Advisory Committee to the Director (CDC)

August 9, 2022
9:00 AM – 2:30 PM

Closed Captioning: 
https://www.streamtext.net/player?event=10059MeetingoftheAdvisoryCommitteeDirectorCDC

Event ID is: 10059
Welcome, Roll Call

David Fleming, MD
ACD Chair
Discussion
Data and Surveillance Workgroup

Julie Morita, MD
Nirav Shah, MD, MPH
Co-chairs
Data and Surveillance Workgroup
UPDATE
DSW Membership

Co-Chairs:
Julie Morita, M.D.
Nirav R. Shah, M.D., M.P.H.

ACD Members:
David Warren Fleming, M.D.
Cristal A. Gary, M.P.H.
Lynn R. Goldman, M.D., M.S., M.P.H.
Rhonda M. Medows, M.D.

James Daniel, MPH Amazon Web Services (AWS)
Annie Fine, MD Council of State and Territorial Epidemiologists (CSTE)
Bryant Karras, MD State of Washington, Department of Health, Public Health Laboratories
Abel Kho, MD, MS, FACMI Feinberg School of Medicine, Northwestern University
Kenneth Mandl, MD, MPH Harvard Medical School
Deven Mcgraw, JD, MPH Invitae Corporation and Ciitizen Corporation
Valerie Rogers, MPH Healthcare Information and Management Systems Society (HIMSS)
Roni Rosenfeld, PhD, MSc Carnegie Mellon University
Anne Zink, MD, FACEP Alaska Department of Health & Social Services
Meeting 1 (July 11)

1. Orientation
2. Data Modernization Initiative
3. Terms of Reference

Terms of Reference

- Authorities
- Data Exchange
- Forecasting & Analytics
- Workforce
- Breaking Down Siloes
- Assuring Sustainability
Meeting 2 (Aug 5)

1. Public Health Systems Certification

US Data Service (USDS)
- Assessment and findings related to system variability, challenges, and impact of standards and certification
- Benefits of certification: efficient data exchange and data sharing

Office of the National Coordinator (ONC)
- Public Health System Certification
  - Process, value proposition, impact
Upcoming meetings

- Meeting 3: Aug 29
- Meeting 4: Sept 19
- Meeting 5: Oct 17
- Meeting 6: Nov 14
- Meeting 7: Dec 12
Discussion
Laboratory Workgroup

Joshua Sharfstein, MD
Jill Taylor, PhD
Co-chairs
## Laboratory Workgroup (LW) Membership

<table>
<thead>
<tr>
<th>Name</th>
<th>Organization</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>Jill Taylor, PhD</td>
<td>Association of Public Health Laboratories</td>
<td>Senior Advisor for Scientific Affairs</td>
</tr>
<tr>
<td>Joshua Sharfstein, MD</td>
<td>Johns Hopkins Bloomberg School of Public Health</td>
<td>Professor</td>
</tr>
<tr>
<td>David Fleming, MD</td>
<td>University of Washington School of Public Health</td>
<td>Clinical Associate Professor</td>
</tr>
<tr>
<td>Jay K. Varma, MD</td>
<td>Weill Cornell Medical School</td>
<td>Director, Cornell Center for Pandemic Prevention and Response</td>
</tr>
<tr>
<td>Daniel D. Rhoads, MD</td>
<td>Cleveland Clinic</td>
<td>Microbiology Section Head</td>
</tr>
<tr>
<td>Angela M. Caliendo, MD, PhD, FIDSA, FAAM</td>
<td>Brown University</td>
<td>Executive Vice Chair, Department of Medicine, Alpert Medical School</td>
</tr>
<tr>
<td>Scott Zimmerman, DrPH, MPH, HCLD (ABB)</td>
<td>Lab Corp</td>
<td>Vice President, Department of Science &amp; Technology</td>
</tr>
<tr>
<td>Alberto Gutierrez, PhD</td>
<td>NDA Partners LLC</td>
<td>Partner</td>
</tr>
<tr>
<td>Jennifer L. Rakeman, PhD</td>
<td>Cepheid</td>
<td>Senior Director, Medical Affairs, Public Health Programs</td>
</tr>
<tr>
<td>Robin Patel, MD(CM), D(ABMM), FIDSA, FACP, F(AAM)</td>
<td>Mayo Clinic</td>
<td>Professor; Director, Infectious Diseases Research Laboratory; Co-Director, Bacteriology Laboratory</td>
</tr>
<tr>
<td>Grace Kubin, PhD</td>
<td>Texas Department of State Health Services</td>
<td>Director, Laboratory Services Section</td>
</tr>
<tr>
<td>Paul B. Kimsey, PhD, MA</td>
<td>California Department of Health</td>
<td>Deputy Director; Director, State Public Health Laboratory</td>
</tr>
<tr>
<td>Ruth Lynfield, MD</td>
<td>Minnesota Department of Health</td>
<td>State Epidemiologist, Medical Director</td>
</tr>
<tr>
<td>Tim Southern, PhD, MS, D(ABMM)</td>
<td>South Dakota Department of Health</td>
<td>Public Health Laboratory Director</td>
</tr>
<tr>
<td>Denise Toney, PhD (HCLD)</td>
<td>Commonwealth of Virginia, Department of General Services</td>
<td>Laboratory Director, Division of Consolidated Laboratory Services</td>
</tr>
</tbody>
</table>
Inaugural Meeting of the Laboratory Workgroup
Friday June 17th 2:00pm – 4:00pm

• Introduction of Members and FACA Ground Rules
• Purpose of the ACD Laboratory Workgroup
• Dr. Jim Pirkle (Acting Director, Office of Laboratory Science and Safety)
  • Detailed review of CDC’s Laboratory Quality Plan (LQP)
  • Description of how the LQP will address previous issues and deficiencies
• Review of the Terms of Reference
• Accomplishing the work ahead
Laboratory Work Group Terms of Reference (TOR)
Laboratory Workgroup (LW) Purpose

Provide advice and work products for the ACD, CDC regarding the effective implementation of CDC agency-wide laboratory quality improvements across the agency to meet CDC’s ultimate goal of ensuring the agency’s laboratories maintain a gold-standard level of quality using advanced laboratory science.
**Terms of Reference (TORs)**

**Issue #1:** CDC is sometimes the laboratory of last resort for testing specimens that may have been stored in less-than-acceptable conditions, be an unusual specimen type, or contain less-than-acceptable volume. These specimens would not meet requirements for acceptable specimens and, adhering to CLIA regulations, CDC would have to reject them. In so doing, rare or difficult-to-obtain specimens, whose results could have a meaningful impact on public health, could be rejected.

**Questions:**

- Considering CLIA requirements, should CDC support investigation of unknown infectious agents or diseases using less-than-acceptable specimens, when acceptable specimens are not available?

- If so, how should an appropriate disclaimer be worded regarding result interpretation that acknowledges the specimens are outside validated parameters?
Issue #2: CDC is writing a Quality Manual for Microbiological Laboratories (QMML) to be its primary resource for quality standards for infectious disease laboratory operation. LW high-level review of the CDC quality framework described in the QMML could result in insights for the ACD, CDC that may strengthen the overall quality approach and help to ensure that the work done in CDC infectious disease laboratories meets and maintains excellent standards of laboratory quality.

Question: Is the CDC quality framework described in the QMML an appropriate quality framework to ensure high quality laboratory standards for infectious disease laboratory operation?
Issue #3: Clinical testing in the U.S. in emergency and non-emergency situations is conducted by government-run public health laboratories, private hospital and commercial laboratories. In addition, new laboratory technologies and laboratory diagnostic tests often spring from academia or small companies. CDC needs excellent collaboration with both public and private-sector laboratories to ensure appropriate laboratory response to emergencies and ensure that CDC is using the best laboratory science advances to protect public health.

Task: The LW will provide feedback to the ACD, CDC on how CDC can better collaborate with laboratory partners in state and local public health laboratories and the private sector to 1) respond to test development and analytic capacity needs of large emergencies (e.g., the COVID pandemic); and 2) ensure CDC stays at the forefront of laboratory technology and laboratory science advances that benefit public health.
**Issue #4:** Excellent laboratory scientists are essential for high-quality, advanced laboratory testing, laboratory research and clinical laboratory testing. The market for such scientists is highly competitive with the private sector offering compensation that is extremely difficult for CDC to match.

**Question:** How can CDC better recruit and retain outstanding laboratory scientists to ensure high-quality, advanced laboratory testing at CDC?

**Issue #5:** In the 2022 budget agreement, Congress requested that the Office of the Secretary, HHS establish a Task Force to evaluate factors contributing to the shortcomings of CDC’s first COVID-19 test as well as policies, practices, and systems that should be established to mitigate future issues.

**Question:** Will the new LQP that CDC has developed and begun implementing address previous deficiencies and mitigate future issues in diagnostic test development for public health outbreaks?
Laboratory Workgroup Priorities
First Priority: TOR Issue 5 *(pending approval of the TORs by the ACD)*

Congressional report language:

• The agreement includes direction in the Office of the Secretary to establish a Task Force, including participation from outside stakeholders and subject matter experts, to evaluate what contributed to the shortcomings of the first COVID-19 tests, including laboratory irregularities, and what policies, practices and systems should be established to address these issues in the future.
  ❑ The Task Force shall also examine CDC’s processes for the development and deployment of diagnostics and its ongoing operations, including communications and electronic lab reporting with clinical, commercial, and State and local public health laboratories.
  ❑ Based on the conclusions of this effort, CDC shall develop an agency-wide coordination plan for developing and deploying assays during a public health emergency that engages a nationwide system, as appropriate, and leverages the expertise offered by the public and private sectors.”
First Priority: TOR Issue 5 *(pending approval of the TORs by the ACD)*

The Workgroup will:

- Review reports on the challenges with the SARS-CoV-2 diagnostic assay in the Spring of 2020
- Review the framework established in the Laboratory Quality Plan (LQP)
- Meet on August 24 to
  - Discuss key issues raised by reviews to date
  - Assess LQP in addressing these issues
  - Identify outstanding questions to develop report that meets Congressional request
  - Plan for 1-2 additional meetings on this task
  - Receive guidance on format of the report*

*NOTE: This report also may address other issues in the TOR.
Lab Workgroup will report on:

- Progress regarding Issue 5 and the requirements in the Congressional language
Laboratory Workgroup

Terms of Reference

Discussion and Vote

David Fleming, MD, ACD Chair
Break
Health Equity Workgroup

Daniel Dawes, JD
Monica Valdes-Lupi, JD, MPH
Co-chairs
## Health Equity Workgroup Membership
### ACD Members

<table>
<thead>
<tr>
<th>Name</th>
<th>Organization</th>
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<tbody>
<tr>
<td>Daniel Dawes, JD</td>
<td>Morehouse School of Medicine Satcher Health Leadership Institute</td>
<td>Executive Director</td>
</tr>
<tr>
<td>Monica Valdes Lupi, JD, MPH</td>
<td>The Kresge Foundation</td>
<td>Managing Director of Health Program</td>
</tr>
<tr>
<td>Adaora Alise Adimora, MD, MPH</td>
<td>University of North Carolina (UNC) School of Medicine</td>
<td>Sarah Graham Kenan Distinguished Professor</td>
</tr>
<tr>
<td>Michelle A. Albert, MD, MPH</td>
<td>University of California, San Francisco School of Medicine</td>
<td>Walter A. Haas-Lucie Stern Endowed Chair in Cardiology and Professor in Medicine</td>
</tr>
<tr>
<td>David Fleming, MD</td>
<td>University of Washington School of Public Health</td>
<td>Clinical Associate Professor</td>
</tr>
<tr>
<td>Rachel R. Hardeman, PhD, MPH</td>
<td>University of Minnesota School of Public Health</td>
<td>Associate Professor in the Division of Health Policy &amp; Management</td>
</tr>
<tr>
<td>Rhonda Medows, MD</td>
<td>Providence Population Health</td>
<td>President of Population Health Management</td>
</tr>
<tr>
<td>Julie Morita, MD</td>
<td>Robert Wood Johnson Foundation (RWJF)</td>
<td>Executive Vice President</td>
</tr>
<tr>
<td>Octavio Martinez Jr., MD, MPH, MBA, FAPA</td>
<td>Hogg Foundation for Mental Health/University of Texas (Austin)</td>
<td>Executive Director</td>
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## Health Equity Workgroup Membership

### Outside Experts

<table>
<thead>
<tr>
<th>Name</th>
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<tbody>
<tr>
<td>Philip Alberti, PhD</td>
<td>Association of American Medical Colleges</td>
<td>Founding Director</td>
</tr>
<tr>
<td>David Brown, MBA</td>
<td>YMCA</td>
<td>President and CEO</td>
</tr>
<tr>
<td>Nafissa Cisse Egbuonye, PhD, MPH</td>
<td>Black Hawk County Public Health (Iowa)</td>
<td>Public Health Director</td>
</tr>
<tr>
<td>Cary Fremin, BS</td>
<td>Dot Lake Village Council, Dot Lake Village</td>
<td>Director of Health and Social Services</td>
</tr>
<tr>
<td>Delmonte Jefferson, BS</td>
<td>Center for Black Health &amp; Equity</td>
<td>Executive Director</td>
</tr>
<tr>
<td>Maria Lemus, BA</td>
<td>Visión y Compromiso and Network of Promotoras &amp; Community Health Workers</td>
<td>Founding Executive Director</td>
</tr>
<tr>
<td>Mysheika Roberts, MD, MPH</td>
<td>Department of Public Health - Columbus, Ohio</td>
<td>Public Health Commissioner</td>
</tr>
<tr>
<td>Bonnielin K. Swenor, PhD, MPH</td>
<td>Johns Hopkins University Disability Health Research Center</td>
<td>Founder and Director</td>
</tr>
<tr>
<td>Paula Tran, MPH</td>
<td>Wisconsin Department of Health Services</td>
<td>State Public Health Officer</td>
</tr>
<tr>
<td>Mr. G. Robert Watts, MPH, MS</td>
<td>National Health Care for the Homeless Council</td>
<td>Chief Executive Officer</td>
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# Health Equity Workgroup Guiding Principles

<table>
<thead>
<tr>
<th>Guiding Principle</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>Presume Good Intent</strong></td>
<td>Provide each person the benefit of the doubt. Assume everyone has positive intentions. Act honestly and in good faith to serve the best interests of the committee and communities we serve.</td>
</tr>
<tr>
<td><strong>Foster a Culture of Respect and Appreciation</strong></td>
<td>Ensure that every voice is heard and valued. Provide everyone space to share thoughts, ideas, and recommendations. Listen with empathy and appreciation for the lived experiences of others.</td>
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<tr>
<td></td>
<td>Address differences of opinion as opportunities for collaboration, learning, and growth.</td>
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<td></td>
<td>Remember, the collective voice of this group builds upon community.</td>
</tr>
<tr>
<td><strong>Uphold Justice, Equity, and Ethical Standards</strong></td>
<td>Commit to maintaining accountability, declaring any conflicts of interest, and recusal self from discussion or votes which may present a conflict.</td>
</tr>
<tr>
<td><strong>Generate Solutions</strong></td>
<td>To truly achieve health equity, employ a collaborative and solutions-based approach by engaging in cross-collaborative efforts with key strategic partners.</td>
</tr>
<tr>
<td><strong>Commit to a Community-Centric Approach</strong></td>
<td>Community is at the core of advancing health equity.</td>
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<tr>
<td></td>
<td>Advance inclusive programs, policies, and strategies to reduce inequities for all population groups, and do no harm to those most at risk.</td>
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<td></td>
<td>Exhibit integrity and good stewardship of resources and ideas generated by this group.</td>
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Health Equity Workgroup
UPDATE
1. Enable and assure the meaningful involvement of communities in agency decision-making, the development of health equity policies, program implementation, and evaluation

2. Align, and restructure as necessary, CDC policies, resource allocation, and program practices so as maximize the ability for staff and partners to address health inequities in their day-to-day work

3. Elevate and expand focused activities to measure and address the upstream factors and their consequences, including social and structural determinants of health, that contribute to and drive health inequities
# Health Equity Workgroup Task Areas

<table>
<thead>
<tr>
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<th>TASK AREA #3</th>
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<td>Enable and assure the meaningful involvement of communities in agency decision-making, the development of health equity policies, program implementation, and evaluation</td>
<td>Align, and restructure as necessary, CDC policies, resource allocation, and program practices so as maximize the ability for staff and partners to address health inequities in their day-to-day work</td>
<td>Elevate and expand focused activities to measure and address the upstream factors and their consequences, including social and structural determinants of health that contribute to and drive health inequities</td>
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</table>

**ACD Lead:** Daniel Dawes  
**ACD Lead:** Monica Valdes-Lupi  
**ACD Lead:** David Fleming  
**CDC SME:** Euna August and Leandris Liburd  
**CDC SME:** Jennifer Meunier and John Auerbach (DFO)  
**CDC SME:** Becky Bunnell and NaTasha Hollis

<table>
<thead>
<tr>
<th>MEMBERS</th>
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<tr>
<td></td>
<td>Mysheika Roberts*</td>
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Health Equity Workgroup
Task Area Report Out
Meeting Plans: July – December 2022

• Monthly HEW meetings
• Monthly task area meetings
• HEW in-person meeting – August 8th, Atlanta GA
• November 2nd ACD meeting with preliminary findings
Discussion
Lunch
COVID-19 Response Update

Ian Williams, PhD, MS
Incident Manager
CDC COVID-19 Response
COVID-19: Data Summary
COVID-19 Variants

- Estimated percentage of COVID-19 variants circulating in the U.S. as of July 23, 2022
  - Omicron BA.5: 81.9%
  - Omicron BA.4: 12.9%
  - Omicron BA.2.12.1: 5.0% of cases
  - Omicron BA.2: 0.3% of cases
  - Other variants: 0.17% of cases

Source: CDC COVID Data Tracker: Variant Proportions
COVID-19 Surveillance Summary: Cases, Hospitalizations, and Deaths

Daily Change in COVID-19 Cases, United States
January 22, 2020 - July 26, 2022

90.597.814
Total Cases Reported
171.847
New Cases Reported**
127.786
Current 7-Day Average**
July 19, 2021 - July 25, 2022
126.610
Prior 7-Day Average**
July 12, 2021 - July 18, 2022
0.9%
Change in 7-Day Average

New Admissions of Patients with Confirmed COVID-19, United States
August 01, 2020 - July 25, 2022

5,030,016
Total New Admissions
Aug 01, 2020 - July 25, 2022
5,838
New Admissions
July 25, 2022
6,509
Current 7-Day Average
July 19, 2022 - July 25, 2022
6,136
Prior 7-Day Average
July 12, 2022 - July 18, 2022
+6.1%
Change in 7-Day Average

Daily Change in COVID-19 Deaths, United States
January 22, 2020 - July 26, 2022

1,023,382
Total Deaths Reported
574
New Deaths Reported**
366
Current 7-Day Average**
July 20, 2022 - July 26, 2022
392
Prior 7-Day Average**
July 13, 2022 - July 19, 2022
-6.5%
Change in 7-Day Average
COVID-19 Community Levels (CCLs)

COVID-19 Community Levels in the US by County as of July 21, 2022

<table>
<thead>
<tr>
<th></th>
<th>% of Counties</th>
<th>% of Pop</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>20.4%</td>
<td>13.1%</td>
</tr>
<tr>
<td>Medium</td>
<td>37.6%</td>
<td>26.5%</td>
</tr>
<tr>
<td>High</td>
<td>41.9%</td>
<td>60.4%</td>
</tr>
</tbody>
</table>

Time Period: COVID-19 Community Levels were calculated on Thu Apr 21 2022. New COVID-19 cases per 100,000 population (7-day total) are calculated using data from Thu Apr 14 2022 - Wed Apr 20 2022. New COVID-19 admissions per 100,000 population (7-day total) and Percent of inpatient beds occupied by COVID-19 patients (7-day average) are calculated using data from Wed Apr 13 2022 - Tue Apr 19 2022.

Source: [CDC COVID Data Tracker (County View)](https://covid.cdc.gov/covid-data-tracker/rt-48)
COVID-19 Vaccination: Domestic

As of July 26, 2022

- 78.7% of US population has received at least 1 dose
- 67.2% of US population fully vaccinated
- 48.2% of fully vaccinated persons have received one additional dose
- 29.7% of fully vaccinated persons > 50 years of age have received a second booster dose

On June 28, 2022, VRBPAC voted to recommend inclusion of Omicron component in COVID-19 booster doses

FDA advised manufacturers seeking to update their COVID-19 vaccines to create a bivalent vaccine with an omicron BA.4/5 spike protein component added to the current vaccine composition

Source: CDC COVID Data Tracker: Vaccinations in the US
CDC’s Guidance for COVID-19

Understand your risk
Understand how to protect yourself and others
Understand how COVID spreads and what to do if you’re exposed
Understand what to do if you have symptoms or test positive

COVID-19 Community Levels recommendations
Additional prevention layers you select

Predecisional & deliberative
Transition of COVID-19 Response Activities to Program
IMS Organizational Chart 07/02/2021
COVID-19 CIO Responsible Officials

- Each CIO has designated a COVID-19 Responsible Official
- This person is not officially deployed to the response

Responsibilities

- Maintain awareness of COVID-19 activity status within CIO
- Ensure bi-directional communication is occurring between CIO and IMS
- Respond to IMS data calls and other requests
Transition Progress

Transition Dashboard visualizes and lists completed and planned transitions
COVID-19 Response Activity Transition Planning

- Planning for sustainability and incorporation of COVID-19 into routine public health practice
- CDC transitioning majority of programmatic and scientific COVID-19 Response activities to long-term "homes" within the agency
- Streamlined COVID-19 Incident Management Structure (IMS) will remain activated
Update on Multi-National Monkeypox Response

Advisory Committee to the Director
Tuesday, August 9th, 2022
CAPT Jennifer McQuiston, Incident Manager
2022 Multi-National Monkeypox Response

- 1st US Case (MA): May 17th
- Early cases travel-associated
- Current community spread
- Center-level activation May 23rd
- EOC Activation June 28th

Containment Goal:
- Harm reduction messaging
- Clinical Awareness
- Diagnosis/Testing
- Isolation of cases, treatment
- Tracing contacts and PEP
- National Vaccination Strategy

VISUAL EXAMPLES OF MONKEYPOX RASH

Photo Credit: NHS England High Consequence Infectious Diseases Network
Monkeypox Cases in Non-Endemic Locations
Data as of August 5th, 2022

- Cumulative Cases: 28,220
- United States (7,509), Spain (4,942), Germany (2,887), United Kingdom (2,859)
- Total Deaths: 5 in non-endemic locations
Monkeypox cases in the United States
Data as of August 7, 2022

- Total: 8,067 cases
- 50 jurisdictions (48 states, DC, PR)
- Doubling time: 9.3 days (for areas with > 25 cases, 8.6 days)

<table>
<thead>
<tr>
<th>STATE</th>
<th>CASE COUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>New York</td>
<td>1,862</td>
</tr>
<tr>
<td>California</td>
<td>1,310</td>
</tr>
<tr>
<td>Florida</td>
<td>633</td>
</tr>
<tr>
<td>Texas</td>
<td>606</td>
</tr>
<tr>
<td>Illinois</td>
<td>602</td>
</tr>
<tr>
<td>Georgia</td>
<td>596</td>
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Demographics of Monkeypox cases in the United States
Data as of August 7, 2022, at 2pm EST

• Age:
  • Median: 35 years
  • Range: 0-89 years

• Sex assigned at birth
  • Male sex at birth: 4,151 (99%)
  • Female sex at birth: 50

• MMSC*: 945/1,012 (93%)
  • For those reporting data, 41% HIV positive**

• 3 Pediatric cases
  • 1 confirmed
  • 2 probable under investigation

*MMSC: case reported recent history of male-male sexual contact
**Monkeypox cases reported to CDC: Race/Ethnicity**

*Data as of August 7, 2022, at 2pm EST*

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hispanic</td>
<td>34.7%</td>
</tr>
<tr>
<td>White</td>
<td>33.1%</td>
</tr>
<tr>
<td>Black</td>
<td>28.3%</td>
</tr>
<tr>
<td>Asian</td>
<td>3.3%</td>
</tr>
<tr>
<td>Multiple races</td>
<td>0.3%</td>
</tr>
<tr>
<td>American Indian or Alaskan Native</td>
<td>0.1%</td>
</tr>
<tr>
<td>Native Hawaiian/other Pacific Islander</td>
<td>0.1%</td>
</tr>
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![Bar chart showing race/ethnicity distribution](chart.png)
Monkeypox Mitigation Measures with Epi Curve - Aug 4th

- Vaccine for known contacts (PEP)
- LRN Laboratory Testing (60+ labs)
- National Vaccination Strategy PEP++
- Additional Commercial Lab Testing

- HAN Dissemination/Case Def/MMWR
- COCA Calls, Clinician Outreach
- Vaccine Allocation for PEP++

- 14-Day Moving Daily Average

Pride Month
Monkeypox/Non-Variola Orthopox Testing in the United States
Public Health and Select Commercial Laboratories

*Partial reporting week - tests reported as of 2pm Eastern time, August 3

www.cdc.gov/Monkeypox
Monkeypox/Non-Variola Orthopox Testing Volume Versus Testing Capacity

- Total testing volume
- Total testing capacity

*Partial reporting week - tests reported as of 2pm Eastern time, August 3

www.cdc.gov/Monkeypox
National Vaccination Strategy

- JYNNEOS (FDA-licensed 2 dose series)
  - More limited supplies
  - Favorable safety profile
  - Post-Exposure Prophylaxis (PEP) and PEP++
  - Pre-Exposure Vaccination important
  - Over 1 million doses allocated to states
  - 1 dose vs 2 dose discussions
  - Intradermal strategy (dose-sparing)

- ACAM2000
  - Plentiful supply
  - Adverse event profile
  - Available under an EA-IND
Community Engagement is Critical

- Guidance to ensure equitable distribution/access as part of vaccine strategies
- Fact-based messaging to reduce stigma
- Targeted channels to disseminate messages to gay, bisexual, and other men who have sex with men
- Listening sessions to promote dialogue
  - Affected populations
  - Public health departments
  - Healthcare providers

Summer 2022 Health Tips for Gay and Bisexual Men

As you celebrate Pride and other events this summer, get a few tips to stay safe and healthy at www.cdc.gov/msmhealth/summerhealthtips.
Challenges and Solutions

• Concern over missing early cases – increased clinical outreach
• Lab Testing – discomfort with LRN, stood up five commercial labs
• Challenges with Contract Tracing - shift to PEP++, PrEP vaccine strategies
• TPOXX Access challenges – revised protocol to significantly reduce reporting burden
• JYNNEOS supply challenges – extending interval between first and second doses, considering dose-sparing intradermal strategy
• Messaging and Behavior – New Safer Sex/Large gathering guidance
• Data sharing concerns (state legal concerns, privacy) – Data Use Agreements for Vaccine Administration
Horizons and Questions

• The media is increasingly portraying the US response to monkeypox as a public health failure. Yet, based on a shared global experience, there is no clear solution. What could/should we be doing differently?

• What would “endemnicity” look like for the U.S.? What are the risk factors that might elevate the risk of monkeypox becoming endemic?

• Containment vs. Mitigation – when should CDC shift messaging and response efforts?

• Stigma and Equity are significant concerns. What is CDC getting right? What can we improve?
For more information, contact CDC
1-800-CDC-INFO (232-4636)

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.
U.S. Monkeypox Sequence Characterization

- Cluster tree from 143 genome sequences from US cases
- 14 clusters/26 subclusters based on shared unique SNPs
- Almost all belong to the predominant B.1 outbreak lineage
- No additional findings of US 2022 MPXV lineage A.2
- APOBEC3 mutations noted, but no clear phenotypic differences
- Outside of the APOBEC3 changes, mutation rates low
- 27 genomes have no SNPs compared to first 2022 US MPXV case MA001
- We continue generating genome sequences to monitor the cluster changes over time
Reported U.S. Monkeypox cases through Aug 7th

U.S. Monkeypox Case Trends Reported to CDC: https://www.cdc.gov/poxvirus/monkeypox/response/2022/mpx-trends.html
Monkeypox cases reported to CDC: Symptoms (through August 4\textsuperscript{th})

- Most common symptoms:
  - Rash (99.3%)
  - Malaise (76.6%)
  - Fever (75.1%)
  - Chills (72.7%)
- Less common symptom:
  - Conjunctivitis (7.4%)

Monkeypox Signs and Symptoms

Know the symptoms of monkeypox and when to contact a healthcare professional.

Learn about Signs and Symptoms
Harm Reduction Messaging

Monkeypox and Safer Sex

Vaccination is an important tool in preventing the spread of monkeypox. But given the current limited supply of vaccine, consider temporarily changing some behaviors that may increase your risk of being exposed. These temporary changes will help allow the spread of monkeypox until vaccine supply is adequate.

Reducing or avoiding behaviors that increase risk of monkeypox exposure is also important when you are between your first and second shots of vaccine. Your protection will be highest when you are two weeks after your second dose of vaccine.

Make a habit of exchanging contact information with any new partner to allow for sexual health follow-up, if needed.

Talk with your partner about any monkeypox symptoms and be aware of any new or unexplained rash or lesion on either of your bodies, including the mouth, genitalia (penis, testicles, vulva, or vagina), or anus (buttocks). If your partner has monkeypox symptoms or have a new or unexplained rash anywhere on your body, do not have sex and see a healthcare provider. In some cases, symptoms may be mild, and some people may not even know they have monkeypox.

If you or a partner has monkeypox or think you may have monkeypox, the best way to protect yourself and others is to avoid sex of any kind (oral, anal, vaginal) and kissing or touching each other's bodies—while you are sick. Especially avoid touching any rash. Do not share things like towels, bath gear, sex toys, and toothbrushes.

Even if you feel well, here are some ways to reduce your chances of being exposed to monkeypox if you are sexually active:

- Take a temporary break from activities that increase exposure to monkeypox, until you are two weeks after your second dose. This will greatly reduce your risk.

What should a person do if they have a new or unexplained rash or other symptoms?

- Avoid sex or being intimate with anyone until you have been checked out by a healthcare provider.
- If you don't have a provider or health insurance, visit a public health clinic near you.
- When you see a healthcare provider wear a mask, and remind them that this virus is circulating in the area.
- Avoid gatherings, especially if they involve close, personal, skin-to-skin contact.

- Be aware that monkeypox can also spread through respiratory secretions with close face-to-face contact.
- Remember to wash your hands. Wash your hands often, and avoid touching your face.
- Latex gloves, plastic aprons, and other protective clothing should be worn when handling soiled articles.
Additional Epidemiologic Characteristics US Monkeypox Cases (*MMWR 8/5/22)

• Among 339 persons with data, 48 (14%) were previously vaccinated
  ▪ 11 received 1 of 2 JYNNEOS doses during the current outbreak
    ❖ One developed monkeypox >3 weeks after their first JYNNEOS dose.

• Risk Exposures in the 3 weeks prior to Monkeypox Infection
  ▪ 40% reported two to four partners, 33% reported five+ partners
  ▪ 38% reported group sex, defined as sex with more than two persons, at a festival, group sex event, or sex party

Continued Exponential Growth of Monkeypox

U.S. Jurisdictions

Global
Discussion
Climate and Health

Patrick Breysse, PhD, CIH
Director
National Center for Environmental Health/Agency for Toxic Substances and Disease Registry
U.S. 2021 Billion-Dollar Weather and Climate Disasters

- Western Wildfires 2021
- California Flooding and Severe Weather January 24–29
- Western Drought and Heat Wave 2021
- Texas and Oklahoma Severe Weather April 27–28
- Northwest, Central, Eastern Winter Storm and Cold Wave February 10–19
- Hurricane Nicholas September 14–18
- Louisiana Flooding May 17–18
- Hurricane Ida August 29–September 1
- Texas Hail Storms April 12–15
- Southern Tornadoes and Southeast Severe Weather May 2–4
- Tropical Storm Fred August 16–18
- Tropical Storm Elsa July 7–9
- Central Severe Weather July 8–11
- Midwest Derecho and Tornado Outbreak December 15
- North Central Severe Weather August 10–13
- Central Severe Weather June 24–25
- Ohio Valley Hail Storms June 17–18
- Southeast, Central Tornado Outbreak December 10
- Eastern Severe Weather March 27–28
- Southeast Tornadoes and Severe Weather March 24–25

This map denotes the approximate location for each of the 20 separate billion-dollar weather and climate disasters that impacted the United States in 2021.
Projected Number of Annual Extreme Heat Days over the Next 60 Years
Data Tools: CDC’S Heat and Health Tracker

What is it?

A publicly-available, online tool that provides heat and health data and information at the local level to help communities better prepare for and respond to extreme heat events.

https://ephtracking.cdc.gov/Applications/heatTracker/
An Extraordinary Heat Wave Exposes the Limits of Protecting People

Temperatures are soaring across South Asia, testing dangerous thresholds. How much is climate change to blame? It's becoming an 'obsolete question,' one scientist says.

India tries to adapt to extreme heat but is paying a heavy price

Summer hasn't arrived yet, but early heat waves have brought the country to a standstill

By Gerry Shih and Kasha Patel
May 9, 2022 at 2:00 a.m. EDT

India's early heat wave has major implications for agriculture

May 10, 2022 6:15 PM EDT
Where you live matters
Impact of Climate Change on Human Health

- Injuries, fatalities, mental health impacts
- Asthma, cardiovascular disease
- Heat-related illness and death, cardiovascular failure
- Malaria, dengue, encephalitis, hantavirus, Rift Valley fever, Lyme disease, chikungunya, West Nile virus
- Forced migration, civil conflict, mental health impacts
- Respiratory allergies, asthma
- Extreme heat
- Water and food supply impacts
- Water quality impacts
- Malnutrition, diarrheal disease
- Cholera, cryptosporidiosis, campylobacter, leptospirosis, harmful algal blooms
- Changes in vector ecology
- More extreme weather
- Increased allergens
- Rising temperatures
- Rising sea levels
- Increasing degradation

Rising temperatures lead to more extreme weather, which in turn causes increased allergens and rising sea levels. Rising sea levels contribute to increased degradation, which leads to forced migration, civil conflict, and mental health impacts. Extreme heat exacerbates water and food supply impacts, leading to malnutrition and diarrheal disease. Changes in vector ecology result in more cases of malaria, dengue, encephalitis, hantavirus, Rift Valley fever, Lyme disease, chikungunya, and West Nile virus.
What's the Role of Business in Confronting Climate Change?

30 Nov 2021  |  by Lynn Schenk and Dina Gerdeman

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.

For more information, contact CDC 1-800-CDC-INF0 (232-4636)
CDC Collaborates on Climate and Health Across the US Government

• HHS Office of Climate Change and Health Equity along with NASA, NOAA, EPA, USDA and many others

• Leadership role on multiple cross-USG workgroups
  - Climate Change and Human Health Group (CCHHG)
  - National Integrated Heat Health Information System (NIHHIS)
  - Global Heat Health Information Network (GHHIN)
  - National Drought Resilience Partnership (NDRP)
  - Wildland Fire Leadership Council (WFLC)

• Authors on each of the 4 published National Climate Assessments
CDC Priorities are Climate Priorities

- Public Health Workforce
- Data Modernization
- Health Equity & Climate Justice
- Social Determinants of Health
Climate and Health Programs

Currently Funded

Previously Funded
Our Mission
To detect, investigate, forecast, track, prevent and respond to the public health threats of climate change, addressing health inequities and strengthening community resilience.

Our Vision
A nation prepared to respond to the public health threats of climate change, at home and abroad.
Health inequities and environmental injustices are systematically addressed in efforts to prevent and reduce the health impacts of climate change through a multi-level, multi-sectoral approach.

Data are available via the new, modernized public health data and IT infrastructure to identify, track, prevent, and respond to the public health threats of climate change.

Scientific evidence and evidence-based guidance are available for action to minimize the health impacts of climate change.

Communities, especially those that are disproportionately affected, are prepared to respond, and have the capacity to prevent and adapt to the health impacts of climate change.

Key audiences are educated and equipped to minimize and adapt to the health impacts of climate change in their communities.
Partnering with CDC Foundation to Amplify and Advance Climate and Health Impact

“We in this room are devoted and dedicated to health, but we can’t do this alone. This has to be cross-sector; this has to be multi-disciplinary. We have health-related impacts, but the answers have to be much bigger than health. The prevention has to be much bigger than health.”

- Dr. Walensky at Aspen Ideas Festival, June 2022

SUPPORTING LOCAL COMMUNITIES THAT HAVE EXPERIENCED MARGINALIZATION

CREATIVE WORKFORCE STRATEGIES

PARTNERING WITH HEALTHCARE

SOCIAL MARKETING AROUND CLIMATE AND HEALTH
What’s Needed

• Expanding our Climate-Ready program to the entire nation
• A climate ready workforce - from youth ambassadors to climate leaders
• Climate resilient communities with actions designed and led by members
• State-of-the-art data systems
• Enhancing climate and health communications to highlight impacts and solutions
• Expanding multi-sector partnerships and whole of government approaches
• Innovation!
Discussion
Public Comment
Plans for Future Meetings

David Fleming, MD
ACD Chair
Adjourn