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# Educating the Judiciary about the Social Determinants of Health

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*White Paper One:*  
How Judicial Decisions Affect Population Health

## About the Project:

**Salus Populi: Educating the Judiciary about the Social Determinants of Health** is a project in collaboration with the Center for Health Policy and Law at Northeastern University School of Law and the Institute for Health Equity and Social Justice Research at Northeastern University.

**The Center for Health Policy and Law at Northeastern University School of Law** promotes innovative solutions to public health challenges in Massachusetts and around the globe. The Center advances law and policy reforms to strengthen population health, reduce health disparities, nourish public health programs, and enhance access to affordable, high-quality health care. Wendy E. Parmet is the faculty director of the Center for Health Policy and Law, and Matthews Distinguished University Professor of Law and Professor of Public Policy and Urban Affairs at Northeastern University.

**The Institute for Health Equity and Social Justice Research** is dedicated to generating scientific knowledge to promote health equity and social justice, and reduce disparities in health, mental health and well-being. The Institute's projects focus on public mental health and substance use disorders, violence prevention and trauma studies, refugee, immigrant and global health, and health promotion and disease prevention across the life course. The director of the Institute for Health Equity and Social Justice Research is Alisa K. Lincoln, Associate Dean of Research for the College of Social Sciences and Humanities and Professor of Health Sciences and Sociology at Northeastern University.



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## Executive Summary

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**Extensive research demonstrates the important impact of social determinants of health (SDOH) on population health and health inequities.** Broadly defined, SDOH refer to the “conditions in the environments in which people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks.”<sup>1</sup> SDOH include socially patterned conditions and resources such as socio-economic position, housing, education, employment, and physical environment or neighborhood conditions. Researchers and policymakers recognize the importance of SDOH to the persistence of racial and ethnic health disparities.

Law plays an important role in shaping the nature and distribution of SDOH, exerting a powerful impact on patterns of health and illness. Law affects health through a variety of mechanisms, including through the regulation of injurious activities, and by determining access to housing, education, employment and other health-promoting goods. To date, most empirical research on how law influences health has focused on the role of legislation, regulations, and law enforcement, but a small body of **research demonstrates that judicial decisions can impact health.**

Although research on the judiciary’s impact on health is limited, there are multiple pathways through which judges can influence the health of individuals and populations. These include:

- **Where trial judges exercise discretion;**
- **Through the development of the common law and overseeing mass tort;**
- **In reviewing health-related actions of administrative agencies; and**
- **In deciding federal and state constitutional law cases that implicate the SDOH.**

## The Social Determinants of Health

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**Most people intuitively understand that social, economic, and environmental factors, known as the social determinants of health (SDOH), profoundly influence our health.**

Healthy People 2020, an initiative of the Department of Health and Human Services (HHS), defines the SDOH as “conditions in the environments in which people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks.”<sup>2</sup>

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Healthy People 2020 has identified five key areas of determinants:

- **economic stability** (employment, housing stability, food security, poverty);
- **education** (early childhood development, graduation, literacy);
- **social and community context** (discrimination, incarceration, social cohesion);
- **health and health care** (access to health care, health literacy); and
- **neighborhoods and the built environment** (crime and violence, environmental conditions, housing conditions).<sup>3</sup>

The SDOH interact at different levels – individual and population – to impact the health of individuals and populations. Extensive literature demonstrates the both positive and adverse impact of social determinants on health outcomes.<sup>4</sup> The National Academies of Science, Engineering, and Medicine explain, “[a]ll people experience social factors that influence their health. Some of these factors contribute favorably to health outcomes and others negatively.”<sup>5</sup>

SDOH can exacerbate or ameliorate health disparities and inequities. Health disparities are inter-group differences in health conditions and health status.<sup>6</sup> Health disparities become health *inequities* when those differences occur due to systemic unequal opportunities to access SDOH associated with positive health outcomes.<sup>7</sup> As Nancy Krieger has noted, these inequities are “judged to be unfair, unjust, avoidable and unnecessary (neither inevitable nor irremediable) and

that systematically burden populations rendered vulnerable by underlying structures and political, economic and legal institutions.”<sup>8</sup> Fundamental cause theory, as posited by Jo C. Link and Bruce G. Phelan, helps us to understand the persistence of health inequities over time.<sup>9</sup> Fundamental causes are factors, such as socio-economic status, which affect a person or community’s ability to avoid risk or minimize the consequences of disease. SDOH often function as fundamental causes of disease as they relate to multiple health outcomes, multiple risk factors, and these relationships persist over time. In 2017, William Cockerham, et al. stated, “the debate over whether or not social factors are fundamental causes of health and disease is essentially over.”<sup>10</sup>

SDOH affect population health through many direct and indirect pathways. For example, SDOH can influence and constrain individual behaviors that relate to health. For example, an individual’s “choice” whether to smoke is strongly related to the individual’s education and social environment.<sup>11</sup> In addition, SDOH impact health across the life-course and can include factors leading to more immediate poor health outcomes, such as exposure to lead, violence, or occupational dangers, and factors leading to poor health outcomes after longer term or cumulative exposure, such as lack of access to healthy food and exercise, or chronic stress.<sup>12</sup>

SDOH can operate independently, but more commonly, some determinants interact with others in complex ways. *NEJM Catalyst* offers an example: “[P]oor health or lack of education can impact employment opportunities which in turn constrain income. Low income reduces access to health care and nutritious food and increases hardship. Hardship causes stress which in turn promotes unhealthy coping mechanisms such as substance abuse and overeating of unhealthy foods.”<sup>13</sup> In addition, racism, operating at multiple levels including inter-personal and structural, amplifies the associations among SDOH and poor health. Structural racism is defined as, “the normalization and legitimization of an array of dynamics—historical, cultural, institutional and interpersonal—that routinely advantage white people while producing cumulative and chronic adverse outcomes for people of color.”<sup>14</sup> It shapes the opportunities for access to quality education and employment, health care, and affordable and nutritious food. It also contributes to chronic strain and stress through repeated experiences of micro-aggressions and interpersonal racism and discrimination. Research further demonstrates that racism can affect individual and population health, independent of economic factors. For instance, Black mothers from socioeconomically advantaged groups (high income, wealth, and education) have disproportionately higher preterm birth rates than white mothers from the same socioeconomic groups.<sup>15</sup> In fact, Black women with life-long residence in high-income neighborhoods had almost the same incidence of low birth weight babies as white women with life-long residence in low-income neighborhoods.<sup>16</sup>

**The disproportionate effect of COVID-19 on communities of color further illustrates how SDOH create health vulnerabilities.** Whether due to higher rates of infection, or higher rates of severe disease, it has become clear that COVID-19's toll is falling disproportionately on communities of color in the U.S. While further research is needed to elucidate the complex mechanisms explaining the relationships among the SDOH and COVID-19 outcomes, communities of color appear to be at greater risk for infection with SARS-COV-2 the virus that causes COVID-19. For example, while comprising only 18.5 % of the U.S. population, Hispanic and Latinx individuals make up 29.3% of COVID-19 cases. Black individuals, who make up 13.4 % of the population, account for 18.4% of cases.<sup>17</sup> A high percentage of cases in hotspot counties are represented by marginalized racial and ethnic groups as well.<sup>18</sup> In addition, preliminary CDC data show that after adjusting for age, the COVID-19 death rate in the United States for Black individuals is 3.6 times that of the rate for White individuals, and the rate for Hispanics/Latino individuals is 2.5 times that of the rate for White individual.<sup>19</sup>

While much more research is needed, the experience with COVID-19 underscores the potential impact of SDOH, even in the face of a communicable disease. These COVID-related disparities also highlight the need for further work to understand the role of the SDOH. For example, Black Americans are “far more likely to experience adverse housing conditions, crowded living environments, diminished access to health-promoting resources (e.g., health care and healthy food options), use of public transportation, be employed in sectors requiring close interactions with others (e.g., food and service industries, sanitation, and public transportation), and also increased exposure to air pollution.”<sup>20</sup> Research has also shown that a range of social inequities, including residential segregation, environmental exposures, access to transportation, and disproportionate rates of incarceration may be associated with higher rates of infection in Black communities; concern about immigration policies and multigenerational housing may also be increasing rates of infection among the Latino population.<sup>21</sup>

In a report on race gaps in the pandemic, Ford et al. state, “Black and Hispanic/Latino people may also [be] more vulnerable to COVID-19 if they become infected, because of less access to health care or greater prevalence of co-morbidities such as hypertension, obesity, diabetes, and lung disease.”<sup>22</sup> A recent study hypothesized that “disparate exposure to air pollution is one of the factors that contribute to the disproportionate impact COVID-19 is having on inner-city racial minorities” by “directly affecting the lungs’ ability to clear pathogens and indirectly by exacerbating underlying cardiovascular or pulmonary diseases.”<sup>23</sup> Lower income minority communities are more likely be exposed to higher levels of air pollution, and Black Americans are exposed to fine particulate matter air pollution at rates 30% higher than White Americans.<sup>24</sup> Even a small amount of air pollution can have dire effects; one study found “an increase of only one  $\mu\text{g}/\text{m}^3$  in  $\text{PM}_{2.5}$  is associated with an 8% increase in the COVID-19 death rate.”<sup>25</sup>

## How Laws Affect SDOH

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**Law influences the nature and distribution of SDOH, and hence the rate and distribution of disease through a variety of mechanisms originating from all levels of government (federal, state, local, tribal) and each branch of government (legislative, executive, judicial).**<sup>26</sup> Scott Burris describes two ways that law interacts with social determinants: “1) law helps structure and perpetuate the social conditions that we describe as ‘social determinants’ and 2) law acts as a mechanism or mediator through which social structures are transformed into levels and distributions of health.”<sup>27</sup> Examples of laws that structure social determinants include housing quality standards, rules expanding or contracting eligibility for the Supplemental Nutrition Assistance Program (SNAP), and environmental laws controlling pollutants, such as the Clean Water Act and Clean Air Act.

Laws that less-obviously pertain to health can nevertheless affect it profoundly. The Civil Rights Act of 1964 (CRA) offers a striking example.<sup>28</sup> Several studies have examined the effect of Title VI, which prohibits discrimination by hospitals receiving federal funds, on health outcomes.<sup>29</sup> Almond et al. found the infant mortality rate (IMR) among non-Whites fell by 40% after passage of the CRA, with little changes in IMR among Whites.<sup>30</sup> The study concluded that the CRA prevented 38,600 Black infant deaths from 1965 to 2002.<sup>31</sup> Other studies have found that the CRA led to healthier Black infants with higher birthweights, and furthermore, the effects were intergenerational: “not only were Black infants born after the CRA healthier than those born before, but their next generation descendants were also healthier.”<sup>32</sup> Black-white disparities still exist around maternal and child health, but the CRA shows that policies can have an impressive impact on health. Another analysis found substantial improvements in life expectancy for Black women after the CRA’s enactment, noting that “increases in income and wages for black women during this period may have translated into better living situations and more adequate nutrition, as well as less stress associated with housing problems, financial instability, family problems, under-resourced neighborhoods, or other demands.”<sup>33</sup>

The Americans with Disabilities Act (ADA) offers another example of how legislation can improve health through addressing SDOH. Studies show that the ADA has improved employment prospects for many people with disabilities. One survey also found that 42% of businesses experienced better workplace safety due to changes implemented in response to the ADA.<sup>34</sup> Stable employment is a key SDOH, as it affects SES and the ability to afford safe housing, adequate transportation, and healthy food, among other critical social determinants. Also, job benefits such as health insurance are shown to improve health outcomes.<sup>35</sup>

Drug laws offer another important example. They are facially neutral with respect to race but



have often been written in ways that have a disparate effect on communities of color.<sup>36</sup> For instance, the Anti-Drug Abuse Act of 1986 made the penalty for one gram of crack cocaine equal to the penalty for 100 grams of powder cocaine, and the Congressional Omnibus Anti-Drug Abuse Act of 1988 went further by implementing a five year mandatory minimum sentence for the possession of five grams or more of crack cocaine. With higher rates of Black people using crack cocaine and higher rates of white people using powder cocaine, these policies that appear race neutral can severely implicate racial disparities.<sup>37 38</sup>

Further, as Burris explains, the ways in which laws are enforced can also impact health. Discretionary factors in enforcement, including in surveillance and arrest, and prosecutorial and judicial discretion in sentencing a defendant to jail or treatment, lead to disparate rates of incarceration, which are associated with disparate health outcomes.<sup>39</sup> For example, Black male offenders receive 19.1% longer sentences compared to similarly situated white male offenders.<sup>40</sup> <sup>41</sup> Research has also shown people who have been incarcerated are at increased risk for chronic conditions, including cardiovascular disease, cancer, and HIV, even when controlling for other structural factors associated with poor health, such as poverty and low education levels.<sup>42</sup>

Third party policing laws, including public nuisance ordinances, offer another example of how seemingly neutral laws can result in health inequities. Public nuisance laws designate properties with excessive emergency service calls as “nuisances” and impose penalties on property owners, including “fines, property forfeiture, or even incarceration.”<sup>43</sup> Under some laws, a landlord’s license is restored once the “nuisance” is abated, incentivizing landlords to evict tenants in dangerous situations who may be victims of domestic violence or stalking.<sup>44</sup> These laws also disincentivize victims from reporting such acts for fear of eviction and potential homelessness.<sup>45</sup> These unintended consequences ultimately lead to poor public health outcomes, causing increased housing insecurity and preventing people from contacting the authorities to ensure their safety.<sup>46</sup>

## How Judges Affect SDOH: The Research

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Most empirical research on how law affects health has focused on the impact of legislation, regulations, and law enforcement. Although courts almost certainly have a profound impact on public health, their role has been largely neglected by empirical researchers, many of whom have assumed that courts merely apply, rather than shape, the law.<sup>47</sup> However, the limited political science and policymaking literature on judicial policymaking confirms what judges and lawyers already know: judges do not simply apply the law mechanistically, and how they exercise their legitimate discretion can deeply impact outcomes.<sup>48</sup>

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For example, one study by Grossmann and Swedlow found federal courts were directly or indirectly responsible for one fourth of significant federal policy changes from 1945 to 2004.<sup>49</sup> The study, which analyzed 14 issue areas, found that courts nearly matched the executive branch in the number of directly-made policies.<sup>50</sup>

Judges can also affect health through their decisions relating to the enforcement of environmental statutes, the majority of which entail civil or criminal liability.<sup>51</sup> Through four case studies of state supreme courts, John Echeverria found that judges “have determined the substantive content and enforceability of environmental law.”<sup>52</sup> In his study, Echeverria provided cases in which supreme courts have both protected health and broken down protections by ruling on laws regarding smoking bans, air pollution, water pollution, and more.<sup>53</sup> For example, *In the Matter of Before the North Carolina Pesticide Board*, the North Carolina Supreme Court affirmed the licensing revocation of an aerial pesticide applicator violating pesticide regulations in a manner potentially damaging to health,<sup>54</sup> while *Craig v. County of Chatham* in North Carolina limited local regulation of swine farms,<sup>55</sup> an industry with documented effects in air and water pollution.<sup>56</sup> Judges can also shape the remedies ordered in environmental cases. For example, in 1991, the state of Massachusetts was ordered to obtain a suitable landfill site to protect water from contamination,<sup>57</sup> and in 1987 the city of Los Angeles was forced by courts to stop dumping sewage into the Santa Monica Bay,<sup>58</sup> leading to the reduction of contaminants in the water.<sup>59</sup>

**Judges in specialized trial court, such as housing courts, can have a direct and immediate impact on the SDOH.** Problem-solving courts specialize in areas such as drug use, domestic abuse, and mental health, and “meta-analyses consistently find that defendants participating in these courts have lower rates of recidivism” than defendants in traditional courts both during and after their time in court, which involves, among other measures, “extended judicial supervision.”<sup>60</sup> **Empirical studies have found that changes in perceptions of judicial procedural justice were associated with successful court outcomes**<sup>61</sup> and that, in drug courts, the behavior of the judge was “central to the process of reducing crime and substance abuse,”<sup>62</sup> and these courts have been shown to reduce recidivism.<sup>63</sup> Imprisonment has been shown to have serious consequences for health.<sup>64</sup> With regard to domestic violence, the vast majority of domestic violence courts issue protection orders at first appearance, and many impose final protection orders.<sup>65</sup> Empirical studies show that “generally... protection orders do reduce both

the reoccurrence of violence and, when reoffending does occur, a decrease in the level of abuse and violence targeted at the victim.”<sup>66</sup>

Due to the fact that judges may affect health via multiple pathways, measuring their impact on health can be challenging. Grossmann and Swedlow’s research sheds light on the different ways in which judges shape population health. They found that federal courts had influenced or made half of the policy changes in civil rights and civil liberties, and one-third of changes relating to immigration, labor, education, and environment.<sup>67</sup> As an example, they discuss the Supreme Court’s decision in *Lau v. Nichols*,<sup>68</sup> which held that not providing English language assistance to children in public schools violated Title VI. According to Grossman and Swedlow, *Lau* led directly to the enactment of the Equal Educational Opportunities Act (EEOA) of 1974, which prohibited language-based discrimination by schools and required education agencies to “take appropriate action to overcome language barriers that impede equal participation by its students in the instructional programs.”<sup>69</sup> That Act in turn helped to expand access to education, a key SDOH, to millions of children.

## How Judges Affect SDOH: Pathways of Influence

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In the absence of substantial empirical research on the judiciary’s impact on health, it may be useful to consider some potential pathways through which judges may influence health. They may do so in when they exercise their discretion as trial judges, by participating in the evolution of and applying procedural rules and common law doctrine, by overseeing mass tort cases, by reviewing administrative actions, and by deciding constitutional cases that implicate the SDOH, to offer just a few examples.

### Trial Judge Discretion

Trial judges issue rulings in a wide range of cases that relate to and may affect access to SDOH. The discretionary ruling of trial judges over sentencing, diversion, protection orders, and eviction, can influence the health of litigants, their family members, and their community.

Evictions provide a prime example of how judicial discretion can have an enormous impact on individual and population health. Housing is a key SDOH. Poor housing conditions have long been associated with a greater risk for respiratory illness like asthma, a higher risk of infectious

disease, and other “neighborhood effects” such as physical inactivity, heightened risk of cardiovascular disease, higher rates of intentional injury, and exposure to environmental toxins.<sup>70</sup>

The COVID-19 pandemic has clearly demonstrated housing’s role as a crucial SDOH. The homeless population faces a substantially heightened risk of contracting the virus, as people experiencing homelessness face serious difficulty maintaining social distance in often overcrowded shelters, do not have access to facilities and supplies that allow for basic hygiene, and are at significant risk of contracting conditions, like tuberculosis, that make COVID-19 far more lethal than it is to the general population.<sup>71</sup>

In response to COVID-19, some courts have suspended eviction hearings. An order from the Supreme Court of Colorado gave Chief Judges the discretion to determine whether nonessential matters, such as eviction hearings, are necessary to prevent “imminent risk to the health, safety or welfare of any individual or the community at large.”<sup>72</sup> In jurisdictions where judges can decide on whether to suspend or continue eviction hearings during the pandemic, judges can significantly affect the health of tenants and, because COVID-19 is a highly-contagious disease, the greater community.

Problem-solving courts offer another important example how trial judges affect SDOH. Problem-solving courts, including drug courts, mental health courts, homeless courts, and reentry courts, are trial courts with specialized dockets that seek to address the root causes of parties’ involvement with the justice system.<sup>73</sup> Comprised of a team of case managers, prosecutors, defense attorneys treatment professionals, and law enforcement officers, among others, these non-adversarial courts are led by judges who convene key partners, guide team discussions, and monitor individual parties’ progress and compliance with the program.<sup>74</sup> Judges presiding over such courts necessarily consider and affect a wide range of SDOH, even when they do not think of them as such.

Research on problem-solving courts indicates they produce generally positive results. One study found that problem-solving courts were associated with reduced recidivism, improved accountability and compliance rates, and increased public confidence in the justice system.<sup>75</sup> A 2013 analysis of the Red Hook Community Justice Center in Brooklyn reported a 10% decrease in the two-year re-arrest rate compared to similar defendants in a traditional court, a sharp decrease in the number of arrests in the court’s area, and an increased perception of judicial legitimacy, all “in a manner that is cost-efficient from the perspective of taxpayers.”<sup>76</sup> New Mexico’s three-year re-arrest rate for drug court participants was half that of a comparison group, leading to an average savings of \$19,234 per drug court graduate, and a total of \$88 million in savings to taxpayers over ten years of operation due to “lower investment costs and

decreased recidivism for drug court participants.”<sup>77</sup> In addition to lowering costs, reduced recidivism has a positive impact on public health, as incarceration is linked with high levels of chronic health conditions and increased mortality.<sup>78</sup>

### Mass Tort Claims

The common law, which forms the backbone of our legal system, is judge made law. Common law doctrines frequently relate to issues that affect health. Most broadly, tort law helps to determine the standards of care applicable to the health care sector, and degree of investment in safety and warnings for products.<sup>79</sup> Likewise, judge-made doctrines such as medical monitoring can help to determine whether health protections are available to people who have been exposed to toxins.<sup>80</sup>

Judges can also impact health through overseeing the settlements that resolve mass tort claims. The most notable example is the litigation against the tobacco and opioid industries. The litigation brought by the states against cigarette manufacturers in the 1990s was resolved in the 1998 Master Settlement Agreement (MSA)<sup>81</sup> that funded a national anti-tobacco educational campaign, the Truth Initiative, which contributed significantly to declines in youth smoking rates.<sup>82</sup>

Recent settlements in opioid litigation further illustrate how judges can influence public health. In 2015, a Kentucky court ordered that settlement funds paid by Purdue Pharma to the state go to public health funds.<sup>83</sup> Some scholars have also suggested there may be a causal connection between litigation’s damaging effects on a company’s reputation and public-benefiting measures taken by those companies, such as cessation of direct marketing of opioids and creation of abuse-deterrent drug formulations.<sup>84</sup> Judge Dan Aaron Polster, the federal district court judge overseeing the massive opioid multi-district litigation, has shown how judges can influence these proceedings. Noting the 50,000 American lives lost to the opioid crisis each year, Judge Polster ordered a speedy schedule and pushed for settlement negotiations that would provide meaningful solutions to the opioid crisis and do more than “just mov[e] money around,” but that would “dramatically reduce” opioid prescriptions.<sup>85</sup>

### Review of Administrative Actions

Both state and federal judges review challenges to the regulations and actions of administrative agencies, including in the areas of environmental protection, product safety, workplace safety, education, health insurance, public health, and transportation. In many of these cases, the agencies are charged by statute to take account of or safeguard the public’s health. Unfortunately, there is an absence of empirical research documenting the impact of

administrative review cases on public health. However, several cases can help illustrate how these decisions can impact important social determinants and thereby health.

In *Motor Vehicle Manufacturer's Association of the U.S. v. State Farm*, the Supreme Court determined the National Highway Traffic Safety Administration (NHTSA) did not meet its legal duty to issue motor vehicle safety standards that “meet the need for motor vehicle safety” when they revoked the requirement for new cars to have either automatic seatbelts or airbags.<sup>86</sup> This led to the passage of the Intermodal Surface Transportation Efficiency Act of 1991, which mandated airbags in cars sold.<sup>87</sup> Airbags reduce passenger fatalities by 32%, and can reduce driver fatalities by up to 52%.<sup>88</sup>

The recent case *Wisconsin Legislature v. Palm* offers another example.<sup>89</sup> The Wisconsin Supreme Court invalidated the state’s “safer at home” order issued by the Secretary of the Department of Health Services (DHS) to combat the spread of COVID-19, holding that the order was a rule and that the Secretary did not follow proper rulemaking procedure. Although not determinative of a causal relationship, data shows a spike in COVID-19 cases in the state after the May 13, 2020 decision.<sup>90</sup>

### Federal and State Constitutional Cases

Although their impact on health is often diffuse and unmeasured, federal and state constitutional law cases often relate to SDOH. For example, many state courts have been asked to decide upon the constitutionality of state school funding laws, which can affect educational access, a key driver of population health and health inequities. Judges have also been called upon to review laws regulating sugar-sweetened beverages (SSBs). Consumption of SSBs is linked to negative health outcomes, including obesity, type 2 diabetes, and cardiovascular disease.<sup>91</sup> SSB taxes have been shown to result in lower consumption of SSBs<sup>92</sup> and substantial health benefits to the population.<sup>93</sup> Courts have reached different decisions on states’ capacity to regulate SSB.

In *Illinois Retail Merchants Ass’n v. The Cook County Dept. of Revenue*,<sup>94</sup> an Illinois state court rejected state constitutional law challenges to a 1-cent per ounce tax on sweetened beverages, which was enacted “in an effort to promote public health, including lowered obesity rates.” A 1-cent per ounce tax has been predicted to reduce SSB consumption by 10-20%, and a recent study by Mekonnen, et al. predicted that such a reduction would lead to significant public health benefits, including decreases in diabetes, heart attacks, and coronary heart disease.<sup>95</sup>

In contrast, the Ninth Circuit in *American Beverage Association v. City and County of San Francisco* struck down a San Francisco ordinance requiring SSB advertisements to display a warning stating “Warning: Drinking beverages with added sugar(s) contributes to obesity,

diabetes, and tooth decay. This is a message from the City and County of San Francisco.”<sup>96</sup> While recognizing public health as a substantial state interest, the court regarded established scientific facts on the negative health effects of SSBs as “disputed policy views,” undercutting health officials’ efforts to improve public health.<sup>97</sup> Although the impact of this particular intervention is not well-established, warning labels on SSBs have been shown to substantially reduce consumption,<sup>98</sup> which, as described above, would likely lead to better public health outcomes.

During the COVID-19 pandemic, many religious groups have also challenged stay-at-home orders preventing in-person gatherings for church services on the grounds that they violate freedom of religion and assembly under the First Amendment.<sup>99</sup> In two cases, the Supreme Court by a 5-4 vote denied a church’s application for injunctive relief.<sup>100</sup> In his concurrence to the first case, Chief Justice Roberts underscored the “broad” powers of state public health officials and the importance of the federal judiciary not “second-guessing” those powers, especially during a constantly-changing public health emergency that requires an agile response.<sup>101</sup>

Not all courts, however, have agreed. For example, the U.S. Court of Appeals for the Sixth Circuit granted an injunction allowing in-person church services, counter to Kentucky Governor Andy Beshear’s orders banning mass gatherings.<sup>102</sup> In either case, by ruling on the constitutionality of state emergency orders, the courts are likely impacting the capacity of states to respond to the pandemic, and are thereby affecting the public’s health.

## Conclusion

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Judicial rulings can shape the SDOH, and thus population health and health inequities, through a varied and extensive range of pathways. Although more empirical research is needed on how and the degree to which courts affect population health as well as health disparities, the existing research on SDOH provides important insight into this connection.

<sup>1</sup> *Social Determinants of Health*, OFFICE OF DISEASE PREVENTION AND HEALTH PROMOTION (last visited Oct. 1, 2020), <https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health>.

<sup>2</sup> *Id.*

<sup>3</sup> *Id.* For more resources on the SDOH, including CDC research on the SDOH, see CDC, SOCIAL DETERMINANTS OF HEALTH: KNOW WHAT AFFECTS HEALTH, <https://www.cdc.gov/socialdeterminants/index.htm>.

<sup>4</sup> See NAT'L ACADS. SCIS., ENG'G, & MED., INTEGRATING SOCIAL CARE INTO THE DELIVERY OF HEALTH CARE: MOVING UPSTREAM TO IMPROVE THE NATION'S HEALTH, 25 (2019). See also Paula Braveman & Laura Gottlieb, *The Social Determinants of Health: It's Time to Consider the Causes of the Causes*, 129 PUB. HEALTH REPORT 19 (2014).

<sup>5</sup> Paula Braveman & Laura Gottlieb, *supra* note 4, at 25.

<sup>6</sup> LAURA K. BRENNAN RAMIREZ ET AL., PROMOTING HEALTH EQUITY: A RESOURCE TO HELP COMMUNITIES ADDRESS SOCIAL DETERMINANTS OF HEALTH 6 (2008).

<sup>7</sup> *Id.*

<sup>8</sup> Nancy Krieger, *A Glossary For Social Epidemiology: Part II*, 55 J. EPIDEMIOLOGY & COMMUNITY HEALTH 693, 698 (2001).

<sup>9</sup> Bruce G. Link & Jo. C. Phelan, *Social Conditions as Fundamental Causes of Disease*, J. HEALTH SOC. BEHAVIOR: EXTRA ISSUE: FORTY YEARS OF MED. SOCIO.: THE STATE OF THE ART AND DIRECTIONS FOR THE FUTURE, 1995, at 80-94 (1995).

<sup>10</sup> William C. Cockerham et al., *The Social Determinants of Chronic Disease*, 52 AM. J. PREVENTIVE MED. S5, S10 (2017).

<sup>11</sup> *Id.* at S6.

<sup>12</sup> Braveman & Gottlieb, *supra* note 4, at 23.

<sup>13</sup> *Social Determinants of Health (SDOH)*, NEJM CATALYST (Dec. 1, 2017), <https://catalyst.nejm.org/doi/full/10.1056/CAT.17.0312>.

<sup>14</sup> K. LAWRENCE & T. KELEHER, CHRONIC DISPARITY: STRONG AND PERVASIVE EVIDENCE OF RACIAL INEQUALITIES (2004).

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<sup>24</sup> Christopher W. Tessum et al., *Inequity in Consumption of Goods and Services Adds to Racial-Ethnic Disparities in Air Pollution Exposure*, 116 PROC. NAT'L ACAD. SCI. U.S. AM. 6001, 6002-03 (2019).

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- <sup>33</sup> GEORGE A. KAPLAN ET AL., *LIFTING GATES, LENGTHENING LIVES: DID CIVIL RIGHTS POLICIES IMPROVE THE HEALTH OF AFRICAN AMERICAN WOMEN IN THE 1960S AND 1970S?* 165 (2006); See also Hahn, *supra* note 25.
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- <sup>72</sup> Order Regarding COVID-19 and Operation of Colorado State Courts (Mar. 16, 2020). Note that the Governor of the State of Colorado later signed an Executive Order halting evictions from April 30<sup>th</sup> to May 30<sup>th</sup>, Amending Executive Order D2020-051 (April 30, 2020).
- <sup>73</sup> See *Tracking Problem-Solving Issues Across the Country*, NAT'L CTR. STATE COURTS (last visited Aug. 21, 2020), <https://www.ncsc.org/topics/alternative-dockets/problem-solving-courts/home>.
- <sup>74</sup> *Problem-Solving Courts*, FLORIDA COURTS (last visited Aug. 21, 2020), <https://www.flcourts.org/Resources-Services/Court-Improvement/Problem-Solving-Courts>; CTR. FOR CHILDREN AND FAMILY FUTURES & NAT'L ASS'N DRUG COURT PROF'LS, FAMILY TREATMENT COURT BEST PRACTICE STANDARDS 34 (2019).
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- <sup>79</sup> E.g., *Hall v. Hilbun*, 466 So. 2d 856 (Miss. 1985) ("Medical malpractice is legal fault by a physician or surgeon. It arises from the failure of a physician to provide the quality of care required by law. When a physician undertakes to treat a patient, he takes on an obligation enforceable at law to use minimally sound medical judgment and render minimally competent care in the course of the services he provides."); AMERICAN LAW INSTITUTE, A CONCISE RESTATEMENT OF TORTS: THIRD EDITION 296 (2013) ("A product is defective when, at the time of sale or

distribution, it contains a manufacturing defect, is defective in design, or is defective because of inadequate instructions or warnings.”)

<sup>80</sup> See generally, Kara L. McCall, Comment, *Medical Monitoring Plaintiffs and Subsequent Claims for Disease*, 66 U. CHICAGO L. REV. 969 (discussing the history and strengths of medical monitoring claims).

<sup>81</sup> 1998 Master Settlement Agreement.

<sup>82</sup> See Matthew C. Farrelly et al., *Evidence of a Dose-Response Relationship Between “Truth” Antismoking Ads and Youth Smoking Prevalence*, 95 AM. J. PUB. HEALTH 425, 429 (2005). The Truth Initiative was estimated to contribute to 22% of the decline of student smoking rates from 25.3% to 18% between 1999 and 2002.

<sup>83</sup> Rebecca L. Hafajee & Michael R. Abrams, *Settling the Score: Maximizing the Public Health Impact of Opioid Litigation*, 80 OHIO ST. L.J. 701, 715 (2019). In 2019, a \$270 mil. settlement between Oklahoma and Purdue earmarked \$102.5 mil. to Oklahoma State University center for addiction and \$20 mil. towards addiction treatment medicine.

<sup>84</sup> *Id.* at 718.

<sup>85</sup> Debra Cassens Weiss, *Ohio Judge Orders Settlement Talks in Opioid Suits, says Public Isn’t Interested in Legal Questions*, A.B.A. J. (Jan. 10, 2018),

[https://www.abajournal.com/news/article/judge\\_orders\\_settlement\\_talks\\_in\\_opioid\\_suits\\_says\\_public\\_isnt\\_interested\\_i](https://www.abajournal.com/news/article/judge_orders_settlement_talks_in_opioid_suits_says_public_isnt_interested_i).

<sup>86</sup> Motor Vehicle Manufacturer’s Ass’n of the U.S., Inc. v. State Farm Mutual Insurance Co., 463 U.S. 29 (1983).

<sup>87</sup> Intermodal Surface Transportation Efficiency Act of 1991, H.R. 2950, 102ND CONG. (enacting as Public Law No: 102-240).

<sup>88</sup> CHARLES J. KAHANE, LIVES SAVED BY VEHICLE SAFETY TECHNOLOGIES AND ASSOCIATED FEDERAL MOTOR VEHICLE SAFETY STANDARDS, 1960 TO 2012 – PASSENGER CARS AND LTVS (2015); Anne T. McCart & Sergey Y. Kyrychenko, *Efficacy of Side Airbags in Reducing Driver Deaths in Driver-Side Car and SUV Collisions*, 8 TRAFFIC INJURY PREVENTION 162 (2007).

<sup>89</sup> Wis. Legislature v. Palm, 942 N.W.2d 900 (Wis. 2020).

<sup>90</sup> COVID-19: Wisconsin Summary Data, WIS. DEP’T HEALTH SERVS. (last visited Aug. 21, 2020),

<https://www.dhs.wisconsin.gov/covid-19/data.htm>.

<sup>91</sup> Fumiaki Imamura et al., *Consumption of Sugar Sweetened Beverages, Artificially Sweetened Beverages, and Fruit Juice and Incidence of Type 2 Diabetes: Systematic Review, Meta-analysis, and Estimation of Population Attributable Fraction*, BMJ, July 2015, at 1; Maria Luger et al., *Sugar-Sweetened Beverages and Weight Gain in Children and Adults: A Systematic Review from 2013 to 2015 and a Comparison with Previous Studies*, 10 OBESITY FACTS 674 (2017). Vasanti S. Malik et al., *Sugar Sweetened Beverages, Obesity, Type 2 Diabetes and Cardiovascular Disease risk*, 121 CIRCULATION 1356 (2010); Vasanti S. Malik, *Sugar Sweetened Beverages and Cardiometabolic Health*, CURRENT OP. CARDIOLOGY, Sept. 2017, at 572.

<sup>92</sup> Jennifer Falbe et al., *Impact of the Berkeley Excise Tax on Sugar-Sweetened Beverage Consumption*, 106 AM. J. PUB. HEALTH 1865 (2016); Andrea M. Teng et al., *Impact of Sugar-Sweetened Beverage Taxes on Purchases and Dietary Intake: Systemic Review and Meta-analysis*, 20 OBESITY REVS. 1187 (2009); John Cawley et al., *The Economics of Taxes on Sugar-Sweetened Beverages: A Review of the Effects on Prices, Sales, Cross-Border Shopping, and Consumption*, 39 ANNUAL REV. OF NUTRITION 317 (2019).

<sup>93</sup> Kai-Erh Kao et al., *The Health and Financial Impacts of a Sugary Drink Tax Across Different Income Groups in Canada*, 38 ECON. & HUMAN BIOLOGY 1 (2020). This model utilized a much higher tax (20%) than Cook County.

<sup>94</sup> Illinois Retail Merchants Ass’n v. The Cook County Dept. of Revenue, No. 17 L 50596, 2017 WL 3318078, \*1 (Ill. Cir. Ct. 2017).

<sup>95</sup> Tekeshe A. Mekonnen et al., *Health Benefits of Reducing Sugar-Sweetened Beverage Intake in High Risk Populations of California: Results from the Cardiovascular Disease (CVD) Policy Model*, 8 PUB. LIBRARY SCI. E81723 (2013).

<sup>96</sup> Am. Bev. Ass’n v. City & Cty of San Francisco, 871 F.3d 884 (9<sup>th</sup> Cir. 2017).

<sup>97</sup> Micah Berman et al., *American Beverage Association v. San Francisco: When the First Amendment Jeopardizes Public Health*, PUB. HEALTH L. WATCH (Sept. 29, 2017),

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<sup>98</sup> Eric M. VanEpps & Christina A. Roberto, *The Influence of Sugar-Sweetened Beverage Warnings: A Randomized Trial of Adolescents’ Choices and Beliefs*, 51 AM. J. PREVENTATIVE MED. 664 (2016).

<sup>99</sup> See e.g., *S. Bay United Pentecostal Church v. Newsom*, No. 20-55533 (9<sup>th</sup> Cir. May 22, 2020); *Roberts v. Neace*, 2020 WL 2115358 (E.D. Ky. May 4, 2020); *Legacy Church v. Kunkel*, 2020 WL 1905586 (D.N.M. April 17, 2020);

Gish v. Newsom, 2020 WL 1979970 (C.D. Cal. April 23, 2020); Tolle v. Northam, 2020 WL 1955281 (E.D. Va. April 8, 2020).

<sup>100</sup> S. Bay United Pentecostal Church v Newsom, 140 S. Ct. 1613 (2020); Calvary Chapel Dayton Valley v. Sisolak, No. 19A1070, 2020 WL 4251360, 1 (U.S. July 24, 2020).

<sup>101</sup> S. Bay Pentecostal Church, 140 S. Ct. at 2.

<sup>102</sup> Roberts, et al. v. Neace, et al., Case No.: 2:20-cv-00054 (6th Cir. 2020).