

THE COVID-19 PANDEMIC DIGEST

Volume 2 / Issue 2

Dear Colleagues,

From atop the pandemic's first peak, we can reflect on the strengths and weaknesses of the pandemic response thus far. As attention and debate inevitably shift toward the loosening of social restrictions, "[w]e must remain vigilant and disciplined" in our population health approach, for our patients, our families, and for each other's families.

In preparation, this issue will discuss important elements for vigilance and discipline, including:

- Global concern regarding under-reporting of COVID-19
- Removal of U.S. funding from the World Health Organization
- Testing capabilities and "immunity passports"
- The Covidnearyou.org tracker
- Racial disparities in COVID-19 cases
- Cautionary tales of re-socialization from across the globe
- President Trump's 3-Phase plan for re-opening the economy
- PPE challenges
- The AAFP Foundation Relief Fund and other funding opportunities

The results of our first survey have also been made available to you, and a second survey is being distributed. We are using their results to further advocacy and educational efforts. We appreciate your participation and hope you find the results informative.

We thank you for helping provide stronger medicine for America.

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*"We must remain
vigilant and
disciplined."*

German Chancellor Angela Merkel

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The COVID-19 Pandemic Digest

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SURVEILLANCE & DETECTION STRATEGIES

GLOBALLY, there are now almost 2.5 million confirmed cases of COVID-19 across over 177 countries, the distribution of which can be seen on the Johns Hopkins University’s COVID-19 Global Cases Map.

Meanwhile, global fatalities have risen to 165,000, with the largest contributions from the U.S., followed by Italy, Spain and France. Italy in particular has an astonishing **case fatality rate** of 13.2%, compared with the world average of 5.85%.The reason is likely multifactorial, but is speculated to include their aged population, as the **WHO reports** that over 95% of deaths in Europe were in those over age 60.

Interpretation of these statistics must be made with caution. Infection rates are heavily underrepresented across developing countries where testing and reporting capabilities are most severely lacking. Also, with China now claiming a disproportionate **4% of global cases**, suspicion continues to mount that they have concealed a throng of cases behind their walls. Questions regarding censorship and detainment of Chinese physicians persist amidst reports that a known whistleblower, Dr. Ai Fen, has recently **gone missing**. With the weight of the pandemic now thrust upon America’s shoulders, President Trump no longer has confidence in China’s **“efforts and transparency”**. He is instead accusing China and the World Health Organization (WHO) of being in league, **“severely mismanaging and covering up”** the spread of the virus, and dispersing **“Chinese misinformation”**. He has ordered that U.S. funding of the WHO (representing 10% of their budget) be suspended while his administration reviews their actions at the

onset of the pandemic – ones he believes to have endangered the U.S. The WHO endeavors forward in coordinating a global response to COVID-19 and the other epidemics on their docket, but admits this decision puts them in a **regrettable position**. Many U.S. organizations have also voiced their opposition to this defunding.

In another bold move, the Trump Administration strengthened its ties with Taiwan - a state of East Asia who has made **similar accusations of China and the WHO**. Passing the **TAIPEI Act** on March 26, 2020, the Administration committed to altering relations with those who undermine Taiwan’s prosperity. Given its historically controversial divergence from China, the WHO has refused to recognize Taiwan as a distinct nation, abiding instead by the **“One China policy”**. This has not stopped the global press, however, from heralding Taiwan as a singular **success story** in their COVID-19 surveillance efforts. The island is yet to have more than **420 cases**, despite (1) their adjacency to China Mainland; (2) their population of 24 million in the **17th most population dense** region in the world (the US sits at 174th), and; (3) their lack of support from the WHO when they **reached out for assistance back in December 2019**. The WHO’s baffling sidestep of questions regarding the strength of Taiwan’s independent strategy has been **recorded on video**, leading additional members of the press to further speculate on their allegiance. The World Medical Association has recently interceded as well, sending a **letter to the WHO**, asking it to instate Taiwan into membership, and not to be **“involved anymore in political games”**. It remains to be seen how these changing alliances will affect the ongoing pandemic response on a global scale, as well as the response to other ongoing and future health epidemics.

From what has been reported, the daily global incidence of COVID-19 appears to have peaked at almost 100,000 new cases on April 4. Yesterday only saw 84,000 new cases added.

In other good news, over 600,000 people have recovered from COVID-19. This includes England's Prime Minister Boris Johnson, who was discharged from NHS care after a week in inpatient and ICU treatment. As the gap is narrowing between surveillance capabilities and incidence rates, many regions have begun to interpret this as an opportunity to lift containment and suppression measures. A new surveillance concern casts a shadow over this interpretation, however. In South Korea, more than 150 patients retested positive after being released from quarantine, which their Center for Disease Control and Prevention suggests is due to virus re-activation. Scientists are still hoping for cross-immunity amongst the known strains of the novel coronavirus, given that the alternative would mean repeated global outbreaks.

The WHO's recommendation for broad testing is still unchanged; recommendations as to 'retesting' after quarantine vary and depend on supplies. Many countries are considering use of antibody tests as "immunity passports" - a concept already being piloted in Germany as a means to guide their socioeconomic re-entry. The validity of these serological tests are still under question however, with concern that results could still represent active or passive infection, or even infection by other types of coronaviruses.

NATIONALLY, the U.S. remains a misfortunate leader in COVID-19 prevalence. We host 31% of the world's cases (over 760,000), almost quadrupling that of the next leading country, Spain. Nearly 40% of cases are found in New York City.

Daily incidence appears to have peaked on April 10 at 35,000 cases, with only 27,000 new cases added yesterday. It is still too early to tell, however, as 99% of Americans remain untested. Actual case counts are grossly underestimated, particularly since approximately 25% of cases are thought to be asymptomatic. Despite the CARES Act, and six weeks of private sector approval to manufacture test kits, national supply-chain issues remain the prohibitive bottleneck to case detection and containment. This has affected even the highly touted five-minute point-of-care test by Abbott, which falls further out of favor amidst internal hospital system

studies suggesting a false negative rate between 7.5% to 25% when compared to traditional tests.

On the serology testing front, since Cellex Inc. received the first emergency use authorization from the FDA, over 70 additional companies have been given the same permissions to develop antibody tests. These tests have not been reviewed by the FDA though, and an article in JAMA cautions that many of them use lateral flow assays, providing purely qualitative results, rather than quantitative results from ELISA testing. While their sensitivities and specificities have been fairly well-documented, experts also warn these tests should not be used for diagnostics, but rather as potential proof of immunity.

A robust national detection and surveillance strategy, incorporating both rapid molecular tests and serology tests, as well as thorough contact tracing, has been proposed by the Johns Hopkins' Center for Health Security. They plead with congress for an additional \$3.6 billion in emergency funding support to do so. Senate Democrats are already on board, pushing for a broader, \$30 billion plan to enable "fast, free testing in every community" as part of the next pandemic relief package. After initially promising that "anybody who wants a test can get a test", both Trump and the NIH have pivoted, stating that tests are unnecessary in much of the country prior to the economy re-opening. The reasoning is unclear, but speculations suggest it is based on current infection rates and population density. Still, the senate is looking to pass a new bill, known as the Paycheck Protection Program and Health Care Enhancement Act, that adds \$25 billion for COVID-19 testing.

In the meantime, the CDC continues to revise its priority list for COVID-19 testing. Regrettably, the list has yet to consider minority and marginalized populations. Though data on racial and ethnic disparities was initially scant, we now know that a disproportionate amount of cases and fatalities are seen amongst black or Hispanic populations in the more metropolitan areas, with black Americans making up as many as 30% of the nation's cases, despite accounting for 13% of the total population. The reason for the disparities is thought to be multifactorial, but undoubtedly serves as further evidence of health systems and socioeconomic inequities faced by these groups. The American Medical Association, American Hospital Association and American Nurses Association have worked with congress to draft a bill on COVID-19 race and ethnicity data collection. Equitable support for our minority neighbors

throughout this public health crisis must incorporate a **more inclusive public messaging strategy** by the government - one that goes beyond internet media, and also uses minority spokespersons.

According to its priority list however, the CDC has made protecting health care personnel an “urgent focus”. The recently reported on **characteristics of health care personnel** (HCP) infected by the virus. They note that occupational status was only available on 16% of case reports earlier this month. Of the 12 states with complete reporting on occupational status, HCP’s accounted for 11% (1,689 of 15,194) of all reported cases. Among cases with additional HCP data reported, the majority of were female (73%), white (72%), and without a *reported* underlying health condition (62%). Only 15% of these cases were able to be laboratory-confirmed. About 90% were not associated with hospitalization though the median age of HCP patients was only 42 years; deaths were reported among 0.3%-0.6% of the cases.

With respect to “test-worthy” symptoms or comorbidity risks, the CDC’s **COVID-19 Screening App** remains an informative public tool. Not yet on the app’s list of symptoms however, are the increasingly reported **COVID-19-associated rashes**. The app can also function to track and trace users’ symptoms but does not make this data publicly available. Alternatively, the open-source website, **Covidnearyou.org**, created by Harvard Medical School, Boston Children’s Hospital and the University of Toronto, anonymously maps reported COVID-19 symptoms across North America, to help increase public awareness of local disease activity, prior to confirmed case reports.

Finally, with respect to disease outcomes, over 71,000 Americans have recovered from the virus. We mourn the deaths of **36,000** others, while noting that fatalities have slowed to a ten-day doubling rate. The city of New York alone now suffers from the **6th highest regional count of fatalities** in the world, outranked only by the U.S. in totality, the three leading Mediterranean countries, and the United Kingdom. Nearby in New Jersey, further fatality concerns arise as **nearly every long-term care facility in the state** has reported a case of COVID-19. The national **case fatality rate** has risen to 5.29%, though still remains below the global average at this time. It is unclear as to what degree this reflects the nature of the virus, our social structures, our testing capabilities, or our medical response.

HERE IN MASSACHUSETTS, **our confirmed cases have rocketed to over 38,077, with the largest portions still in Middlesex and Suffolk. Yesterday brought over 1,700 new cases; we now have the 3rd highest case load in the country.**

Where races or ethnicities have been reported, Hispanics comprise 10% of cases and 5% of fatalities, while black Americans make up 7% and 5%, respectively. While currently most cases remain in those under age 60, with 6,121 total cases reported amongst long-term care (LTC) facility patients and workers, the senior contingent continues to grow. At least 254 LTC facilities have reported cases, including four large outbreaks at Soldier’s Home in Holyoke (179 cases), Leavitt Family Jewish Home in Longmeadow (136 cases), Adavinia long-term care in Wilmington (61 cases), and Hunt Nursing and Rehabilitation Center in Danvers (31 cases). Deaths amongst LTC facility residents make up 50% of the state’s 1,706 deaths. The Baker Administration provides assurance that the **Commonwealth’s Mobile Testing Program** will increase access to testing for LTC facilities, alongside the extra on-site testing kits donated by the Broad Institute. The Administration also updated testing **guidance** to encourage broad testing for LTC residents, irrespective of symptoms.

Today was expected to be our peak caseload. Our growing case count still may, in part, correlate with our broadened testing priorities and capabilities as well. More permissive testing exists exclusively for **public safety personnel**. More rapid point-of-care testing at the **CVS in Lowell** is available for physician-approved members of the public. They offer more than 1,000 tests per day through their Abbott ID NOW™ COVID-19 test system, with on-site results and care management support. The Broad Institute meanwhile notes that despite its capacity to perform 4,000 (more robust) molecular assay tests per day, the **number of tests performed is actually much lower**, due to a shortage in collection supplies, such as swabs. Massachusetts state testing **guidelines** remains otherwise unchanged from April 2. Notably, the Baker Administration has also hired more than 170 individuals to be part of its **Community Tracing Collaborative**, helping to detect and prevent any further spread from confirmed cases.

CONTAINMENT & SUPPRESSION STRATEGIES

GLOBALLY, suppressive “lockdown” measures appear effective in flattening the second global upswing of COVID-19’s infections. Many countries are preparing to switch their focus from suppression and containment, now to mitigation, in order to allow economic re-entry. But first, they must look to the cautionary tales hailing from East Asia.

Further along in pandemic phases, Singapore, South Korea, Hong Kong, as well as Hubei in China and Haikado in Japan have already shifted their strategic focus from suppression to a mitigation, even though immunizations are not yet available. Successively, they all have reported a resurgence of cases, necessitating a return to stricter enforcement of social distancing. Singapore in particular was praised for its strong contact tracing program, believed to have alleviated its need for stronger social distancing measures. This notion was quashed as cases soon instigated from within a dormitory overrun with foreign workers. Seeing 1,000 new cases that a week, they introduced the **COVID-19 (Temporary Measures) Act 2020** - effectively a what they now call a “Circuit Breaker” period, aiming to reduce the number of new infections. Even Taiwan with its miniscule caseload ended up tightening restrictions further when it noticed a rise of cases in March.

Most of these countries point to imported cases from China as the cause for their resurgence, leading to tightening of travel restrictions. Still, a region of Harbin in Russia who suffered the same resurgence after lifting lockdown measures points the finger at local spread. Epidemiologists warn that ramped up testing and contact tracing measures had created a false sense of security in all these instances, disincentivizing voluntary social distancing and thus continued disease suppression.

Among the European nations shifting to a mitigation focus are Germany (Europe’s largest economy), as well as its neighbors, Denmark, Norway, Switzerland, Luxemburg, Austria, and Czech Republic. Most acknowledge that they have entered a challenging balancing act. Germany self-describes as having had “fragile interim success” and warns that the danger of new outbreaks remains high in the wake of the excitement to socialize. In Denmark, careful openings of schools and daycares in some places has even been met

with public resistance, as parents do not want their children to be a governmental “experiment”. With openings of smaller storefronts and public transport, many regions are mandating the use of facemasks. Sweden has been more liberal, leaving many of its gyms, cafes, bars and restaurants open through the pandemic, using only government encouragement to follow social distancing guidelines. Civil attitudes and well as confidence in the health care system appear to play a large role in how communities should be re-socialized.

NATIONALLY, our caseload peak has evidence of flattening through social distancing, though the experience has varied regionally. Vocal right-wing partisans view this as the signal needed to “liberate” America and restart the economy. Many experts caution this interpretation though, seeing it as analogous to ‘taking off the parachute, just because it slowed the rate of decent’.

The fact is that the virus knows no borders and, without herd immunity in place (vis-à-vis immunizations), easing viral containment controls will ensure a second epidemic. Some physicians remind us that in the ‘parachute analogy’, those with healthier socioeconomics - and thus a higher chance of survival - are inadvertently unbuckling the parachute for the less healthy, marginalized groups, who are all-but-guaranteed injury from the drop. The wails of the sick and mourning, however, are becoming white noise; the President has now attuned his ear to the frustrated cries for “liberation” of socioeconomic freedoms.

The plight of more than 40 organizations including the AAFP notwithstanding, President Trump’s social distancing guidelines are set to be lifted by May 1. The White House has announced a three-phase plan to re-open the economy, called “Opening Up America Again”. Some states have already begun.

The plan has no set timelines and is to be rolled out at the discretion of local governors, who can determine if their region has met its “gating criteria” for commencement. These criteria include a two-week decline in both flu-like illnesses and confirmed COVID-19 cases, as well as demonstration of robust systems by which to test for infection and immunity within health care settings.

Once satisfied, regions can proceed to **Phase One**. This phase emphasizes strict shelter-in-place for the vulnerable, physical distancing by those in public

(limiting gatherings to ten people or less), as well as minimization of non-essential travel. Telework is to continue, with phasic return to work venues for employees, as necessary. Schools and other large venues, including bars, are to remain closed to the public. Senior living facilities and hospitals should prohibit visitation. Certain outpatient elective procedures may resume, however.

Phase Two can begin if the gating criteria continue to be met without rebound cases. Shelter-in-place for the vulnerable is still recommended. Public physical distancing is emphasized, and gatherings of more than 50 people are not recommended. Non-essential travel can resume. Telework is still encouraged. Schools can resume, as can other large venues including bars under physical distancing protocols. Visits to senior living facilities and hospitals are still prohibited, but elective surgeries can now take place on an inpatient basis.

If the gating criteria is once again met, **Phase Three** can ensue. In this phase, vulnerable individuals can resume public interaction, but with physical distancing and sanitary precautions in place. All staff may return to their places of employment. Visits to hospitals and senior care facilities may resume, though hygiene measures must be strictly observed. Large venues can operate under less strict physical distancing protocols.

In the meantime, the CDC intends to perform symptomatic surveillance in the general population, as well as asymptomatic sentinel surveillance in the most vulnerable populations: inner city, nursing homes, native American populations. Protections for black and Hispanic communities were not distinctly mentioned. Unlike earlier in the pandemic, we have yet to see state-by-state projections demonstrating an optimal intersection of health and economics. Vice President Mike Pence suggested that phase one is currently feasible in most places due to the simple fact that there is now “sufficient capacity of testing”. Not all would agree.

Notably, a minority have followed the CDC **recommendation** to now wear cloth face coverings for public outings. Governor Cuomo in New York has already released an **executive order** mandating facemasks if in a public area where 6 feet of social distancing is not possible (i.e. the subway). The CDC has recently brought into question, however, whether the usual 6 feet and social distancing guidelines will be enough. One of their **newer reports** suggest that the virus may be able to

spread 13 feet, particularly if someone sneezes.

Considering these concerns, altogether with the outcomes in East Asia, and even America’s historic experience with viral pandemics such as the **Spanish Flu**, we must anticipate secondary infection peaks, and an eventual return to phase one or even phase zero of the federal socialization plan. In fact, resurgent **waves of infection** are predicted to last into 2022, requiring surveillance and intermittent or sustained social distancing, unless we are equipped to perform simultaneously aggressive contact tracing and quarantine, alongside administration of proven therapeutics and vaccines. Until then, “**suppress and lift**” may just become our new normal.

HERE IN MASSACHUSETTS, **Governor Baker’s “Stay-at-Home” advisory was originally set to lift on May 4. After the tidal wave of cases and hospitalizations in the past week that turned our state into a national hotspot, he now states the actual date will ultimately depend on the data.**

As we fast approach the COVID-19 Command Center’s predicted caseload peak around 47,000, Baker highlights that **we currently do not meet the gating criteria** for re-opening the economy. Also recognizing the socio-geographic interplay among Massachusetts, New York, New Jersey, New Hampshire and Vermont, he is part of a Northeast regional council discussing their **coordinated strategy** on relaxing restrictions and reopening some businesses. Meanwhile, he advises Massachusetts residents to abide by the stay-at-home advisory, with exceptions only for outdoor exercise, or trips for grocery or medicine trips, and to **wear facemasks** while doing so. He notes that social distancing remains the most powerful tool to protect our communities, and if voluntary measures do not result in a flattening of new cases and hospitalizations, his administration will “**make some adjustments**”.

MITIGATION STRATEGIES

REDUCING HEALTH CARE EXPOSURES

NATIONALLY, **telehealth has been a widely-adopted mitigation strategy among our physicians.**

Undoubtedly there have been and will continue to be hiccups in its implementation. Billing is confusing,

reimbursement is still wanting, and much of the legal provisions made are temporary. The fact is, however, that regardless of economic re-entry, virtual medicine is here to stay. Physicians and practices must plan ahead to integrate an appropriate mix of both in-person and virtual visits moving forward. We continue to look for ways to support you in this venture.

To this end, the [AAFP COVID-19 Telehealth Guidance page](#) continues to be an updated resource specifically tailored to our family physician members. The page also highlights the [National Consortium of Telehealth Resource Centers](#): a federally funded program from the Office for Advancement of Telehealth that provides free assistance, education (including webinars) and information to organizations and individuals who are attempting to provide health care at a distance.

For eligible non-profit and public health care practices offering telehealth, [applications for immediate funding support](#) from the \$200 million [COVID-19 Telehealth Program](#) (an initiative of the CARES Act) have been [entrusted](#) to the Federal Communications Commission for review. The funding reimburses “telecommunications services, information services, and devices necessary to provide critical connected care services until the program’s funds have been expended or the COVID-19 pandemic has ended.” So far, \$6.94 million in funding has been delivered to 11 health care provider networks across eight states.

The CMS has also provided a [38-page FAQ document](#), covering telehealth and mobile health coverage under Medicare fee-for-service guidelines, though it does not account for provisions under the CARES Act. They also now have released [“New and Expanded Flexibilities for Rural Health Clinics and Federally Qualified Health Centers”](#) for the duration of the COVID-19 public health emergency.

PERSONAL PROTECTIVE EQUIPMENT

NATIONALLY, PPE shortages remain a source of fear and frustration, particularly as we now know that around 11% of cases are attributed to health care personnel, and family physicians are among those with the highest professional risk. Diversions of supplies, not only from the Strategic National Stockpile (SNS), but from private purchases as well, have left states and organizations feeling helpless.

It began with the White House [reminding states to use their own stockpiles](#) and find their own supply chains, because the SNS belonged to the Feds, to be used as a stop-gap buffer at their discretion, in places of greater need when adequate supplies were not immediately available. President Trump did increase supply chain availability by mobilizing private industries to produce goods that support this public health crisis under the [Defense Production Act](#), however the Federal Emergency Management Agency (FEMA) then began bidding against the states for these supplies. Even at “bidding wars” where the feds weren’t involved, governors of larger states like New York, California and Illinois were regrettably driving up prices as they competed and outbid smaller states for supplies. States are receiving few supplies at higher prices.

A new layer was then added to the frustrations: at a time where funds and resources are precious, the feds are being accused of [seizing](#) privately-purchased shipments on their way to delivery in certain states. There are open reports of this made by [Colorado](#), and most recently also in [Massachusetts](#), despite having the now 3rd highest caseload in the country. FEMA rebuts, suggesting instead that it may be an issue with suppliers who “cancel on a state contract in favor of [a] federal one.”

While awaiting further supply, FEMA urged physicians to reuse PPE due to national shortages. CDC continues to provide [guidelines on PPE use](#) and endorses [strategies to increase longevity of PPE](#) until more supplies become available. Use of [decontamination systems](#) that allow mask sterilization and re-use are encourage, though these systems have not been heavily vetted. When purchasing supplies, organizations are encouraged to heavily vet that suppliers have adhered to NIOSH and NPPTL standards, as there are increasing reports of counterfeit products.

The website [GetUsPPE.org](#) has extensively surveyed health care facilities on PPE shortages. A breakdown of PPE shortages by type and by those states most heavily affected can be seen [here](#). Notably, there are reports of medical staff being fired or threatened by speaking out against PPE shortages at their respective institutions.

HERE IN MASSACHUSETTS, **in the wake of our case surge, the survey responses above suggest that our PPE shortage is still critical, despite claims by President Trump that every state is “in good shape”.** The Baker-Polito Administration laments the seizures of many shipments but works with its COVID-19 Response

Command Center to prioritize the procurement and distribution of PPE for front-line workers.

At the beginning of the month, after a seizure of over 3 million masks at the Port of New York, the Command Center realized that obtaining supplies amid global and national shortages would require unusual channels. They themselves even partnered with the New England Patriots to procure additional shipments from China. Recently, in [a letter published by the New England Journal of Medicine](#), a physician at Baystate Health described how the Federal Bureau of Investigation and the Department of Homeland security intervened in their scrupulous efforts to privately purchase gowns, gloves, face masks, goggles, face shields, and N95 respirators. Congressional representatives were called, and eventually interceded to prevent their seizure of the PPE. He encourages us to “leave no stone unturned to give our health care teams and our patients a fighting chance”, despite the “severe constraints” of the pandemic.

As of this week, over four million pieces of PPE have been delivered statewide, including over 2.3 million gloves, over 370,000 masks from the “AirKraft” shipment, almost 190,000 gowns and 380 ventilators. The Command Center is now working with the local branch of FEMA to distribute 200,000 FDA-approved respirators to EMS personnel. Our online supply donation [portal](#) remains active. While awaiting distribution, the State offers [guidance](#) for prioritization of PPE.

THERAPEUTIC PROTOCOLS

NATIONALLY, protocols for milder cases of COVID-19 typically recommend following the CDC's stay at home approach. The oversight of quarantine will be a crucial component of mitigation strategies as the nation begins to re-socialize.

Importantly, an expert panel of U.S. frontline physicians, as well as statisticians, and organizations such as the FDA, CDC and NIH have come together to develop a living document entitled [COVID-19 Treatment Guidelines](#). The guidelines are based on published and preliminary data and will be updated alongside publication of any peer-reviewed or authoritative information. Treatments are categorized as either antivirals or host immunity-based therapies. Their recommendations begin with “[a]t present, no drug has been proven to be safe and effective for treating COVID-19.”

For antivirals, the use of Chloroquine and Hydroxychloroquine are falling out of favor. Although their use from the SNS was encouraged by President Trump early on after FDA-authorization, the NIH and CDC have cautioned about their adverse effects. A new [study of hospitalized veterans](#) suggests that the use of Hydroxychloroquine worsens outcomes. The new guidelines recommend specifically against use of Hydroxychloroquine when combined with Azithromycin, as well as HIV protease inhibitors. Remdesovir, which remains limited to use for pregnant women and children, is now [Phase III of clinical trials](#) with cautiously optimistic preliminary results. Though not commented on, there are early reports of promise for use of [Ivermectin](#).

For host-immunity based therapy, The National COVID-19 Convalescent Plasma Project, approved by the FDA to launch [clinical trials](#), has been met with great reception. It allows plasma and antibodies from recovered COVID-19 patients to treat ongoing COVID-19 infections and is being widely tested across the country. Hyperimmune globulin trials are also underway, as are those in monoclonal antibody studies against IL-6, and IL-1 inhibitors. The new guidelines [recommend against](#) the use of interferons and Janus Kinase inhibitors.

HERE IN MASSACHUSETTS, a randomized control trial of Tocilizumab is being launched at Massachusetts General Hospital, to “investigate whether administering tocilizumab in early-stage COVID-19 can prevent progression to the need for ICU care and mechanical ventilation”. UMass Memorial just received FDA approval to use and study convalescent plasma.

HEALTH CARE FACILITY SHORTAGES

NATIONALLY, the IHME noted a peak hospital resource use on April 17, with over 68,000 beds and over 18,000 ICU beds needed that day. The country has again “flattened” the predicted peak with its suppression and mitigation efforts, compared to the original predications.

HERE IN MASSACHUSETTS, we note about 10% of all cases are currently hospitalized, now totaling 3,804. Our peak was predicted this week, but with the recent surge of cases, it is unclear whether this is yet to be seen.

The Baker-Polito Administration has put great focus on expanding capacity for dedicated COVID-19 skilled nursing facilities to free up other hospital and ICU beds.

They intend to use existing and empty facilities for this purpose including the Beaumont Facility in Worcester, the Pioneer Valley Recovery Center in East Longmeadow, and 5 more dedicated COVID-19 facilities in Brewster, Falmouth, New Bedford, East Longmeadow and Great Barrington. They report that the use of several other facilities is in the planning stages. Existing health care facility capacity data can be found [here](#).

ELIMINATION & ERADICATION STRATEGIES

NATIONALLY, we are far from having FDA-approved medications or vaccines for the prophylaxis of COVID-19. For this reason, suppression strategies are crucial in reducing infection rates until elimination of the virus is possible; mitigation strategies will likely not be enough to prevent further outbreaks.

The investigational vaccine called mRNA-1273 is still in [phase one of human clinical trials](#); their first available data is likely another month away. They are hoping it will receive an FDA emergency use authorization for some patients and health care personnel [in the fall](#). Inovio has begun their vaccine's phase one trials at [Penn State](#). Johnson & Johnson aim to have more than half a billion [coronavirus vaccines](#) ready early next year, but their phase one trials will not start until September 2020. Should this or similar vaccine efforts prove ineffective, resurgent [waves of infection](#) are predicted to last into 2022.

WORKFORCE STRENGTHENING

FAMILY MEDICINE TRAINEES

With the [AAMC](#) strongly suggesting medical students not be involved in direct patient care, many rotations have been cancelled, leaving medical students an underutilized contingent of the health care workforce. The AAMC has offered [further recommendations](#) to medical colleges as they govern alternative supporting roles by medical students, as has the [AMA](#). The Liaison Committee on Medical Education [released guidelines](#) for early graduation of medical students to the frontlines of the COVID-19 pandemic. The ACGME released a [statement](#) highlighting serious ramifications of early graduation such as CMS reimbursements and legalities of their internship contracts.

The ACGME has also released [considerations](#) on resident physician training during the COVID-19 pandemic; furloughing of residents has been deemed unacceptable. The AMA has released [guiding principles](#) to protect residents responding COVID-19. Finally, to the relief of many residents, the [ABFM](#) has been able to secure some [July testing dates](#), after the initial April test dates had been cancelled.

VOLUNTEERS, RETIREES & LICENSING

With existing and anticipated physician shortages in relation to surging caseload, quarantine, and even fatalities, swift measures have been taken to expand and strengthen our workforce. To assist and expedite physician recruitment, many states have waived licensing fees and accelerated license reactivation. The Federation of State Medical Boards provides a [list](#) of state-specific physician licensing permissions, with links to local guidance documents. The [Interstate Medical Licensure Compact](#) website also helps physician navigate voluntary, expedited pathway to licensure to allow them to practice in other states.

The American Medical Association has released a [Senior Physician Resource Guide](#) to consider for their involvement in the COVID-19 pandemic. The AAFP has also released guidance documents for [retired physician volunteers](#), as well for those physicians [practicing outside of usual settings](#). The CDC has also provided a guide on ["mitigating staff shortages"](#) during the COVID-19 pandemic.

HERE IN MASSACHUSETTS, **Governor Baker has made a number of executive orders to help license retired physicians, physician volunteers, foreign medical doctors, while provided added liability protections.**

RESILIENCY SUPPORT

NATIONALLY, the COVID-19 crisis effects on both illness and ["moral injury"](#) are expediting the U.S. Department of Health and Human Services' [predicted shortage](#) of up to 90,000 physicians by the year 2025. We recognize that in itself, physician burnout is its own public health crisis that necessitates urgent action and leadership by health care institutions, government and other regulatory medical bodies and insurers.

FINANCIAL SUPPORT

NATIONALLY, the Small Business Administration announced that the \$349 billion **Payment Protection Program (PPP)** funds from the CARES Act, as well as the **Economic Injury Disaster Loan Emergency Advance** were exhausted in under two weeks.

However, with the senate looking to pass the new Paycheck Protection Program and Health Care Enhancement Act, more funds are likely to be added to the tune of \$484 billion. The new bill would replenish another \$310 billion for PPP and promises \$60 billion for the U.S. Small Business Administration's Economic Injury Disaster Loan Program, which includes \$10 billion in emergency grants for businesses. Additionally, on April 13, the HHS opened its **portal** for provider relief payments, the eligibility for which can be found [here](#).

Meanwhile, though audio-only telehealth visits are now receiving better reimbursement, the Academy along with other bodies, such as the **AMA**, are continuing to advocate for parity to in-person visits. The AAFP continues to make available its webpage on **Financial Relief for Family Physicians**, with a breakdown of available funding opportunities and tools to help keep your practice financially viable. We are happy to announce the establishment of a new **AAFP Foundation COVID-19 Emergency Relief Fund** for family physicians as well, which "will be used to improve FPs' ability to continue providing safe, high-quality care to patients during the pandemic and into the future." Based on **shared experiences** from physicians, we anticipate that much of this funding will go to assisting in the use of telehealth.

HERE IN MASSACHUSETTS, **Governor Baker's order providing financial relief to critical health care providers, remains in place.** The Massachusetts Medical Society has also released a **comprehensive guidance document on Financial Resources for Practices During COVID-19.**

Questions? Comments? Email mprentice@mcw.edu

As representatives of the AAFP, we continue to search for ways we can support you and advocate for your needs, to strengthen your resilience throughout the pandemic and in the quickly changing future of family medicine. We would like to highlight the Academy's **Physician's Health First** website, offering a **well-being self-check**, general tips on self-care, and on how to get **crisis help**. An archive of the free webinar entitled "Maintaining the Emotional Health of You, Your Team, and Your Patients" is also available, as well as CME credit for completing the course **Physician Well-being in the Time of the Pandemic**". **Childcare resources** for physicians are also provided.

In the meantime, numerous lists of resiliency tools have been updated for physicians working in the COVID-19 public health crisis. A non-exhaustive set of lists can be found on websites from the **CDC**, the **Academy of Medicine**, the **Substance Abuse and Mental Health Services Administration**, among others.

To speak with a provider directly, both **Talkspace** and **Headspace** apps offer free services, as does **Project Parachute** by Eleos. The **Physician Support Line** has also emerged as a new resource in the COVID-19 pandemic. It has been developed specifically for physicians, by physicians, and is staffed by volunteer psychiatrists.

HERE IN MASSACHUSETTS, **Massachusetts General continues to offers a resiliency program, while the Harvard T.H. Chan school provides support through their #firstprovidersfirst initiative.** The **Massachusetts Emergency Services Program** is available to all. Finally, the MassAFP maintains its strategic focus on healthy practice, offering specific links and resources for **physician wellness.**