



Photo: Ballard Ambulance



## COVID: SO WHAT WENT WRONG?

When the pandemic finally struck, decades of EMS planning fell short

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**M**any of us thought we'd seen the worst it could get. Whether it was Manhattan on September 11, 2001, the 2017 Las Vegas mass shooting, the Orlando Pulse nightclub shooting, Columbine, Sandy Hook, Katrina—the list goes on. But facing the coronavirus pandemic of 2019–2021 has brought us to a whole new level. Our industry has experienced effects from this catastrophe we've never seen before, and for which, despite decades of planning, we were unprepared.

Previous mass-casualty events were

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relatively short-lived. Usually they were only a few hours long, perhaps a few days, but rarely longer than a week. None lasted for over a year, with continuous impact to our national EMS system—an impact so multifaceted and deleterious it has drastically weakened many agencies' ability to provide routine service. Affecting every aspect of EMS, from personnel to finances to supply to non-COVID patient care, the coronavirus pandemic hit EMS hard from the outset and has been unrelenting since.<sup>1</sup>

For more than 20 years, we've laid plans at the local, state, and federal levels to deal with a pandemic. They were only slightly exercised in real life with the outbreak of H1N1 (2009) and Ebola (2014). But something was different this time. We knew at the start this would be a challenge far exceeding anything we'd encountered before.

Within days agencies reported shortages of PPE,<sup>2</sup> concerns about practitioners being exposed,<sup>3</sup> the need for continuous disinfecting of ambulances—even the mental strain on staff showed up early.<sup>4,5</sup>

Though studies as recent as 2017 revealed our vulnerability regarding maintaining adequate PPE through a pandemic, little was done at any level to adjust inventories to avoid depleting supplies.<sup>6</sup> The national stockpiles of medical supplies and equipment, including PPE, which were supposed to be fully prepared for a pandemic had not been kept at optimal levels. This inadequate supply level left EMS and other healthcare providers without necessary amounts of PPE early during the pandemic.<sup>7</sup>

EMS volume fluctuated dramatically, from excess demand at the beginning to historically low levels later.<sup>8,9</sup> Despite

reduced activity, practitioners experienced significantly more patient mortality.<sup>9,10</sup> This probably added to the stress and anxiety providers have experienced during the pandemic. In addition, this roller coaster of caseload played havoc with EMS agencies' abilities to maintain fiscally sound and stable operations.<sup>11</sup>

In reviewing media accounts and investigative reporting from various reputable news organizations, we find the following failures that destabilized our EMS operations infrastructure nationally:

- Rapid initial depletion of personal protective equipment;
- Failure to ramp up production of PPE rapidly (i.e., the federal executive branch failed to implement the Defense Production Act early in the pandemic);
- Failure to quickly make national stockpile resources available;
- Lack of federal leadership;
- Minimization of the pandemic's reality and seriousness;
- Uncoordinated response by various federal agencies;
- Conflicting information from various federal agencies;
- Lack of comprehensive data on the actual status of local EMS;
- Lack of initial or timely guidance for EMS on issues that arose during the continued spread of the virus;
- Inability to relieve fatigued practitioners;
- Inadequate provision of mental wellness support tools for practitioners.

## Failure Points

So what went wrong? It's pretty clear our previous planning didn't measure up to the challenges the COVID-19 pandemic brought our way. After watching the pandemic unfold in the United States since February 2020, participating in countless stakeholder calls over more than nine months, and conducting some considerable research on my own, I would like to suggest the following elements came into play that thwarted our efforts with COVID-19.

Our planning up to now failed to include or account for these factors:

- Failure of federal stewardship from the executive branch to provide vital coordination, management, and leadership;
- Failure to invoke the Defense Production Act, which provides the U.S. president broad authority to "influence domestic industry in the interest of national defense," early during the pandemic (note, President Trump invoked the Defense Production Act on March 18, 2020, but stopped short of implementing it to force production of

certain goods);

- Failure to assume responsibility for distribution of national stockpile supplies;<sup>12,13</sup>
- Repeated minimization of the pandemic to the public;<sup>14,15</sup>
- Tacit support for citizens rejecting pandemic personal control measures;<sup>16-18</sup>
- Insufficient national stockpiles of PPE and medical equipment;<sup>19,20</sup>
- Lack of fiscal contingencies for EMS agencies that suffered from prolonged financial



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drain, threatening insolvency;<sup>21–23</sup>

- Failure of large portions of the public to comply with containment strategies;<sup>24–26</sup>
- Inability to handle the long-term surge demands of patients, both coronavirus and others, with adequate capacity;<sup>27,28</sup>
- No contingency for large numbers of overloaded hospitals unable to accept additional patients.<sup>29,30</sup>

What are we to do? It's pretty obvious we need to revisit our pandemic planning, taking into account the factors we experienced over the last year that hampered a nominal response. We need to include scenarios in our planning we'd never have imagined before. We will need to account for a lack of a federal leadership response, inadequate medical supplies and equipment, long-term engagement with a pandemic lasting more than year, insufficient fiscal resources to sustain some EMS agencies, and a significant portion of the public that will be noncompliant with contingency measures.

We need to reconvene our planning task forces, break down the strategies and tactics we've been using for pandemics, and reimagine how to deal with them in the future. Warnings are prevalent that highly contagious viruses will appear more often and spread at a faster rate than in the past. The combination of climate change, the urbanization of the world, and a continuing increase in global population all contribute to more zoonotic events and an escalating spread of viruses.<sup>31–34</sup>

COVID-19 has overwhelmed our resources and brought both our EMS and hospital healthcare systems to their knees. We are experiencing a tremendous loss of life, severe impairment of our economy, and a devastating degradation of our country's paramedicine infrastructure. There is a lot to fix—and while we are concentrating on that, we must not forget to replan for the future. ☸

## REFERENCES

1. Ball J, Nehme Z, Bernard S, et al. Collateral damage: Hidden impact of the COVID-19 pandemic on the out-of-hospital cardiac arrest system-of-care. *Resuscitation*, 2020 Nov; 156: P157–63.
2. Ranney ML, Griffith V, Jha AK. Critical Supply Shortages—The Need for Ventilators and Personal Protective Equipment during the Covid-19 Pandemic. *NEJM*, 2020 Apr 30; 382: e41.
3. Ehrlich H, McKenney M, Elkbuli A. Defending the front lines during the COVID-19 pandemic: Protecting our first responders and emergency medical service personnel. *Am J Emerg Med*, 2020 May 27 [epub ahead of print].
4. Ardebili ME, Naserbakht M, Bernstein C, et al. Healthcare providers experience of working during the COVID-19 pandemic: A qualitative study. *Am J Infection Control*, 2020 Oct 5 [epub ahead of print].
5. Usul E, Şan I, Bekgöz B. The Effect of the COVID-19 Pandemic on the Anxiety Level of Emergency Medical Services Professionals. *Psychiatr Danub*, 2020 Autumn-Winter; 32(3–4): 563–9.
6. Patel A, D'Alessandro MM, Ireland KJ, et al. Personal Protective Equipment Supply Chain: Lessons Learned from Recent Public Health Emergency Responses. *Health Secur*, 2017 May/Jun; 15(3): 244–52.
7. Taddonio P. Depleted National Stockpile Contributed to COVID PPE Shortage: 'You Can't Be Prepared If You're Not Funded to Be Prepared'. *Frontline*, 2020 Oct 6; [www.pbs.org/wgbh/frontline/article/depleted-national-stockpile-contributed-to-covid-ppe-shortage/](http://www.pbs.org/wgbh/frontline/article/depleted-national-stockpile-contributed-to-covid-ppe-shortage/).
8. Prezant DJ, Lancet EA, Zeig-Owens R, et al. System impacts of the COVID-19 pandemic on New York City's emergency medical services. *JACEP Open*, 2020 Nov 9 [epub ahead of print].
9. Lerner EB, Newgard CD, Mann NC. Effect of the Coronavirus Disease 2019 (COVID-19) Pandemic on the U.S. Emergency Medical Services System: A Preliminary Report. *Acad Emerg Med*, 2020 Aug; 27(8): 693–9.
10. Friedman J, Calderon-Villarreal A, Bojorquez I, et al. Excess Out-of-Hospital Mortality and Declining Oxygen Saturation: The Sentinel Role of Emergency Medical Services Data in the COVID-19 Crisis in Tijuana, Mexico. *Ann Emerg Med*, 2020 Oct; 76(4): 413–26.
11. Zavadsky M. The Impact of COVID-19 on Local Emergency Medical Services Providers. *Center for Public Safety Management*, 2020 May 6; [www.cpsm.us/the-impact-of-covid-19-on-local-](http://www.cpsm.us/the-impact-of-covid-19-on-local-)

emergency-medical-services-providers/.

12. Forgey D. 'We're not a shipping clerk': Trump tells governors to step up efforts to get medical supplies. *Politico*, 2020 Mar 19; [www.politico.com/news/2020/03/19/trump-governors-coronavirus-medical-supplies-137658](http://www.politico.com/news/2020/03/19/trump-governors-coronavirus-medical-supplies-137658).

13. Perez M. President Trump On Supplying Governors: 'We're Not A Shipping Clerk'. *Forbes*, 2020 Mar 19; [www.forbes.com/sites/mattperetz/2020/03/19/president-trump-on-supplying-governors-were-not-a-shipping-clerk/?sh=4fea211d1af5](http://www.forbes.com/sites/mattperetz/2020/03/19/president-trump-on-supplying-governors-were-not-a-shipping-clerk/?sh=4fea211d1af5).

14. Parker A, Dawsey J, Abutaleb Y, Rucker P. Trump tunes out pandemic surge as he focuses on denying election loss. *Washington Post*, 2020 Nov 14; [www.washingtonpost.com/politics/trump-coronavirus-response/2020/11/14/61137f4c-25cb-11eb-8599-406466ad1b8e\\_story.html](http://www.washingtonpost.com/politics/trump-coronavirus-response/2020/11/14/61137f4c-25cb-11eb-8599-406466ad1b8e_story.html).

15. Summers J. Timeline: How Trump Has Downplayed The Coronavirus Pandemic. *National Public Radio*, 2020 Oct 2; 15. [www.npr.org/sections/latest-updates-trump-covid-19-results/2020/10/02/919432383/how-trump-has-downplayed-the-coronavirus-pandemic](http://www.npr.org/sections/latest-updates-trump-covid-19-results/2020/10/02/919432383/how-trump-has-downplayed-the-coronavirus-pandemic).

16. Farley R. Trump Has Not Been 'Clear' in Support of Masks. *FactCheck.org*, 2020 Sep 25; [www.factcheck.org/2020/09/trump-has-not-been-clear-in-support-of-masks/](http://www.factcheck.org/2020/09/trump-has-not-been-clear-in-support-of-masks/).

17. Blake A. Trump's dumbfounding refusal to encourage wearing masks. *Washington Post*, 2020 Jun 25; [www.washingtonpost.com/politics/2020/06/25/trumps-dumbfounding-refusal-encourage-wearing-masks](http://www.washingtonpost.com/politics/2020/06/25/trumps-dumbfounding-refusal-encourage-wearing-masks/).

18. Vargas ED, Sanchez ER. American individualism is an obstacle to wider mask wearing in the US. *Brookings*, 2020 Aug 31; [www.brookings.edu/blog/up-front/2020/08/31/american-individualism-is-an-obstacle-to-wider-mask-wearing-in-the-us/](http://www.brookings.edu/blog/up-front/2020/08/31/american-individualism-is-an-obstacle-to-wider-mask-wearing-in-the-us/).

19. Department of Homeland Security. Innovative Public-Private Partnerships Help to Address First Responder Protective Equipment Challenges During COVID-19; [www.dhs.gov/science-and-technology/first-responder-protective-equipment-challenges-during-covid-19](http://www.dhs.gov/science-and-technology/first-responder-protective-equipment-challenges-during-covid-19).

20. Op. cit., Taddonio.

21. Sholes S. Guest commentary: EMS providers face serious financial threat from coronavirus fallout. *Denver Post*, 2020 May 29; [www.denverpost.com/2020/05/29/guest-commentary-emergency-services-threatened-coronavirus-fallout/](http://www.denverpost.com/2020/05/29/guest-commentary-emergency-services-threatened-coronavirus-fallout/).

22. Davis H. Coronavirus crippling emergency response agencies: 'What if you call EMS and nobody comes?' *Fox News*, 2020 Dec 10; [www.foxnews.com/health/coronavirus-pandemic-crippling-ems-agencies](http://www.foxnews.com/health/coronavirus-pandemic-crippling-ems-agencies).

23. National Association of Emergency Medical Technicians. NAEMT Press Release: Our Nation's EMS Agencies and Personnel Must Receive Help To Combat the COVID-19 Pandemic, 2020 Mar 26; [www.naemt.org/WhatsNewALLNEWS/2020/03/26/naemt-press-release-our-nation-s-ems-agencies-and-personnel-must-receive-help-to-combat-the-covid-19-pandemic](http://www.naemt.org/WhatsNewALLNEWS/2020/03/26/naemt-press-release-our-nation-s-ems-agencies-and-personnel-must-receive-help-to-combat-the-covid-19-pandemic).

24. Miguel FK, Machado GM, Pianowski G, Carvalho LD. Compliance with containment measures to the COVID-19 pandemic over time: Do antisocial traits matter? *Personality and Individual Differences*, 2021 Jan; 168: 110346.

25. Calfas J. Why won't some people wear face masks? *Wall Street Journal*, 2020 Jul 29; [www.wsj.com/articles/why-wont-some-people-wear-face-masks-11596024001](http://www.wsj.com/articles/why-wont-some-people-wear-face-masks-11596024001).

26. Dastaghir AE. Some people listen to health experts, others ignore them: What it means for America's future with COVID-19. *USA Today*, 2020 Aug 15; [www.usatoday.com/story/news/health/2020/08/15/coronavirus-restrictions-why-americans-dont-follow-rules-wear-face-masks/3368667001](http://www.usatoday.com/story/news/health/2020/08/15/coronavirus-restrictions-why-americans-dont-follow-rules-wear-face-masks/3368667001).

27. Russo T. Pandemic Planning. *Emerg Med Serv*, 2006 Oct; 35(10): 51-2, 54, 56.

28. Showbeck C. Virus surge pushing ambulance transfers 'through the roof' in Minnesota. *Star Tribune*, 2020 Dec 4; [www.startribune.com/virus-surge-pushing-ambulance-transfers-through-the-roof-in-minnesota/573277941/](http://www.startribune.com/virus-surge-pushing-ambulance-transfers-through-the-roof-in-minnesota/573277941/).

29. Gutman M, Castillejo E, Rivas A. With LA hospitals overwhelmed by COVID-19, EMS told not to transport certain patients. *ABC News*, 2020 Jan 5; <https://abcnews.go.com/Health/la-hospitals-overwhelmed-covid-19-ems-told-%20transport/story?id=75060756>.

30. Melley B. Ambulances wait for hours, gift shops become overflow wards as California hospitals buckle under COVID-19 s weight. *Chicago Tribune*, 2020 Jan 1; [www.chicagotribune.com/coronavirus/ct-nw-california-hospitals-covid-19-20210101-4s55hknrdzb2tgz2jw3kmaaai-story.html](http://www.chicagotribune.com/coronavirus/ct-nw-california-hospitals-covid-19-20210101-4s55hknrdzb2tgz2jw3kmaaai-story.html).

31. Wang BX, Fish EN. Global virus outbreaks: Interferons as 1st responders. *Semin Immunol*, 2019 Jun; 43: 101300.

32. Pozio E. How globalization and climate change could affect foodborne parasites. *Exp Parasitol*, 2020 Jan; 208: 107807.

33. Coşkun H, Yıldırım N, Gündüz S. The spread of COVID-19 virus through population density and wind in Turkey cities. *Sci Total Environ*, 2021 Jan 10; 751: 141663.

34. Harvard T.H. Chan School of Public Health. Coronavirus, Climate Change, and the Environment: A Conversation on COVID-19 with Dr. Aaron Bernstein, Director of Harvard Chan C-CHANGE, [www.hsph.harvard.edu/c-change/subtopics/coronavirus-and-climate-change/](http://www.hsph.harvard.edu/c-change/subtopics/coronavirus-and-climate-change/).

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