



A Lesson From 2020: Public Health Matters for Both COVID-19 and Diabetes

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Each January, the editors of *Diabetes Care* look back at the last year and forward to the next. In January 2021 we have much to be thankful and happy about. The journal continues to publish outstanding scientific reports together with illuminating and provocative Commentary, Perspective, and Review articles. We are indebted to the authors who submit their manuscripts, the reviewers who evaluate them, and the editorial and production group that manages the process. They make it all possible. In 2020, *Diabetes Care's* impact factor increased once again, from 15.27 to 16.02. Accumulating scientific evidence presented by our journal and others continues to improve understanding of the pathophysiology of diabetes and add to the array of treatments.

And yet . . . it's been a hell of a year in other ways. The coronavirus disease 2019 (COVID-19) pandemic started a year ago and still has the world in its grip. It has tested all of us and brought many activities nearly to a halt. Countless people have fallen ill, sadly many have died, and the daily routines of most families are disturbed. The lockdown to prevent spread of the virus keeps people at home, limits travel, harms businesses, closes schools, and interferes with diagnosis and treatment of other ailments. Acute medical facilities have been overwhelmed in some regions. Fierce debates about controlling the spread of COVID-19 and mitigating its human and economic costs have ensued. Yet, in this crisis we see much heroism. Medical personnel and those who support them have carried on, often at

personal risk; devoted families are caring for children and older relatives; and researchers in academia and industry are seeking vaccines and other interventions at a record pace.

Despite these efforts, containment of COVID-19 by physical distancing and wearing face masks has varied widely between countries, regions within countries, and groups in each region. People with diabetes are among the groups affected more than the general population. They appear more likely to become infected (1), likely for socioeconomic and environmental reasons, and are more likely to progress to severe illness or die for reasons that are still not well understood (2). Our community has an understandable feeling of urgency about the development of vaccines to prevent infection and drugs that lessen its consequences. We also have become

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See accompanying articles, pp. 1, 11, 188, and 258.

acutely aware that the pandemic calls for more than medical interventions—it demands a renewed emphasis on public health measures.

Factors collectively termed the social determinants of health (SDOH) modulate the risks and severity of both infectious diseases and diabetes. These influences extend well beyond primary health care, specialized care for specific conditions, and hospital care for acute illness. The SDOH affect everyone and have social, economic, and environmental components. The Centers for Medicare & Medicaid Services has focused on housing instability, food insecurity, transportation problems, utility needs, and personal safety concerns in a pilot program examining whether support for screening and referral for SDOH will improve health outcomes. In this issue of *Diabetes Care*, an American Diabetes Association-sponsored scientific review by Hill-Briggs et al. draws attention to SDOH as they relate specifically to diabetes (3). This statement describes in detail the evidence linking the risk of developing diabetes and its complications to ethnicity, economic status, availability of healthful food and living conditions, and access to health care, education, and social support. When these factors are unfavorable, the likelihood of obesity increases, recognition and care of gestational diabetes mellitus can be inadequate, diagnosis of type 2 diabetes may be delayed, and access to treatment impaired.

As with diabetes, there is evidence linking COVID-19 to SDOH (4,5). The risk of exposure to viral infection can be higher when preventive education is lacking, workers cannot remain at home due to the fear of losing income or employment, or businesses have little guidance regarding risk management. Diagnosis may be delayed and therapy less effective when access to health care is impaired, often by lack of nearby facilities or adequate insurance. Among the greatest tragedies of the last year is the hardship experienced by the most vulnerable groups—among them older people, ethnic minorities, and refugee populations—who are especially vulnerable to diabetes and its complications as well as COVID-19. A Commentary in this issue by Ogunwole and Golden (6) calls further attention to links between health disparities and the effects of racism and social injustice on SDOH.

To overcome SDOH-related barriers to health, national and regional programs

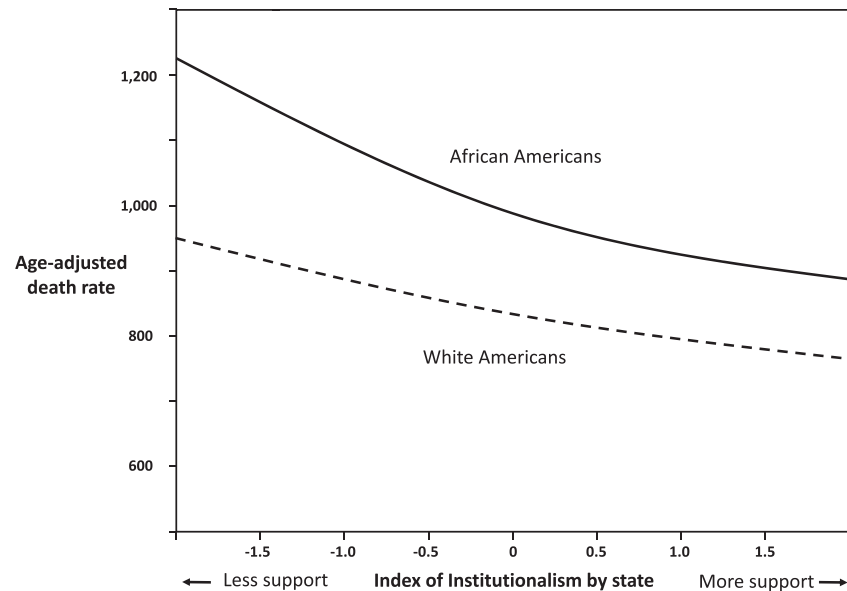


Figure 1—Age-adjusted death rates of African Americans (solid lines) and White Americans (broken lines) regressed onto the Index of Institutionalism in the 48 contiguous U.S. states, 1999–2005. Adapted with permission of Cambridge University Press through PLSclear from Figure 2–2 in Kunitz (7), © Stephen J. Kunitz, 2015.

that involve community-wide planning, effort, and resources will be needed. The most advanced medical care is ineffective when a commitment to public health is lacking. Strong evidence to this point is available. For example, Stephen Kunitz, a medical anthropologist, tested the hypothesis that health in a community correlates with what he called an Index of Institutionalism (7). The index included objective measures of social beliefs and behaviors reflecting the propensity of state populations in the U.S. to “use both private and public organizations and institutions to advance what they perceive to be the common good.” Comparing support of community institutions with age-adjusted death rates led to two important conclusions (Fig. 1). Independent of local support of institutions, African Americans had higher mortality rates. Beyond that, higher death rates were associated with lower support of institutions at the state level in all subgroups. This observation argues that everyone’s health depends on local support of governmental and nongovernmental institutions. A whole community must believe in public health and support the organizations contributing to it. These include the national Centers for Disease Control and Prevention, state public health agencies, and voluntary health organizations like the American Diabetes Association, among many others. Everyone should be aware

of these organizations and can contribute, volunteer, and vote to support them.

Returning to *Diabetes Care*, we expect to receive and publish many more manuscripts on this topic in 2021. Control of COVID-19 is an urgent concern for people with diabetes. We need to learn more about how to improve outcomes for people with hyperglycemia at diagnosis of COVID-19, even when there is no prior history of diabetes. Does control of hyperglycemia make a difference? Which forms of drug therapy are most helpful and which might worsen outcomes? However, conventional diagnosis and therapy are no longer enough. Both COVID-19 and diabetes are public health crises that require evidence-based approaches, including a focus on the SDOH to reduce morbidity and mortality. We need objective information about how to do this. This should include sound epidemiologic studies, preventive programs, screening, regulatory curtailment of risk-enhancing practices, and social and economic support of all disadvantaged and vulnerable populations. The job of *Diabetes Care* is to report the science to support clinical care, guidelines (8), and public policy, so please send us your best work. Public health also matters!

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