

# HIV/AIDS in the Rural US

## Prevalence and Service Availability

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At the Heart of Public Health Policy



# HIV/AIDS Basics

- Human Immunodeficiency Virus (HIV) reduces CD4 lymphocyte cells, needed to combat infection
  - ◆ CD4 count < 200, or selected diagnoses, considered to be Acquired Immune Deficiency Syndrome (AIDS)
- Treatment protects CD4 cells, immune system
- At any level, person is contagious and should be educated re precautions



# HIV/AIDS importance

- Estimated 1.2 million persons living with HIV/AIDS (PLWHA)
- Disproportionately affects minorities, women, persons living in the South
- Could it become a *rural* disease?
  - ◆ Prevalence in rural America
  - ◆ Service availability in rural America



# Prevalence: Data sources

- County data retrieved from state department of health web sites, 2008 data
  - ↳ 28 states, 2,012 counties
  - ↳ SCRHRC Study, available at [rhr.sph.sc.edu](http://rhr.sph.sc.edu)
- County data from 2013 RWJ County Rankings data base, 2009
  - ↳ Data provided by CDC's National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention
- County-level data from AIDS Vu, 2010 data, also from CDC
- Limitations: non-reporting and data suppression



# Big picture

- HIV is present in rural as well as urban counties
  - ◆ “High” is in relation to the national median rate.
- HIV tracks closely with poverty and with minority race/ethnicity
- HIV rates in rural are growing



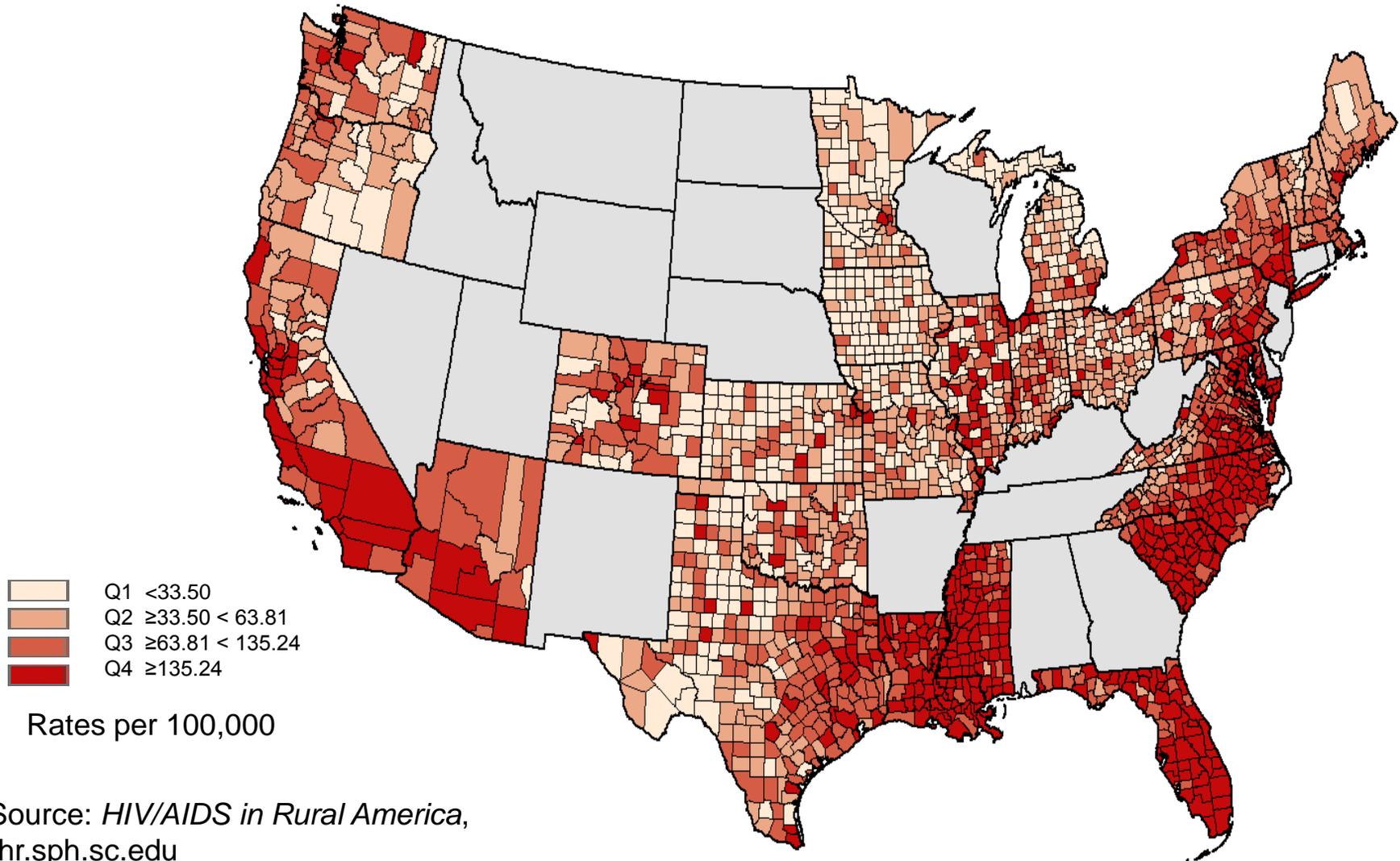
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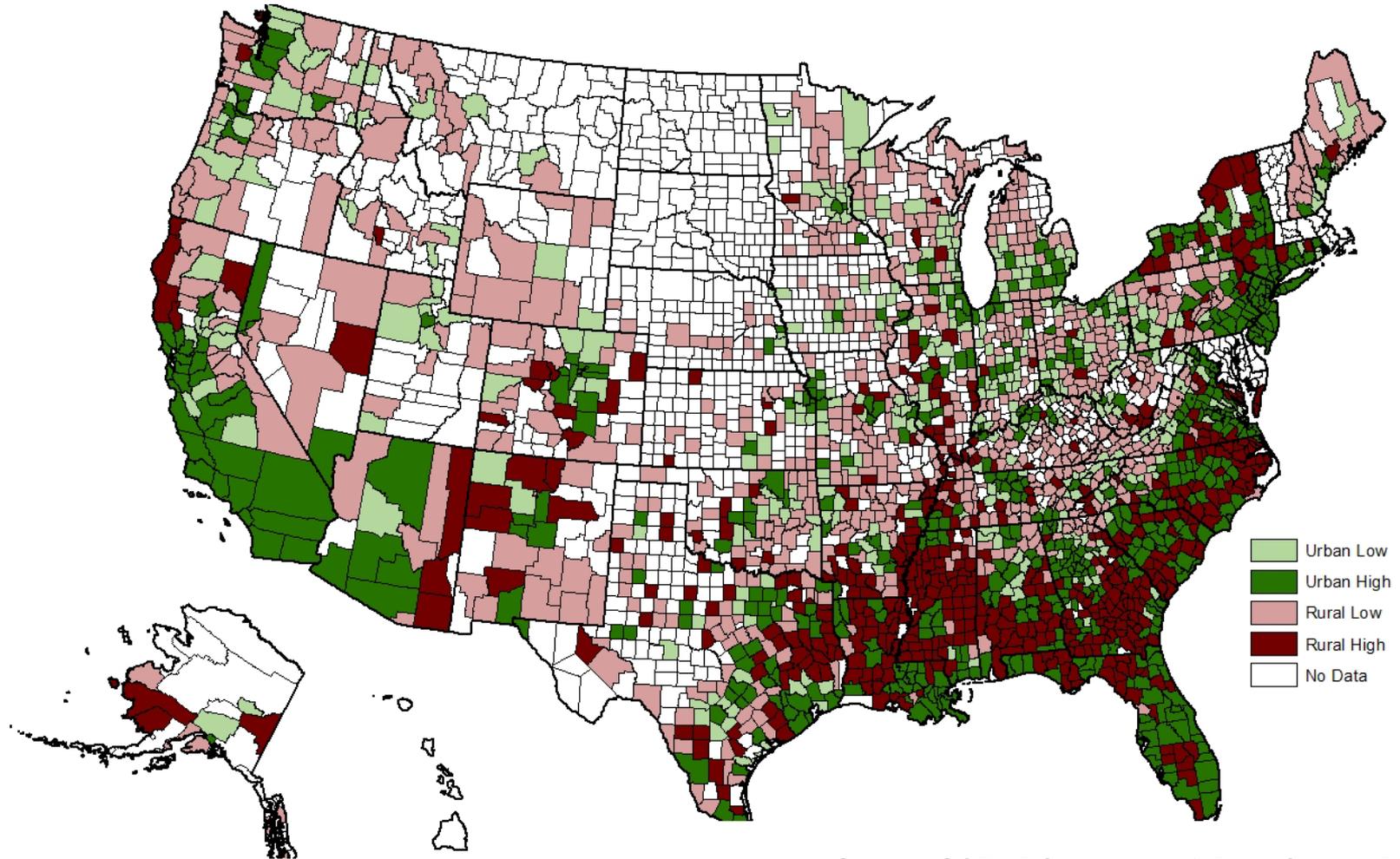


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# HIV/AIDS prevalence, 28 states, 2008



# HIV prevalence, 2009, 43 states, by rurality



Source: SCRHRC analysis of RWJ County Rankings data, <http://www.countyhealthrankings.org/rankings/data>.

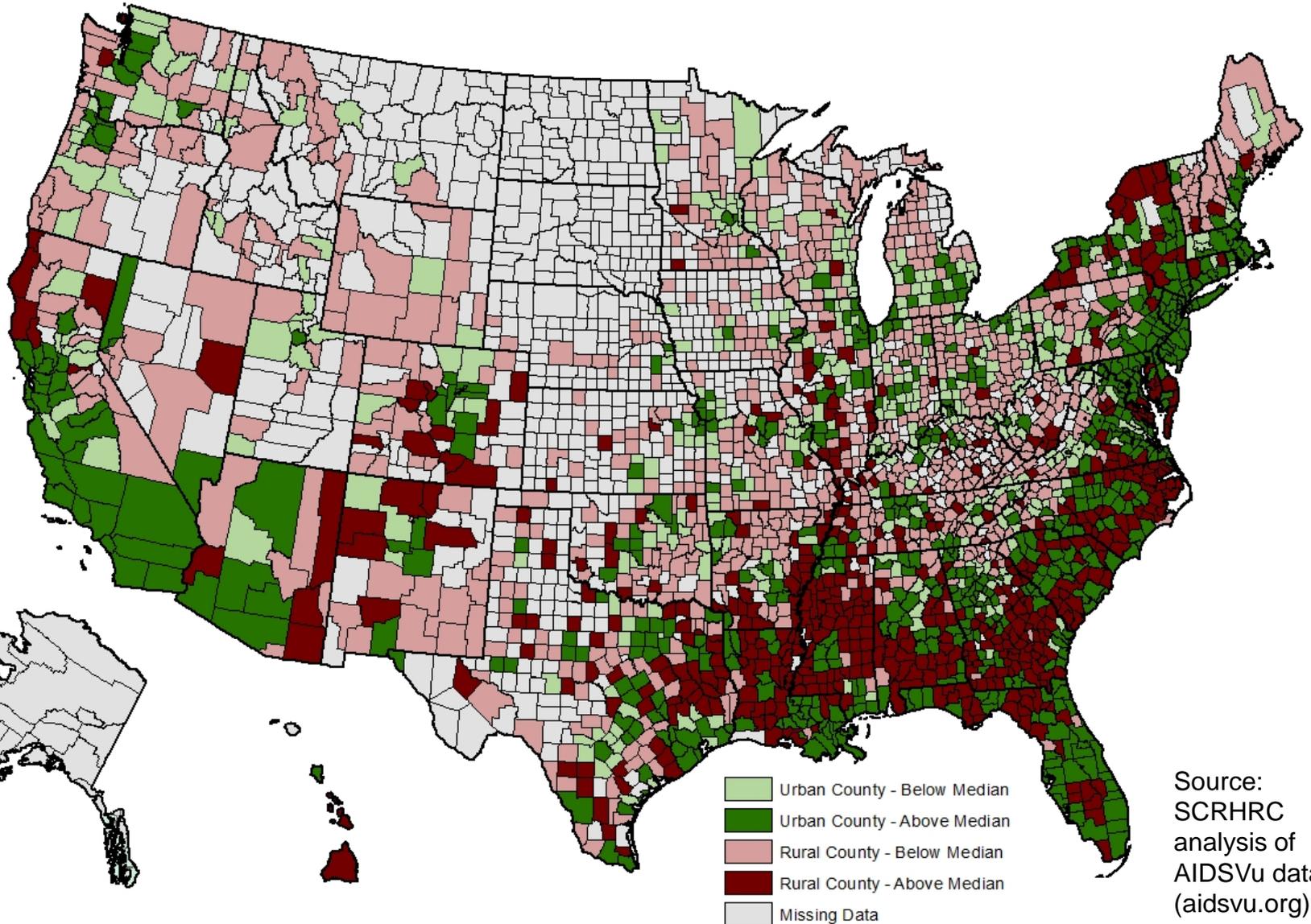


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# HIV Prevalence, 2010, by rurality

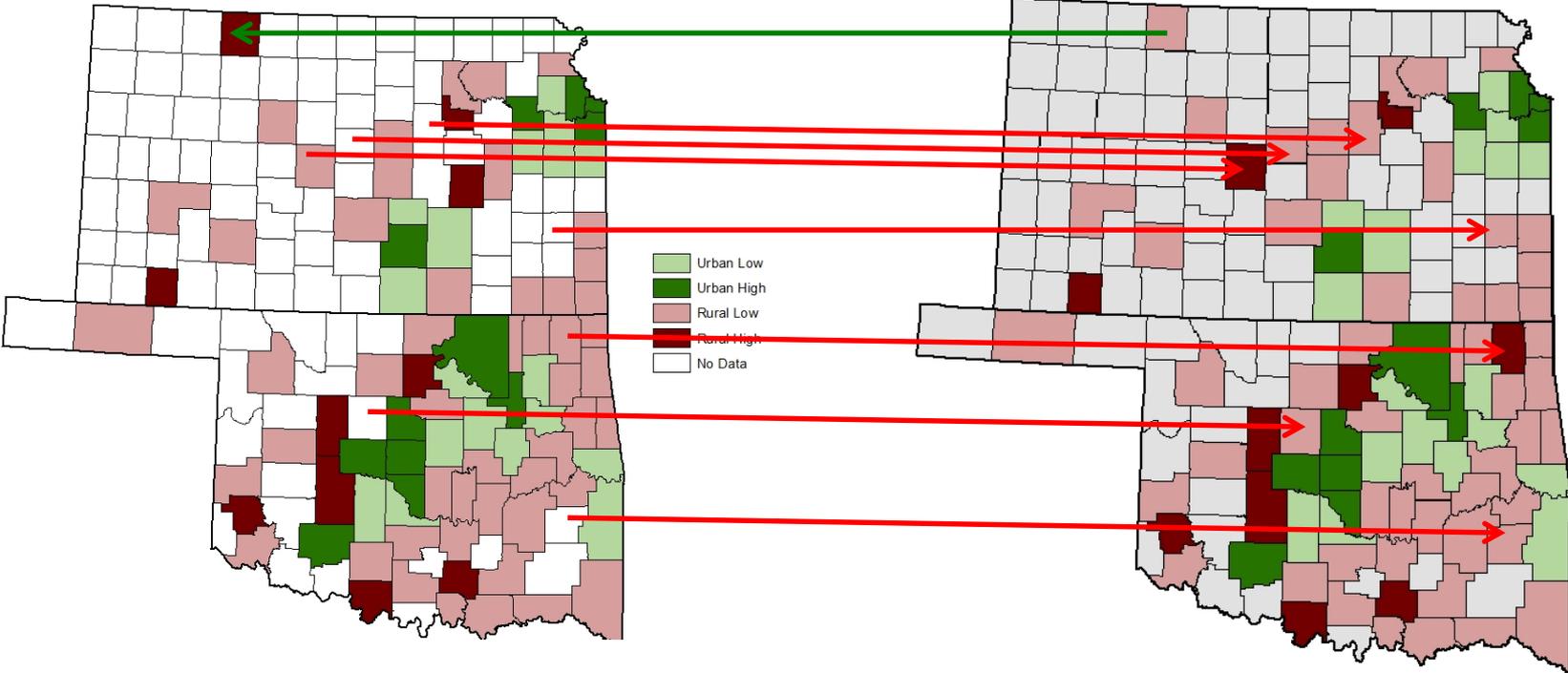


Source:  
SCRHRC  
analysis of  
AIDSvu data  
(aidsvu.org)

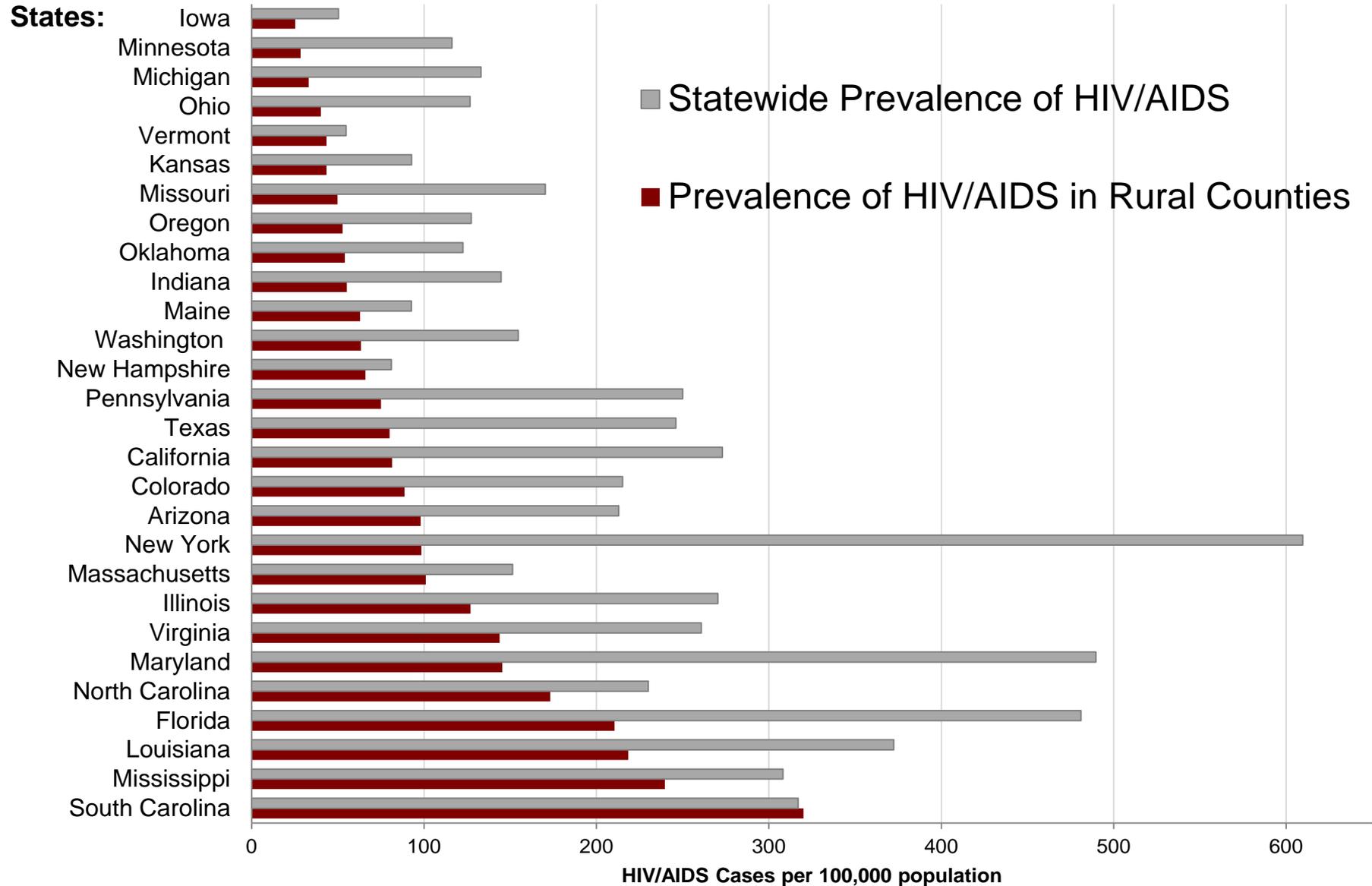
# Tiny changes may be harbingers

■ Kansas, Oklahoma  
2009

■ Kansas, Oklahoma  
2010

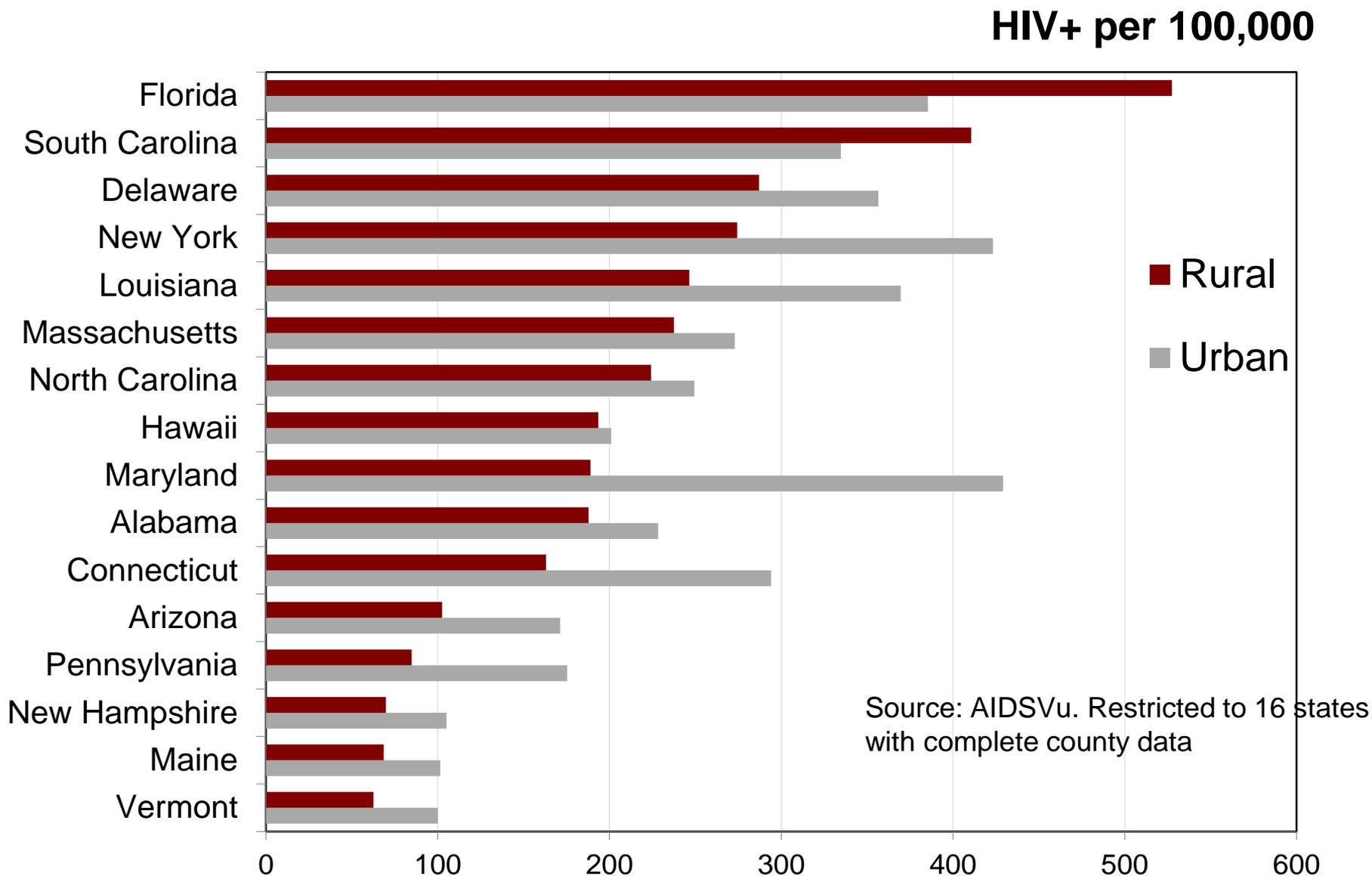


# Rural/urban HIV prevalence, 28 states, 2008



# Rural/urban HIV prevalence, 16 states, 2010

(Data from AidsVu.org)

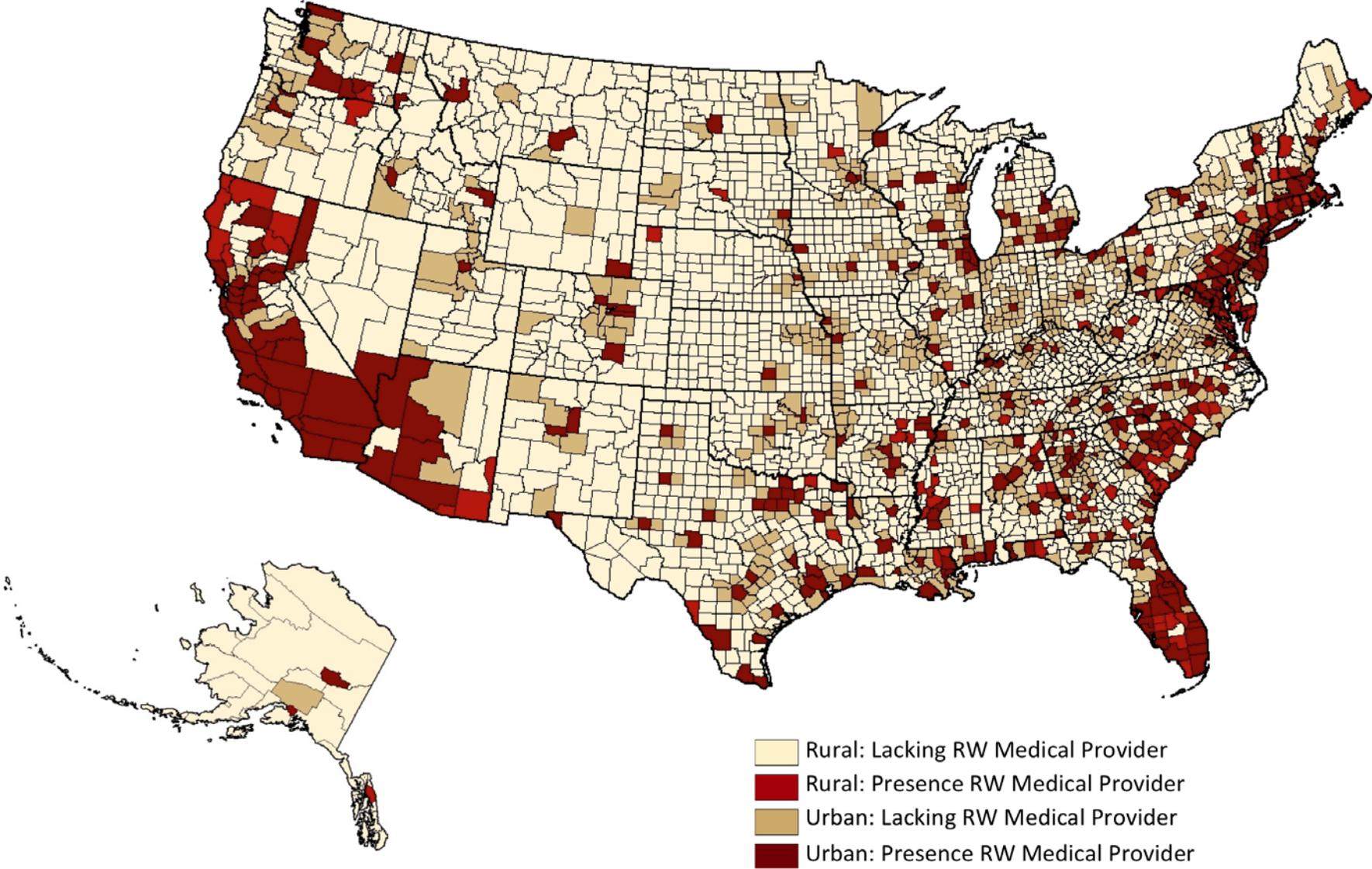


# HIV treatment

- Chronic treatment with antiretroviral medications costs about \$10,000 - \$12,000 per year
- Nearly half of PLWHA receive care through the Ryan White program
  - ◆ Current funding ~ \$2.1 billion
  - ◆ 30% of Ryan White funding specifically directed to *urban* areas (Part A)
- Ryan White provides a proxy for care availability
- Limitation: no information VA, other providers

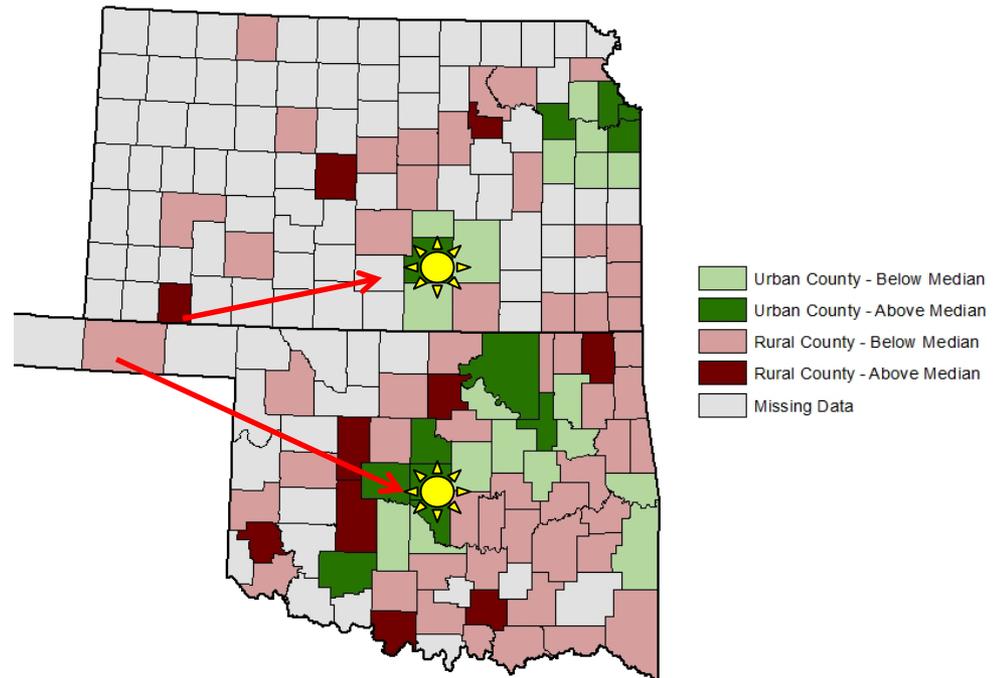


# Ryan White providers, 50 states, 2008



# Why worry? Distance may matter

- Norton KS to Wichita KS:
  - ◆ 268 miles
- Guymon OK to Oklahoma City:
  - ◆ 263 miles



# Conclusions

- Few Ryan White providers in rural counties
  - ◆ Research is needed to assess effects of local service availability on remaining in care, health outcomes
- Research is needed to assess use of other providers in rural areas
  - ◆ CHC's, health departments may help, but:
  - ◆ HIV is a complex condition requiring specialized knowledge
  - ◆ VA addresses non-specialist quality of care through telemedicine and tele-education

