

Financial Impact of Lung Cancer in West Virginia

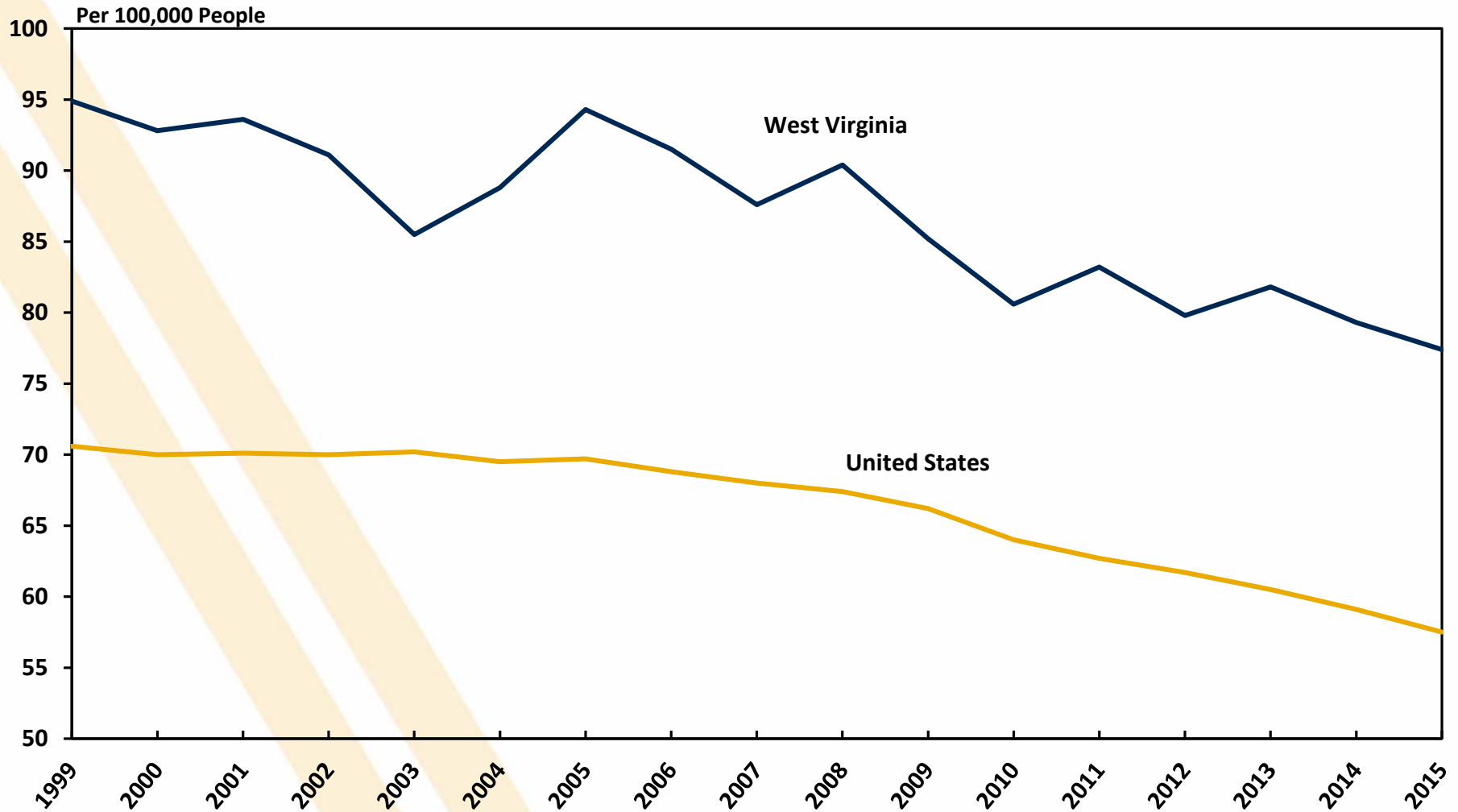
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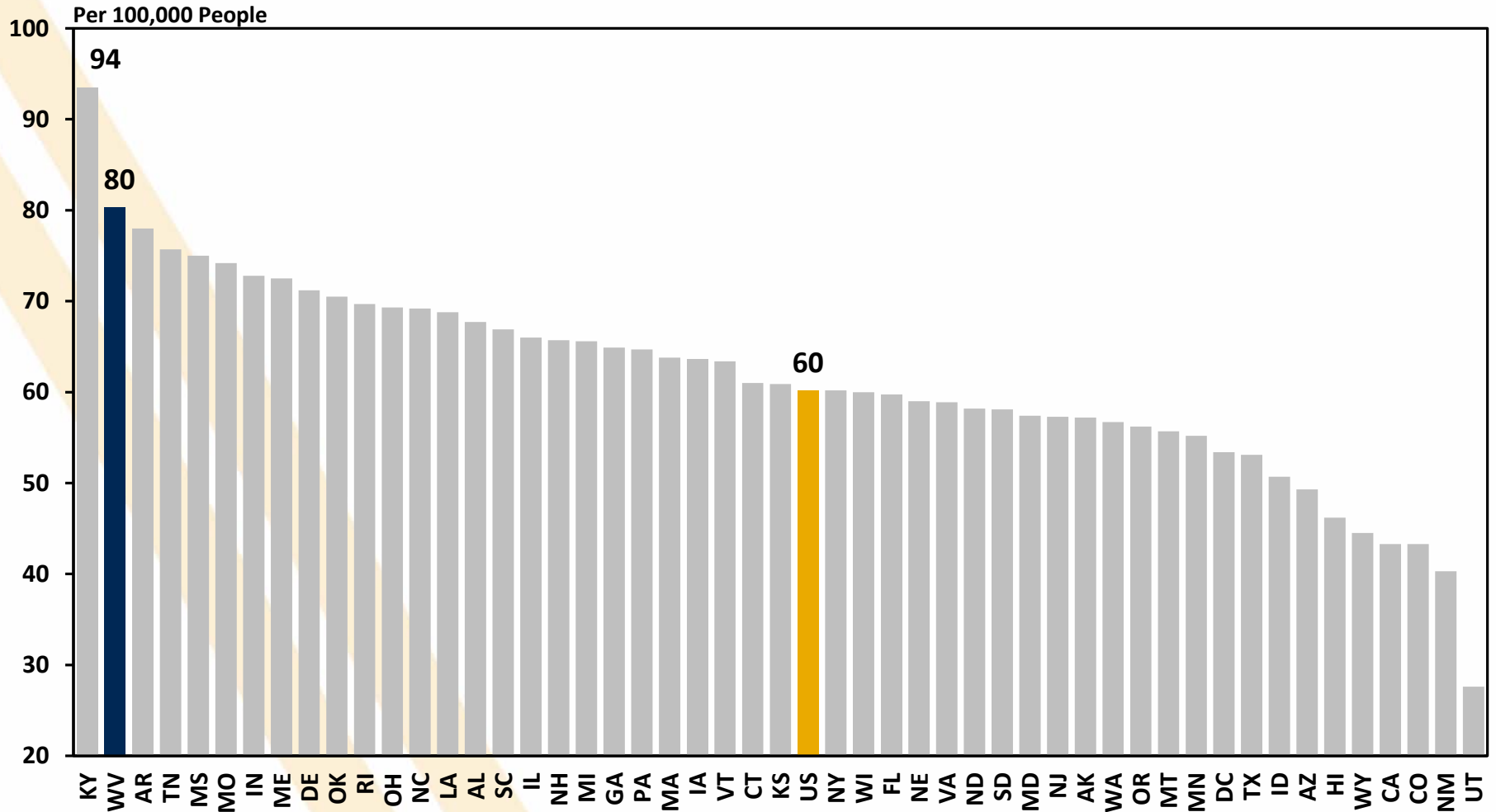
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Lung Cancer Incidence, 1999 to 2015



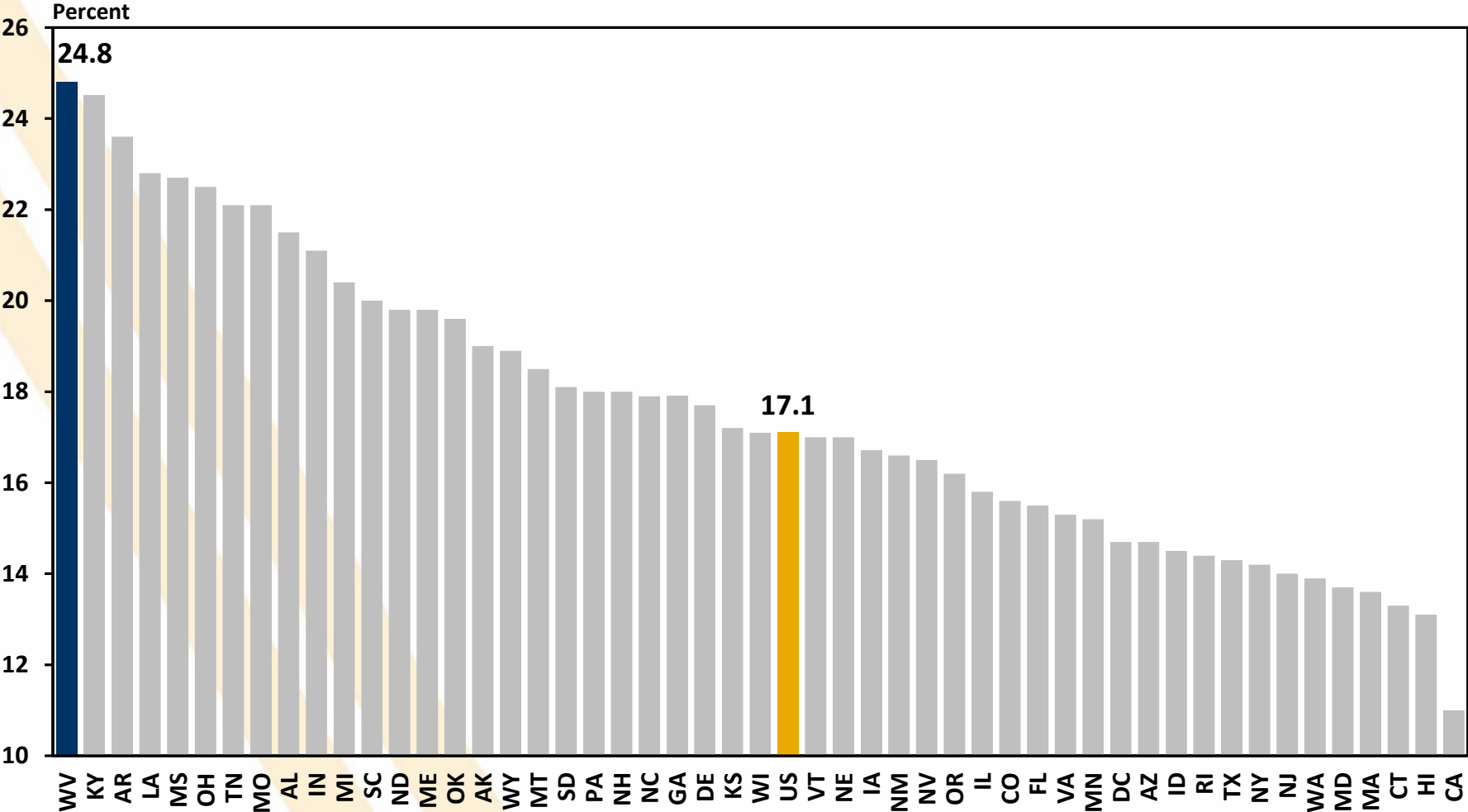
Source: US Cancer Statistics

Lung Cancer Incidence by State, 2011-2015 Average



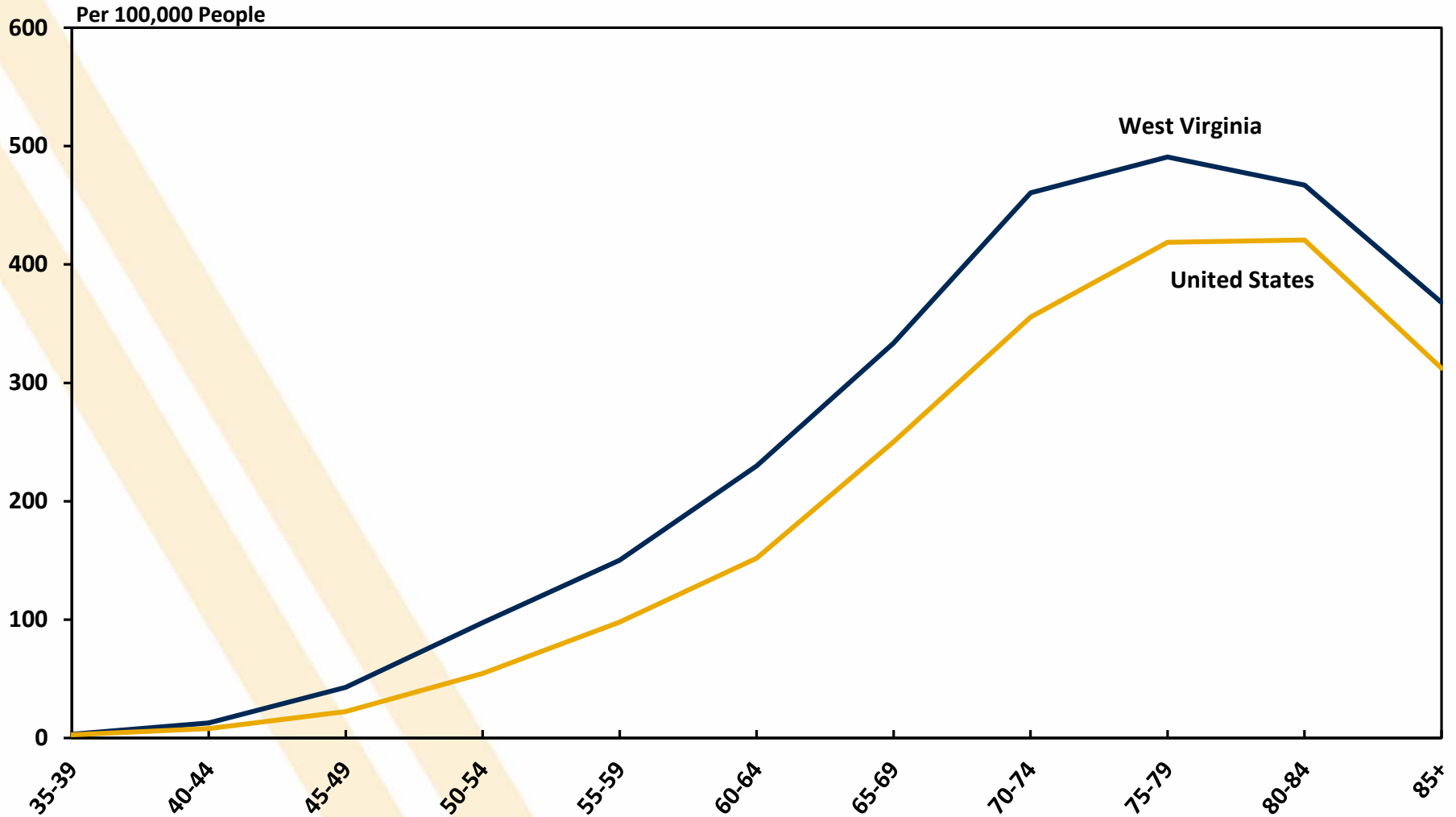
Source: US Cancer Statistics

Cigarette Use Among Adults, 2016



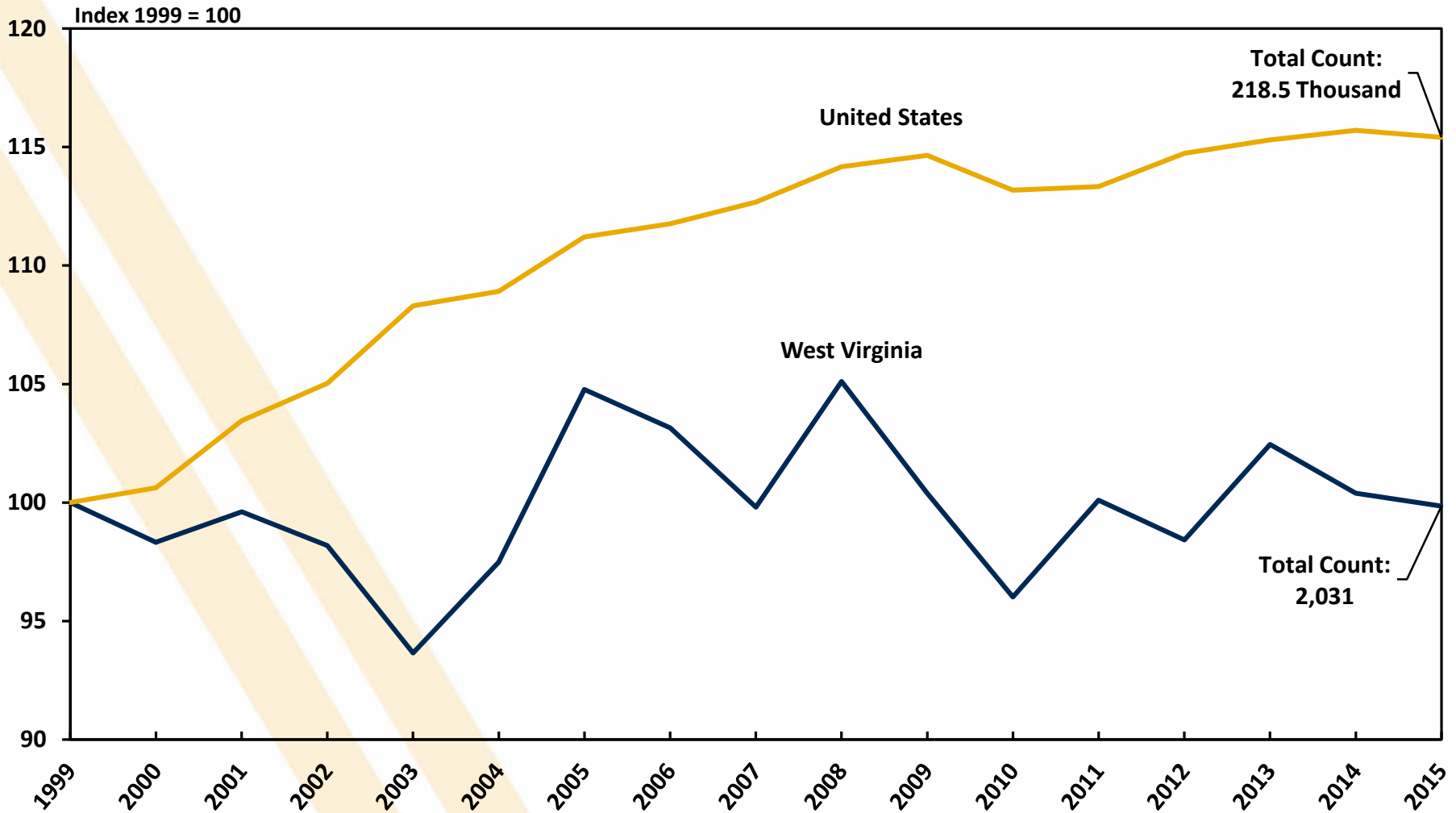
Source: US Centers for Disease Control and Prevention, Behavior Risk Factor Surveillance System

Lung Cancer Incidence by Age, 2011-2015



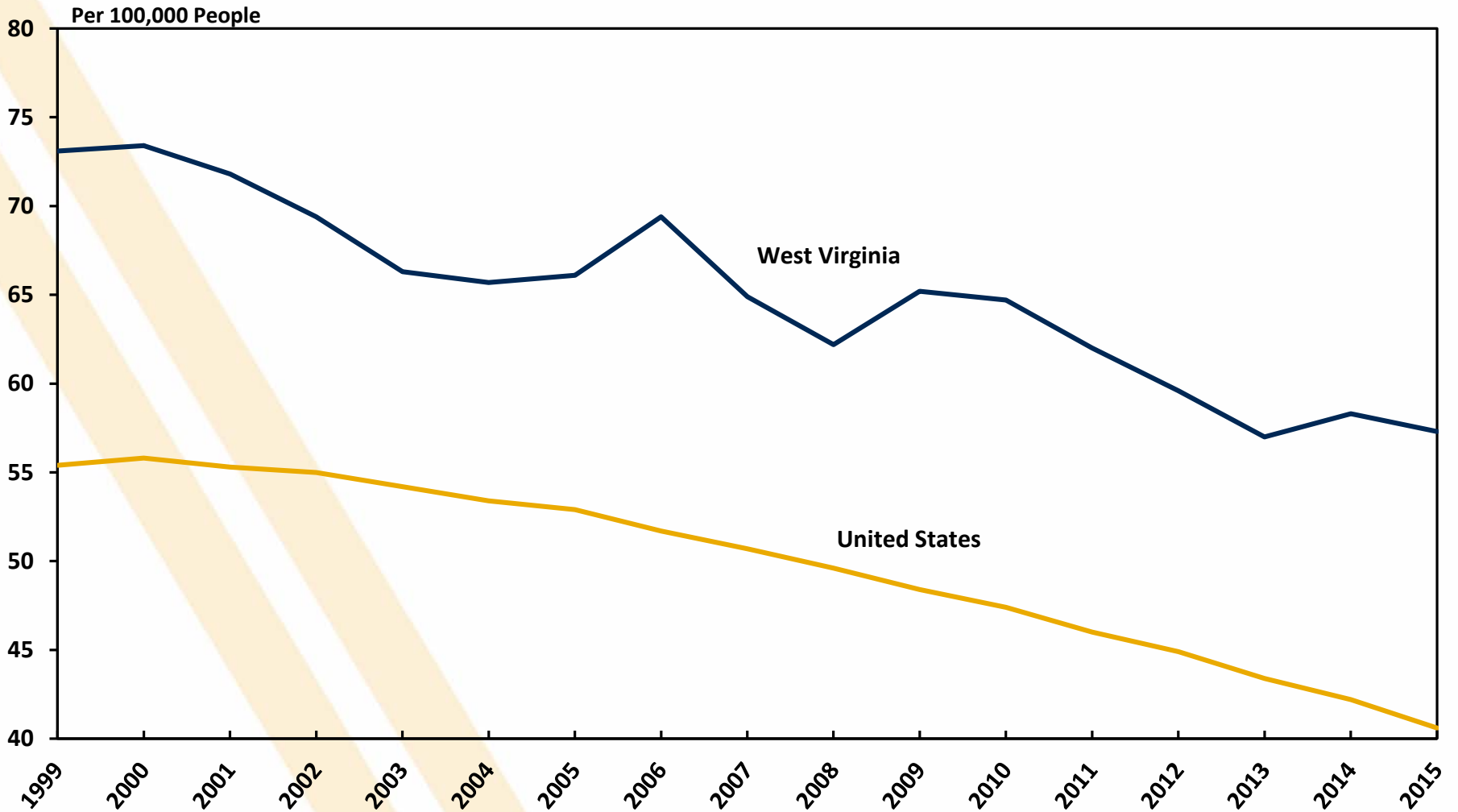
Source: US Cancer Statistics

Lung Cancer Incidence Count, 1999 to 2015



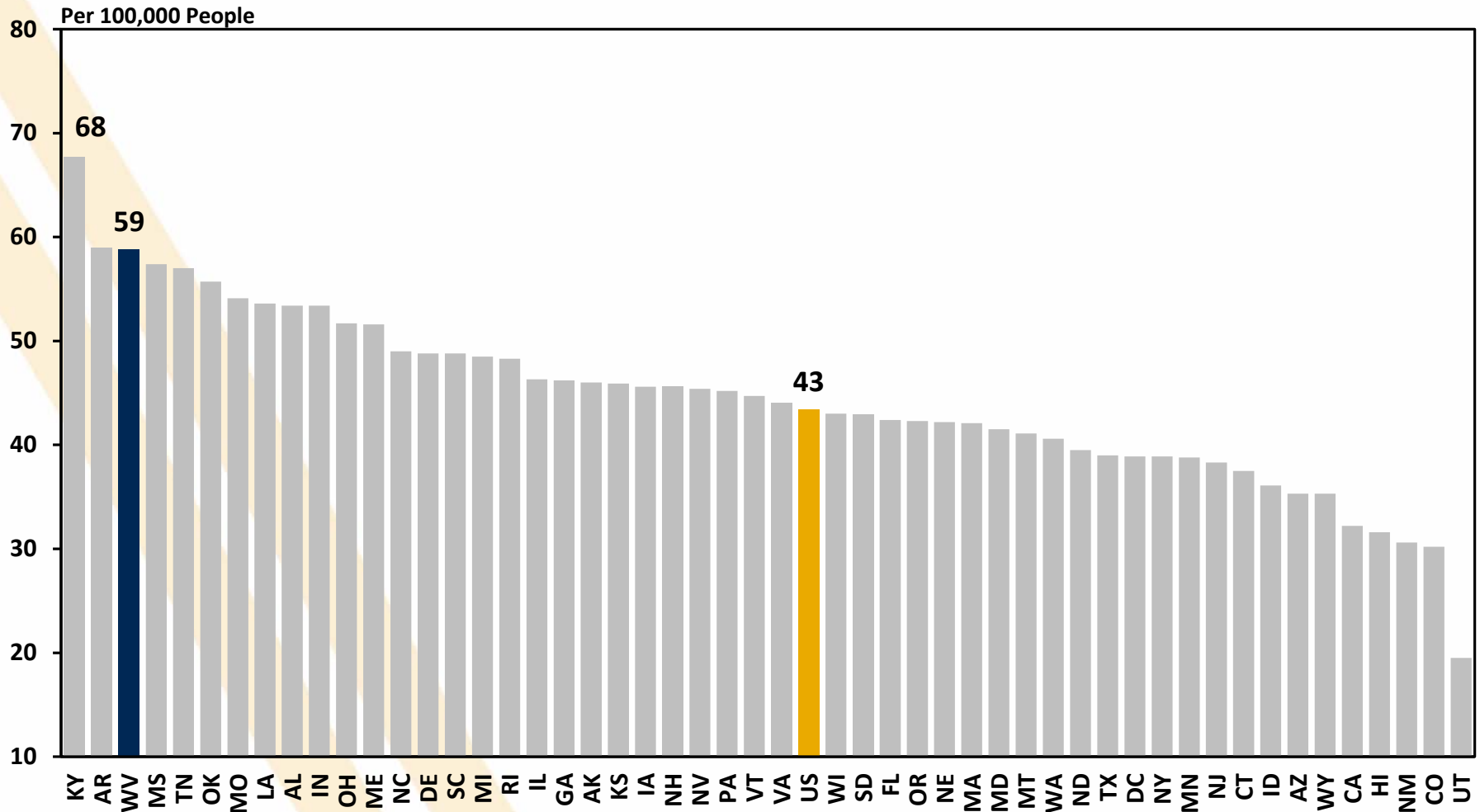
Source: US Cancer Statistics

Lung Cancer Death, 1999 to 2015



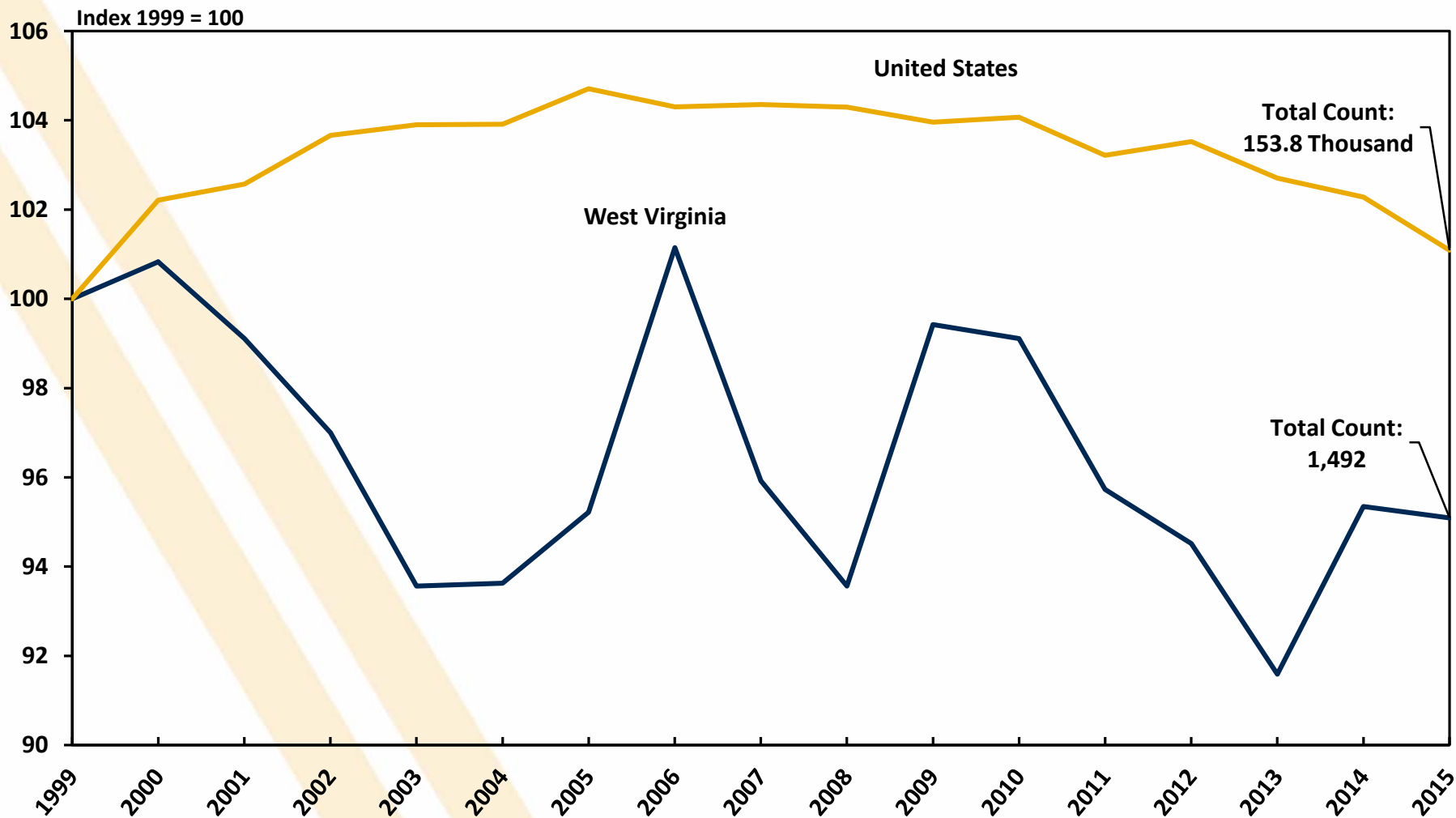
Source: US Cancer Statistics

Lung Cancer Death by State, 2011-2015 Average



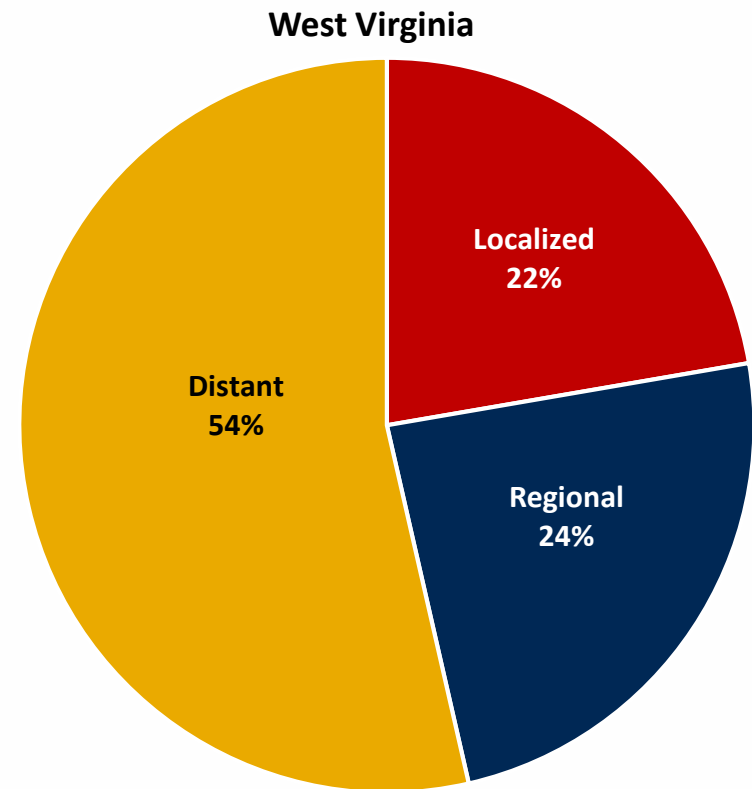
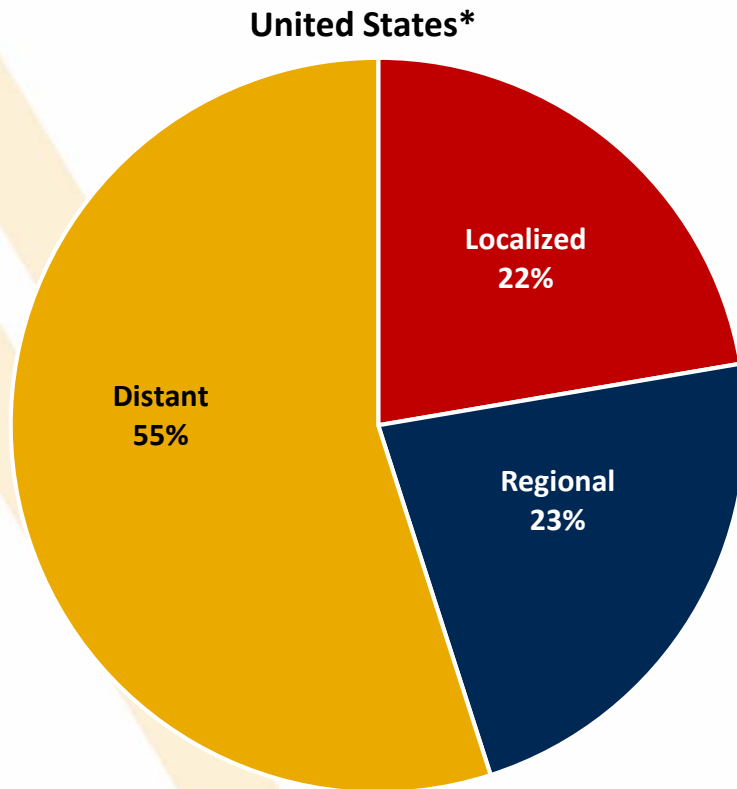
Source: US Cancer Statistics

Lung Cancer Death Count, 1999 to 2015



Source: US Cancer Statistics

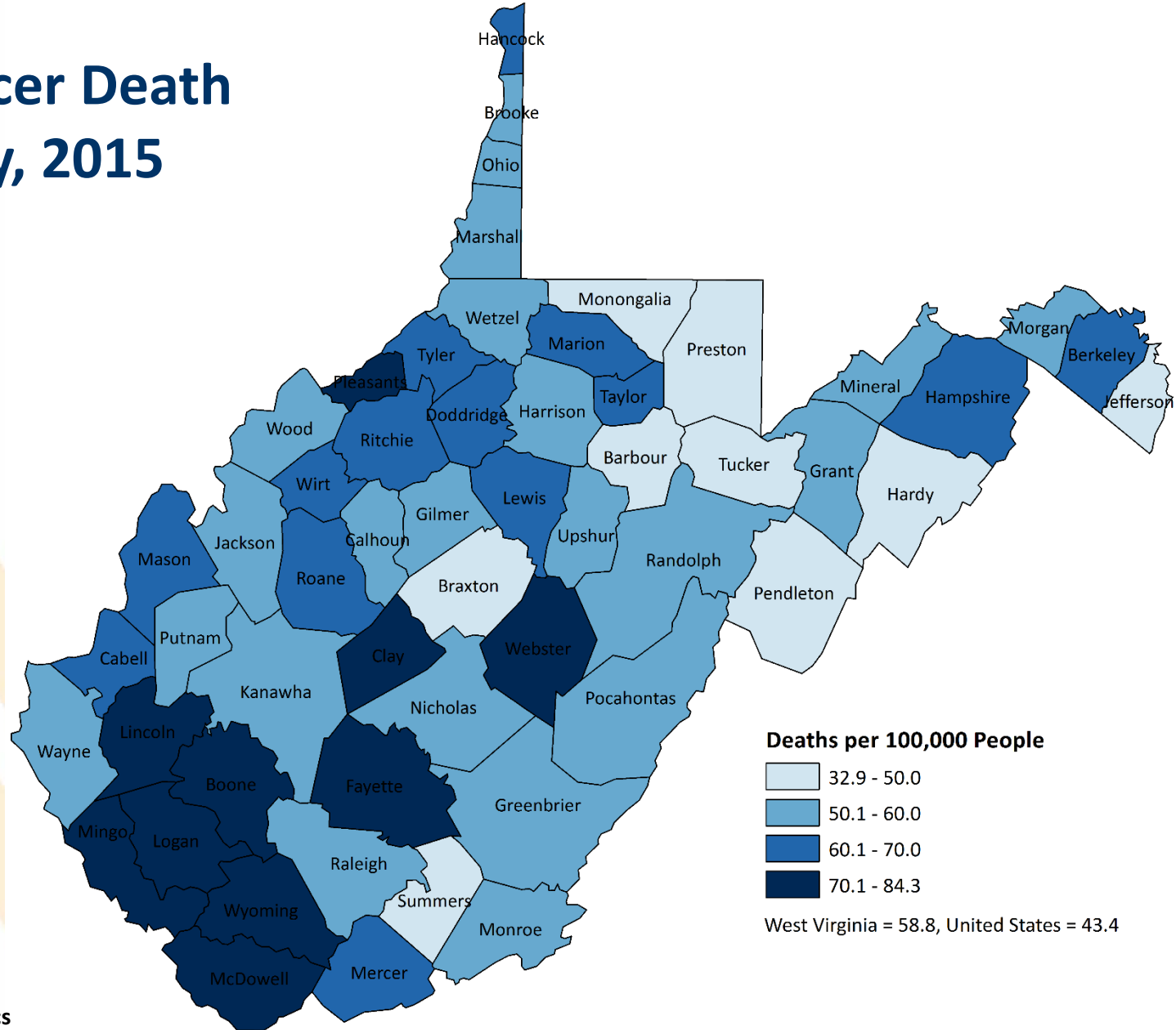
Lung Cancer Incidence by Cancer Stage, 2015



Source: WVDHHR, Division of Cancer Epidemiology and SEER*Stat Database

* Note: Data for the US represents the average of only 18 regions (consisting of states and big cities).

Lung Cancer Death By County, 2015



Source: US Cancer Statistics

Economic Cost of Lung Cancer

1. Treatment Cost, which depends on:

- Cancer Stage: Stage-1 (Localized) to Stage-4 (Distant)
- Type of Treatment: Surgery, Radiotherapy, Chemotherapy
- Cause of Death: Lung Cancer Related vs. Complications of Treatment or Medical/Medication Errors
- Cancer Type: Small Cell Lung Cancer vs. Non-Small Cell Lung Cancer

2. Productivity Loss due to Lung Cancer deaths

Estimating Treatment Cost

Lung Cancer Prevalence in WV in 2015

Step-1: Estimate lung-cancer prevalence (total number of patients) by applying survival rates to lung-cancer cases according to the cancer stage (stage-1 to stage-4) and type (NSCLC vs. SCLC).

Step-2: Multiply the total number of patients by the 2010 US-lung-cancer-treatment-annual-cost-per-patient*, according to the treatment phase (initial, continuing, death) and gender.

Step-3: Assume no increase in per-patient cost of treating lung-cancer over-time. Adjust for inflation.

Step-4: Add patients' out-of-pocket expenses (e.g. copay, expenses not covered by Medicare or insurance companies).**

Sources: * = National Cancer Institute and Mariotto et al. (2011). ** = Cipriano et al. (2011).

Direct Economic Impacts of Lung Cancer Treatment, West Virginia, 2015

Jobs That Could Be Freed For Other Pursuits:

3,144

**Productive Capacity That Could Be Devoted to Other
Pursuits:**

\$233 Million

Economic Impact of Productivity Loss for Lung Cancer Deaths, 2006-2015

Impact	Direct	Indirect & Induced	Total
Output (Million \$)*	235	155	389
Employment (Jobs)	5,800	1,265	7,065

* In 2015 dollars