



CDC's Growing Interest in Rural Health

Michael Meit

NOSORH Regional Meeting
Pensacola, FL
September 6, 2018

The Walsh Center 
for Rural Health Analysis

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Insights from CDC's MMWR Series on Rural Health

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NRHA 41st Annual Rural Health Conference

5/9/2018



Communications /Guidance



Epidemiology /Surveillance



Global Health

PREVENT

DETECT

RESPOND

Innovation



Laboratory /Diagnostics



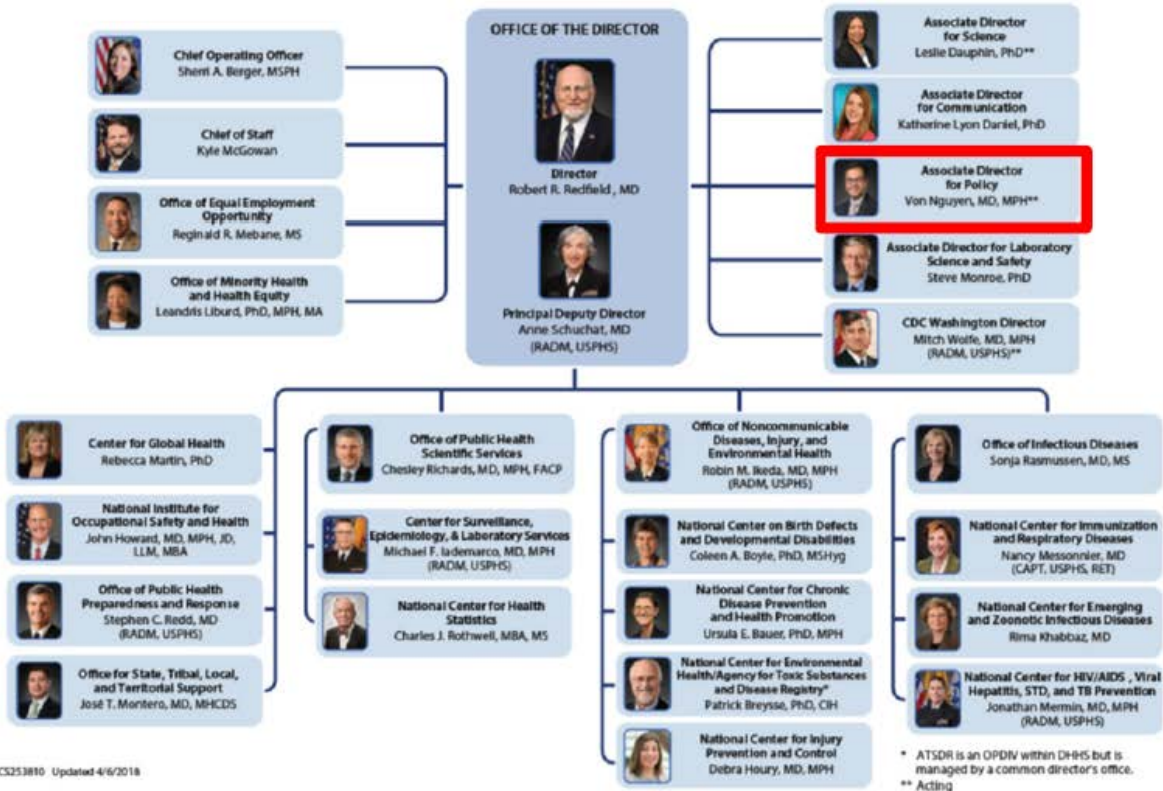
State /Local Health





Centers for Disease Control and Prevention
Office of the Director

ORGANIZATIONAL CHART



Office of the Associate Director for Policy (OADP)

- The Office of Health System Collaboration (OHSC)
 - Enhances relationships and activities with key health care partners
 - CDC's 6 | 18 initiative
 - Clinical system and community health intervention coordination & collaboration
- Program Performance and Evaluation Office (PPEO)
 - Work across CDC to help programs with strategy, priorities, performance improvement, and program evaluation
 - Drive use of data
 - Build evaluation capacity

Office of the Associate Director for Policy (OADP) cont.

- Policy, Research, Analysis, and Development Office (PRADO)
 - Economic and budget impact analyses of high priority interventions
 - Capacity building across CDC
 - Synthesize and translate CDC science for a policy audience
 - CDC's Health Impact in 5 Years (HI-5) initiative
 - Coordinate CDC's rural health work

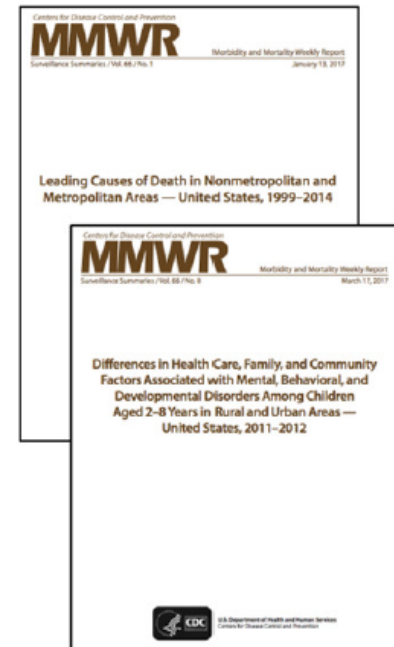
CDC's *MMWR* Rural Health Series (2017)

Morbidity and Mortality Weekly Reports (MMWR)

- CDC's primary vehicle for scientific publication of timely, reliable, authoritative, accurate, and objective public health data and recommendations
- Nearly 280K subscribers and was viewed more than 23 million times in 2016.
- Large social media following, with nearly 42,000 followers.
- In 2017, 13 in a year-long Rural Health Series

<https://www.cdc.gov/mmwr/index.html>

https://www.cdc.gov/mmwr/rural_health_series.html



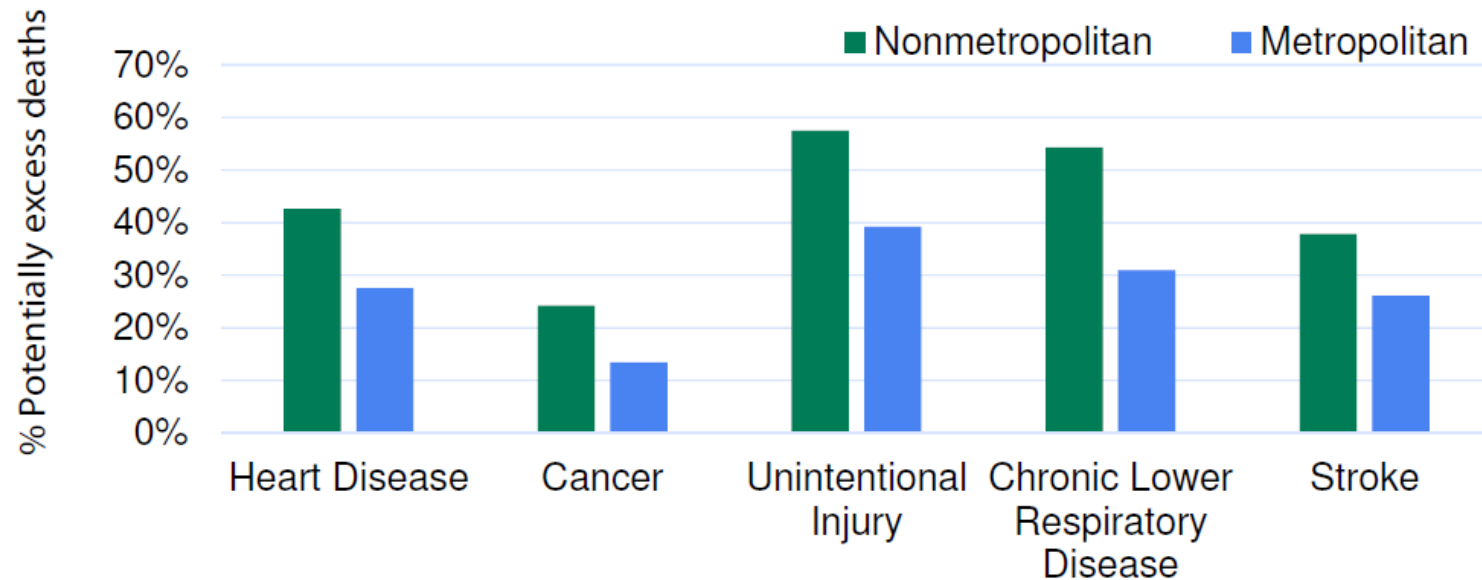
***MMWR* Rural Health Series**

- **Leading Causes of Death (1/13/17)**
- **Reducing Potentially Excess Deaths (1/13/17)**
- **Health-related Behaviors (2/3/17)**
- **Children's Mental Health (3/17/17)**
- **Diabetes Self-Management Education (4/28/17)**
- **Air and Drinking Water Quality (6/23/17)**
- **Cancer (7/7/17)**
- **BRCA Genetic Testing (9/8/17)**
- **Passenger Vehicle Deaths (9/22/17)**
- **Suicide (10/6/17)**
- **Illicit Drug Use (10/20/17)**
- **Occupational Air Quality (11/3/17)**
- **Racial/ethnic disparities (11/17/17)**

https://www.cdc.gov/mmwr/rural_health_series.html

Rural areas experience higher age-adjusted death rates from the five leading causes of death

Percentage of potentially excess deaths among persons aged <80 years for five leading causes of death — National Vital Statistics System, United States, 2014



Moy E, Garcia MC, Bastian B, et al. Leading Causes of Death in Nonmetropolitan and Metropolitan Areas — United States, 1999–2014. *MMWR Surveill Summ* 2017;66(No. SS-1):1–8. DOI: <http://dx.doi.org/10.15585/mmwr.ss6601a1>.

Other Findings

- Disparities between rural and non-rural populations can vary by:
 - Race
 - Region
 - Age

Extending the Reach – Science, Policy, Practice

- **Journal editorials**
 - NEJM
 - Journal of Rural Health
 - Journal of Health Care for the Poor and Underserved
- **CDC policy briefs**
- **Hill outreach, briefing on Injury reports**
- **Webinars with FORHP's RHlhub**



Policy Briefs

- Online:
 - Children’s mental health
 - Diabetes
 - Seat belts
 - Opioids
- Coming soon:
 - Suicide
 - Cancer

RURAL HEALTH POLICY BRIEF
 PROVIDING DIABETES SELF-MANAGEMENT EDUCATION AND SUPPORT FOR RURAL AMERICANS

RURAL HEALTH POLICY BRIEF
 PREVENTING OPIOID OVERDOSES IN RURAL AMERICA

RURAL HEALTH POLICY BRIEF
 PROTECTING RURAL AMERICANS FROM MOTOR VEHICLE DEATHS

3 TO 10
MOTOR VEHICLE DEATHS ARE 3 TO 10 TIMES HIGHER IN RURAL AMERICA

THE DATA
 Motor vehicle crashes are a leading cause of death nationwide. Increasing seat belt use is an evidence-based strategy to prevent passenger vehicle occupant deaths and has been shown to reduce the risk of serious injury or death by about 50%. While less than 20% of the US population lives in rural areas, more than half of all passenger vehicle occupant deaths occur on rural roads. This policy brief is a companion to CDC's Morbidity and Mortality Weekly Report, Rural and Urban Differences in Passenger Vehicle Occupant Deaths and Seat Belt Use Among Adults - United States, 2014 and will explore policy options that may increase seat belt use among vulnerable rural populations. The brief also includes three case studies that present examples from the field.

ISSUE OVERVIEW
 Data demonstrate that people living in rural areas have higher rates of passenger vehicle occupant deaths and a higher proportion of unrestrained deaths. Rural residents consistently self-report significantly lower levels of seat belt use than their urban counterparts. These data highlight the need to improve motor vehicle safety and seat belt use among rural residents.

THE DATA
 In the United States, 30.3 million people (9% of the population) have diabetes. In 2015, diabetes was the seventh-leading cause of death. CDC estimates that in 2012 the total direct and indirect costs from diabetes was \$245 billion. Diabetes Self-Management Education and Support (DSME) is an evidence-based strategy to teach patients the skills needed to manage their diabetes, reduce hospital admissions, and improve health outcomes for people with diabetes. DSME is about 17% more effective than standard care. Further research is needed to understand the geographic differences in DSME use.

ISSUE OVERVIEW
 A variety of individual, community, and system-level factors affect access to and use of DSME. Key barriers include:
 • Cost of DSME
 • Lack of insurance
 • Distribution of DSME services
 • Patient barriers (e.g., lower income, lower health literacy)
 These challenges may be addressed through a variety of policy options that may help rural residents access DSME.

THE DATA
 While there is evidence demonstrating the effectiveness of these policies, more information is needed to understand how to effectively target rural populations and reduce the rural-urban seat belt use disparity.

Policy options that may increase seat belt use by rural residents include:

- Primary enforcement laws requiring seat belt use in the front and rear seats
- Enhanced/high-visibility enforcement campaigns (such as Click It or Ticket)

Policy options and other strategies for addressing factors affecting opioid overdoses in rural areas include:

- Increasing adherence to evidence-based prescribing practices
- Expanding access to medication-assisted treatment
- Increasing the availability of evidence-based recovery drugs such as buprenorphine

CDC U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES

Other CDC Rural Health Work

Example: Addressing Social Determinants of Health

In fiscal 2017, the High Obesity program supported obesity reduction activities in

- 49 counties across 11 states
- Reaching over 1.9 million residents
- Predominantly rural communities in the South and Midwest
- Awards to land grant institutions and cooperative extension

Auburn University example

- Working in 14 Alabama counties
- Created new walking and biking trails
- Established safe routes to school

Other CDC Activities

- Funding announcements
- Internal work group
- Trainings for CDC staff
- Partnerships

Finding Information on CDC.gov

- CDC Rural Health webpage
<https://www.cdc.gov/ruralhealth/index.html>
- POLARIS policy portal
<https://www.cdc.gov/policy/polaris/>
- POLARIS rural health page (coming soon!)
<https://www.cdc.gov/policy/polaris/healthtopics/ruralhealth.html>

ADPolicy@cdc.gov

For more information, contact CDC
1-800-CDC-INFO (232-4636)
TTY: 1-888-232-6348 www.cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

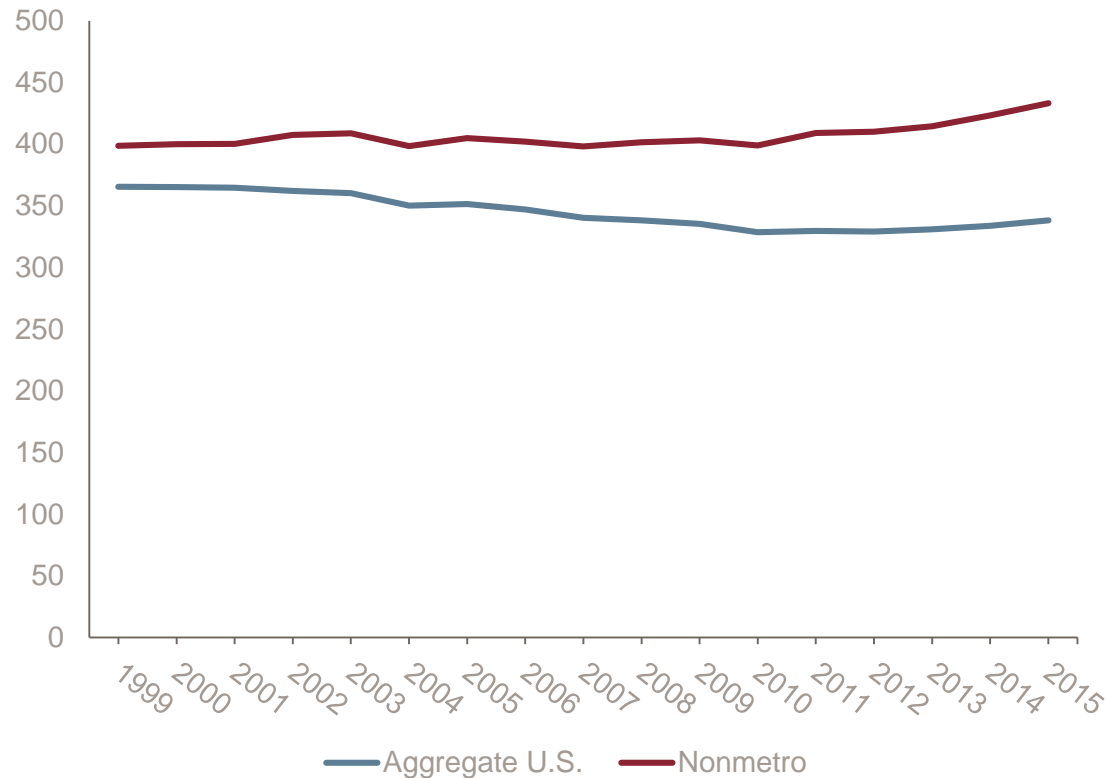




CDC's Growing Interest – A View from the Walsh Center



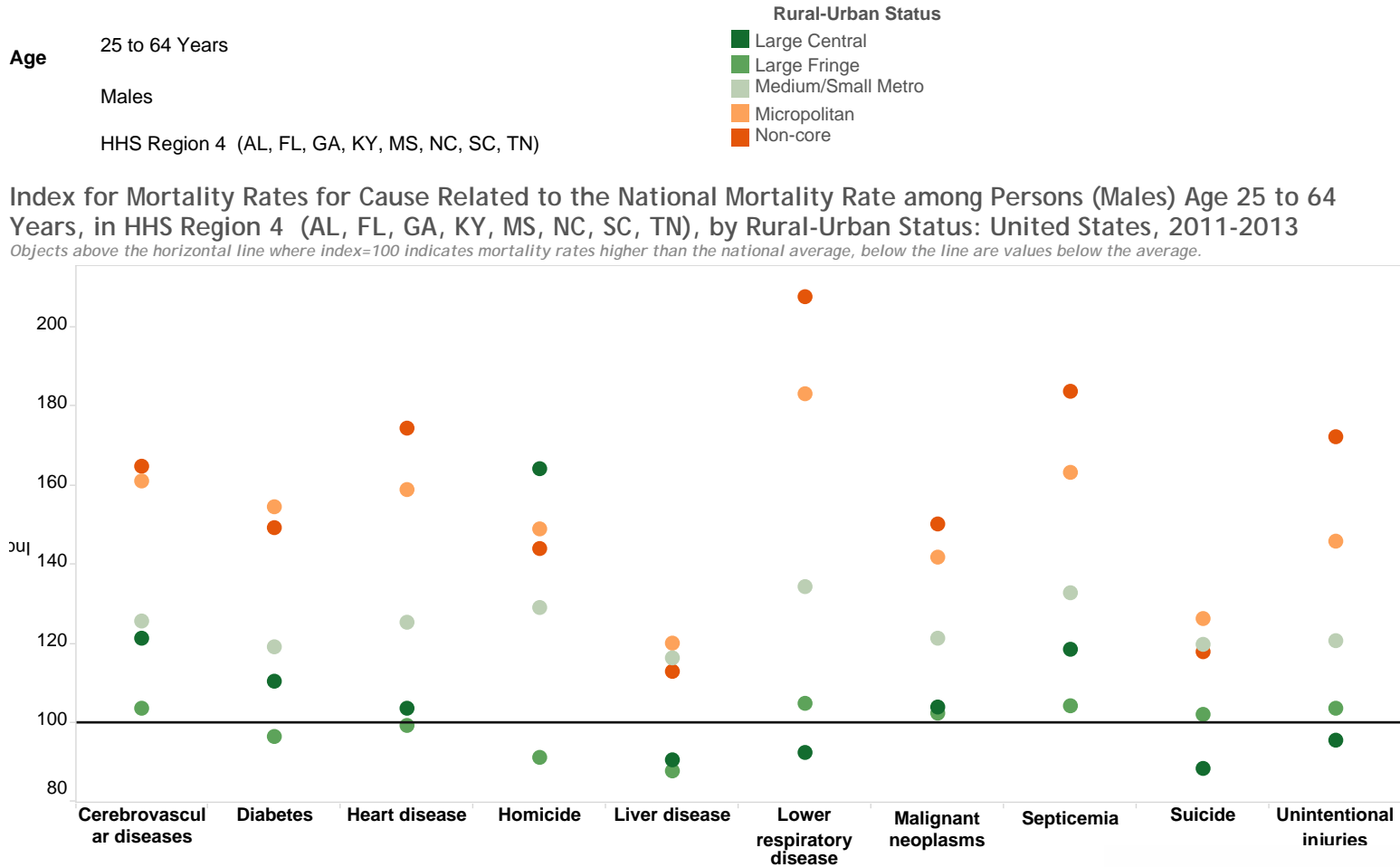
Trends in Age-adjusted Mortality Rate by Sex and Rurality, 1999-2015



*Aggregate includes both Metro and Nonmetro. Both rates are inclusive of individuals ages 25-64.

Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999-2015 on CDC WONDER Online Database, released December, 2016. Accessed at <http://wonder.cdc.gov/mcd-icd10.html>

Rural Health Disparities – HHS Region 4, Males 25-64



Rural Health Disparities – HHS Region 4, Females 25-64

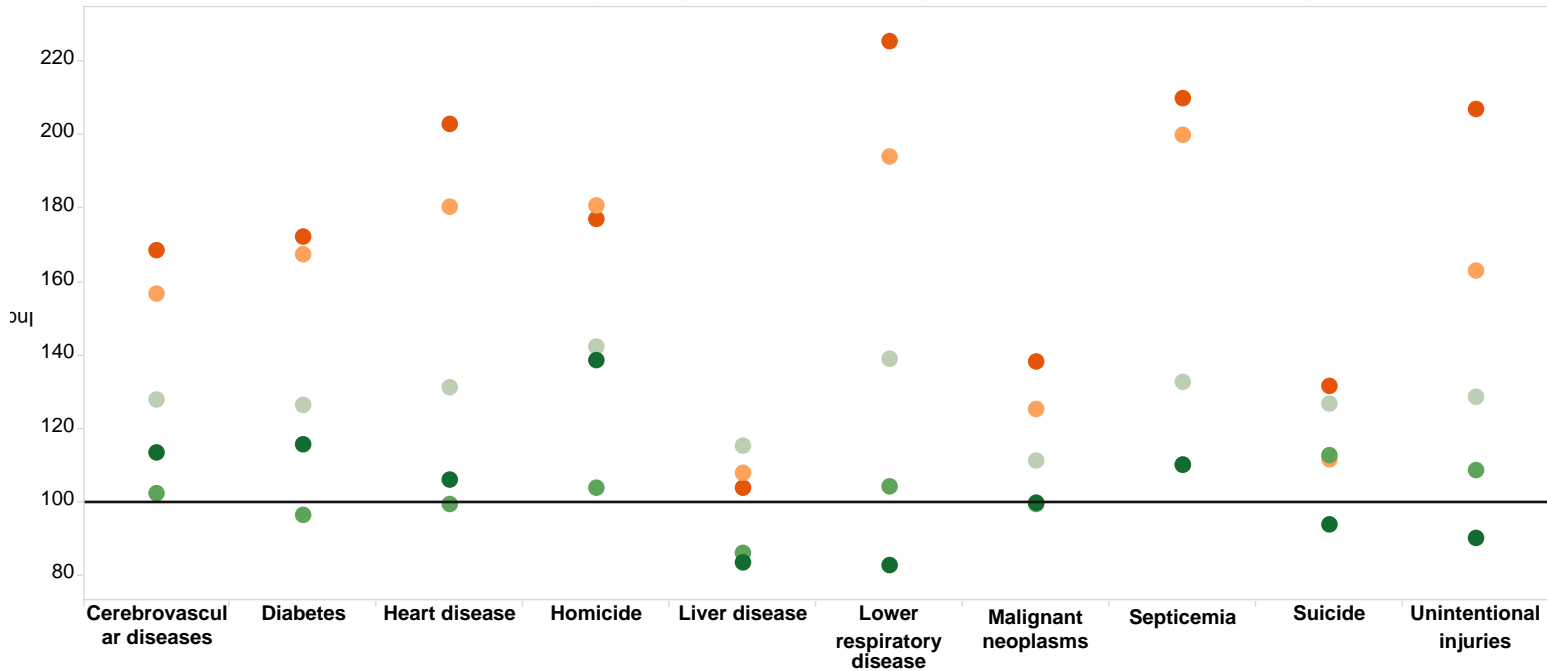
Age 25 to 64 Years
Sex Females
Region HHS Region 4 (AL, FL, GA, KY, MS, NC, SC, TN)

Rural-Urban Status

- Large Central
- Large Fringe
- Medium/Small Metro
- Micropolitan
- Non-core

Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Females) Age 25 to 64 Years, in HHS Region 4 (AL, FL, GA, KY, MS, NC, SC, TN), by Rural-Urban Status: United States, 2011-2013

Objects above the horizontal line where index=100 indicates mortality rates higher than the national average, below the line are values below the average.



Health departments cutting staff, service hours with unsure future

By Marwa Eltagouri · Contact Reporter
Chicago Tribune

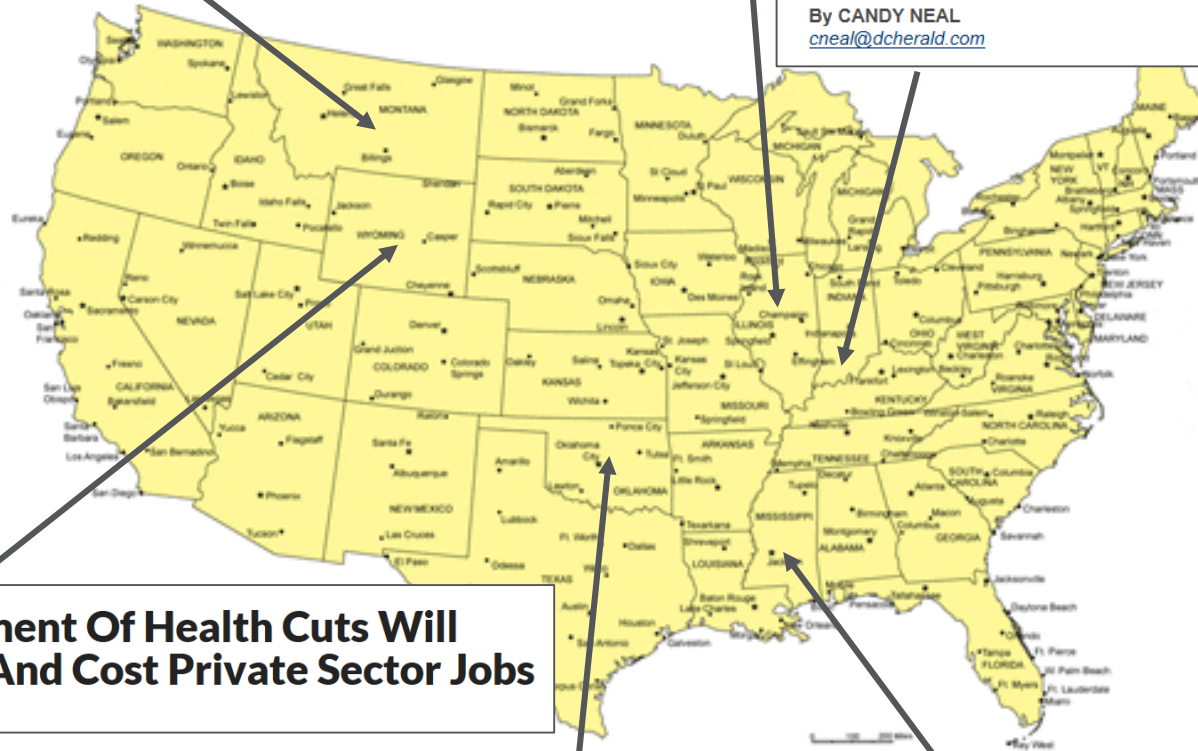
Health department cuts would hit state's most vulnerable, could cost more in long run

HOLLY K. MICHELS holly.michels@lee.net Oct 1, 2017

Health department cuts staff, increases fees

September 1, 2017

By CANDY NEAL
cneal@dherald.com



Wyoming Department Of Health Cuts Will Impact Programs And Cost Private Sector Jobs

By BOB BECK · JUN 21, 2016

Health department cuts will cost millions for clinics helping uninsured patients

BY: Megan Allison

POSTED: 3:26 PM, Nov 16, 2017

Nine health department clinics closing in MS

Published: Thursday, January 21st 2016, 7:14 pm EST
Updated: Friday, January 22nd 2016, 3:52 pm EST

By Quantis Jones, Reporter CONNECT

NACCHO LHD Analysis by Geography

- Investigate differences between urban and rural health agencies in terms of:
 - Funding sources;
 - Clinical and population-based service provision; and
- Identify opportunities and challenges facing rural public health agencies



NACCHO Profile Analysis – Small versus Rural

	Urban n(%)	Large Rural n(%)	Small Rural n(%)	Total
<50,000	224 (20.2)	205 (18.5)	680 (61.3)	1109
50,000-99,999	126 (40.9)	136 (44.2)	46 (14.9)	308
100,000+	438 (85.4)	58 (11.3)	17 (3.3)	513

Data source: Rural-Urban Analysis of 2016 NACCHO Profile Data



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Findings – Revenue Sources

Proportion of revenue by rurality

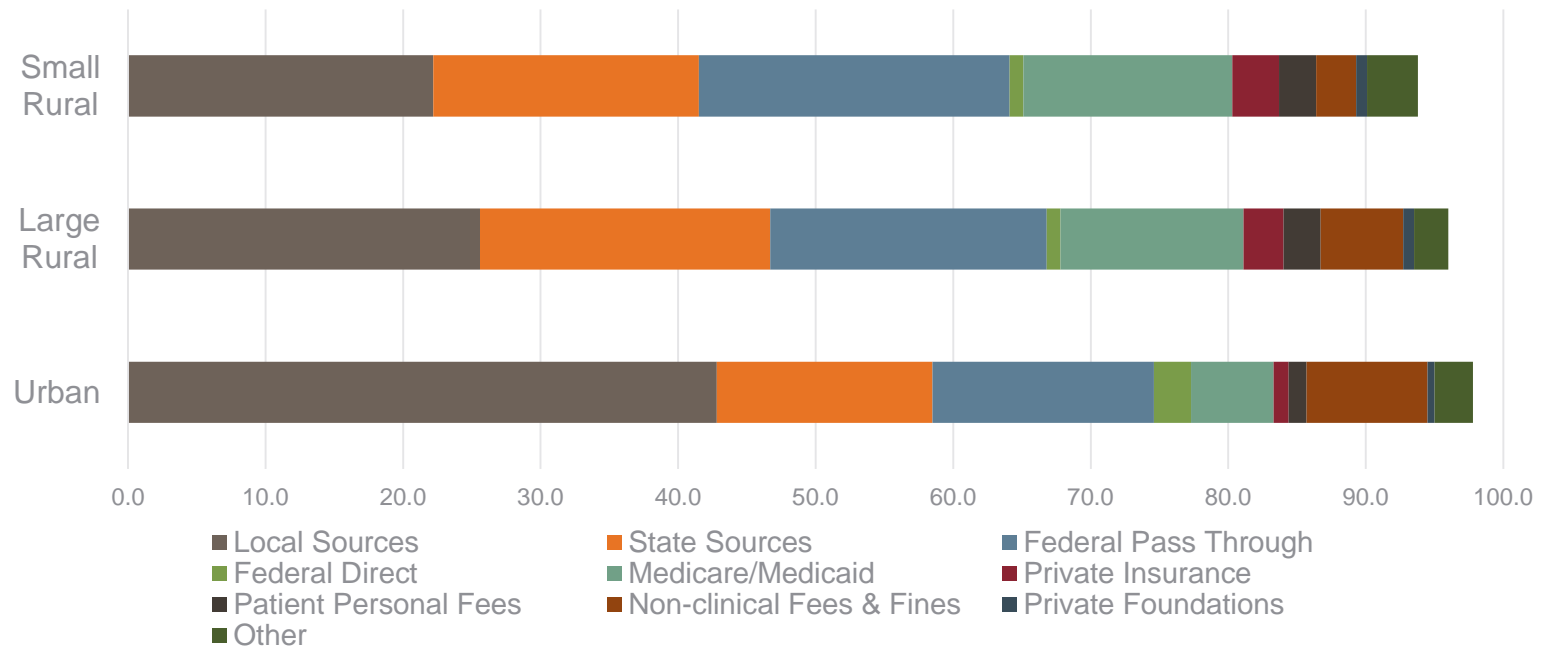
	Proportion of revenue			
	Urban	Large Rural	Small Rural	Sig.
Local Sources	42.8	25.6	22.2	0.001
State Sources	15.7	21.1	19.3	0.001
Federal Pass Through	16.1	20.1	22.6	0.001
Federal Direct	2.7	1.0	1.0	0.001
Medicare/Medicaid	6.0	13.3	15.2	0.001
Private Insurance	1.1	2.9	3.4	0.001
Patient Personal Fees	1.3	2.7	2.7	0.001
Non-clinical Fees & Fines	8.8	6.0	2.9	0.001
Private Foundations	0.5	0.8	0.8	NS
Other	2.8	2.5	3.7	NS

- Urban HDs rely more heavily on local sources than large rural and small rural LHDs
- Both large rural and small rural LHDs rely more heavily on state and federal pass through revenue than urban LHDs
- The proportion of funds that came from clinical funding sources, including Medicare/Medicaid, private insurance, and personal patient fees were significantly higher for large and small rural HDs compared to urban LHDs.



Findings – Revenue Sources

Local Health Department Revenues by Degree of Rurality



Data source: Rural-Urban Analysis of 2016 NACCHO Profile Data



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Findings – Service Provision

Clinical Services

- In terms of services performed by the LHD directly, rural LHDs were more likely to provide immunizations, screenings, treatment of communicable diseases, and maternal and child health services than urban LHDs.

Population-based services

- In terms of services performed by the LHD directly, rural LHDs (both large and small) were more likely to report conducting communicable disease and infectious disease epidemiology and surveillance.
- Urban LHDs were more likely to provide environmental surveillance.



Policy Implications

- Urban communities are served by LHDs with more local revenue and more community capacity to provide the clinical services vital to those who need care. They can focus more on population-based services.
- Many rural LHDs must retain direct care services due to community need.
- Large and small rural LHDs are more vulnerable to changes in state and federal funding.
- Organizations that work to support LHDs need to consider how they can support both rural and urban health departments in pursuing their missions to improve health in their jurisdictions.

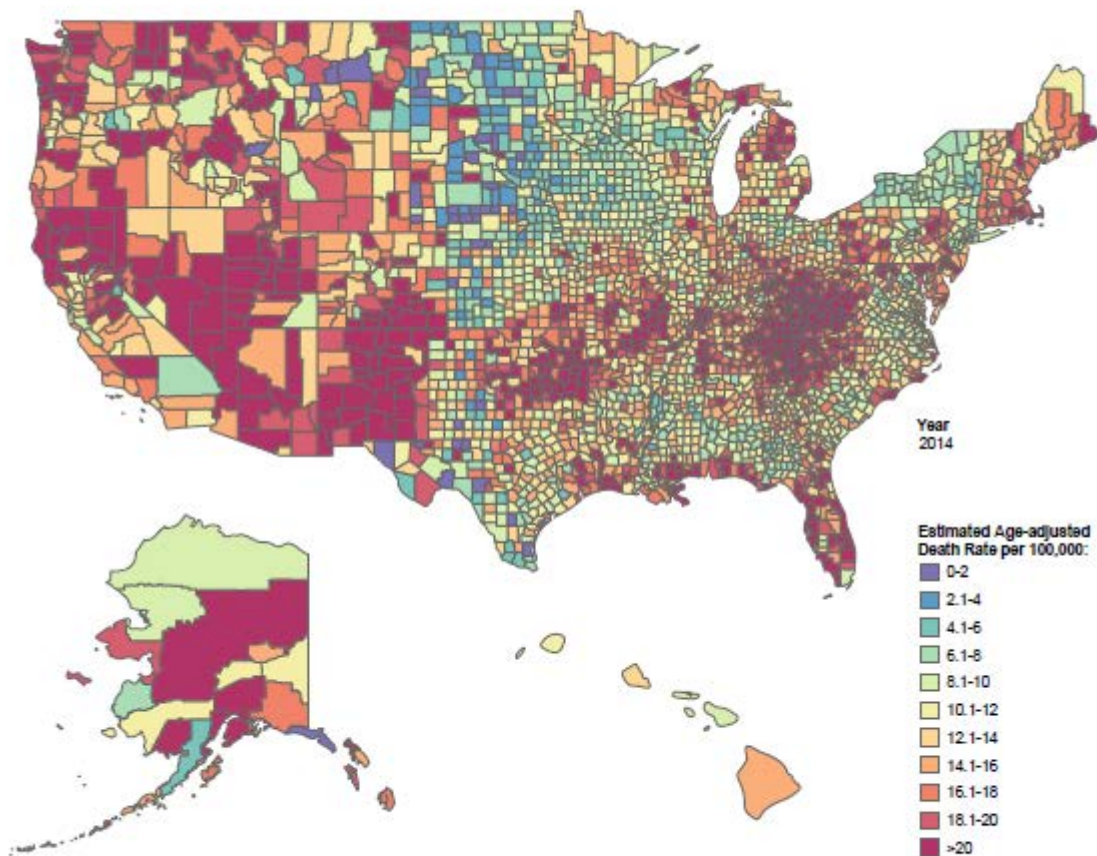


Opioids, Opioids, Opioids



Estimated Death Rates for Drug Poisonings By County: 1999 - 2014

Estimated Age-adjusted Death Rates[§] for Drug Poisoning
by County, United States: 2014



Designed by L. Rossen, B. Bastian & Y. Chong. SOURCE: CDC/NCHS, National Vital Statistics System.

Produced by East Tennessee State University College of Public Health using CDC NCHS Data

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NORC Overdose Mapping Tool

Drug Overdose Deaths in Appalachia

SOCIO-DEMOGRAPHIC

Race / Ethnicity

Age

Educational Attainment

Disability Status

ECONOMIC

Median Household Income

Poverty Rate

Unemployment Rate

Accident-prone Employment

← LIST OF COUNTIES

CLOSE X

The Growth of an Epidemic

The Opioid Crisis is Contributing to Lowering U.S. Life Expectancy.

Prescription and illicit opioids killed more than 33,000 Americans in 2015, almost quadruple the number in 2000. The toll of the epidemic is so great that it contributed to the first decline in U.S. life expectancy since 1993.

NEXT

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INTRODUCTION

HOW TO USE THE TOOL

METHODOLOGY & DATA

MORE INFORMATION

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Drug Overdose Deaths in Appalachia

SOCIO DEMOGRAPHIC

Race / Ethnicity

Age

Educational Attainment

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ECONOMIC

Median Household Income

Poverty Rate

Unemployment Rate

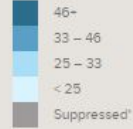
Accident-prone Employment

< LIST OF COUNTIES

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Overdose Rate

Deaths per
100k pop, ages
15-64 by
county



Timeframe

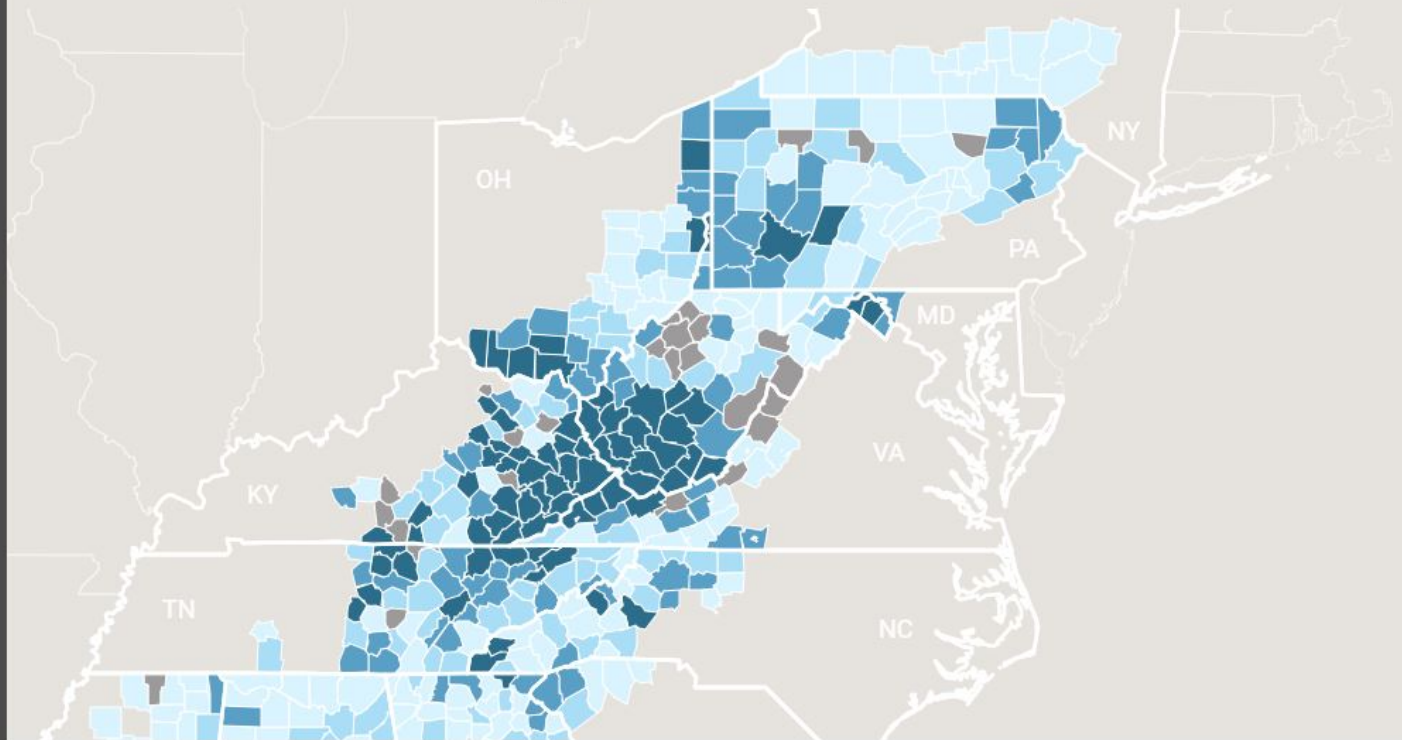
2006 - '10 2011 - '15

Urban / Rural

All

Zoom

- +



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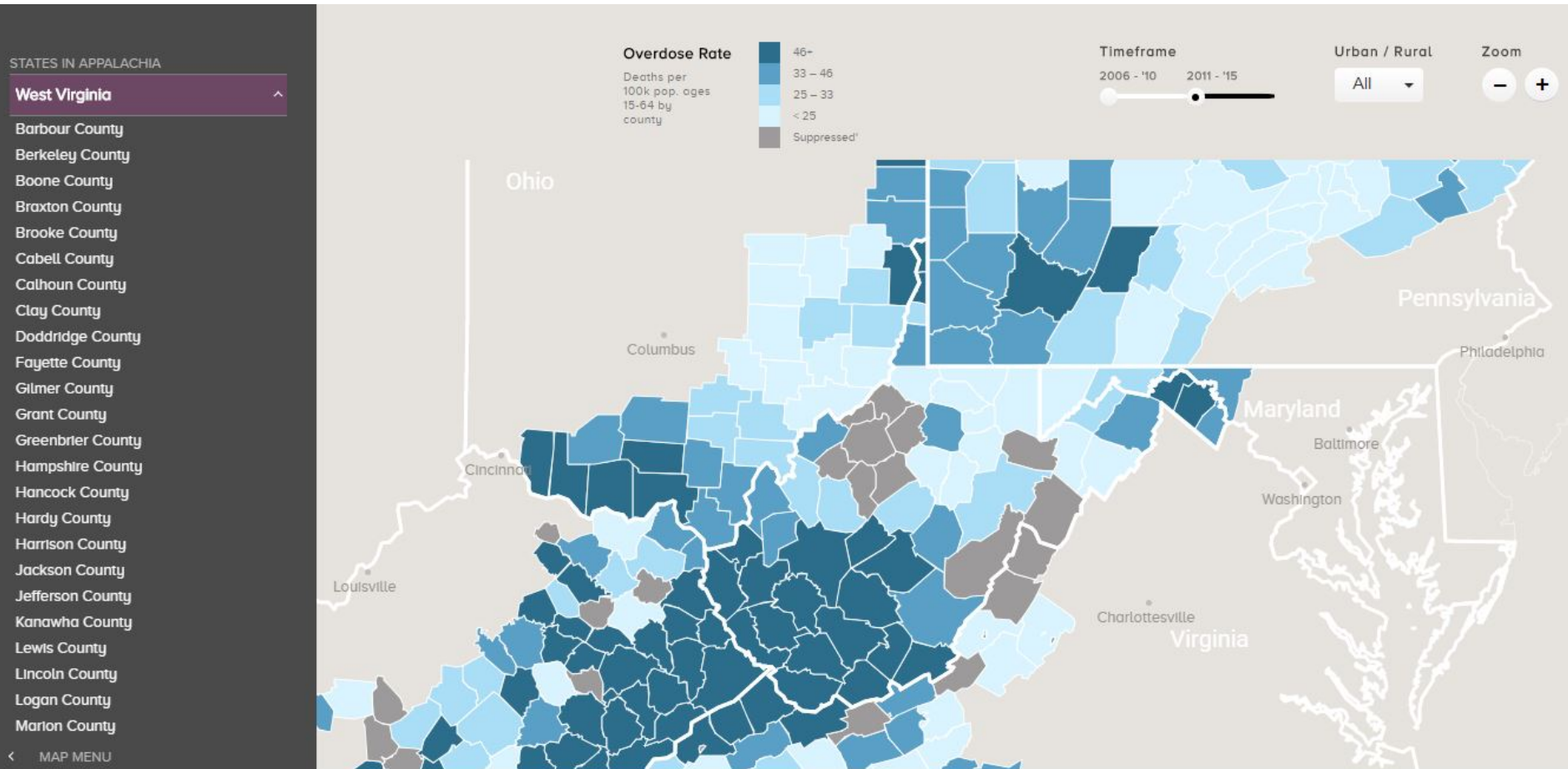
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Drug Overdose Deaths in Appalachia by Disability Status

SOCIO DEMOGRAPHIC CLEAR x

Race / Ethnicity v

Age v

Educational Attainment v

Disability Status v

ECONOMIC

Median Household Income v

Poverty Rate v

Unemployment Rate v

Accident-prone Employment v

< LIST OF COUNTIES

SHARE

Disability Rate
Ages 18-64 by county

- 25%+
- 18 - 25%
- 10 - 18%
- 1 - 10%

Overdose Rate
Deaths per 100k pop. ages 15-64 by county

- 46+
- 33 - 46
- 25 - 33
- < 25
- Suppressed*

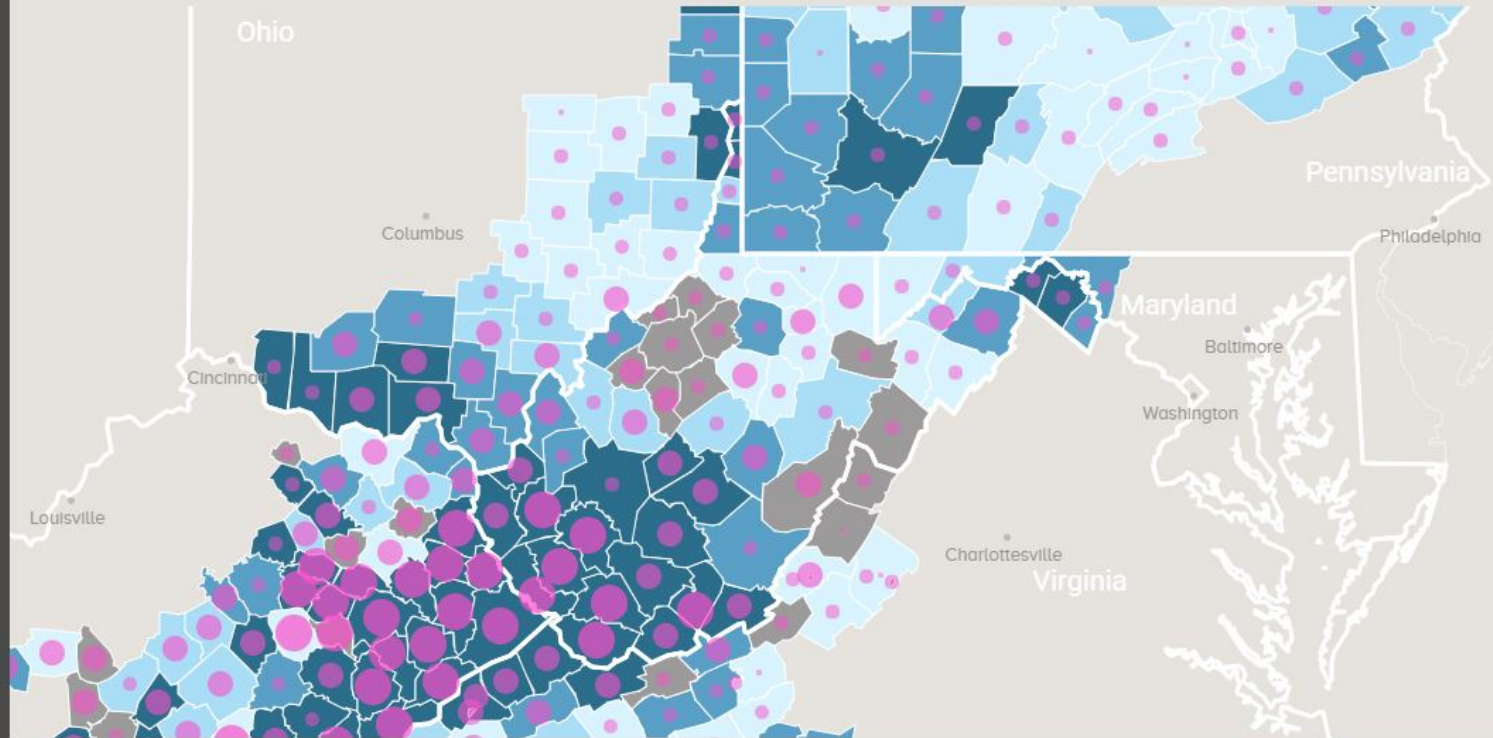
Timeframe

2006 - '10 2011 - '15

Urban / Rural

All v

Zoom



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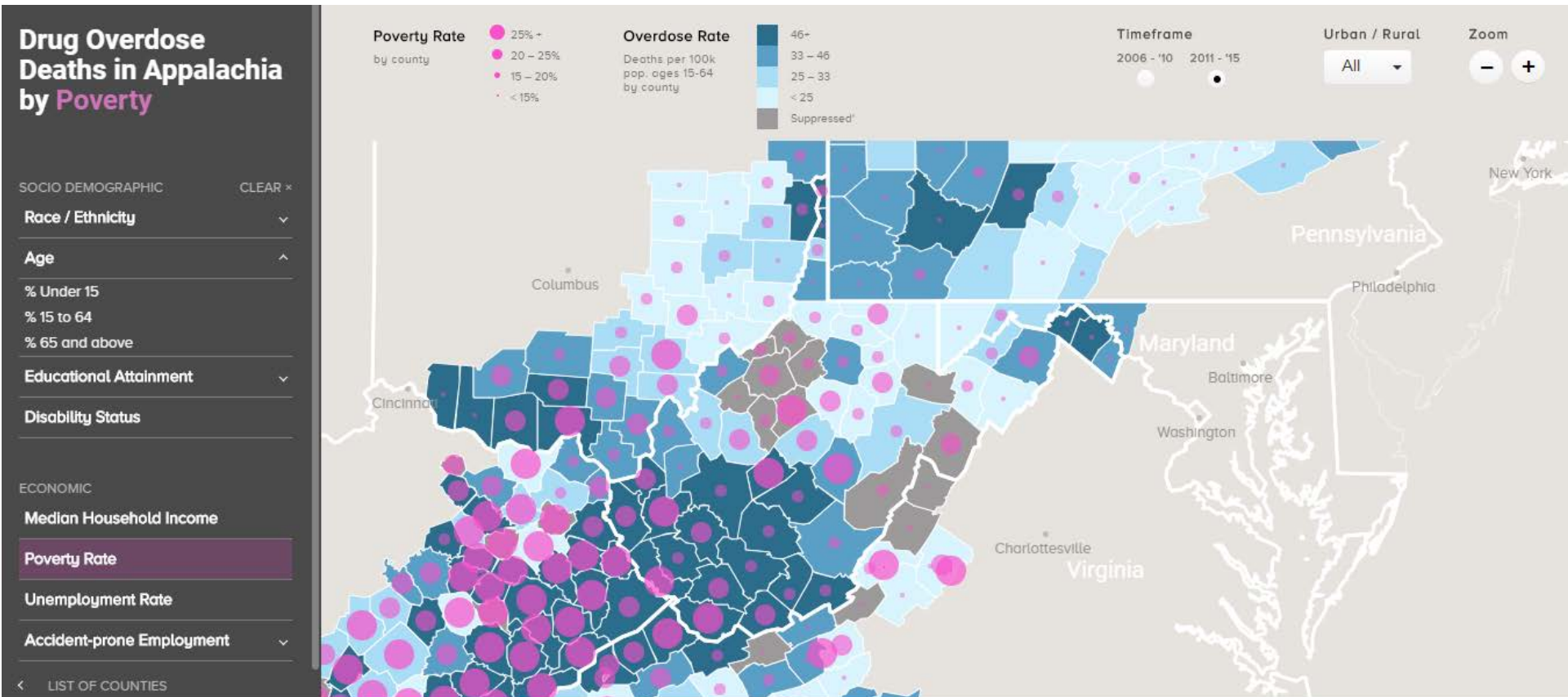
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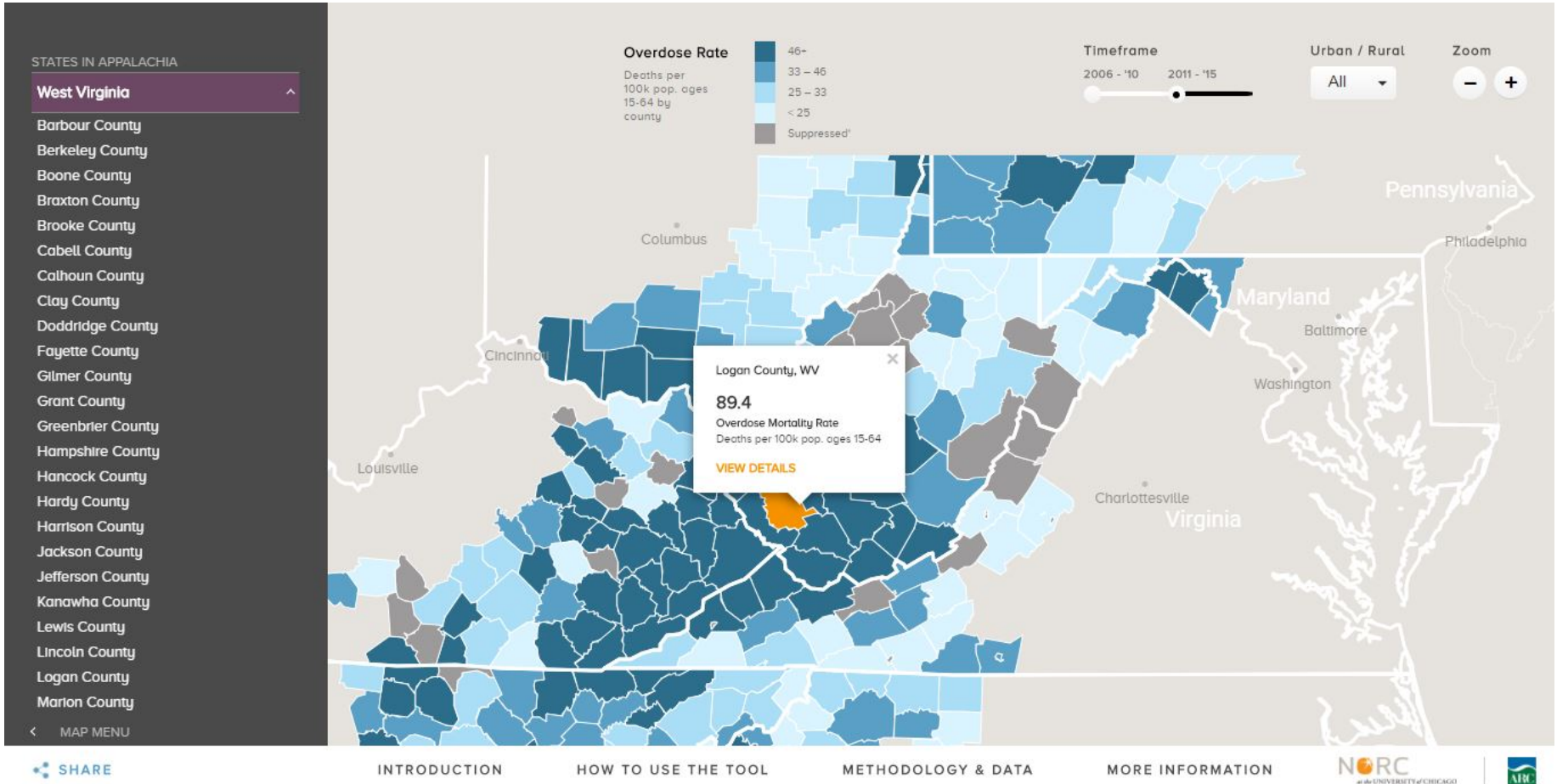
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County Information and Fact Sheets



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County Information and Fact Sheets

- STATES IN APPALACHIA
- West Virginia
 - Barbour County
 - Berkeley County
 - Boone County
 - Braxton County
 - Brooke County
 - Cabell County
 - Calhoun County
 - Clay County
 - Doddridge County
 - Fayette County
 - Gilmer County
 - Grant County
 - Greenbrier County
 - Hampshire County
 - Hancock County
 - Hardy County
 - Harrison County
 - Jackson County
 - Jefferson County
 - Kanawha County
 - Lewis County
 - Lincoln County
 - Logan County
 - Marion County
- MAP MENU

County Profile : 2011-2015

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CLOSE X

Logan County, WV

Drug Overdose Mortality Rate

89.4 Deaths per 100k population (Ages 15-64)

30.6 Appalachian Region

20.6 U.S.



SOCIO DEMOGRAPHIC

	Logan County	Appalachian Region	U.S.
Race /Ethnicity			
White (non-Hispanic)	95.8%	82.5%	62.3%
African American (non-Hispanic)	2.1%	9.4%	12.3%
Hispanic	0.9%	4.6%	17.1%
Other	1.1%	5.1%	10.5%

	Logan County	Appalachian Region	U.S.
Age			
Under 15	17.2%	17.9%	19.0%
15-64	66.5%	65.8%	66.2%
65+	16.3%	16.3%	14.9%

	Logan County	Appalachian Region	U.S.
Educational Attainment			
At least High School Diploma	76.4%	85.5%	86.7%
Bachelor's Degree or more	8.1%	22.6%	29.8%

	Logan County	Appalachian Region	U.S.
Disability Status			
% Residents with a disability	29.1%	13.9%	12.4%

ECONOMIC

	Logan County	Appalachian Region	U.S.
Median Household Income	\$36,763	\$44,744	\$53,889

	Logan County	Appalachian Region	U.S.
Poverty Rate	19.7%	17.1%	15.5%

	Logan County	Appalachian Region	U.S.
Unemployment Rate	10.9%	8.3%	5.2%

	Logan County	Appalachian Region	U.S.
Accident-prone Employment			
Construction	2.0%	4.0%	4.4%
Mining	15.6%	1.3%	1.5%
Manufacturing	4.6%	13.0%	8.9%
Trade, Transportation, & Utilities	21.5%	19.8%	19.1%

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Rural Assets, Strategies, and Opportunities

A Shift of Focus



Change Agents Across Sectors

Residents

**Schools and
Post-
Secondary
Institutions**

**Faith-Based
Organizations**

**Cooperative
Extension**

**Planning and
Development**

**Healthcare and
Public Health**

Employers

**Community-
Based
Organizations**

**Public
Libraries**

Transportation

**Local
Government
and Public
Safety**

Local Media

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Sample Project Recommendations

Foster Cross-Sector Collaboration

Cross-sector collaboration is often an existing asset in rural communities, which can be supported and expanded.

Adapt Funding Strategies to Support Rural Communities

Adapt funding strategies and grant structures to address rural barriers to participation in grant programs.

Build Relationships and Trust

Cultural assets highlight the importance of rural residents feeling ownership over solutions to rural challenges, and building long-term, meaningful relationships with communities.

Sample Project Recommendations

Engage with Regional/Local Intermediaries

Regional and local organizations have a better understanding of local culture, past experience, and assets.

Consider Rural Communities as Program Sites

Rural communities are well suited to pilot efforts to improve health and equity – programs can be tested on a smaller scale with fewer confounding factors.

Develop Rural-Specific Communications and Messaging

It is critical to consider the specific audience, choose an appropriate messenger, and tie messages to important cultural assets.

Recent CDC Rural Health RFPs

- Exploring the Challenges in Diagnosis and Treatment of Traumatic Brain Injury (TBI) in Rural Areas
- Research Grants for the Primary or Secondary Prevention of Opioid Overdose

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Thank You!

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