

CDC and Rural Public Health

Diane M. Hall, PhD., MEd

Director

Office of Rural Health

National Center for State, Tribal, Local, and Territorial Infrastructure and Workforce

CDC

CDC's
PUBLIC HEALTH
INFRASTRUCTURE CENTER



Centers for Disease Control and Prevention (CDC)

- Opened July 1, 1946, as Communicable Disease Center
- Headquarters: Atlanta
- Mission:
 - CDC [works 24/7](#) to protect America from health, safety and security threats, both foreign and in the U.S.
 - The nation's health protection agency
 - CDC saves lives and protects people from health threats



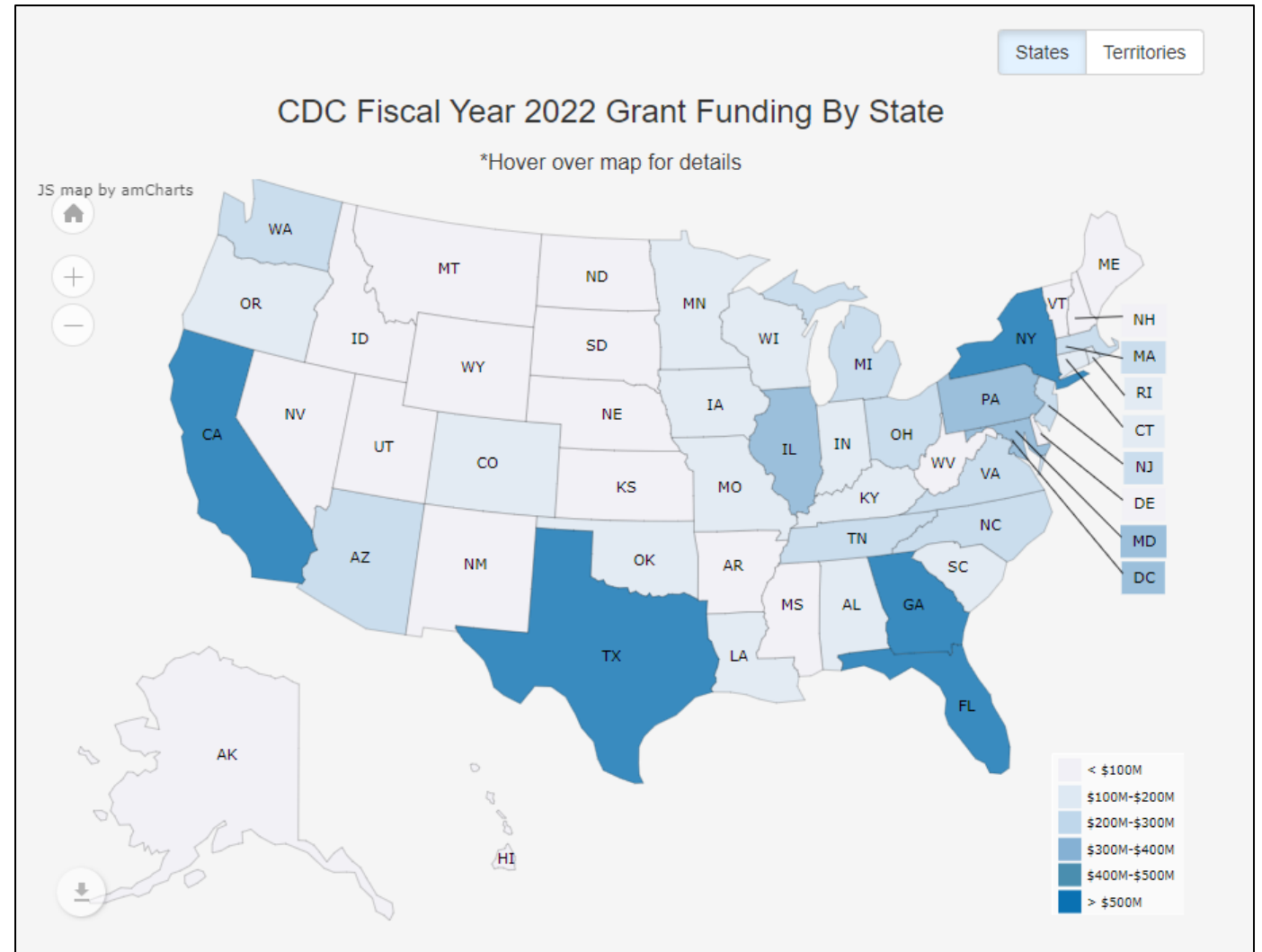
CDC, circa 1946

CDC's Funding

- Approximately \$14.7 billion (mandatory + discretionary)



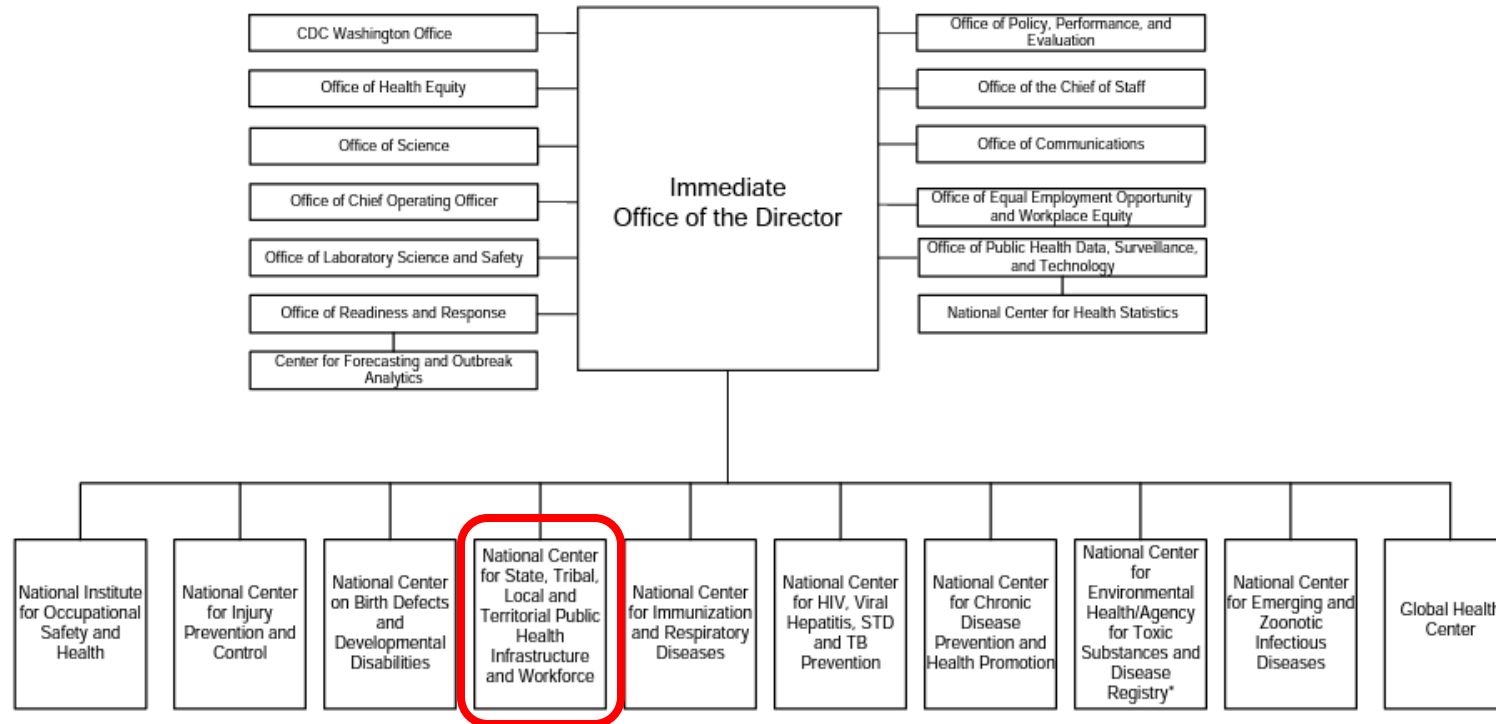
<https://www.cdc.gov/funding/documents/fy2022/fy-2022-ofr-annual-report-508.pdf>



<https://fundingprofiles.cdc.gov/>

CDC's New Organizational Structure

DEPARTMENT OF HEALTH AND HUMAN SERVICES CENTERS FOR DISEASE CONTROL AND PREVENTION (CDC)



*ATSDR (J) is an OPDIV within DHHS but is managed by a common director's office.

Public Health Infrastructure

is made up of the **people, services, and systems** needed to promote and protect health in every U.S. community



Primary Functions

Jurisdictional
Support



Division of
Jurisdictional
Support

Partnerships &
Technical
Assistance



Division of
Partnership
Support

Workforce
Development



Division of
Workforce
Development

National Center for State, Tribal, Local, and Territorial Public Health Infrastructure and Workforce



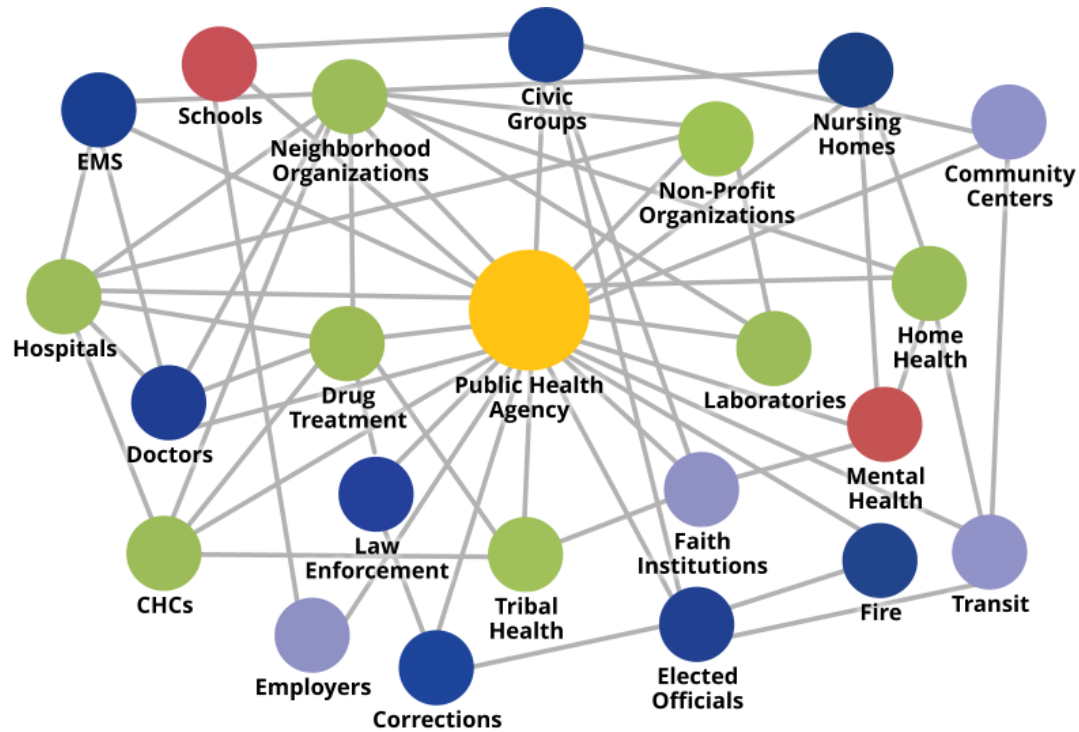
Public Health

Health ≠ Healthcare



From: https://bipartisanpolicy.org/wp-content/uploads/2019/03/5023_BPC_NutritionReport_FNL_Web.pdf

The Public Health System and Essential Services



The Public Health System

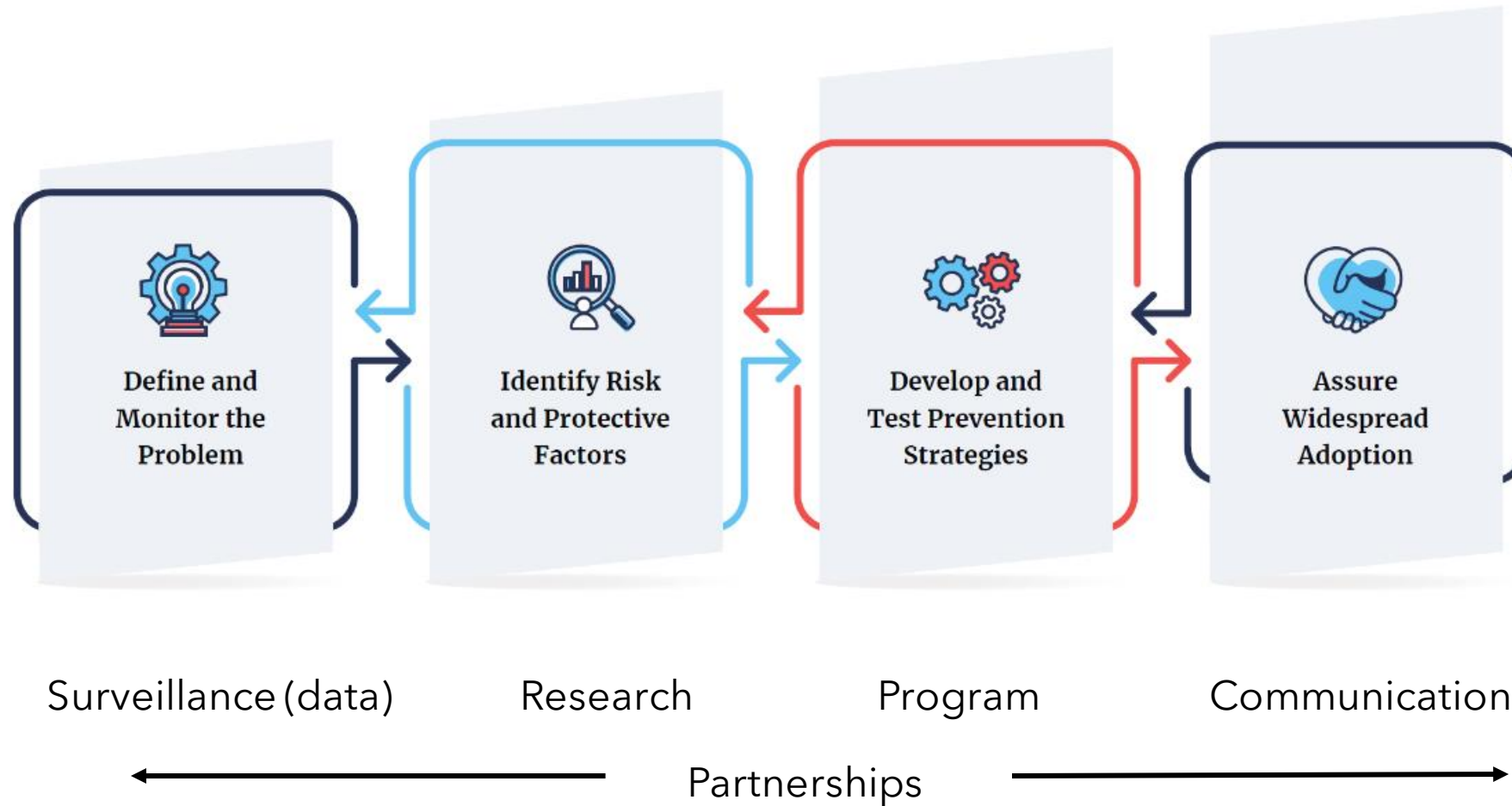
<https://www.cdc.gov/publichealthgateway/publichealthservices/images/phs-figure1.gif>



The 10 Essential Public Health Services

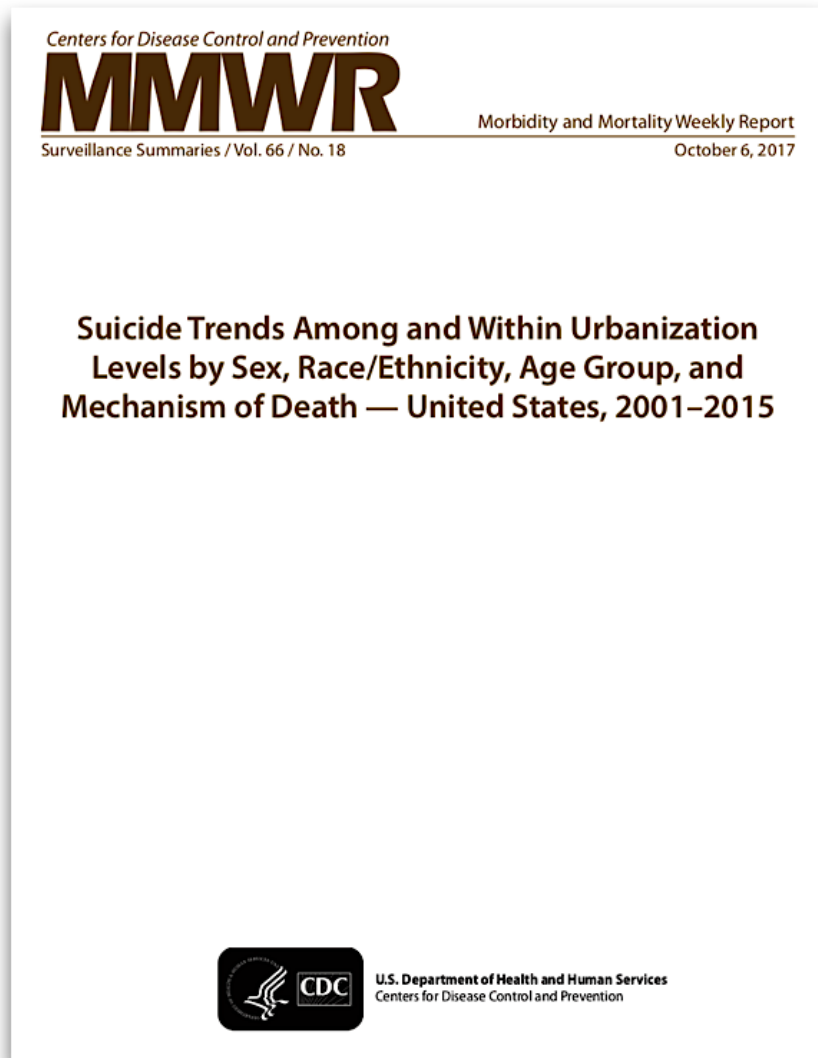
<https://www.cdc.gov/publichealthgateway/publichealthservices/essentialhealthservices.html>

Public Health Model and CDC's Activities



Surveillance (data)

Morbidity and Mortality Weekly Reports (*MMWR*)



- Rural Health Series (2017)
- <https://www.cdc.gov/mmwr/index.html>
- Search by topic (new feature)

Data Briefs from the National Center for Health Statistics (NCHS)

NCHS Data Brief ■ No. 311 ■ June 2018

Mental Health-related Physician Office Visits by Adults Aged 18 and Over: United States, 2012–2014

Donald Cherry, M.S.; Michael Albert, M.D., M.P.H.; and Linda F. McCaig, M.P.H.

Key findings

Data from the National Ambulatory Medical Care Survey

- Among adults aged 18 and over, the rate of mental health-related physician office visits to psychiatrists (693 per 10,000 adults) was higher compared with the rate to primary care physicians overall (397 per 10,000 adults), and for all age groups except 65 and over.

- For both men and women, the rate of mental health-related office visits to psychiatrists was higher compared with visits to primary care physicians.

- The percentage of mental health-related office visits to psychiatrists compared with primary care physicians was lower in rural areas, but higher in large metropolitan areas.

- For all primary expected sources of payment except Medicare, a higher percentage of mental health-related office visits were to psychiatrists rather than to primary care physicians.

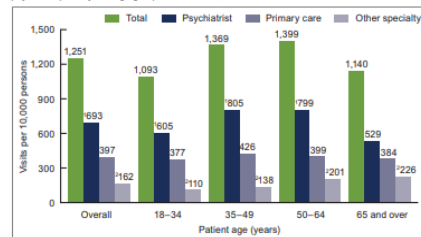
In 2016, mental illness affected about 45 million U.S. adults (1). Although mental health-related office visits are often made to psychiatrists (2), primary care physicians can serve as the main source of treatment for patients with mental health issues (3); however, availability of provider type may vary by geographic region (3,4). This report uses data from the 2012–2014 National Ambulatory Medical Care Survey (NAMCS) to examine adult mental health-related physician office visits by specialty and selected patient characteristics.

Keywords: mental illness • psychiatrist • primary care • NAMCS

Did mental health-related physician office visit rates vary by physician specialty and patient age?

- Mental health-related visit rates by physician specialty were 693 per 10,000 adults for psychiatrists, 397 per 10,000 adults for primary care physicians, and 162 per 10,000 adults for other specialties (Figure 1).

Figure 1. Mental health-related physician office visit rates for adults aged 18 and over, by physician specialty and age group: United States, 2012–2014



*Significantly different ($p < 0.05$) from primary care physician visits, based on a two-tailed t test.
 †Significantly different ($p < 0.05$) from primary care physician and psychiatrist visits, based on a two-tailed t test.
 NOTES: Data are based on 5-year averages. Visits are based on July 1, 2012–2014 sets of estimates of the civilian noninstitutionalized population developed by the U.S. Census Bureau, Population Division. Access data table for Figure 1 at: https://www.cdc.gov/nchs/data/tables/nchs311_table.pdf#1.
 SOURCE: NCHS, National Ambulatory Medical Care Survey, 2012–2014.



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention
National Center for Health Statistics



NCHS Data Brief ■ No. 323 ■ October 2018

Trends in Fertility and Mother's Age at First Birth Among Rural and Metropolitan Counties: United States, 2007–2017

Danielle M. Ely, Ph.D., and Brady E. Hamilton, Ph.D.

Key findings

Data from the National Vital Statistics System

- During 2007–2017, total fertility rates in the United States fell for rural and metropolitan counties: 12% in rural, 16% in small or medium metro, and 18% in large metro counties.

- Rural counties had higher total fertility rates for each year from 2007 through 2017 compared with small or medium and large metro counties.

- During 2007–2017, the mean age of mothers at first birth rose by 1.3 (rural), 1.5 (small or medium metro), and 1.8 years (large metro).

- For all years, the mean age of mothers at first birth was lower in rural counties compared with metro counties.

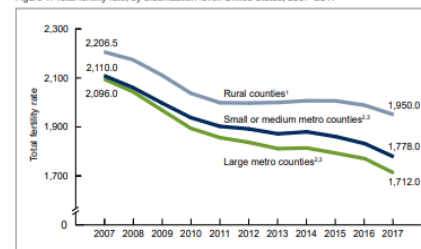
- Downward trends in total fertility rates and increases in mean maternal age over time occurred in rural and metro counties for each selected race and Hispanic-origin group.

Since the most recent peak in the total fertility rate (the estimated number of lifetime births expected per 1,000 women) in 2007, the United States has experienced a decreasing total fertility rate and an increasing mean, or average, age of mothers at first birth (1–4). Previous research shows rural areas have persistently higher fertility and worse birth outcomes compared with metropolitan (metro) areas (2,5–8). This report describes trends and differences in total fertility rates and mean maternal age at first birth overall, and by race and Hispanic origin, between rural and small or medium metro, and rural and large metro counties, from 2007 through 2017.

Keywords: race and Hispanic origin • National Vital Statistics System

From 2007 through 2017, total fertility rates declined for each urbanization level, but differences between rural and metro counties widened.

Figure 1. Total fertility rate, by urbanization level: United States, 2007–2017



¹Significant decreasing trend for 2007–2011 ($p < 0.05$); stable trend for 2011–2017.
²Significant decreasing trend for 2007–2017 ($p < 0.05$).
³Significant difference in rate compared with rural counties for all years ($p < 0.05$).
 NOTES: Total fertility rate is based on births per 1,000 women in a specified area. County designation is based on mother's county of residence. County classification is based on the 2008 and 2013 NCHS Urban–Rural Classification Scheme for Counties. Access data table for Figure 1 at: https://www.cdc.gov/nchs/data/tables/nchs323_table.pdf#1.
 SOURCE: NCHS, National Vital Statistics System, 2007–2017.



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention
National Center for Health Statistics



NCHS Data Brief ■ No. 330 ■ November 2018

Suicide Mortality in the United States, 1999–2017

Holly Hedegaard, M.D., Sally C. Curtin, M.A., and Margaret Warner, Ph.D.

Key findings

Data from the National Vital Statistics System, Mortality

- From 1999 through 2017, the age-adjusted suicide rate increased 33% from 10.5 to 14.0 per 100,000.

- Suicide rates were significantly higher in 2017 compared with 1999 among females aged 10–14 (1.7 and 0.5, respectively), 15–24 (5.8 and 3.0), 25–44 (7.8 and 5.5), 45–64 (9.7 and 6.0), and 65–74 (6.2 and 4.1).

- Suicide rates were significantly higher in 2017 compared with 1999 among males aged 10–14 (3.3 and 1.9, respectively), 15–24 (22.7 and 16.8), 25–44 (27.5 and 21.6), 45–64 (30.1 and 20.8) and 65–74 (26.2 and 24.7).

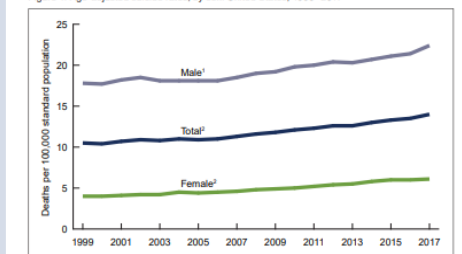
- In 2017, the age-adjusted suicide rate for the most rural (noncore) counties was 1.8 times the rate for the most urban (large central metro) counties (20.0 and 11.1 per 100,000, respectively).

Since 2008, suicide has ranked as the 10th leading cause of death for all ages in the United States (1). In 2016, suicide became the second leading cause of death for ages 10–34 and the fourth leading cause for ages 35–54 (1). Although the Healthy People 2020 target is to reduce suicide rates to 10.2 per 100,000 by 2020 (2), suicide rates have steadily increased in recent years (3,4). This data brief uses final mortality data from the National Vital Statistics System (NVSS) to update trends in suicide mortality from 1999 through 2017 and to describe differences by sex, age group, and urbanization level of the decedent's county of residence.

From 1999 through 2017, suicide rates increased for both males and females, with greater annual percentage increases occurring after 2006.

- From 1999 through 2017, the age-adjusted suicide rate increased 33% from 10.5 per 100,000 standard population to 14.0 (Figure 1). The rate

Figure 1. Age-adjusted suicide rates, by sex: United States, 1999–2017



¹Stable trend from 1999 through 2006; significant increasing trend from 2006 through 2017, $p < 0.001$.
²Significant increasing trend from 1999 through 2017 with different rates of change over time, $p < 0.001$.
 NOTES: Suicides are identified using International Classification of Diseases, Tenth Revision underlying cause of death codes U03, U04, U05, and U07.5. Age-adjusted death rates were calculated using the direct method and the 2000 U.S. standard population. Access data table for Figure 1 at: https://www.cdc.gov/nchs/data/tables/nchs330_table.pdf#1.
 SOURCE: NCHS, National Vital Statistics System, Mortality.



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention
National Center for Health Statistics



NCHS Data Visualization Gallery

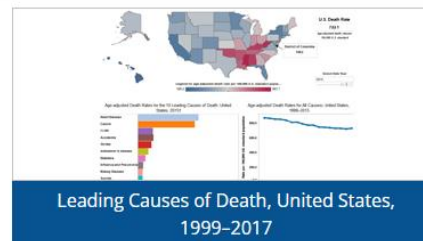
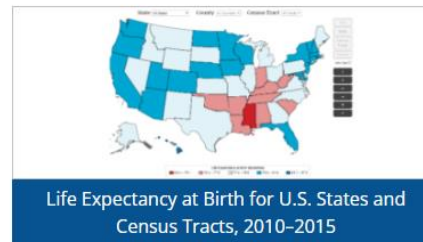
[Español](#) | [Other Languages](#)



National Center for Health Statistics



Mortality Data Dashboards

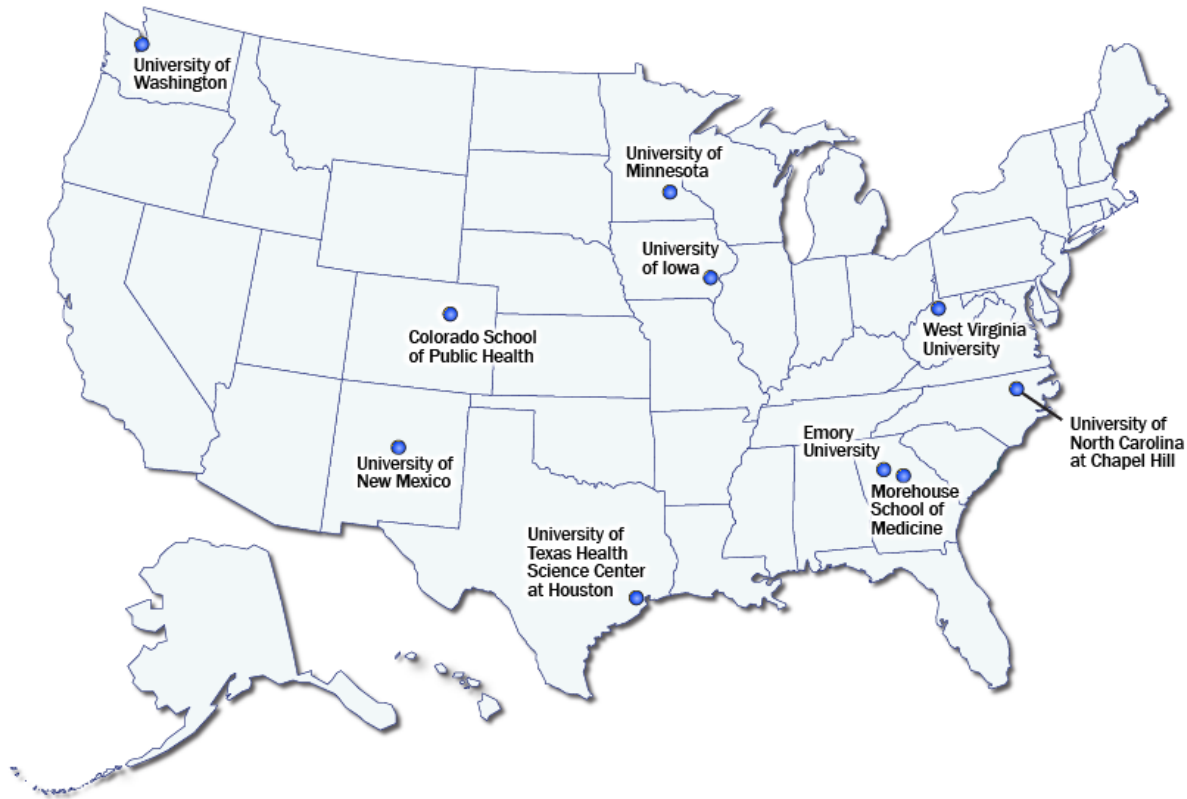


<https://www.cdc.gov/nchs/data-visualization/index.htm>

Research

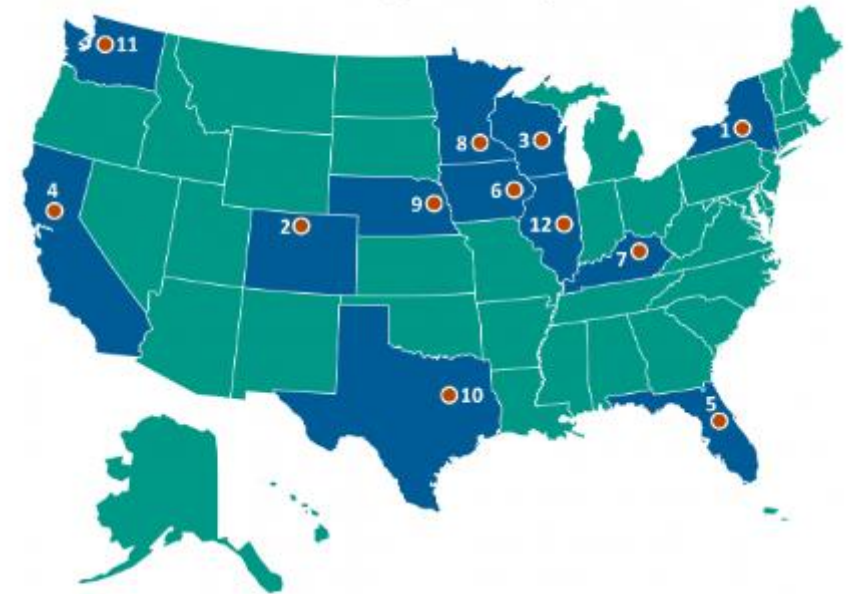
CDC Research Centers

2019 - 2024 Prevention Research Centers Conducting Core Research in Rural Communities



<https://www.cdc.gov/prc/research-in-action/issue-briefs/rural-health.html>

NIOSH Centers for Agricultural Safety and Health

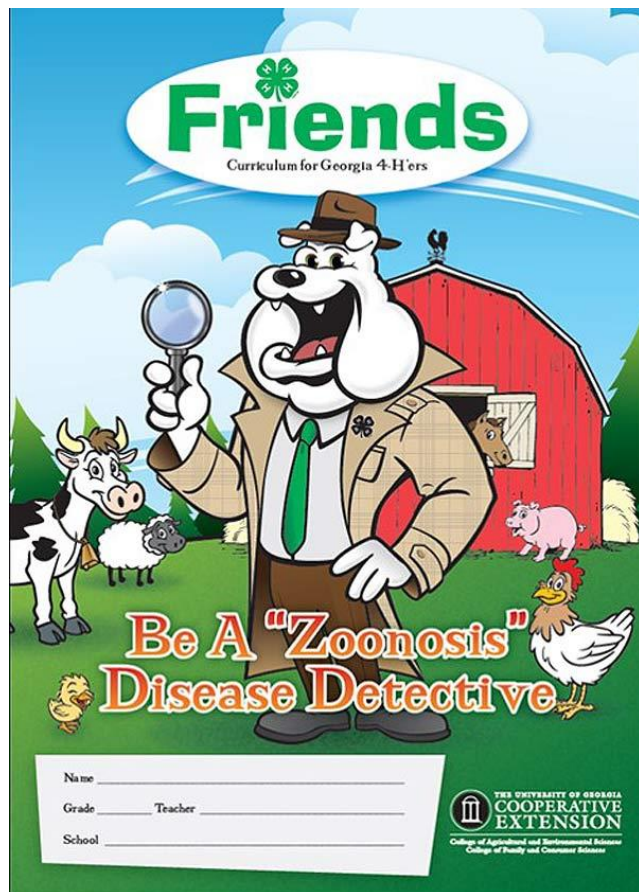


1. Northeast Center for Occupational Health and Safety (Bassett Healthcare Network)
2. High Plains Intermountain Center for Agricultural Health and Safety (Colorado State University)
3. National Children's Center for Rural and Agricultural Health and Safety (National Farm Medicine Center)
4. Western Center for Agricultural Health and Safety (University of California, Davis)
5. Southeastern Coastal Center for Agricultural Health and Safety (University of Florida)
6. Great Plains Center for Agricultural Health (University of Iowa)
7. Southeast Center for Agricultural Health and Injury Prevention (University of Kentucky)
8. Upper Midwest Agricultural Safety and Health Center (University of Minnesota)
9. Central States Center for Agricultural Safety and Health (University of Nebraska Medical Center)
10. Southwest Center for Agricultural Health, Injury Prevention and Education (University of Texas Health Science Center at Houston)
11. Pacific Northwest Agricultural Safety and Health Center (University of Washington)
12. Great Lakes Center for Farmworker Health and Well-being (University of Illinois Chicago)

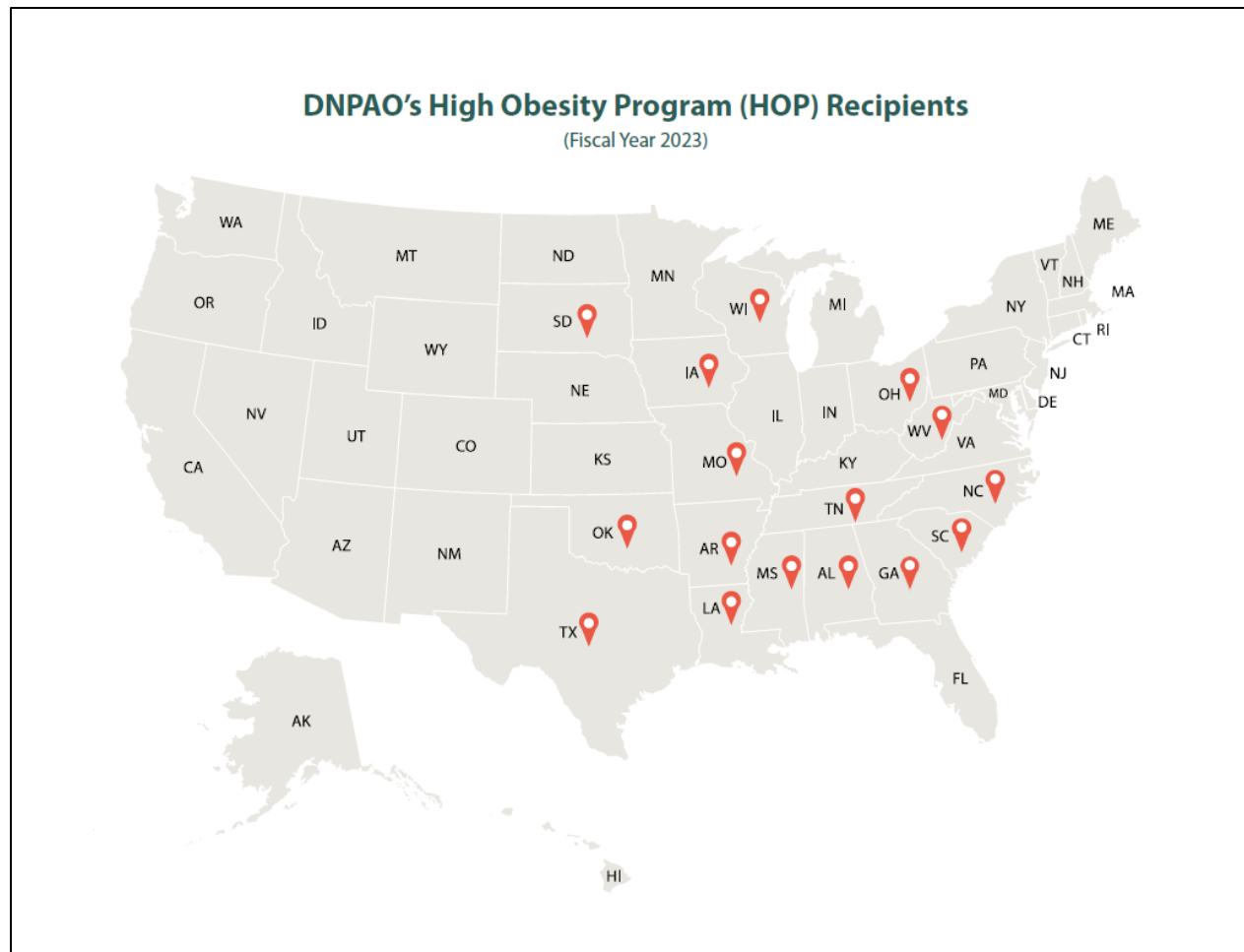
<https://www.cdc.gov/niosh/oep/agctrhom.html>

Program

CDC Programs: Putting What Works into Action



Influenza and Zoonoses Education among Youth in Agriculture program ("Youth in Ag")
<https://www.cdc.gov/flu/swineflu/youth-agriculture-education-program.htm>



High Obesity Program
<https://www.cdc.gov/nccdphp/dnpao/state-local-programs/hop/high-obesity-program-1809.html>

Communications

CDC Communications: Getting the Word Out

[Español](#) | [Other Languages](#)

 Centers for Disease Control and Prevention
CDC 24/7: Saving Lives, Protecting People™

Search

Rural Health

CDC



[Print](#)

Drug Overdose in Rural America



Drug overdoses are the leading cause of injury death in the United States, resulting in approximately 52,000 deaths in 2015.

Suicide in Rural America



In the United States, suicide was responsible for nearly 46,000 deaths in 2020, which is approximately one suicide every 11 minutes.

Leading Causes of Death in Rural America



Rural Americans are at greater risk of death from 5 leading causes than urban Americans.

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

Partnerships

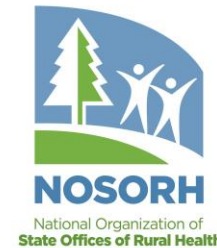
Partnerships: We Can Do More Together

Federal Government

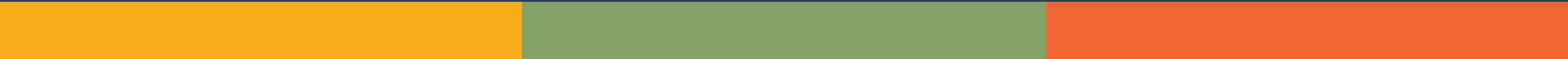
Public Health

Population-specific

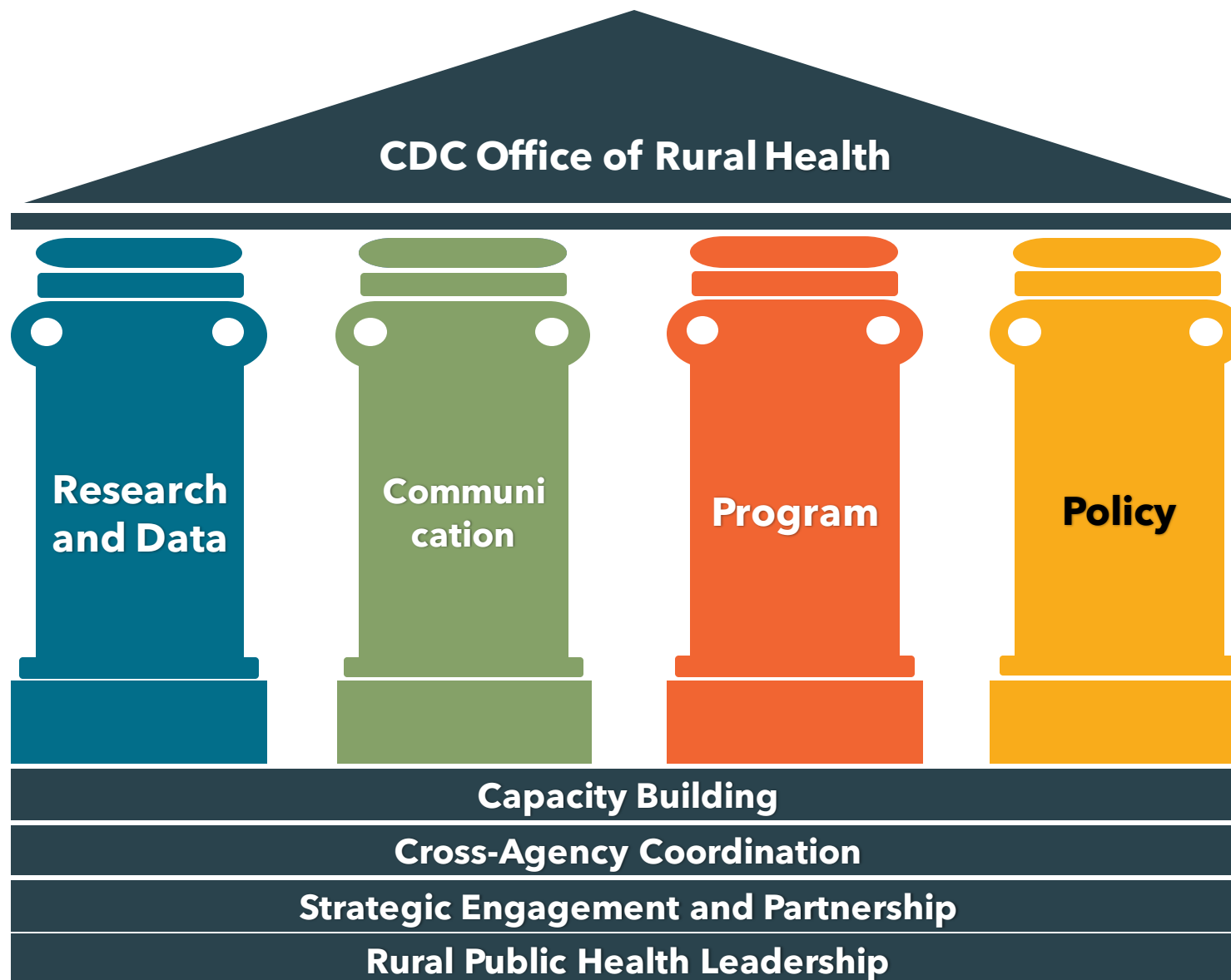
National Organizations



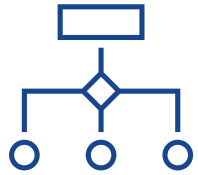
CDC Office of Rural Health



CDC Office of Rural Health



Rural Health Year One



Establish new office



Develop CDC's rural strategic plan



Engage with key CDC programs

Principles



Office of Rural Health Principles

Focus on
Strengths

Champion the
Work

Disseminate
Best Practices

Collaborate
with Partners

Examine
Variability

Integrate Rural
Health Across
CDC Programs

Principles in Action: Examples

Focus on Strengths: COVID-19 Vaccination Success Stories in Rural Communities

- Counties with COVID-19 vaccination rates higher than state
- Qualitative study
 - Factors influencing vaccine confidence
 - Analysis of social media data
 - Case studies in six rural communities
- <https://www.norc.org/research/projects/covid-19-vaccination-success-stories-in-rural-communities.html>



Champion the Work: CDC Rural Health Success Stories



The Community Guide in ACTION

Black Corals: A Gem of a Cancer Screening in South Carolina



Myra Pinckney, RN
Case Manager/Outreach
Coordinator, St. James-Santee
Family Health Center, Inc.

More Information
St. James-Santee Family Health Center
www.stjames-santee.com
The Community Guide: CPSTF Recommendations on Cancer Prevention and Control
www.thecommunityguide.org/topic/cancer
Division of Cancer Prevention and Control, CDC
www.cdc.gov/cancer



In rural South Carolina, where many African American women have limited access to lifesaving medical screenings, the risk of cancer-related death is a complex public health problem. After being introduced to The Guide to Community Preventive Services (The Community Guide), one community health center in the state confronted this challenge head-on. Using a combination of the Community Preventive Services Task Force's (CPSTF) recommended clinic and community-based interventions, the St. James-Santee Family Health Center launched Black Corals, a program to increase breast and cervical cancer screenings and help local women take charge of their health.

Cancer Screenings Increase the Likelihood for Survival
Aside from skin cancer, breast and gynecological cancers are a few of the most common cancers among American women.¹ Rates of cervical cancer have declined in recent years, but it still remains a leading cause of death.² These cancers are highly treatable when found early, but diagnosis and treatment in African American women is often at later stages leading to higher death rates.^{3,4}
These health disparities are evident among residents in South Carolina. African American women in the state are nearly 40 percent more likely to die of breast cancer, and are over three times as likely to die from cervical cancer as Caucasian women.⁵ South Carolina also has one of the highest rates of uninsured women in the nation, likely leading to limited access to healthcare for early diagnosis and treatment of breast and cervical cancers.⁶

Community Health Center Builds a Comprehensive Screening Program
To encourage cancer screening and help at-risk women take charge of their health, St. James-Santee Family Health Center secured a grant from the Southeastern U.S. Collaborative Center of Excellence for Eliminating Health Disparities, a partnership headed by the Morehouse School of Medicine Prevention Research Center. The funds were used to implement a health education program that promotes free mammograms and Pap tests for African American women in three South Carolina counties.

To meet the requirements of the grant, the St. James-Santee team consulted the findings and recommendations in The Community Guide. "We were unaware of The Community Guide, but using it helped us select effective, empirically-based interventions without wasting time and resources on strategies that wouldn't work in our target population," says Myra Pinckney, RN, case manager and outreach coordinator at the health center. The program included the following cancer interventions from The Community Guide:

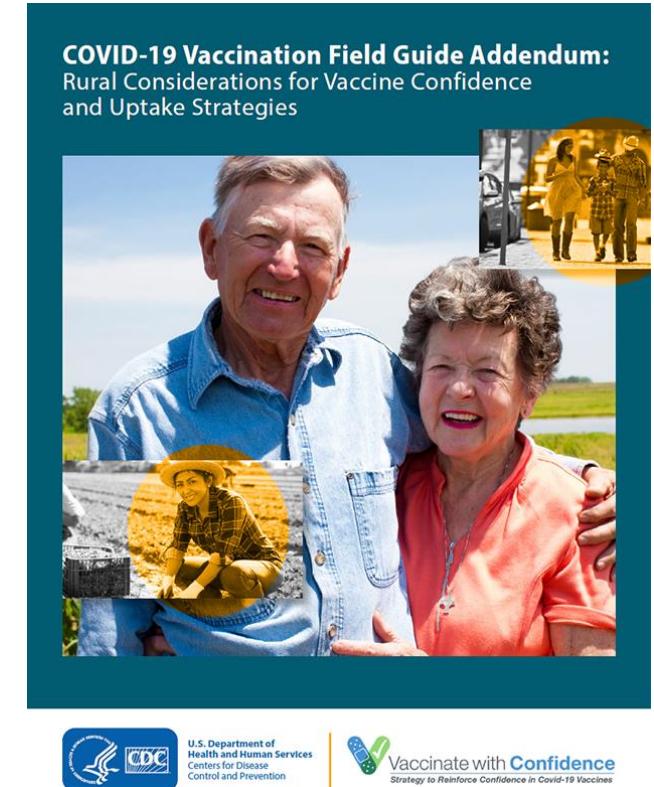
- Client reminders and incentives
- Group education*
- Reducing structural barriers*
- Reducing client out-of-pocket costs*
- Mass media*
- Small media
- Provider assessment and feedback
- Provider reminder and recall systems
- One-on-one education

*The Task Force issued "insufficient evidence" findings for group education, reducing structural barriers, and out-of-pocket costs (cervical cancer screening only), as well as mass media (breast and cervical cancer screening). This does not mean that these interventions do not work. It means that more research is needed for the Task Force to determine if they are effective. The Task Force encourages those who use interventions with insufficient evidence to evaluate their efforts.



Disseminate Best Practices: COVID-19 Vaccination Field Guide

- Strategies are drawn from historical (non-COVID-19) vaccination efforts
- Strategies are supported by positive outcomes from evaluation research
- Includes real-world applications
- Rural addendum



<https://www.cdc.gov/vaccines/covid-19/vaccinate-with-confidence/community.html>

Collaborate with Partners: COVID-19 Health Disparities in Rural Communities (CDC-RFA-OT21-2103)

- Training and technical assistance
 - <https://covid19healthequity.org/>
- Resources
 - <https://covidresources.nnphi.org/>
- Partners: ASTHO, NNPHI, PHAB
 - NACCHO, NOSORH

The screenshot shows the website covid19healthequity.org. The navigation bar includes links for Training, TA Resource Catalog, TA Resource Library, NEPS, Events, Bulletin Archive, and Contact. The main banner features a photo of two women smiling and looking at a laptop. Below the banner, there is a section titled "AT-A-GLANCE TRAINING HIGHLIGHTS" with the following bullet points:

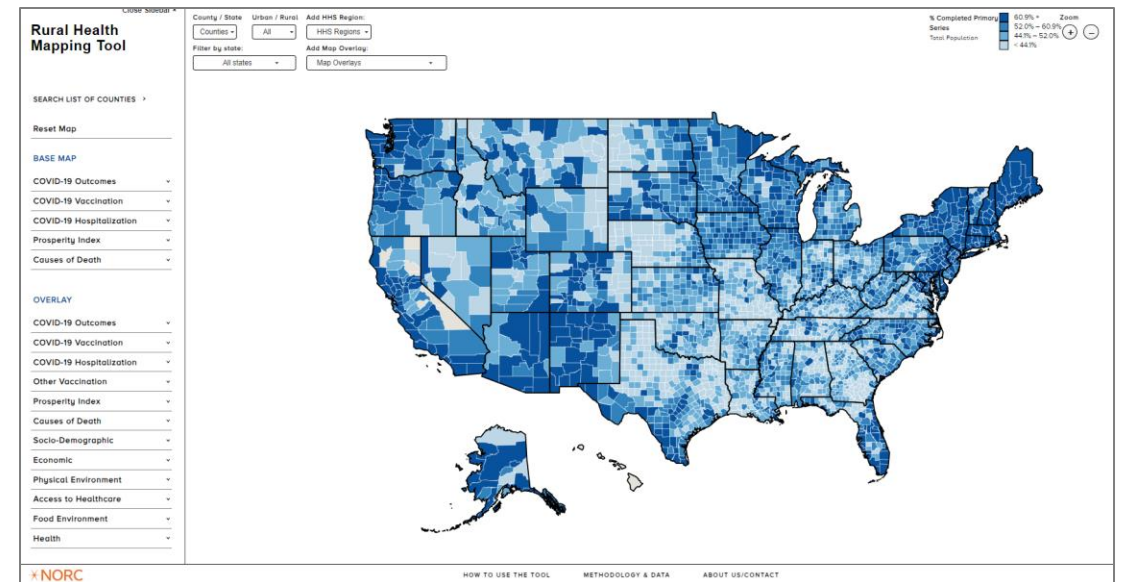
- Equitable policy change
- Workforce innovation
- Community engagement and power shifting
- Using data to address root causes

Below this is a "Featured Training" section with a video thumbnail titled "COVID-19 Health Equity Best Practices Project ECHO". At the bottom of the page, the text reads: "Knowledge, Narratives, and Numbers: Strategic Storytelling as a Foundation toward Transformation".

Resources

Resources

- Rural Emergency Preparedness and Response Toolkit
<https://www.ruralhealthinfo.org/toolkits/emergency-preparedness>
- Rural Health Mapping Tool
<https://ruralhealthmap.norc.org/>





CDC's PUBLIC HEALTH INFRASTRUCTURE CENTER

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.

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Social Determinants and Social Needs



Castrucci, B., & Auerbach, J. (Jan. 16, 2019). Meeting Individual Social Needs Falls Short Of Addressing Social DeterminantsOf Health. Health Affairs Blog. DOI: 10.1377/hblog20190115.234942