

ASPR TRACIE

2021 Year in Review



INTRODUCTION

The U.S. Department of Health and Human Services (HHS) Office of the Assistant Secretary for Preparedness and Response (ASPR) has sponsored the [ASPR Technical Resources, Assistance Center, and Information Exchange \(TRACIE\)](#) since 2015. ASPR TRACIE creates resources and houses them in a significant database of peer-reviewed and grey literature; maintains close to 60 Topic Collections; and receives and addresses technical assistance (TA) requests from various stakeholders—at the federal, state, local, tribal, and territorial government levels; in nongovernmental organizations; and in the private sector—offering a comprehensive, one-stop, national knowledge center for healthcare system preparedness.

The goal of ASPR TRACIE is to fill gaps in healthcare system preparedness capabilities by providing timely, innovative ways to share information and promising practices during planning efforts. Since our inception, ASPR TRACIE has also served as a force multiplier during disasters, improving information sharing, and minimizing duplication of effort.

In September 2021, ASPR TRACIE celebrated our sixth anniversary. We acclimated to the “new normal” due to the COVID-19 pandemic; responded to requests for TA; participated in and hosted several virtual conferences, meetings, and webinars; and developed over 100 new resources. We did this while maintaining our website 24/7 and addressing multiple cyber threats, keeping it a safe haven for all to explore. In addition, HHS renewed the ASPR TRACIE Authorization to Operate for three additional years.

From a cumulative perspective, as of December 2021, the ASPR TRACIE website has welcomed over 1.2 million visitors, and we have responded to close to 10,000 requests for TA (nearly 3,000 were related to COVID-19).

Our [At-a-Glance and Looking Forward](#) video highlights our accomplishments and future plans.

ASPR TRACIE'S COVID-19 RESPONSE: 2021

As the nation endured another year of uncertainty, ASPR TRACIE continued working with our cadre of subject matter experts (SMEs) to generate new and update existing resources (posted on our [COVID-19 Resources Page](#)). We created a [Hospital Operations Toolkit for COVID-19](#) designed to help hospital emergency managers and planners prepare to manage large numbers of patients during the pandemic. We published the second edition of the [Medical Operations Coordination Cells \(MOCC\) Toolkit](#) and developed a [COVID-19 Patient Surge and Scarce Resource Allocation page](#), which hosts our crisis standards of care and related resources. We highlighted current and upcoming COVID-19 treatments in a [national webinar](#) and [supplemental resource](#), and worked with healthcare coalitions (HCCs) to learn more about [their experiences](#) supporting their jurisdictions during the pandemic.



COVID-19 Resource Collections

Throughout 2021, ASPR TRACIE maintained our COVID-19 Resources page that houses hundreds of resources specific to improving the preparedness, response, and recovery efforts for healthcare entities. This includes the following 20 COVID-19 Healthcare Planning Resource Collections:

- » [COVID-19 Alternate Care Site Resources](#)
- » [COVID-19 At-Risk Individuals Resources](#)
- » [COVID-19 Behavioral Health Resources](#)
- » [COVID-19 Crisis Standards of Care Resources](#)
- » [COVID-19 Drive-Through Testing/Community Screening Resources](#)
- » [COVID-19 Fatality Management Resources](#)
- » [COVID-19 Healthcare System Operations Resources](#)
- » [COVID-19 Home-based Healthcare and Hospice Resources](#)
- » [COVID-19 Hospital Resources Collection](#)
- » [COVID-19 Information and Peer-Reviewed Resources](#)
- » [COVID-19 Legal/Regulatory/Authorities Resources](#)
- » [COVID-19 Long-Term Care Resources](#)
- » [COVID-19 Outpatient Resources](#)
- » [COVID-19 Personal Protective Equipment Resources](#)
- » [COVID-19 Pre-Hospital/Emergency Medical Services \(EMS\) Resources](#)
- » [COVID-19 Regional Support Resources](#)
- » [COVID-19 Supply Chain Resources](#)
- » [COVID-19 Telemedicine/Virtual Medical Care Resources](#)
- » [COVID-19 Vaccine Resources](#)
- » [COVID-19 Workforce Resilience/Sustainability Resources](#)

HEALTHCARE COALITION ENGAGEMENT PROJECT: SELECT FINDINGS

ASPR TRACIE assessed the engagement of coalitions in the healthcare response to COVID-19 and found that HCCs:

- » Should continue to lead regional healthcare preparedness and response coordination.
- » Are an important building block in the overall healthcare system response.
- » Play an important role in information sharing.
- » Need empowerment to achieve their missions.
- » Can perform patient load balancing efforts if they have support and the ability to scale up in their state.
- » Need flexibility to achieve their mission and consistency in expectations.
- » Need funding to support adequate staffing and enable flexibility.
- » Need time to reflect on and incorporate lessons learned from the pandemic.

ASPR TRACIE-DEVELOPED COVID-19-SPECIFIC RESOURCES (2021)

The pandemic forced healthcare to innovate on a constant basis. Together with SMEs who were in the field, implementing changes and sharing their experiences, ASPR TRACIE developed the following new resources to help our stakeholders during this unprecedented response:

After-Action Reports

[COVID-19 After Action Report Elements for Long-term Care Facilities](#) (TA Response)

[COVID-19 After Action Report Resources and Examples](#)

Clinical Resources

[COVID-19 Clinical Charting Policies](#) (TA Response)

[COVID-19 Management in Operating Rooms](#) (TA Response)

[Post-Acute Sequelae of SARS-CoV-2 Infection](#) (TA Response)

HCC Engagement

[Healthcare Coalition Engagement in COVID-19 Assessment](#) (full report, infographic, webinar, Q and A)

[Kentucky State Penitentiary COVID-19 Strike Team Response](#) (Speaker Series Recording)

Healthcare Worker Resilience

[COVID-19: Concerns and Opportunities for Healthcare Leadership](#)

[The Work-Life Pandemic Puzzle: Putting the Pieces Back Together, but Better](#) (Speaker Series Recording)

[Healthcare Professional Stress and Resilience during the COVID-19 Pandemic ASPR TRACIE Experiences from the Field](#)

[Medical Education during COVID-19: Lessons Learned](#) (Speaker Series Recording)

Homecare and Hospice

[Acute Care Delivery at Home Tip Sheet](#)

[Healthcare Operations Series: Denver Health Virtual Hospital at Home](#) (Speaker Series Recording)

[Home Care and Hospice during COVID-19: A Rural Perspective](#)

[Hospice and COVID-19](#)

[Resources for At-home COVID-19 Test Kit Distribution in the Community](#) (TA Response)

[The Virtual Hospital at Home-Denver Health's Experience Treating COVID-19 Patients Remotely](#)

MOST VISITED PAGES IN 2021:

1. [COVID-19 Workforce Virtual Toolkit](#)
2. [COVID-19 Resource Page](#)
3. [Coronaviruses Topic Collection](#)
4. [COVID-19 Behavioral Health Resources](#)
5. [Crisis Standards of Care Topic Collection](#)

MOST DOWNLOADED ASPR TRACIE RESOURCES IN 2021

1. [COVID-19 Drive-Through Testing TA Request](#)
2. [EMS Infectious Disease Playbook](#)
3. [Considerations for the Use of Temporary Surge Sites for Managing Seasonal Patient Surge](#)
4. [SOFA Score: What it is and How to Use it in Triage](#)
5. [COVID-19 Homeless Shelter Resources TA Request](#)

Monoclonal Antibodies and other Treatment

[Completing MedWatch Forms for Administering Bamlanivimab](#) (TA Response)

[Methods for Monoclonal Antibody \(mAb\) Therapy](#) (Speaker Series Recording)

[Monoclonals and More: Issues and Opportunities with Early Treatment Options in COVID-19](#) (Webinar)

[Monoclonals and More – Allocation and Distribution of Outpatient COVID-19 Treatments](#) (Supplemental Resource)

[Planning Considerations for Monoclonal Antibody Administration](#)

[Sample Physician's Orders for Monoclonal Antibody Infusion Treatment](#) (TA Response)

[Special Projects for Equitable and Efficient Distribution \(SPEED\) of COVID-19 Outpatient Therapeutics](#) (Speaker Series Recording)

Patient Surge Management

[Crisis Standards of Care Terminology and Legal Resources](#) (TA Response)

[Excess Mortality and COVID-19 Surges: Defining the Problem and Solutions](#) (Speaker Series Recording)

[Healthcare Coalition \(HCC\) Medical Operations Coordination Cell \(MOCC\) Resource Assessments](#) (TA Response)

[Hospital Emergency Department Waiting Room Processes and Workflows](#) (TA Response)

[Hospital Surge of Patients with Behavioral Health Challenges during COVID-19](#) (TA Response)

[Increasing Hospital Bed Capacity](#) (TA Response)

[Innovations in COVID-19 Patient Surge Management](#)

[Innovations in COVID-19 Patient Surge Management](#) (Tip Sheet)

[Medical Operations Coordination Cells Toolkit](#) (Second Edition)

[Patient Surge and COVID-19: ASPR TRACE Experiences from the Field](#)

[Using Electronic Health Records to Track Patients at an Alternate Care Site](#) (Speaker Series Recording)

Pediatric COVID Resources

[Children and COVID-19: ASPR TRACIE Experiences from the Field](#)

[Safety Planning Assistant: A Web-Based Tool to Support Suicide Safety Planning Among Adolescents](#) (Speaker Series Recording)

[Pediatric Lessons Learned from COVID-19: Immediate and Future Implications](#) (Speaker Series Recording)

[Management of Suicide and Mental Health Emergencies in Children](#) (Speaker Series Recording)

[Pediatric Crisis Standards of Care Resources](#) (TA Response)

[Pediatric Lessons Learned from COVID-19: Immediate and Future Implications \(Introduction\)](#) (Speaker Series Recording)

[Pediatric Surge Resources for COVID-19](#) (TA Response)

[Trauma-Informed Emergency Care for Suicide Prevention](#) (Speaker Series Recording)

[Tools for Coping with School during COVID-19](#) (Speaker Series Recording)

[SAMHSA's Suicide Prevention Resources](#) (Speaker Series Recording)

Reconfiguring Spaces to Adjust to Patient Surge

[Infection Prevention and Control \(IPC\) and Environmental Health and Safety for COVID-19 Isolation and Quarantine Hotels](#) (Speaker Series Recording)

[Creating a COVID-19 Specialty Hospital](#)

[Creating a COVID-19 Specialty Hospital](#) (Speaker Series Recording)

[Reconfiguring Spaces: How NorthShore University HealthSystem Met the COVID-19 Challenge](#)

[2020 in Review: Medical Supply Chain Responses to the COVID-19 Pandemic](#) (Speaker Series Recording)

[Engineering/Reconfiguring Spaces to Accommodate COVID-19 Patients: ASPR TRACIE Experiences from the Field](#)

Supportive Care Providers

[Facility Cleaning and Sanitation Guidelines](#)
(TA Response)

[The Experience of Chaplains During COVID-19](#)

[The Role of the Physical Therapist in
Pandemic Response](#)

[The Role of the Physical Therapist in Pandemic
Response](#) (Speaker Series Recording)

[Respiratory Therapy and COVID-19](#)

[The Role of Respiratory Therapists during COVID-19](#)
(Speaker Series Recording)

[Occupational Therapy and COVID-19](#)

[Issue 13: The Work of Hospital Allied and Supportive
Care Providers During COVID-19](#)

[The Role of Support Services during COVID-19: ASPR
TRACIE Experiences from the Field](#)

[Pharmacy, Therapeutics, and Supply Chain Issues: ASPR
TRACIE Experiences from the Field](#)

[Managing the Nation's Blood Supply During the
COVID-19 Pandemic](#) (Speaker Series Recording)

[Poison Center Roles During the Pandemic](#) (Speaker
Series Recording)

Vaccination

[Be a COVID-19 Vaccine Champion](#) (Webinar)

[COVID-19 Vaccination Quick Links](#)

[Federal COVID-19 Vaccine Equity Efforts](#) (TA Response)

[Mass Vaccination Plans](#) (TA Response)

[Vaccination Clinic Resources](#) (TA Response)

Other/Miscellaneous

[Applicability of 1135 Waivers Post State Public Health
Emergency Declaration](#) (TA Response)

[COVID-19 and Changes to the Healthcare Delivery
Landscape: ASPR TRACIE Experiences from the Field](#)

[COVID-19 and the Changing Healthcare Delivery
Landscape](#) (Speaker Series Recording)

[The Effect of COVID-19 on the Healthcare Incident
Command System](#) (TA Response)



ADDITIONAL ASPR TRACIE-DEVELOPED RESOURCES (2021)

2021 found our stakeholders dealing with secondary/ dual disasters (e.g., natural disasters, cyberattacks, large-scale transportation accidents, and mass casualty incidents) during the COVID-19 pandemic. Further compounding these incidents were issues such as workplace violence (which plagued our stakeholders before the pandemic) and continued civil unrest that posed relatively new challenges to many. And through it all, HCCs still had to comply with requirements to create various annexes. ASPR TRACIE created the following resources to help our varied audiences with their planning and response efforts:

Active Shooter/Explosives

[Identifying and Overcoming Healthcare Communications Vulnerabilities: Nashville, TN](#)

At-Risk Populations/Multilingual Resources

[Disasters and Healthcare Disparity](#) (Topic Collection)

[Exercise Requirements for an Intermediate Care Facility for Individuals with Intellectual Disabilities](#) (TA Response)

Civil Unrest and Workplace Violence

[Healthcare Preparation for and Response to Local Civil Unrest](#)

[Issue 14: The Impact of Civil Unrest and Workplace Violence on Healthcare](#)

[Trends, Policies, and Protocols Related to Healthcare Workplace Violence](#)

[Violence in the Emergency Department: Strategies for Prevention and Response](#)

Cybersecurity

[Cybersecurity Incident Healthcare System Downtime Operations Checklist](#)

[Cybersecurity Incident Healthcare System Downtime Preparedness Checklist](#)

[Cybersecurity Incident Healthcare System Response Checklist](#)

[Cyber Incident Healthcare System Restoration Checklist](#)

[Cybersecurity Incident Response Checklist](#)

[Healthcare System Cybersecurity Response: Experiences and Considerations](#) (Webinar, [Document](#))

[Healthcare System Cybersecurity Readiness and Response Considerations Appendix](#)

[Healthcare System Cybersecurity: Readiness & Response Considerations](#) (Speaker Series Recording)

TOP THREE DOWNLOADED ASPR TRACIE TA REQUESTS IN 2021

[COVID-19 Vaccine Planning and Considerations](#) includes links to resources related to the approval, allocation, distribution, and administration of vaccines to prevent COVID-19.

[Post-Acute Sequelae of SARS-CoV-2 Infection](#) includes information on clinical presentation, disease progression, and related information from clinicians in the field treating COVID-19 patients after the acute phase of the virus has passed, frequently referred to as “COVID long haulers.”

[CSC and Patient Surge Management](#) provides an overview of crisis care and crisis standards of care for situations where there are scarce resources available to care for high numbers of patients. Patient surge management strategies at the individual facility and community level are discussed and links to resources for more information and to operationalize the strategies are provided throughout.

Emergency Management/General

[ASPR TRACIE-Developed Resources Digest \(Calendar Year 2020\)](#)

[Healthcare Preparedness Series: Leadership During a Disaster](#) (Speaker Series Recording)

[Hospital and Fire Department Roles in Decontamination Incidents](#) (TA Response)

[Hospital Patient Discharge and Transfer Times](#) (TA Response)

[Regional Planning Considerations](#) (TA Response)

Healthcare Coalition Resources

[Healthcare Coalition Partnership with Academic Institutions](#) (TA Response)

[Using the ASPR TRACIE Burn Surge Templates to Enhance a Healthcare Coalition](#) (Speaker Series Recording)

Location-Specific Resources

[Homecare and Hospice Emergency Operations Plans](#) (TA Response)

[Long-term Care Facilities Exercise Resources](#) (TA Response)

[Pharmaceutical Cache Resources](#) (TA Response)

[Special Needs Population Readiness: Dialysis Preparedness and Response](#) (Speaker Series Recording)

Pediatric Resources

[Compounding Disaster Pediatric Triage to Care](#)

Other/Miscellaneous

[Pharmaceutical Temperature Stability](#) (TA Response)

[Roles of Public Libraries in Emergency Response](#) (TA Response)

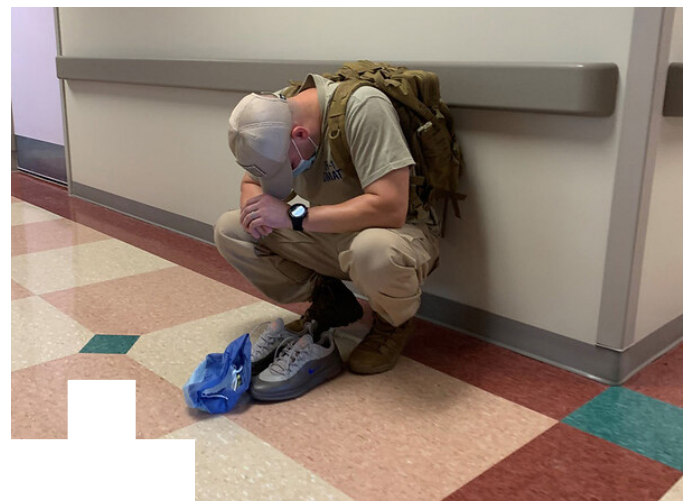
[Challenges and Considerations for Healthcare Facilities and Residents Affected by Planned Power Outages](#)

[Managing the Storm After the Storm: Healthcare in TX Recovers from Severe Winter Weather](#)

[Scarce Oxygen Triggers](#) (TA Response)

HCC SPECIALITY SURGE ANNEXES PUBLISHED IN 2021

- » [Healthcare Coalition Radiation Emergency Surge Annex Template](#)
- » [Healthcare Coalition Chemical Emergency Surge Annex Template](#)
- » [Step-by-Step Guide to Implementing the Coalition Radiation Surge TTX Template \(Word, PDF\)](#)
- » [Step-by-Step Guide to Implementing the Coalition Infectious Disease Annex TTX Template \(Word, PDF\)](#)
- » [Step-by-Step Guide to Implementing the Coalition Burn Surge Annex TTX Template \(Word, PDF\)](#)
- » [Using the ASPR TRACIE Burn Templates to Enhance a Healthcare Coalition \(Speaker Series Recording\)](#)



VIRTUAL LEARNING OPPORTUNITIES

In 2021, the ASPR TRACIE team participated in numerous virtual conferences and meetings to highlight ASPR TRACIE resources and provide SME-specific briefings. We conducted **31** web-based learning opportunities: **4** national webinars, and **27** short presentations as part of our three speakers' series.

Nearly 56,000 healthcare professionals and other stakeholders accessed ASPR TRACIE webinars and speaker series presentations in 2021.

NATIONAL WEBINARS

- » [Healthcare System Cybersecurity Response: Experiences and Considerations](#)
- » [Be a COVID-19 Vaccine Champion](#)
- » [Next Generation Healthcare Coalitions: Learning and Evolving from COVID-19](#)
- » [Monoclonals and More: Issues and Opportunities with Early Treatment Options in COVID-19](#)

SPEAKER SERIES

- » [Healthcare Operations During the COVID-19 Pandemic](#)
 - [COVID-19 and the Law](#)
 - [Using Electronic Health Records to Track Patients at an Alternate Care Site](#)
 - [Methods for Monoclonal Antibody \(mAb\) Therapy](#)
 - [Infection Prevention and Control \(IPC\) and Environmental Health and Safety for COVID-19 Isolation and Quarantine Hotels](#)
 - [The Role of the Physical Therapist in Pandemic Response](#)
 - [Special Projects for Equitable and Efficient Distribution of COVID-19 Outpatient Therapeutics \(SPEED\)](#)
 - [Denver Health Virtual Hospital at Home](#)
 - [Creating a COVID-19 Specialty Hospital](#)
 - [COVID-19 and the Changing Healthcare Delivery Landscape](#)
 - [2020 in Review: Medical Supply Chain Responses to the COVID-19 Pandemic](#)
 - [The Role of Respiratory Therapists during COVID-19](#)

- [Poison Center Roles during the Pandemic](#)
- [The Work-Life Pandemic Puzzle: Putting the Pieces Back Together, but Better](#)
- [Managing the Nation's Blood Supply during the COVID-19 Pandemic](#)
- [Excess Mortality and COVID-19 Surges- Defining the Problem and Solutions](#)
- [Medical Education during COVID-19: Lessons Learned](#)
- [Kentucky State Penitentiary COVID-19 Strike Team Response](#)
- » [Pediatric Lessons Learned from COVID-19: Immediate and Future Implications](#)
 - [Introduction to the Series](#)
 - [Management of Suicide and Mental Health Emergencies in Children](#)
 - [The Safety Planning Assistant: A Web-Based Tool to Support Suicide Safety Planning Among Adolescents](#)
 - [Trauma-Informed Emergency Care for Suicide Prevention](#)
 - [SAMHSA's Suicide Prevention Resources](#)
 - [Compounding Disaster Pediatric Triage to Care](#)
 - [Tools for Coping with School during COVID-19](#)
- » [Healthcare System Preparedness Considerations](#)
 - [Healthcare System Cybersecurity Readiness and Response Considerations](#)
 - [Special Needs Population Readiness: Dialysis Preparedness and Response](#)
 - [Executive Leadership during a Crisis](#)
 - [Using the ASPR TRACIE Burn Surge Templates to Enhance a Healthcare Coalition](#)

ONGOING MARKETING AND COMMUNICATIONS

ASPR TRACIE strives to incorporate our stakeholder and partner preferences for receiving and sharing information (and encouraging others to submit useful resources into ASPR TRACIE). In addition to continuing to promote our resources through our partner newsletters and distribution lists, we also:

- » **Released 14 [Express Messages](#) in 2021.** Due to the significant amount of information being released during the pandemic, we used the Express to distill and highlight key resources for our stakeholders, saving them time and effort.
- » **Published 2 issues of [The Exchange](#).** In 2020, we decided to dedicate one page of each issue to a specific theme and provide links to the articles we created and related resources. This allowed us to develop and link to many more articles and supporting documents and tools, while enabling readers to quickly identify topics of interest and access articles using the smallest number of clicks possible. In 2021, we covered COVID-19 topics and other issues concurrently challenging healthcare, including civil unrest and workplace violence.
- » **Were featured in two journal articles:** [Technical Assistance for Healthcare System Preparedness](#) and [ASPR TRACIE: Healthcare Emergency Preparedness Information Gateway Background](#).

MARKETING AND COMMUNICATIONS



14

Express
issues



36

Presentations
to stake-holders
and partners



31

Webinars and
speaker series
recordings



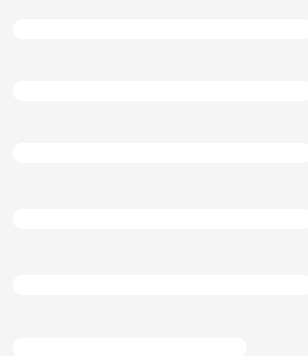
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Exchange
issues



>100

New
resources



ASPR TRACIE DOMAINS AT-A-GLANCE

Each of the three domains (TR, AC, and IE) provides users with unique, tailored support. Demand for resources, technical assistance, and peer-to-peer support surged significantly in 2021.



TECHNICAL RESOURCES

- » A [self-service collection](#) of disaster medical, healthcare, and public health materials, searchable by keywords.
- » Maintained [20 COVID-19 Resource Collections](#).
- » Created **more than 100 new resources** (including webinars, speaker series presentations, quick sheets, published TA responses, and other resources).
- » Maintained numerous topic-specific landing pages.
- » Conducted **4 national webinars** and **27 short presentations** as part of our three speakers' series.



ASSISTANCE CENTER

- » Personalized [support and responses to requests for information and TA](#). Accessible by toll-free number (1844-5-TRACIE), email (askasprtracie@hhs.gov), or form.
- » Maintained user satisfaction rating of 99%.
- » Provided a cumulative 9,831 TA responses since 2015: **1,585 in 2021 alone**.
- » Worked with our SME Cadre (**over 1,100 professionals** from all levels of government, academia, and the private sector) to develop Topic Collections, answer requests for assistance, and develop new resources.
- » Access [select TA responses](#) through the years.



INFORMATION EXCHANGE

- » An area for [password-protected discussion](#) among vetted users to include peer-to-peer exchange of user-developed templates, plans, and other materials (free registration required) Comprised of over **10,500 members** and popular discussion threads to include COVID-19 and HCC resources.
- » Membership in the Information Exchange (IE) continues to rise steadily, with a monthly average of new IE members at 136 per month.

CONTINUOUS MONITORING: COVID-19 RESOURCES

ASPR TRACIE staff have been monitoring the COVID-19 pandemic since the first alerts were posted on ProMed and FluTrackers on December 30, 2019. Throughout January 2020 and continuing to today, ASPR TRACIE reviewed alerts from the Centers for Disease Control and Prevention (CDC), the World Health Organization, and international public health agencies; followed updates from the HHS Secretary's Operations Center (SOC); and monitored stakeholder organization websites and reporting by reputable traditional and social media for related information and resources. Additionally, staff regularly review federal reports and updates (including, but not limited to, Senior Leadership Briefs, the COVID-19 Science Policy and Guidance Reports, the SOC's COVID Daily Update, and the CDC's COVID-19 Response Update) and subscribe to numerous newsletters and listservs.

With the support of supplemental staffing, ASPR TRACIE created a formal system for documenting the review of select websites, newsletters, and listservs for relevant information. This effort identified more than 500 sources for repeated review. ASPR TRACIE staff reviewed an average of 39 unique sources per day. In addition, all resources that had been added to our COVID-19 Resource Collections were reviewed early in 2021; we removed outdated information and streamlined existing collections. At the end of December 2021, the following cumulative resources have been added to the ASPR TRACIE COVID-19 Resource Collections:

