doi:10.1093/eurheartj/ehab486

Global Spotlights

Can the US COVID-19 Response Advance Equity in Cardiovascular Health?

Erica S. Spatz [1,2]*, Adam L. Beckman [3,4], Oyere K. Onuma[1], and Elias Mossialos [5,6]

[1]Department of Internal Medicine, Section of Cardiovascular Medicine, Yale School of Medicine, 789 Howard Avenue, Dana Building, 3rd Floor, New Haven, CT 06519, USA; [2]Yale/Yale New Haven Health Center for Outcomes Research and Evaluation, 195 Church St., 5th floor, New Haven, CT 06510, USA; [3]Affiliation at Time of Submission, Harvard Medical School, 25 Shattuck St, Boston, MA 02115, USA; [4]Affiliation at Time of Submission, Harvard Business School, Soldiers Field, Boston, MA 02163, USA; [5]Department of Health Policy, London School of Economics and Political Science, Houghton Street, London, UK; and Institute of Global Health Innovation, Imperial College London, London, UK

The novel COVID-19 pandemic has caused more than 600 000 deaths in the USA and is disproportionately affecting racial and ethnic groups and other vulnerable populations including the elderly and individuals with underlying medical comorbidities. Compared with White adults, Black adults have a greater than three-fold risk of dying from COVID-19 and Latinx adults a nearly two-fold risk.[1] These numbers mirror longstanding disparities in cardiovascular disease outcomes, where Black individuals and communities have the highest rates of cardiovascular risk factors and disease, as well as premature cardiovascular mortality.[2] Disparities in health outcomes from COVID-19 and cardiovascular disease share many of the same root causes; and *both* can be addressed through strong political action and focused interventions.

In the USA, structural inequities—including bias and racism in societal laws and policies—cannot be disentangled from the social determinants known to disproportionately impact health outcomes in Black and Latinx communities. Structural inequities have long resulted in housing segregation and crowding; poor access to healthy foods, parks, and recreation; low-quality healthcare; and exposure to daily stress from discrimination, poverty, and a lack of safety. In the era of COVID-19, structural inequities have translated into differences in infection rates, severity, and outcomes, as well as access to COVID-19 testing, telehealth visits, and vaccinations.

The new Administration has appropriately signalled the COVID-19 pandemic as its top health, economic and policy priority. If implemented through a health equity lens, the response has the potential to not only shape the course of the COVID-19 crisis but also catalyse a more equitable health system that results in improved cardiovascular outcomes. In this viewpoint, we provide background to the main healthcare themes the Biden-Harris Administration is focused on—insurance coverage, strengthening public health infrastructure, and modernization of healthcare delivery—and highlight how specific attention to structural and social inequities in healthcare could have a positive impact on both the COVID-19 pandemic and cardiovascular health. While the US experience is unique, the COVID-19 pandemic will continue to test the healthcare infrastructure in many countries and expose inequities in health outcomes especially among vulnerable populations. Countries can exchange best practices to address these health inequities and we offer this perspective in that spirit.

Insurance coverage and financial protection

The USA remains an outlier among high-income countries in that healthcare is not recognized as a fundamental right. Approximately 10% of the US population <65 years is uninsured. Yet, in 2018, the USA spent 16.9% of gross domestic product on health care, nearly twice as much as the average country in the Organisation for Economic Co-operation and Development (OECD).

In 2010, the Patient Protection and Affordable Care Act ('Obamacare' or 'ACA') was passed with the goals of expanding insurance coverage, lowering healthcare costs, and improving individual and population health. With its passage, insurance coverage expanded to ~20 million more residents, pre-existing conditions are no longer a determinant of insurance coverage and rates, and the nation's fee-for-service reimbursement system is slowly being transitioned to a value-based one. Still, leading up to the COVID-19 pandemic, the US health policy landscape was largely focused on the legality of the ACA, with multiple attempts to overturn the law in the legislature and in the courts.

With the unprecedented health consequences of COVID-19 coupled with historic job losses resulting in higher rates of uninsurance, calls to overturn the law have quieted, and bolstering the ACA is becoming more feasible.[3] The recently enacted COVID-19 pandemic relief bill includes provisions to expand insurance coverage and lower costs for state-run health plans.[4] To improve affordability, federal funds will be used to increase tax credits to purchase health insurance and to lower the cost of coverage as a percentage of family income. The current administration is also proposing a second bill that would potentially expand two federal insurance programmes—Medicare that covers adults 65 years and older, and Medicaid that covers individuals and families with limited or no income—which could prove to be

*Corresponding author. Tel: 203-785-6012, Email: erica.spatz@yale.edu

critical and viable pathways to universal coverage. Other key policy measures like the creation of a public insurance option in the form of Medicare for all Americans, lowering Medicare eligibility from age 65 to 60, and reducing drug prices by allowing Medicare to negotiate with companies would also bolster coverage. While these policies are more politically complex, and it is uncertain they would receive the support needed to pass into law, they represent the type of transformative structural changes needed to advance equity in the US healthcare system.

Policies to expand insurance coverage and offer affordable health coverage could improve cardiovascular outcomes. Cardiovascular risk factors are highly prevalent in the uninsured population, but often go undetected and untreated until a major cardiovascular event occurs. Among insured individuals, many patients forego medications and healthcare services, even following acute myocardial infarction,[5] due to high out-of-pocket costs. For example, people with cardiovascular disease spend ~16% of their household income on healthcare; 14% experience financial hardship; and 5% experience catastrophic financial hardship.[6] Financial toxicity in its many forms has been associated with incident cardiovascular events and mortality. Affordable care is necessary to address these health inequities.

Restoration of trust and investment in public health infrastructure

The USA is grappling with waning trust in science and public health institutions, stemming from several concurrent trends. The federal response to the COVID-19 pandemic under the prior Administration lacked coordination, often failing to provide consistent, clear communication to the public.[7] Experts within core agencies such as the Centers for Disease Control and Prevention (CDC) were not empowered to lead public messaging on the pandemic, and these gaps coincided with a growing epidemic of misinformation and disinformation about COVID-19. Moreover, during the last 4 years, the country underfunded the areas of government vital to controlling a pandemic. Between 2010 and 2019, the CDC budget dropped by 10%[8] and of the $3.36 trillion dollars spent on healthcare in 2018, only 3% went to public health. For numerous populations, these realities exacerbated existing legacies of distrust in the medical system.

The new Administration should focus intensely on rebuilding trust in the public health system. Already, the Administration appointed the nation's first Health Equity advisor in the White House, whose team has started the process of bringing trust into the national discourse. Vaccine messaging and community access tailored for populations of colour are a priority. The new COVID-19 relief bill allocates billions of dollars to vaccine awareness, distribution, and engagement, which will hopefully achieve its intended impact. This focus could potentially have repercussions for all of medicine. In the cardiovascular community, multiple opportunities exist to invest in healthcare practices that build trust, such as moving care closer to trusted community representatives. The LA Barbershop Study, in which hypertension was effectively diagnosed and managed in barbershops, is one such example, yet its scalability is hindered by the current healthcare reimbursement structure.[9]

To advance equity, the Administration must act to fundamentally change the structures and finances through which public health and healthcare are administered, with a focus on vulnerable communities. Federal investments in public health infrastructure related to the COVID-19 pandemic should be coupled with long term, sustained funding for prevention, and social determinants of health that can impact all health outcomes. Reimbursement models that incentivize health systems to establish care within their communities should be prioritized. Federal programmes to address hypertension in racial and ethnic communities hardest hit by the pandemic could be part of a larger public health effort to improve the lived environment (e.g. housing quality; access to parks and recreation centres; fresh vegetables in grocery stores).

Modernization of health delivery

COVID-19 has also highlighted the digital divide as a critical determinant of widening trends in cardiovascular outcomes by race and economic status. Access to telehealth and remote patient monitoring have thrived in some segments of the population, but lagged significantly for others. The Administration should bolster the funding of initiatives and passage of legislation to advance the accessibility and utility of digital health technologies.

During the pandemic, Medicare—the federal insurance programme for the elderly—rapidly expanded reimbursement for telehealth services, increasing uptake of these services nearly overnight, but only among patients and providers with such capability. Medicare coverage for telephone visits is at a much lower rate, and there is no support for infrastructure such as broadband internet or devices to support televideo visits. This has resulted in unequal telehealth access in marginalized populations at a time of critical need. Additionally, remote patient monitoring devices, such as blood pressure cuffs that directly sync to the medical record—and which are required for reimbursement, remains limited, and again there is little support for populations with low digital literacy. Given the consensus that telemedicine and remote patient monitoring can enhance healthcare delivery, we advocate action to support its use among all individuals and communities.

Medicare and Medicaid could fund community health workers to help low-income and elderly individuals engage with digital health platforms while addressing other social determinants of health.[10] Similarly, value-based care programmes could reward health systems that use digital health platforms to facilitate cardiovascular disease prevention and management of chronic disease (e.g. virtual cardiac rehabilitation in patients at-risk for or with ischaemic heart disease; decision support tools to optimize care management such as guideline-concordant medical therapy in patients with heart failure). The new Administration recently signalled plans to invest in broadband infrastructure across rural communities throughout the USA. Such policies need to be coupled with initiatives to bring up-to-date technology into the hands of end-users and research funding to support to evaluate strategies testing implementation and impact on positive health outcomes. Finally, the collection of real-world data could enhance care (e.g. patient-reported health status; community data).

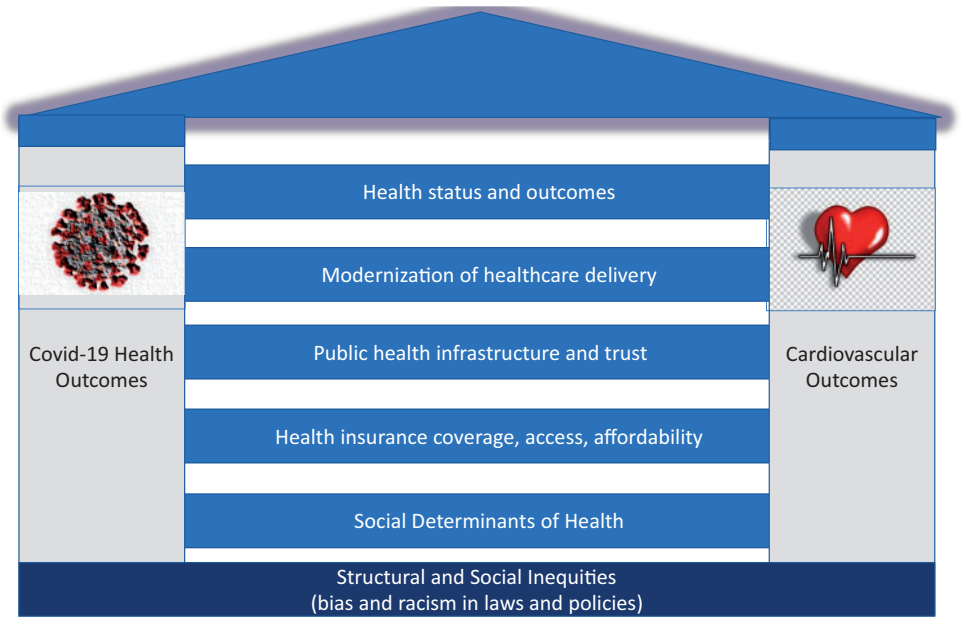

Figure 1 Social and structural determinants of health outcomes from Covid-19 and cardiovascular disease.

Conclusion

A robust US federal response to the COVID-19 pandemic can be harnessed to address the structural inequities that result in health outcome disparities. Strategic investments are needed to reduce financial burdens on individuals, establish trust and fortify public health institutions and infrastructure, and modernize healthcare delivery using technology. Such actions will not only mitigate the COVID-19 pandemic but could have lasting impact for advancing equitable cardiovascular outcomes among diverse populations (*Figure 1*). The US experience and response, while unique, could serve as an important example for other nations wherein structural and social inequities are at the core of poor health outcomes.

Conflict of interest: Dr Spatz reports receiving support from the Centers for Disease Control and Prevention to study the sequelae of Covid-19, unrelated to this article. Dr. Spatz also receives support from the Food and Drug Administration for work that is unrelated to this article. Dr Spatz previously received support from the Centers for Medicare & Medicaid Services to develop and maintain performance measures used in public reporting programs. Mr Beckman is a former employee of and has received consulting fees from Aledade, Inc, which focuses on primary care and Accountable Care Organizations, unrelated to this article. Mr. Beckman is currently on leave from Harvard and serving in the federal government. However, this article was conceived and drafted while Mr. Beckman was at Harvard, and the views do not reflect official views or policies.

References

1. Gross CP, Essien UR, Pasha S, Gross JR, Wang S-Y, Nunez-Smith M. Racial and ethnic disparities in population-level Covid-19 mortality. *J Gen Intern Med* 2020;**35**:3097–3099.
2. Graham G. Disparities in cardiovascular disease risk in the United States. *Curr Cardiol Rev* 2015;**11**:238–245.
3. Plan to Protect and Build on Obamacare. n.d. https://joebiden.com/healthcare/ (28 December 2020).
4. News Division. *Fact sheet: The American Rescue Plan: Reduces Health Care Costs, Expands Access to Insurance Coverage and Addresses Health Care Disparities 2021*. https://www.hhs.gov/about/news/2021/03/12/fact-sheet-american-rescue-plan-reduces-health-care-costs-expands-access-insurance-coverage.html (5 April 2021).
5. Beckman AL, Bucholz EM, Zhang W, Xu X, Dreyer RP, Strait KM, Spertus JA, Krumholz HM, Spatz ES. Sex differences in financial barriers and the relationship to recovery after acute myocardial infarction. *J Am Heart Assoc* 2016;**5**(10):e003923.
6. Khera R, Valero-Elizondo J, Nasir K. Financial toxicity in atherosclerotic cardiovascular disease in the United States: current state and future directions. *J Am Heart Assoc* 2020;**9**(19):e017793.
7. Dying in a leadership vacuum. *N Engl J Med* 2020;**383**:1479–1480.
8. Trust for America's Health. The Impact of Chronic Underfunding of America's Public Health System: Trends, Risks, and Recommendations, *2019*. Trust for America's Health; 2019. http://www.tfah.org/report-details/2019-funding-report (5 April 2021).
9. Victor RG, Lynch K, Li N, Blyler C, Muhammad E, Handler J, Brettler J, Rashid M, Hsu B, Foxx-Drew D, Moy N, Reid AE, Elashoff RM. A cluster-randomized trial of blood-pressure reduction in black barbershops. *N Engl J Med* 2018;**378**:1291–1301.
10. Liu P, Astudillo K, Velez D, Kelley L, Cobbs-Lomax D, Spatz ES. Use of mobile health applications in low-income populations: a prospective study of facilitators and barriers. *Circ Cardiovasc Qual Outcomes* 2020;**13**(9):e007031.