

Chronic Obstructive Pulmonary Disease Prevalence and Health- Related Quality Of Life in Carolinas

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**Chronic Obstructive Pulmonary Disease (COPD): A
Changing Disease in a Changing World**

The 2013 APHA

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Boston, MA



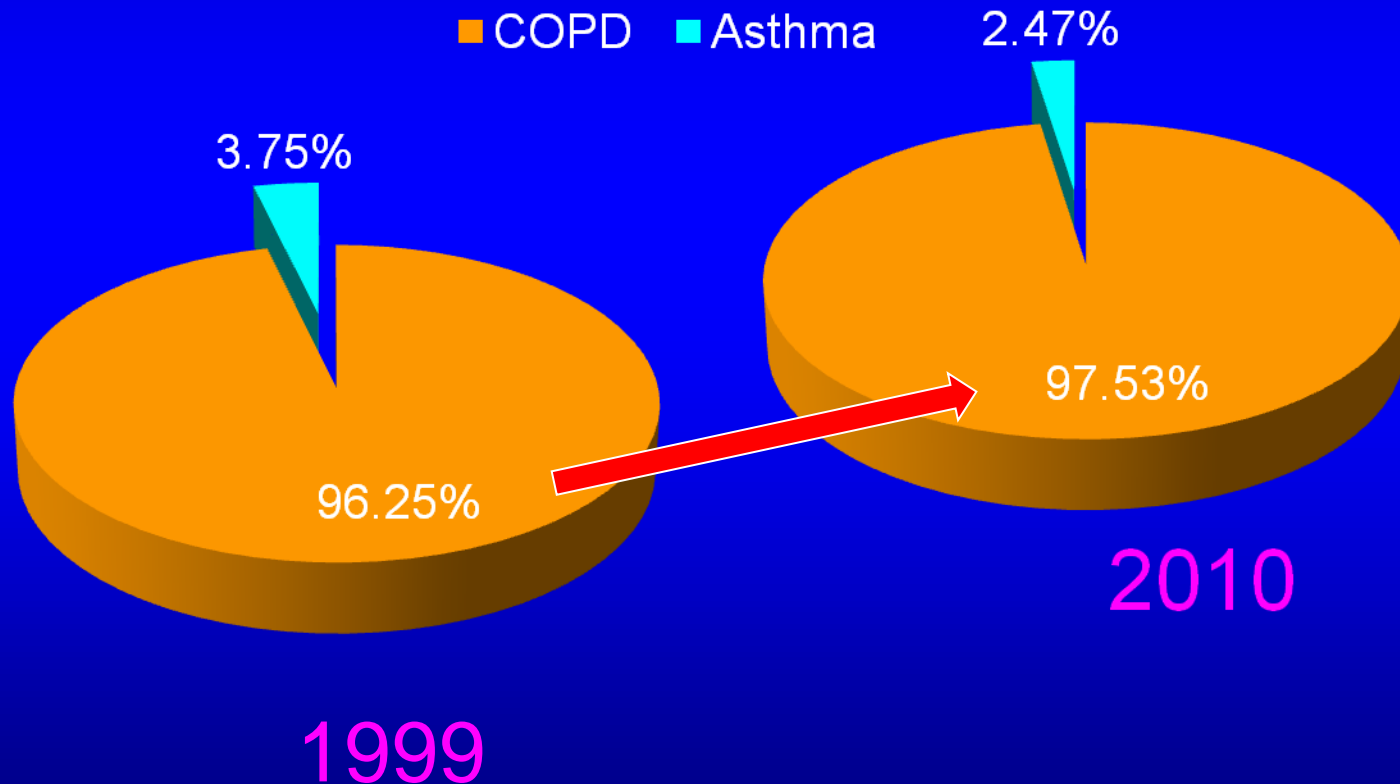
Conflict of Interest

- I have no conflict of interest to declare.

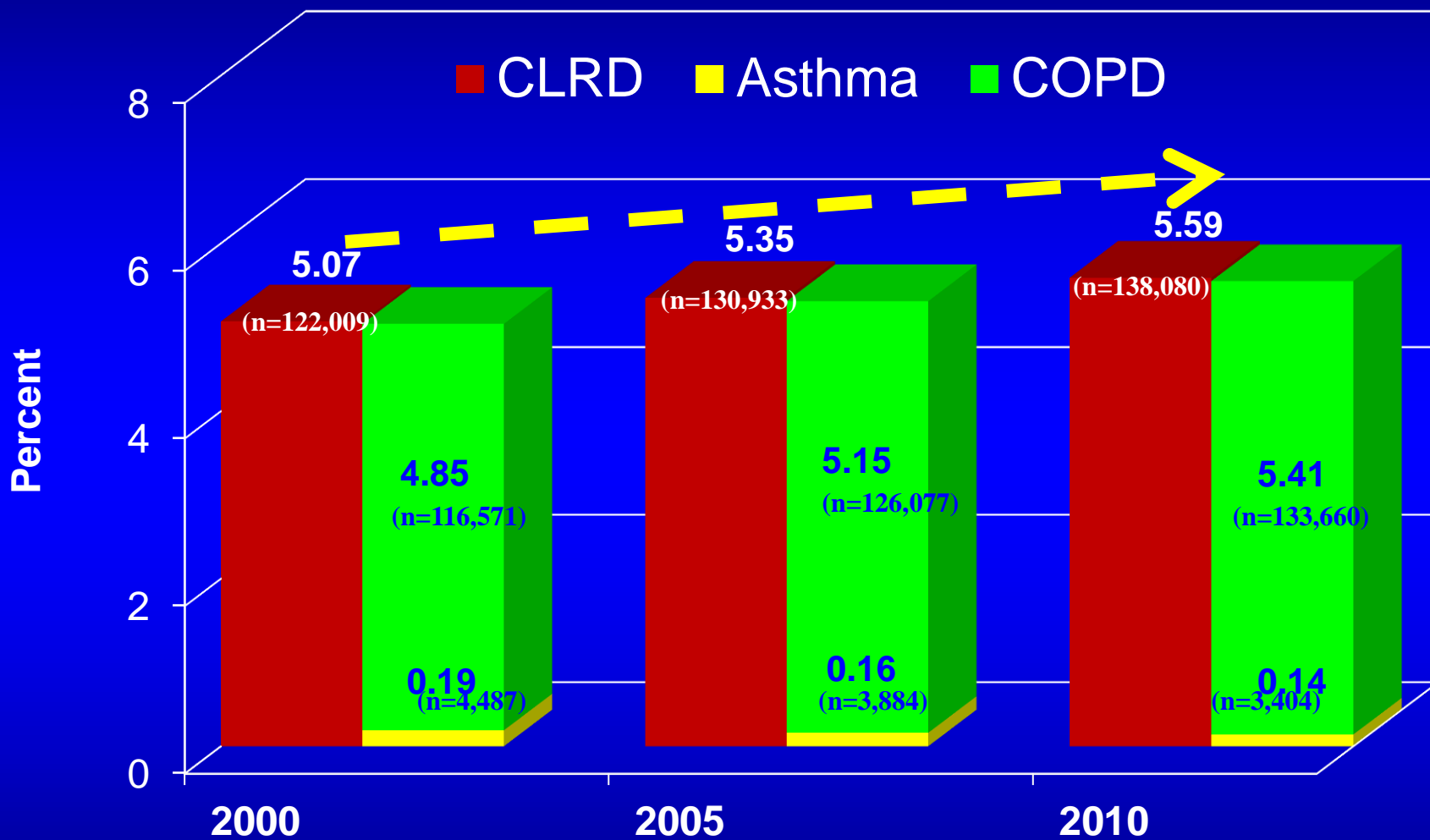
Objectives

- Examine COPD prevalence, mortality and morbidity
- Describe its distribution by various demographic characteristics
- Compare our states with the US
- Discuss health-related quality of life implications

CLRD Mortality Change from 1999 to 2010 U.S.

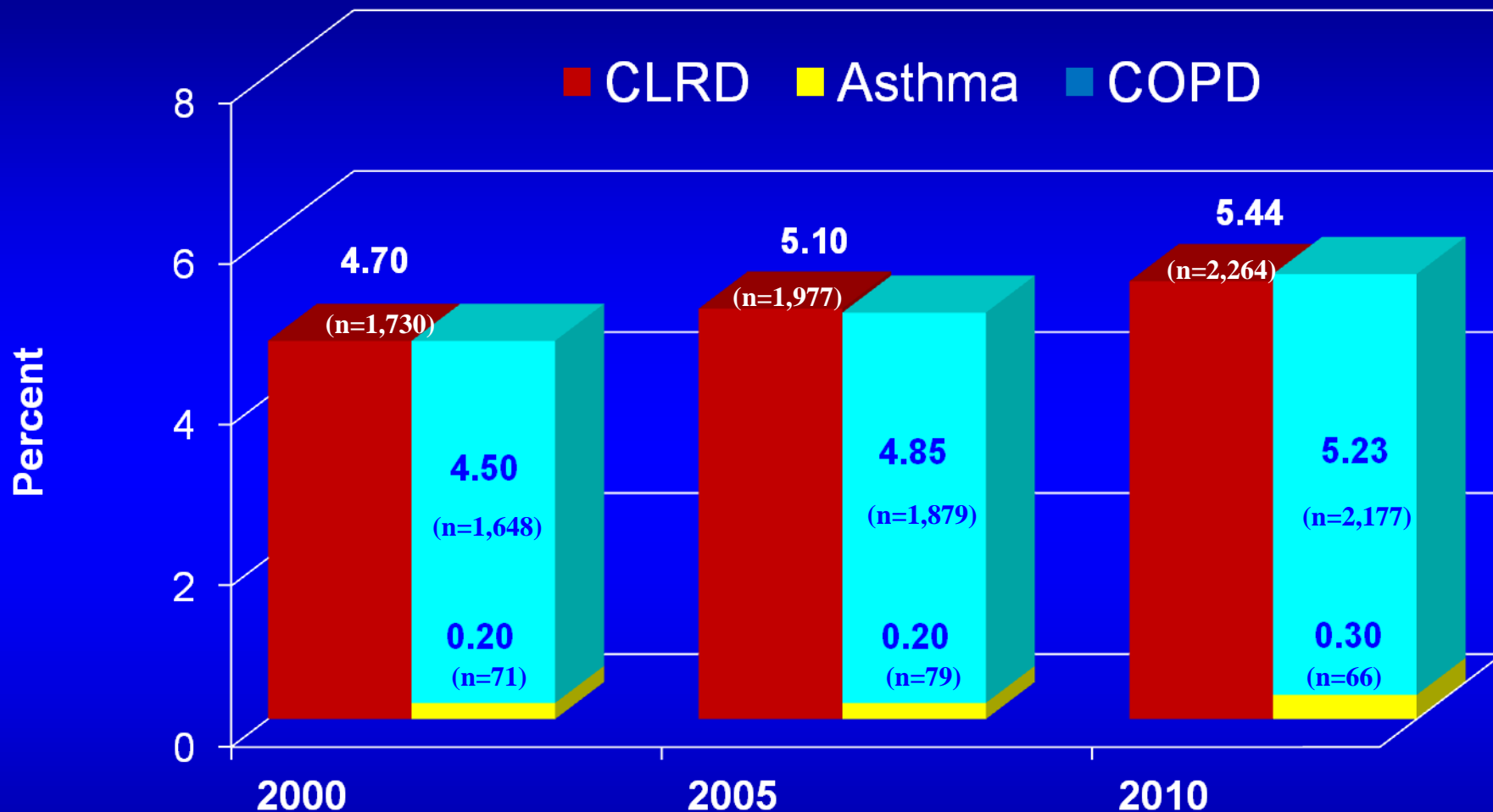


Percentage of Deaths Caused by CLRD, U.S., 2000-2010



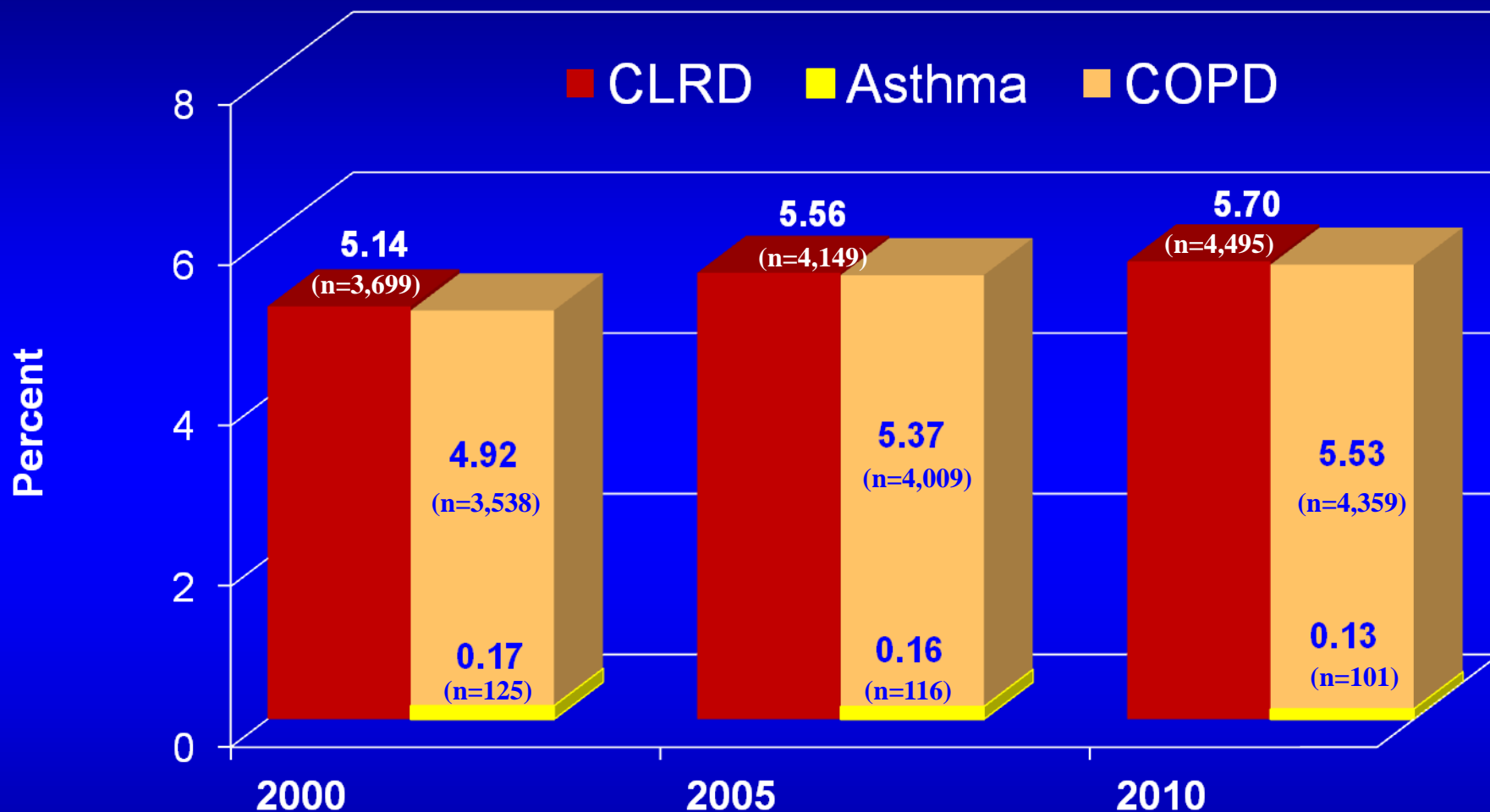
Data source: CDC, NCHS, Underlying Cause of Death 1999-2010 on CDC WONDER Online Database

Percentage of Deaths Caused by CLRD, S.C., 2000-2010



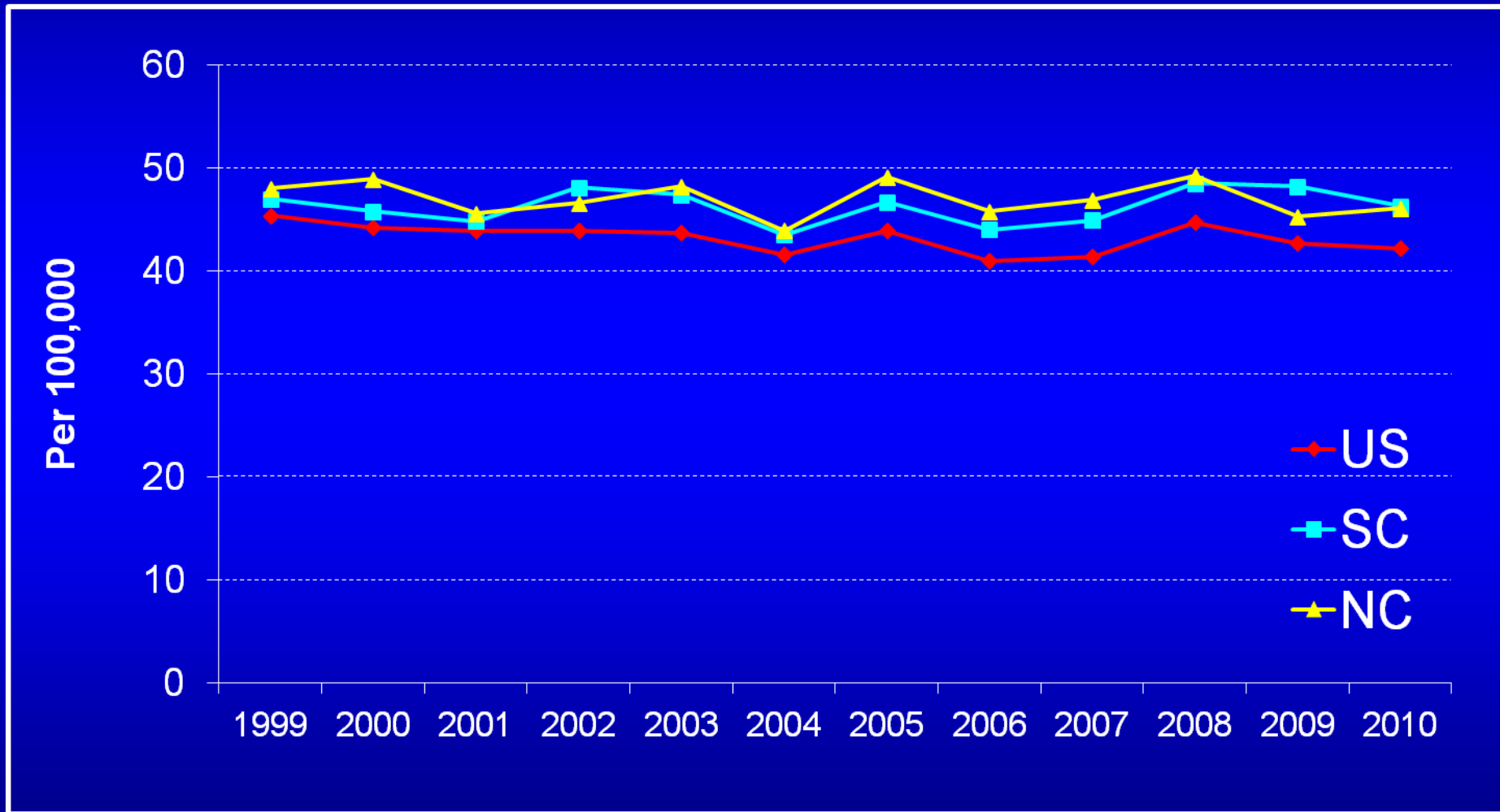
Data source: CDC, NCHS, Underlying Cause of Death 1999-2010 on CDC WONDER Online Database

Percentage of Deaths Caused by CLRD, N.C. 2000-2010



Data source: CDC, NCHS, Underlying Cause of Death 1999-2010 on CDC WONDER Online Database

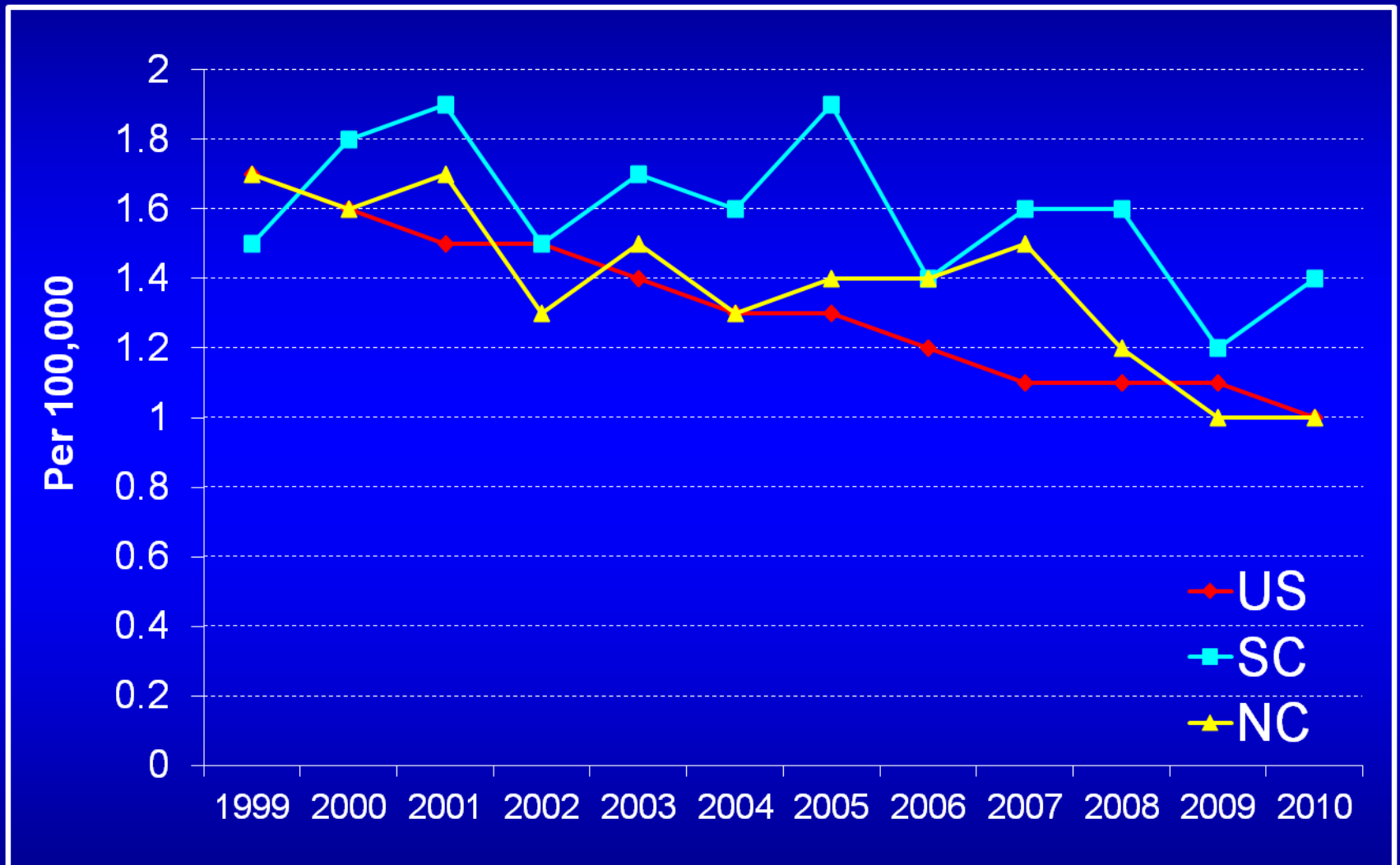
Chronic Lower Respiratory Disease Mortality Rates* S.C., N.C., and U.S.



Source: CDC, NCHS, Underlying Cause of Death 1999-2010 on CDC WONDER Online Database *Age-adjusted to year 2000 pop.



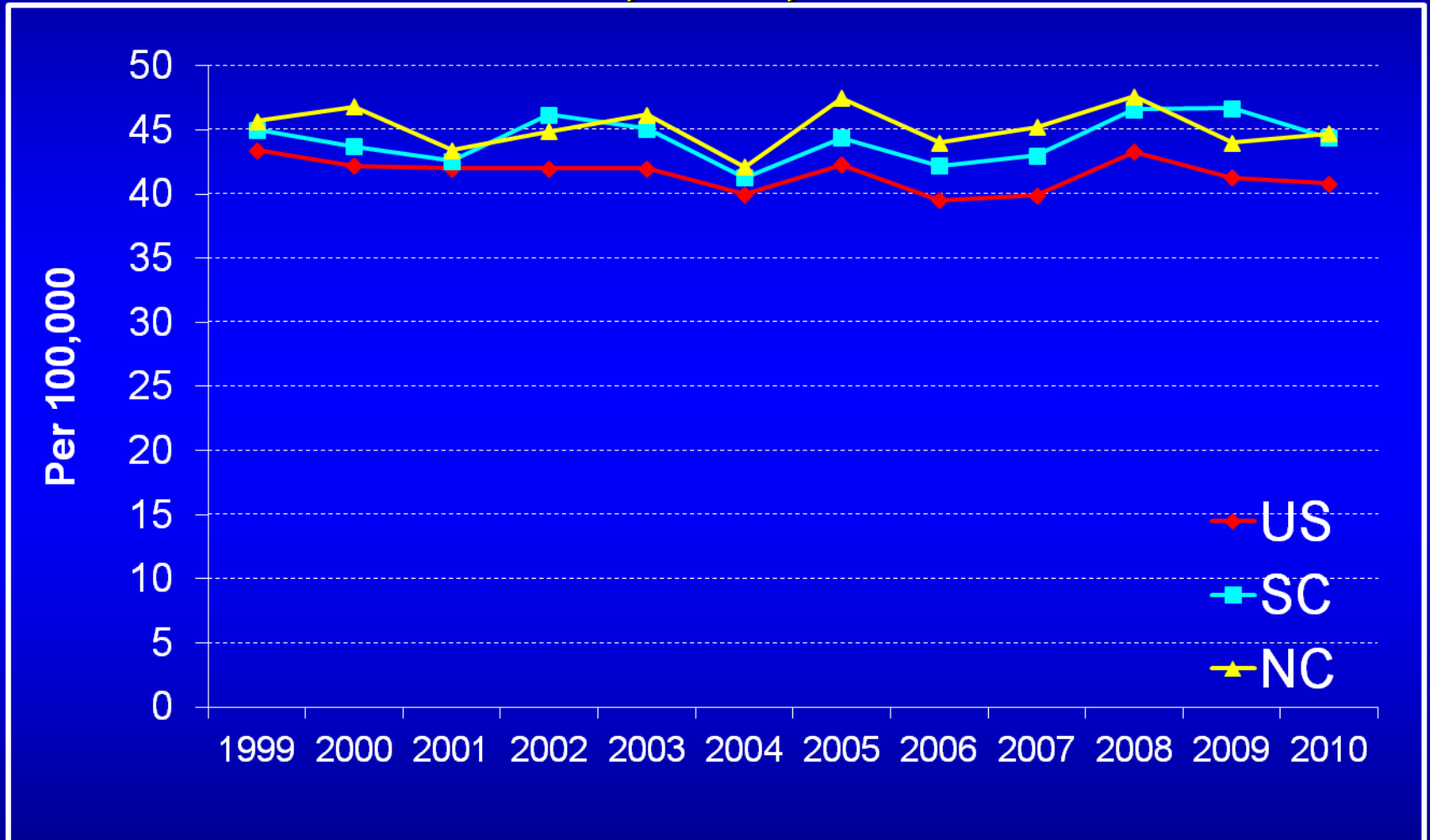
Asthma Mortality Rates* S.C., N.C., and U.S.



Source: CDC, NCHS, Underlying Cause of Death 1999-2010 on CDC WONDER Online Database *Age-adjusted to year 2000 pop



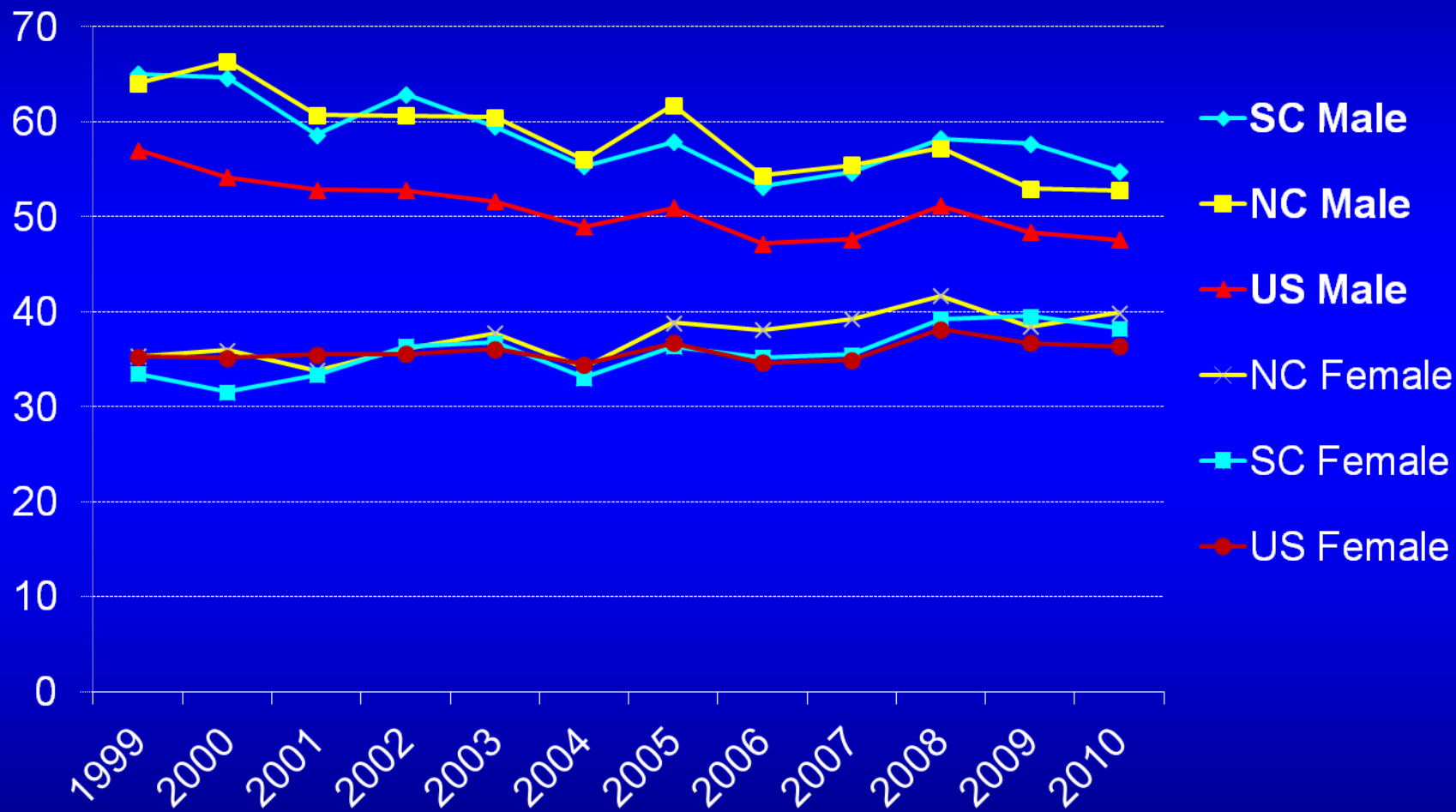
Chronic Obstructive Pulmonary Disease Death Rates* S.C., N.C., and U.S.



Source: CDC, NCHS, Underlying Cause of Death 1999-2010 on CDC WONDER Online Database *Age-adjusted to year 2000 pop



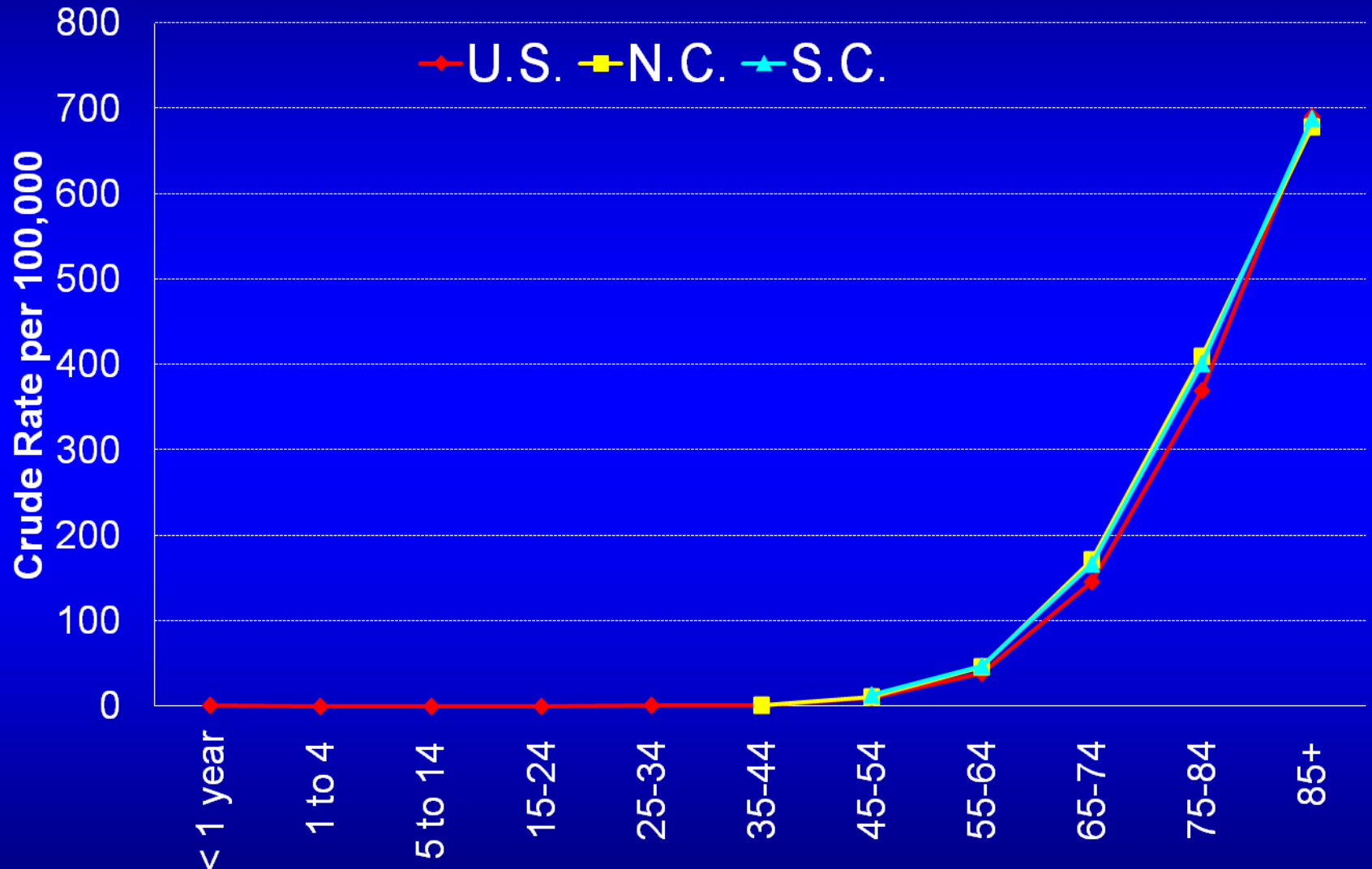
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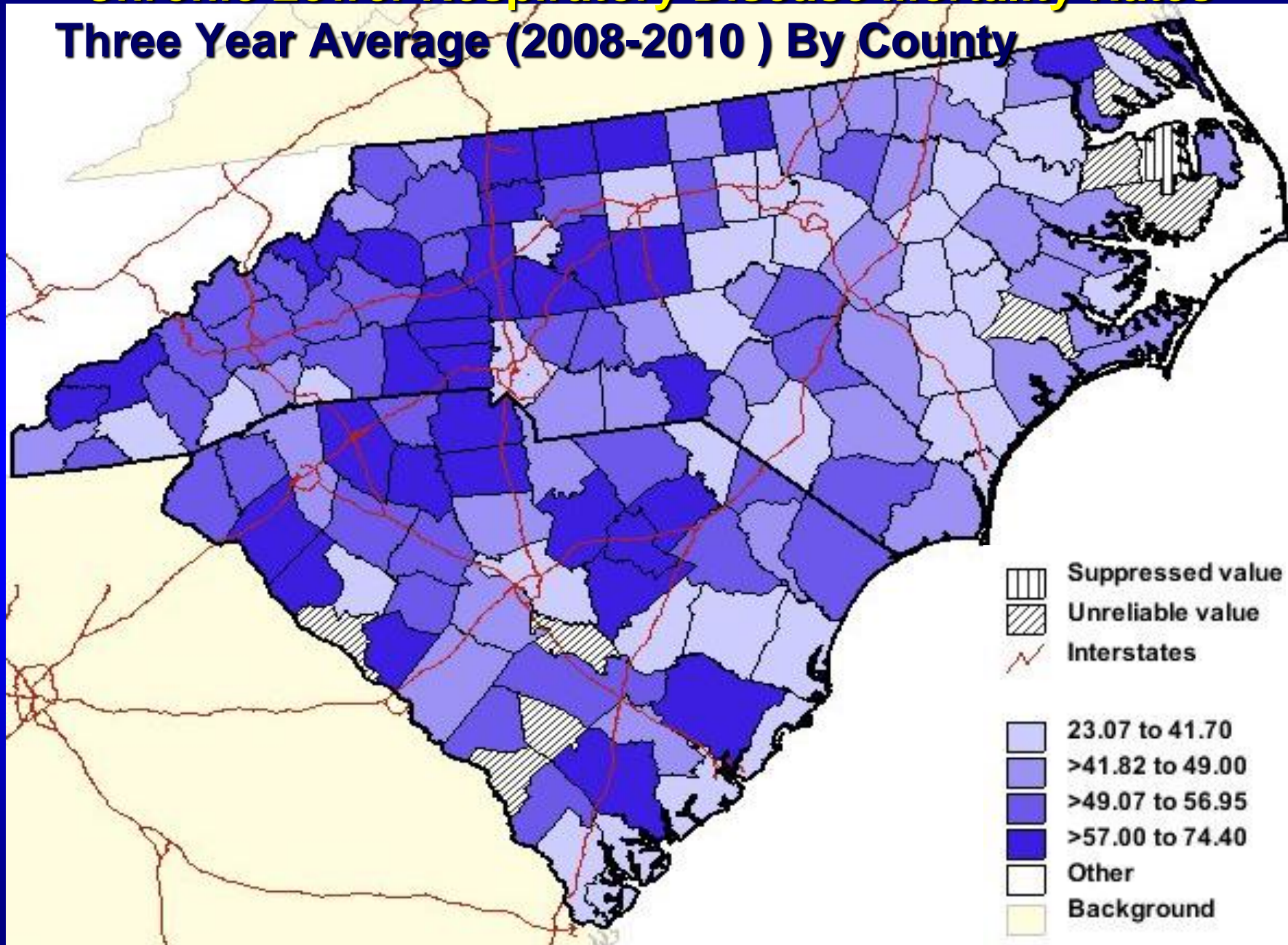
Chronic Lower Respiratory Disease Mortality Rates



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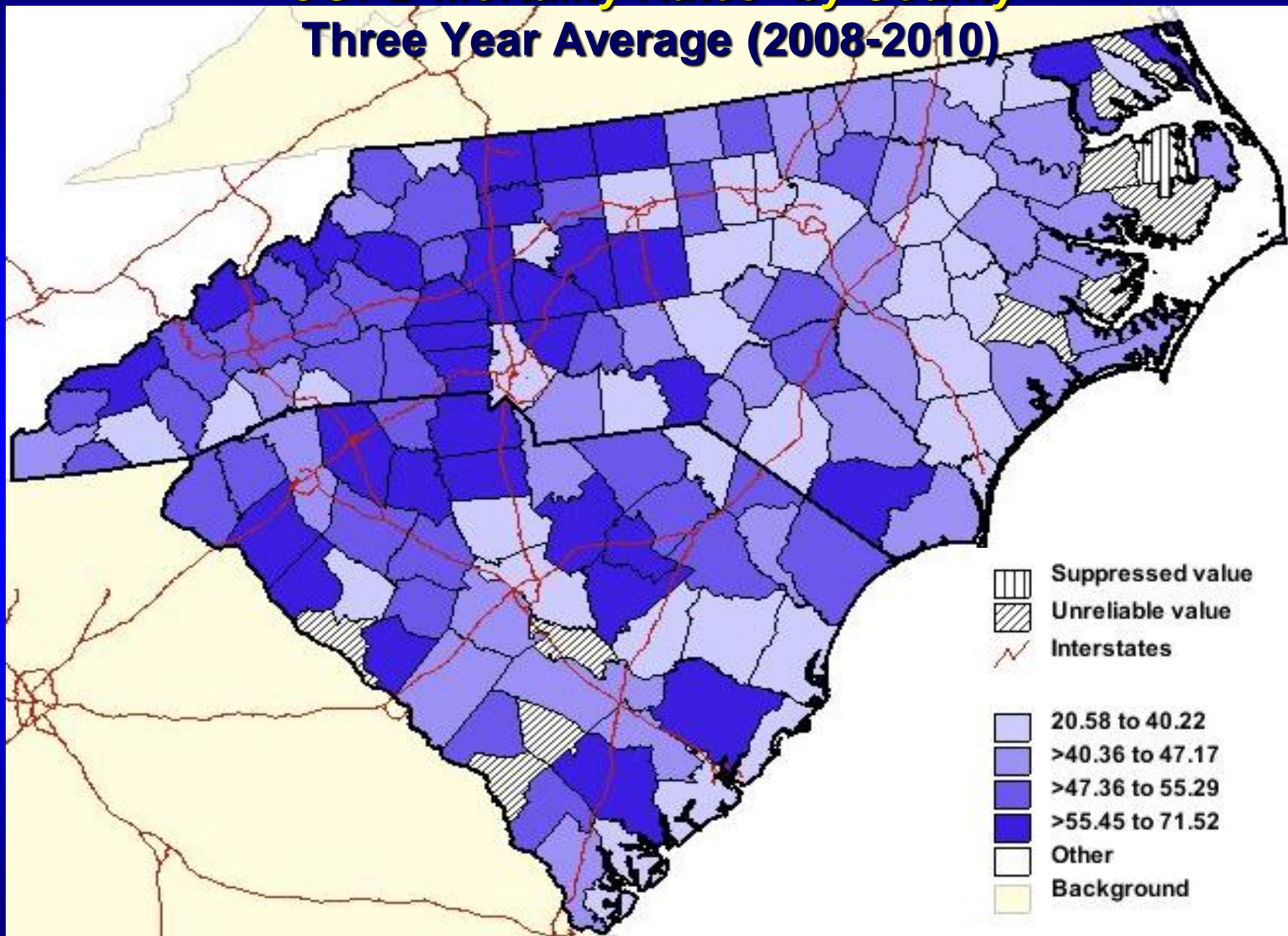
Chronic Lower Respiratory Disease Mortality Rates* Three Year Average (2008-2010) By County



Source: CDC, NCHS, Underlying Cause of Death 1999-2010 on CDC WONDER Online Database *Age-adjusted to year 2000 pop

COPD Mortality Rates* by County

Three Year Average (2008-2010)



Source: CDC, NCHS, Underlying Cause of Death 1999-2010 on CDC WONDER Online Database *Age-adjusted to year 2000 pop

Average Household Tobacco Expenditure By County 2013

Nielsen-Claritas PrimeLocation

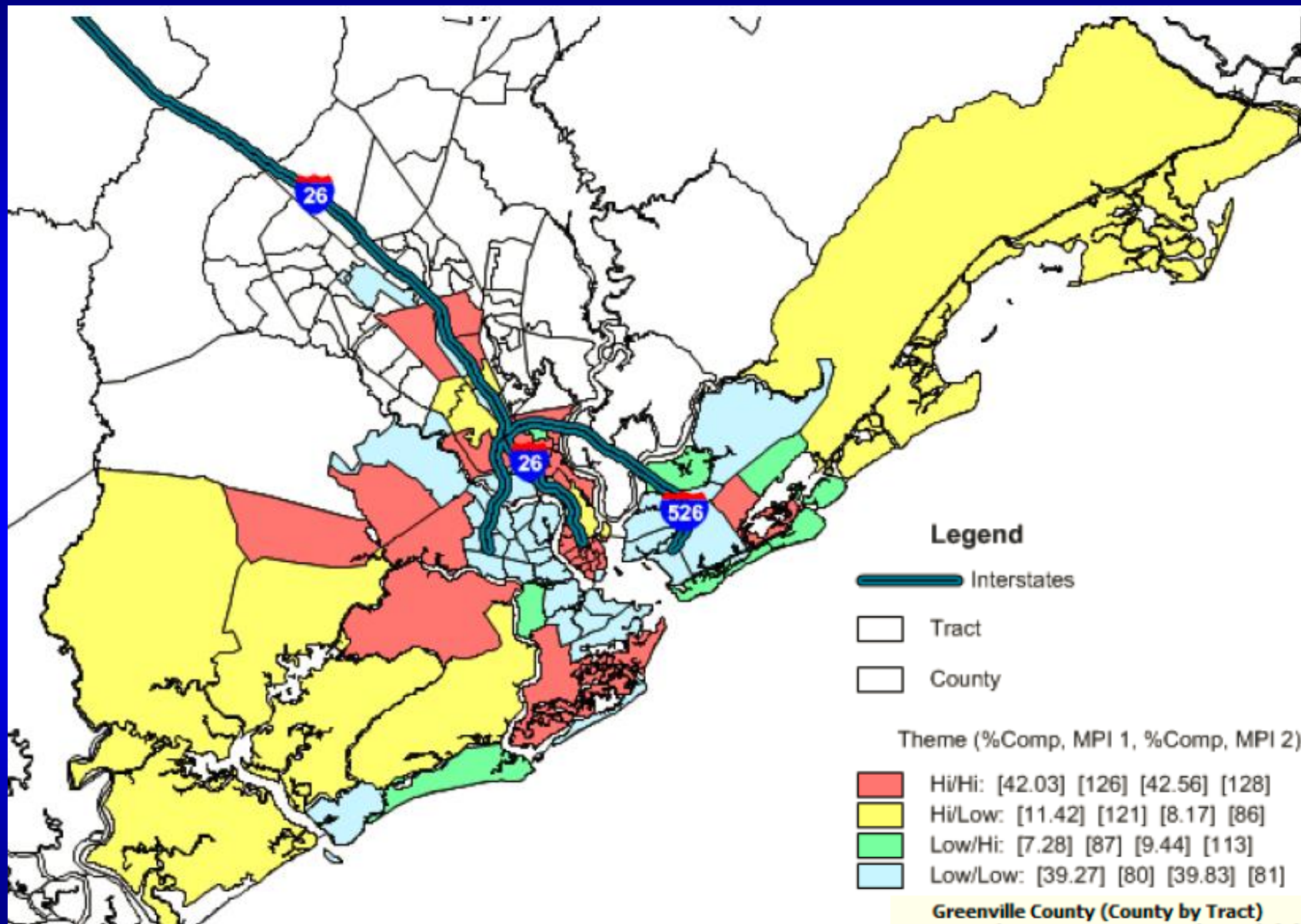
South Carolina Counties	Aggregate Expenditure Estimate	Annual Average per Household
Allendale	\$2,639,183	\$749.55
Richland	\$116,094,507	\$777.15
Beaufort	\$53,590,488	\$792.45
McCormick	\$3,156,069	\$812.37
:	:	:
Anderson	\$82,059,311	\$1,095.26
Laurens	\$28,510,195	\$1,115.25
Cherokee	\$25,537,745	\$1,178.81
Pickens	\$57,262,752	\$1,256.01
Totals	\$1,797,509,051	\$970.31

North Carolina Counties	Aggregate Expenditure Estimate	Annual Average per Household
Durham	\$84,272,542	\$732.10
Mecklenburg	\$296,365,189	\$772.51
Wake	\$296,373,602	\$802.09
Bertie	\$6,699,352	\$831.08
:	:	:
Watauga	\$26,545,969	\$1,284.77
Swain	\$7,594,817	\$1,324.29
Jackson	\$22,707,665	\$1,372.23
Robeson	\$67,751,055	\$1,377.14
Totals	\$3,727,928,779	\$1,041.72

Number COPD Hospital and ED visits, Median Age and Cost (2011)

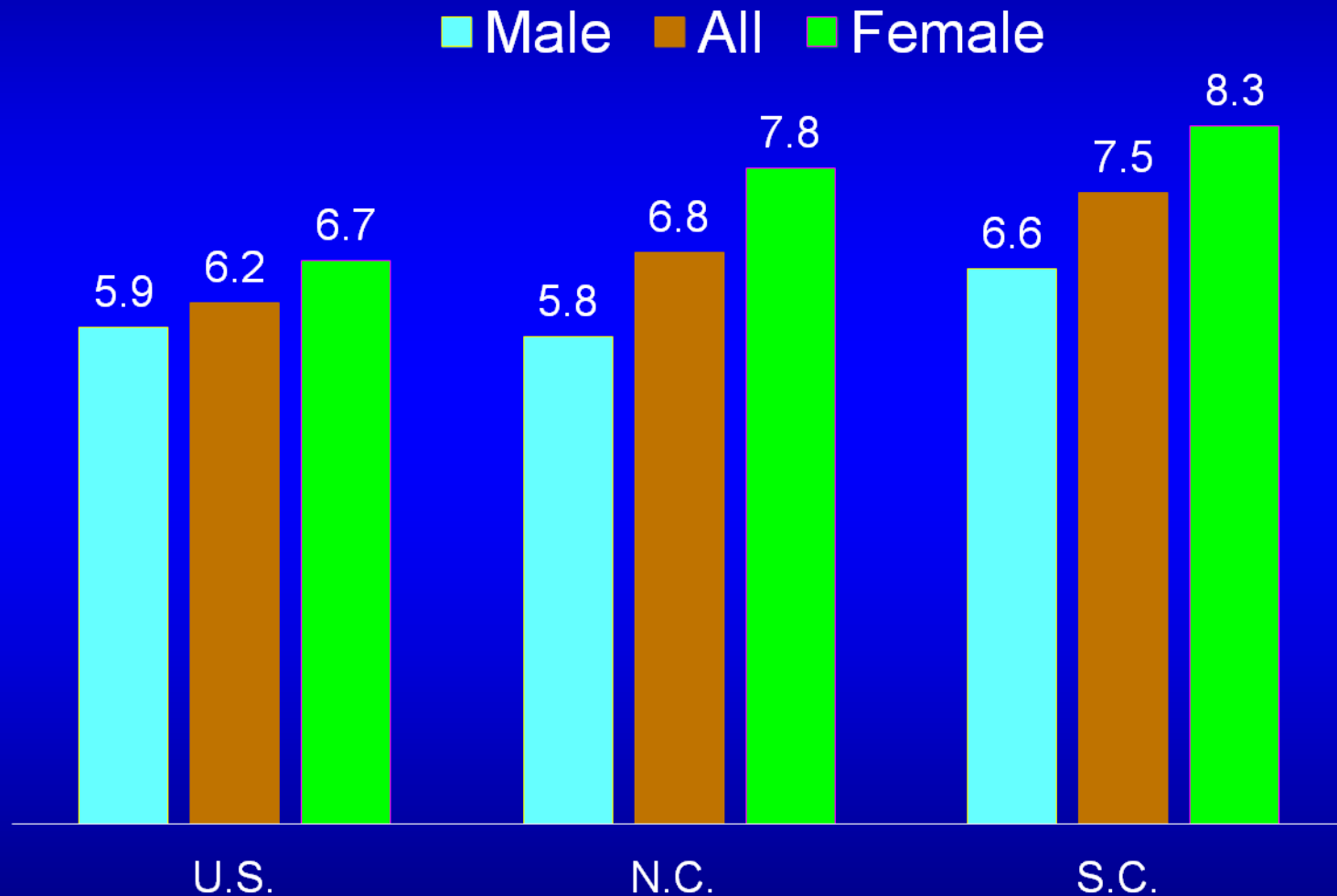
Site	Visits
Number of hospitalizations	16,011
Median age of hospitalized patients	63
COPD cost of hospitalization (\$)	\$390,647,100
Number of ED visits	44,644
Median age of ED patients	38
COPD cost of ED visits (\$)	\$98,722,900
Total Cost of COPD in SC	\$489,370,000

Tobacco (7+ Pack /HH /wk) & Smoking cessation aid

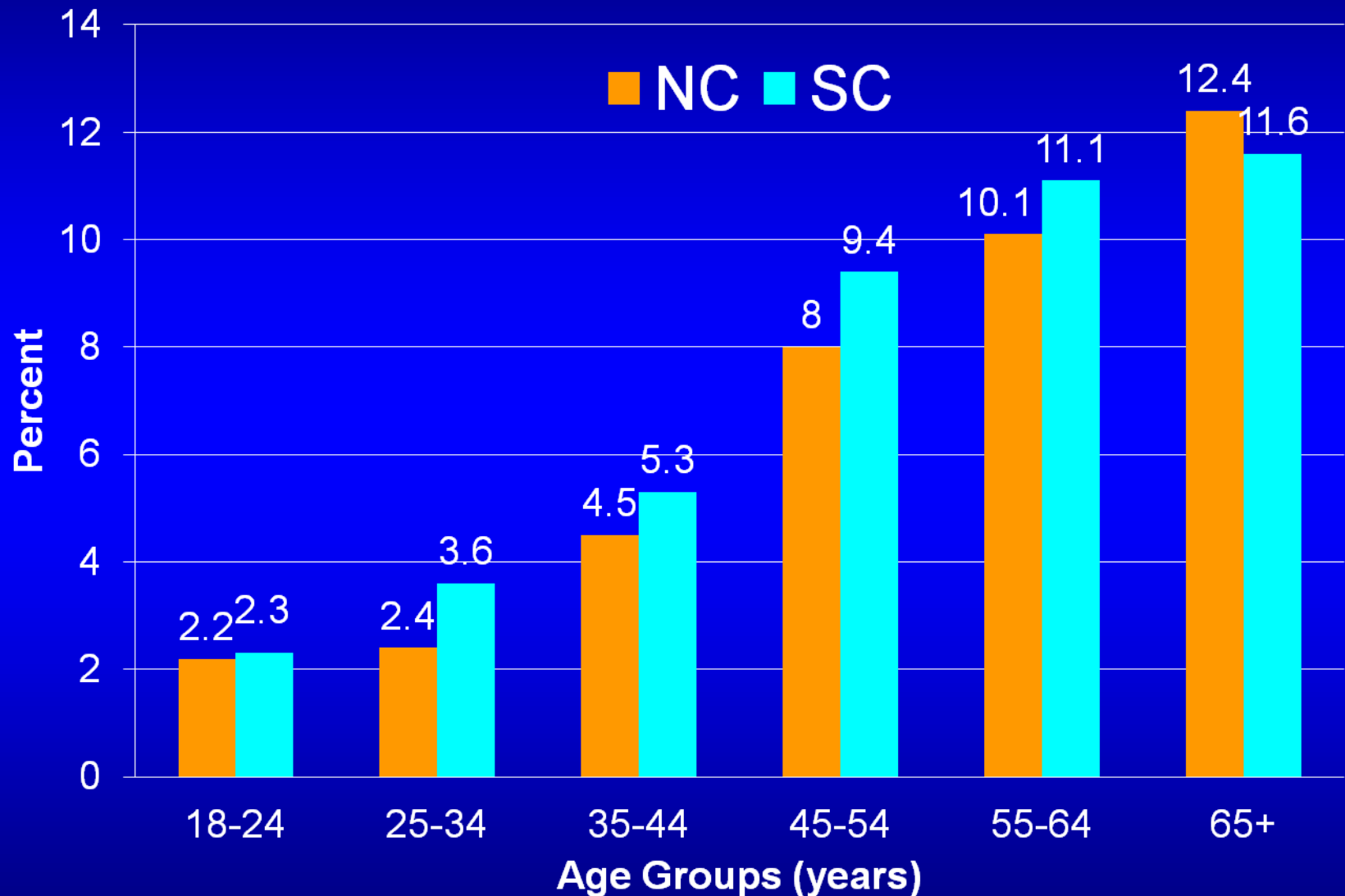


COPD Prevalence Among Adults

Percent of Adults with COPD (2012 Prevalence)



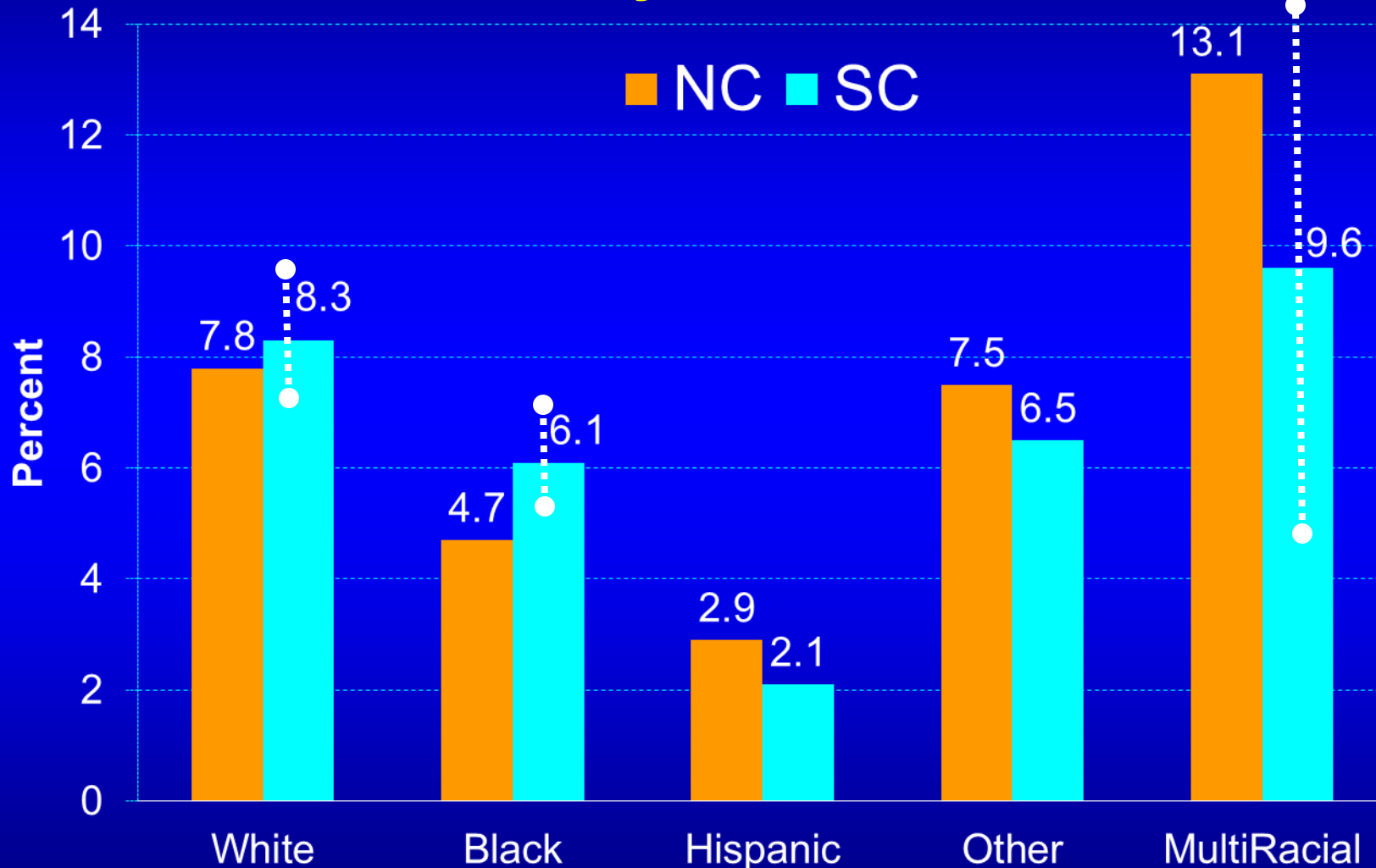
Percent of Adults with COPD (2012 Prevalence)



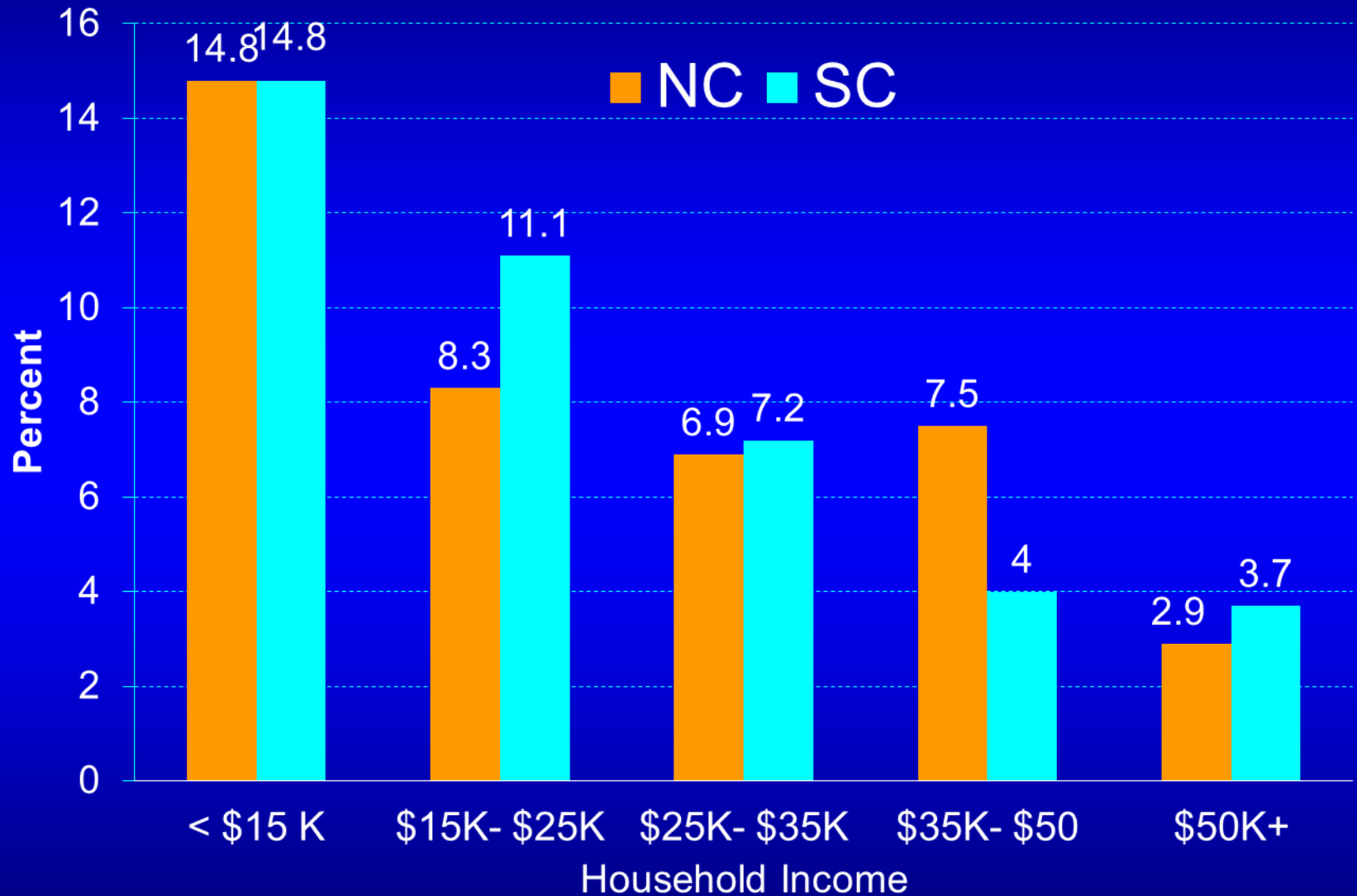
Source: BRFSS



Percent of Adults with COPD (2012 Prevalence) “Ever told you have COPD”



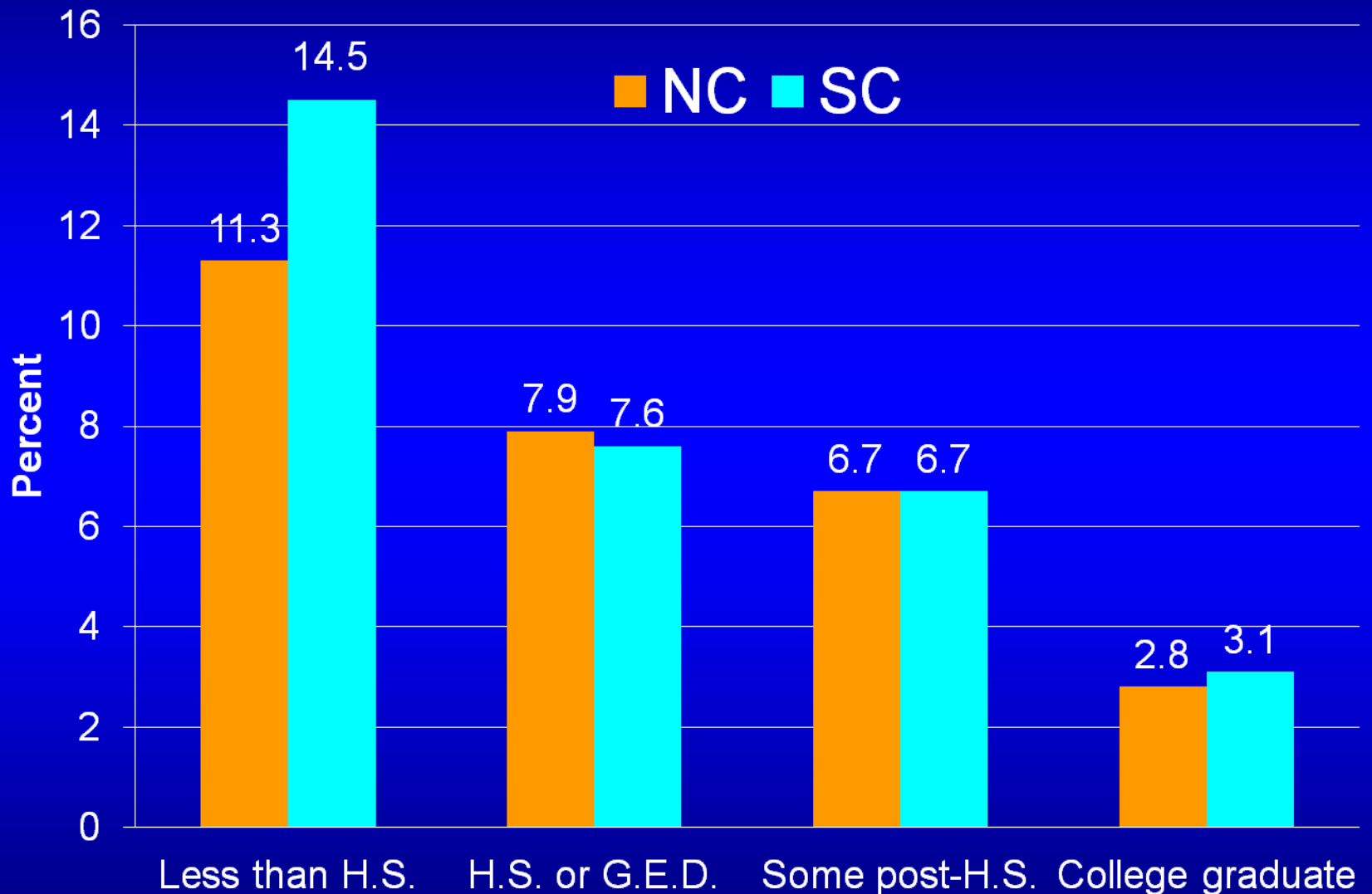
Percent of Adults with COPD (2012 Prevalence)



Source: BRFSS



Percent of Adults with COPD (2012 Prevalence)



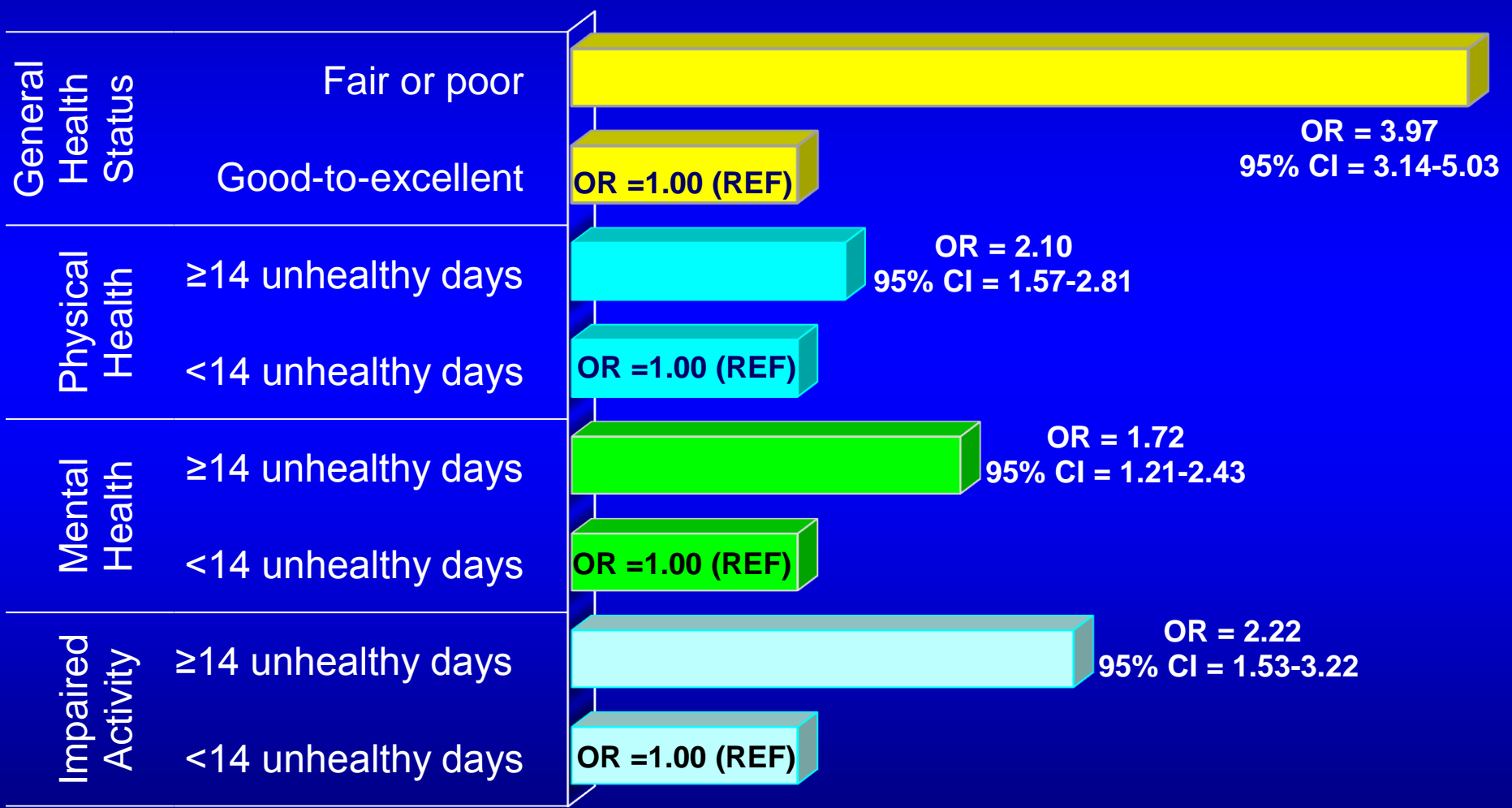
Source: BRFSS



Health-related Quality Of Life (HRQOL) among Adults with COPD in SC

- HRQOL reflects a person's physical and mental functional capacities, and perceived general health status
 1. Would you say that in general your health is excellent, very good, good, fair, or poor?
... how many days during the past 30 days was your:
 2. physical health not good?
 3. mental health not good?
 4. poor physical or mental health kept you from doing your usual activities?
- We examined associations between COPD and these HRQOL items

Adjusted Odds Ratios for Associations between COPD, and Measures of Health-Related Quality of Life



Source: SC BRFSS 2011



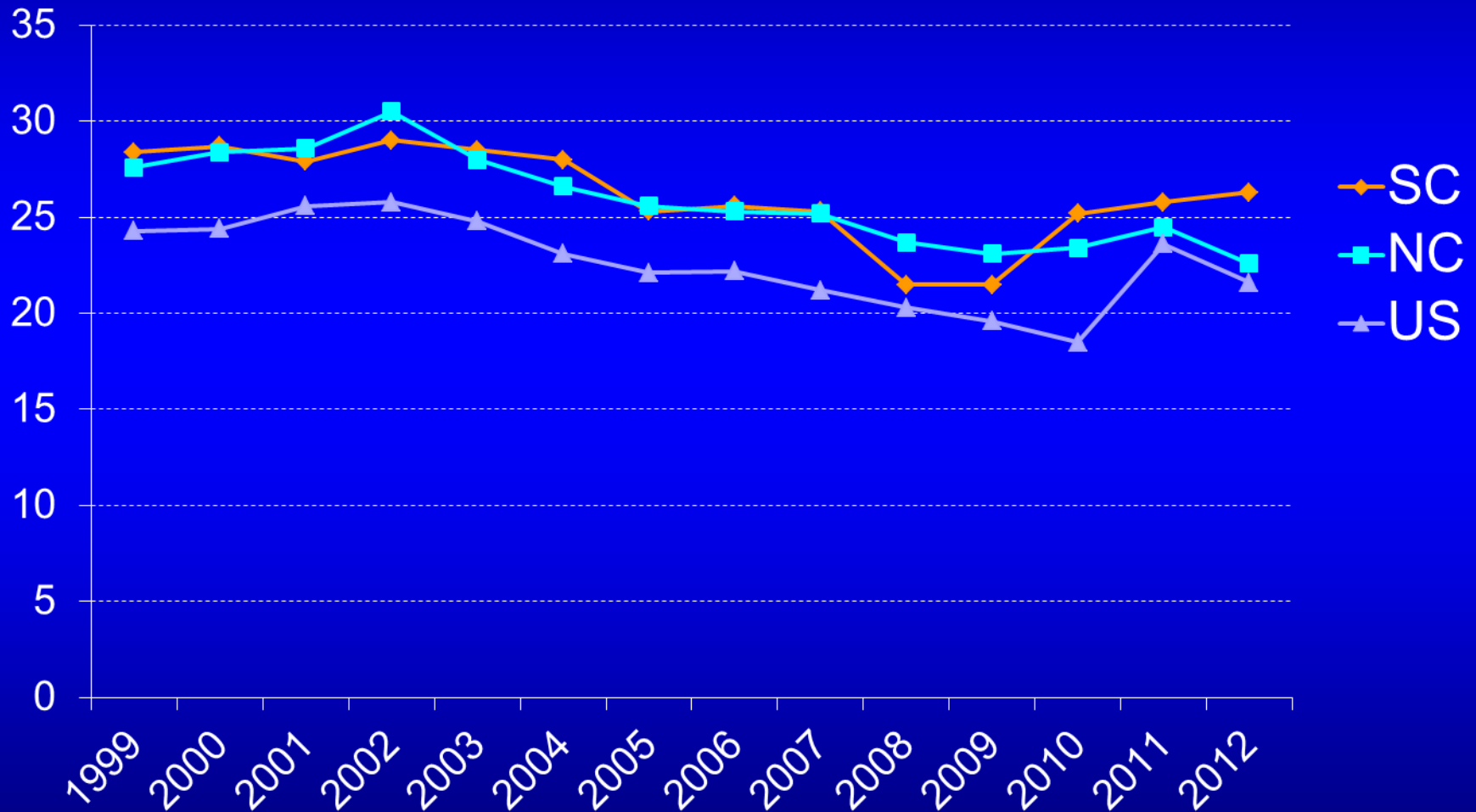
Conclusions

1. Chronic lower respiratory diseases are the 4th leading cause of death in NC and SC, compared to the 3rd leading cause in the US.
2. COPD portion of the CLRD mortality makes up more than 97% of the total, and has been on the rise for a decade.
3. CLRD are on the rise nationally and regionally.
4. The Carolinas COPD mortality rates have consistently been above the national rates.
5. COPD prevalence and cost are on the rise.
6. People with COPD are more at risk of lower health related quality of life than those without COPD .

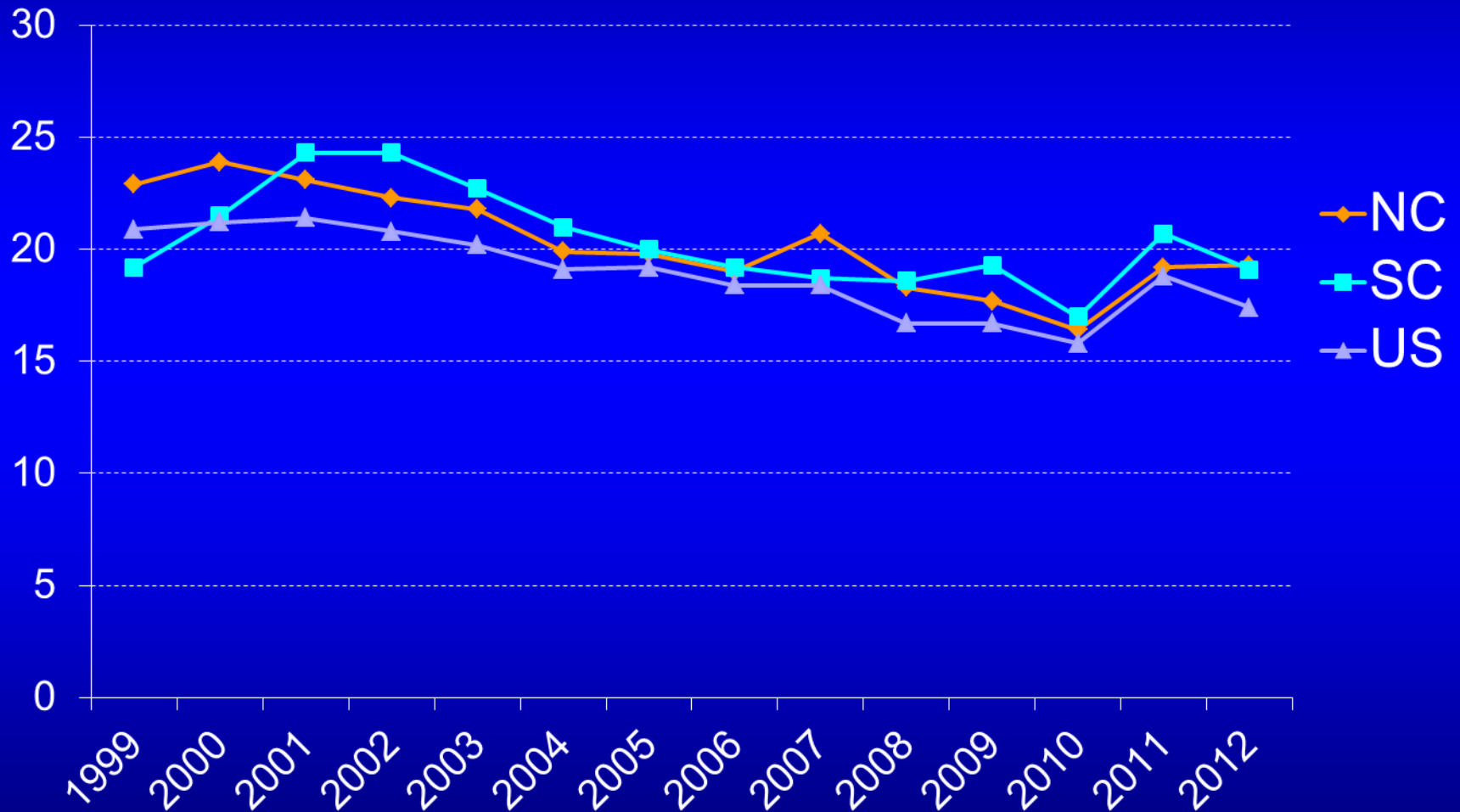


Thank you!

Tobacco Smoking among S.C., N.C., and U.S. Adult Males



Tobacco Smoking among S.C., N.C., and U.S. Adult Females



Tobacco Smoking among S.C., N.C., and U.S. Adult

