

EDITORIAL

One Virus, Undivided ... Equity, And The Corona Virus



ONE VIRUS...UNDIVIDED

A particle measuring 120 nm has changed life on this globe. New York, Boston, and Paris streets are deserted. Schools and universities are shuttered. Shops, restaurants, and bars locked. Medical conferences and religious gatherings halted. The Olympics have been replaced by facemasks and Zoom meetings.

The current total number of confirmed cases and deaths as of 13 April 2020 3:03 PM (1) are as follows:

Globally: 1 897 373 confirmed cases and 118 304 deaths.

USA: 568 176 confirmed cases and 21 662 deaths.

Massachusetts: 25 081 confirmed cases and 743 deaths.

This 120 nm particle does not discriminate. It is fair. It likes us all equally. However, how it moves around our globe, into our cities, down our streets, into our homes, and into our lungs is not equal. Our age, our language, color, income level, career, and zip code matter. These factors matter in whether or not we are infected, and if infected, whether or not we succumb. With this virus, there are disparities and divisions. COVID itself does not discriminate, but existing racial and health care inequities do.

We must meet this one virus ... undivided.

We have been here before. In 1918, the Spanish Flu, falsely named due to the greater news coverage in Spain, infected over 500 million worldwide and killed perhaps 3% of the world's population with some staggering estimates of up to 50 million persons. The "Spanish" flu virus spread through movement of soldiers in World War I and was especially ruthless to children and pregnant women.

Patients were buried without coffins in communal graves dug with steam shovels. During the early 20th century (1906-1942) urban African Americans experienced an infectious death rate that was greater than that in urban whites at the peak of the Spanish flu pandemic.¹

1 | PANDEMIC EQUITY REFLECTS EVERY-DAY EQUITY

Why would there be differences in infection rates and outcomes among different populations if we all have equal human susceptibility? Is COVID exploiting existing health disparities? Pandemic equity reflects everyday equity. Some minority and at risk patient populations have disproportionate rates of chronic diseases which contribute to the lethality of COVID, and are more subject to urban community crowding. They have restricted health access in general and specifically to COVID testing as well as have reduced access to cultural and language sensitive information sources, and have lower job security and diminished child support resources. Recently, the biology of these environmental differences including low socioeconomic status and early stress exposure is increasingly appreciated as vital factor that impact actual immune responses to such host insults.²⁻⁴

Crowded neighborhoods of the urban working class have many unique characteristics making these populations more vulnerable including older age demographic, higher immigrant population, and greater reliance on public transit. Many urban populations also include other unique mental health and addictive risk group sub-populations. These groups are being left behind. Such communities had substantial equity issues prior to the COVID pandemic. COVID simply casts a new and cruel light on chronic inequities in our existing health care. The solution will necessitate new partnerships between physicians and their communities in and outside of the clinic to change and incorporate the socioeconomic realities into ongoing medical practice.

What is the existing equity data?

A recent CDC study of 1500 COVID patients in 14 states showed that although only 13% of the US population is black, 33% of those hospitalized patients were African Americans. Only 45% of hospitalizations were among Caucasians who make up 76% of the population.^{6,7} This inequity is distributed throughout the country. In

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Michigan, the population is 14% black, but blacks represent 40% of COVID deaths. In Chicago, the population is 30% black but 70% of deaths have occurred in black patients. In Louisiana, 32% of the population is black, but roughly 70% of deaths have occurred in black patients. In Milwaukee, 33% of the population is black and 66% deaths are in black patients. A recent brief from New York City Health, NY, showed a 94% higher age-adjusted death rate for African Americans relative to whites.⁵⁻⁷

Equity data in Massachusetts and Boston:

In Massachusetts and Boston, despite our world class reputation for medical excellence, we do not have sufficient regional data to study the issue of equity with clarity. In Boston, just the last week, Mayor Walsh revealed that Boston data are incomplete with almost 38% of COVID cases lacking demographic data. Within the limited Boston data set, it is known that even though blacks account for 25% of the population, they represent 40% of the COVID cases. Among COVID cases admitted to Massachusetts General Hospital (MGH) as of 4/1/20, 44% are black or Hispanic and 35% of population requires interpreter assistance.

For Massachusetts, the data are also extremely limited. Massachusetts coronavirus case data stratified by race and ethnicity was released this week. Of 16 790 coronavirus cases were reported in Massachusetts, but only one-third of them had racial and ethnicity data. The majority of the cases were documented as “missing” or “unknown.”⁸ Nonetheless, what we do know thus far is not good. Black population constitutes 18% of COVID cases but accounts for only 9% of the population, whereas Latinx represents 23% of state COVID cases but only 12% of the population. There are striking hot spots that surface as we dig in to the regional COVID distribution as well. Chelsea has the highest rate of COVID positivity in the state with a rate of 73/10 000, a rate 10 times higher than in other areas of Boston and higher rate than NYC. Hyde Park's rate is 30/10 000 and East Boston's is 27/10 000. Other hot spots include South Dorchester and Mattapan.

As stated by Dr Joseph Betancourt, Vice President, and Chief Equity and Inclusion Officer at MGH, “This is not about black and brown, it's about economic conditions and people living in highly dense areas.”⁹

How does this pan out on a personal level? What does this mean for one specific individual? A recent Boston Globe article reveals how incredibly difficult it is to obtain care for some vulnerable populations. “Lesly, a 41-year-old mother from Waltham, lost her health care when she lost her job cleaning offices at the end of March. Now Lesly's body aches with symptoms of COVID-19, but she said she has not been able to get tested because her doctor told her she needed health insurance. Tests for coronavirus illness are free to uninsured people, under a federal law passed last month, but Lesly, who speaks only Spanish, has struggled to get accurate information—just one of many hurdles facing thousands of residents in low-income communities.” If you cannot read the instructions you cannot get the care. This issue of testing is a momentous issue. So the drive thru Patriots Place testing center does not help if you live in Mattapan and do not have a car. A review of billing data by Rubix Life Sciences found that patients with possible Covid-19 symptoms were less likely to be tested if they were African American.¹⁰

David Williams, Professor at the School of Public Health at Harvard University, noted during his conversation at the Harvard's Hutchison center this week that the growing epidemic has not created health disparities, but has simply highlighted existing disparities.

Another lens on COVID inequities: Otolaryngology as a vulnerable population.

Otolaryngologists are at special risk of potential transmission given the high viral load in the upper aero digestive tract of COVID patients.¹¹ High viral load is most notable in the nasal cavity and is associated with anosmia which is increasingly recognized as a presenting symptom in many COVID patients.¹² In fact, the first physician deaths during both COVID and SARS outbreaks were otolaryngologists.¹³

2 | CANCER AND COVID

COVID and cancer is a lethal mix. As otolaryngologist, head and neck surgeons, cancer care is one of our top priorities. This is a significant issue. It is predicted that in 2020, there will be 1.8 million newly diagnosed cases of malignancy and 650 000 cancer patients will be undergoing chemotherapy in America. The most comprehensive data on the cancer-specific case fatality rate for COVID were published recently on 28 February, in a Report of the WHO-China Joint Mission on Coronavirus Disease.¹⁴ This report indicates that in China case fatality rate for patients with cancer as a comorbid condition and laboratory-confirmed COVID infection was 7.6% as compared to 1.4% fatality rate in population without any comorbidity.

The balancing act of cancer care in the COVID era involves several, sometimes opposing, imperatives:

1. For the patient: Balancing the delay in cancer diagnosis or treatment against the risk for a potential exposure to COVID by undergoing that treatment.

2. For health care personnel: Balancing the risk to health care workers in treating patients with and without COVID status information.

3. Overall triage management to optimize the appropriate allocation of limited health care personnel and material resources in this unprecedented and evolving regionally specific health care crisis. We cannot run out of masks for health care workers.

Thus, there are multiple important opposing elements in COVID era cancer treatment.¹⁵ One important element is how and when to delay cancer care? Such decisions must be balanced and nuanced. Many physicians feel uncomfortable with these Godlike decisions. But these difficult decisions about how and when to provide cancer treatment have become a necessity.¹⁶

The American Head and Neck Society Endocrine Surgery Section (AHNS) has provided some guidance to help guide physicians/surgeons make these decisions as safely and equitably as possible¹⁷: This statement can be accessed at <https://www.ahns.info/wpcontent/uploads/2020/03/Endocrine-Surgery-during-the-Covid.pdf>. Similarly, the AHNS Endocrine surgery section has crafted a model statement to guide in the sometimes difficult conversations between a surgeon and a patients whose

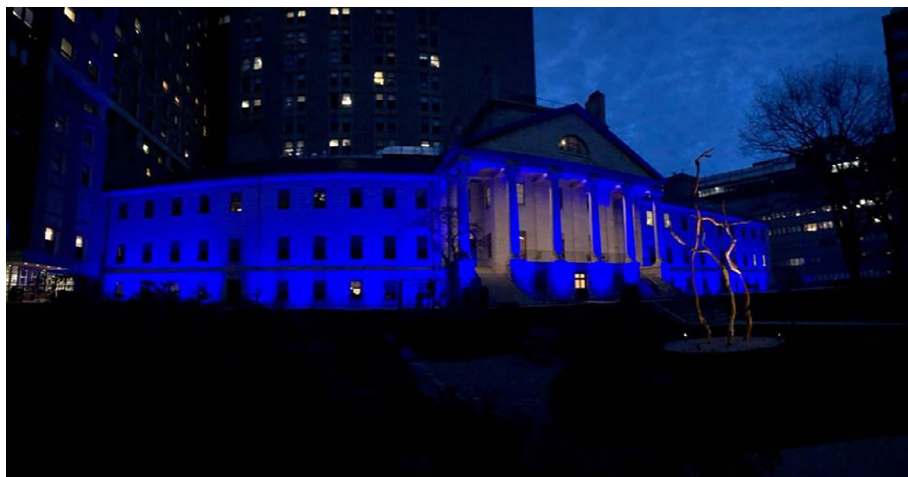


FIGURE 1 The renowned MGH Bullfinch “blue lighting”: a tribute to the health care workers

cancer surgery was scheduled since a week or a month or longer and is now being canceled due to COVID restrictions. This statement can be accessed at <https://www.ahns.info/wp-content/uploads/2020/04/AHNS-Endocrine-Section-patient-message.pdf>.

3 | WE HAVE A LONG WAY TO GO ...

Recently, a French physician researcher, Dr Jean-Paul Mira, during a COVID vaccine research planning session, commented “Shouldn’t we be doing this study in Africa where there are no masks, no treatment, no intensive care, a little bit like we did in certain AIDS studies or with prostitutes?” One otolaryngologist in Connecticut recently noted on ENT Connect (an AAOHNS online portal) that N95 masks sold previously for \$0.50 per mask are now being aggressively advertised to otolaryngologists for only \$12 per mask.

We have a long way to go.

We need collection of data to even know where to begin. We need recognition of the multitudes of deep inequities that predate COVID which divide all of us—before, during, and after COVID.

Nonetheless, there is reason to have hope. In these unprecedented moments of great need, there are distinct signs of resilience and hope as flowers emerge through the spring soil:

- I personally found hope as I left the MGH Jackson building on this Wednesday. “The 7 pm clapping, screaming thank you.” I heard on my way home came from somewhere above everywhere. It was thunderous. In my 30 years of practice, I have never felt anything like that—not with H1N1 and not with HIV in the 80s—never. It brought me to tears as I walked home.
- The Boston collaborative hospital facility, appropriately named “Boston Hope,” is an unimaginable collaborative amalgamation of Partners Healthcare, Gov. Baker, Mayor Walsh, and Boston Health Care for the Homeless providing over 1000 beds in the fight against COVID in the Boston Convention and Exposition Center overseen by a retired Brigadier General, Jack Hammond. The facility will specifically serve

Boston’s homeless population. Also the New England Patriots team plane in conjunction with the Chinese government and Massachusetts and New York state governors landed at Logan with 1.2 million N95 masks to be used in Massachusetts and New York. If Boston can do these things, we can do anything. Numerous physicians of various specialties are serving on the front line of COVID treatment at personal risk. The renowned MGH Bullfinch “blue lighting” serves as a tribute to these health care workers (Figure 1).

Boston is especially strong but this can happen everywhere. In New York 40,000 retired healthcare physicians have returned voluntarily to the workforce risking their own lives in doing so.

We will meet the challenges of COVID pandemic and in this regard, the efforts must be equitable, culturally sensitive, and should be provided with multilingual capacity with an awareness of the many social determinants that significantly impact health in-general and COVID infection specifically.

We will meet these challenges regardless of color, regardless of language and regardless of the zip code, income level, or career.

We will meet these challenges for all persons.

With COVID there are disparities, there are divisions ...
...but we must meet this **one virus...undivided**.

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