

TACKLING URGENT HEALTH SECURITY RISKS DURING THE COVID-19 PANDEMIC

The COVID-19 pandemic sparked an urgent need to solve massive healthcare supply-chain challenges, create innovative therapies, accelerate vaccines, reimagine public health services, and empower leaders with information to make life-and-death decisions amid high uncertainty.

Responding to the call, MITRE engaged U.S. government leaders to advance rapid federal COVID-19 responses through the multiple [federally funded research and development centers](#) (FFRDCs) that MITRE operates. In parallel, MITRE, in partnership with the Mayo Clinic, convened the [COVID-19 Healthcare Coalition](#) in March 2020 to help healthcare system leaders and public health officials respond to the novel coronavirus.

SUMMARY OF MITRE EFFORTS ACROSS THE PUBLIC AND PRIVATE SECTORS DURING 2020

MONITORING, REPORTING, SUPPLY CHAIN	NATIONAL HEALTH SECURITY STRATEGY	PUBLIC HEALTH SYSTEM MODERNIZATION
<ul style="list-style-type: none"> ■ VHA COVID-19 Procurement and Distribution Process for Emergency Supplies ■ DoD Pandemic Analysis Decision Platform ■ NIH <i>All of Us</i> Participant Survey on Health and Well-Being During the COVID-19 Pandemic ■ DHS NPI Modeling and Impact Awareness Tools ■ Pandemic Analytics Platform (predictive model for policy impacts on infection rates and economic conditions) ■ COVID-19 Decision Support Dashboard ■ COVID-19 PPE Demand Model 	<ul style="list-style-type: none"> ■ ASPR Sustainable Biodefense Industrial Base Business Cases for Priority Health Security Threats ■ ASPR Horizon Scan and Risk Mitigation for 21st Century Health Security Threats ■ ASPR Medical Countermeasures Dispensing in Support of The Last Mile ■ Catalog of Federal Authorities, Contract Vehicles, and Initiatives for COVID-19 Response 	<ul style="list-style-type: none"> ■ CDC Sara Alert—Building an Enduring National Capability to Contain COVID-19 ■ CDC Feasibility of Record Linkage across COVID-19 Surveillance Systems ■ CDC Data Gathering to Inform COVID-19 Testing Information Dashboard ■ Federated Analytics for Near-Real-Time Observational Studies with Multiple EHR Vendors
DATA & INTEROPERABILITY	HEALTH POLICY & ANALYTICS	THERAPEUTICS & CARE-SETTING SUPPORT
<ul style="list-style-type: none"> ■ Army TATRC Rapid-Start COVID-19 Activities, Digital Health Ecosystem ■ HHS Center for Health Innovation Data Analytic Strategy re: Long-Term COVID-19 Impacts ■ Assessing Potential Implications of COVID-19 Response and Recovery Policies on Medicaid IT Systems ■ COVID-19 Standards for Federated Analytics ■ COVID-19 Resource Library of Data Assets 	<ul style="list-style-type: none"> ■ Medicaid COVID-19 Response and Recovery Activities ■ Medicare Price Transparency for COVID-19 Testing ■ Rapid Response Policy Development to Enable Reporting Flexibilities in CMS Quality Programs ■ CMS Office of Minority Health Rural Health Analysis ■ Medicaid and CHIP COVID-19 Vaccine Administration Coverage and Reimbursement Toolkit ■ CMS Program Integrity Strategy and Policy Analysis 	<ul style="list-style-type: none"> ■ Convening of Coronavirus Commission for Safety and Quality in Nursing Homes (CMS) ■ HHS Federal Therapeutic Efforts COVID-19 Convalescent Plasma Donation Platform and Recruitment ■ “The Fight Is In Us” Public Service Campaign for Convalescent Plasma Donation ■ Private-Sector Coalition Studies on Outcomes of Potential COVID-19 Treatments ■ Telehealth Impact Study with Mayo, AMA, Others
VACCINATION	DIAGNOSTICS & TESTING	PUBLIC HEALTH COMMUNICATION
<ul style="list-style-type: none"> ■ ASPR COVID-19 Vaccine Manufacturing Feasibility Assessment ■ NIH Outbreak Emergency Preparedness (Scientific Knowledgebase for High-Risk Viruses Related to Accelerated Vaccine Development) ■ Vaccine Credential Initiative ■ COVID-19 Vaccine Administration Clinical Communication System (VACCS) 	<ul style="list-style-type: none"> ■ NIH SEED Program Support to Accelerate Small Business Innovations in COVID-19 Tests ■ NIH All of Us SARS-CoV-2 Serum Antibody Study to Identify Cases from Early 2020 ■ Connecting and Coordinating National Partners to Advance Waste-Based Epidemiology for COVID-19 	<ul style="list-style-type: none"> ■ Social Media Analysis and Response Strategies Related to Dis/misinformation ■ SQUINT Tool for Identifying COVID-19 Misinformation ■ Thought Leadership Series on Testing, Contact Tracing, Telehealth, Supply Chains, Treatments, PPE ■ Patient and Clinician Education on Emerging Therapeutics

MITRE work with: ■ Federal Government ■ Industry

For more information, contact mitrehealth@mitre.org

Discovered Data to Power Evidence-Based Policy

- Developed a [COVID-19 Decision Support Dashboard](#) that synthesizes large amounts of complex, essential data into easy-to-use key findings for public and private-sector leaders navigating the “reopening” of communities and businesses.
- Created a de facto COVID-19 data standard to facilitate [rapid sharing of outcomes and federated analytics on the effectiveness of treatments](#) such as remdesivir, convalescent plasma, and famotidine, as well as reinfection rates.
- Expanded a [service area needs assessment methodology developed for HHS](#) to create a [dashboard that allows local decision makers to understand the vulnerability of their populations](#), as well as the vulnerability of neighboring regions, related to COVID-19.
- Created an [Academic Toolkit](#) to empower state and local officials with decision support dashboards, university simulations, distance learning resources, and other tools to accelerate data-driven decisions for reopening K-12 schools, colleges, and universities.

Created Life-Saving Solutions

- Catalyzed and led healthcare organizations, technology firms, nonprofits, academia, and startups to [solve massive supply chain challenges](#), delivering 675,000 masks, validating N95 mask strategies, connecting suppliers to buyers, and developing a model to predict demand for personal protective equipment (PPE).
- [Applied specialized regulatory and commercialization knowledge](#) to help NIH’s Rapid Acceleration of Diagnostics (RADx) initiative mobilize the private sector to develop and scale point-of-care diagnostic tests for COVID-19.

Inspired Individuals to Act for Public Good

- Pioneered [campaigns by industry](#) and [HHS](#) to increase convalescent plasma donation to create treatments that prevent more serious cases of COVID-19.

Accelerated Economic Recovery and Well-Being

- With a broad coalition of health and technology leaders, created the [Vaccination Credential Initiative](#) to empower individuals with digital access to their vaccination records based on open, interoperable standards so that they can: 1) protect and improve their health, and 2) demonstrate their health status to safely return to travel, work, school, and life while protecting their data privacy.

DELIVERED 675,000 masks

VALIDATED N95 mask decontamination strategies

SERVE more than 9000 public health workers through enhanced monitoring for more than 2 million people across almost 800 jurisdictions

SUPPORTED development of first at-home, over-the-counter COVID-19 test

IDENTIFIED more than 100 action steps to improve safety and quality of life in nursing homes

ENERGIZED 1000 private-sector organizations for urgent action to preserve the healthcare delivery system and help protect U.S. populations

Convened Experts to Spark Innovation

- Combined health expertise and objectivity to convene 25 commission members (from infection control experts to nursing leaders to a nursing home resident), candidly capture learnings, synthesize data, and [develop a report with unanimous consent](#) identifying 27 principal recommendations and more than 100 accompanying action steps to improve safety and quality of life in nursing homes.
- Pioneered the [COVID-19 Healthcare Coalition](#), a coordinated public-interest, private-sector response to the COVID-19 pandemic, convening healthcare organizations, technology firms, nonprofits, academia, and startups to preserve the healthcare delivery system and help protect U.S. populations.

Reimagined Public Health Services

- In a matter of weeks, MITRE created Sara Alert™, [a standards-based, open-source tool](#) that automates the process of public health monitoring and reporting of individuals exposed to or sick with an infectious disease like COVID-19. Through this partnership, the Centers for Disease Prevention and Control will have an enduring nationally available resource for disease containment and mitigation.
- Created a [Social Integrity Platform](#) that empowers leaders to identify manipulated content and conduct campaigns to increase public health understanding and combat dis/mis information.

For more information, contact us at mitrehealth@mitre.org.

MITRE’s mission-driven teams are dedicated to solving problems for a safer world. Through our public-private partnerships and federally funded R&D centers, we work across government and in partnership with industry to tackle challenges to the safety, stability, and well-being of our nation.

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FOR A SAFER WORLD™