Improving Public Health Systems and COVID-19 Response Update

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Centers for Disease Control and Prevention

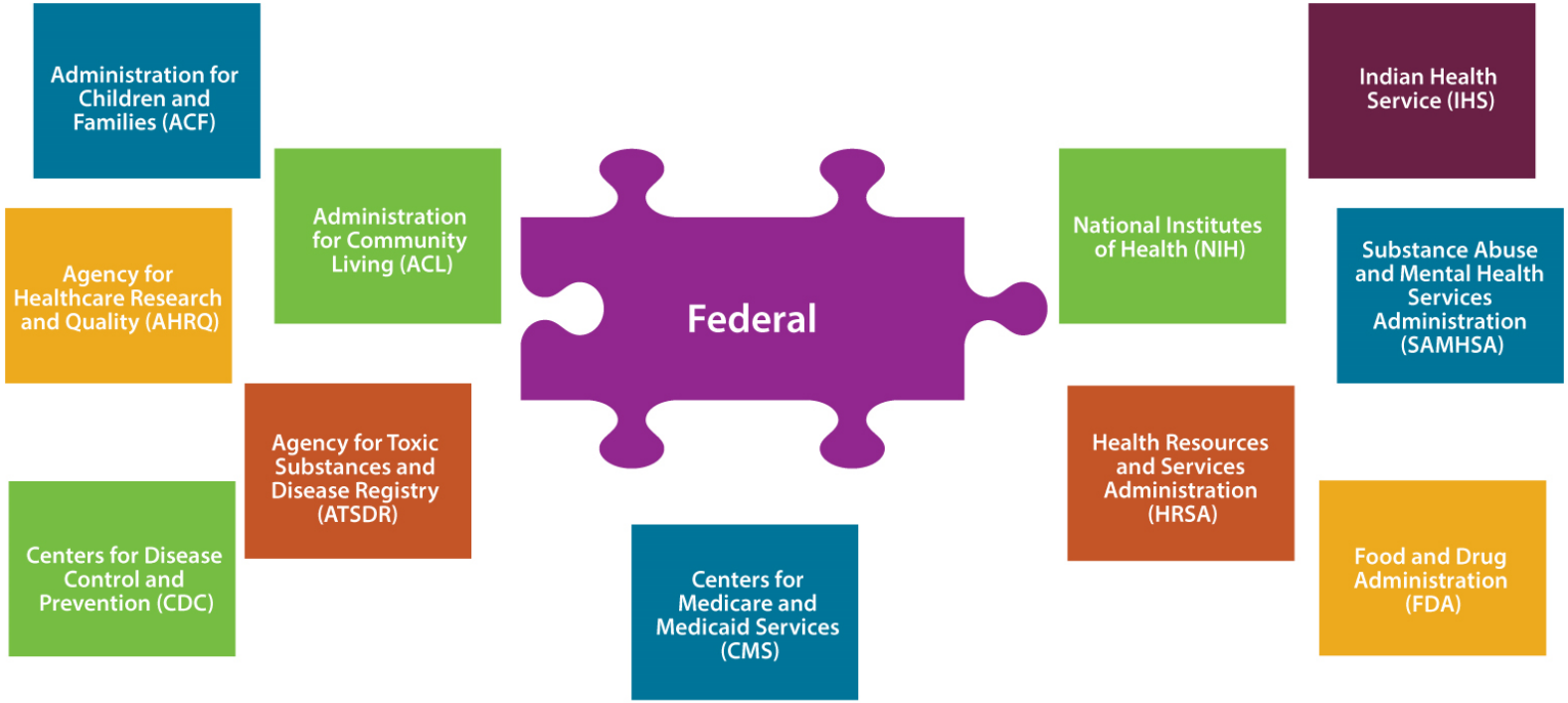
October 20, 2021

Overview

- Public Health System: What Structure Do We Have in the US?
- CDC Overview
- COVID-19 Response Update
- Key Health Equity Considerations
- Health Equity Strategy
- Public Health in the Immediate Future – Where Are We Going?
- CDC Resources

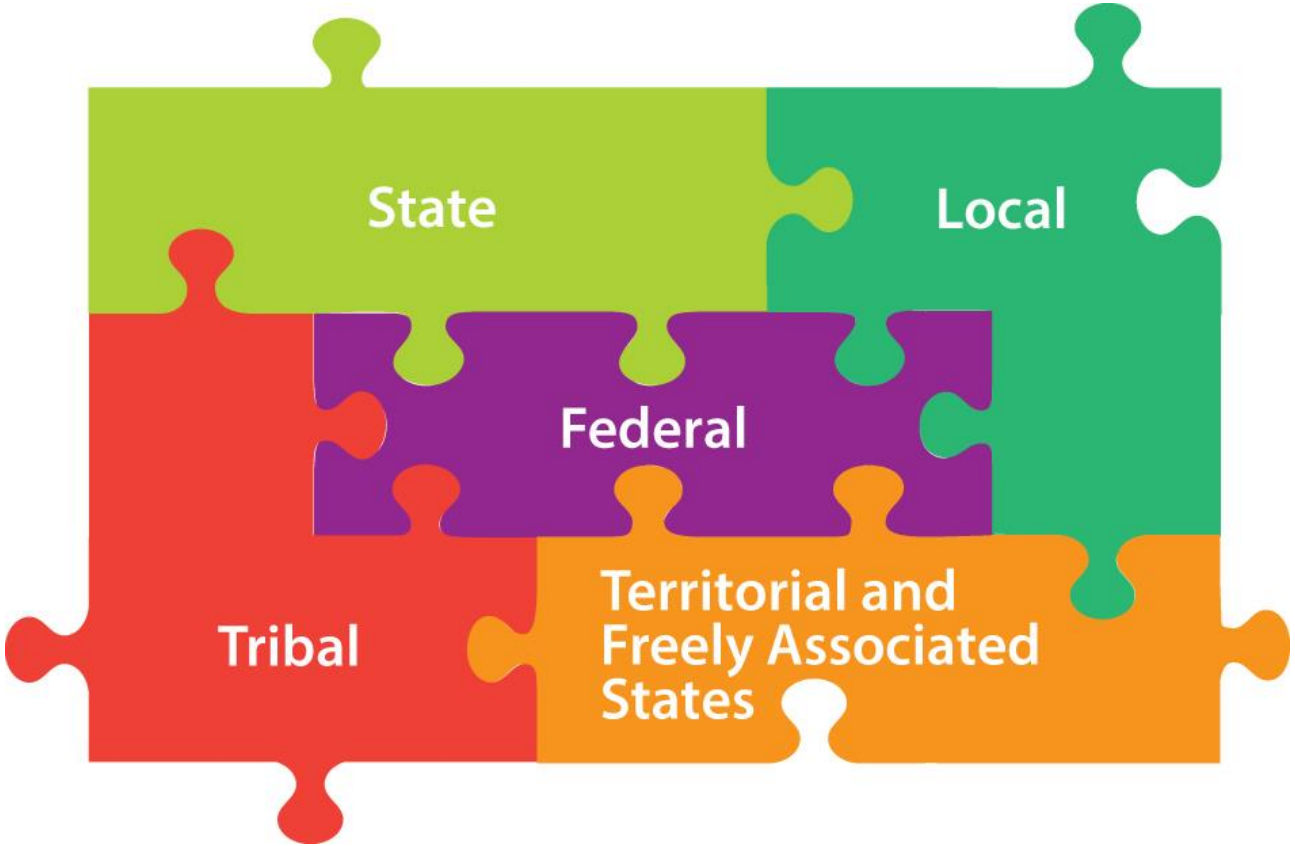
Public Health System:
What Structure Do We Have in the US?

HHS Operating Divisions

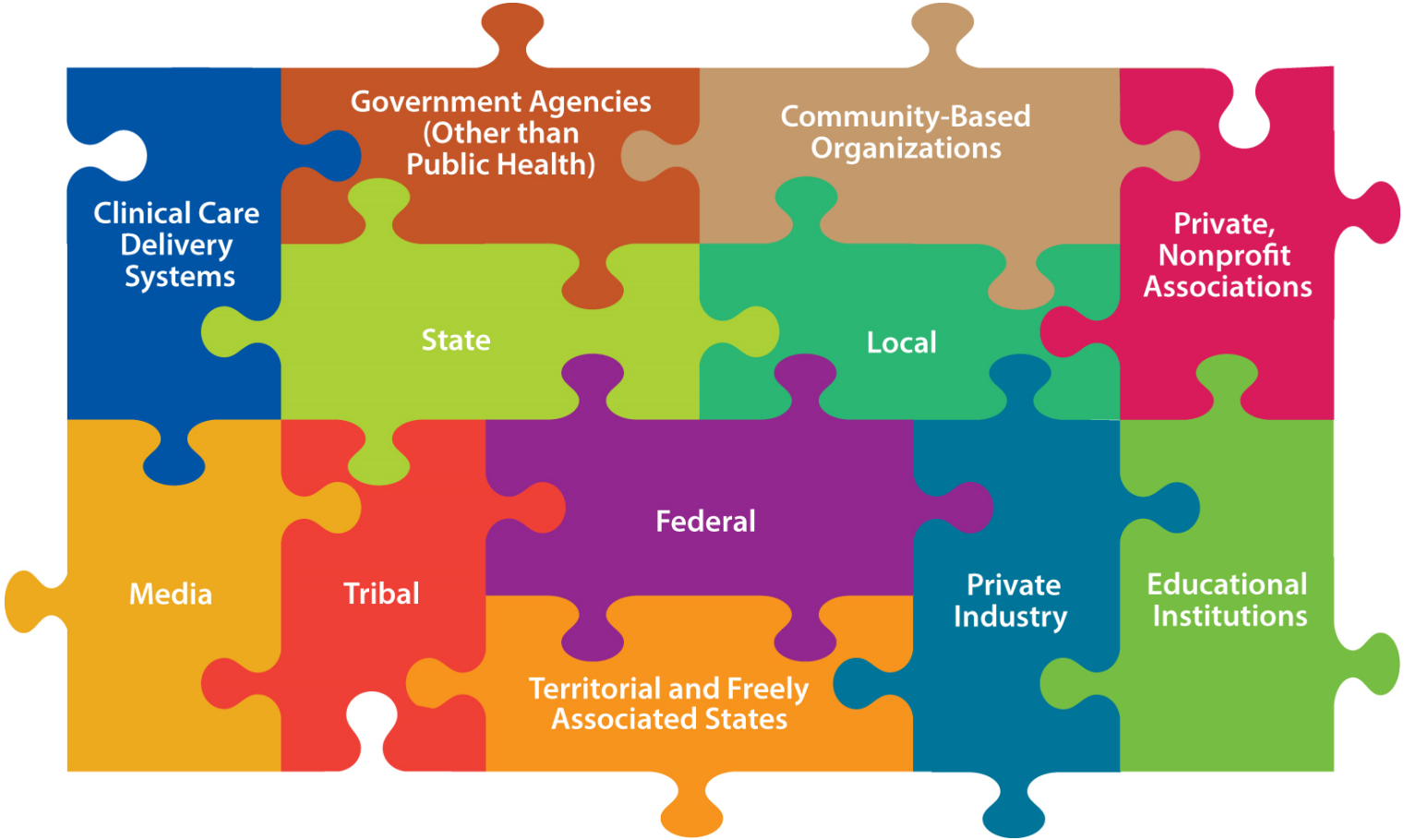


Governmental Public Health

Under the US Constitution, State and Local Health Departments retain the primary responsibility for health.

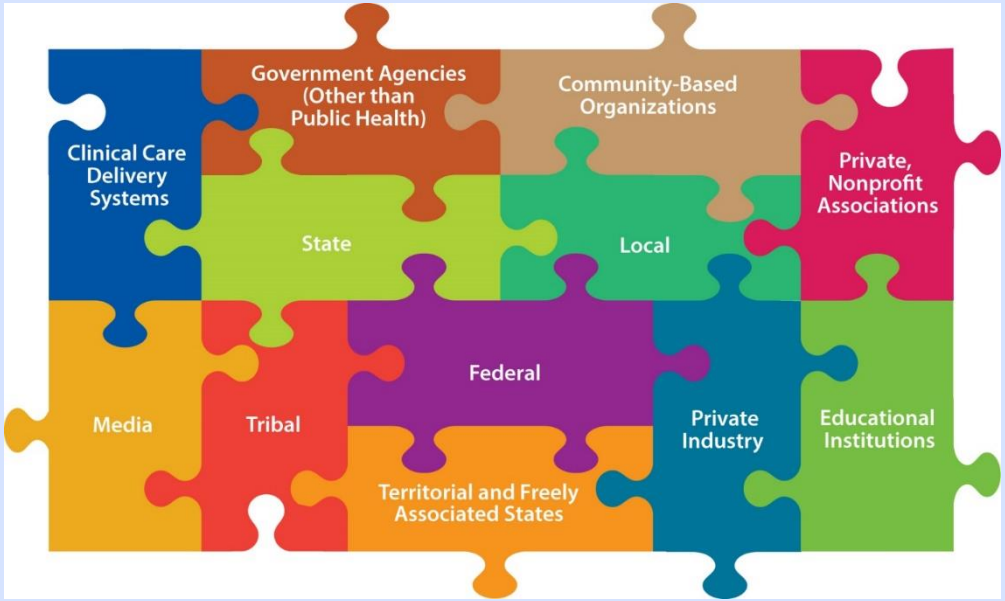


Institutional Components of the Public Health System in the US



Components of the Public Health System in the US

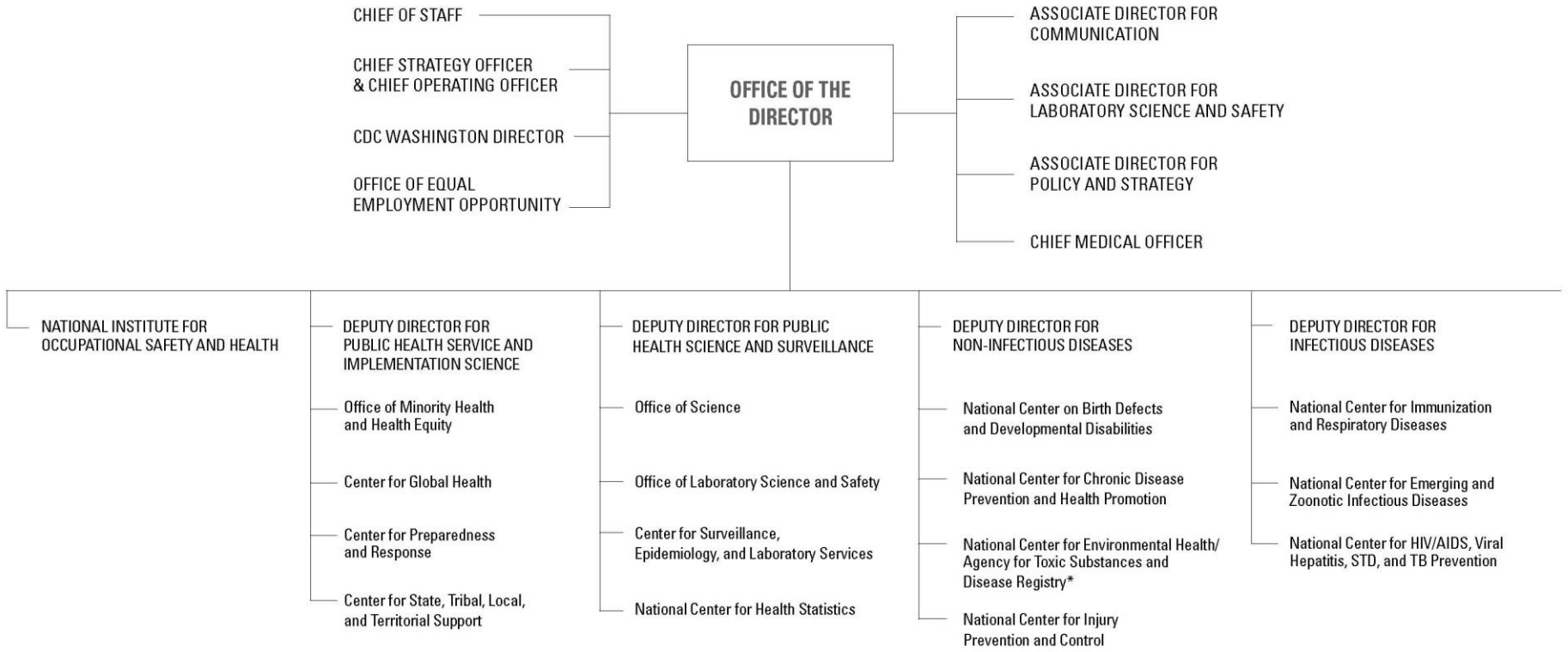
Individuals **Families** **Communities**



Societal Values **Culture**

CDC Overview

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



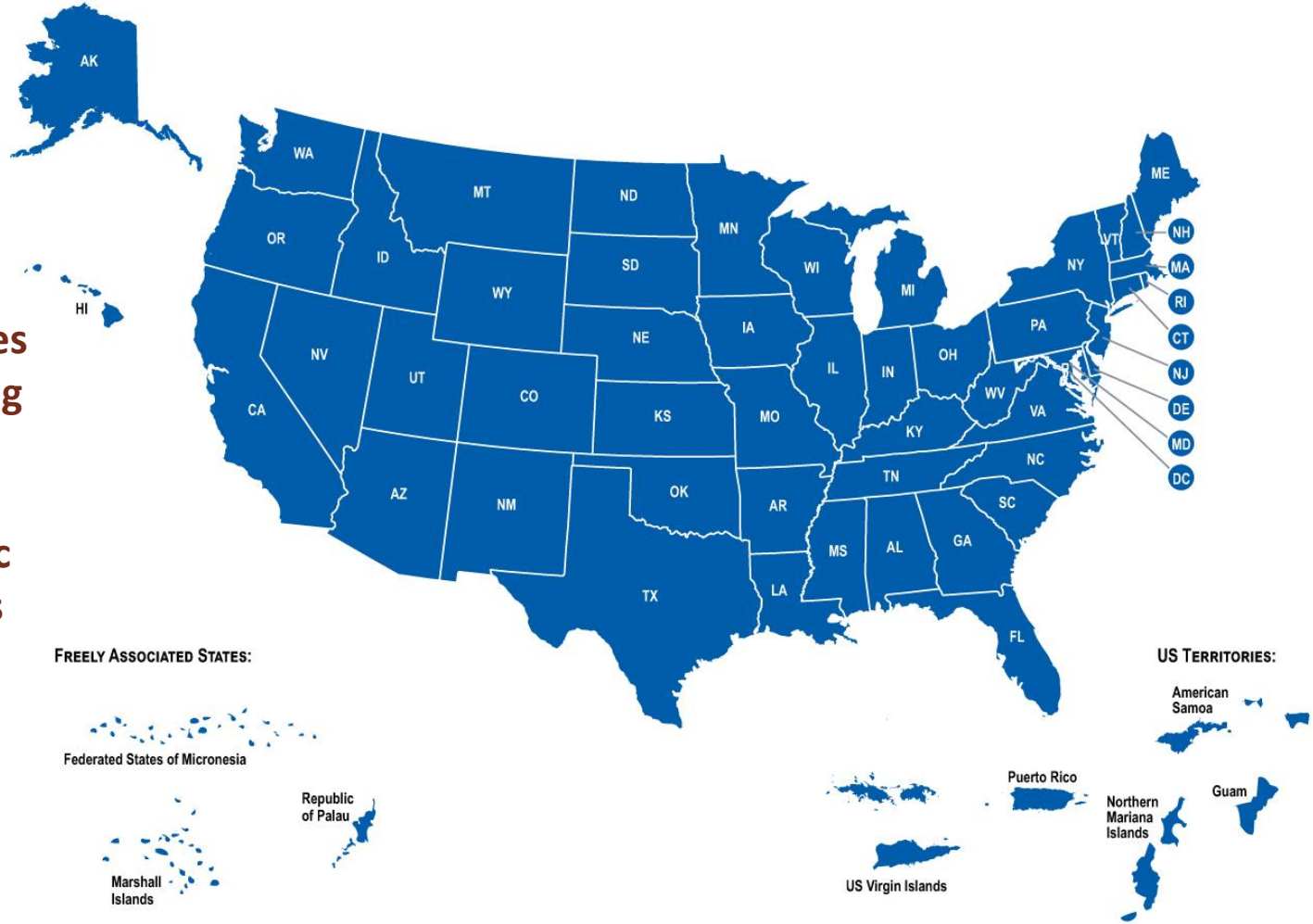
* ATSDR is an OPDIV within DHHS but is managed by a common director's office.

APPROVED 8/17/2018
EFFECTIVE 9/25/2018

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

CSTLTS Mission

- **Improving Community Health Outcomes by Strengthening State, Tribal, Local, and Territorial Public Health Agencies**



CSTLTS — What We Do

COVID-19 Response Update

COVID-19 Health Disparity Grant

CDC-RFA-OT21-2103: National Initiative to Address COVID-19 Health Disparities Among Populations at High-Risk and Underserved, Including Racial and Ethnic Minority Populations and Rural Communities.

- In March 2021, CDC and CSTLTS announced a plan to invest **$2.25 billion** over two years.
- This was to address COVID-19-related health disparities and advance health equity among populations that are at higher risk and underserved, including:
  - Racial and ethnic minority groups and
  - People living in rural areas
- The grant provides much needed support to directly address these issues in communities that need it most.
- CSTLTS awarded funding to **107 recipients**.

https://www.cdc.gov/publichealthgateway/partnerships/COVID-19-Health-Disparities-OT21-2103.html

COVID-19 Weekly Cases per 100,000 Population by Race/Ethnicity, United States

March 01, 2020 - October 16, 2021*

Jurisdiction

US

3/7/2020 10/16/2021

Cases

Sex

Age - All Groups

Pediatric Case Proportions

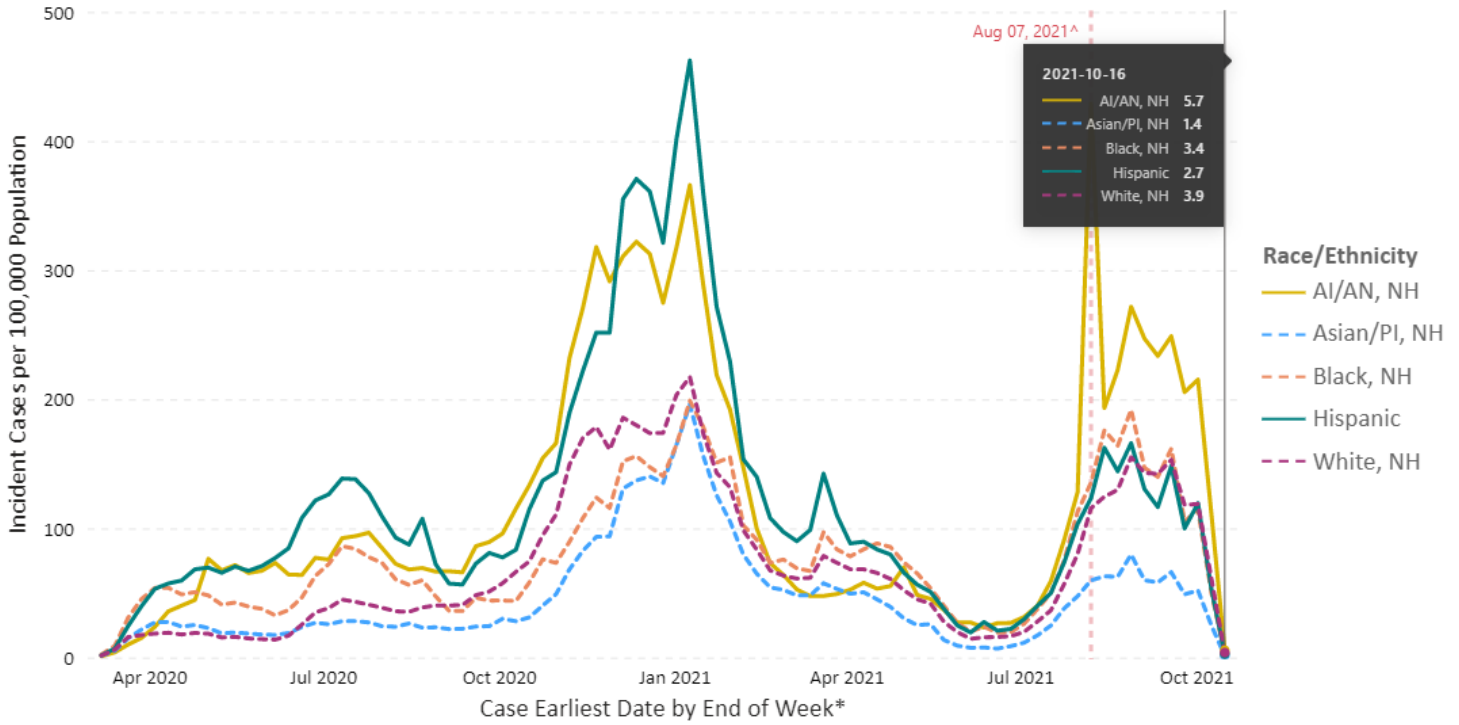
Race/Ethnicity

Deaths

Sex

Age - All Groups

Race/Ethnicity



US: The most recent line level case record was reported during the week ending on Oct 16, 2021. Percentage of cases reporting race by date - 61.84%.

US territories are included in case and death counts but not in population counts. Potential two-week delay in case reporting to CDC denoted by gray bars. AI = American Indian, AN = Alaska Native, NH = Non-Hispanic, PI = Pacific Islander. Excludes cases with unknown or multiple races. *Case Earliest Date is the earliest of the clinical date (related to illness or specimen collection and chosen by a defined hierarchy) and the Date Received by CDC. The date for the current week extends through Saturday.

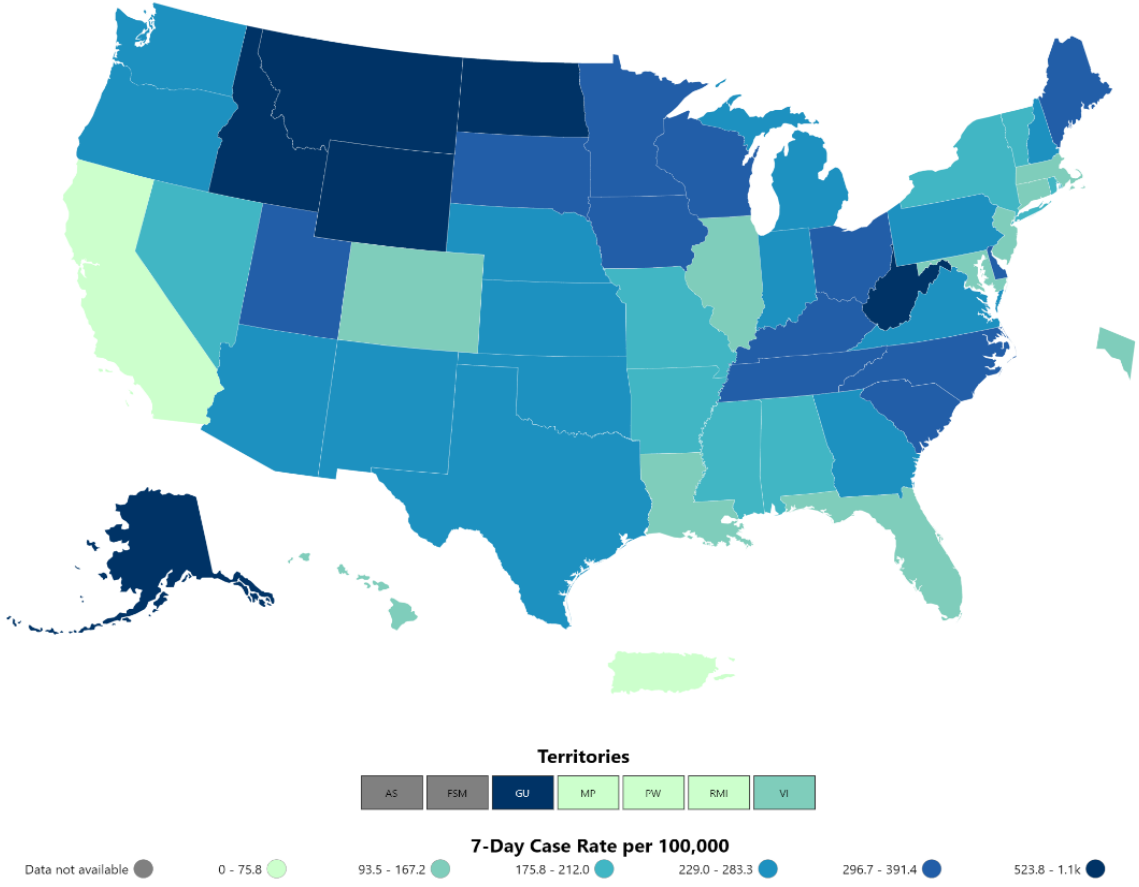
^Case rates during the week ending Aug 07, 2021 are reflective of a data reporting artifact from South Dakota. Surveillance data are provisional, and as additional clinical date data becomes available, the case rates over time are subject to change.

Last Updated: Oct 14, 2021

Source: CDC COVID-19 Case Line-Level Data, 2019 US Census, HHS Protect; Visualization: Data, Analytics & Visualization Task Force and CDC CPR DEO Situational Awareness Public Health Science Team

[CDC COVID Data Tracker](), 10/14/2021

US COVID-19 7-Day Case Rate per 100,000 by State/Territory



CDC COVID Data Tracker, 10/13/2021

Jurisdiction

US

3/7/2020 10/16/2021

Cases

Sex

Age - All Groups

Pediatric Case Proportions

Race/Ethnicity

Deaths

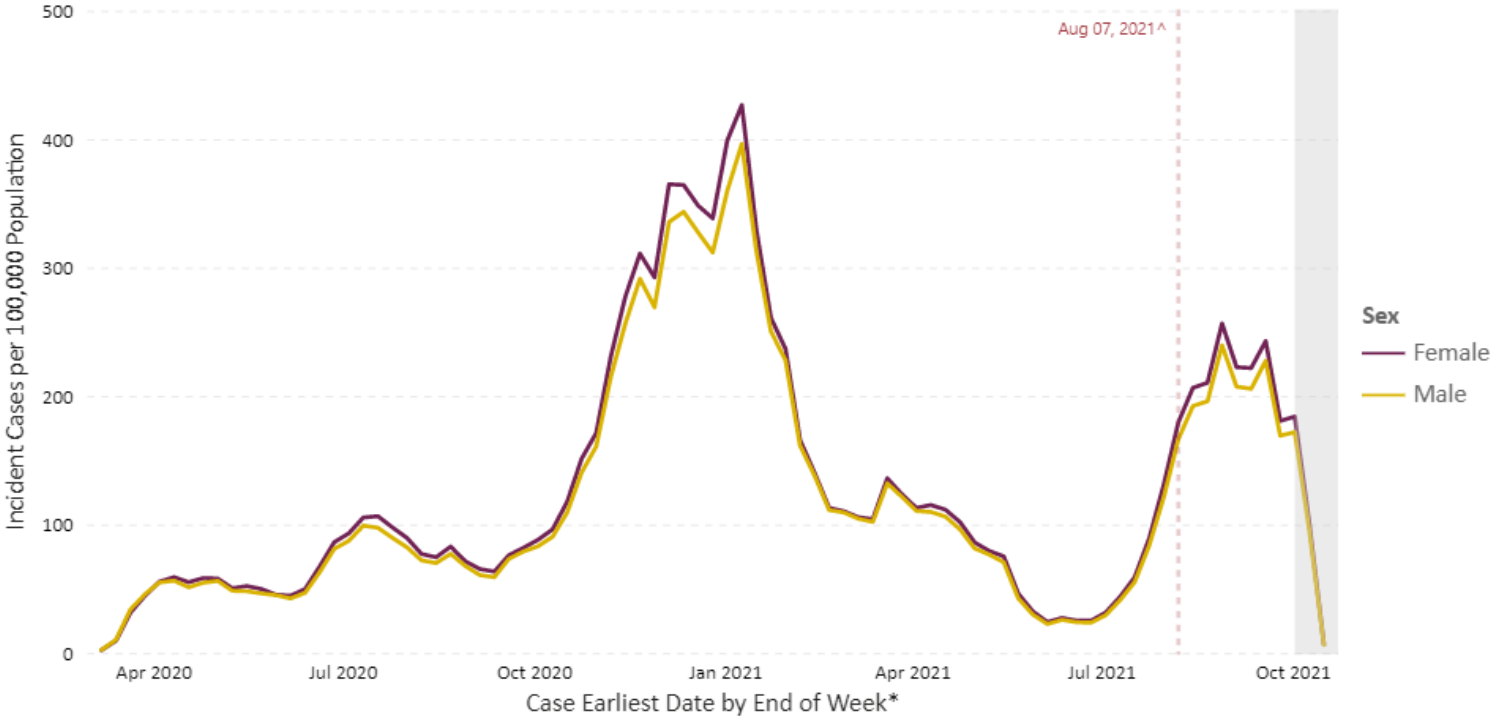
Sex

Age - All Groups

Race/Ethnicity

COVID-19 Weekly Cases per 100,000 Population by Sex, United States

March 01, 2020 - October 16, 2021*



US: The most recent line level case record was reported during the week ending on Oct 16, 2021. Percentage of cases reporting sex by date - 98.93%.

US territories are included in case and death counts but not in population counts. Potential two-week delay in case reporting to CDC denoted by gray bars.

*Case Earliest Date is the earliest of the clinical date (related to illness or specimen collection and chosen by a defined hierarchy) and the Date Received by CDC. The date for the current week extends through Saturday.

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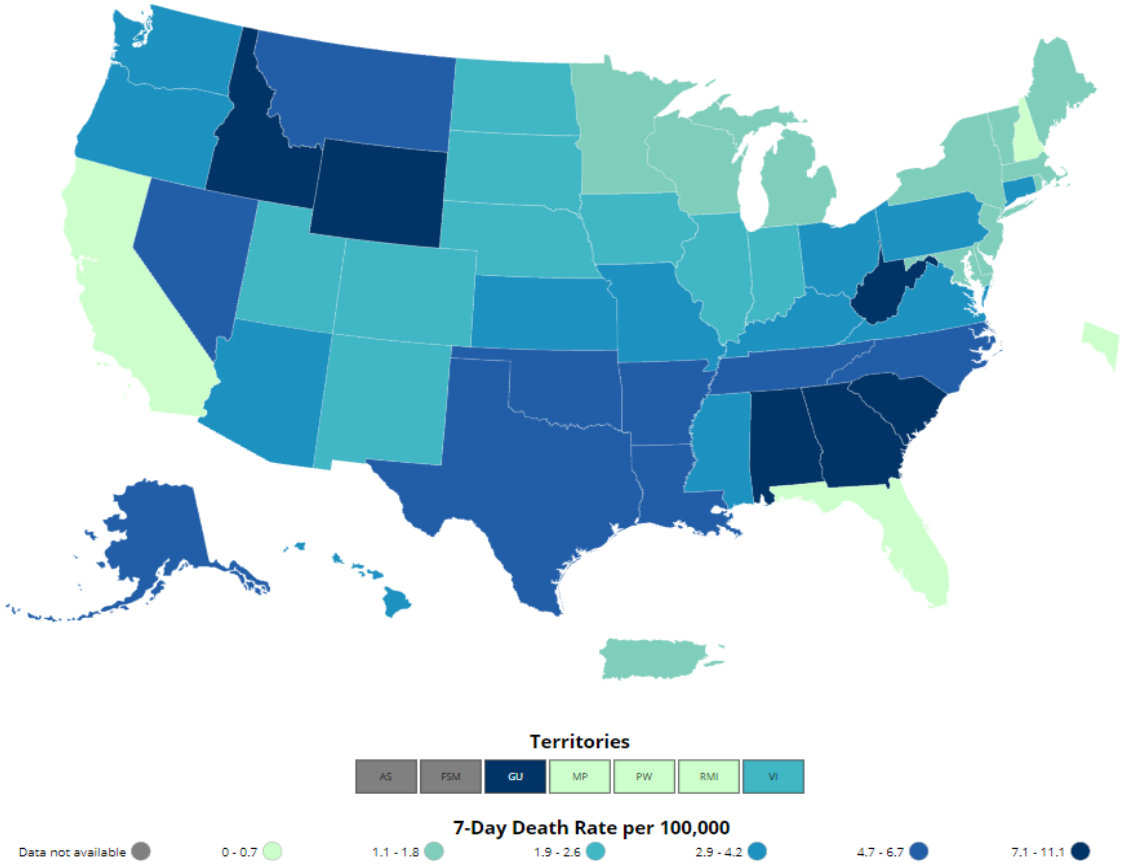
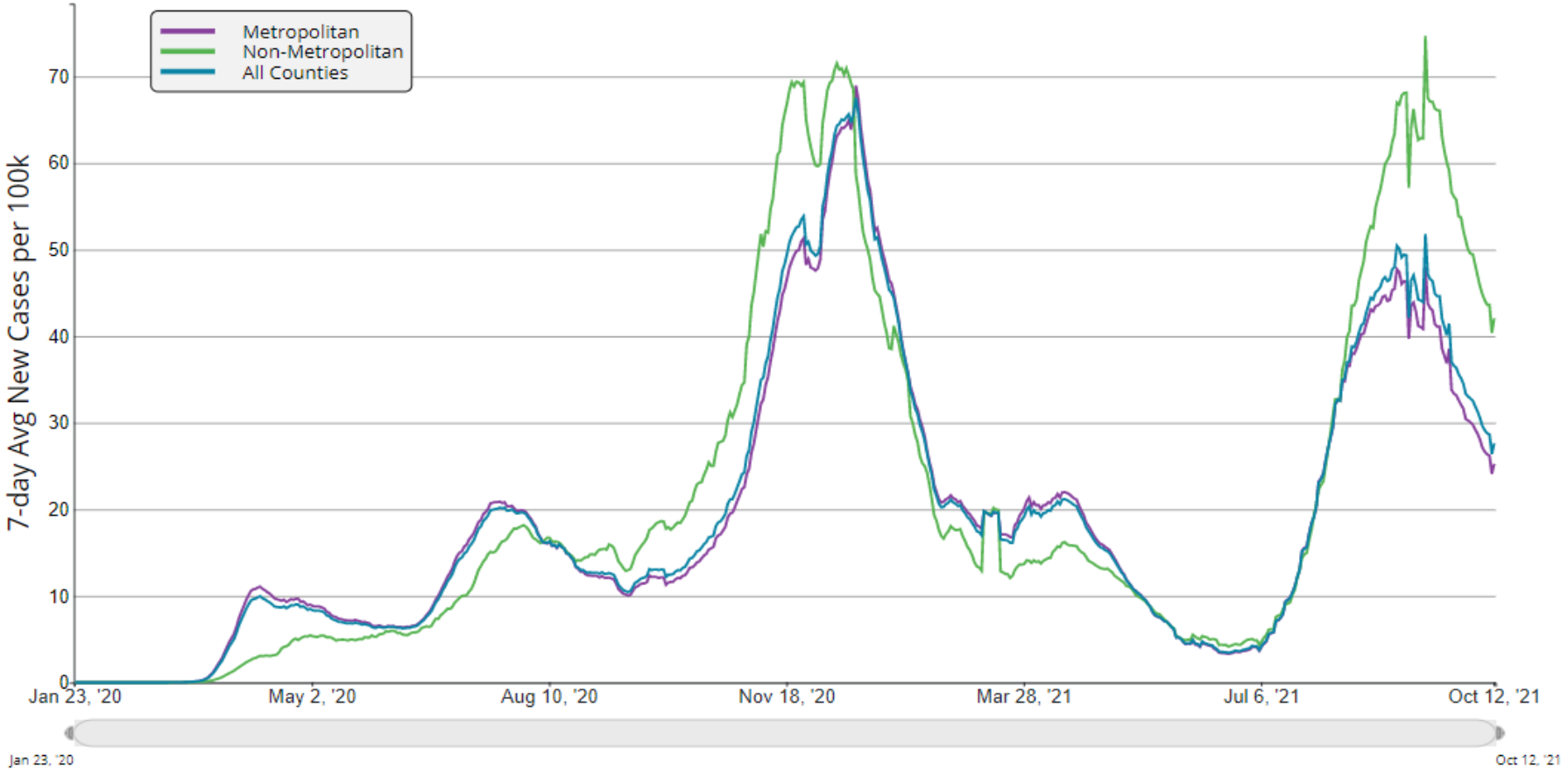
CDC COVID Data Tracker, 10/14/2021

US COVID-19 7-Day Death Rate per 100,000 by State/Territory



CDC COVID Data Tracker, 10/13/2021

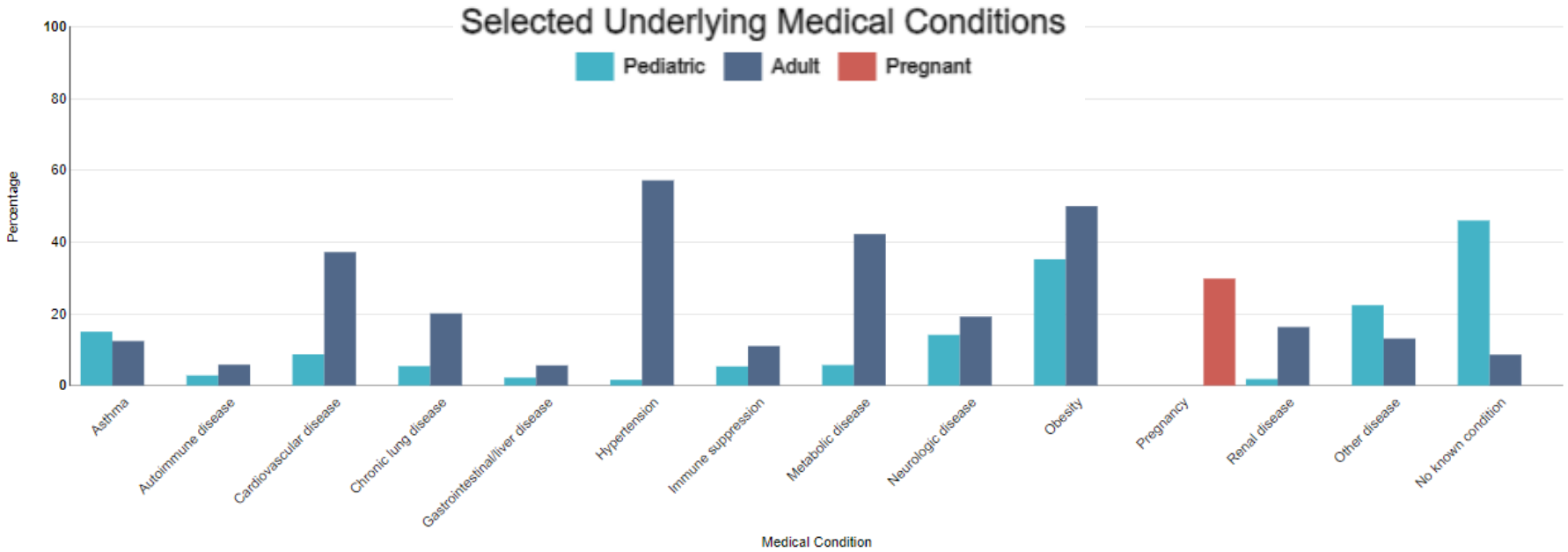
COVID-19 7-Day Case Rate per 100,000 Population in United States, by Metro vs. Non-Metro



CDC COVID Data Tracker, 10/12/2021

A Weekly Summary of US COVID-19 Hospitalization Data

Laboratory-Confirmed COVID-19-Associated Hospitalizations



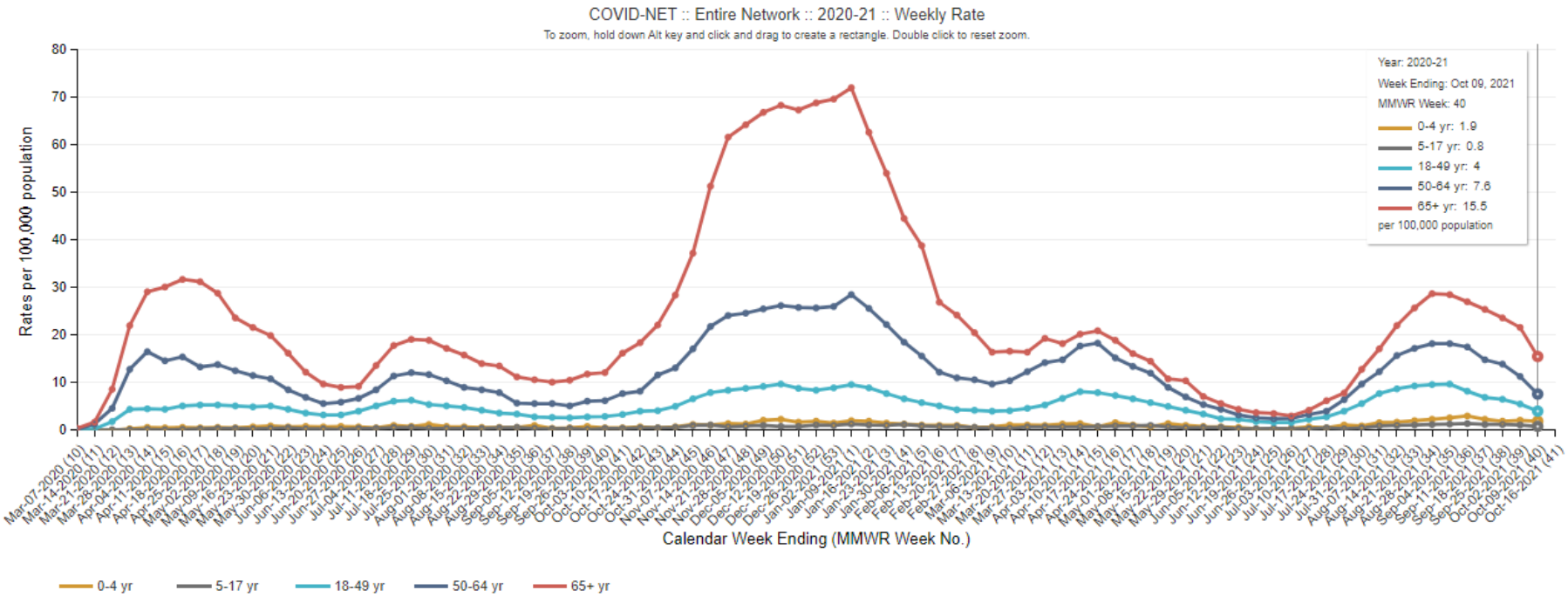
1. COVID-NET hospitalization data are preliminary and subject to change as more data become available. In particular, case counts and rates for recent hospital admissions are subject to delay. As data are received each week, prior case counts and rates are updated accordingly.
2. Data are restricted to cases reported during March 1, 2020 – August 31, 2021, due to delays in reporting. During this time frame, sampling was conducted among hospitalized adults aged ≥18 years; therefore, counts are not shown, and weighted percentages are reported. The denominator for percentages among adults includes sampled cases with data on these conditions. No sampling was conducted among hospitalized children; therefore, the denominator for percentages of underlying medical conditions among children includes all pediatric cases with data on these conditions. Underlying medical conditions among pregnant women are included when "Adults" and/or "Pediatrics" is selected.

CDC COVID Data Tracker, 8/31/2021

Rates of COVID-19-Associated Hospitalization

Preliminary weekly rates as of Oct 09, 2021

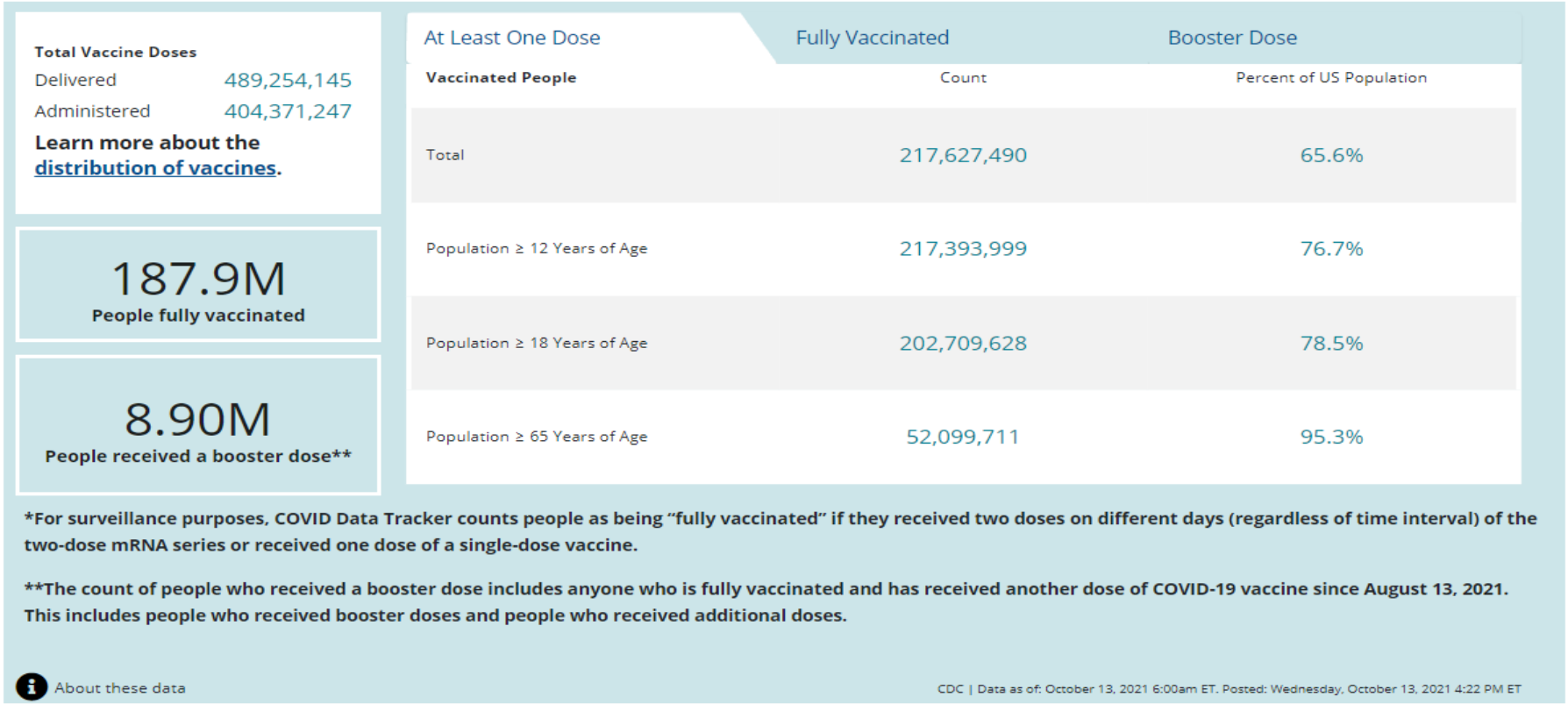
Display by: Weekly Rate | View Rate by: Age Group | Choose Age Group



The Coronavirus Disease 2019 (COVID-19)-Associated Hospitalization Surveillance Network (COVID-NET) hospitalization data are preliminary and subject to change as more data become available. In particular, case counts and rates for recent hospital admissions are subject to lag. As data are received each week, prior case counts and rates are updated accordingly. COVID-NET conducts population-based surveillance for laboratory-confirmed COVID-19-associated hospitalizations in children (less than 18 years of age) and adults. COVID-NET covers nearly 100 counties in the 10 Emerging Infections Program (EIP) states (CA, CO, CT, GA, MD, MN, NM, NY, OR, TN) and four Influenza Hospitalization Surveillance Project (IHSP) states (IA, MI, OH, and UT). Incidence rates (per 100,000 population) are calculated using the National Center for Health Statistics' (NCHS) vintage 2019 bridged-race postcensal population estimates for the counties included in the surveillance catchment area. The rates provided are likely to be underestimated as COVID-19 hospitalizations might be missed due to test availability and provider or facility testing practices.

CDC COVID Data Tracker, 10/09/2021

COVID-19 Vaccinations in the United States



Total Vaccine Doses

Delivered	489,254,145
Administered	404,371,247

Learn more about the distribution of vaccines.

187.9M
People fully vaccinated

8.90M
People received a booster dose**

At Least One Dose | Fully Vaccinated | Booster Dose

Vaccinated People	Count	Percent of US Population
Total	217,627,490	65.6%
Population ≥ 12 Years of Age	217,393,999	76.7%
Population ≥ 18 Years of Age	202,709,628	78.5%
Population ≥ 65 Years of Age	52,099,711	95.3%

***For surveillance purposes, COVID Data Tracker counts people as being "fully vaccinated" if they received two doses on different days (regardless of time interval) of the two-dose mRNA series or received one dose of a single-dose vaccine.**

****The count of people who received a booster dose includes anyone who is fully vaccinated and has received another dose of COVID-19 vaccine since August 13, 2021. This includes people who received booster doses and people who received additional doses.**

About these data

CDC | Data as of: October 13, 2021 6:00am ET. Posted: Wednesday, October 13, 2021 4:22 PM ET

CDC COVID Data Tracker, 10/13/2021

Percent of People Receiving COVID-19 Vaccine by Race/Ethnicity and Date Reported to CDC, United States

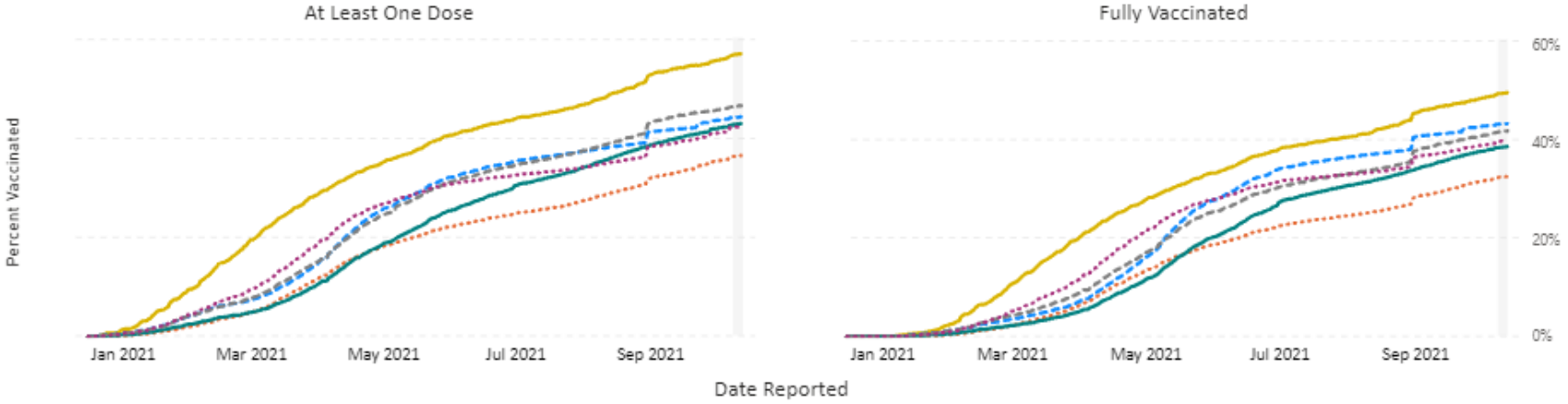
December 14, 2020 – October 13, 2021

	AI/AN, NH	Asian, NH	Black, NH	Hispanic/Latino	NHOPI, NH	White, NH
At Least One Dose	58.5%	45.5%	37.5%	44.1%	47.8%	43.5%
Fully Vaccinated	50.3%	43.9%	33.0%	39.2%	42.4%	40.4%

Race/Ethnicity data were available for 66.8% receiving at least one dose and 70.9% of people fully vaccinated.

Race | Sex | Age

12/13/2020 — 10/13/2021



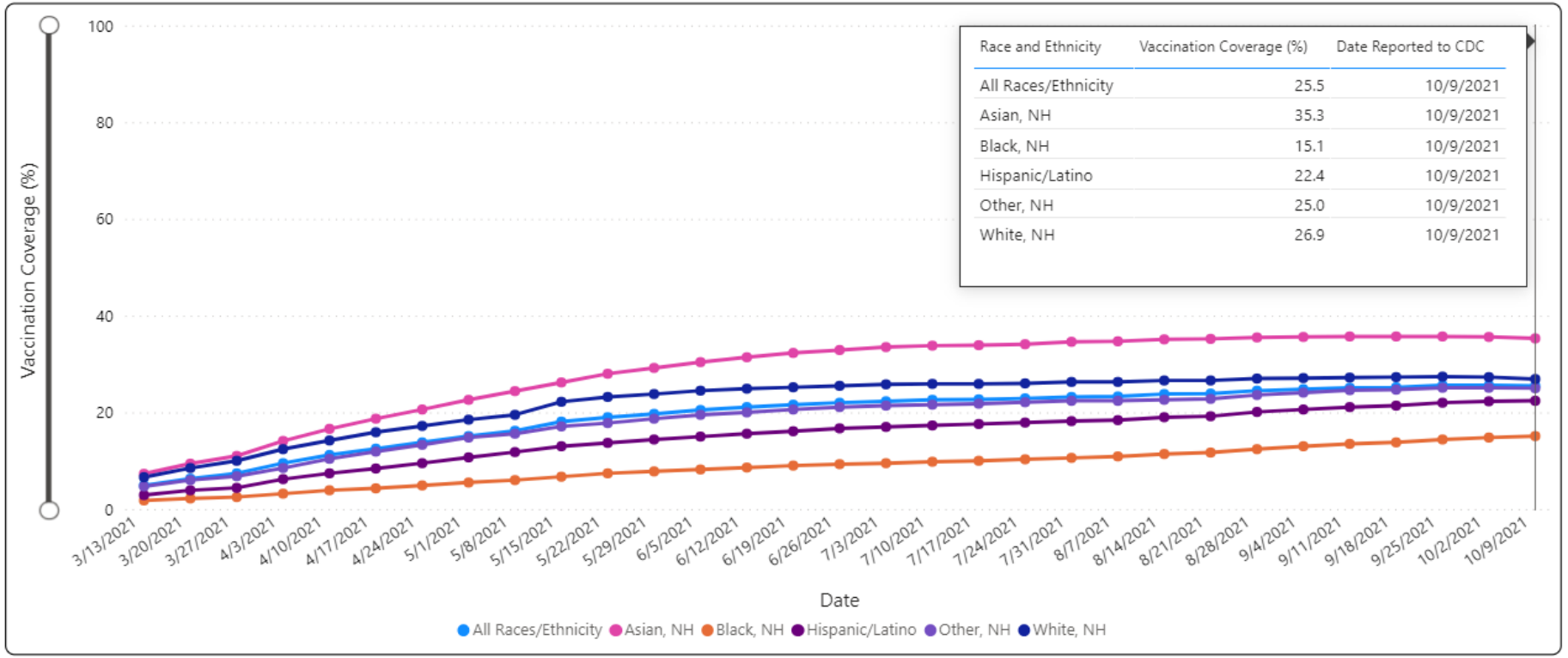
AI/AN – American Indian/Alaska Native; NH – Non Hispanic/Latino; NHOPI – Native Hawaiian or Other Pacific Islander; People receiving at least one dose; total count represents the total number of people who received at least one dose of COVID-19 vaccine. People fully vaccinated; total count represents the number of people who have received a dose of a single-shot COVID-19 vaccine or the second dose in a 2-dose COVID-19 vaccine series. Due to the time between vaccine administration and when reported to CDC, vaccinations administered during the last 5 days may not yet be reported. This reporting lag is represented by the gray, shaded box. Texas does not report race-specific does number information to CDC, so data for Texas are not represented in these figures. On August 31, 2021, CDC updated its algorithm for assigning a race/ethnicity category for vaccine recipients to align with U.S. Census Bureau race/ethnicity classifications. As a result, approximately 4.5 million vaccine recipients where a valid race was reported in conjunction with "other" race who were previously categorized as "Non-Hispanic Multiracial" are now categorized into a single race/ethnicity group.

Last Updated: Oct 13, 2021

Data source: VTrcks, IIS, Federal Pharmacy Program, Federal Entities Program, U.S. Census Bureau 10 year July 2019 National Population Estimates; Visualization: CDC CPR DEO Situational Awareness Public Health Scientist Team

CDC COVID Data Tracker, 10/13/2021

Figure 3: Percent of Pregnant People Aged 18–49 Years Receiving at Least One Dose of a COVID-19 Vaccine during Pregnancy Overall, by Race/Ethnicity, and Date Reported to CDC – Vaccine Safety Datalink*, United States



Race and Ethnicity	Vaccination Coverage (%)	Date Reported to CDC
All Races/Ethnicity	25.5	10/9/2021
Asian, NH	35.3	10/9/2021
Black, NH	15.1	10/9/2021
Hispanic/Latino	22.4	10/9/2021
Other, NH	25.0	10/9/2021
White, NH	26.9	10/9/2021

NH = Non-Hispanic; "Other, NH" race includes American Indian or Alaska Native, Native Hawaiian or Pacific Islander, and Multiple or Other races; "vaccination coverage" represents the total number of pregnant people (denominator as of October 9, 2021 = 197,020) who received at least one dose of a COVID-19 vaccine, including either first or second dose of the Pfizer-BioNTech or Moderna vaccines or a single dose of the Johnson & Johnson's Janssen vaccine during pregnancy.

Last update: October 9, 2021

Data source: Vaccine Safety Datalink.

CDC COVID Data Tracker, 10/02/2021

Data on COVID-19 during Pregnancy: Birth and Infant Outcomes

Data Reported to CDC as of September 3, 2021

Pregnant Women | Data by Month | Birth Outcomes | Live Births

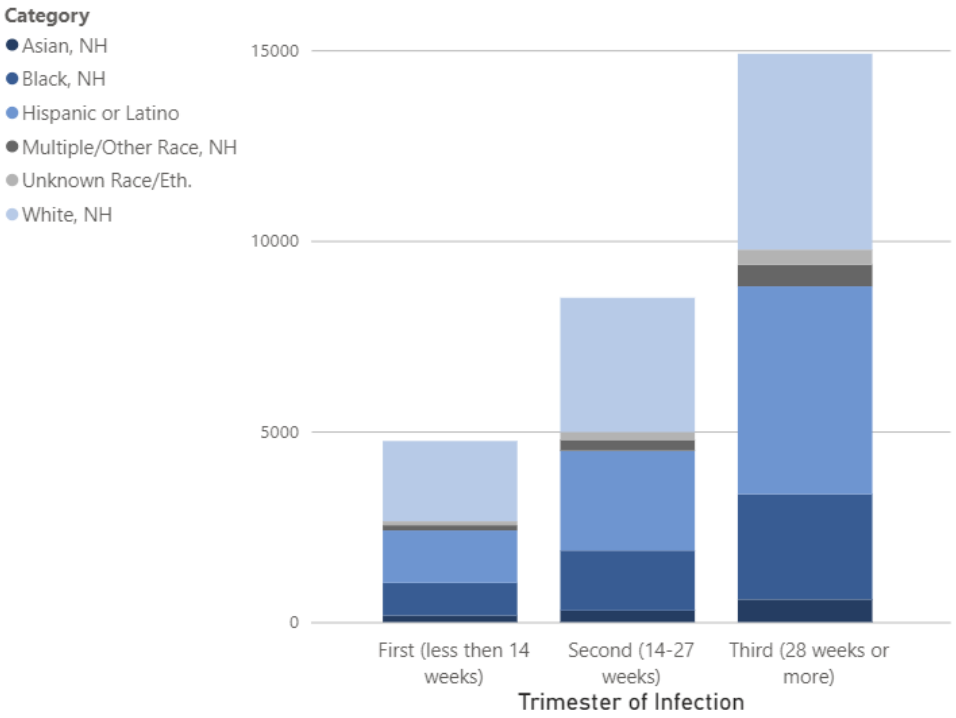
29,025

Women with COVID-19 who Completed Pregnancy

View by Selected Category
- (●) Race/Ethnicity
- ( ) Maternal Age

Number of Pregnant Women with COVID-19 by Trimester of Infection

Information on timing of infection was available for 28,165 (97.0%) women.



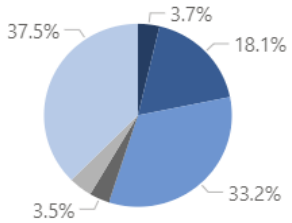
Trimester of Infection	Number of Women
First (less then 14 weeks)	4750
Second (14-27 weeks)	8507
Third (28 weeks or	14908
Total	28165

Race/Ethnicity	Number of Women
Asian, NH	1068
Black, NH	5194
Hispanic or Latino	9445
Multiple/Other Race, NH	987
Unknown Race/Eth.	709
Total	28165

NH = Non-Hispanic

Maternal Age in Years	Number of Women
<20	1442
20-29	14003
30-39	11604
40-55	910
Unknown Age	206
Total	28165

Total Women with Known Timing of Infection



CDC COVID Data Tracker, 9/03/2021

Key Health Equity Considerations

Question 1

Scan QR code with your camera or
type URL in web browser to vote: http://etc.ch/4kp2

How many of your staff work on addressing the social determinants of health (SDOH) as a major part (at least 50%) of their jobs?

- No staff spend at least 50% of their time on SDOH
- No specialized staff, but one or more staff spend at least 50% of their time on SDOH
- One or two specialized staff work full-time on SDOH
- More than two staff work full-time on SDOH

VOTE

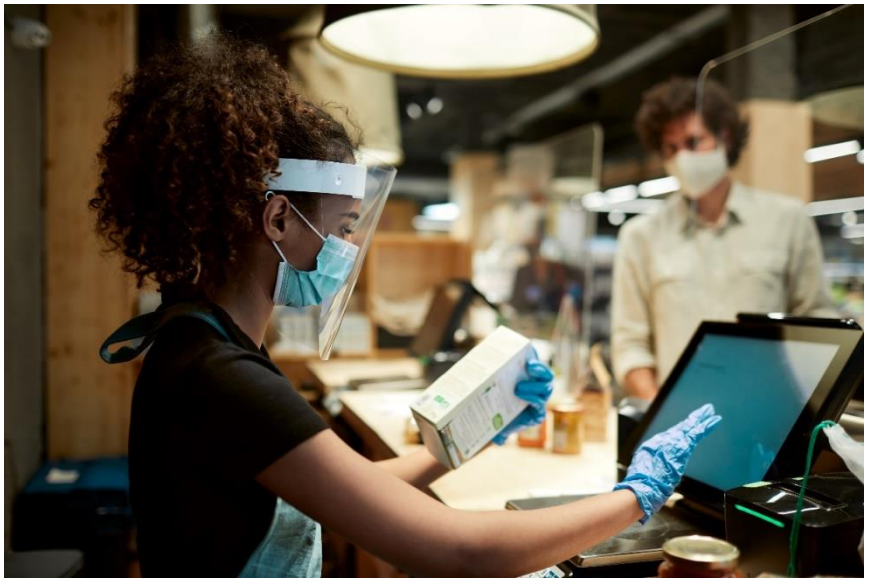
Question 1 - Results

Using a Health Equity Lens

- Systemic health and social inequities have placed some populations at increased risk of getting sick, having poor health, and having worse health outcomes when they do get sick.
- Health equity is intersectional, so individuals may belong to several groups historically discriminated against.
- Public health programs, policies, and practices must recognize and respect the diversity of the community they are trying to reach.

Racial and Ethnic Minority Population Health Equity Considerations

- Some factors that contribute to increased risk:
  - Discrimination, including racism
  - Healthcare access and utilization
  - Occupation
  - Educational, income, and wealth gaps
  - Housing



https://www.cdc.gov/coronavirus/2019-ncov/community/health-equity/race-ethnicity.html

Barriers to Medical Care

- Health insurance coverage
- Unreliable transportation
- Stigmatizing language in medical practices and materials
- Access to culturally and linguistically appropriate medical resources

Health Equity Strategy

Question 2

Scan QR code with your camera or
type URL in web browser to vote: http://etc.ch/4kp2

How many of you have staff who work on addressing racism as a public health issue as a major part of their job (at least 50%)?

- No staff spend at least 50% of their time on this
- No specialized staff, but one or more staff spend at least 50% of their time on this
- One or two specialized staff work full-time on this
- More than two staff work full-time on this

VOTE

Question 2 - Results

CDC's COVID-19 Health Equity Strategy: Why?

- COVID-19 may worsen already existing health and social inequities.
- Data highlight groups at increased risk of COVID-19.
- Effective public health intervention planning accounts for the individuality of the populations to increase the chances for success.

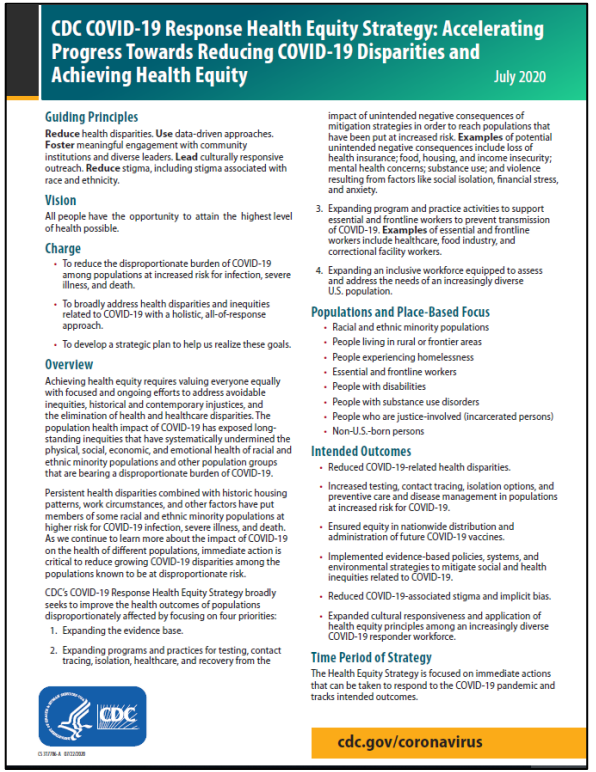
CDC's COVID-19 Response Health Equity Strategy

Priority Strategy 1	Expand the evidence base with data to inform the impact and factors that influence the burden of COVID-19 on disproportionately affected populations
Priority Strategy 2	Expand programs and practices to reach populations that have been put at increased risk
Priority Strategy 3	Expand program and practice activities to support essential and frontline workers to prevent transmission of COVID-19
Priority Strategy 4	Expand an inclusive workforce equipped to assess and address the needs of an increasingly diverse U.S. population

https://www.cdc.gov/coronavirus/2019-ncov/downloads/community/CDC-Strategy.pdf

CDC Opportunities for Race/Ethnicity Data Collection

- Encourages the collection of data to understand impact and factors influencing the disproportionate burden of COVID-19 on affected populations
- Supports timely, complete, representative, and relevant data on testing, incidence, vaccination, and severe outcomes by detailed race/ethnicity categories, considering age and sex differences among groups



CDC COVID-19 Response Health Equity Strategy: Accelerating Progress Towards Reducing COVID-19 Disparities and Achieving Health Equity

July 2020

Guiding Principles

Reduce health disparities. **Use** data-driven approaches. **Foster** meaningful engagement with community institutions and diverse leaders. **Lead** culturally responsive outreach. **Reduce** stigma, including stigma associated with race and ethnicity.

Vision

All people have the opportunity to attain the highest level of health possible.

Charge

- To reduce the disproportionate burden of COVID-19 among populations at increased risk for infection, severe illness, and death.
- To broadly address health disparities and inequities related to COVID-19 with a holistic, all-of-response approach.
- To develop a strategic plan to help us realize these goals.

Overview

Achieving health equity requires valuing everyone equally with focused and ongoing efforts to address avoidable inequities, historical and contemporary injustices, and the elimination of health and healthcare disparities. The population health impact of COVID-19 has exposed long-standing inequities that have systematically undermined the physical, social, economic, and emotional health of racial and ethnic minority populations and other population groups that are bearing a disproportionate burden of COVID-19.

Persistent health disparities combined with historic housing patterns, work circumstances, and other factors have put members of some racial and ethnic minority populations at higher risk for COVID-19 infection, severe illness, and death. As we continue to learn more about the impact of COVID-19 on the health of different populations, immediate action is critical to reduce growing COVID-19 disparities among the populations known to be at disproportionate risk.

CDC's COVID-19 Response Health Equity Strategy broadly seeks to improve the health outcomes of populations disproportionately affected by focusing on four priorities:

1. Expanding the evidence base.
2. Expanding programs and practices for testing, contact tracing, isolation, healthcare, and recovery from the impact of unintended negative consequences of mitigation strategies in order to reach populations that have been put at increased risk. **Examples** of potential unintended negative consequences include loss of health insurance; food, housing, and income insecurity; mental health concerns; substance use; and violence resulting from factors like social isolation, financial stress, and anxiety.
3. Expanding program and practice activities to support essential and frontline workers to prevent transmission of COVID-19. **Examples** of essential and frontline workers include healthcare, food industry, and correctional facility workers.
4. Expanding an inclusive workforce equipped to assess and address the needs of an increasingly diverse U.S. population.

Populations and Place-Based Focus

- Racial and ethnic minority populations
- People living in rural or frontier areas
- People experiencing homelessness
- Essential and frontline workers
- People with disabilities
- People with substance use disorders
- People who are justice-involved (incarcerated persons)
- Non-U.S.-born persons

Intended Outcomes

- Reduced COVID-19-related health disparities.
- Increased testing, contact tracing, isolation options, and preventive care and disease management in populations at increased risk for COVID-19.
- Ensured equity in nationwide distribution and administration of future COVID-19 vaccines.
- Implemented evidence-based policies, systems, and environmental strategies to mitigate social and health inequities related to COVID-19.
- Reduced COVID-19-associated stigma and implicit bias.
- Expanded cultural responsiveness and application of health equity principles among an increasingly diverse COVID-19 responder workforce.

Time Period of Strategy

The Health Equity Strategy is focused on immediate actions that can be taken to respond to the COVID-19 pandemic and tracks intended outcomes.

CDC

cdc.gov/coronavirus

Examples of Targeted Outreach to Racial and Ethnic Minorities

Prepare for COVID-19 Vaccine Conversations

Choose to get vaccinated yourself

Engage in effective conversations

- Start from a place of empathy and understanding
- Address misinformation by sharing key facts

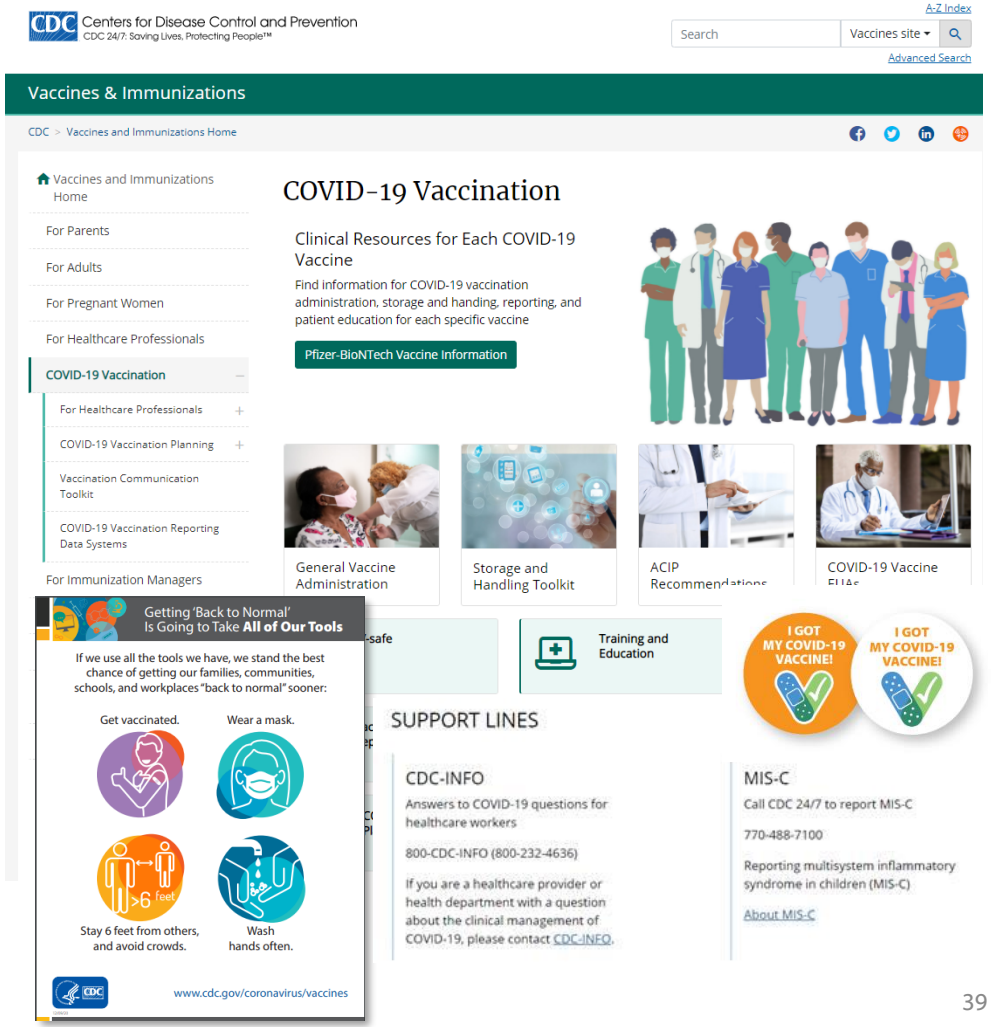
Be prepared for questions

- Share CDC resources/toolkits

CDC Resources

Learn more with **CDC's COVID-19 vaccine tools and resources**.

- COVID-19 Vaccination: https://www.cdc.gov/vaccines/covid-19/index.html
- Clinical Care Information for COVID-19: https://www.cdc.gov/coronavirus/2019-ncov/hcp/clinical-care.html
- Clinician Outreach and Communication Activity (COCA) Calls: https://emergency.cdc.gov/coca/calls/index.asp
- Health Equity Considerations and Racial and Ethnic Minority Groups: https://www.cdc.gov/coronavirus/2019-ncov/community/health-equity/race-ethnicity.html



Public Health in the Immediate Future – Where Are We Going?

What a Time! Historic Challenges…and Opportunities

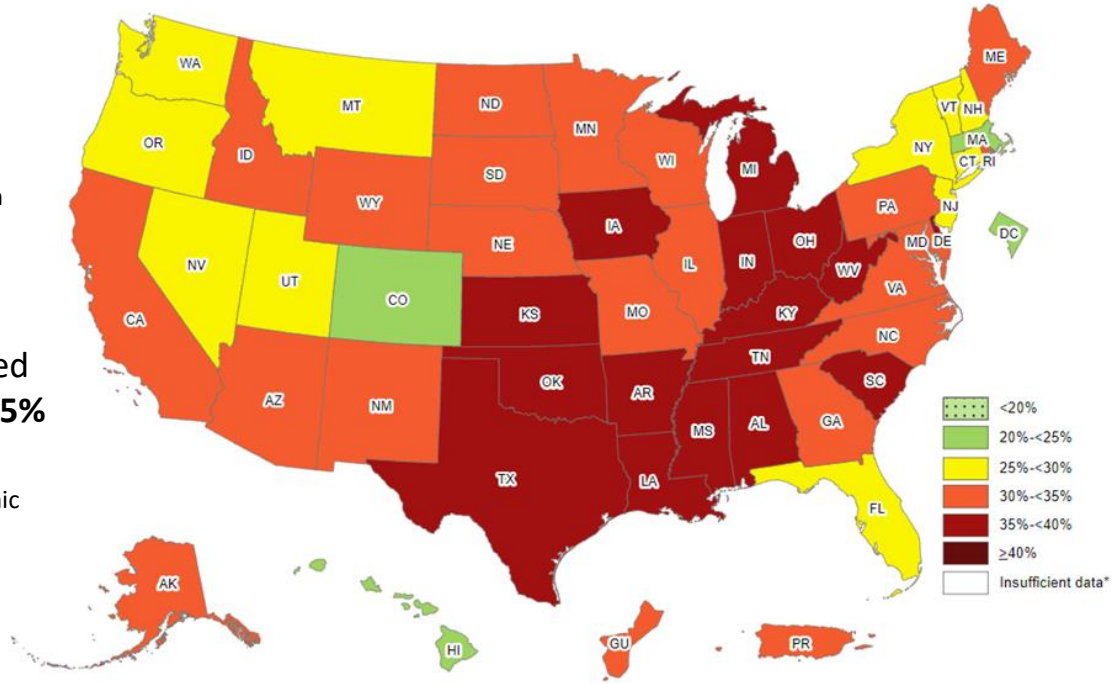
A New Wave of Pandemic Health Concerns

- Increased obesity
- Mental health
- Increased homicides
- Delayed cancer screenings
- Public health workers morale and mental health (fatigue)

Pandemic Related Impacts to Obesity and Mental Health

- The number of states in which at least **35% of residents are obese has nearly doubled since 2018** – and disparities persist.
  - Obesity is a common, serious, and costly chronic disease.
  - Having obesity puts people at risk for many other serious chronic diseases and increases the risk of severe illness from COVID-19.
- A new study finds that during August 19–December 21, 2020, as US COVID-19 cases increased, reported anxiety symptoms increased by **13% and depression symptoms increased 15% among adults.**
  - Trends in adult mental health symptoms during the pandemic mirrored trends in national weekly COVID-19 cases.
  - Continued real-time monitoring of mental health trends is critical during the COVID-19 pandemic.

2020 Adult Obesity Prevalence Map



https://www.cdc.gov/media/releases/2021/s0915-obesity-rate.html
https://www.cdc.gov/mmwr/volumes/70/wr/mm7040e3.htm

State Public Health Workforce

- Staffing capacity at state departments has decreased steadily over the past decade

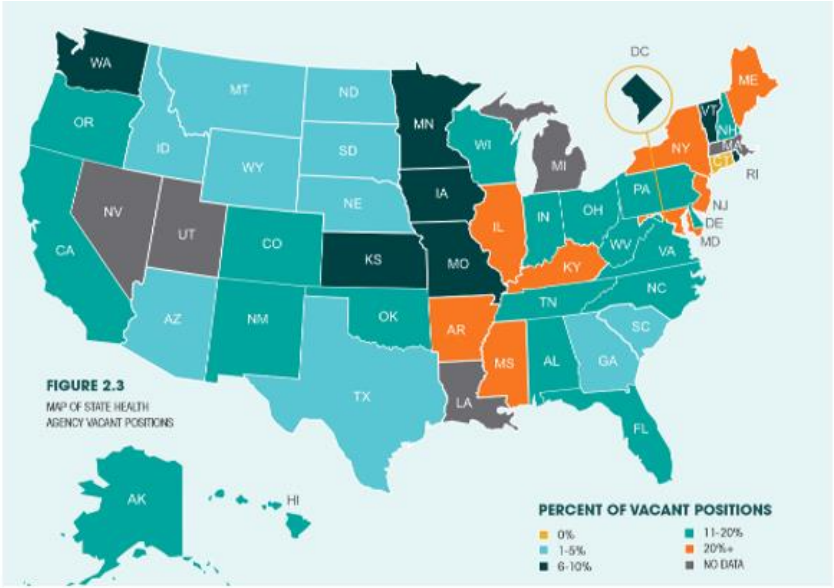


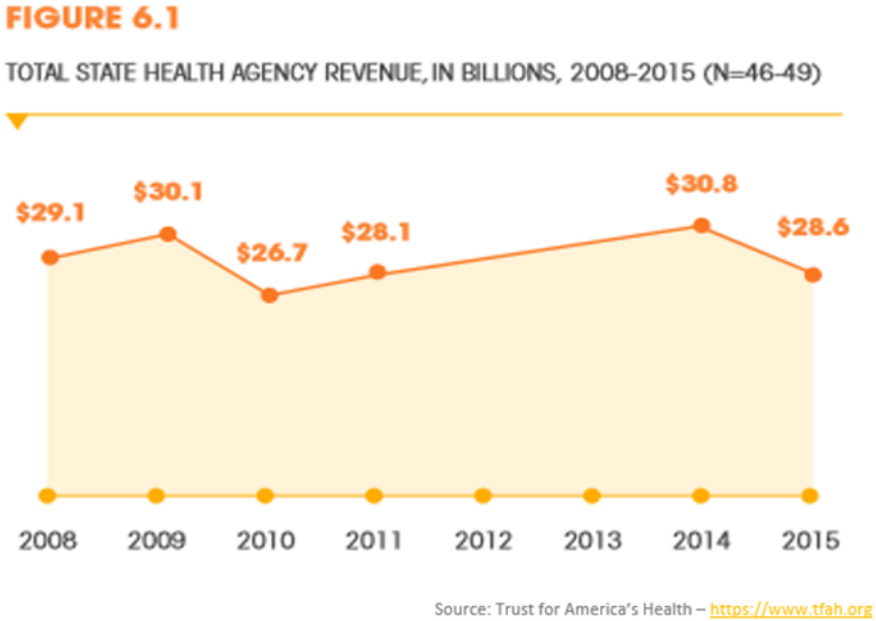
FIGURE 2.3
MAP OF STATE HEALTH AGENCY VACANT POSITIONS

TABLE 2.1 ESTIMATED NUMBER OF STATE HEALTH AGENCY FULL-TIME EMPLOYEES, 2010-2016[4]

	2010			2012			2016		
	MEAN	MEDIAN	TOTAL	MEAN	MEDIAN	TOTAL	MEAN	MEDIAN	TOTAL
Number of FTEs (N=50)	2,129	1,210	106,459	2,010	1,152	100,468	1,945	1,090	97,230

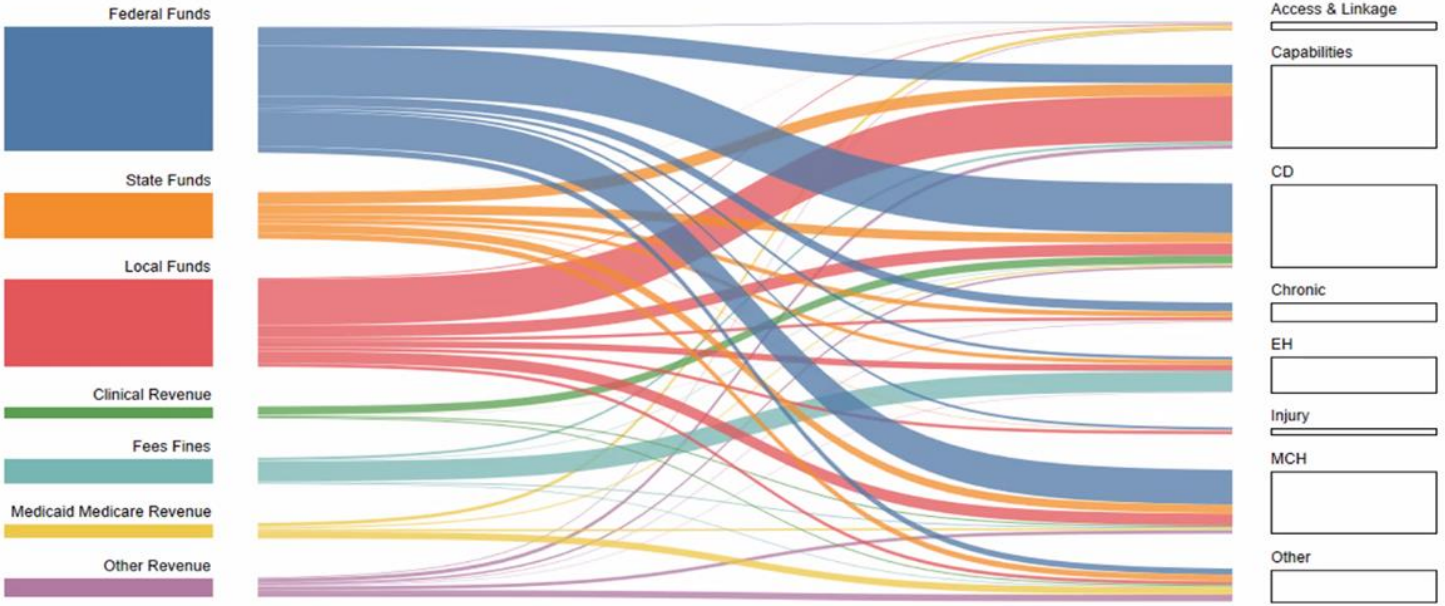
Chronic Underfunding of Public Health

- State funding has been historically unstable, and is lower today than in 2008



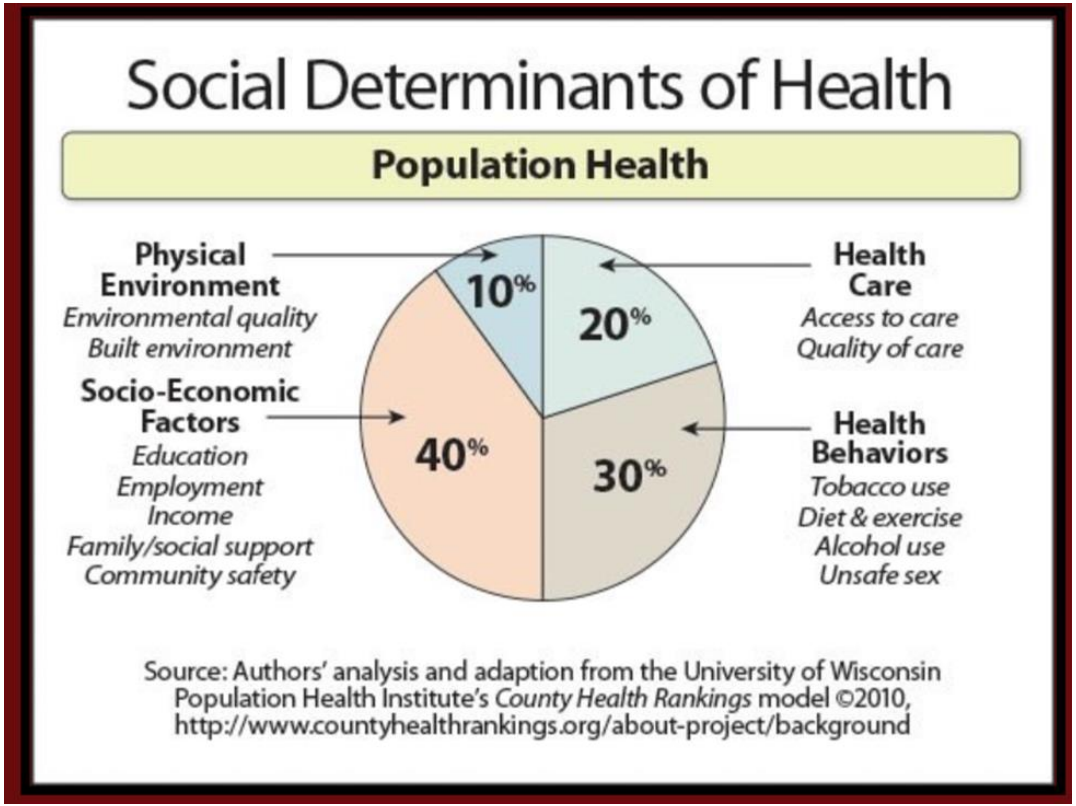
Limits to Public Health System Focus & Functioning

Where are revenues coming from?

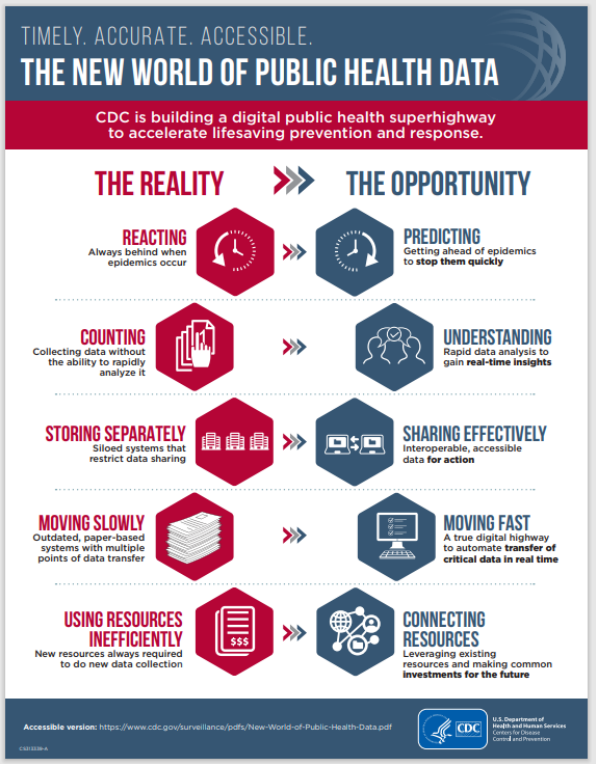


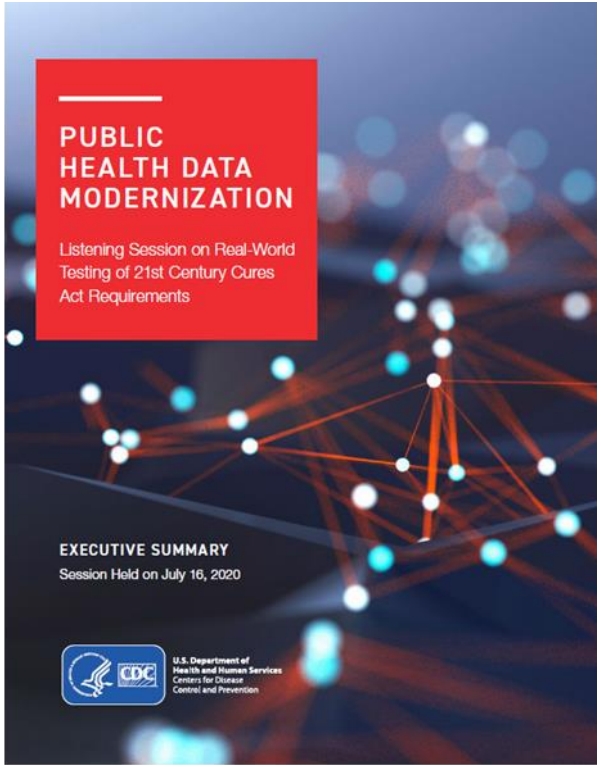
PHAST
Public Health Activities & Services Tracking

Limited Resources in Key Areas



Design and Implement a Modern Data System





Ensure Expert Public Health Workforce

Strengthening the Workforce That Protects Public Health

Five Shared Priorities

Action Plan: Shared Priorities and Strategies Among Partners

For more information, visit https://www.cdc.gov/ophss/csels/dsepd/strategic-workforce-activities/ph-workforce/action-plan.html.

Promote Equity and Address Social Determinants

Question 3

Scan QR code with your camera or
type URL in web browser to vote: http://etc.ch/4kp2

What is your highest priority regarding infrastructure funding?

- All hazard emergency preparedness
- Communication expertise
- Community-level voice/empowerment
- Epidemiology & laboratory capacity
- Equity and social determinants of health expertise
- Evidence-based policy expertise
- State-of-the-art data systems
- Well-trained and supported workforce

VOTE

Question 3 - Results

CDC Resources

Connect with CSTLTS

- **Visit Us**
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- **Like Us on Facebook**
  - www.facebook.com/CDCSTLTConnection
- **Follow Us on LinkedIn**
  - www.linkedin.com/showcase/cstlts

Questions?

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.