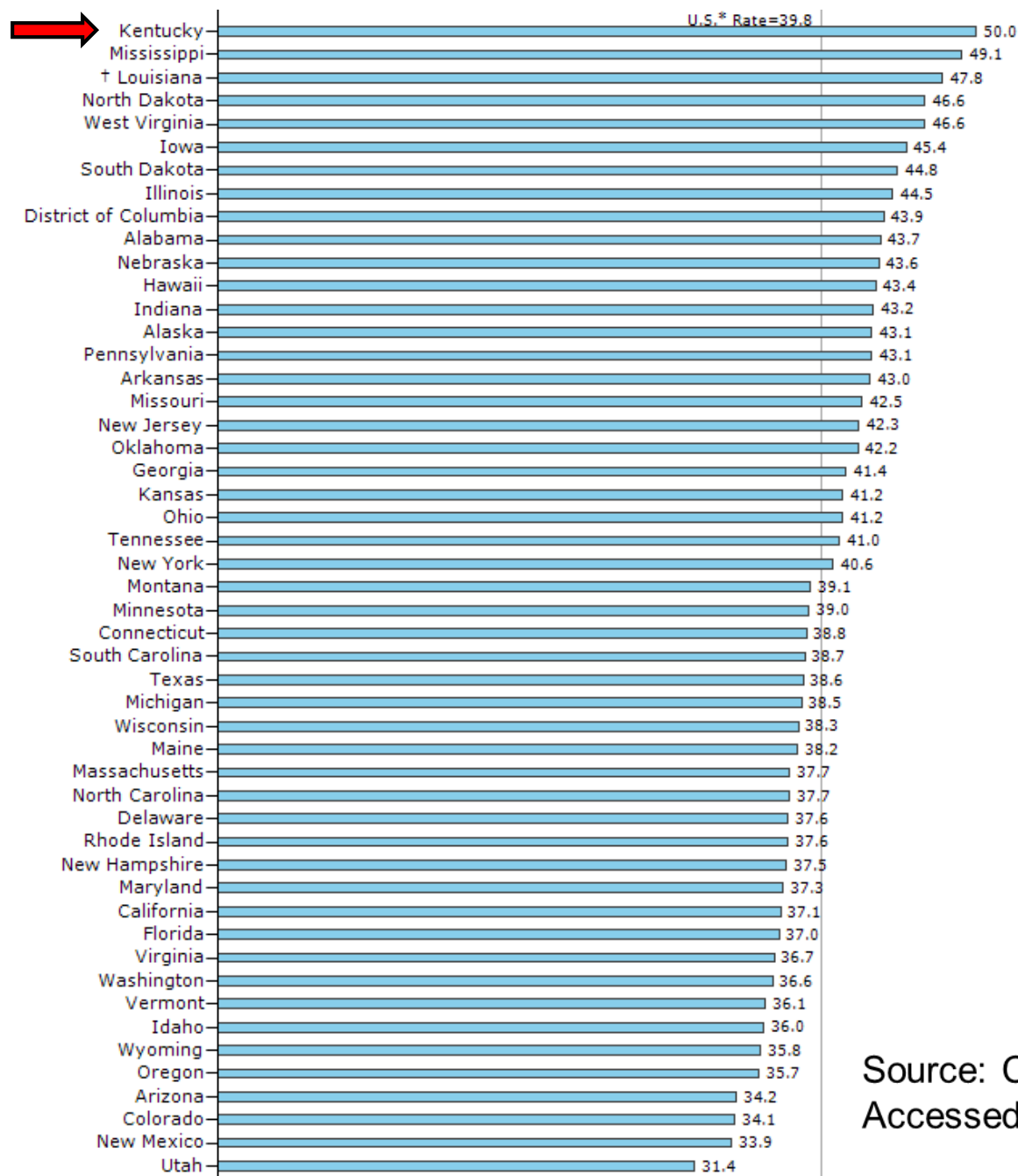


Appalachian Female vs. Non-Appalachian Female Breast Cancer Mortality Rates 2000-2015



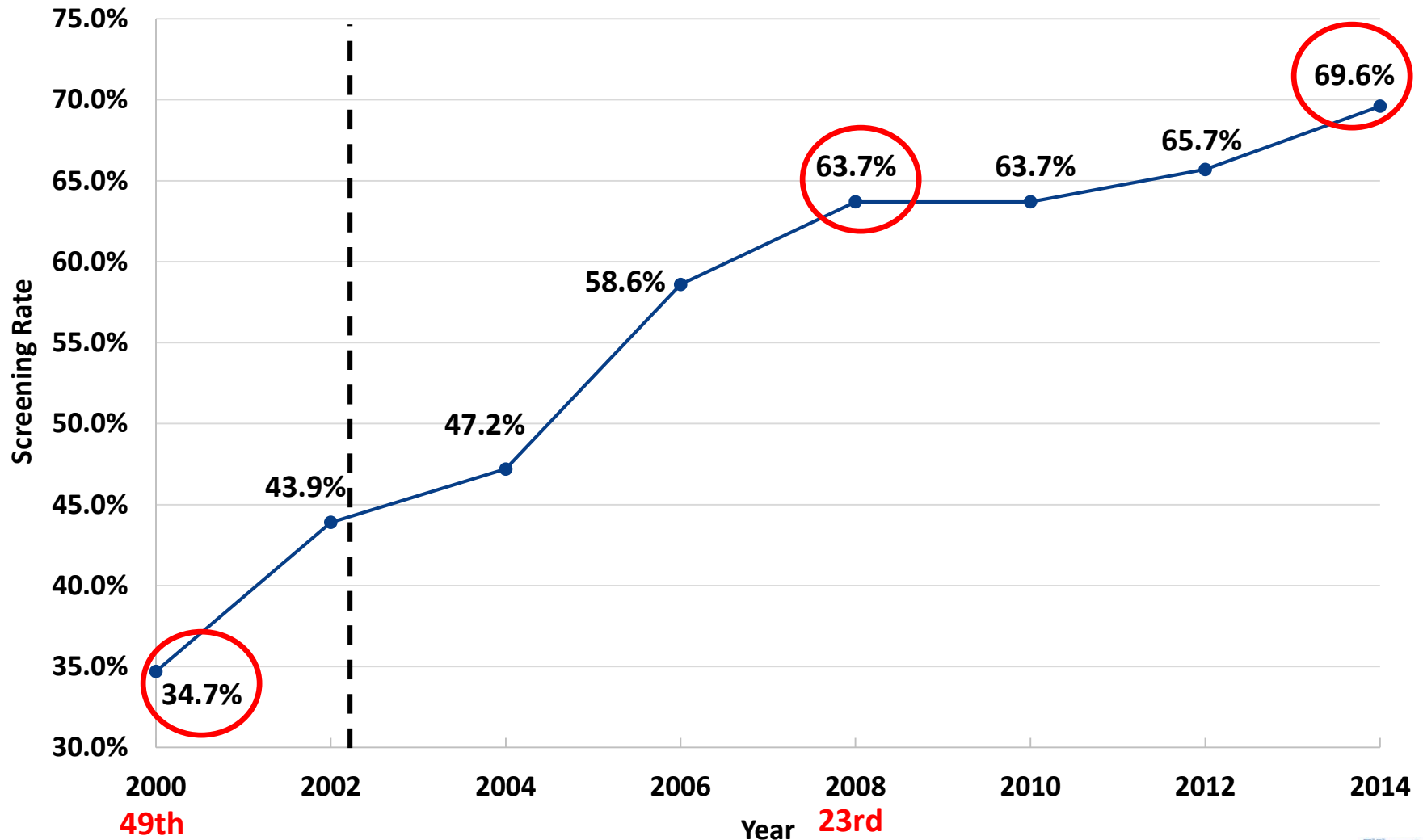
Colon and Rectum Cancer **Incidence** Kentucky

Both Genders, Colorectal Cancer Incidence Rates Ranked by State (2010 – 2014)



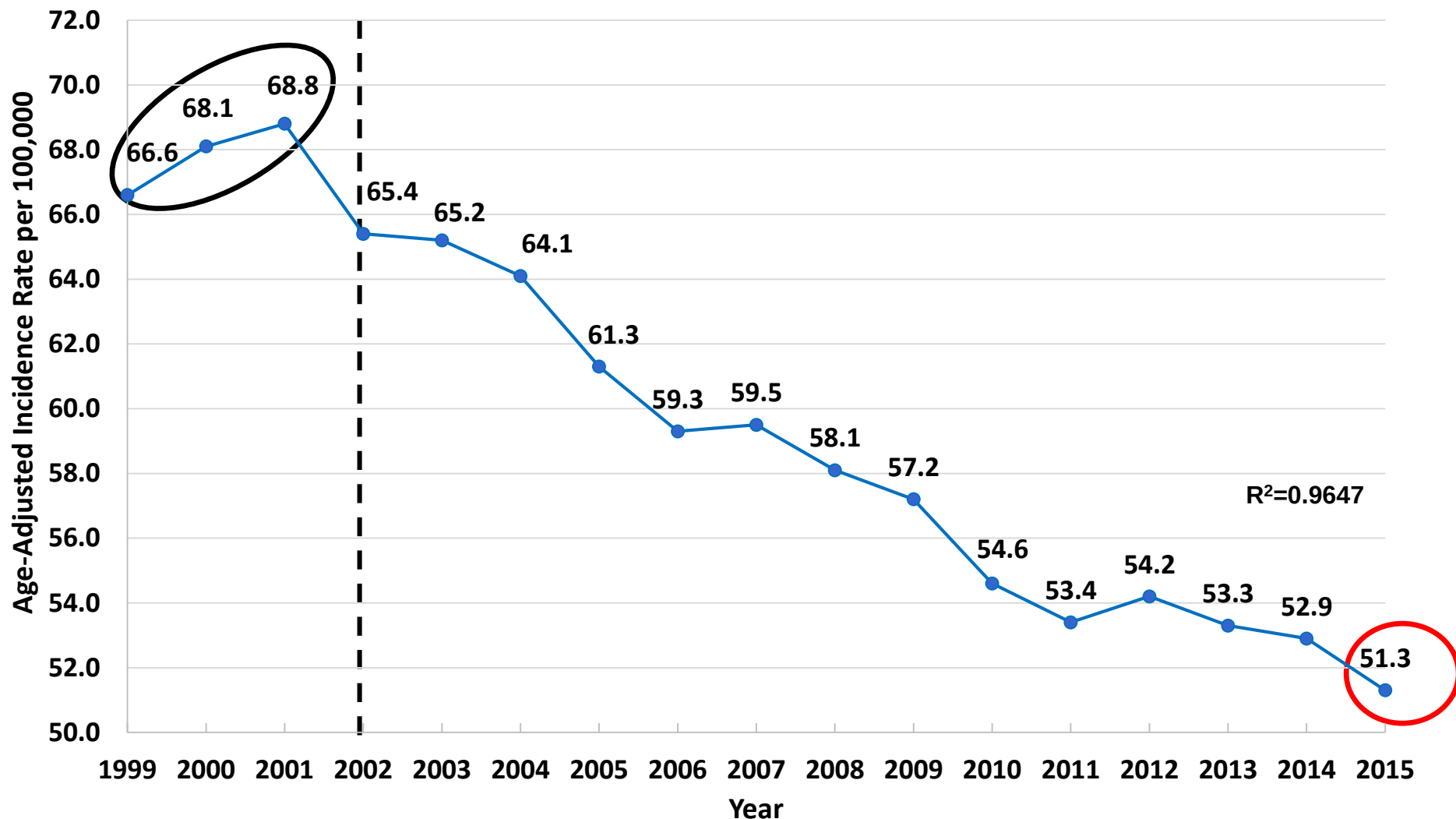
Source: CDC/USCS Website
Accessed April 20, 2018

Colorectal Cancer Screening in Kentucky



Source: <http://cdc.gov/brfss>, Accessed June 2016

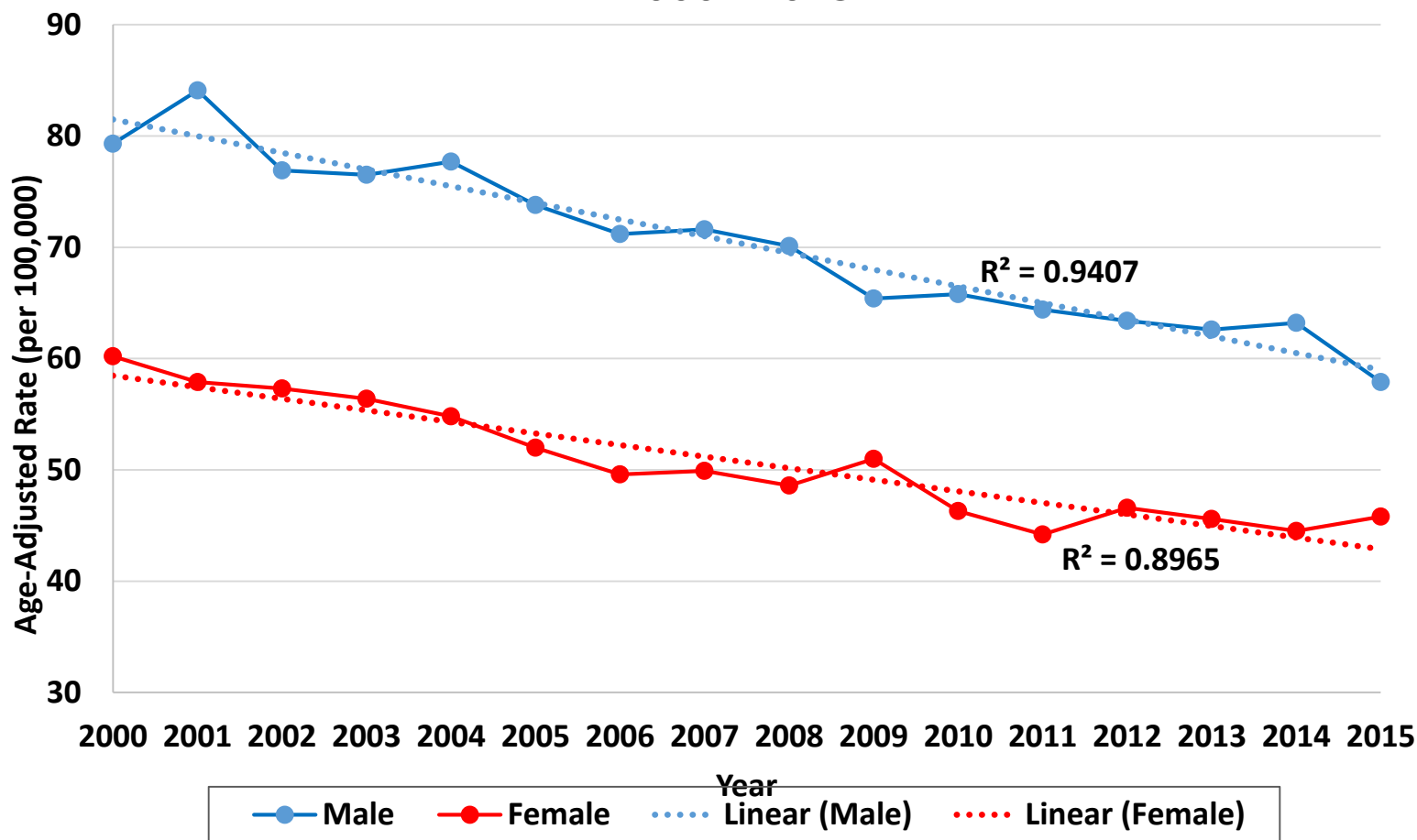
Colorectal Cancer Incidence in Kentucky



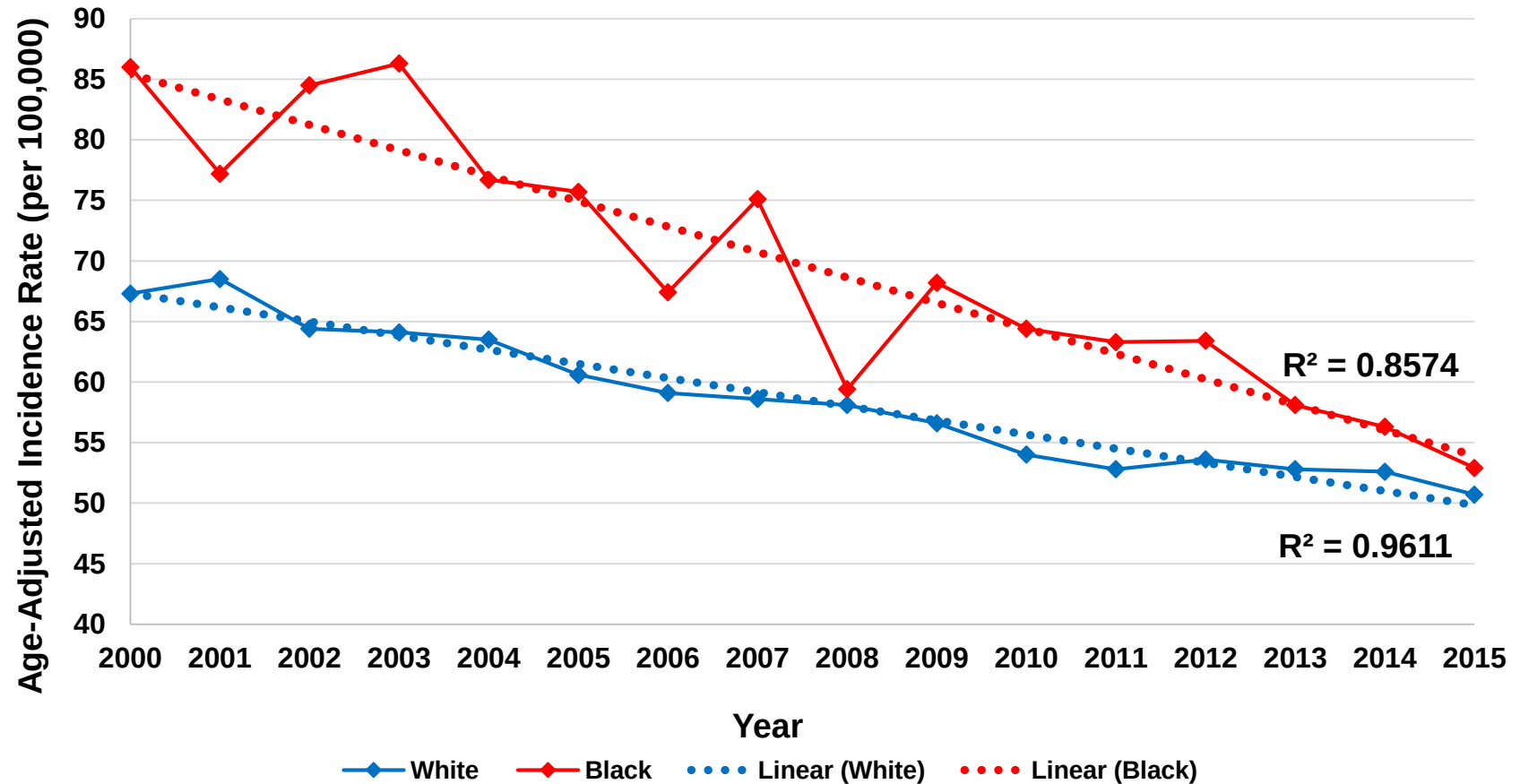
$P < .05$

Source: <http://www.kcr.uky.edu>, Accessed April 2018

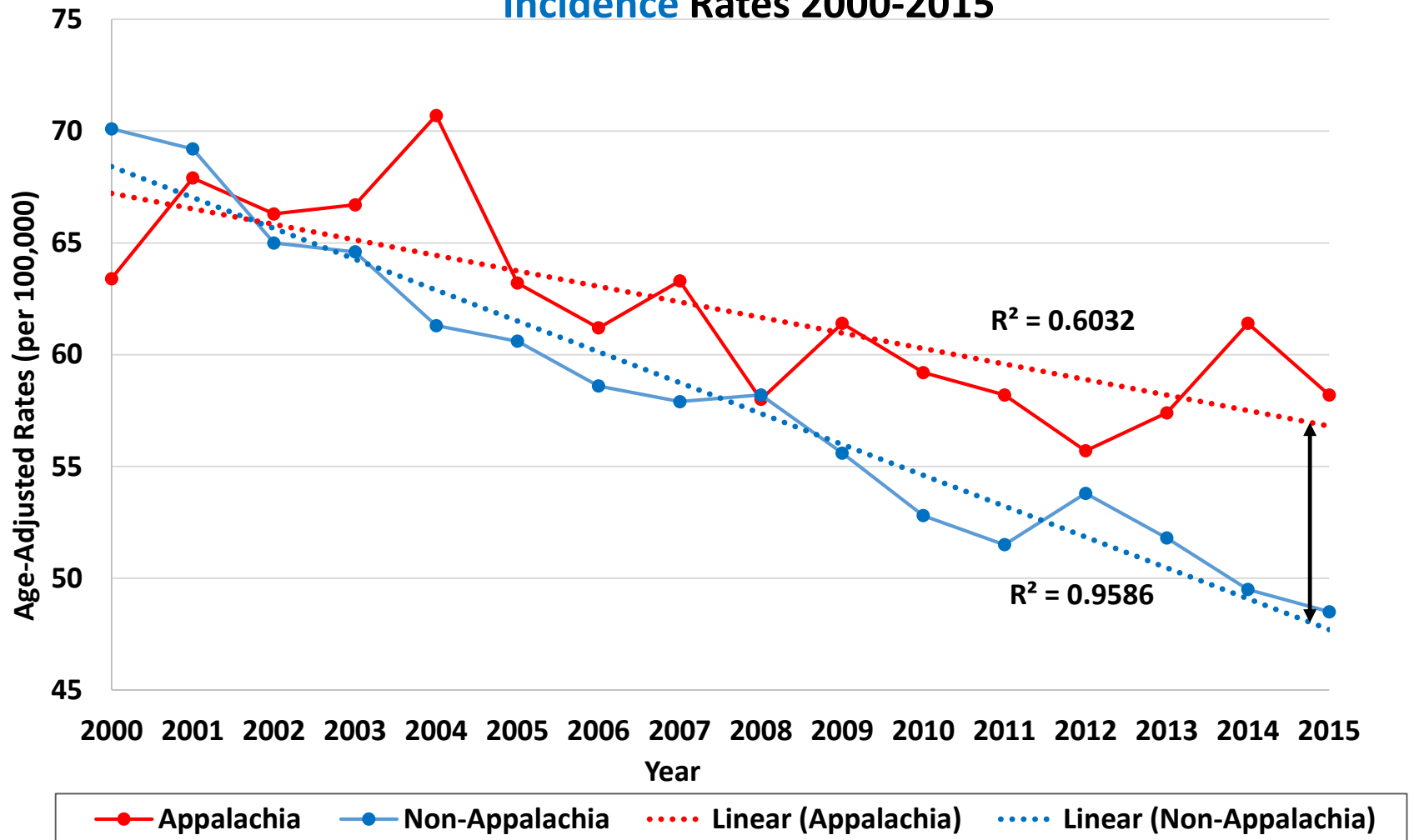
Male vs. Female Colon and Rectum Cancer Incidence Rates 2000 - 2015



Overall Colon and Rectum Cancer Incidence Rates, Black vs. White (2000-2015)

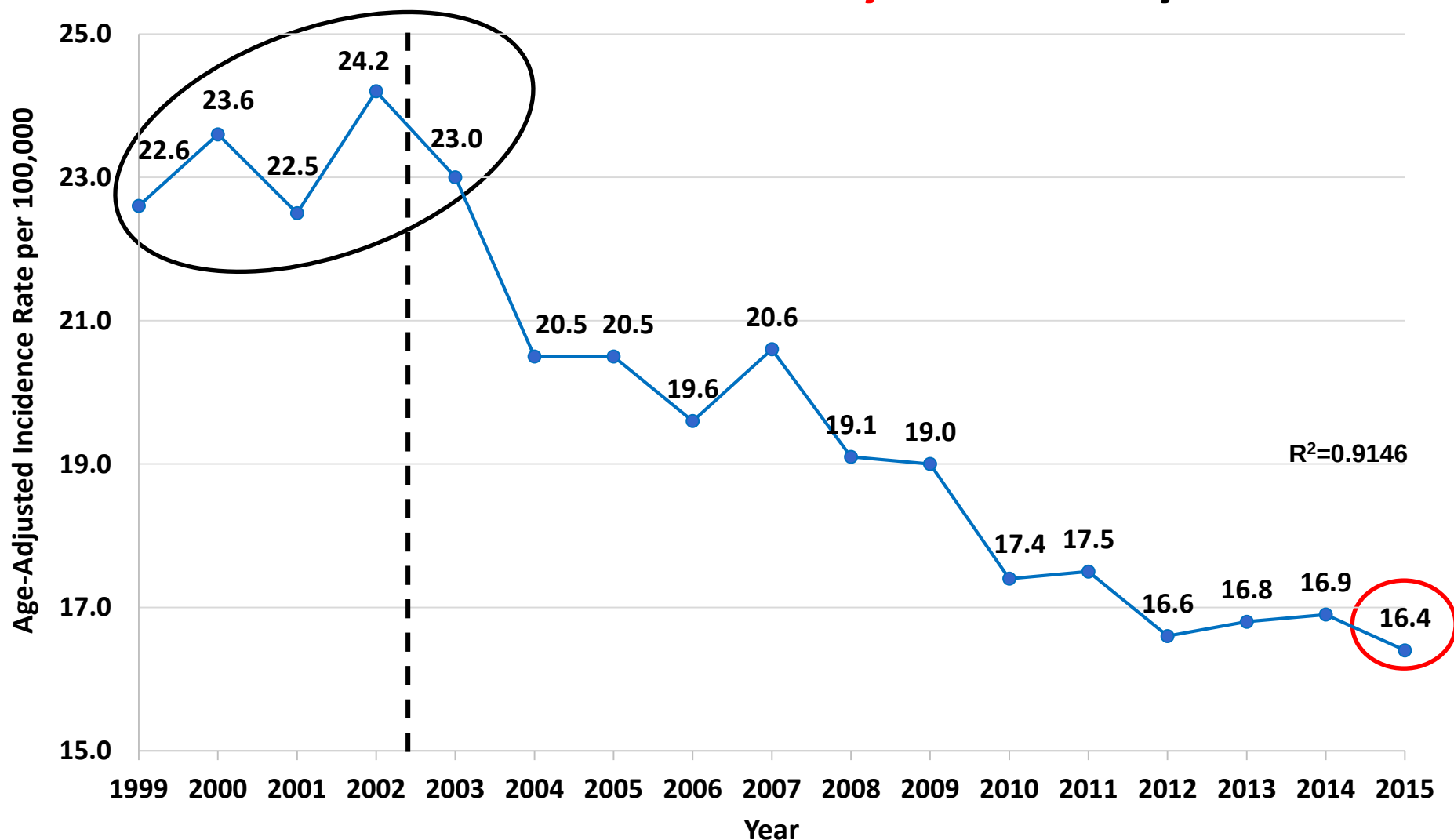


Appalachia vs. Non-Appalachia Colon and Rectum Cancer Incidence Rates 2000-2015



Colon and Rectum Cancer **Mortality** Kentucky

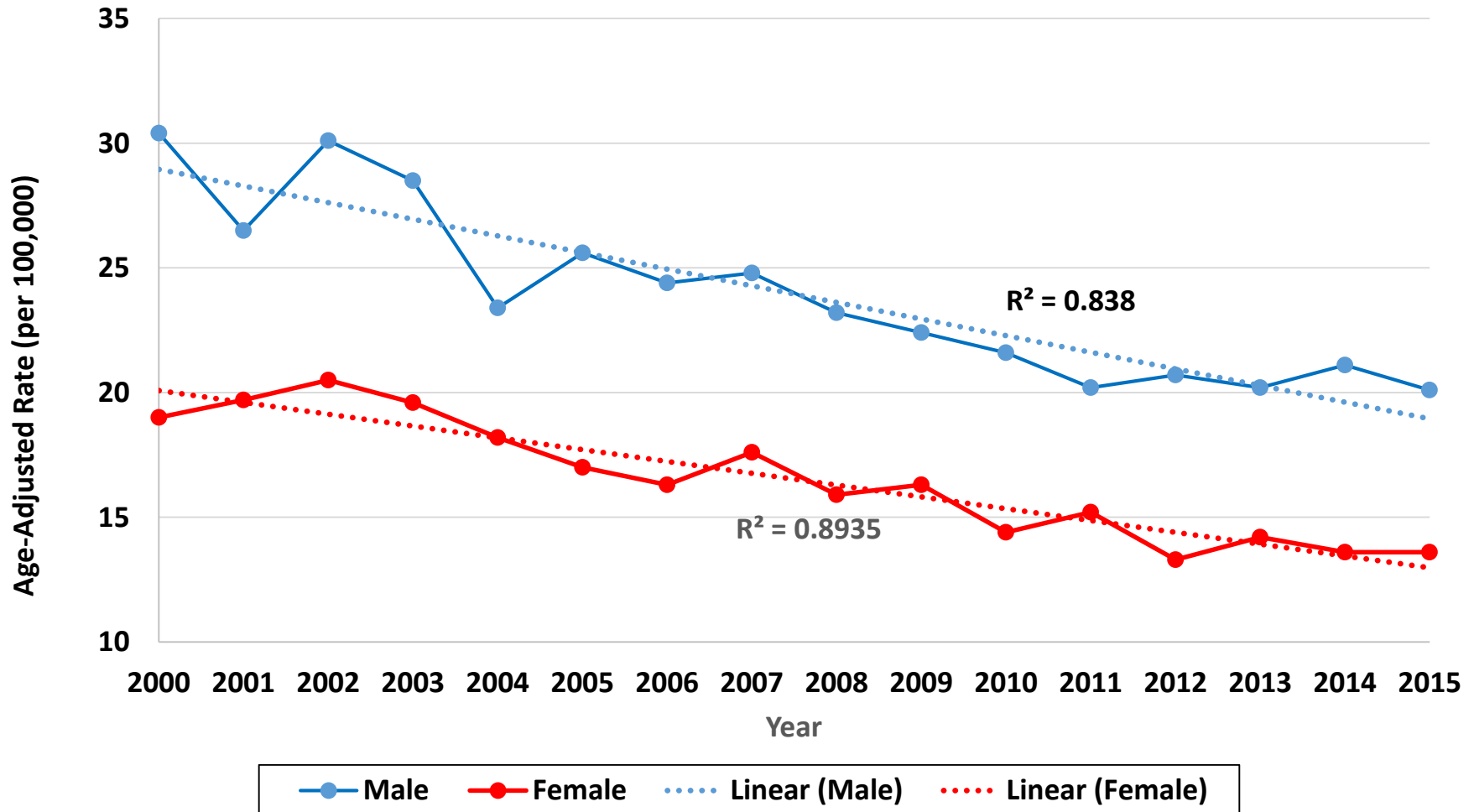
Colorectal Cancer Mortality in Kentucky



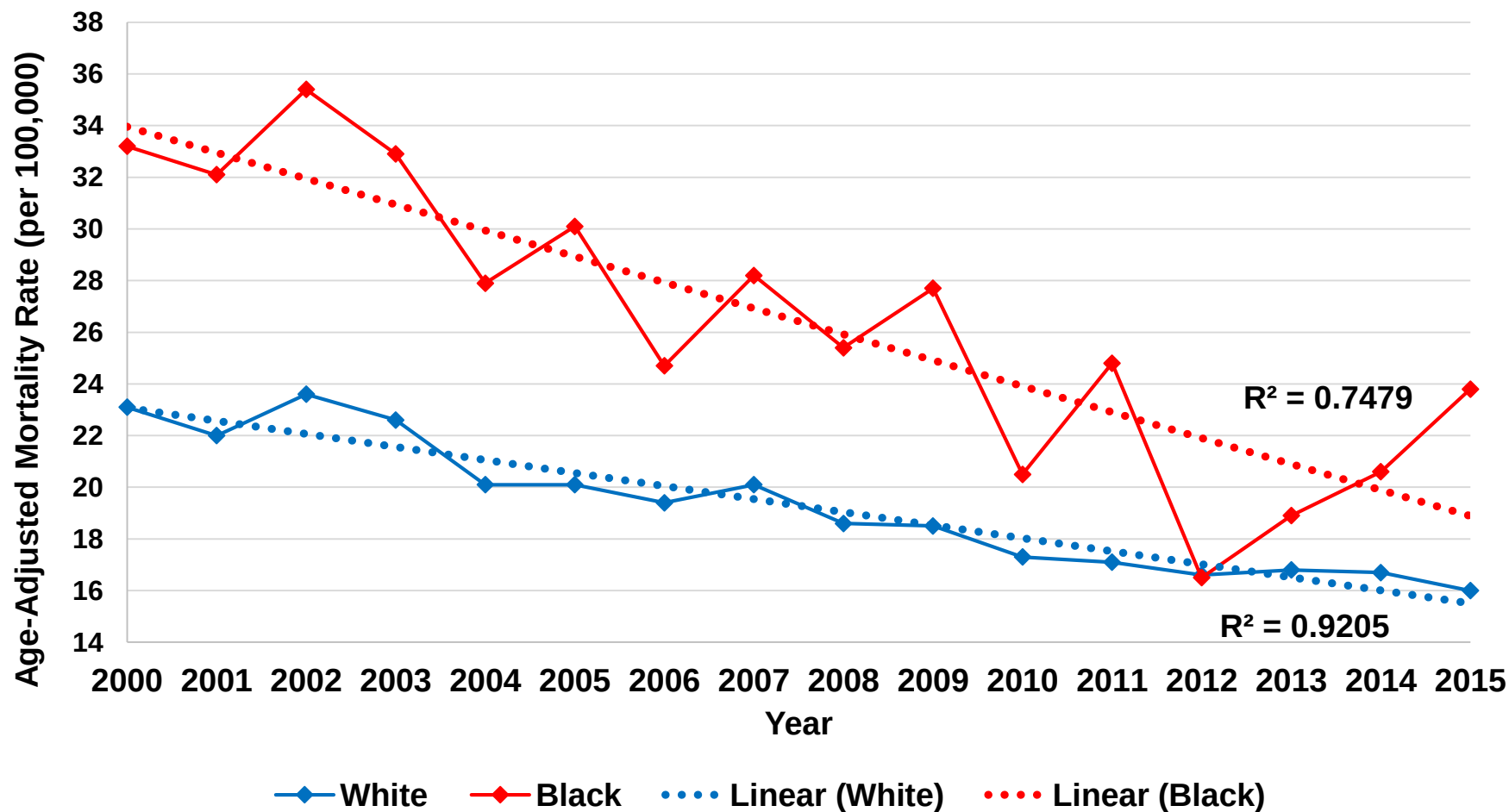
$P < .05$

Source: <http://www.kcr.uky.edu>, Accessed April 2018

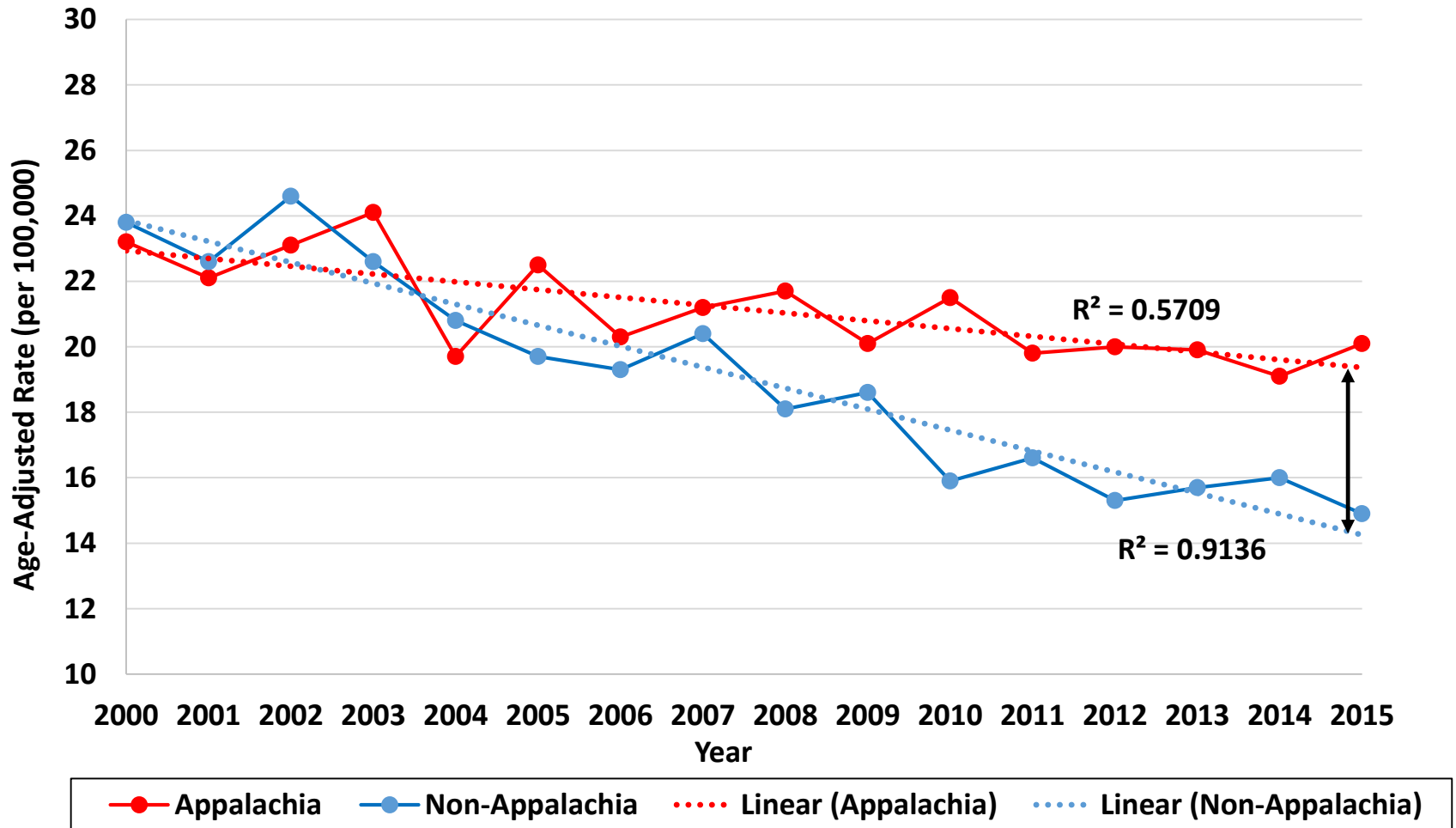
Male vs. Female Colon and Rectum Cancer Mortality Rates 2000-2015



Overall Colon and Rectum Cancer **Mortality** Rates Black vs. White (2000-2015)

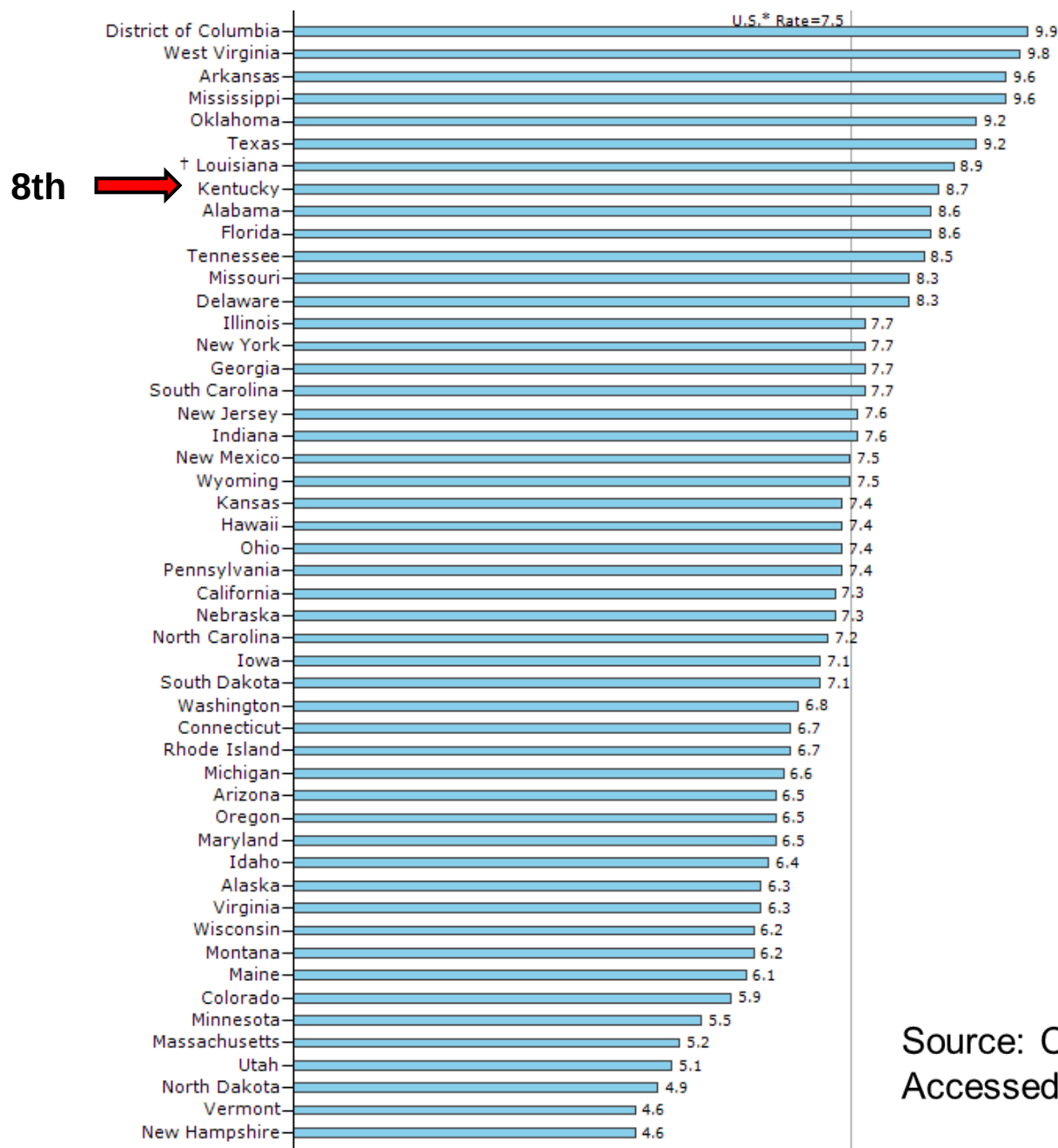


Appalachia vs. Non-Appalachia Colon and Rectum Cancer Mortality Rates 2000-2015



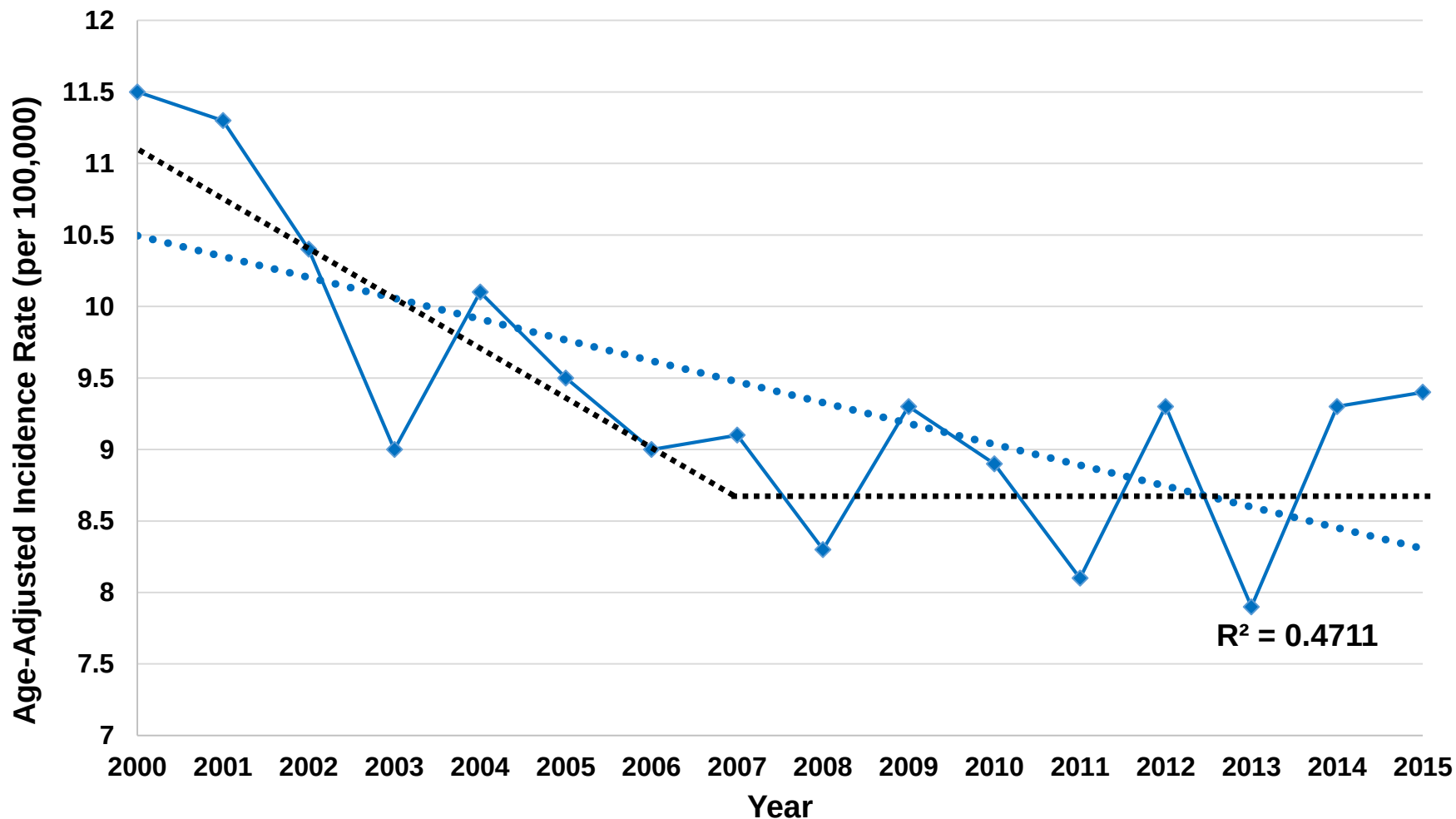
Cervical Cancer **Incidence** Kentucky

Cervical Cancer Incidence Rates Ranked by State (2010 – 2014)



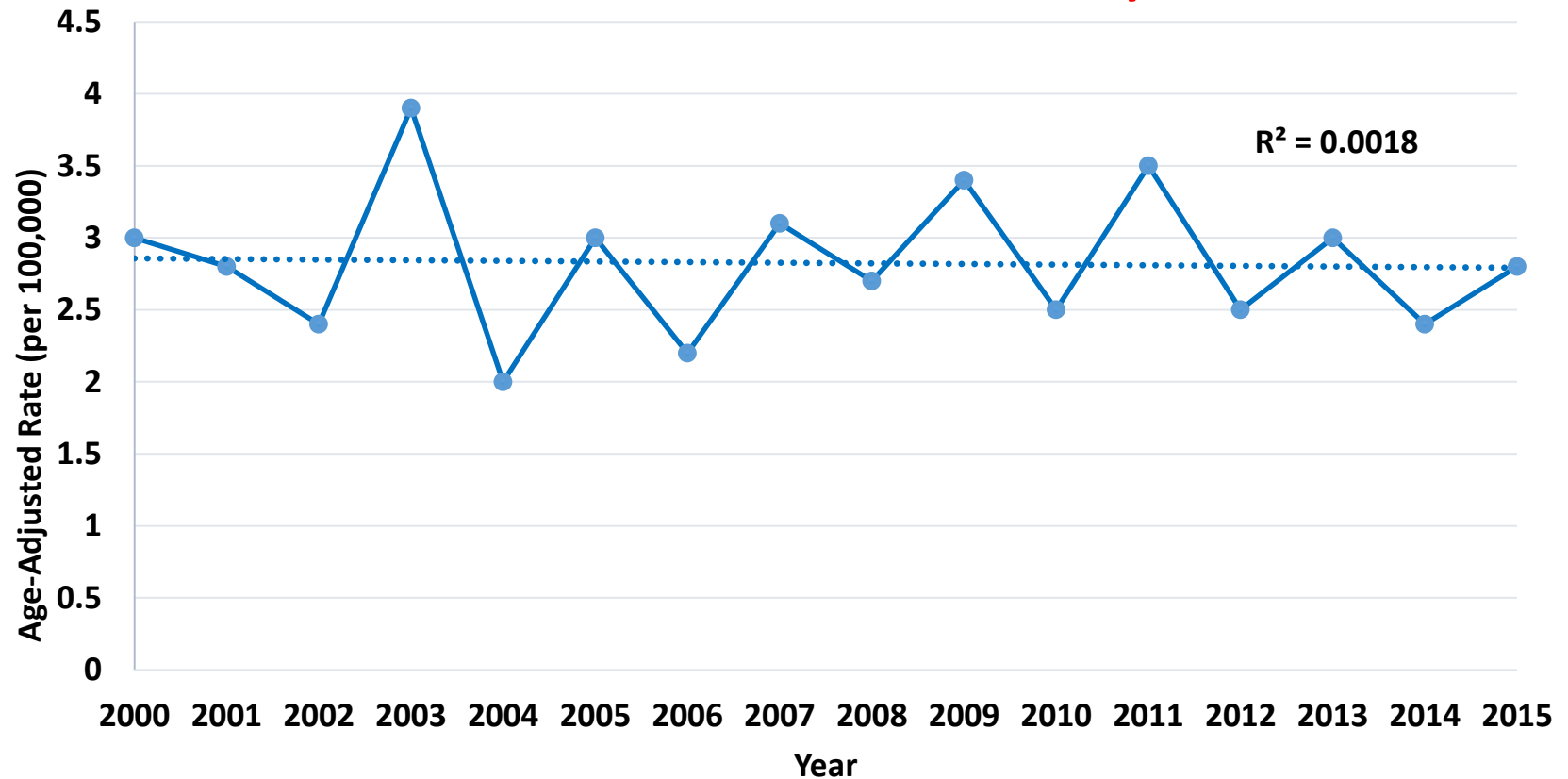
Source: CDC/USCS Website
Accessed April 20, 2018

Overall Cervical Cancer Incidence Rates, 2000-2015



Cervical Cancer **Mortality** Kentucky

Overall Cervix Uteri Cancer **Mortality** Rates 2000-2015



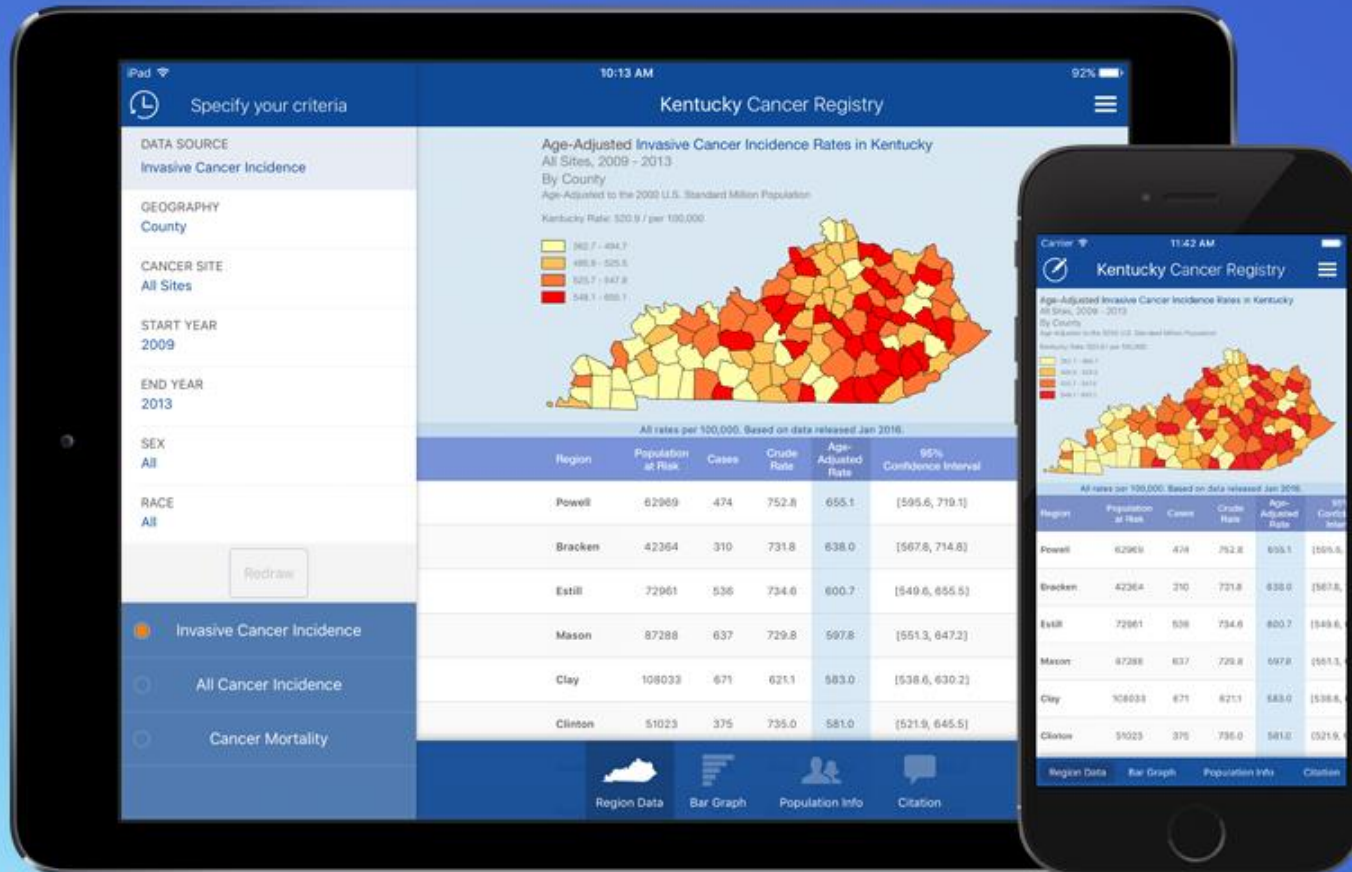
For additional information:

Visit the Kentucky Cancer Registry web site www.kcr.uky.edu

or

Download the Kentucky Cancer Registry APP CancerRates.info

Browse cancer incidence and mortality data on your iPad, iPhone, or iPod Touch



Available on the
App Store



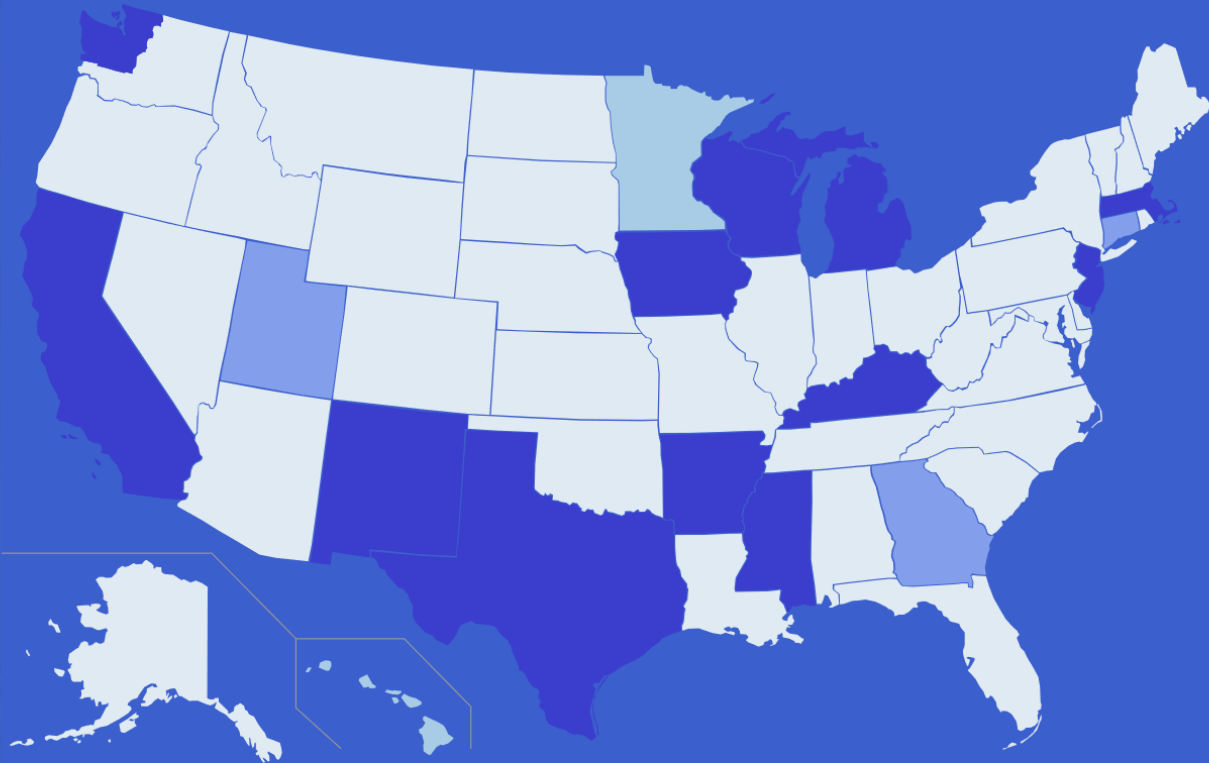
Cancer Rates.info

Browse cancer incidence and mortality data

To begin, select an available location

- Arkansas
- California
- Connecticut
- Georgia
- Iowa
- Kentucky
- Massachusetts
- Michigan
- Mississippi
- New Jersey
- New Mexico
- Seattle-Puget Sound, Washington
- Texas
- Utah

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- Version 2 Available
- Version 1 Available
- Coming Soon
- Data Unavailable

Thank You!

Questions?

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Contact Information

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