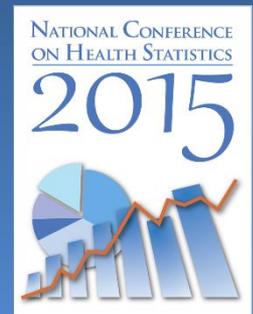


From health to harm: The burden of drug poisoning in the US

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National Center for Health Statistics

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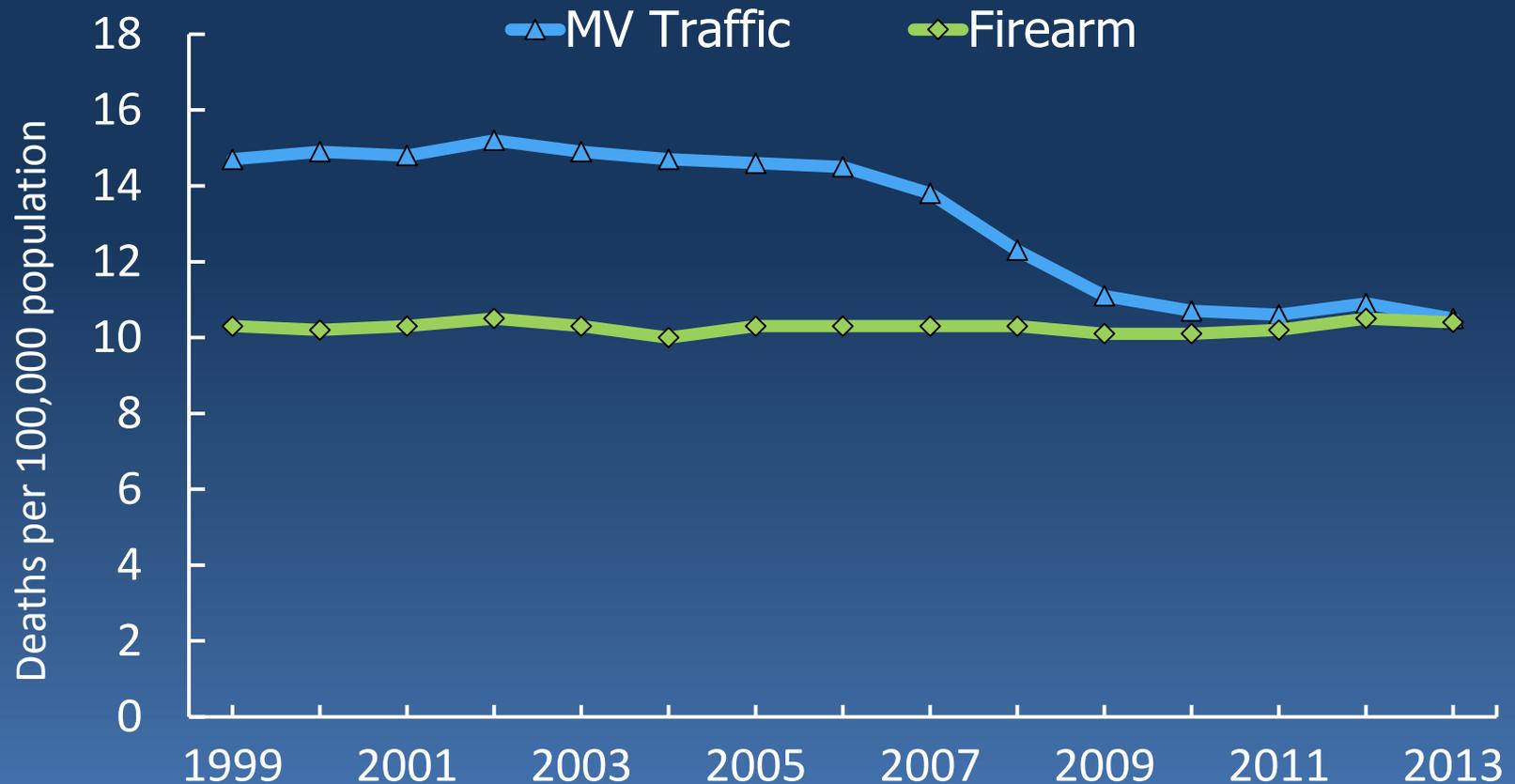
Overview

- Deaths from drug poisoning (overdose)
- Recent trends for specific drugs
- Issues in studying drug poisoning mortality
- Introduction to other presentations in this session

Vital Statistics Mortality Data

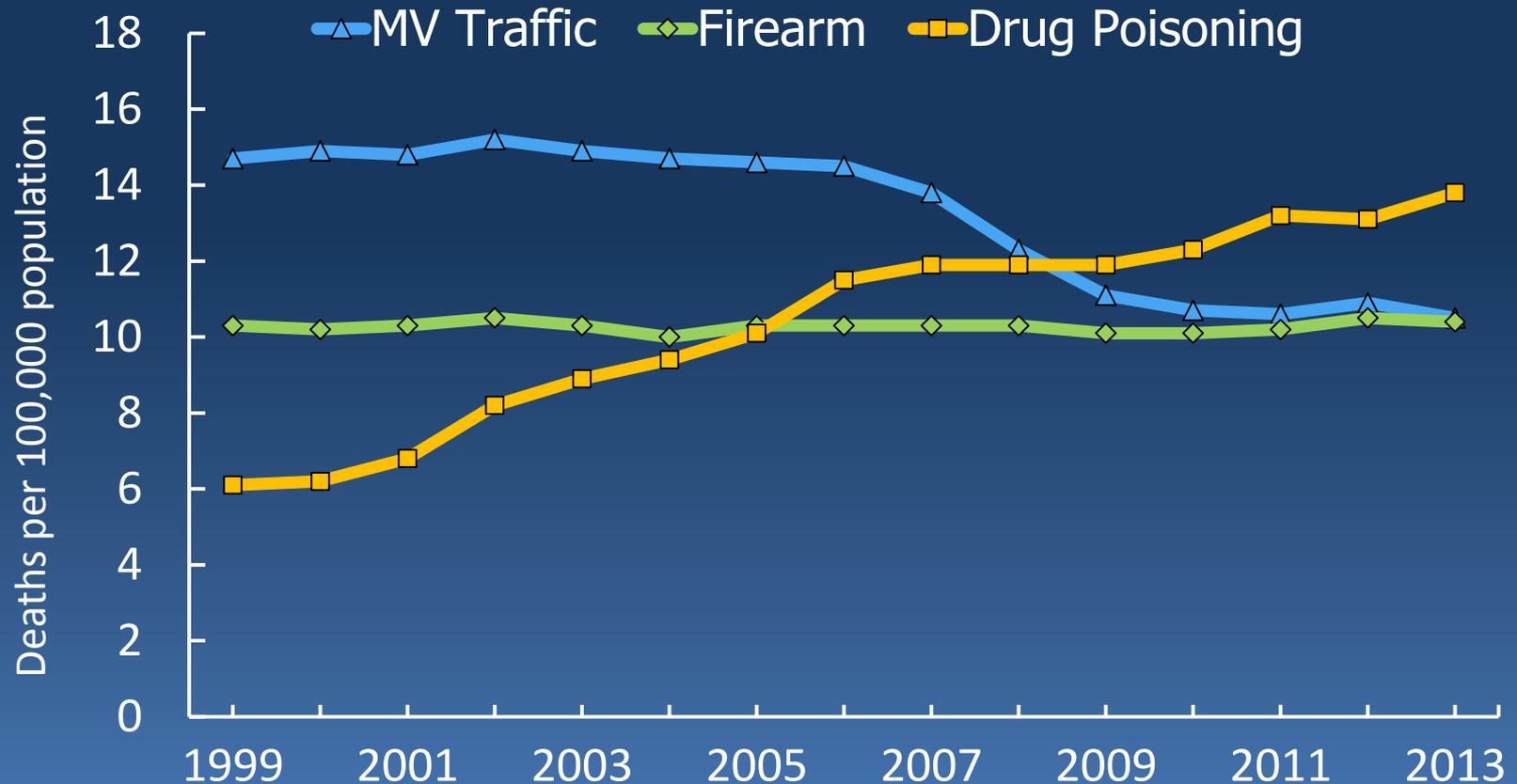
- Based on information from death certificates filed in the States and Territories
- Data are provided to NCHS through Vital Statistics Cooperative Agreements
- Causes of death are coded using the International Classification of Diseases, Tenth Revision (ICD-10)

Since 1999, death rates have declined for motor vehicle traffic and remained stable for firearm



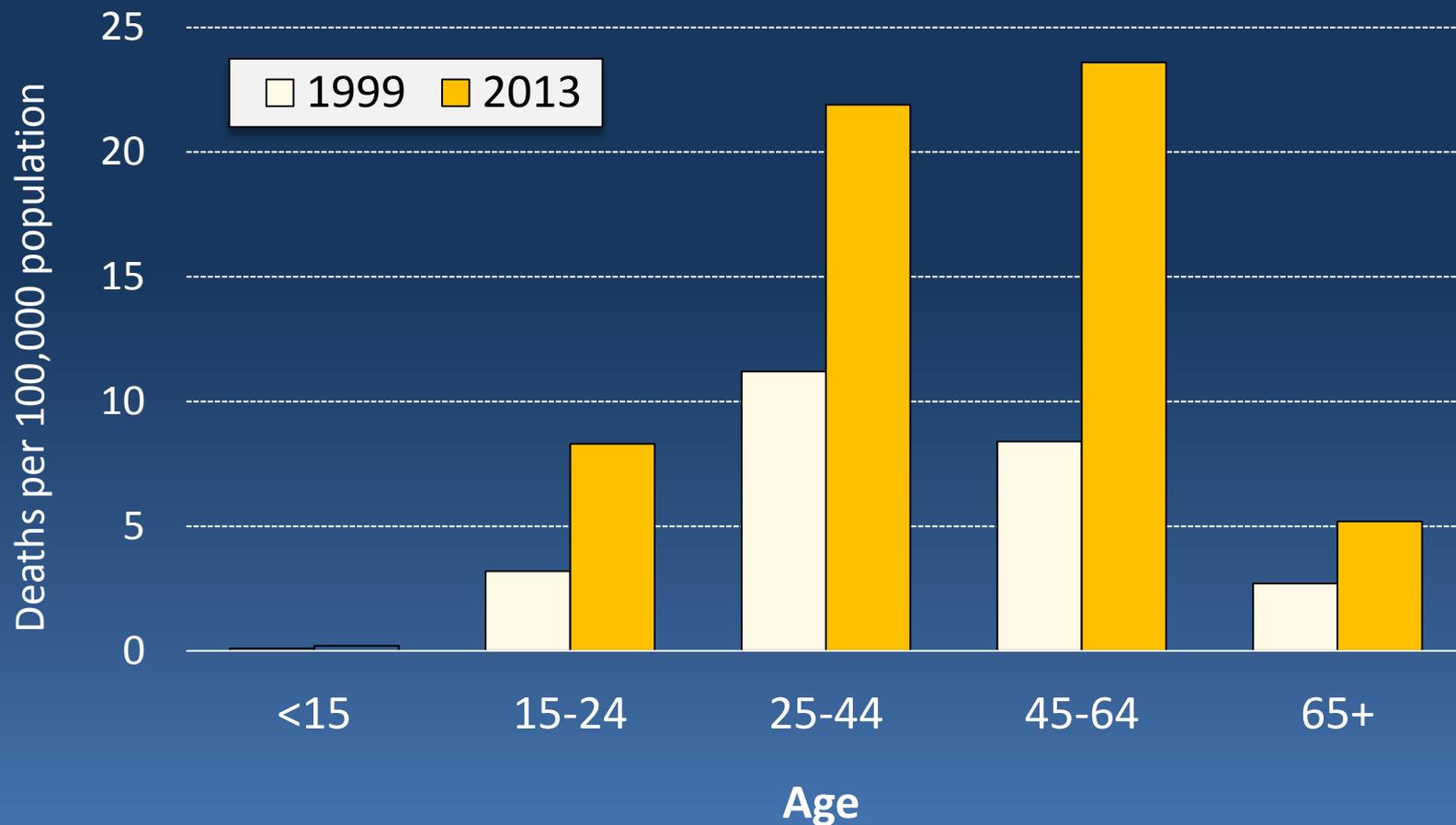
Source: CDC/NCHS, National Vital Statistics System, Mortality File. Rates are age adjusted using the 2000 standard US population.

During the same period, death rates have more than doubled for drug poisoning

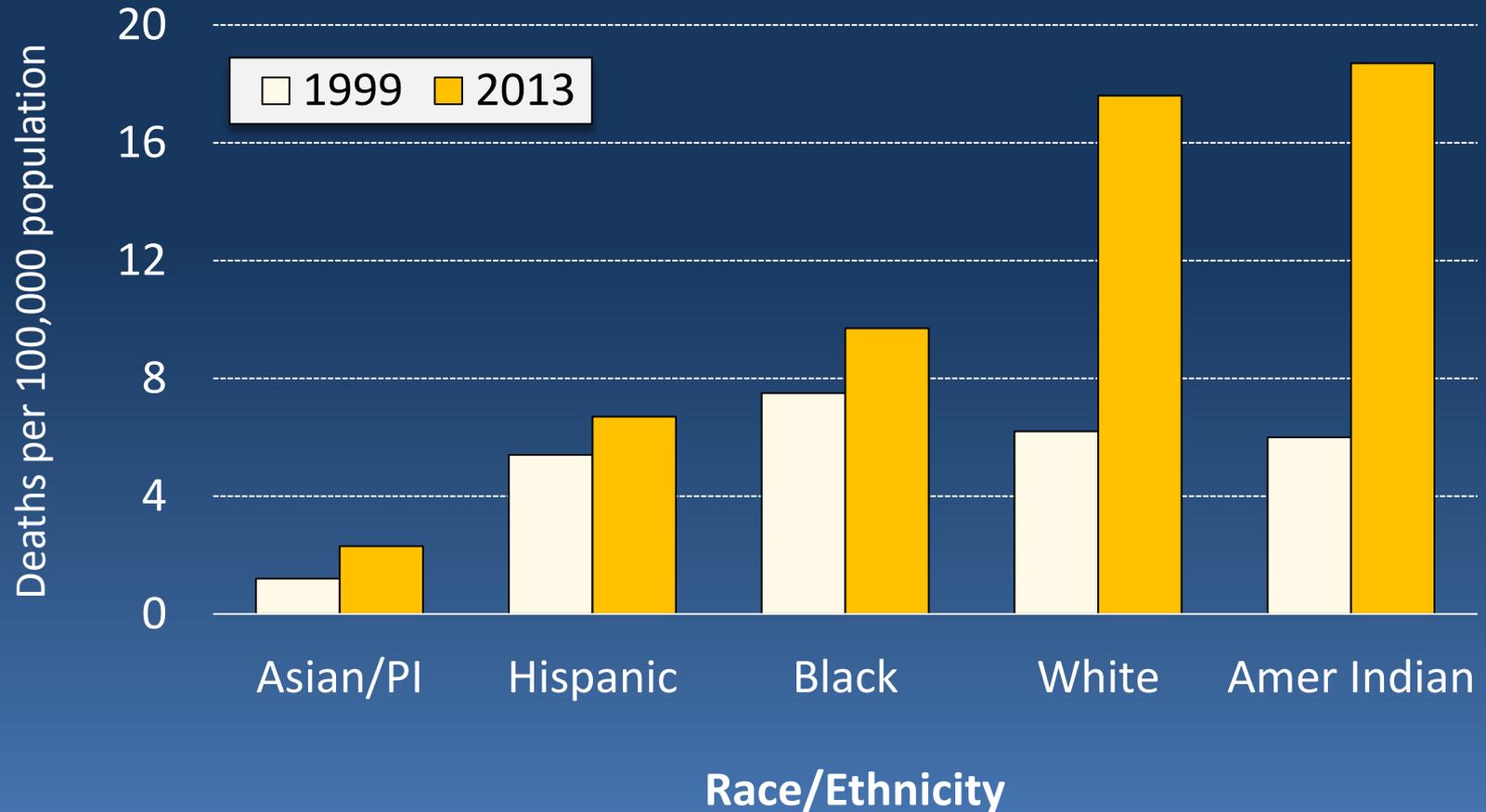


Source: CDC/NCHS, National Vital Statistics System, Mortality File. Rates are age adjusted using the 2000 standard US population.

Drug poisoning death rates have increased for all age groups



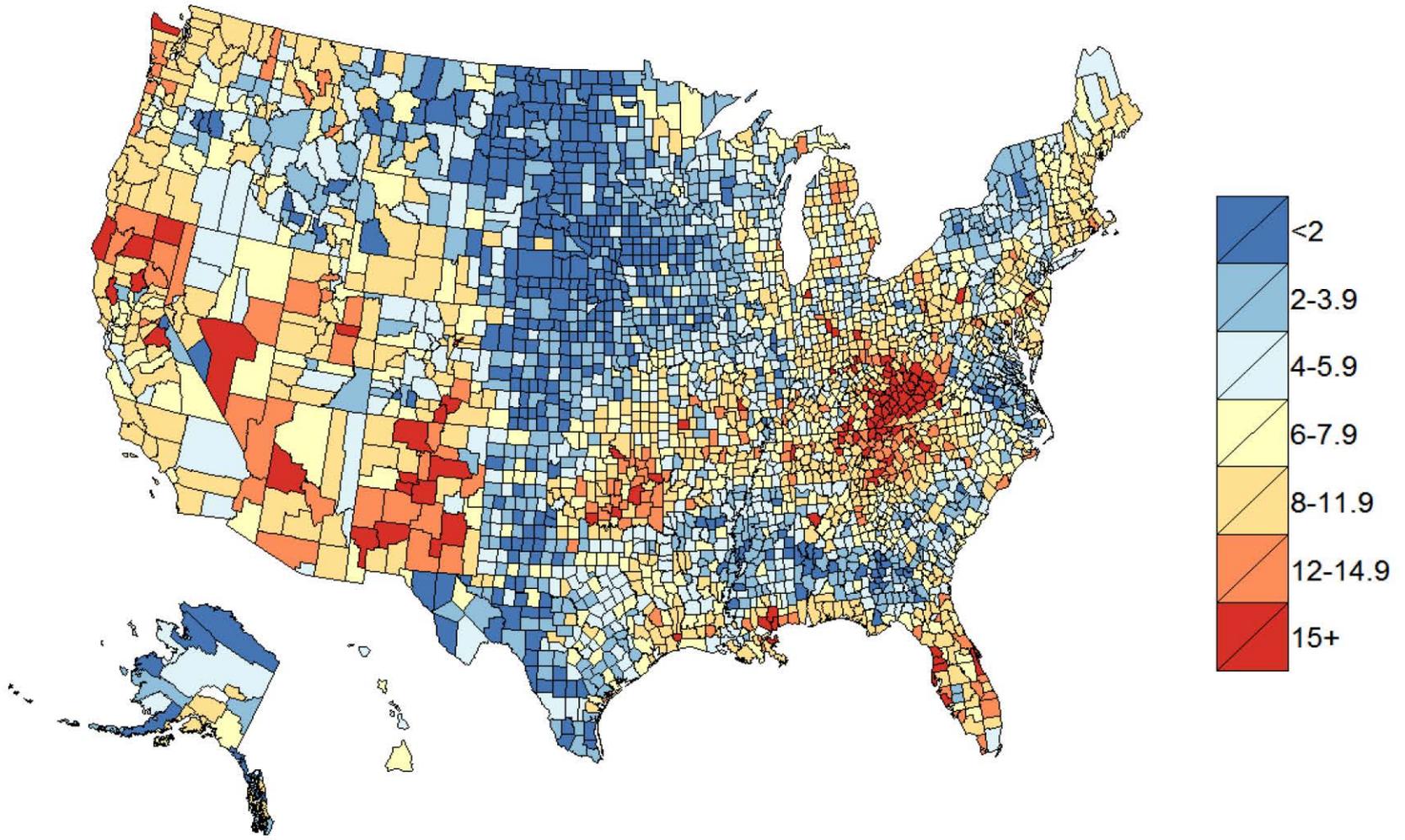
Drug poisoning death rates have increased for all race/ethnicity groups



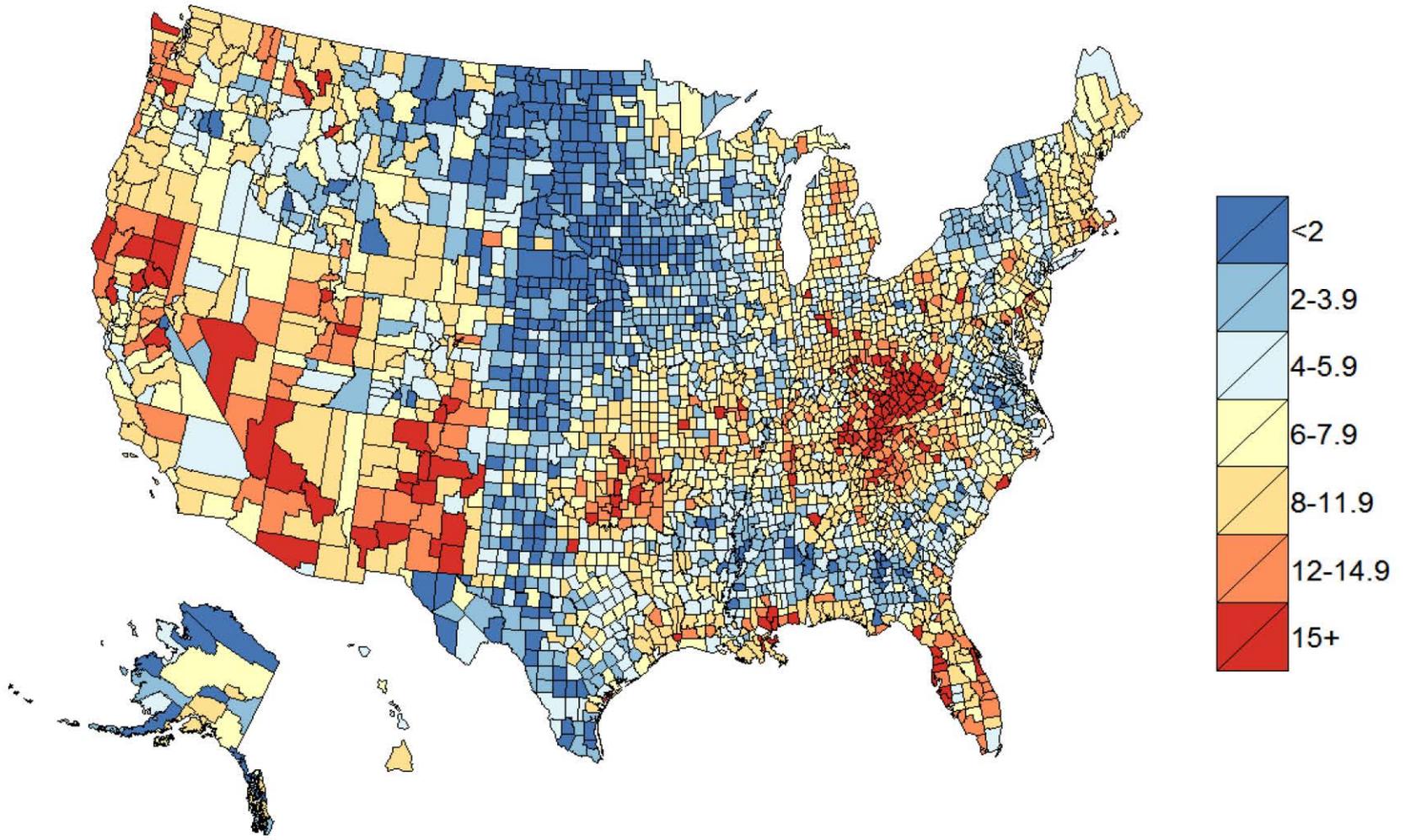
Source: CDC/NCHS, National Vital Statistics System, Mortality File. Rates are age adjusted using 2000 US standard population. Asian/PI Asian/Pacific Islander, Amer Indian American Indian/Alaska Native. All groups other than Hispanic are non Hispanic.

**Drug poisoning death rates
have increased
throughout the US**

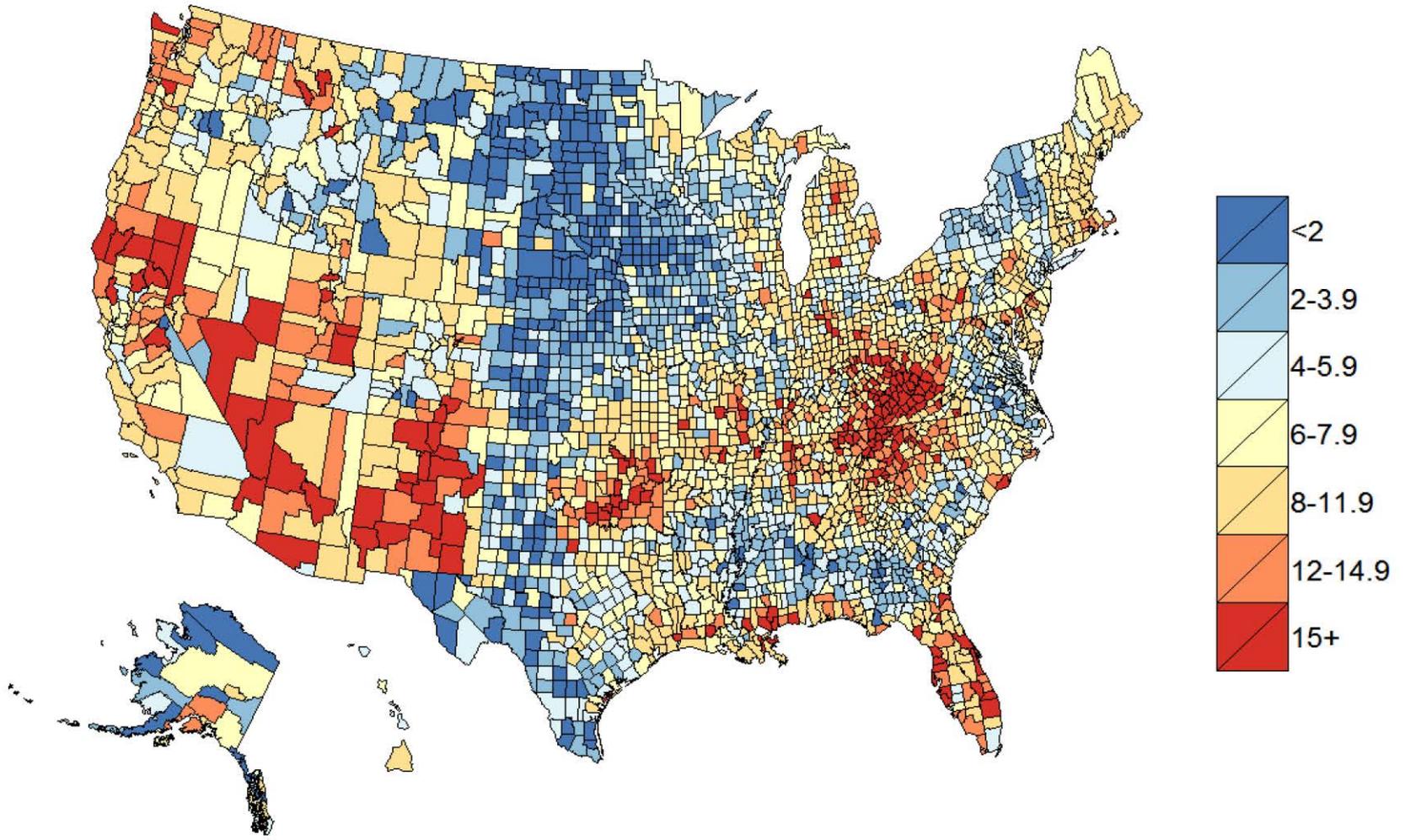
2002



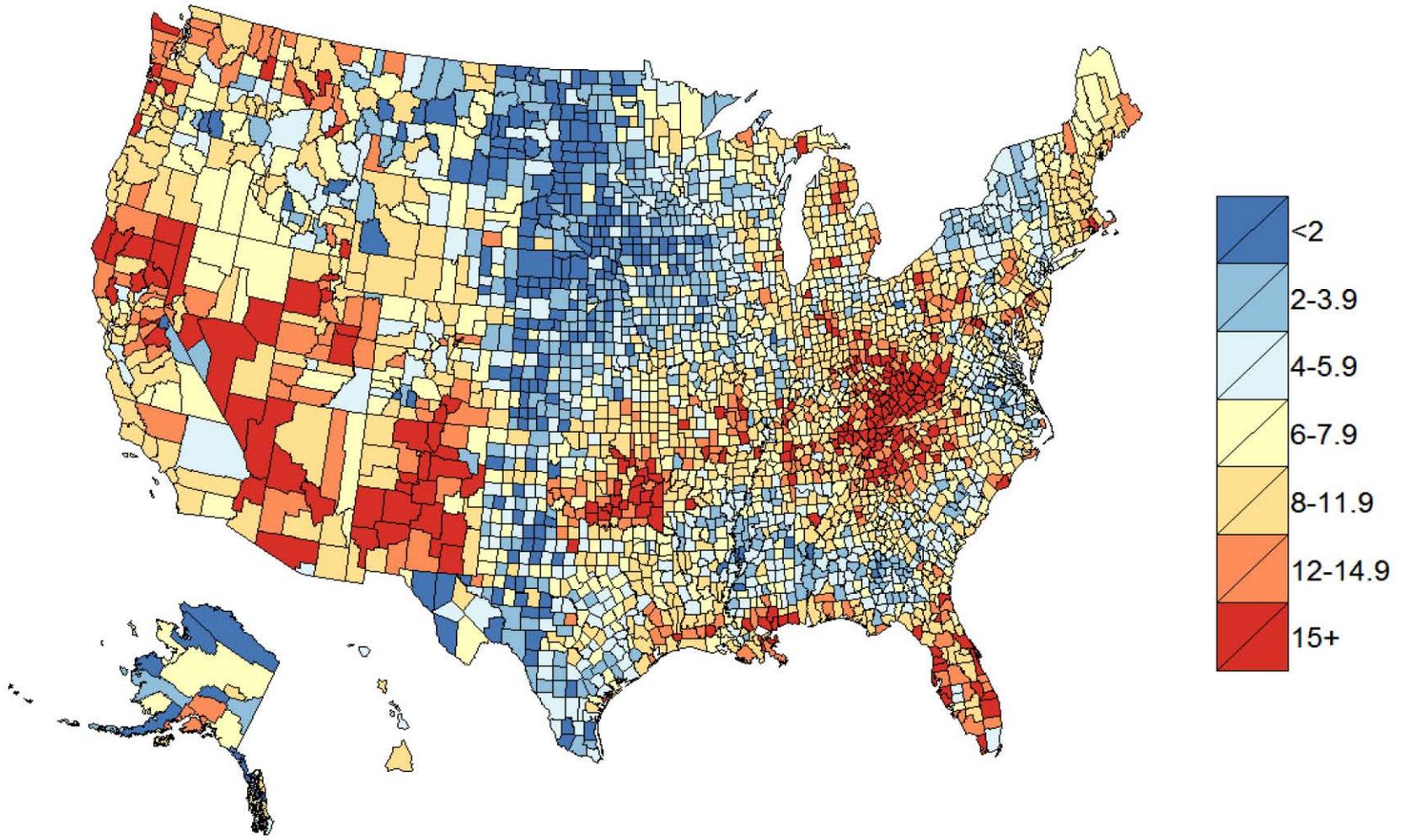
2003



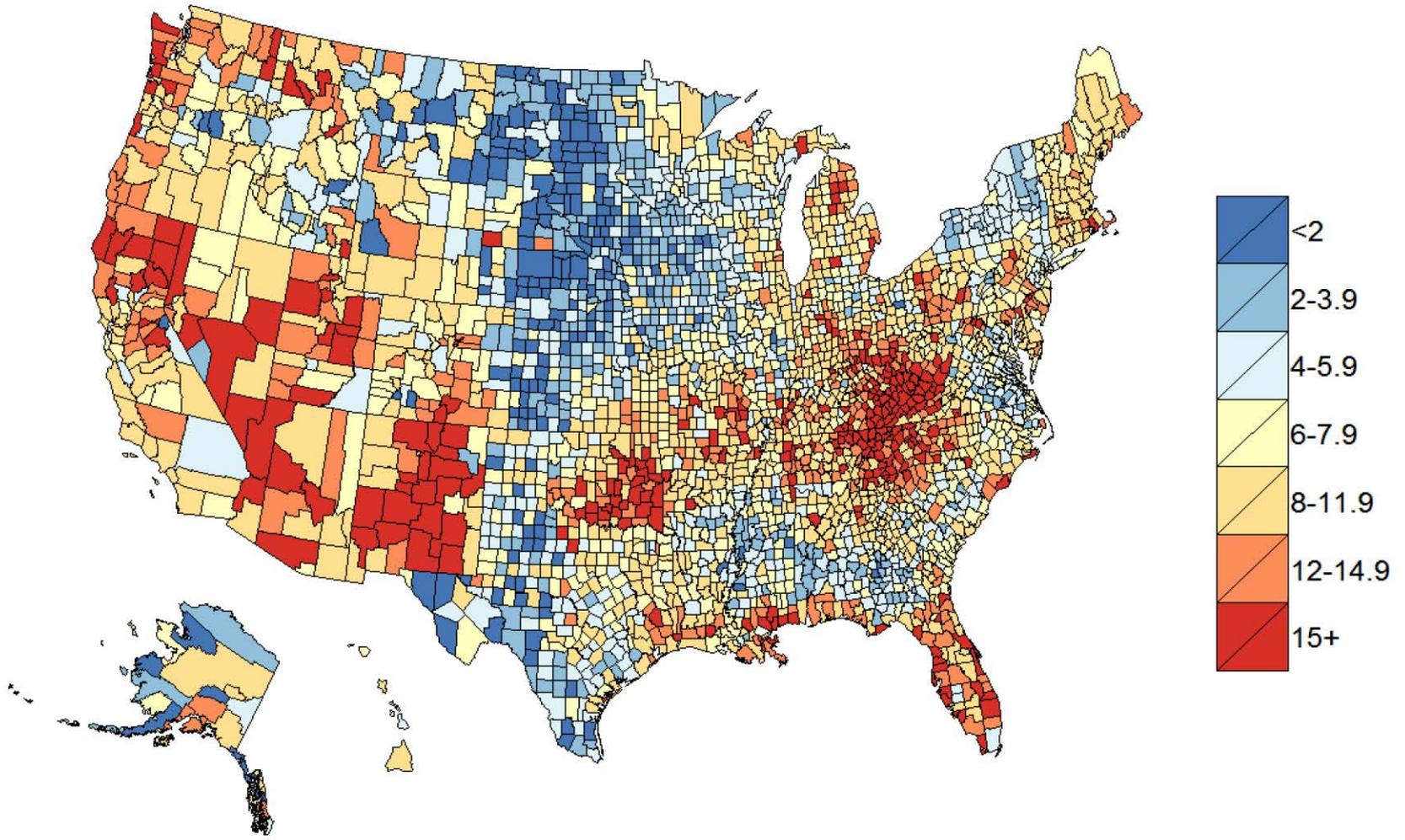
2004



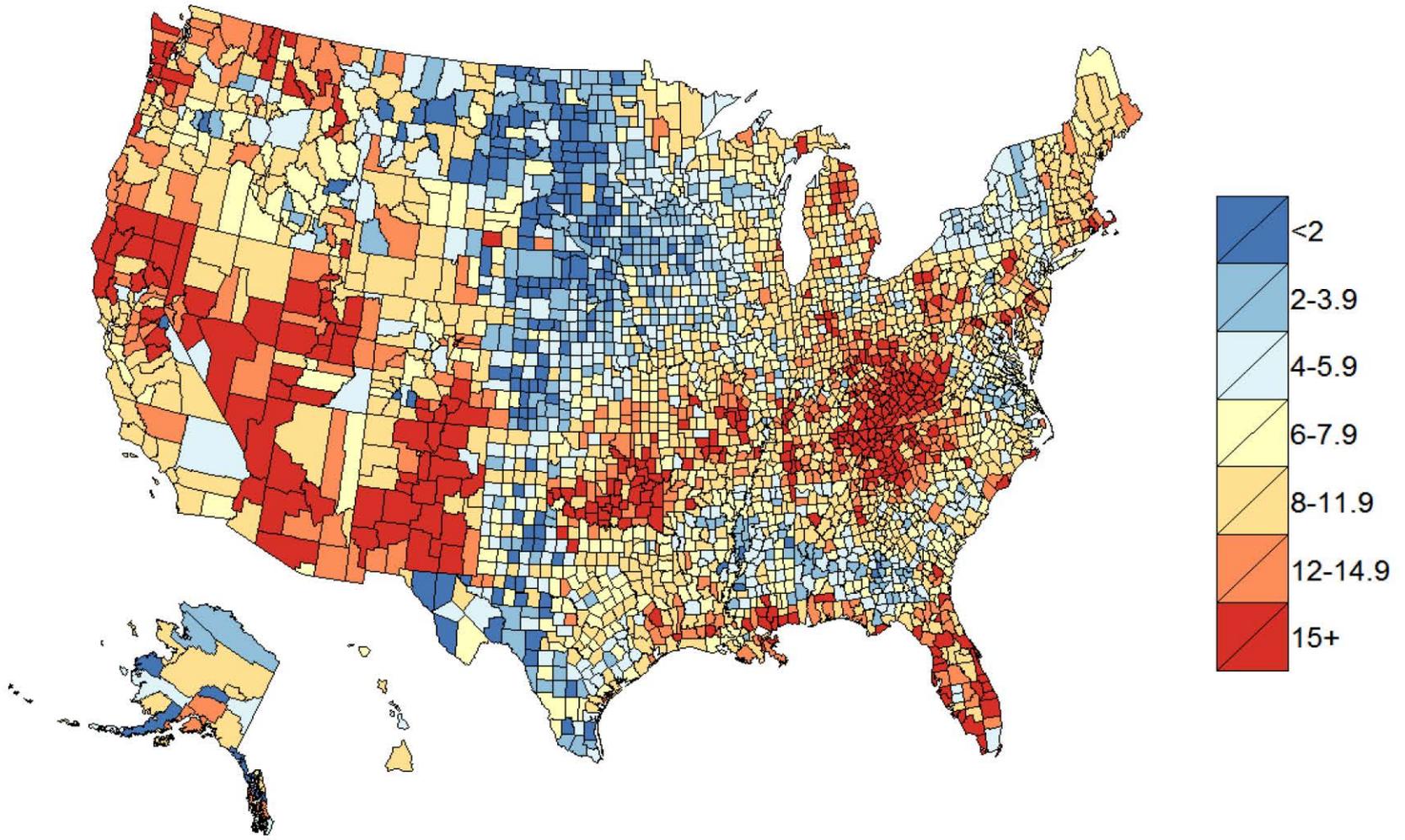
2005



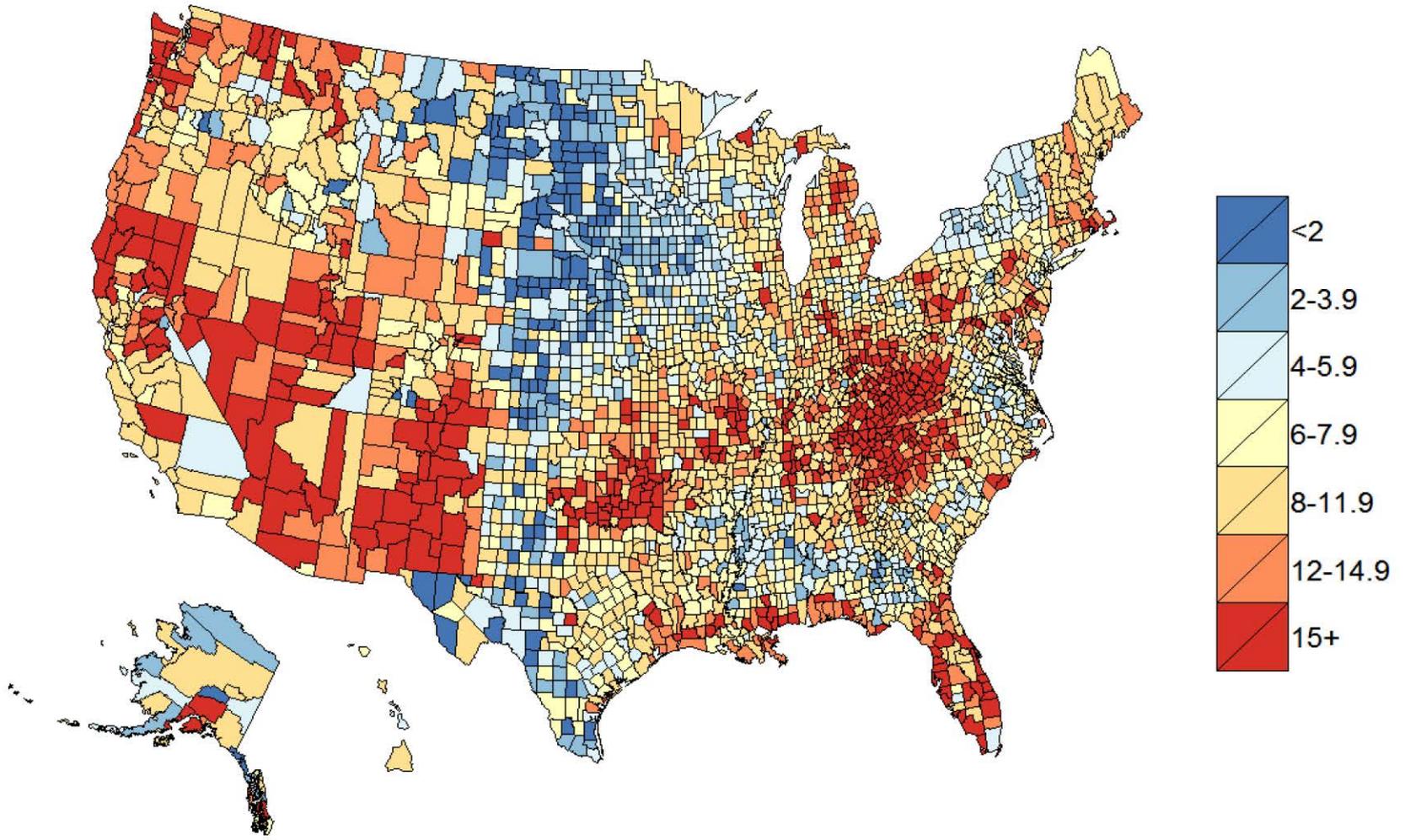
2006



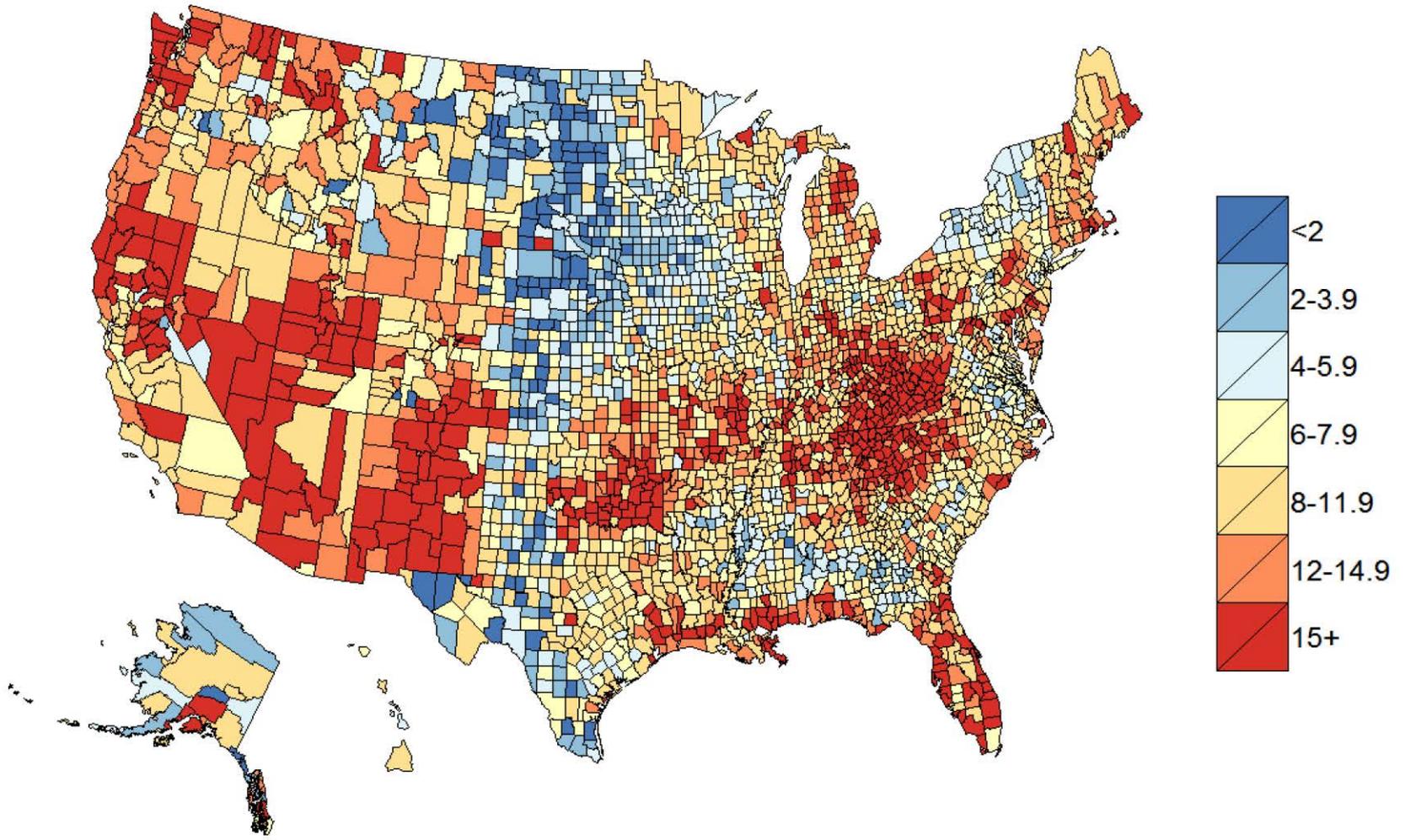
2007



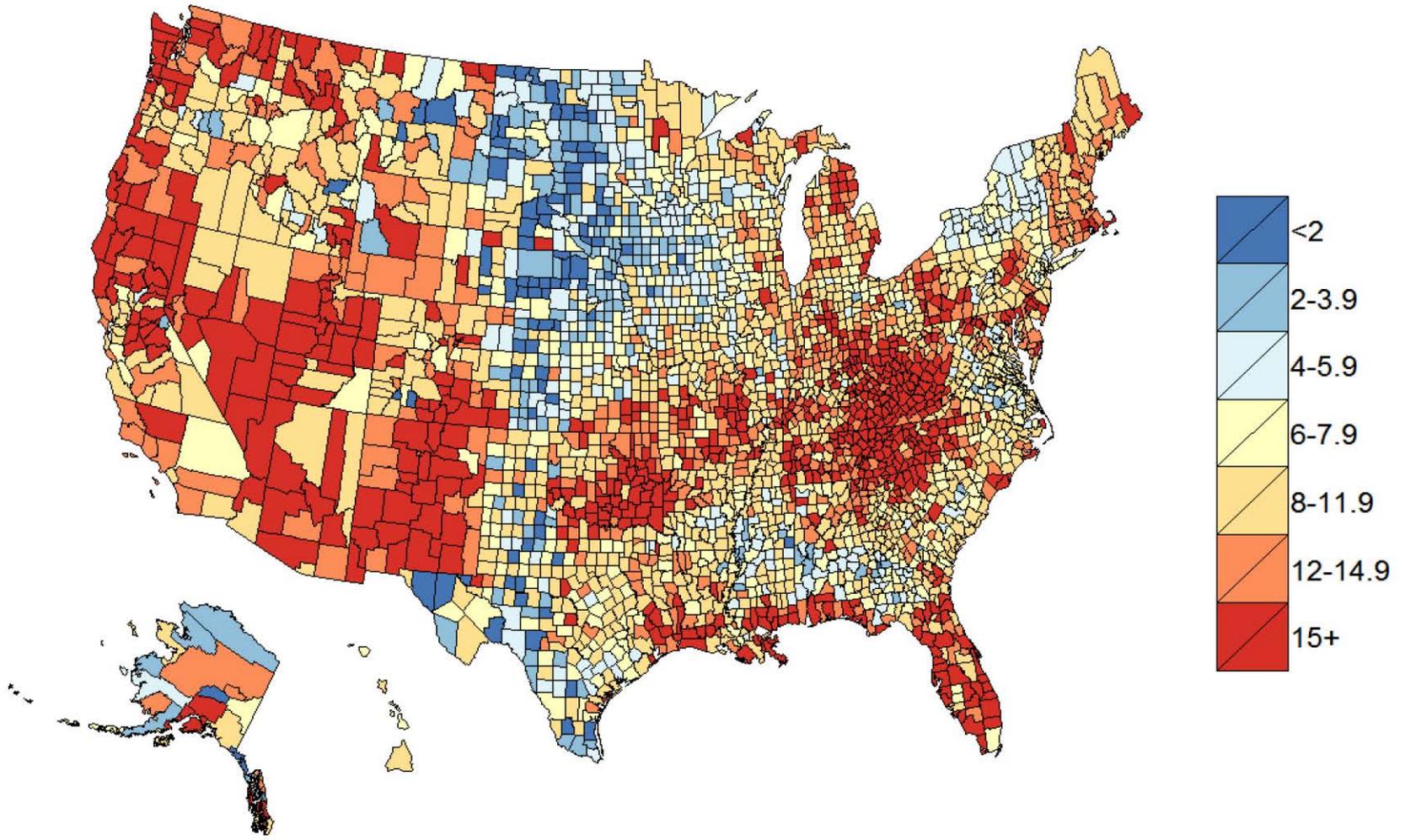
2008



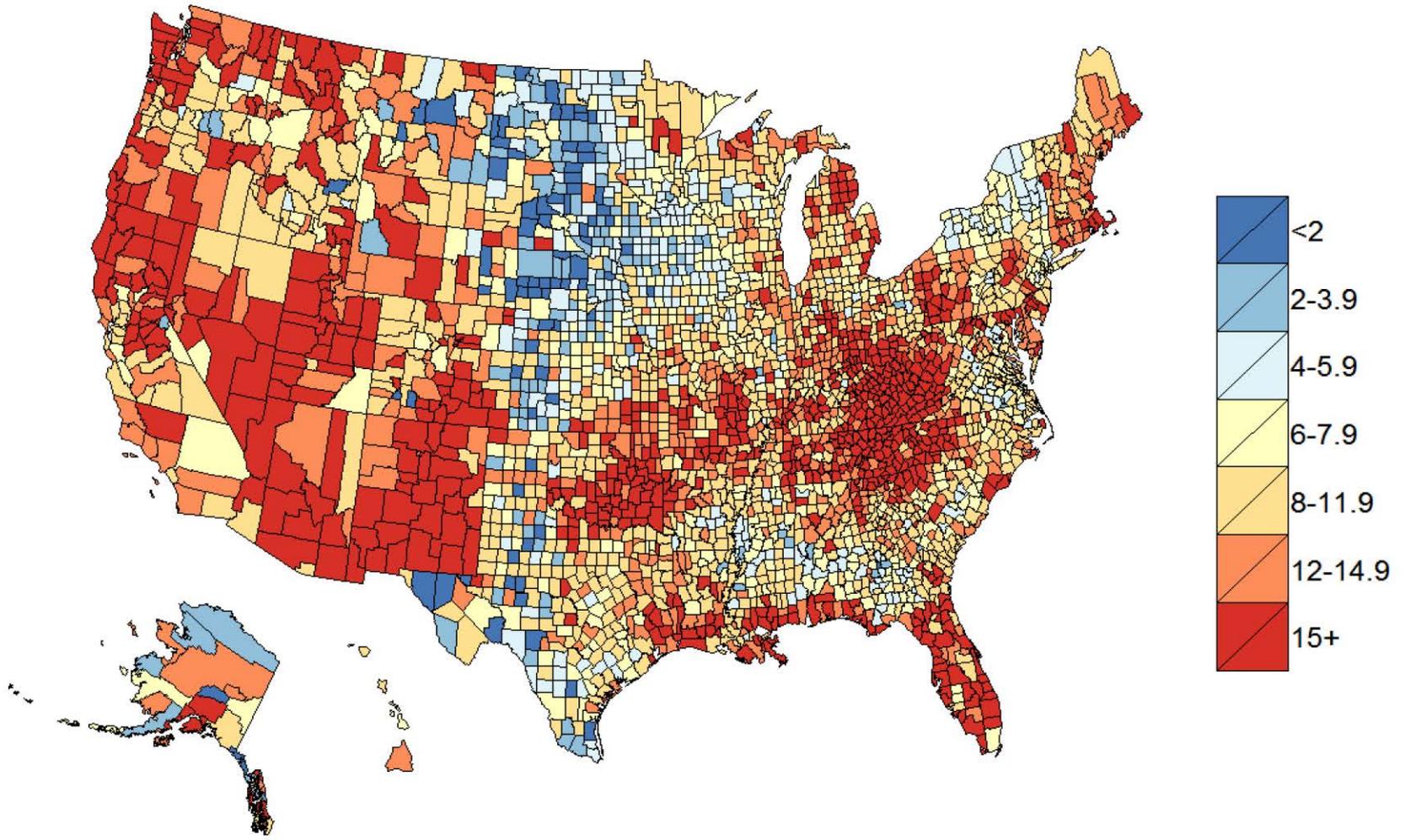
2009



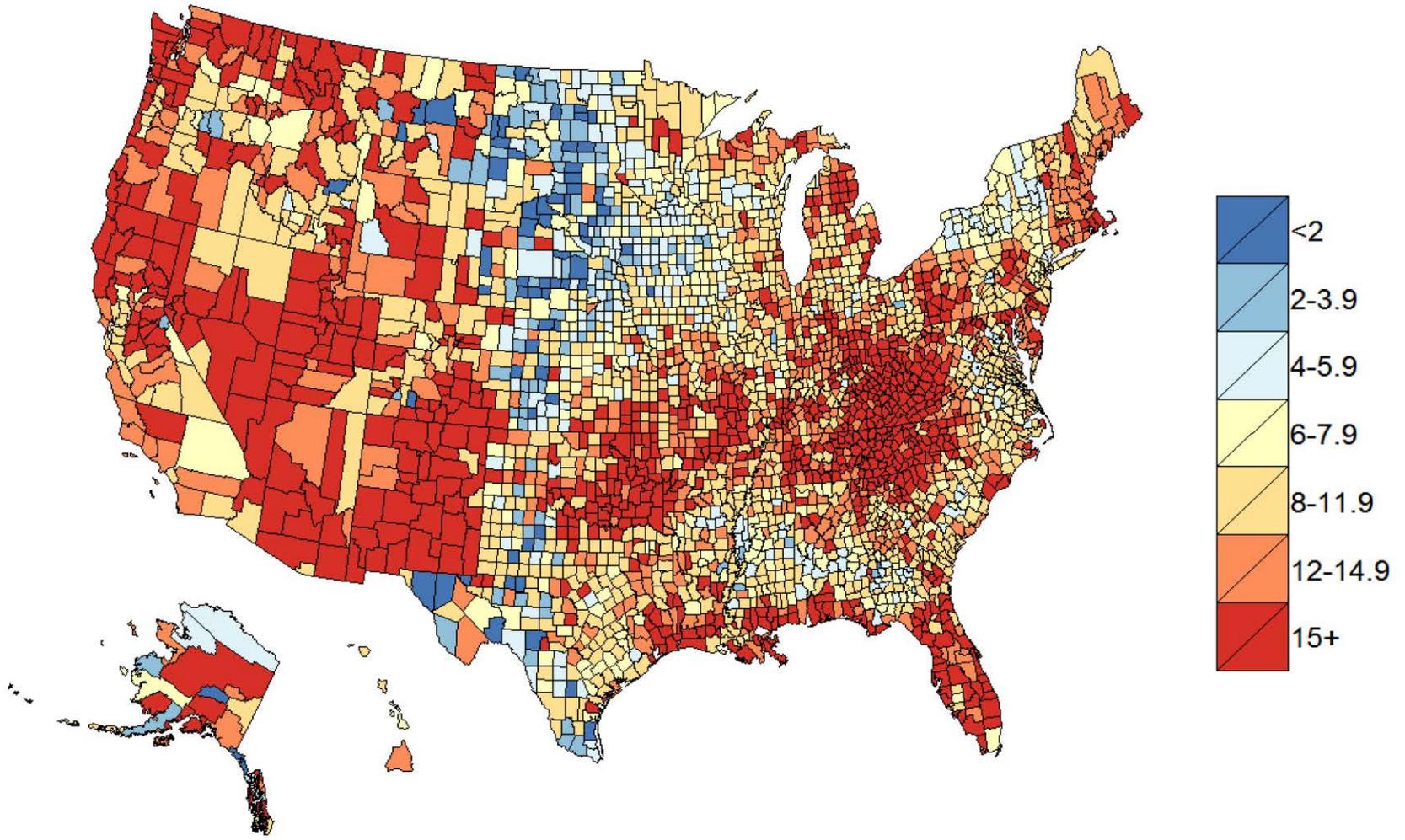
2010



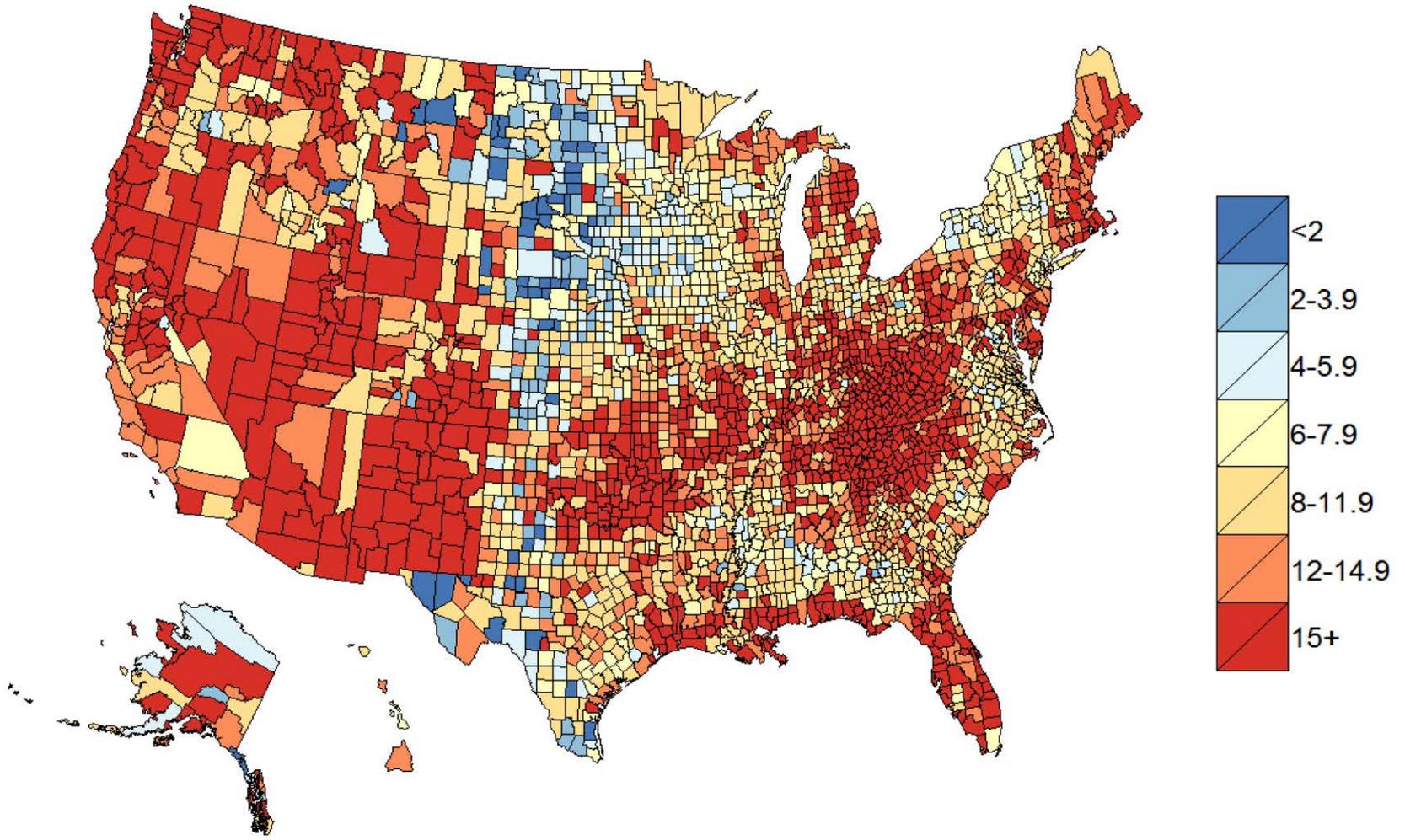
2011

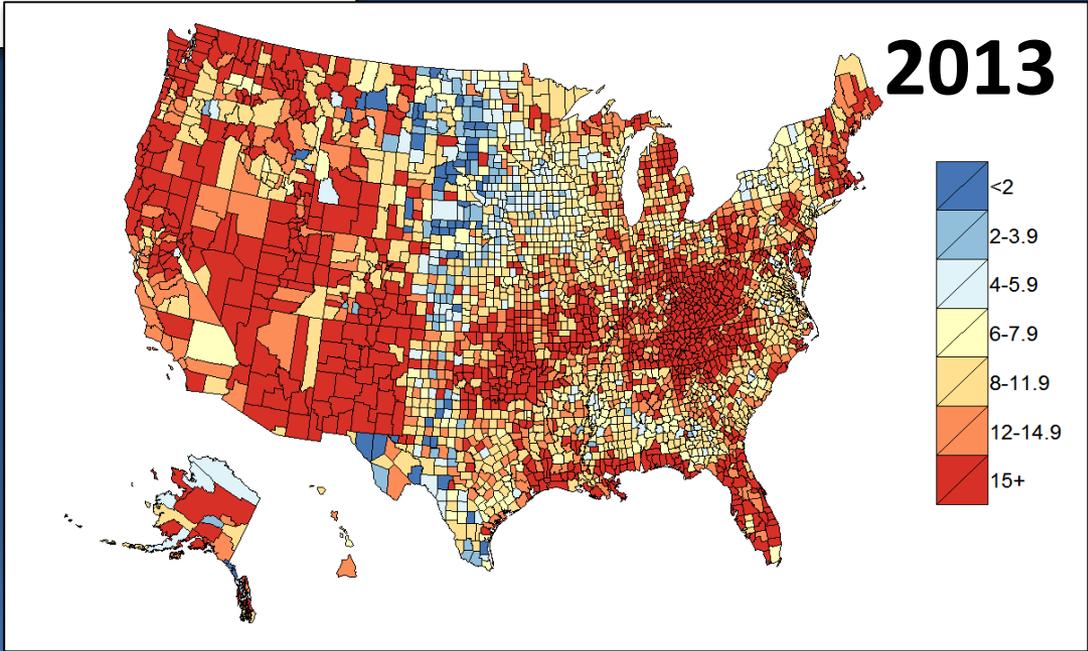
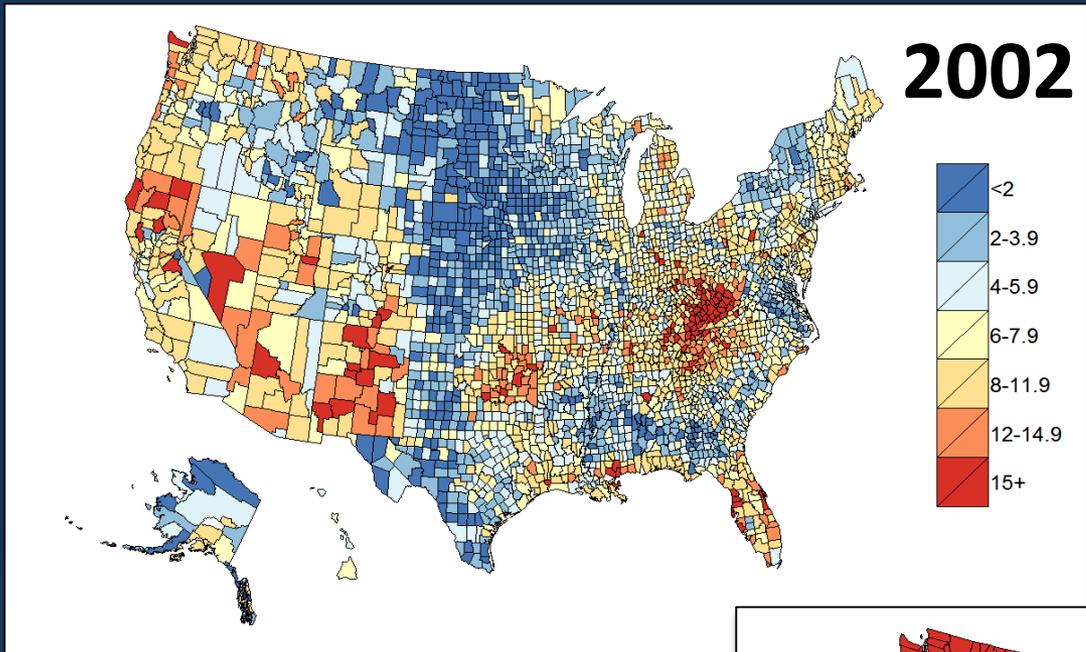


2012



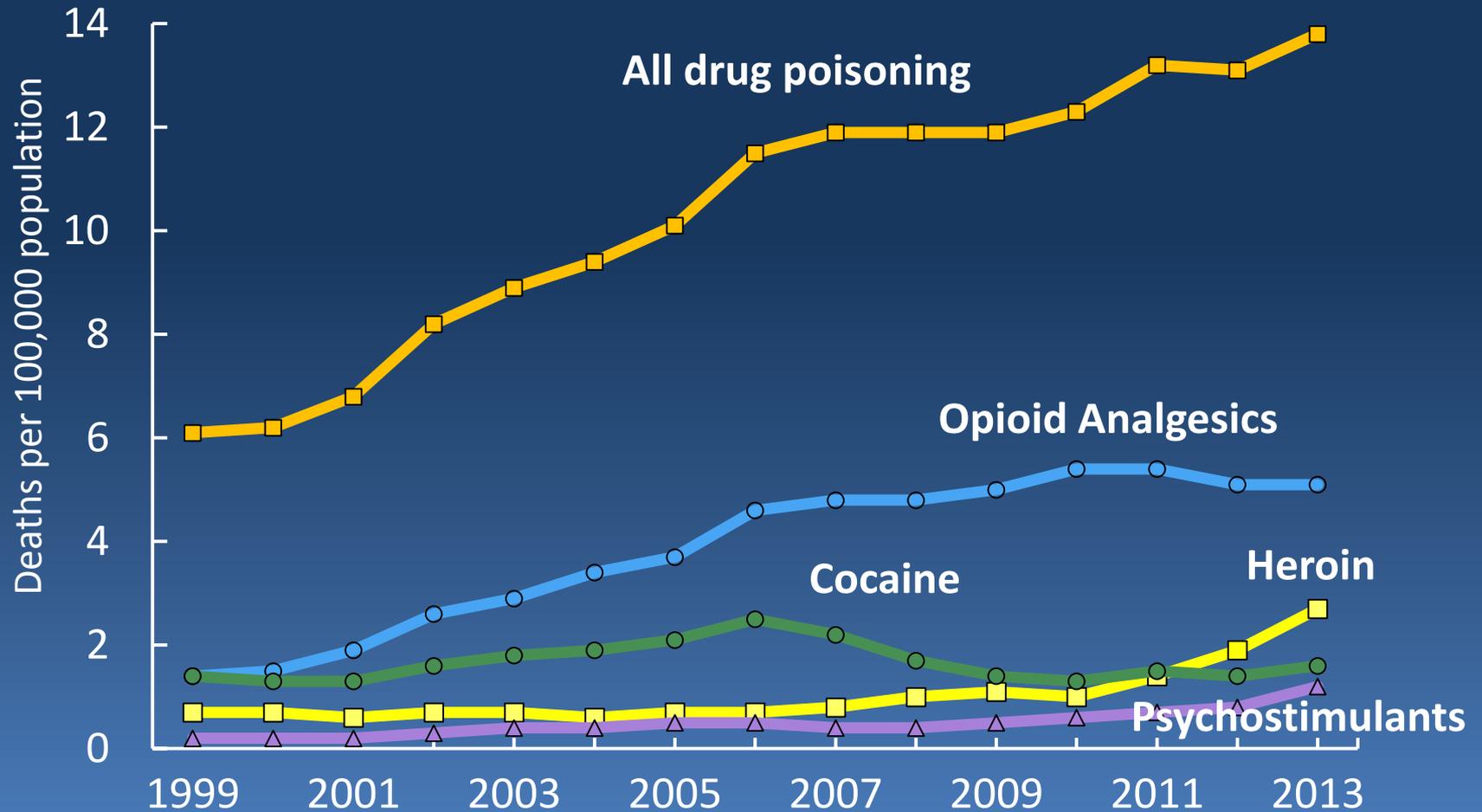
2013





**Which drugs are contributing
to the increase in drug
poisoning deaths?**

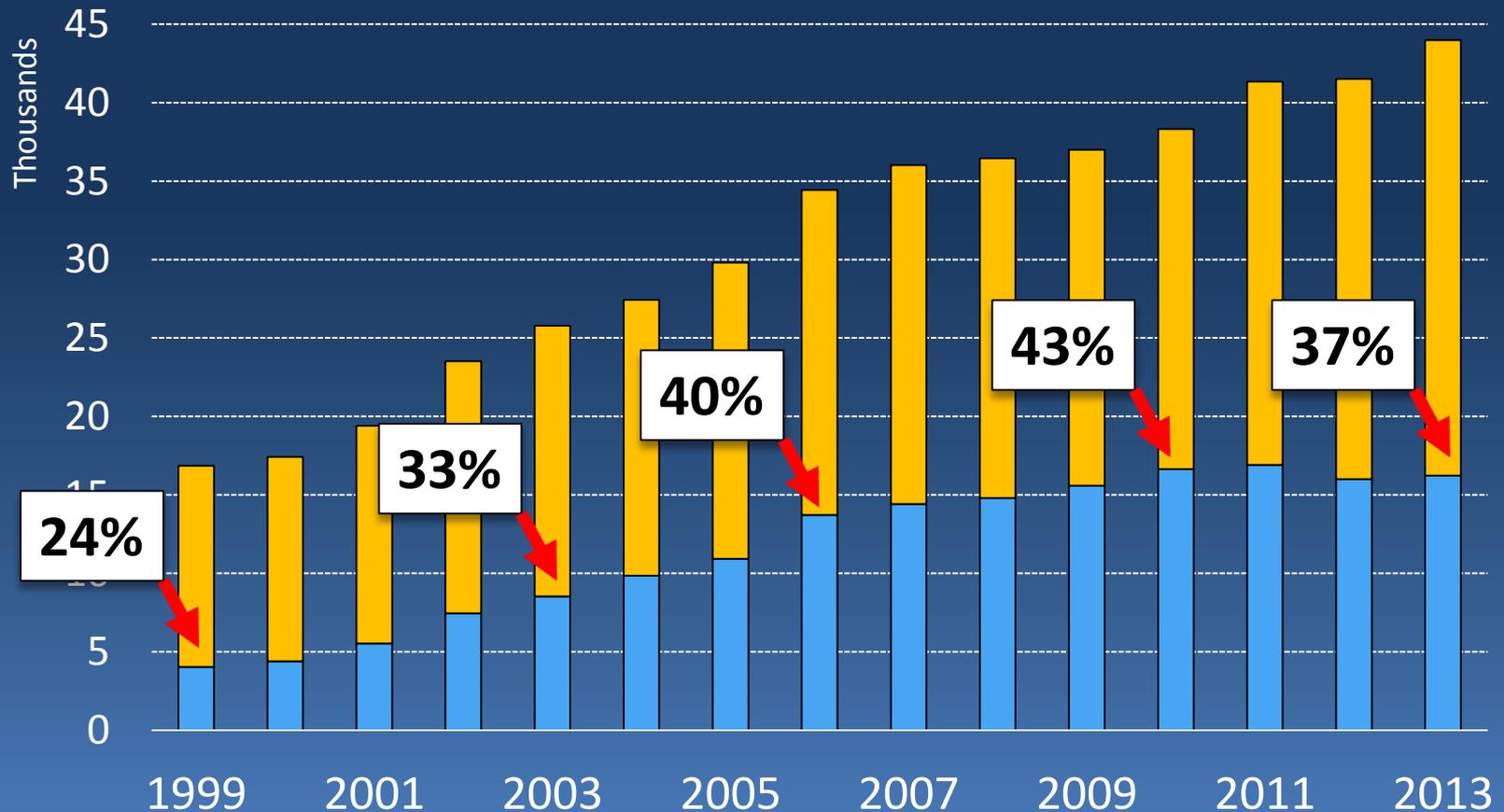
Rate of drug poisoning deaths involving various substances



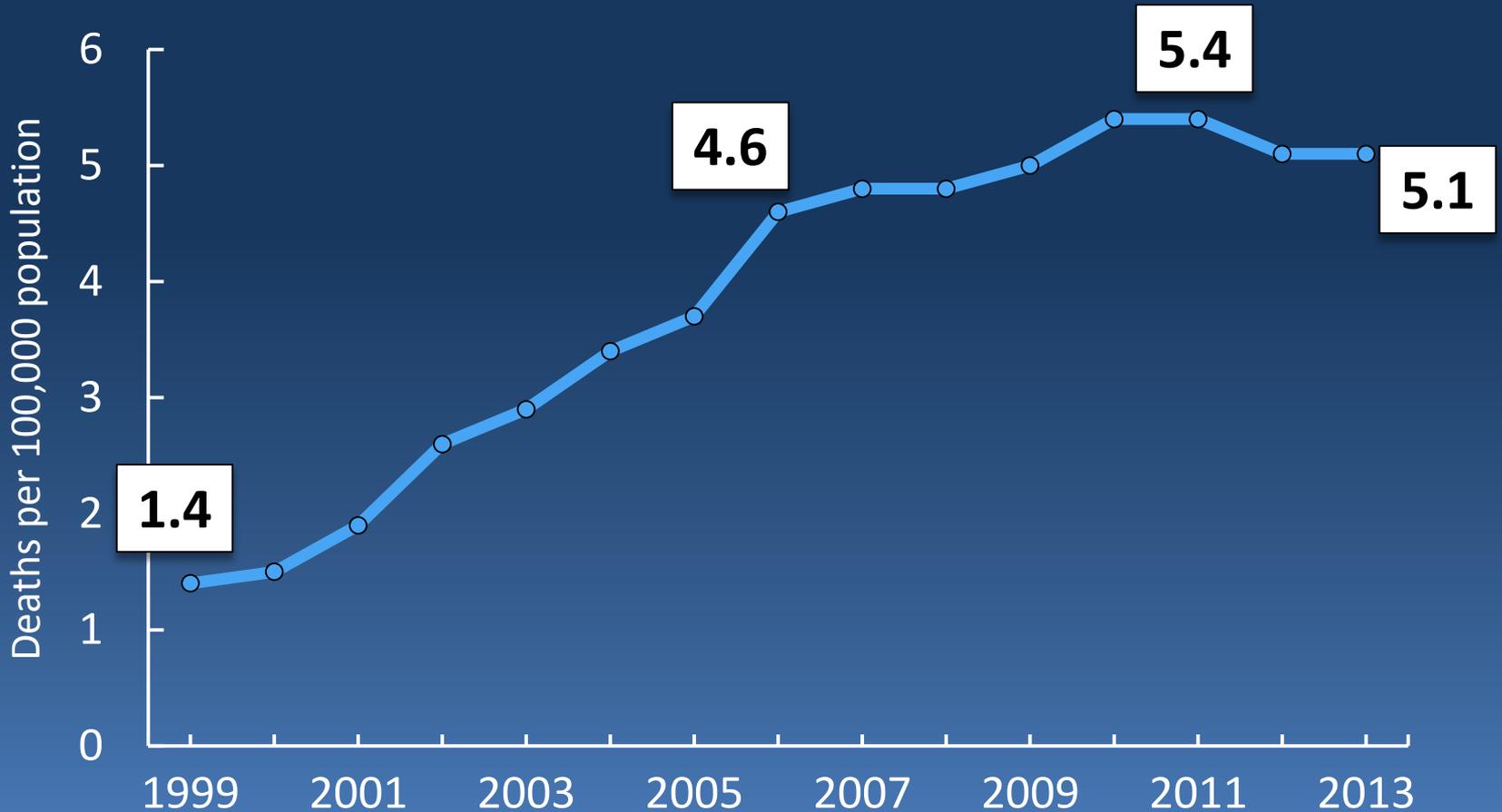
Source: CDC/NCHS, National Vital Statistics System, Mortality File. Rates are age adjusted using the 2000 standard US population.

The percent of drug poisoning deaths involving opioid analgesics has increased

Number of drug poisoning deaths

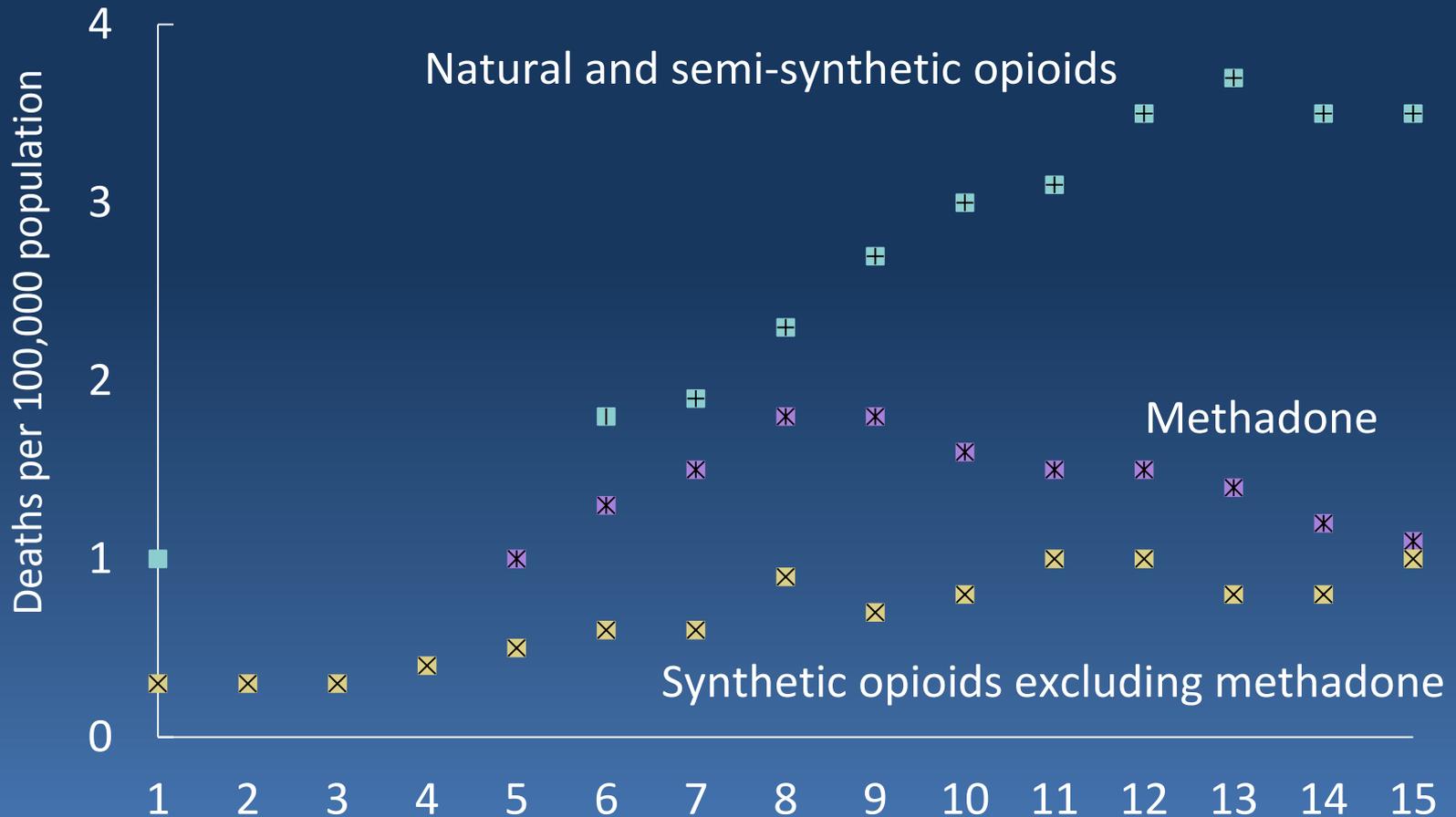


From 1999 through 2010, the rate of drug poisoning deaths involving opioid analgesics nearly quadrupled

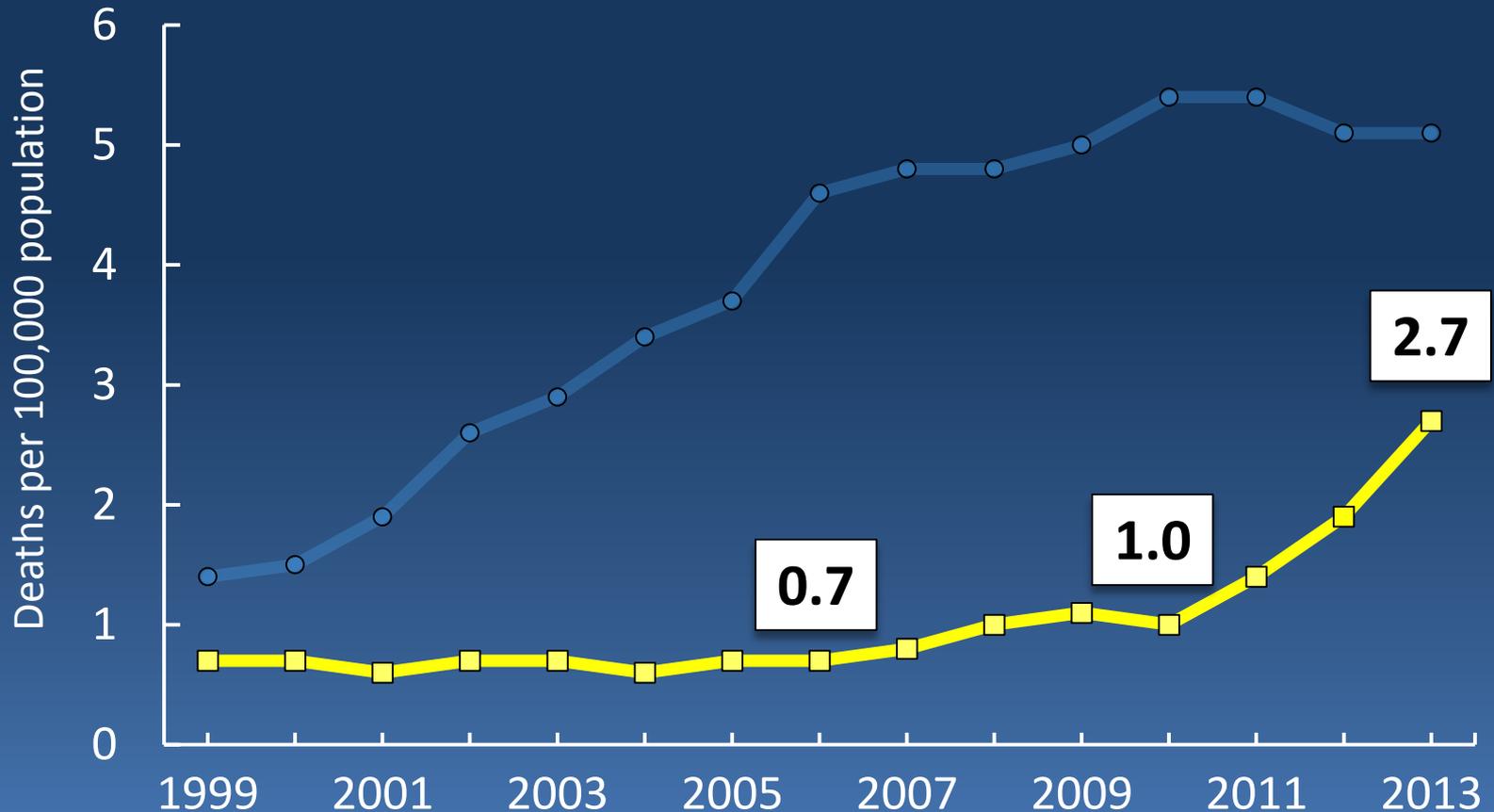


Source: CDC/NCHS, National Vital Statistics System, Mortality File. Rates are age adjusted using the 2000 standard US population.

Natural and semi-synthetic opioids account for much of the increase

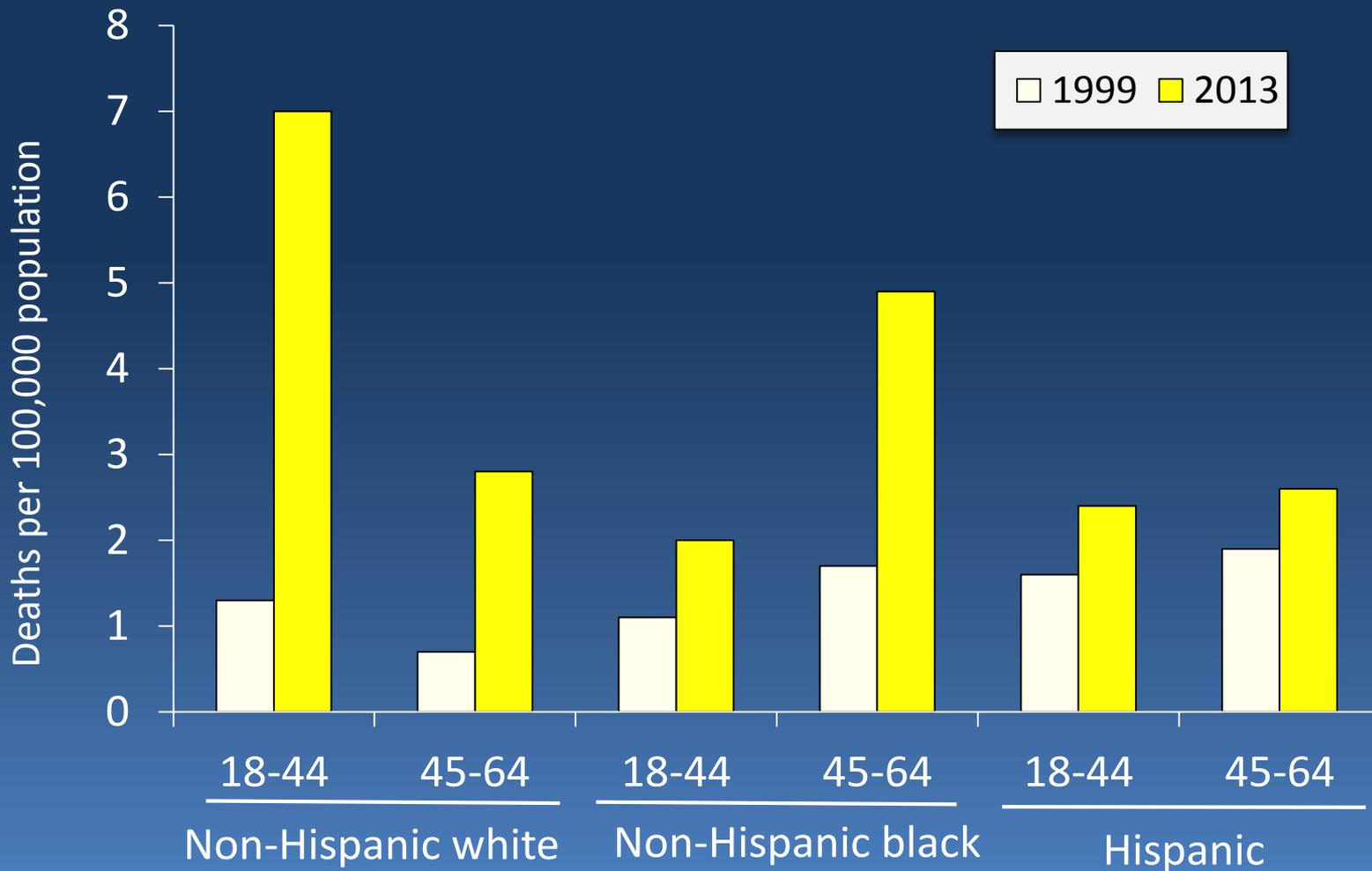


From 2010 to 2013 the rate of drug poisoning deaths involving heroin nearly tripled

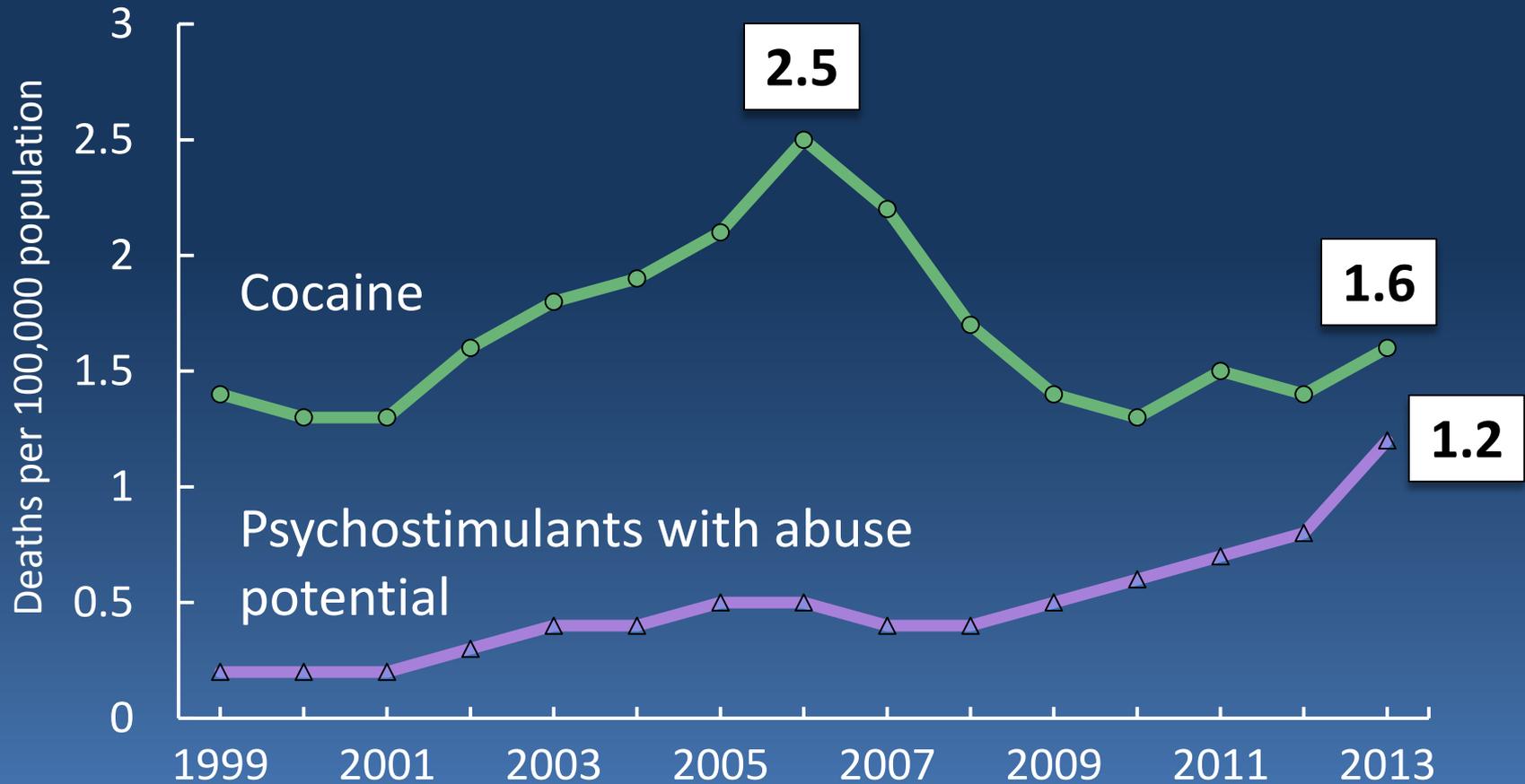


Source: CDC/NCHS, National Vital Statistics System, Mortality File. Rates are age adjusted using the 2000 standard US population.

In 2013 non-Hispanic whites ages 18-44 had the highest rate of drug poisoning deaths involving heroin



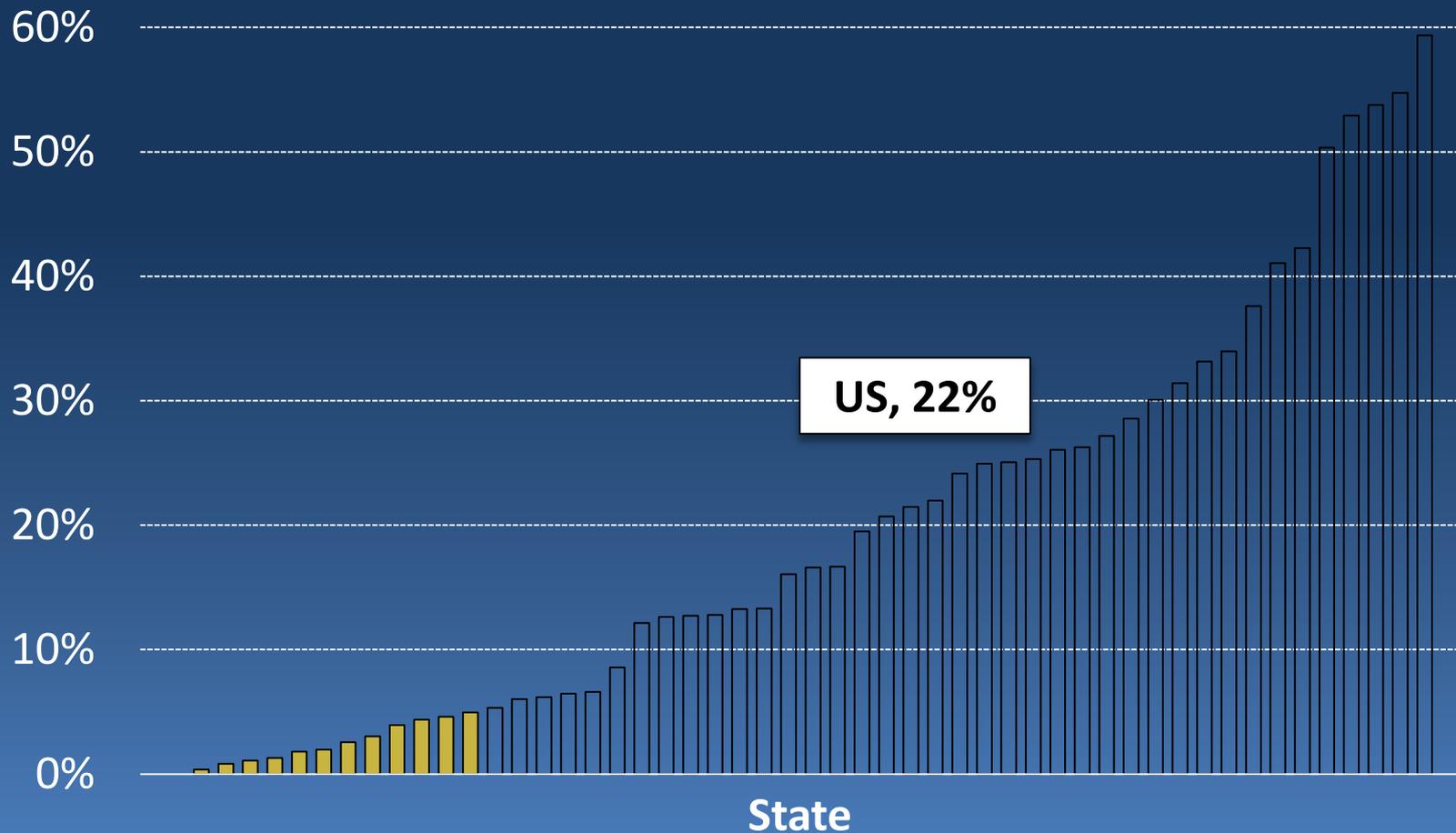
Although the rates are much lower, deaths involving other drugs have also increased in recent years



Source: CDC/NCHS, National Vital Statistics System, Mortality File. Rates are age adjusted using the 2000 standard US population.

**Issues in studying drug
poisoning mortality using
data from death certificates**

The percent of drug poisoning deaths that lack information on the death certificate about the specific drugs involved varies by state



Source: CDC/NCHS, National Vital Statistics System, Mortality File. Percents are based on drug poisoning deaths with multiple cause of T50.9 and no code in the T36 T50.8 range in 2013.

ICD-10 Coded Data

The assignment of ICD-10 codes using the literal text on the death certificate is based on:

- WHO coding rules
- The terms used and where the information is written on the death certificate

ICD-10 codes often reflect broad categories of drugs

- e.g., *T40.2 Other opioids* includes codeine, hydrocodone, oxycodone, morphine, hydromorphone, etc.

Presentations in this Session

James Trinidad, MPH, from FDA

A collaborative project between NCHS and FDA to study literal text on drug involved deaths

Michael Albert, MD, MPH and Linda McCaig, MS

Analysis of National Hospital Ambulatory Medical Care Survey (NHAMCS) data on emergency department visits for drug poisoning

Li-Hui Chen, MS, PhD and Yahtyng Sheu, PhD

Analysis of linked National Health Interview Survey (NHIS) and death data to look at the association between socioeconomic factors and death from drug poisoning

Questions?

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