

# Medicare Area Variations

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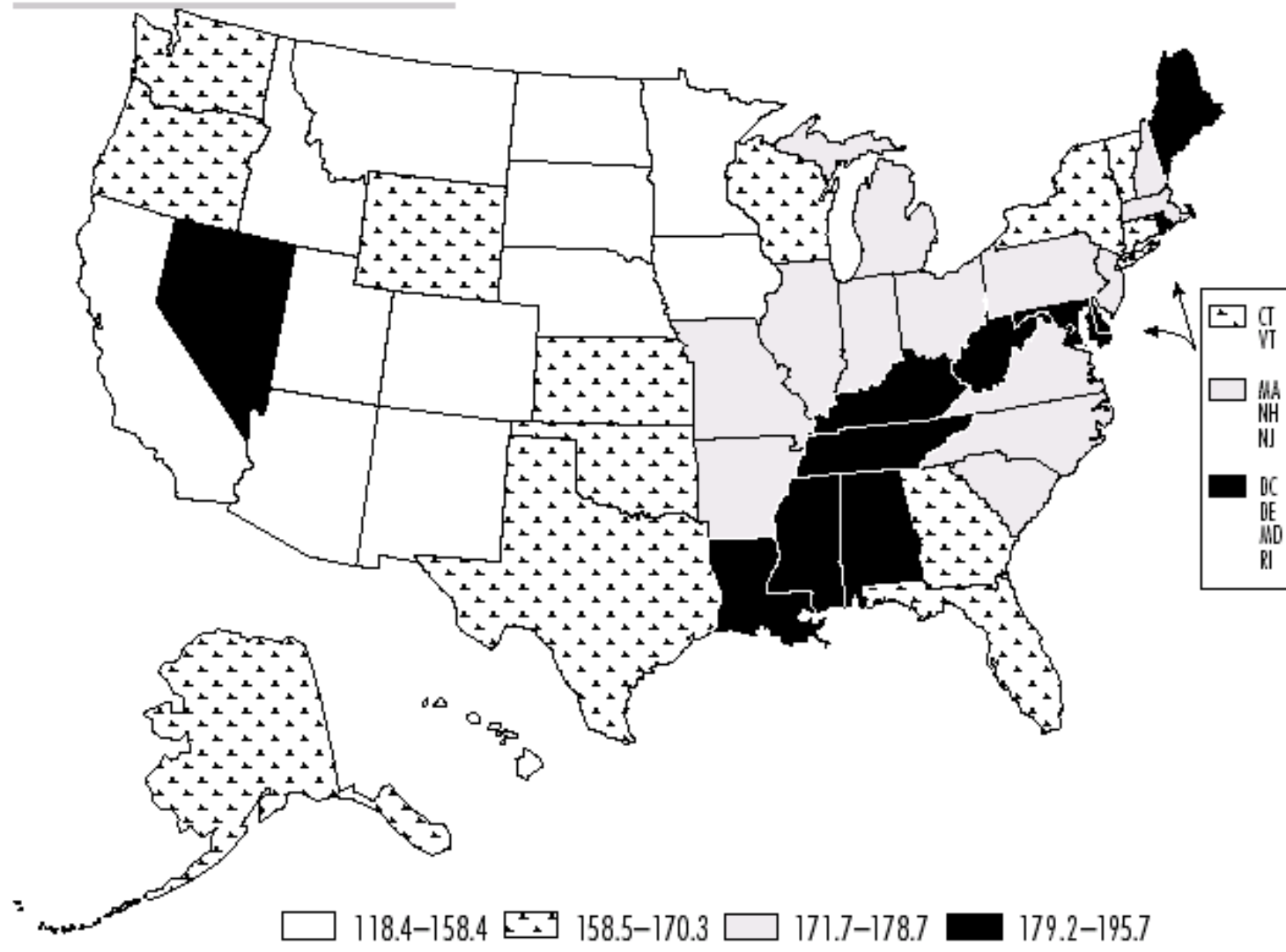
# What Explains Area Variations in Medicare Spending?

- Hypotheses
  - Variations in clinical practices ?
  - Variations in health status ?
  - Other factors (income, race, risk factors, Medigap, socio-economic status...) ?
- Many explanations, alone & in combination, with differing policy implication ?
  - Possibly, as-yet-unidentified causes? (John Snow & Broad Street pump)

# Variations in Health Status

- Area Variations in Medicare Spending =
  - F (health status, 65+.....) =
  - F (health status, <65.....) =
  - F (health risk factors <65.....)
- Evidence for Area Variations in Health Status
  - Mortality rates
  - Disability rates
  - Severity rates

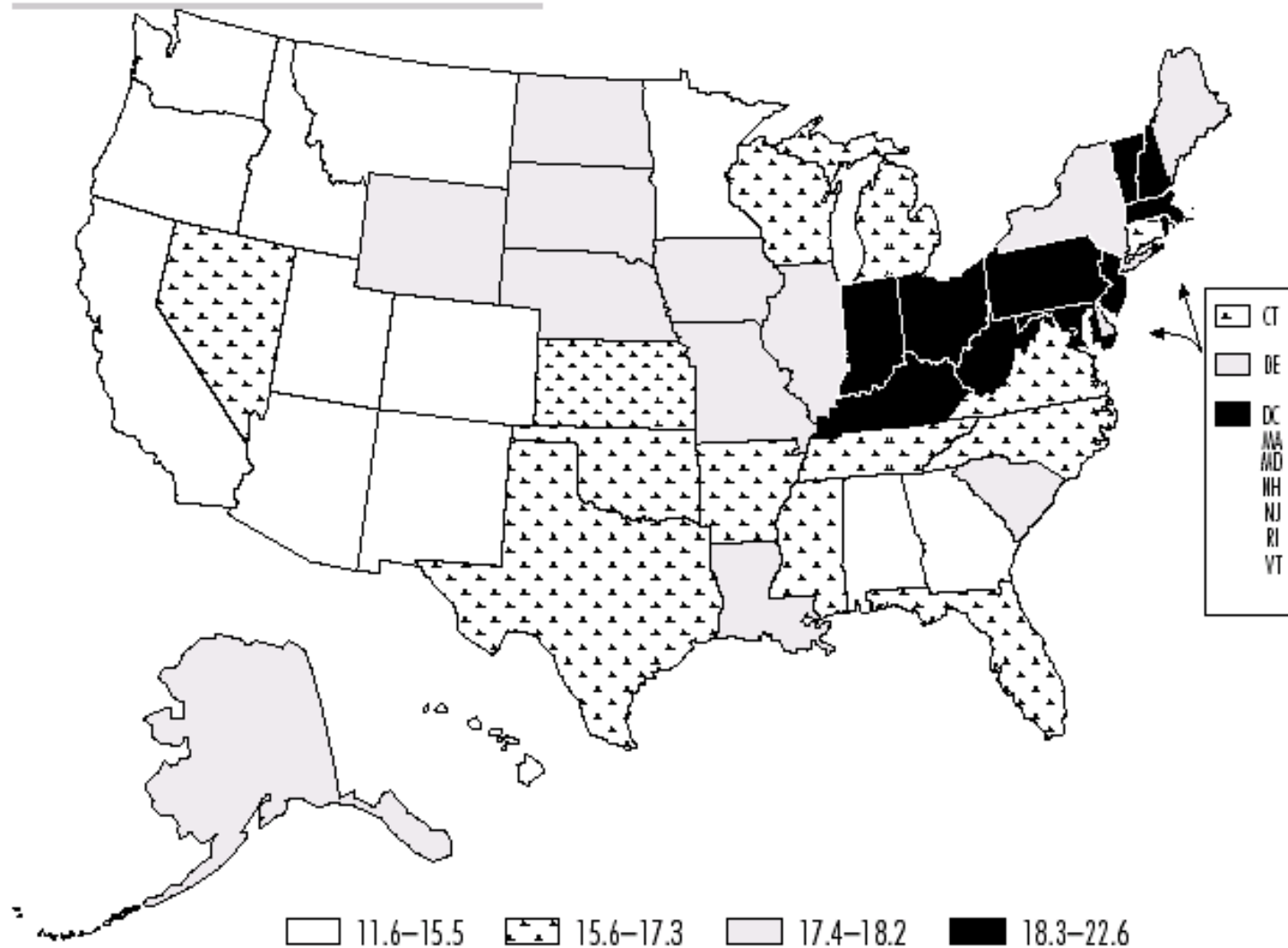
# All Cancers: 1996 Death Rate\*



\*Deaths per 100,000, age adjusted to 1970 total U.S. population. ICD-9 codes: 140-208.

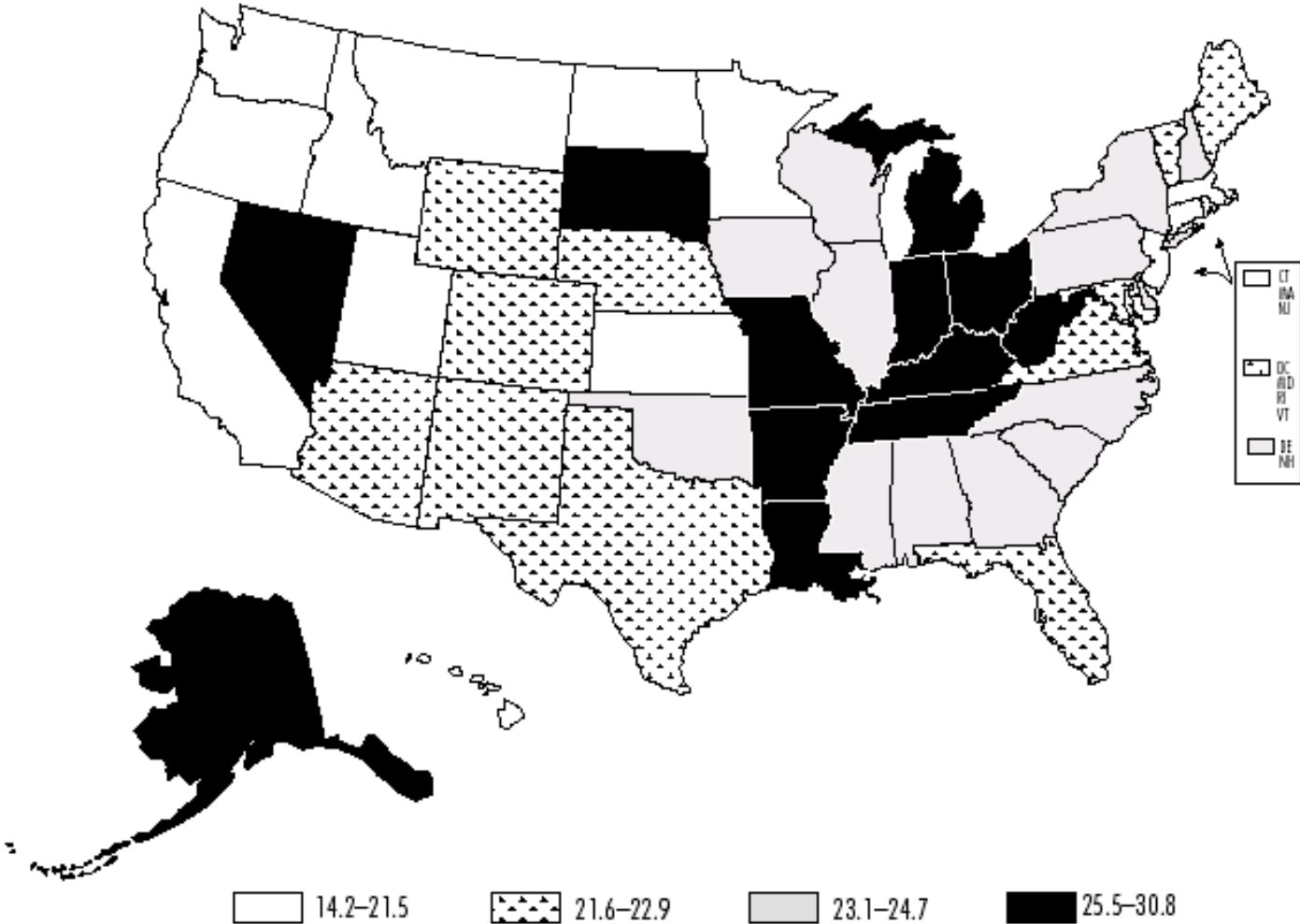


# Colorectal Cancer: 1996 Death Rate\*



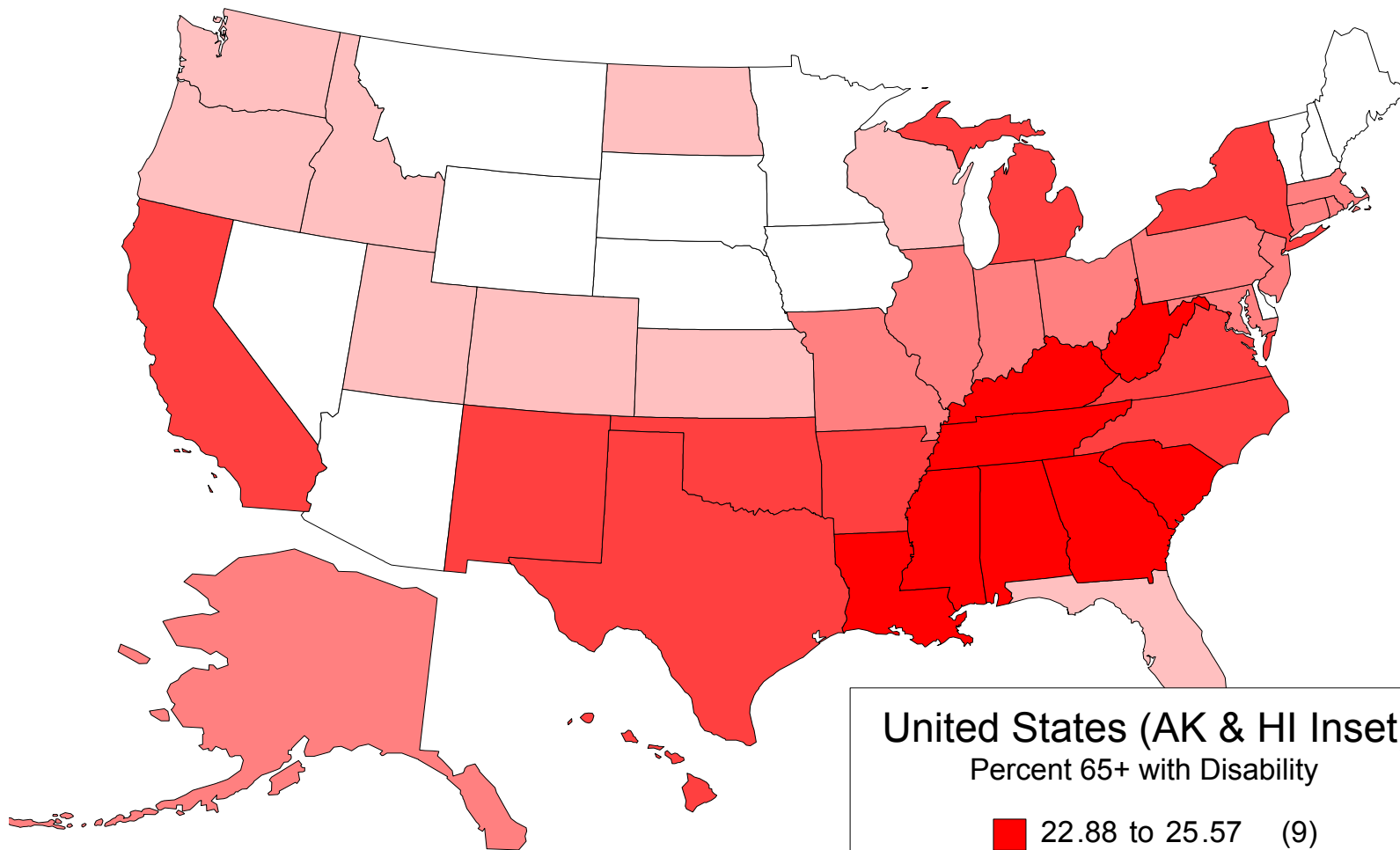
\*Deaths per 100,000, age adjusted to 1970 total U.S. population. ICD-9 codes: 153-154.1, 159.0.

# Percentage of Adults Who Reported Cigarette Smoking,\* 1998



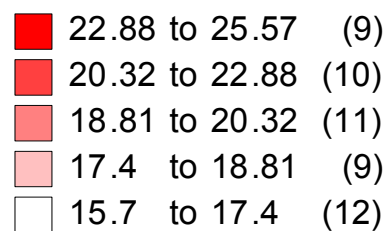
\*Ever smoked at least 100 cigarettes and now smoke every day or some days.  
 Source: CDC, Behavioral Risk Factor Surveillance System.

# United States % Age 65+ With Going Out of Home Disability, 2000 Census

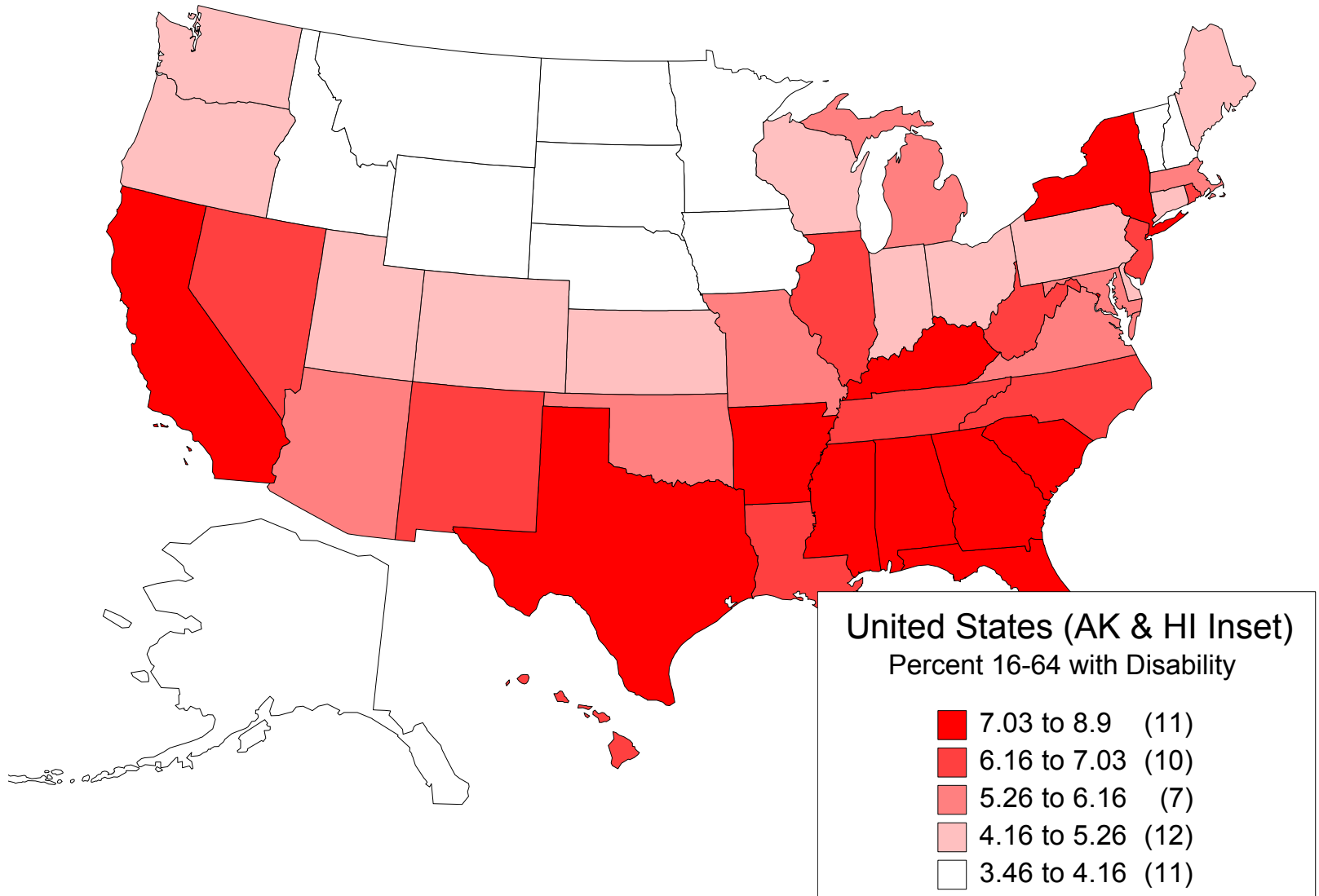


## United States (AK & HI Inset)

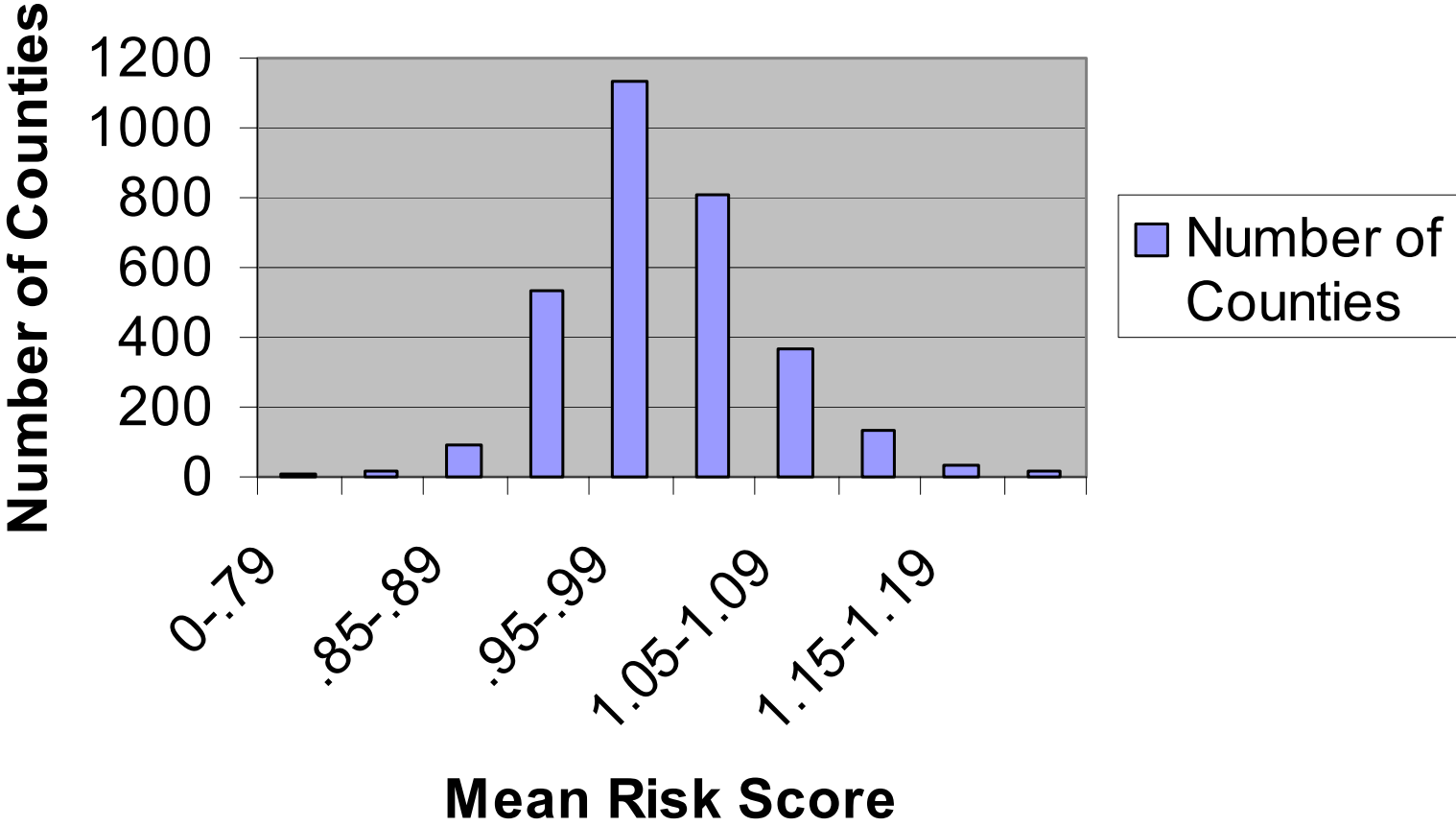
Percent 65+ with Disability



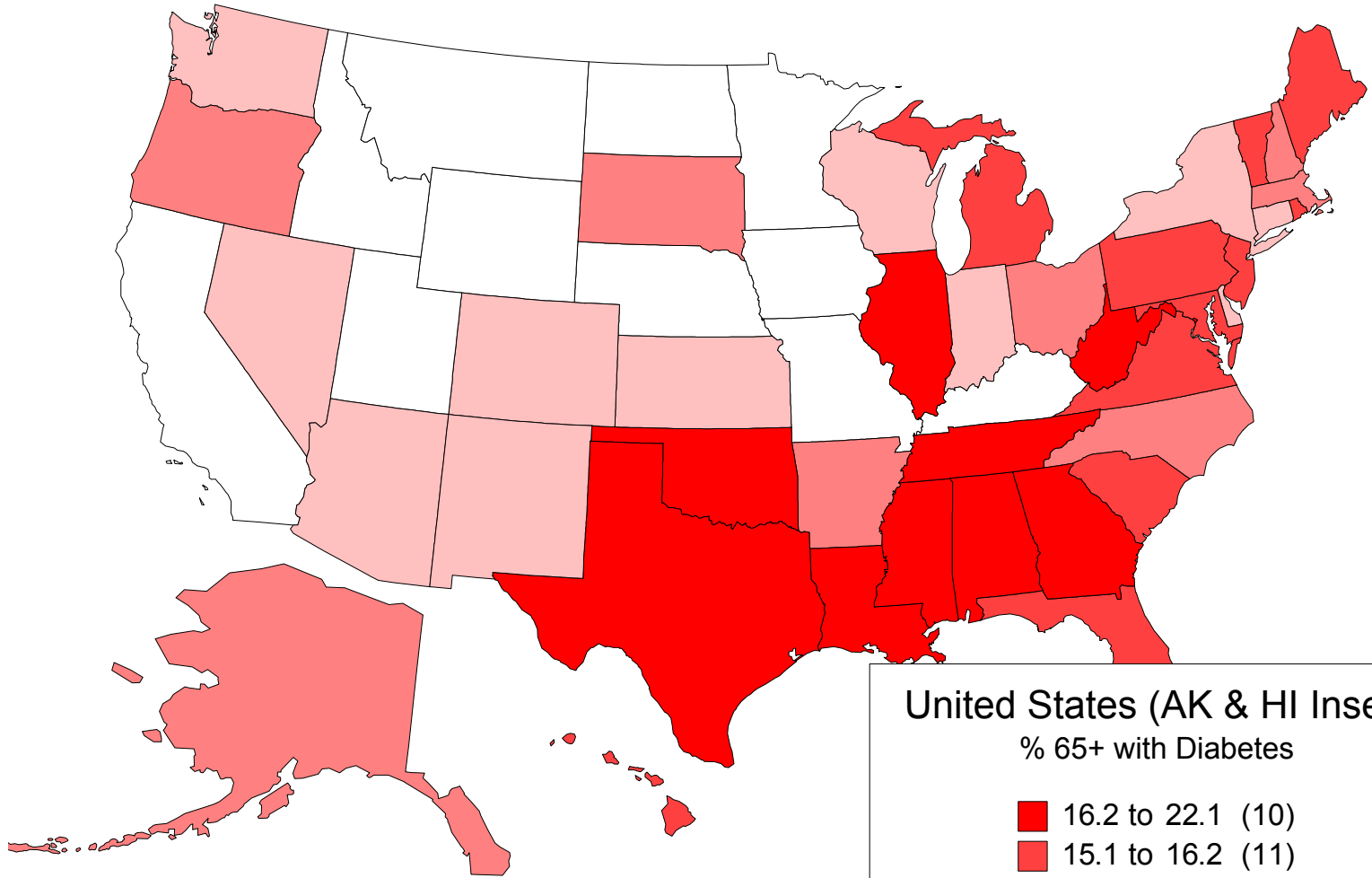
# United States % Aged 16-64 With Going Out of Home Disability, 2000 Census



# Distribution of Mean PIP-DCG Risk Score Among Counties, 1997



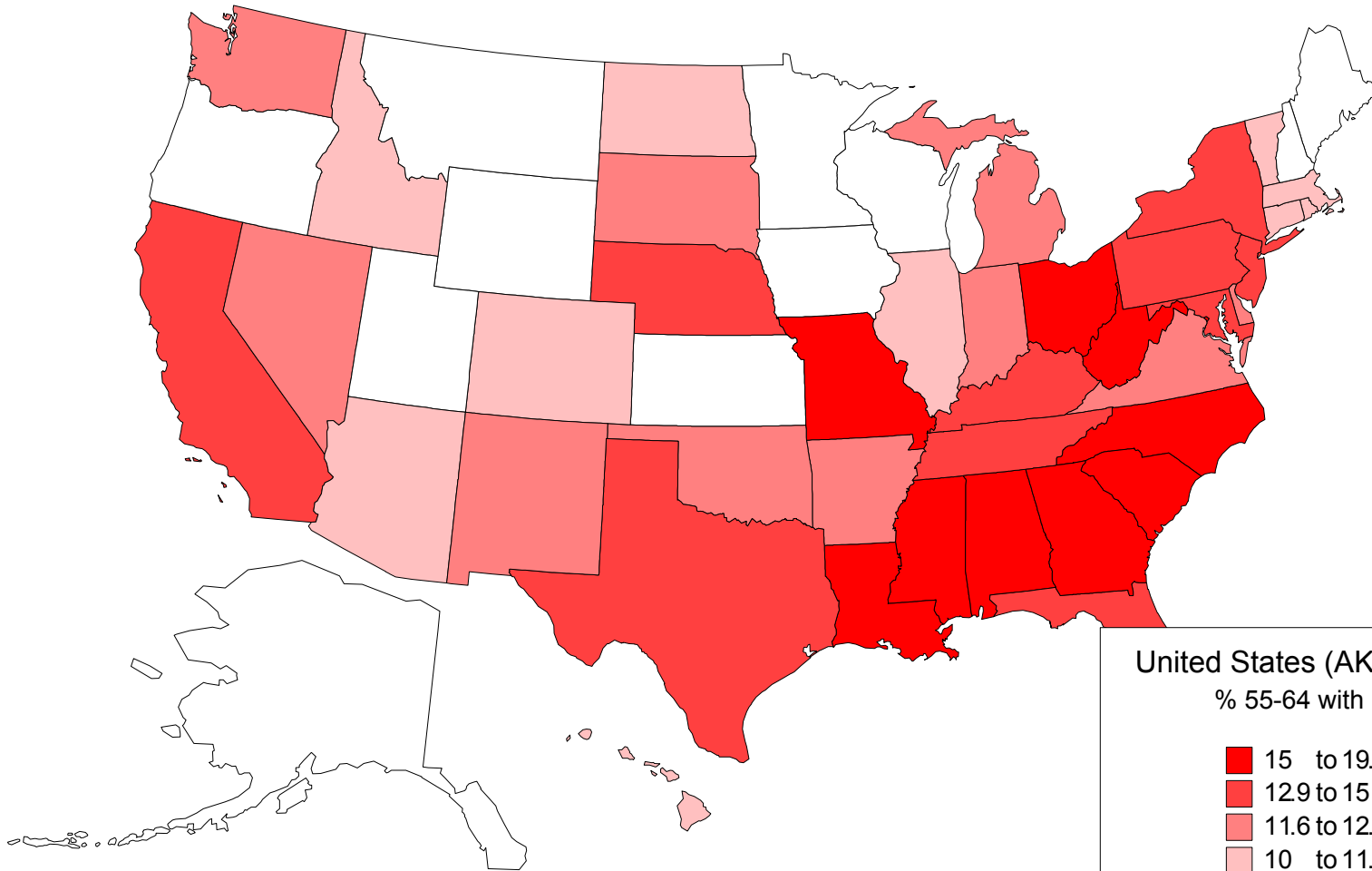
# United States % Diabetes Age 65+, 2001 CDC








United States (AK & HI Inset)  
% 65+ with Diabetes

Dark Red	16.2 to 22.1 (10)
Red	15.1 to 16.2 (11)
Medium Red	14.6 to 15.1 (8)
Light Red	13.4 to 14.6 (11)
White	10.9 to 13.4 (11)

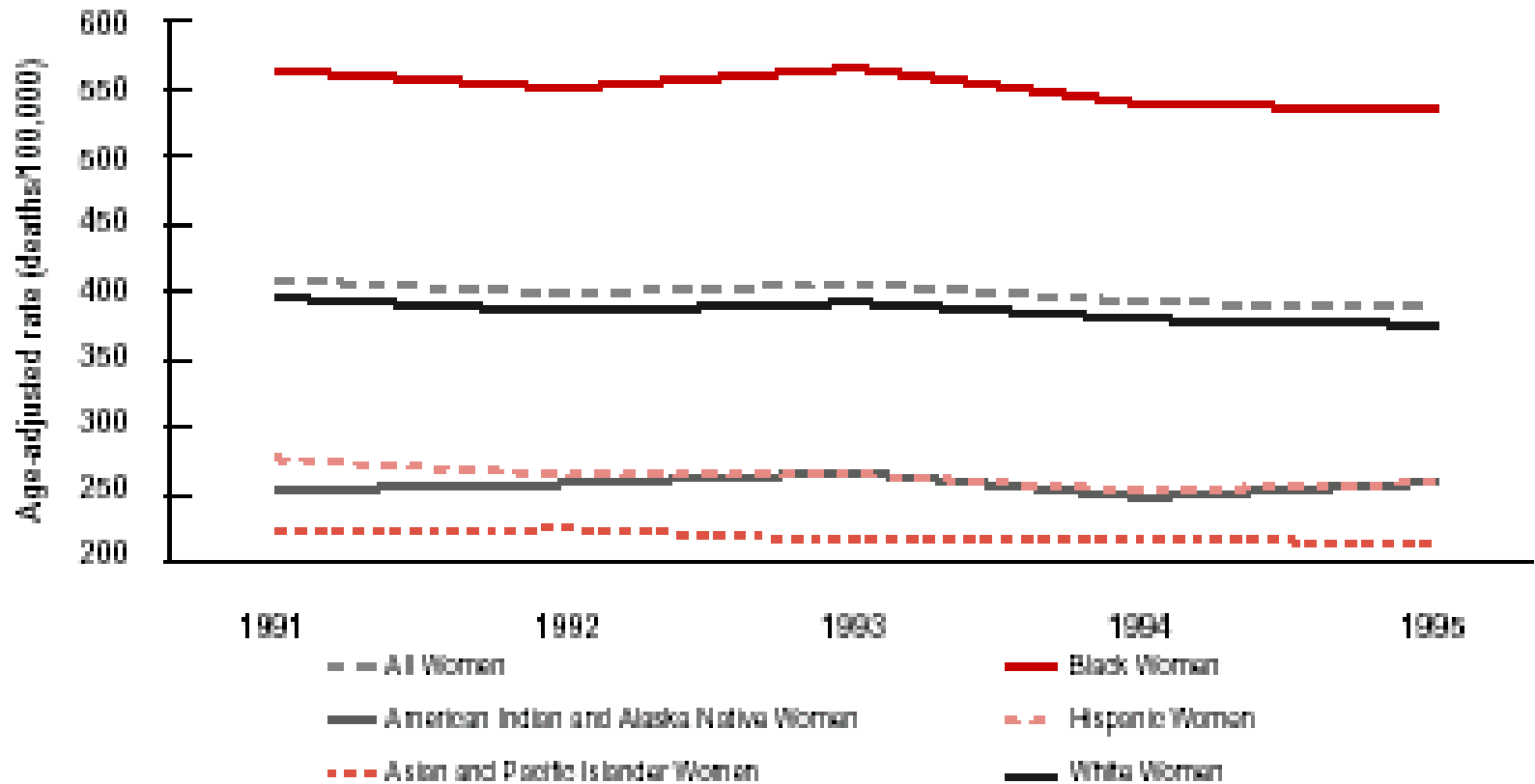
# United States % Diabetes Age 55-64, 2001 CDC



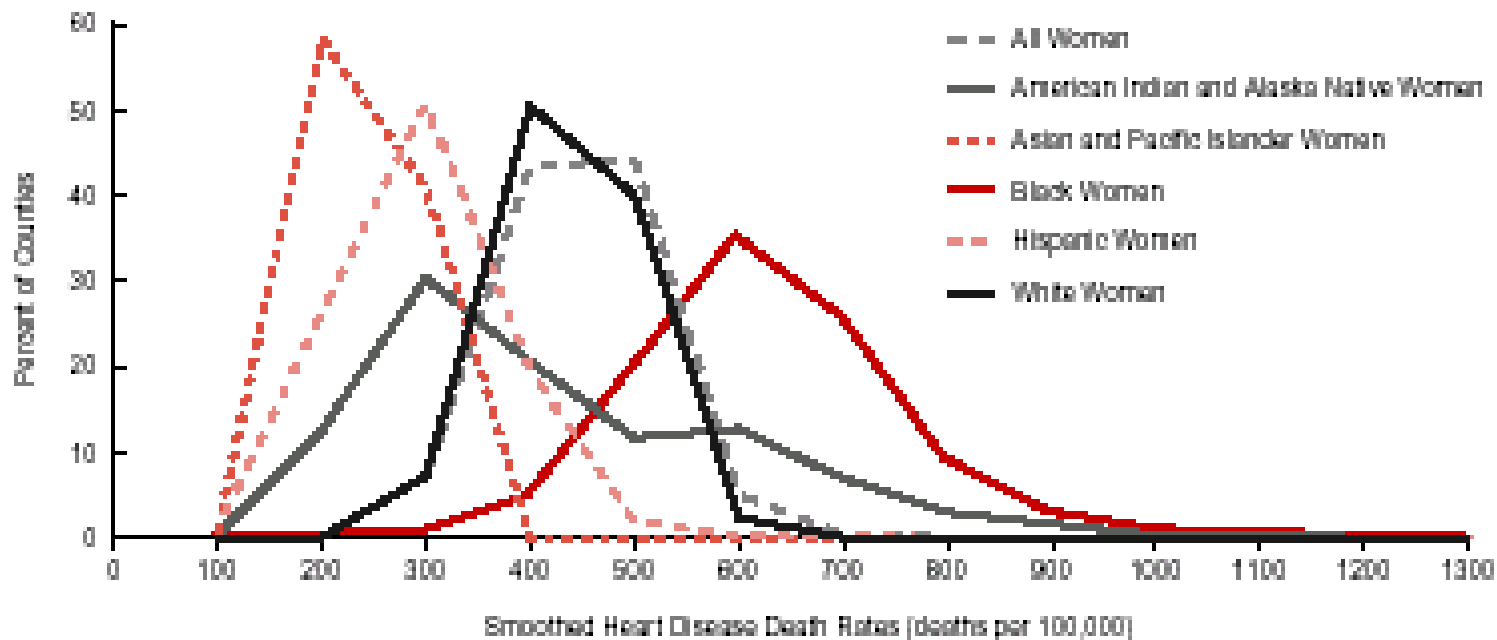
United States (AK & HI Inset)  
% 55-64 with Diabetes

	15 to 19.6 (10)
	12.9 to 15 (10)
	11.6 to 12.9 (10)
	10 to 11.6 (10)
	7.3 to 10 (11)

*Trends in heart disease mortality among women 35 years of age and older, by race and ethnicity, 1991-1995*



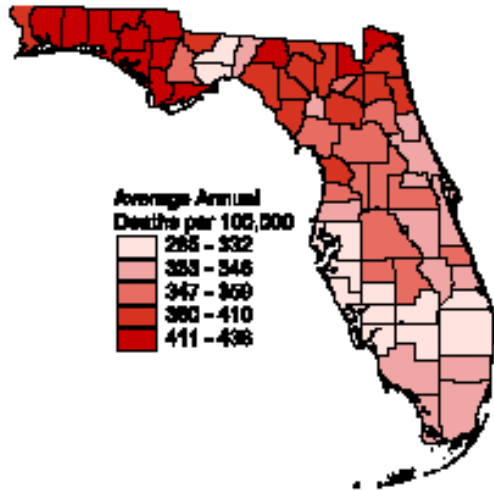
# Distribution of Heart Disease Death Rates Among Counties for Women, CDC 1991-1995



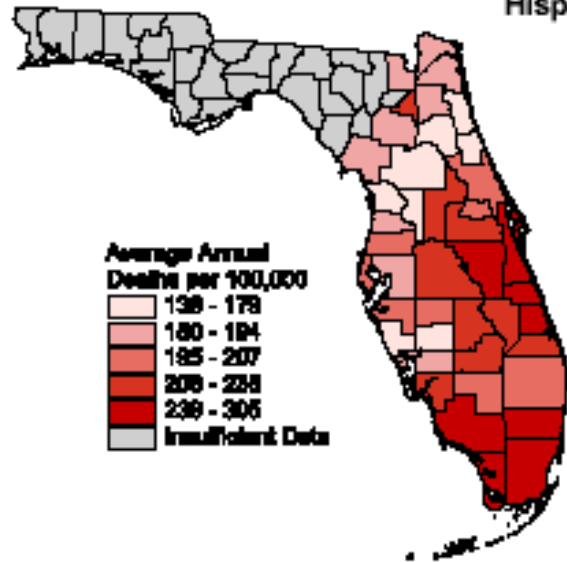
*Figure 1.4*  
*Frequency distribution of smoothed county heart disease death rates for women 35 years of age and older, by race and ethnicity, 1991-1995*

Smoothed County Heart Disease Death Rates, 1991-1995

White Women



Hispanic Women



Black Women

