

Initial Impacts of COVID-19 on 9-1-1 Centers

9-1-1 & COVID-19 Report Series | April 3, 2020

NENA

THE 9-1-1 ASSOCIATION



911nena911

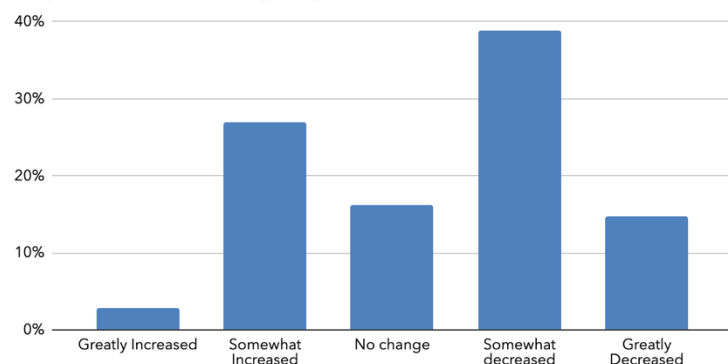
NENA is proud to publish *Initial Impacts of COVID-19 on 9-1-1 Centers*¹, the first paper in our 9-1-1 & COVID-19 report series. This report, based on 500 survey responses² from 9-1-1 professionals across 46 U.S. states and territories, provides us with an initial view into how the COVID-19 pandemic is affecting PSAP operations, as well as what actions PSAPs and local authorities are taking to protect telecommunicators – the *first* first responders. Survey access was provided to PSAP contacts and users of the NENA Enhanced PSAP Registry and Census (EPRC), a free service for public safety personnel that provides contact information for PSAPs during emergencies. See Appendix B for more information on the EPRC.

Respondents generally report a decrease in overall 9-1-1 call volumes during the COVID-19 crisis, with some caveats.

As of close of business April 1, 2020, PSAPs across the U.S. generally reported a decrease in call volume, with most respondents reporting either no change or a decrease in call volume, only 30% of respondents reporting an increase, and only 3% reporting that call volumes have “greatly” increased. Most of the individual responses reporting “greatly increased” call volumes were from areas identified in the media as COVID-19 “hotspots”.

Much of the Midwest reported a decrease in call volume, while the East Coast and Southwest generally reporting no change. Almost all respondents reported having “no change in,”

Has your PSAP experienced a change in overall call volumes (e.g. 9-1-1, non-emergency, text, etc.) as a result of COVID-19?



“somewhat decreased,” or “greatly decreased” call volumes. Only four states reported increased call volumes, with only Hawaii reporting “greatly increased” call volume.

NENA believes the primary reason for an overall decrease in call volume is that people are simply staying at home, leaving individuals with fewer opportunities to find

themselves in an emergency, such as those that would occur when people are driving to work or school or congregating in public places. However, we note various reports of sharply increased call volumes around the country; for example, *The New York Times* reports that

¹ This report was retitled on May 6, 2020 to avoid confusion with subsequent reports. It was originally released as *9-1-1 & COVID-19: A Report on PSAPs During the Pandemic*.

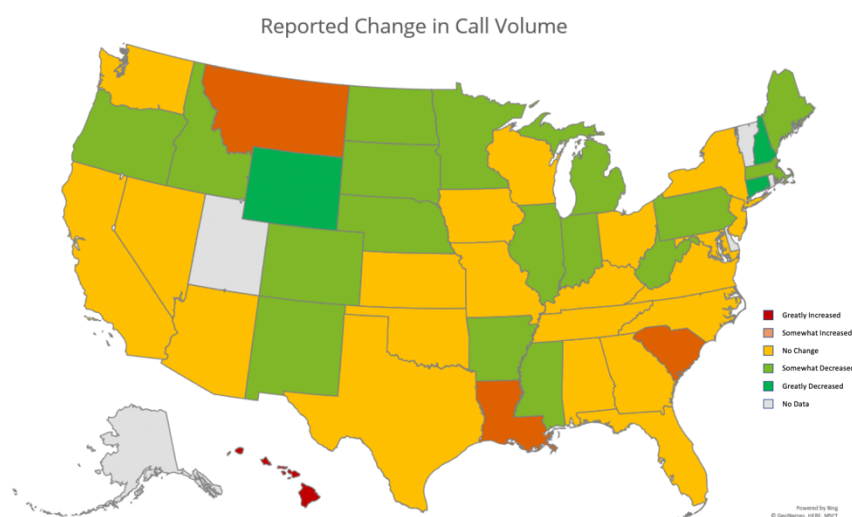
² How to interpret these findings: This survey reflects the sentiments of the approximately 500 9-1-1 professionals from 46 U.S. states and territories who responded to our survey. It captures some trends with respect to how COVID-19 is changing PSAP operations based on direct reports from the field. In the interest of producing timely results, we did not establish a margin of error and we did not ensure a statistically-valid representative random sample. See Appendix A for survey-methodology details.

New York City experienced record increases in 9-1-1 calls during our survey period, even more than during the September 11, 2001 terrorist attack on the World Trade Center.³

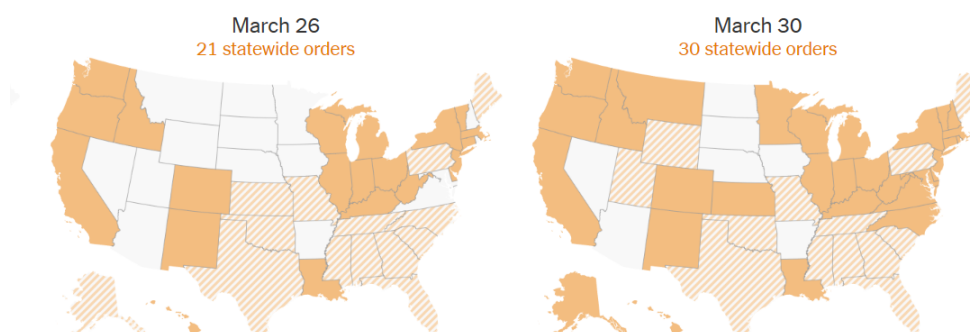
NENA also notes an apparent correlation between the announcement of shelter-in-place orders and a reported temporary spike in call volume. Of the five states that had not yet issued shelter-in-place orders at the time of this report, four of them (the Dakotas, Nebraska, and Arkansas) reported reduced call volumes.

Meanwhile, Montana stands alone in the same region as reporting an increase in 9-1-1 calls; we suspect that is because the state issued statewide shelter-in-place order March 28, concurrent with our survey period.

Narrative responses support this explanation, noting increases in calls requesting shelter-in-place information. Accompanying these shelter-in-place orders is the emergence of callers dialing 9-1-1 to report violations of such orders; multiple survey respondents noted this.



Throughout the Midwest, states generally fell into one of two categories: not having issued a statewide shelter-in-place order during the survey period, or having issued a shelter-in-place order well before the survey began. We suspect this is why reduced call volumes were reported throughout the Midwest.



States enacting shelter-in-place orders Between March 26, 2020 and March 30, 2020⁴

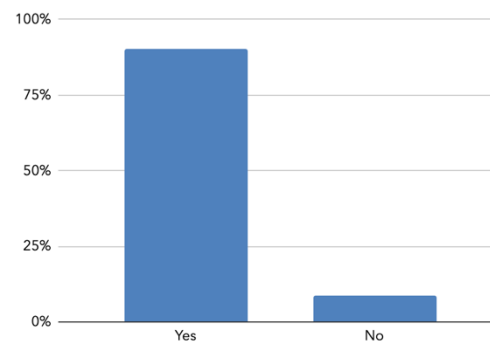
³ New York Times article [N.Y.C.'s 911 System Is Overwhelmed. 'I'm Terrified,' a Paramedic Says](#)

⁴ New York Times interactive feature [See Which States and Cities Have Told Residents to Stay at Home](#)

The public is interacting with PSAPs in a variety of ways during the COVID-19 crisis.

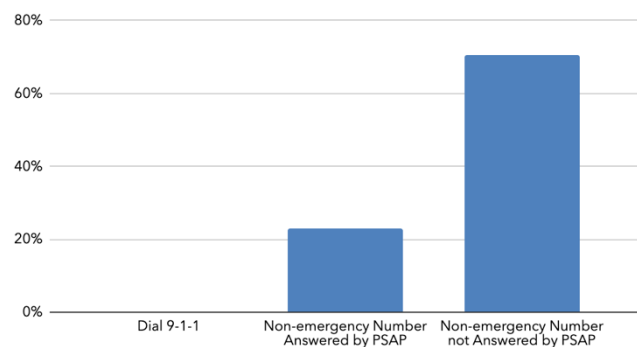
Almost every PSAP responding to the survey has received a call from a caller describing symptoms of COVID-19. While NENA cannot verify whether any of these callers were later diagnosed with COVID-19, it is worth noting that 90% of PSAPs reported that they have received such a call.

Has your center received any 9-1-1 calls from callers describing symptoms of COVID-19?



Our findings indicate the public is not encouraged to interact with the PSAP for non-emergency queries related to COVID-19, such as by dialing 9-1-1. Zero respondents

How are citizens in your service area being instructed to gain non-emergency assistance or info about COVID-19?



reported that public health officials in their service areas have encouraged the general public to dial 9-1-1 with questions about COVID-19, and only 23% reported that the public was encouraged to contact the PSAP in some other way, such as by dialing 3-1-1. The vast majority of PSAPs instead reported that authorities instructed the public to contact an entity outside the PSAP for information.

An increase in domestic violence may be resulting from shelter-in-place orders.

Though NENA did not collect any data on the types of calls received during the COVID-19 pandemic, we do note one particularly concerning trend: an increase in domestic violence. Dozens of individuals, completely unprompted, described an increase in domestic violence calls, with one respondent saying, "General calls for service seemed to have decreased, while family disturbance and domestic violence calls seems to have increased ([respondent's state] is currently under a 'stay at home' order)." This is consistent with media reports; Charlotte, North Carolina reported a 17% increase in domestic violence⁵ and the government of Spain reported an 270% increase in traffic at its domestic-violence-hotline website.⁶

⁵ WBTV story [CMPD sees increase in domestic violence calls during coronavirus pandemic](#)

⁶ Reuters article [Calls to Spain's gender violence helpline rise sharply during lockdown](#)

Most PSAPs are taking measures to ensure telecommunicator health and safety.

NENA respondents reported numerous different measures PSAPs have taken to ensure telecommunicator safety during the pandemic. For example, the vast majority of respondents (76%) reported PSAP lockdown or quarantine policies, 69% reported new policies and procedures related to PSAP and workstation cleanliness, and 63% reported changes to both staffing contingency plans and dispatch procedures. 41% reported enacting health screenings, and 21% reported activating a backup center.

What measures has your 9-1-1 authority or PSAP taken to ensure telecommunicator safety during the COVID-19 pandemic?	
PSAP lockdown/quarantine policies	76%
New policies/procedures related to PSAP & workstation cleanliness	69%
Staffing contingency plans	68%
Changes to dispatch procedures based on call protocol changes	68%
Coordination with local Emergency Management	63%
Coordinating with local medical control for protocol changes	53%
Contingency plans in the event you have to shut down your PSAP	45%
Updating COOP (Continuity of Operations) plans	44%
Health screenings	41%
Other changes to dispatch procedures	41%
Changes to employee vacation policies/enforcement of policies	37%
Changes to employee medical leave policies	33%
Changes to employee medical disclosure/quarantine policies	22%
Activation of a backup center	21%
Changes to minimum staffing requirements	17%

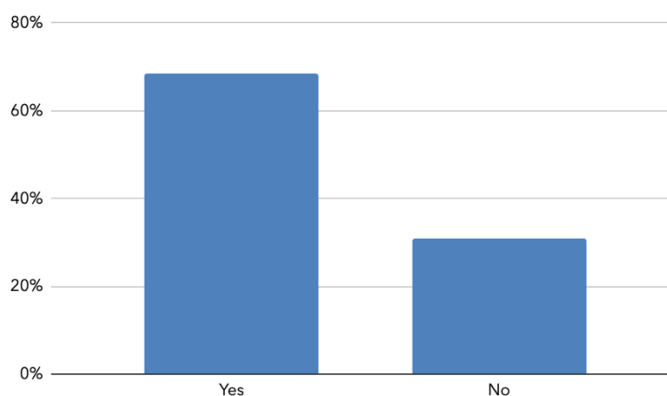
Narrative responses seem to indicate that PSAP personnel are concerned about the spread of COVID-19 from coworkers, through contact with surfaces in the PSAP, and from interactions with other first responders. To counter this, PSAPs have taken measures including: Ordering technical and administrative staff to work from home as much as possible, arranging telecommunicators at consoles in a manner that maintains appropriate distancing, assigning telecommunicators to work at a single designated console across shifts (in some cases temporarily moving consoles to separate rooms in the building), taking employees' temperatures at the start of shifts, installing UV disinfectant systems inside HVAC systems, and prohibiting any non-dispatch personnel from accessing the PSAP floor.

9-1-1 professionals have COVID-19-related anxiety.

COVID-19 has affected the anxiety and stress levels of first responders, and 9-1-1 is no exception. Fortunately, most PSAPs are taking measures to support telecommunicator wellness and mental health during the pandemic. Nearly three-quarters of respondents indicated their PSAP has taken measures to address employee wellness and stress during COVID-19. Narrative responses indicate a diverse range of wellness measures, including:

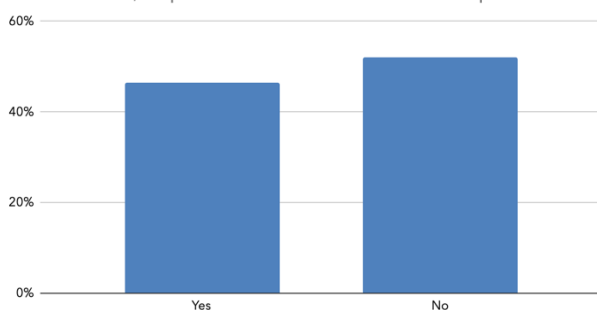
- Providing counseling and peer support
- Promoting Employee Assistance Programs (EAPs)
- Relaxing dress codes
- Disseminating stress and wellness webinars and articles
- Providing meals to on-duty staff
- Implementing video conferencing
- Arranging visits from service animals
- Increasing Personal Time Off (PTO)

Has your PSAP taken measures to address employee wellness and stress during the COVID-19 pandemic?



COVID-19 is impacting PSAP technology implementation and maintenance.

Is your PSAP limiting non-essential system testing, upgrades, maintenance, or processes due to the COVID-19 pandemic?

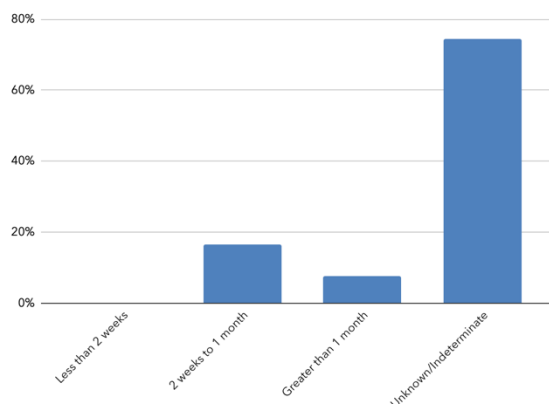


Roughly half of respondents reported that their non-essential maintenance programs or upgrade schedules are affected by the pandemic. Of the approximately half of respondents reporting that they were suspending non-essential technology maintenance activities, by far the most common suspended activity reported was vendor upgrades and maintenance. While it

is reasonable for PSAPs to restrict any and all non-essential activities at this time, especially any engagement with their vendors, NENA warns that foregoing installation of vendor upgrades could expose PSAPs to vulnerabilities if the upgrades include security enhancements.

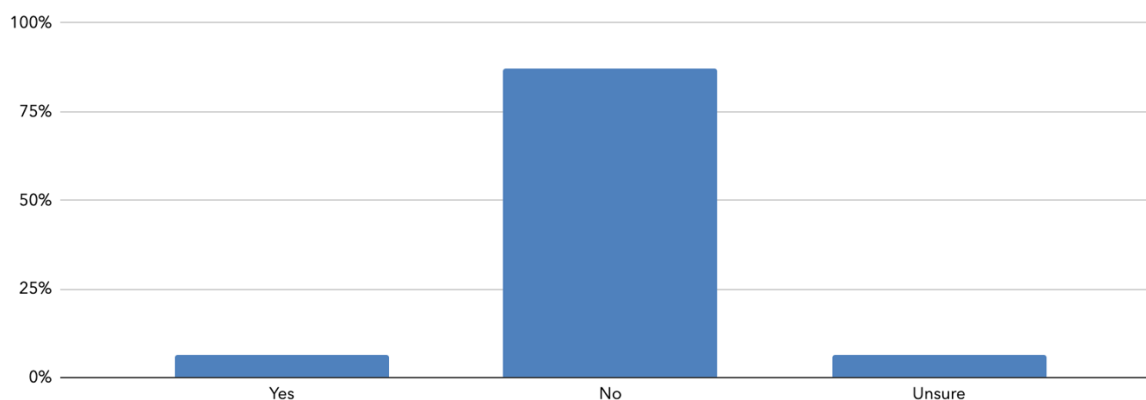
Three-quarters of respondents that reported their PSAPs were suspending testing also reported having an unknown or indeterminate end date for the suspension. Of those that were aware of an end date, more than twice as many (17%) reported that testing would be delayed by two weeks to one month compared to those reporting delays of more than one month (8%).

How long does your PSAP intend to limit testing, upgrades, maintenance, or processes to the COVID-19 pandemic?



Relatively few respondents reported service outages, with 87% reporting no network issues, such as broadband, telephone, or other network issues that would affect PSAP operations.

Is your PSAP experiencing any broadband, telephone, or computer network issues (such as slowdowns, outages, or other disruptions that interrupt 9-1-1 services or PSAP operations)?

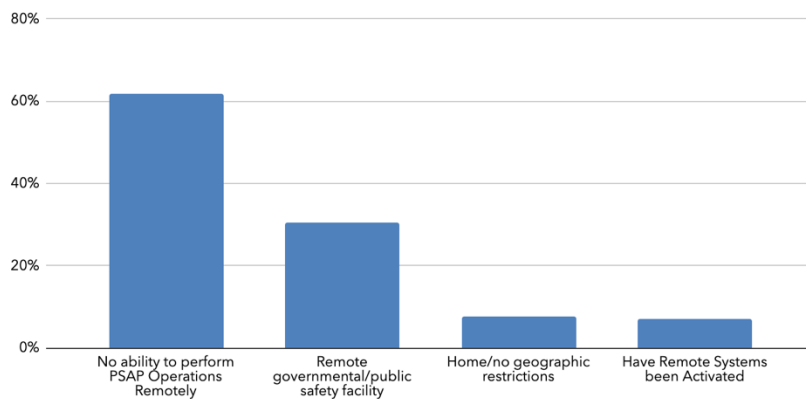


The vast majority of telecommunicators cannot work from home.

While as much as 90% of the American public is either voluntarily or involuntarily staying home during the COVID-19 pandemic,⁷ one group of individuals that generally cannot do so are first responders, including telecommunicators. Despite the technical feasibility of a work-from-home telecommunicator or dispatcher in the modern era of cloud services, remote desktop, and broadband internet, few PSAPs responding to the survey have the ability to operate PSAP functions remotely *at all*, let alone from a telecommunicator's home. 64% of respondents reported that their PSAP had no capability for remote PSAP operations, only 30% reported they can work remotely from a separate public-safety or government facility, and only 7% indicated the ability to do so from home.

⁷ The Hill article [90 percent of Americans now staying home to prevent coronavirus spread](#)

Does your PSAP have the capability to move PSAP operations remotely (e.g. as portable workstations or cloud software that allow a telecommunicator remote access to calltaking and dispatch systems)?



Fewer than 7% of respondents reported that they had activated remote dispatch systems. This leads NENA to conclude that the vast majority of telecommunicators are required to report to the same physical location each day. Even though, as noted earlier, 97% of respondents reported some sort of

protective measure was in place, methods varied widely, with three-quarters reporting PSAP lockdown or quarantine procedures but fewer than half enacting health screenings.

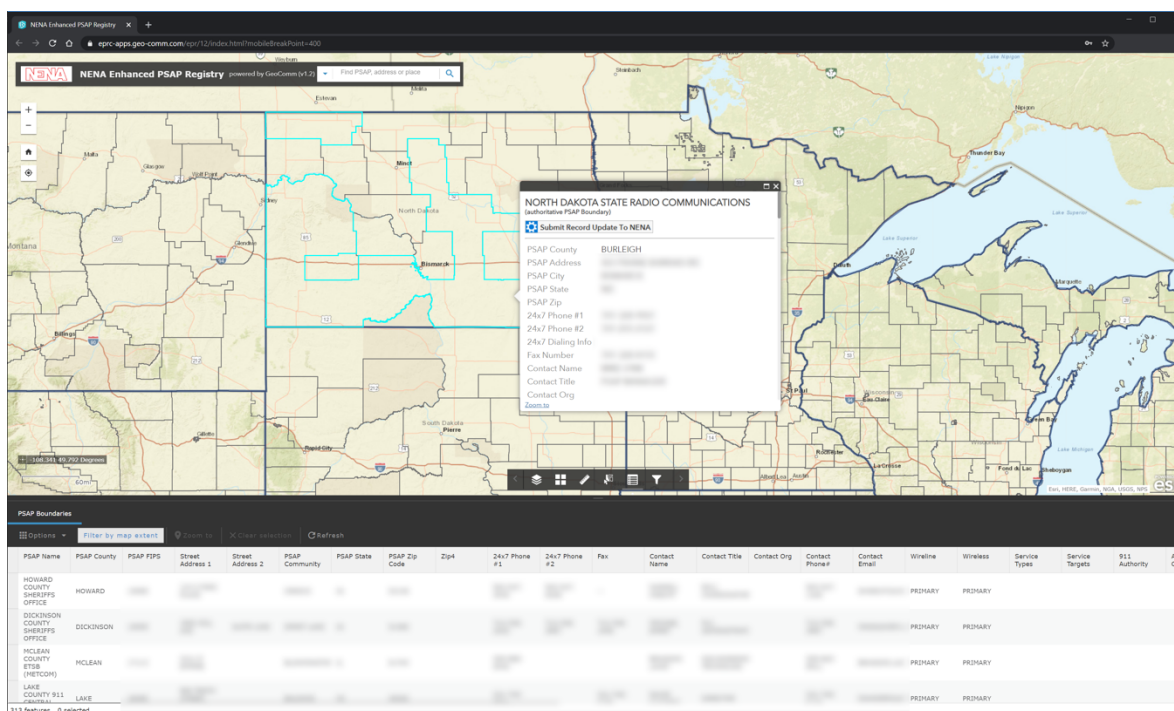
NENA believes that the COVID-19 pandemic will be instructive to PSAPs and policymakers across the country, and hopes that in the future more of them will investigate capabilities for telecommunicators to work remotely or from home. We note the challenges involved, including administrative hurdles, potential cybersecurity concerns with operating from unsecured facilities or homes, and legacy technologies in many PSAPs that are used to support 9-1-1 call handling and dispatch that cannot be operated remotely. This can improve PSAP resiliency not only during a future pandemic, but also during other crises such as natural disasters, terrorist attacks, and failures of PSAP physical infrastructure.

Appendix A: Methodology

NENA conducted a survey from March 26, 2020 through April 1, 2020 that was available to every primary PSAP point of contact and user listed in the Enhanced PSAP Registry and Census (EPRC), which included roughly 9,250 individuals. From this survey, we received responses from nearly 500 individuals in 46 states. The survey included various questions types designed to collect specific data and survey respondents were offered the opportunity to expand upon their answers, which provided additional insights.

Appendix B: The EPRC

The NENA Enhanced PSAP Registry and Census (EPRC) is a service free to public-safety personnel that is used to easily look up contact information for PSAPs. The EPRC contains contact information for every PSAP in the United States, and includes administrative contact information but also 24x7 transfer numbers. This service is invaluable for rare cases when PSAPs receive a call that should be handled by a distant PSAP for which they don't have preset call transfer information. The EPRC is also available to non-government public safety entities, such as crisis hotlines, and is also natively integrated into some end-user software such as call processing and CAD. More information is available at eprc.nena.org.



The EPRC was critical to the success of issuing this survey because it allowed NENA access to contact information for every PSAP in the United States. The EPRC currently does not list Canadian PSAPs; this limitation regrettably prevented us from covering PSAPs in Canada in our survey. Plans are in place to incorporate Canadian PSAPs into the EPRC in the future.