

Historical Insights on Coronavirus Disease 2019 (COVID-19), the 1918 Influenza Pandemic, and Racial Disparities: Illuminating a Path Forward

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The coronavirus disease 2019 (COVID-19) pandemic is exacting a disproportionate toll on ethnic minority communities and magnifying existing disparities in health care access and treatment. To understand this crisis, physicians and public health researchers have searched history for insights, especially from a great outbreak approximately a century ago: the 1918 influenza pandemic. However, of the accounts examining the 1918 influenza pandemic and COVID-19, only a notable few discuss race. Yet, a rich, broader scholarship on race and epidemic disease as a “sampling device for social analysis” exists. This commentary examines the historical arc of the 1918 influenza pandemic, focusing on black Americans and showing the complex and sometimes surprising ways it operated, triggering particular re-

sponses both within a minority community and in wider racial, sociopolitical, and public health structures. This analysis reveals that critical structural inequities and health care gaps have historically contributed to and continue to compound disparate health outcomes among communities of color. Shifting from this context to the present, this article frames a discussion of racial health disparities through a resilience approach rather than a deficit approach and offers a blueprint for approaching the COVID-19 crisis and its afterlives through the lens of health equity.

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The coronavirus disease 2019 (COVID-19) pandemic has killed more than 100 000 persons in the United States (1). Nationwide data indicate that ethnic minority communities, particularly black, Latinx, and Native or indigenous communities, suffer disproportionately (2–7). This has significant historical antecedents; as Evelyn Hammonds recently argued, epidemic diseases “lay bare and make visible inequalities in a society” (8). Yet, at the onset of the crisis, few reported its effect on minorities (9). Even now, we may not know the full scope and details. Many states have published limited statistics, and race-stratified data, once fully released, will need to be carefully interpreted to address the causes of inequity rather than to perpetuate stigma and discrimination (10).

Unfortunately, this comes as no surprise to health equity researchers and historians of medicine and public health. The United States has a long history of racial and socioeconomic disparities, with the current pandemic further revealing the rifts created by historical injustice, structural racism, and interpersonal bias (11–13). Although some have touted COVID-19 as a “great equalizer” that strikes across age, sex, race/ethnicity, and geography, we contend that it has magnified the many “unequalizers” in our society (14, 15).

To understand the current crisis, physicians and public health researchers have mined history for insights (16). Most have focused on a century-old outbreak, the 1918 influenza pandemic (misleadingly called the “Spanish flu”), because COVID-19 most closely approximates it in scope and effect (17–19). Of the accounts comparing the 1918 influenza pandemic and COVID-19, only a notable few discuss race (8, 20, 21). Yet, a rich, broader scholarship on race and epidemic disease as a “sampling device for social analysis” exists (22–27). Given the excessive mortality due to COVID-19 in minority communities, reexamination of

such historical antecedents is fruitful. Although this scholarship hesitates to offer predictions, this kind of analysis can provide orienting frameworks, reveal nuance, and modulate our approach to the current crisis—which has been called “unprecedented,” reflecting a lack of historical context.

We examine the historical arc of the 1918 influenza pandemic, focusing on black Americans and showing the complex, sometimes surprising ways it triggered particular responses both within a minority community and in wider racial, sociopolitical, and public health structures. Shifting to the present, we frame a discussion of racial health disparities through a resilience approach versus a deficit approach and offer a blueprint (Table) for approaching the COVID-19 crisis and its afterlives through the lens of health equity.

“AN INDEX OF SOCIAL CONDITION”: BLACK AMERICANS AND THE 1918 INFLUENZA PANDEMIC

The 1918 influenza pandemic killed an estimated 50 to 100 million persons worldwide, surging in 3 waves starting in the spring and summer of 1918. In the United States, 1 million deaths were recorded, and the case-fatality rate reached approximately 2.5%, compared with less than 0.1% in other influenza pandemics. These figures were likely significantly underestimated because of nonregistration, missing records, misdiagnosis, underreporting, and restriction of reporting to the major season (the fall and winter of 1918–1919) (28–30).

These limitations are especially apparent when assessing influenza's effect on black Americans, a “shockingly sparse” historical database (31). Before 1918, epidemic disease already exacted a disproportionate toll

Table. The 1918 Influenza Pandemic, COVID-19, and Racial Disparities: Historical Context and Present and Future Opportunities*

Historical Context	Present and Future Opportunities
Early/new-wave pandemic response	
<p>Downplaying public health threats can be detrimental to early enactment of public health measures aimed at mitigation and control of infectious diseases.</p> <p>Communities of color remember the consequences that delayed action had on their communities. This can disrupt or destroy trust in the government and reduce the likelihood of adherence to future recommendations.</p>	<p>Elected leaders should exercise an abundance of precaution when facing potential public health threats. Providing accurate information, overpreparing, and <i>not</i> underreacting are key.</p> <p>Leaders (whether community based or elected) are role models. Communities of color may look to these persons to guide their own behaviors. Persons in positions of power or influence should be held to high standards and model the importance of strict adherence to strategies aimed at controlling and reducing infectious disease spread.</p>
<p>Transparency and communication are key to timely adoption of mitigation strategies by the general public; when these are absent, erosion of trust ensues.</p>	<p><i>Early</i> transparency and communication are key to timely adoption of mitigation strategies by the general public. However, even with these strategies, historical precedence may make it difficult for communities of color to trust information from the government. In this scenario, it is especially important to engage trusted messengers, such as community leaders and faith-based organizations, to help deliver critical information.</p> <p>For communities of color, each conversation and transfer of information is an opportunity to either rebuild trust or further substantiate mistrust. Elected leaders should thus be held accountable for misinformation, and the public should be aware of credible sources of information.</p>
<p>Counting and reporting are critical for measuring disparities in health and planning equitable interventions.</p>	<p>Technology should be leveraged to support data collection for public health surveillance and social service needs.</p> <p>Data collected on disease incidence should be stratified by key demographic factors.</p>
<p>Blaming specific groups for infectious disease spread is counterproductive and can be dangerous for the groups indicted.</p>	<p>Disinformation based on racism and stigma is unacceptable; leaders in all sectors should rely on scientific facts to guide conversations on infectious disease spread. They should maintain neutral positions and should not place blame on specific groups.</p>
Middle pandemic response	
<p>Social determinants of health are key drivers of health disparities and also affect the ability to participate in infectious disease mitigation strategies.</p>	<p>Policy initiatives must address social determinants of health <i>before</i> pandemics arise. Support for social services must be better integrated into the health care system. Health systems should anticipate increased need for social support during pandemics and have strategies in place to deliver services to the most vulnerable populations. This includes enhanced access to technology to support telecommunication for vulnerable populations.</p>
<p>Chronic medical conditions are significant contributors to morbidity and mortality during the pandemic.</p>	<p>Health care policy changes are needed to enable access to primary care and preventative services throughout the life course.</p> <p>There will be long-term sequelae related to COVID-19 (both directly because of virus-related morbidity and indirectly as a result of reduced access to care during social distancing periods). The health care system should plan for and anticipate a surge in the need for primary and specialty care services.</p>
Late/ongoing pandemic response	
<p>Institutional and structural forces keep communities of color from achieving their full potential.</p>	<p>A restorative justice approach that includes the following strategies, among others, should be used:</p> <ul style="list-style-type: none"> • Investments in early education • Financial assistance for higher education or trade schools; forgiveness for previously accumulated education debt • Investment in public housing; fair and equitable access to home loans • Fair and equitable access to business loans; incentives for minority-owned businesses • Investment in neighborhood environments: resources for community-led neighborhood violence prevention strategies, increases in green space, walking trails, reduction in food deserts • Universal access to health care, including mental health care • Integration of faith-based organizations into the health care system • Restructuring of the criminal justice system; employment opportunities after incarceration
<p>Communities of color lead, persevere, and innovate. They play an essential role in building bridges toward trust in the health care system and improving health outcomes within their communities. Their contributions help to advance science and medicine and deserve recognition.</p>	<p>Communities of color should be given opportunities to actively participate in agenda setting, research, and policy initiatives aimed at improving their communities so they can be recognized and acknowledged for their contributions.</p> <p>Building and restoring trust is an ongoing process that is necessary to advance medicine, science, and health care. This can be aided through some of the following measures:</p> <ul style="list-style-type: none"> • Support for strategies aimed at improving and maintaining a diverse health care workforce • Community-based participatory research throughout all phases of the research process (design, implementation, dissemination, and evaluation) • Utilization of trusted community partners and community health workers to aid in community education; improvement in recruitment and participation in research, including clinical trials; gathering of quantitative and qualitative data in the field throughout all phases of pandemic response

COVID-19 = coronavirus disease 2019.

* All phases should be responsive to the possibility of future waves of disease.

on black Americans, who, for example, accounted for an overwhelming number of the 50 000 deaths in the 1862-1867 smallpox epidemic (26). Contagion also augmented biologically deterministic beliefs, including that blacks were innately immune to certain diseases. During the 1792-1793 yellow fever epidemic in Philadelphia, white physicians, such as Benjamin Rush, asked black community leaders Absalom Jones and William Gray to “furnish nurses to attend the afflicted” because of the erroneous assumption that blacks could not contract the disease (32, 33).

However, in the context of these preceding epidemics, the 1918 influenza pandemic forms a unique case study. Although all-cause morbidity and mortality in the early 20th century was higher for black Americans than white Americans, the few studies examining racial differences in the 1918 pandemic found that the black population had lower influenza incidence and morbidity but higher case fatality (23, 34). Black physicians shared this view, as evidenced in the *Journal of the National Medical Association* and local newspaper articles (35, 36). Meanwhile, white public health figures, like Chicago Commissioner of Public Health John Dill Robertson, used these findings to justify biological determinism, concluding that “the colored race was more immune than the white to influenza” (37).

Rebuttals to these innate immunity theories circulated in the black print media. Respected and widely read periodicals, such as Baltimore's *Afro-American*, *The Chicago Defender*, and *The Philadelphia Tribune*, carefully documented influenza's effect, with personal columns, church registers, and town updates listing the many community members who had the “flu,” shaming those not taking it seriously, or mourning others, such as a promising young teacher and Morgan College graduate (38-42). Other articles warned black Americans to take adequate precautions and discounted theoretical immunity: “While the death rate from the epidemic of influenza is not as high as the white death rate, colored people are far from being immune of the disease” (43). In December 1918, African American columnist William Pickens debunked the claim of a white West Virginian who claimed the “influenza germ had shown that God was partial in favor of black people.” Pickens countered that for whites, “when Negroes die faster, it is often escribed [sic] to their inferiority,” but if spared, “well, that proves they are not human like the rest of us” (44). These critiques highlight differences between pandemic coverage and explanatory models in the “mainstream” versus black press—the latter was community-centered, focused on trusted sources and internal solutions, and skeptical about the veracity and benevolence of white responses.

How do we account for black Americans' lower influenza infection rates and all-cause mortality but higher case-fatality rate during the 1918 influenza pandemic? Alfred Crosby hypothesizes that higher exposure to the less virulent early wave may have made black Americans less susceptible to the fall/winter wave (45, 46). This assumes many interlinked circumstances, including higher likelihood of blacks living in over-

crowded environments and therefore greater exposure during the spring/summer wave; poorer access to sanitation, potable water, and hygiene than white counterparts; and early exposure conferring immunity against the deadlier autumn wave. Segregation may also have functioned as an unintentional *cordon sanitaire*, quarantining blacks from whites. Finally, recall that supporting data are limited by likely underreporting (23). Nonetheless, it is worth noting the higher case-fatality rate, which could be attributed to several factors still present today: higher risk for pulmonary disease, malnutrition, poor housing conditions, social and economic disparities, and inadequate access to care. In sum, if a black person caught influenza in 1918, they were more likely to die—an outcome which, despite lower infection and all-cause mortality rates, has significant repercussions. Aggregate influenza data before and after the 1918-1919 season reflect a more familiar pattern: significantly higher morbidity and mortality among nonwhites compared with whites (47). That the outcomes of black Americans did not improve in the interim suggests that the influenza pandemic did little to mobilize national responses for improving their health status, a precedent that we hope is not replicated in the current crisis.

The broader context of the 1918 pandemic is critical for understanding the historical, as well as contemporaneous, landscape of health disparities. A confluence of factors, including social policies of racial exclusion and discrimination, unequal provision of health care, housing inequality, malnutrition, chronic respiratory disease, and increased epidemiologic burden of infectious diseases (such as tuberculosis, typhoid fever, whooping cough, and infant diarrheal illnesses), contributed to lower life expectancy for black Americans (25). New academic disciplines, such as anthropology, evolutionary biology, genetics, and eugenics, helped promote theories of biological determinism, which compounded older views attributing poor health outcomes to the inferior qualities of black Americans (48). The Jim Crow laws boosted white supremacy with these ideologies to enforce racial segregation, and between 1916 and 1919, in the thick of the influenza pandemic, approximately half a million blacks fled the punitive South for Midwestern and Northern cities in the now-famous Great Migration.

However, those cities often greeted them with prejudice, stigma, segregationist policies, and violence, allegedly aimed at improving public health. A March 1917 *Chicago Daily Tribune* headline proclaimed, “Rush of Negroes to City Starts Health Inquiry”; during the pandemic, the headline “Half a Million Darkies from Dixie Swarm to the North to Better Themselves” appeared. Reporter Henry M. Hyde named Southern black migrants as disease vectors: “compelled to live crowded in dark and insanitary rooms; they are surrounded by constant temptations” (20, 49). These views provided justification for draconian public health ordinances and restrictive housing covenants that maintained housing color lines and prevented black Chicagoans from leaving overcrowded conditions (“the Black

Belt"). Violence took over where segregation failed. From July 1917 to March 1921, during both the influenza pandemic and the 1919 Chicago riot, "fifty-eight bombs were hurled at black homes and those of white and black real-estate men who sold homes or rented property to newcomers who attempted to leave the Black Belt" (50).

Residential segregation also played a role in the outbreak in Baltimore, the first large American city to pass drastic housing legislation in 1910. Consequently, many black Baltimoreans lived in "alley districts" or high-occupancy "tenant houses" with poor sanitation and ventilation and higher rates of epidemic disease (25, 51). Influenza overwhelmed medical resources straining under the burden of urban density, unequal living conditions, and a high concentration of military training camps (52, 53). Downplaying by authorities like health commissioner Dr. John D. Blake, who called it the "same old influenza" physicians have long treated, exacerbated the problem (54). Blake eventually reversed course, imposing citywide restrictions and "social distancing," but not in time to stanch the tide.

Segregation and structural racism extended to medical education and health care delivery, but community mobilization, well under way before the pandemic, was a counterbalance. By the early 20th century, black activists and professionals led many health institutions and flagship organizations: Howard University College of Medicine (founded in 1868), Tuskegee Institute Hospital and Nurse Training School (founded in 1892), Meharry Medical College (founded in 1876), the National Medical Association (founded in 1895), and the National Association of Colored Graduate Nurses (founded in 1908). At the same time, the Flexner Report (published in 1910) disadvantaged minority health education—only 2 of the initial 7 black medical schools survived its reforms, and they struggled financially during the influenza pandemic (55).

Black nurses, excluded from World War I service by the U.S. Army Medical Corps and the Red Cross and battling for inclusion in the U.S. Armed Forces Nurses Corps, nevertheless served on influenza frontlines. In October 1918, *Afro-American* declared that these essential workers were "at a premium," noting that the self-same "Red Cross leaders are appreciative of the response colored women have made . . ." (56). Yet, black patients were often disbarred from care, leading to local and decentralized efforts to provide care within the community. Black professionals took great pride in their role fighting influenza. As Dr. John P. Turner wrote (57):

The Negro physician played a most prominent part in treating and relieving victims of every race . . . [yet] will possibly never be cited in the history to be written of the 1918 epidemic. However we want to call to the attention of the medical profession of America the unselfish devotion to duty that impelled three thousand legal practitioners of medicine of African de-

scend to work night and day to aid in checking the monster scourge.

Although most black health professionals did not receive due praise or recognition, disruptions in the wake of World War I and the 1918 pandemic did shift the U.S. medical landscape. It was partly because of the "scarcity of white medical men" as well as ardent community efforts and activism that places like the Harlem Hospital desegregated (1919–1935); Louis T. Wright, later a prominent surgeon and civil rights activist, became the first black physician to join its staff in 1919 (58).

Historians remark that, unlike other cataclysmic events, the 1918 pandemic left minimal traces in public memory and culture; its neglect has led to its being called the "Forgotten Pandemic" (46). However, this assertion overlooks its multivariate effect on the African American community. Although the influenza pandemic does not reveal ready associations between deleterious social, cultural, and economic conditions and poor outcomes (aside from higher case-fatality rate) for black Americans, the gaps in historical documentation may reflect inherent disparities and consequences of limited racial/ethnic data collection. This absent archive may indeed have been a setback for public health and health equity—a missed opportunity to intervene on the basis of the specific contexts and unique vulnerabilities of different groups. In this way, the 1918 influenza pandemic is an illuminating case study for understanding the role of pandemics in the history of health disparities and the broader health equity movement. For black Americans, surviving and fighting the 1918 pandemic was a catalyzing step up the social ladder, a cause for communal effort and activism, and a justification for profound engagement with health, which was seen as bound to the greater social condition. It concretized the spirit of community resilience and helped contribute to desegregation and the nascent civil rights movement. However, because of minimal national mobilization to improve the health of communities of color, it also compounded mounting distrust in the U.S. government to intervene and help improve the health and lives of its nonwhite citizens, a wariness that we see replayed in the COVID-19 pandemic.

COVID-19 AND THE ARC OF HEALTH EQUITY

Reflecting on the 1918 influenza pandemic in the setting of COVID-19, we note important parallels while recognizing many differences in context. Despite the past century's therapeutic evolution, we find ourselves in a situation similar to 1918, without a vaccine or proven treatments for a deadly disease. Furthermore, structural inequities have historically contributed and continue to compound disparate health outcomes in communities of color. Evaluating historical trends is critical for health equity work, and through attending to the complexities of the 1918 pandemic, we have the opportunity to ground our current and future strategies in this historical context, deliver a more equitable pan-

demographic strategy, and reduce disparities in marginalized communities. As physicians who also serve other roles (health equity researchers, historians of medicine, educators, and advocates), we propose several areas for intervention and mobilization throughout the various phases of pandemic response.

Delaying swift public health measures significantly affected the pandemic curve trajectory in the 1918 influenza pandemic. Cities that enacted swift and sustained nonpharmaceutical interventions had lower excess mortality rates than their counterparts (58–60). Similarly, initial failure to acknowledge severe acute respiratory syndrome coronavirus 2 as a credible threat hampered containment and mitigation efforts (61). Several months later, as much of the nation strategizes reopening, we must maintain vigilant mitigation strategies while aligning recommendations with emerging epidemiologic data. Failure to do so could result in new waves of disease, as was the case in 1918.

Within the African American community, specific communication barriers, augmented by a lack of COVID-19-related demographic data, contributed to underestimating the pandemic's effect. Misinformation and recycled, erroneous narratives about black immunity circulated through social media (62). Historical distrust of biomedicine amplified these effects (63). However, as available data emerged outlining COVID-19's devastating disparities, black organizations, leaders, and media outlets aggressively campaigned to dispel myths, implored citizens to heed sanitation and containment advice, and advocated for community resources. This kind of community-led strategy has repeatedly been critical in counteracting national failures to protect minorities. Furthermore, such interventions bridge divides forged by historical mistrust—they are central to dissemination of information and community activation (64).

However, misinformation, oversight, and delayed mitigation strategies alone do not fully explain differential COVID-19 incidence. Many have deeply analyzed the effect of social determinants on COVID-19 disparities (15, 65, 66). This historical inheritance, of which the 1918 influenza pandemic forms just 1 episode, shapes how social conditions obstruct minority participation in public health mitigation and containment measures. It also extends to risk factors for chronic disease development, making African Americans more susceptible to COVID-19-related morbidity and mortality (67). As a result of redlining, for instance, minority residential environments bear substantial barriers to health optimization, such as reduced green space access, disproportionate tobacco and alcohol marketing, low perceived neighborhood safety, and food deserts (68). Health equity researchers have proposed reforms, including interventions by local governments to provide food, housing, education, employment, and technological support, but this approach is necessarily reactive rather than reparative and preventive (69, 70).

An advantage of the current era compared with 1918 is our ability to collect robust data that can inform a more proactive strategy. Structural, environmental,

and economic data on essential goods and services can enhance epidemiologic data. When stratified at the level of key social determinants of health, this information can be used to identify which communities are most vulnerable and ensure prudent and equitable dissemination of resources.

In addition to the relief response, we must examine the nature of blame and stigma during pandemics, paying particular attention to dangerous narratives of personal responsibility as a key driver of health outcomes (71). These accounts place the burden of differential outcomes on minorities rather than acknowledging the lasting legacy of structural racism. They also detach minority health from that of the majority rather than viewing it as part of the nation's collective mission.

The trajectory of the COVID-19 pandemic remains uncertain; it may abate, or we may face resurgent waves during reopening, as seen during the 1918 influenza pandemic. If the latter, we must acknowledge the history of public health response, correcting prior mistakes and attempting to duplicate applicable practices. If the former, we must still consider our path toward equity in recovery. Challenges for communities of color will include long-term COVID-19 sequelae, exacerbation of underlying chronic conditions, and mistrust in the health care system, perhaps reinforced by the current crisis. Creating antidotes to this mistrust will be critical; components should include collaboration with trusted community and media partners, a diverse health care workforce to offer racially concordant care teams, and community-based participatory research. This will in turn support the actions needed to reduce disparities, including recruiting a representative population into future COVID-19-related clinical trials and epidemiologic studies, ensuring adequate uptake during vaccination campaigns, enhancing engagement with primary care for improved chronic disease prevention and management, and seeking the narrative and lived experience of minorities to guide future public health communication and strategy (16, 72). However, there is reason to be hopeful. Perhaps the most important conclusion drawn from an analysis of the 1918 influenza pandemic is that minority communities are resilient, are resourceful, and find restoration in community.

The most successful strategies to advance health equity would be to 1) examine the historical arc contextualizing current disparities in vulnerable communities; 2) recognize the inherent strengths in these communities, empowering them to participate in research and generate solutions alongside those who traditionally hold power; 3) acknowledge the contributions of front-line workers in communities of color; 4) prepare for future public health emergencies by enhancing minority civic participation; and 5) use a restorative justice framework to acknowledge and make amends for the structures contributing to disadvantages in these communities (73, 74).

Taken together, these strategies provide the opportunity to use this challenging moment to transform

clinical and public health practice by grounding it in social justice. Although the COVID-19 pandemic will eventually abate, its aftershocks will be perceptible for generations. There is no doubt that it will change public health practice and clinical delivery, which are intimately intertwined. Yet, it will also shift the political and social landscapes. As Arundhati Roy recently wrote in “The Pandemic is a Portal”: “We can choose to walk through it, dragging the carcasses of our prejudice and hatred, our avarice, our data banks and dead ideas . . . Or we can walk through lightly, with little luggage, ready to imagine another world. And ready to fight for it” (75). When the dust settles in the wake of COVID-19, let us not allow ourselves to fall into a great amnesia, another forgotten pandemic. Let us remember whom this disproportionately affected and why. Taking this as impetus for mobilization, let us begin to rewrite the story of health disparities in America. In this new chapter, we will be better prepared to offer all citizens a fair and just opportunity to attain their highest level of health.

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