

Artificial Intelligence and Discrimination in Health Care

Sharona Hoffman & Andy Podgurski*

Abstract:

Artificial intelligence (AI) holds great promise for improved health-care outcomes. It has been used to analyze tumor images, to help doctors choose among different treatment options, and to combat the COVID-19 pandemic. But AI also poses substantial new hazards. This Article focuses on a particular type of health-care harm that has thus far evaded significant legal scrutiny. The harm is algorithmic discrimination.

Algorithmic discrimination in health care occurs with surprising frequency. A well-known example is an algorithm used to identify candidates for “high risk care management” programs that routinely failed to refer racial minorities for these beneficial services. Furthermore, some algorithms deliberately adjust for race in ways that hurt minority patients. For example, according to a 2020 *New England Journal of Medicine* article, algorithms have regularly underestimated African Americans’ risks of kidney stones, death from heart failure, and other medical problems.

This Article argues that algorithmic discrimination in medicine can violate civil rights laws such as Title VI and Section 1557 of the Affordable Care Act when it exacerbates health disparities or perpetuates inequities. It urges that algorithmic fairness constitute a key element in designing, implementing, and validating AI and that both legal and technical tools be deployed to promote fairness. To that end, we call for the reintroduction of the disparate impact theory as a robust litigation tool in the health-care arena and for the passage of an algorithmic accountability act. We also detail technical measures that AI developers and users should implement.

* Sharona Hoffman, Edgar A. Hahn Professor of Law and Professor of Bioethics, Co-Director of Law-Medicine Center, Case Western Reserve University School of Law; B.A., Wellesley College; J.D., Harvard Law School; LL.M. in Health Law, University of Houston; S.J.D. in Health Law, Case Western Reserve University. Author of *ELECTRONIC HEALTH RECORDS AND MEDICAL BIG DATA: LAW AND POLICY* (Cambridge University Press 2016). For more information, see <https://sharonahoffman.com>. Andy Podgurski, Professor of Computer and Data Sciences, Case Western Reserve University; B.S., M.S., Ph.D., University of Massachusetts. The authors thank Peter Gerhart, Jessie Hill, Katharine Van Tassel, and all participants in the Case Western Reserve University School of Law summer faculty workshop for their very helpful comments on earlier drafts. We also thank Mariah Dick for her invaluable research assistance.

TABLE OF CONTENTS

INTRODUCTION 4

I. ARTIFICIAL INTELLIGENCE IN MEDICINE 8

 A. HOW AI WORKS..... 8

 B. THE BENEFITS OF AI IN MEDICINE..... 10

II. DISCRIMINATION-RELATED PITFALLS OF AI 12

 A. MEASUREMENT ERRORS 13

 B. SELECTION BIAS..... 13

 C. FEEDBACK LOOP BIAS 15

 D. ALGORITHMIC UNCERTAINTY 16

 E. EXAMPLES OF ALGORITHMIC BIAS AND THE RISK OF DISCRIMINATION
 IN HEALTH CARE 17

 F. OTHER DISCRIMINATION RISKS ASSOCIATED WITH AI..... 19

 1. INEQUITABLE DEPLOYMENT OF AI..... 19

 2. RACIALLY TAILORED MEDICINE 19

III. LITIGATING DISCRIMINATION CLAIMS 23

 A. DISPARATE IMPACT 24

 1. WHAT IS DISPARATE IMPACT? 24

 2. TITLE VI..... 26

 3. SECTION 1557 OF THE AFFORDABLE CARE ACT..... 27

 B. INTENTIONAL DISCRIMINATION 30

IV. IMPLEMENTING LEGAL INTERVENTIONS..... 30

 A. PRIVATE CAUSE OF ACTION FOR DISPARATE IMPACT DISCRIMINATION
 IN HEALTH CARE 31

 1. AMENDING TITLE VI AND OTHER LONG-STANDING CIVIL RIGHTS
 STATUTES 32

 2. AMENDING SECTION 1557 OF THE ACA 33

 B. THE ALGORITHMIC ACCOUNTABILITY ACT..... 34

 1. THE STATUTORY REQUIREMENTS 34

ARTIFICIAL INTELLIGENCE AND DISCRIMINATION

2. CRITIQUE OF THE BILL	35
3. MOVING FORWARD.....	36
C. FDA REGULATION	37
V. IMPROVING ALGORITHM DESIGN, VALIDATION, AND MONITORING PROCESSES	38
A. ALGORITHM DEVELOPERS	39
1. REQUIREMENTS ANALYSIS	39
2. SOFTWARE DESIGN	40
3. SOFTWARE IMPLEMENTATION	40
4. TESTING	42
5. DEPLOYMENT AND OPERATION	43
B. ALGORITHM USERS	44
1. TRANSPARENCY	45
2. MONITORING AND ASSESSING AI USE	46
C. HAVING REALISTIC EXPECTATIONS.....	47
CONCLUSION	48

INTRODUCTION

Artificial intelligence (AI) is no longer a novelty in the medical field, and its use is increasingly prevalent.¹ According to a 2020 *Washington Post* article, “From diagnosing patients to policing drug theft in hospitals, AI has crept into nearly every facet of the health-care system, eclipsing the use of machine intelligence in other industries.”² A KPMG survey of hundreds of business decision makers found that eighty-nine percent of respondents from the health-care industry believed that AI has already generated efficiencies in medical care, and ninety-one percent believe it has enhanced patients’ access to care.³

AI, which does its work through learning algorithms and models,⁴ thus holds great promise for improved health-care outcomes, but it also poses substantial new risks and hazards.⁵ This article focuses on a particular type of health-care harm that has thus far evaded significant legal scrutiny. The harm is algorithmic discrimination.

In a June 2019 statement, the American Medical Informatics Association urged the Food and Drug Administration to address AI biases related to ethnicity, gender, age, socioeconomic status, and disability.⁶ It suggested that the agency

1. MELANIE MITCHELL, *ARTIFICIAL INTELLIGENCE: A GUIDE FOR THINKING HUMANS* 119 (2019) (noting that AI will soon become widespread in medicine, “assisting physicians in diagnosing diseases and in suggesting treatments; discovering new drugs; and monitoring the health and safety of the elderly in their homes”); Amisha, Paras Malik, Monika Pathania & Vyas Kumar Rathaur, *Overview of Artificial Intelligence in Medicine*, 8 J. FAM. MED. & PRIMARY CARE 2328, 2328 (2019); W. Nicholson Price II, *Risks and Remedies for Artificial Intelligence in Health Care*, BROOKINGS (Nov. 14, 2019), <https://www.brookings.edu/research/risks-and-remedies-for-artificial-intelligence-in-health-care>.

2. Meryl Kornfield, *The Health 202: Artificial Intelligence Use Is Growing in the U.S. Health-Care System*, WASH. POST (Feb. 24, 2020, 7:41 AM EST), <https://www.washingtonpost.com/news/powerpost/paloma/the-health-202/2020/02/24/the-health-202-artificial-intelligence-use-is-growing-in-the-u-s-health-care-system/5e52f13188e0fa632ba81ec7>.

3. *Living in an AI World: Achievements and Challenges in Artificial Intelligence Across Five Industries*, KPMG 5 (2020), <https://advisory.kpmg.us/content/dam/advisory/en/pdfs/2020/living-in-ai-world.pdf>. This study surveyed 751 business decision-makers from five industries who had “at least a moderate knowledge of AI.” *Id.* at 2.

4. See *infra* notes 33-34 and accompanying text. Researchers sometimes use the terms “learning algorithm” and “model” interchangeably. More accurately, however, the term “model” suggests a representation of knowledge that is created by an algorithm. MAX KUHN & KJELL JOHNSON, *APPLIED PREDICTIVE MODELING* 2 (2013); SHAI SHALEV-SHWARTZ & SHAI BEN-DAVID, *UNDERSTANDING MACHINE LEARNING: FROM THEORY TO ALGORITHMS* 13-14 (2014).

5. Michael J. Rigby, *Ethical Dimensions of Using Artificial Intelligence in Health Care*, 21 AMA J. ETHICS E121, E121-23 (2019); *The Dangers of AI in the Healthcare Industry*, THOMAS (May 7, 2019), <https://www.thomasnet.com/insights/the-challenges-and-dangers-of-ai-in-the-health-care-industry-report>.

6. *AMIA Supports, Encourages Further Refinement of FDA AI/Machine Learning Regulatory Framework*, AMIA (June 5, 2019), <https://www.amia.org/news-and-publications/press-release/amia-supports-encourages-further-refinement-fda-aimachine-learning>.

ARTIFICIAL INTELLIGENCE AND DISCRIMINATION

issue guidance about testing and adjustment of algorithms.⁷

There are many examples of algorithmic discrimination that have become infamous outside of the medical field. An algorithm designed to predict criminal recidivism exhibited bias against Black defendants.⁸ It incorrectly labeled Black defendants as likely to reoffend almost twice as often as in the case of White defendants, and it mislabeled White defendants as low-risk more frequently than Black defendants.⁹ In the employment arena, Amazon developed artificial intelligence-driven software to identify its best job candidates.¹⁰ It turned out, however, that the algorithm was biased against women and routinely concluded that men were preferable candidates.¹¹ As a third example, in March of 2019, the Department of Housing and Urban Development sued Facebook, asserting that it kept certain users from seeing housing ads based on machine-learning algorithms' inferences about their race.¹²

Algorithmic discrimination in employment, criminal law, housing, and other fields has garnered attention in the legal literature.¹³ Surprisingly, however, the

7. *Id.*

8. Julia Angwin, Jeff Larson, Surya Mattu & Lauren Kirchner, *Machine Bias*, PROPUBLICA (May 23, 2016), <https://www.propublica.org/article/machine-bias-risk-assessments-in-criminal-sentencing>.

9. *Id.*; see also Melissa Hamilton, *Debating Algorithmic Fairness*, 52 UC DAVIS L. REV. 261, 264 (2019) (reporting that the risk tool's corporate owner denied the allegation and stated that its reanalysis of the data led it to conclude that "the tool was unbiased as blacks and whites had similar positive predictive values for recidivism"); Sandra G. Mayson, *Bias In, Bias Out*, 128 YALE L.J. 2218, 2221-22 (2019) (discussing algorithmic risk assessment in the criminal justice system and its racial impact).

10. MICHAEL KEARNS & AARON ROTH, *THE ETHICAL ALGORITHM* 60-61 (2020) (relating that Amazon's algorithm "was found to be explicitly penalizing resumes that contained the word *women's*, as in "women's chess club captain," and downgraded candidates who listed the names of two particular all-women colleges"); Katherine Maher, Opinion, *Without Humans, A.I. Can Wreak Havoc*, N.Y. TIMES (Mar. 12, 2019), <https://www.nytimes.com/2019/03/12/opinion/artificial-intelligence-wikipedia.html>.

11. *Id.*; see *infra* Sections II.B-C for a discussion of bias.

12. Margot E. Kaminski & Andrew D. Selbst, Opinion, *The Legislation That Targets the Racist Impacts of Tech*, N.Y. TIMES (May 7, 2019), <https://www.nytimes.com/2019/05/07/opinion/tech-racism-algorithms.html>.

13. Ifeoma Ajunwa, *The Paradox of Automation as Anti-Bias Intervention*, 41 CARDOZO L. REV. 1671, 1692-96 (2020) (discussing automated decision-making in employment); Solon Barocas & Andrew D. Selbst, *Big Data's Disparate Impact*, 104 CALIF. L. REV. 671, 675 (2016) (focusing on Title VII's prohibition of employment discrimination); Aziz Z. Huq, *Racial Equity in Algorithmic Criminal Justice*, 68 DUKE. L.J. 1043, 1053-54 (2019) (discussing the discriminatory effects of implementing AI in the criminal justice setting); Sonia K. Katyal, *Private Accountability in the Age of Artificial Intelligence*, 66 UCLA L. REV. 54, 56 (2019) (discussing various applications of artificial intelligence that lead to discrimination, including in the criminal justice, housing, and employment realms); Pauline T. Kim, *Data-Driven Discrimination at Work*, 58 WM. & MARY L. REV. 857, 860 (2017) (discussing employers' use of data analytics to make workplace decisions); Gerhard Wagner & Horst Eidenmüller, *Down by Algorithms? Siphoning Rents, Exploiting Biases, and Shaping*

legal literature has not focused on AI-related discrimination in health care, even though it clearly occurs.¹⁴ A well-known example is an algorithm used to identify candidates for “high risk care management” programs that routinely failed to refer racial minorities for these beneficial services.¹⁵ Other algorithms explicitly adjust for race, adding or subtracting risk points based on patients’ ancestral background.¹⁶ This Article, therefore, fills a noticeable gap in the treatment of AI in legal scholarship.

Learning algorithms¹⁷ are trained on data, which means that the quality of the data is vital to the reliability of the AI algorithm.¹⁸ Data sources such as electronic health records (EHR) or insurance claims can be rife with errors, systemic biases, and data gaps that might be particularly pronounced for minorities who do not receive optimal care.¹⁹ In addition, datasets may be too small or not diverse enough because disadvantaged populations face health-care access barriers.²⁰ Moreover, if datasets capture historical health disparities, AI could learn to perpetuate patterns of discrimination.²¹ These defects and others can make algorithms work poorly when they are deployed in the real world.²²

This Article argues that algorithmic discrimination may violate Title VI of the Civil Rights Act and Section 1557 of the Affordable Care Act.²³ It further argues that algorithmic fairness must be a key element in designing, implementing, and validating AI. To that end, AI experts and policy makers must employ both technical and legal tools to promote algorithmic fairness. Among other recommendations, the Article calls for the reintroduction of the disparate impact

Preferences: Regulating the Dark Side of Personalized Transactions, 86 U. CHI. L. REV. 581, 583 (2019) (discussing the ways in which big data and artificial intelligence exploit human bias in online marketing and purchases).

14. See *infra* Section II.E (providing examples of algorithmic bias that generate discriminatory outcomes).

15. See *infra* notes 114-118 and accompanying text.

16. See *infra* notes 146-148 and accompanying text.

17. Strictly speaking, the algorithms at issue are called “supervised learning algorithms.” Danilo Bzdok, Martin Krzywinski & Naomi Altman, *Machine Learning: Supervised Methods*, 15 NATURE METHODS 5, 5 (2018). For purposes of brevity, we will use the term “learning algorithm.”

18. See Ignacio Cofone, *Algorithmic Discrimination Is an Information Problem*, 70 HASTINGS L.J. 1389, 1410 (2019) (“[A]n algorithmic decision-making process can only be as good as the data that it uses.”); Ravi B. Parikh, Stephanie Teeple & Amol S. Navathe, *Addressing Bias in Artificial Intelligence in Health Care*, 322 JAMA 2377, 2377 (2019); *A.I. Bias in Healthcare: Human Pride, Machine Prejudice*, MED. FUTURIST (Sept. 19, 2019), <https://medicalfuturist.com/a-i-bias-in-healthcare>. See *infra* Part I, for a discussion of how AI works.

19. Parikh et al., *supra* note 18, at 2377.

20. *A.I. Bias in Healthcare: Human Pride, Machine Prejudice*, *supra* note 18.

21. Alvin Rajkomar, Michaela Hardt, Michael D. Howell, Greg Corrado & Marshall H. Chin, *Ensuring Fairness in Machine Learning to Advance Health Equity*, 18 ANNALS INTERNAL MED. 866, 866 (2018).

22. *Id.*

23. See *infra* Part III.

theory as a robust litigation tool in the health-care arena.²⁴

Fairness is a complicated concept with no comprehensive or universally accepted definition in the AI context,²⁵ or for that matter, even in philosophy.²⁶ For the purposes of this Article, a useful conception includes three elements: equal outcomes, equal performance, and equal allocation.²⁷ More specifically, fairness requires that minority and majority groups benefit equally from AI in terms of patient outcomes, that AI is equally accurate for minority and non-minority patients, and that AI allocate resources proportionately to all groups.²⁸ We use the term “minority” broadly to include all individuals whom the civil rights laws aim to protect, including women, older people, and individuals with disabilities.²⁹ It is further important to understand that there are frequently competing notions of fairness that cannot all be fulfilled simultaneously.³⁰ For example, group fairness may be inconsistent with individual fairness.³¹

The remainder of this Article proceeds as follows. Part I discusses the use of AI in medicine and describes its benefits. Part II analyzes the discrimination-related pitfalls of AI. It explains measurement error, selection bias, and feedback loop bias and provides numerous examples of algorithmic discrimination in health care. It also discusses other discrimination risks associated with AI, including inequitable deployment of AI and the development of racially tailored medicine by which AI potentially recommends different treatments for members of different populations. Part III focuses on theories of discrimination that may apply to health-care inequities. These include intentional discrimination and disparate impact under Title VI of the Civil Rights Act of 1964 and Section 1557 of the Affordable Care Act. Under existing law, however, plaintiffs face many hurdles and may well

24. *See infra* Section III.A.

25. KEARNS & ROTH, *supra* note 10, at 69-72; Deborah Hellman, *Measuring Algorithmic Fairness*, 106 VA. L. REV. 811, 820-28 (2020); Alexandra Chouldechova & Aaron Roth, *A Snapshot of the Frontiers of Fairness in Machine Learning*, 63 COMM. ACM 82 (2020).

26. Reuben Binns, *Fairness in Machine Learning: Lessons from Political Philosophy*, 81 PROC. MACHINE LEARNING RES. 1, 1 (2018) (“Various definitions proposed in recent literature make different assumptions about what terms like discrimination and fairness mean and how they can be defined in mathematical terms.”).

27. Rajkomar et al., *supra* note 21, at 868-69.

28. *Id.*

29. *See infra* notes 202-203 and accompanying text (describing protected classes under the civil rights statutes and listing relevant laws).

30. KEARNS & ROTH, *supra* note 10, at 84-86 (discussing “fairness fighting fairness” (capitalization in title omitted)); Hellman, *supra* note 25, at 827 (discussing circumstances in which it is “impossible to have parity between . . . groups along all the possible dimensions of fairness”).

31. *See infra* text accompanying notes 378-387; *see also* Doaa Abu-Elyounes, *Contextual Fairness: A Legal and Policy Analysis of Algorithmic Fairness*, 2020 U. ILL. J.L. TECH. & POL’Y 1, 38 (“[F]rom both a policy and technical perspective, satisfying several notions of fairness simultaneously is mutually incompatible.”); Jason R. Bent, *Is Algorithmic Affirmative Action Legal?*, 108 GEO. L.J. 803, 817-20 (2020) (discussing group fairness and individual fairness).

eschew litigation. Consequently, many discriminatory algorithms could be left unchallenged.

The last part of the paper transitions to formulating a series of recommendations. Part IV addresses legal intervention. First, it suggests adding an explicit private cause of action for disparate impact to Title VI and Section 1557. Second, it discusses and critiques the proposed Algorithmic Accountability Act. Third, it briefly addresses regulation by the Food and Drug Administration. Part V develops recommendations for improving algorithm design, validation, and monitoring processes. These include steps that both algorithm designers and algorithm users can implement. This section also cautions that AI experts, health-care providers, and patients must have realistic expectations about the degree of fairness they can achieve and may often need to prioritize among competing fairness goals. Part VI concludes.

I. ARTIFICIAL INTELLIGENCE IN MEDICINE

A. How AI Works

The term “artificial intelligence,” (AI) refers to computers’ ability to mimic human behavior and learn.³² Learning is carried out with the aid of algorithms. An algorithm is a “computational procedure that takes some value, or set of values, as input and produces some value, or set of values, as output.”³³ It is thus “a sequence of computational steps that transform the input into the output.”³⁴ Users often rely on AI to help them make decisions or to make decisions for them.³⁵ They may input information about a patient’s symptoms, medical history, and demographics and obtain a likely diagnosis or recommended treatment as the AI output.³⁶

A large subfield of AI is machine learning (ML), which enables computers to “automatically detect patterns in data, and then use the uncovered patterns to predict future data or to perform decision-making tasks under uncertainty.”³⁷

32. IAN GOODFELLOW, YOSHUA BENGIO & AARON COURVILLE, DEEP LEARNING 1-2 (2016).

33. THOMAS H. CORMEN ET AL., INTRODUCTION TO ALGORITHMS 5 (3d ed. 2009).

34. *Id.*

35. See *infra* Section I.B. (discussing the benefits of AI).

36. Xiaoxuan Liu, *A Comparison of Deep Learning Performance against Health-Care Professionals in Detecting Diseases from Medical Imaging: a Systematic Review and Meta-Analysis*, 1 LANCET DIGITAL HEALTH E271, E271 (2019); *AI System Works with Physicians to Identify the Most Helpful Treatments for People Diagnosed with Depression*, MAYO CLINIC MAG., Fall 2019, <https://mayomagazine.mayoclinic.org/2019/11/ai-system-works-with-physicians-to-identify-the-most-helpful-treatments-for-people-diagnosed-with-depression> (“AI methodologies can discover patterns in a patient’s data . . . that can explain unique characteristics of the specific patient, allowing for the right treatment to be chosen at the right time and right dose to achieve the therapeutic benefit.”).

37. KEVIN P. MURPHY, MACHINE LEARNING: A PROBABILISTIC PERSPECTIVE 1 (2012); see also David Lehr & Paul Ohm, *Playing with the Data: What Legal Scholars Should Learn about Machine*

ARTIFICIAL INTELLIGENCE AND DISCRIMINATION

Scientists train machine-learning algorithms to do analytical work by feeding them information, known as training data.³⁸ For example, scientists might show a learning algorithm a large number of tumor x-rays or scans, indicating which ones are and are not cancerous.³⁹ These designations of input data are known as labels.⁴⁰ The algorithm then learns to distinguish between benign and malignant masses based on patterns in the tumor images, so that it can identify cancerous tumors when shown new images.⁴¹ Once data scientists determine that the algorithm's performance is satisfactory, it can be deployed to classify images with unknown labels.⁴²

Some machine-learning algorithms are trained only once, and others continuously learn and adapt over time.⁴³ If an algorithm is adaptive and perpetually learns based on its real-world experience, the outputs it generates for particular inputs may change over time.⁴⁴

Algorithms often examine large collections of information, known as “big data,” from sources such as EHR databases or the Internet in order to unearth hidden knowledge or patterns.⁴⁵ “Big data” can be defined as data that is of high volume, variety, and velocity, the last referring to the speed with which it is generated.⁴⁶ In medicine, big data can come from a myriad of sources, including patients, health-care providers, insurers, manufacturers, the government, and even mobile devices such as smartphones and wearables.⁴⁷

Learning, 51 UC DAVIS L. REV. 653, 671 (2017) (“Fundamentally, machine learning refers to an automated process of discovering correlations (sometimes alternatively referred to as relationships or patterns) between variables in a dataset, often to make predictions or estimates of some outcome.”); Alvin Rajkomar, Jeffrey Dean & Isaac Kohane, *Machine Learning in Medicine*, 380 NEW ENG. J. MED. 1347, 1348 (2019) (“[I]n machine learning, a model learns from examples rather than being programmed with rules.”).

38. See SHALEV-SHWARTZ & BEN-DAVID, *supra* note 4, at 13-14 (discussing “the statistical learning framework”); see, e.g., Niha Beig et al., *Perinodular and Intranodular Radiomic Features on Lung CT Images Distinguish Adenocarcinomas from Granulomas*, 290 RADIOLOGY 783, 784 (2019) (“A machine classifier was trained on a cohort of 145 patients . . .”).

39. Beig et al., *supra* note 38, at 784.

40. Rajkomar et al., *supra* note 21, at 867.

41. Beig et al., *supra* note 38, at 792.

42. Rajkomar et al., *supra* note 21, at 867.

43. U.S. FOOD & DRUG ADMIN., PROPOSED REGULATORY FRAMEWORK FOR MODIFICATIONS TO ARTIFICIAL INTELLIGENCE/MACHINE LEARNING (AI/ML)-BASED SOFTWARE AS A MEDICAL DEVICE (SAMMD) 3 (2019), <https://www.fda.gov/files/medical%20devices/published/US-FDA-Artificial-Intelligence-and-Machine-Learning-Discussion-Paper.pdf>; AMIA Supports, Encourages Further Refinement of FDA AI/Machine Learning Regulatory Framework, *supra* note 6.

44. U.S. FOOD & DRUG ADMIN., *supra* note 43, at 3.

45. JIAWEI HAN, MICHELINE KAMBER & JIAN PEI, DATA MINING: CONCEPTS AND TECHNIQUES 8 (3d ed. 2012).

46. SHARONA HOFFMAN, ELECTRONIC HEALTH RECORDS AND MEDICAL BIG DATA: LAW AND POLICY 111 (2016).

47. Nathan Cortez, *Substantiating Big Data in Health Care*, 14 I/S: J.L. & POL’Y FOR INFO.

Algorithms have different degrees of transparency and explainability.⁴⁸ In some cases, they are opaque because they rely on extremely complex rules, and even their programmers are unsure of exactly how they work in particular instances.⁴⁹ Some experts describe clinician reliance on nontransparent, noninterpretable algorithms as “black-box medicine.”⁵⁰

B. The Benefits of AI in Medicine

AI can generate many benefits by allowing experts to analyze very large data sets quickly and efficiently, potentially delivering improved health care at a lower cost.⁵¹ If computers rather than humans do some of the work, health-care providers can lower staffing costs and accomplish tasks more quickly.⁵²

AI is valuable for physicians, researchers, and policy makers.⁵³ Learning algorithms can help doctors predict which patients are likely to have either poor or successful treatment outcomes and to adjust medical decisions accordingly.⁵⁴ AI may also help identify high-risk individuals whom doctors should screen regularly for specific illnesses.⁵⁵ Likewise, AI can analyze EHRs in order to determine which patients are good candidates for clinical trials so that researchers can recruit them.⁵⁶ AI can further expedite medical discoveries as learning algorithms examine big data and discern previously unknown patterns, connections, and causal effects.⁵⁷

SOC'Y 61, 63-65 (2017) (discussing the breadth of big data sources).

48. Milena A. Gianfrancesco, Suzanne Tamang, Jinoos Yazdany & Gabriela Schmajuk, *Potential Biases in Machine Learning Algorithms Using Electronic Health Record Data*, 178 JAMA INTERNAL MED. 1544, 1546 (2018) (“Certain machine learning models . . . are less transparent than others . . . and therefore may be harder to interpret.”); W. Nicholson Price II, *Artificial Intelligence in the Medical System: Four Roles for Potential Transformation*, 21 YALE J.L. & TECH. (SPECIAL ISSUE) 122, 124 (2019) (referring to “explainable algorithms versus black-box methods”).

49. Tokio Matsuzaki, *Ethical Issues of Artificial Intelligence in Medicine*, 55 CAL. W. L. REV. 255, 269 (2018) (“One concern is that AI decision-making . . . often has no transparency. This means that doctors and patients are not able to know how the AI system reached the decision.”); W. Nicholson Price II, *Regulating Black-Box Medicine*, 116 MICH. L. REV. 421, 430 (2017).

50. Price, *supra* note 49, at 429; see Eric J. Topol, *High-Performance Medicine: The Convergence of Human and Artificial Intelligence*, 25 NATURE MED. 44, 51 (2019); Effy Vayena, Alessandro Blasimme & I. Glenn Cohen, *Machine Learning in Medicine: Addressing Ethical Challenges*, PLOS MED., Nov. 2018, art. no. e1002689, at 3.

51. Alicia Phaneuf, *Use of AI in Healthcare & Medicine Is Booming – Here’s How the Market Is Benefiting from AI in 2020 and Beyond*, BUS. INSIDER (July 31, 2019, 10:48 AM), <https://www.businessinsider.com/artificial-intelligence-healthcare>.

52. *Id.* (noting that “30% of healthcare costs are associated with administrative tasks”).

53. EWOUT W. STEYERBERG, CLINICAL PREDICTION MODELS 1-3, 11 (2009).

54. *Id.* at 11.

55. *Id.*

56. Stefan Harrer, Pratik Shah, Bhavna Antony & Jianying Hu, *Artificial Intelligence for Clinical Trial Design*, 40 TRENDS PHARMACOLOGICAL SCI. 577, 580 (2019).

57. W. Nicholson Price II, *Black Box Medicine*, 28 HARV. J.L. & TECH. 419, 421 (2015).

ARTIFICIAL INTELLIGENCE AND DISCRIMINATION

Public health authorities and health-care providers are now using AI to address the COVID-19 pandemic.⁵⁸ Researchers hope that AI will facilitate tracking the disease and predicting how and where it will spread.⁵⁹ They are also undertaking initiatives to develop and understand the potential of AI tools for the diagnosis of patients and prediction of their disease course.⁶⁰ To that end, experts are training AI models to diagnose COVID-19 using chest images and are developing AI tools to predict which COVID-19 patients will become severely ill.⁶¹ Likewise, a large Israeli health maintenance organization is using AI to help identify which of its participants is most at risk of severe COVID-19 symptoms.⁶²

Many hope that AI will also accelerate the development of a vaccine and the discovery of effective treatments.⁶³ To illustrate, machine learning led researchers to conclude that the drugs atazanavir and baricitinib could possibly be repurposed to treat COVID-19.⁶⁴

Finally, AI has been harnessed to enforce public health orders. According to one report, “At airports and train stations across China, infrared cameras are used to scan crowds for people with high temperatures. They are sometimes used with a facial recognition system, which can pinpoint the individual with a high temperature and whether he or she is wearing a surgical mask.”⁶⁵

Experts acknowledge, however, that AI has been of limited efficacy in the COVID-19 battle thus far. One reason is that AI algorithms require large amounts of data for training purposes, and obtaining adequate data can be costly and work-

58. Marcello Ienca & Effy Vayena, *On the Responsible Use of Digital Data to Tackle the COVID-19 Pandemic*, 26 NATURE MED., 463, 463 (2020).

59. Wim Naudé, *Artificial Intelligence vs. COVID-19: Limitations, Constraints and Pitfalls*, 35 AI & SOC’Y 761, 761-62 (2020).

60. *Id.*

61. Xiangao Jiang et al., *Towards an Artificial Intelligence Framework for Data-Driven Prediction of Coronavirus Clinical Severity*, 63 COMPUTERS, MATERIALS & CONTINUA 537 (2020); Naudé, *supra* note 59, at 762-63.

62. Will Douglas Heaven, *Israel Is Using AI to Flag High-Risk COVID-19 Patients*, MIT TECH. REV. (Apr. 24, 2020), <https://www.technologyreview.com/2020/04/24/1000543/israel-ai-prediction-medical-testing-data-high-risk-covid-19-patients>.

63. Naudé, *supra* note 59.

64. Bo Ram Beck, Bonggun Shin, Yoonjung Choi, Sungsoo Park & Keunsoo Kang, *Predicting Commercially Available Antiviral Drugs that May Act on the Novel Coronavirus (SARS-CoV-2) Through a Drug-Target Interaction Deep Learning Model*, 18 COMPUTATIONAL & STRUCTURAL BIOTECHNOLOGY J. 784 (2020); Justin Stebbing, Anne Phelan, Ivan Griffin, Catherine Tucker, Olly Oechsle, Dan Smith & Peter Richardson, *COVID-19: Combining Antiviral and Anti-Inflammatory Treatments*, 20 LANCET 400, 400-01 (2020).

65. Andy Chun, *In a Time of Coronavirus, China’s Investment in AI Is Paying Off in a Big Way*, S. CHINA MORNING POST (Mar. 18, 2020, 10:00 AM), <https://www.scmp.com/comment/opinion/article/3075553/time-coronavirus-chinas-investment-ai-paying-big-way>.

intensive.⁶⁶ Most studies to date have drawn information from small datasets.⁶⁷ In addition, in the United States, patients' records are often fragmented and located at different facilities that do not have interoperable⁶⁸ EHRs.⁶⁹ Thus, it could be impossible to obtain a sufficiently large and representative patient dataset to allow for accurate predictions about disease prognosis.⁷⁰ In the area of surveillance, thermal scanning can be hampered by people wearing eyeglasses "because scanning the inner tear duct gives the most reliable indication" of fever from a distance.⁷¹

II. DISCRIMINATION-RELATED PITFALLS OF AI

The above-described problems with employing AI to combat COVID-19 provide a preview of the shortcomings of AI more generally. AI can often generate incorrect results. In some instances, AI defects can have discriminatory effects and can severely disadvantage certain groups of patients.⁷² Flawed outcomes can stem from a number of problems. This part focuses on three key problems. First, the data themselves can be incomplete or incorrect,⁷³ thus causing measurement error.⁷⁴ Second, the data set that trains the algorithm may be under-inclusive or otherwise skewed (e.g., containing records of only White males) so that AI outcomes are not generalizable to the population as a whole.⁷⁵ Third, the training data may capture historical patterns of discrimination, causing the algorithm to perpetuate the inequitable treatment. This problem is called feedback loop bias.⁷⁶ The section also briefly discusses other sources of uncertainty.

66. Naudé, *supra* note 59, at 761-63; Don Roedner, *Why 96% of Enterprises Face AI Training Data Issues*, DATA ECONOMY (July 30, 2019), <https://dataconomy.com/2019/07/why-96-of-enterprises-face-ai-training-data-issues>.

67. *Id.*

68. Interoperability means "the ability for systems to exchange data and operate in a coordinated, seamless manner." BIOMEDICAL INFORMATICS: COMPUTER APPLICATIONS IN HEALTH CARE AND BIOMEDICINE 952 (Edward H. Shortliffe & James J. Cimino eds., 3d ed. 2006).

69. HOFFMAN, *supra* note 46, at 54-55; *see also* Heaven, *supra* note 62.

70. Heaven, *supra* note 62.

71. Naudé, *supra* note 59.

72. Ian A. Scott, *Hope, Hype and Harms of Big Data*, 49 INTERNAL MED. J. 126, 127 (2019).

73. Vayena et al., *supra* note 50, at 2 (discussing "cases in which the data sources themselves do not reflect true epidemiology within a given demographic, as for instance in population data biased by the entrenched overdiagnosis of schizophrenia in African Americans").

74. Timo B. Brakenhoff, Maarten van Smeden, Frank L.J. Visseren & Rolf H.H. Groenwold, *Random Measurement Error: Why Worry? An Example of Cardiovascular Risk Factors*, PLOS ONE, Feb. 2018, art. no. e0192298.

75. Vayena et al., *supra* note 73, at 2 ("Such an algorithm would make poor predictions, for example, among younger black women.").

76. David Casacuberta, *Bias in a Feedback Loop: Fuelling Algorithmic Injustice*, CCCB LAB, (May 9, 2018) <http://lab.cccb.org/en/bias-in-a-feedback-loop-fuelling-algorithmic-injustice>.

ARTIFICIAL INTELLIGENCE AND DISCRIMINATION

A. Measurement Errors

Big data that is used to train machine-learning algorithms can have missing and incorrect information.⁷⁷ Indeed, some patients' records contain a plethora of erroneous and misleading data.⁷⁸ Measurement errors can be defined as “the difference between the [actual] quantity of interest and the measured value.”⁷⁹ Poor data quality inevitably leads to poor AI algorithm performance, sometimes expressed as the “garbage in-garbage out” principle.⁸⁰

EHRs of minorities and economically disadvantaged individuals might be particularly vulnerable to missing data.⁸¹ Members of vulnerable populations may receive health care infrequently because they are uninsured, have no transportation or childcare, or face other barriers.⁸² They also often lack a primary care physician and visit multiple facilities when they do seek medical attention, so that their records are fragmented and do not contain comprehensive information.⁸³ Because of data gaps, AI may not recognize such patients as having the diseases or health risks that the algorithm is designed to identify.⁸⁴

Furthermore, low-income individuals may seek care at teaching clinics where practitioners are less meticulous about recordkeeping.⁸⁵ Data gathered from these facilities may have more errors than data from facilities frequented by higher-income patients.⁸⁶

B. Selection Bias

The word “bias” has different meanings in different contexts. Human bias is

77. Scott, *supra* note 72, at 127 (discussing numerous potential shortcomings of big data); Nilay D. Shah, Ewout W. Steyerberg & David M. Kent, *Big Data and Predictive Analytics: Recalibrating Expectations*, 320 JAMA 27, 28 (2018); Topol, *supra* note 50, at 51.

78. HOFFMAN, *supra* note 46, at 23-28.

79. Jessie K. Edwards & Alexander P. Keil, *Measurement Error and Environmental Epidemiology: A Policy Perspective*, 4 CURRENT ENVTL. HEALTH REP. 79, 79 (2017).

80. P. Elliott Miller et al., *Predictive Abilities of Machine Learning Techniques May Be Limited by Dataset Characteristics: Insights from the UNOS Database*, 25 J. CARDIAC FAILURE 479, 482 (2019) (“Our results raise the notion that large clinical datasets might lack the accuracy and granularity needed for machine learning methodologies to uncover unique associations.”); Rajkomar et al., *supra* note 37, at 1355; Kun-Hsing Yu & Isaac S. Kohane, *Framing the Challenges of Artificial Intelligence in Medicine*, 28 BMJ QUALITY & SAFETY 238, 239 (2019).

81. Gianfrancesco et al., *supra* note 48, at 1545.

82. *Id.*

83. *Id.*

84. *Id.*

85. *Id.* at 1546.

86. *Id.*; Rajkomar et al., *supra* note 21, at 867 (providing the example of “predicting the onset of clinical depression in environments where protected groups have been systematically misdiagnosed”).

prejudice or “unreasonably hostile feelings or opinions about a social group.”⁸⁷ By contrast, algorithmic bias is present when an AI model produces results that are unintended by its creators because of its training data’s shortcomings or because it is applied to an unanticipated patient population.⁸⁸

One reason for enthusiasm about AI is the hope that it will diminish human bias in health care.⁸⁹ It is natural for human beings to have certain prejudices rooted in their background and upbringing, and this may at times influence diagnosis and treatment decisions.⁹⁰ Objective algorithmic analysis should ideally diminish or eliminate human bias.⁹¹ However, AI algorithms are subject to their own bias problems.⁹²

Big data can be subject to selection bias. Selection bias can occur if the subset of individuals represented in the training data is not representative of the patient population of interest.⁹³ If the data used to train a learning algorithm comes from a health system that serves particular populations (e.g., disproportionately wealthy or low-income people) but not others, the algorithm’s predictions may not be generalizable to all patients of interest.⁹⁴ Several scholars have noted the following:

Big Data has not captured certain marginalized demographics. Particularly concerning are racial minorities, people with low socioeconomic status, and immigrants. Many of the people missing from the data that come from sources such as Internet history, social media presence, and credit-card use are also missing from other sources of Big Data, such as electronic health records (EHRs) and genomic databases. The factors responsible for these gaps are diverse and include lack of insurance and the

87. *Bias*, DICTIONARY.COM, <https://www.dictionary.com/browse/bias> (last visited May 16, 2020); see also Parikh et al., *supra* note 18, at 2377 (“An AI algorithm that learns from historical electronic health record (EHR) data and existing practice patterns may not recommend testing for cardiac ischemia for an older woman, delaying potentially life-saving treatment.”).

88. Irene Y. Chen, Peter Szolovits & Marzyeh Ghassemi, *Can AI Help Reduce Disparities in General Medical and Mental Health Care?*, 21 *AMA J. ETHICS* E167, E168 (2019); see also Jessica K. Paulus & David M. Kent, *Predictably Unequal: Understanding and Addressing Concerns that Algorithmic Clinical Prediction May Increase Health Disparities*, 3 *NPJ DIGITAL MED.*, art. no. 99, 2020, at 4 (defining algorithmic bias in terms of “issues related to model design, data and sampling that may disproportionately affect model performance in a certain subgroup”).

89. Gianfrancesco et al., *supra* note 48, at 1544.

90. *Id.*

91. *Id.*

92. KEARNS & ROTH, *supra* note 10, at 57-63.

93. Sharona Hoffman & Andy Podgurski, *The Use and Misuse of Biomedical Data: Is Bigger Really Better?*, 39 *AM. J.L. & MED.* 497, 521-23 (2013) (discussing selection bias).

94. Craig Konnoth, *Health Information Equity*, 165 *U. PA. L. REV.* 1317, 1361 (2017) (asserting that “relying on data that is biased towards certain social groups can have problematic effects”).

inability to access health care, to name just two⁹⁵

Sadly, many examples of selection bias exist in the health-care field. An analysis of 2,511 genome-mapping studies from around the world found that eighty-one percent of participants were of European descent.⁹⁶ A 2014 study found that over the prior twenty years the cancer survival gap between White and African American patients did not shrink, and the researchers attributed the persistent disparity in part to the relative dearth of information about the efficacy of treatment in the Black population.⁹⁷ Unfortunately, African Americans are thirty percent less likely than Whites to participate in clinical trials.⁹⁸

Selection bias may be particularly acute if the size of the study sample is small.⁹⁹ The sample may contain few if any data subjects who belong to particular disadvantaged groups.¹⁰⁰ An algorithm may misinterpret a lack of information about minorities as a lack of disease burden and consequently generate inaccurate predictions for the affected groups.¹⁰¹

C. Feedback Loop Bias

Bias can be rooted in historical patterns of discrimination. For example, police forces may send more officers to minority neighborhoods because they assume that these neighborhoods are crime-ridden.¹⁰² With more officers present, the police will discover more crimes and make more arrests than in other areas, even if there are other locations with an equal or larger amount of crime.¹⁰³ If the arrest figures are fed into an algorithm designed to determine optimal police force allocation, the algorithm may learn that it is advisable to send more police to the minority neighborhoods because they have more crime than elsewhere. The

95. Sarah E. Malanga, Jonathan D. Loe, Christopher T. Robertson & Kenneth S. Ramos, *Who's Left Out of Big Data? How Big Data Collection, Analysis, and Use Neglect Populations Most in Need of Medical and Public Health Research and Interventions*, in *BIG DATA, HEALTH LAW, AND BIOETHICS* 98, 98-99 (I. Glenn Cohen, Holly Fernandez Lynch, Effy Vayena & Urs Gasser eds., 2018) (footnote omitted).

96. Alice B. Popejoy & Stephanie M. Fullerton, *Genomics Is Failing on Diversity*, 538 *NATURE* 161, 162 (2016).

97. Ayal A. Aizer et al., *Lack of Reduction in Racial Disparities in Cancer-Specific Mortality over a 20-Year Period*, 120 *CANCER* 1532, 1538 (2014).

98. *Id.*

99. Gianfrancesco et al., *supra* note 48, at 1545-46.

100. Rajkomar et al., *supra* note 21, at 867.

101. Gianfrancesco et al., *supra* note 48, at 1545-46; *A.I. Bias in Healthcare: Human Pride, Machine Prejudice*, *supra* note 18 (“[T]hese distorted datasets would be the starting points for A.I. development.”).

102. KEARNS & ROTH, *supra* note 10, at 92; Chouldechova & Roth, *supra* note 25, at 84.

103. KEARNS & ROTH, *supra* note 10, at 92.

algorithm may thus make a recommendation that will perpetuate discrimination.¹⁰⁴

Likewise, some patients may receive less intensive care because of their demographic characteristics rather than because of their medical needs.¹⁰⁵ For example, one study concluded that women are less likely than men to receive lipid-lowering medications, in-hospital procedures, and optimal care at hospital discharge, even though they are more likely to suffer hypertension and heart failure.¹⁰⁶ The training data used to develop algorithms relating to these conditions typically do not indicate that women received inadequate treatment compared to men and should have had additional interventions. Consequently, the algorithm will likely learn to recommend less intensive care for women thereby perpetuating and exacerbating the undertreatment problem.

D. Algorithmic Uncertainty

Medical AI users must accept that AI involves a degree of uncertainty.¹⁰⁷ At times, the data available for prediction will not completely characterize the class of interest.¹⁰⁸ Learning algorithms may be affected by incomplete observability of relevant data or incomplete modeling because not all observed information is considered in the algorithmic analysis.¹⁰⁹

It is often more efficient and practical to use a simple rule with a degree of uncertainty rather than a complex one with more certainty. For example, the rule “most birds fly” is uncomplicated and highly functional. By contrast, the rule “birds fly, except for very young birds that have not yet learned to fly, sick or injured birds that have lost the ability to fly, flightless species of birds including the cassowary, ostrich and kiwi . . .” is costly to develop, maintain, and convey and will still be vulnerable to failures.¹¹⁰

A machine-learning algorithm may adopt a simple rule for a given problem and data set if it performs adequately on the training data.¹¹¹ Discrimination may occur if all or part of a minority group is mishandled by the rule, which is more likely if that group or subgroup is small.¹¹² In the example above, ostriches would

104. Chouldechova & Roth, *supra* note 25, at 87 (“[S]ince police are likely to make more arrests in more heavily policed areas, using arrest data to predict crime hotspots will disproportionately concentrate policing efforts on already over-policed communities.”).

105. Gianfrancesco et al., *supra* note 48, at 1546.

106. Shanshan Li et al., *Sex and Race/Ethnicity-Related Disparities in Care and Outcomes After Hospitalization for Coronary Artery Disease Among Older Adults*, 9 CIRCULATION: CARDIOVASCULAR QUALITY & OUTCOMES S36, S38 (2016).

107. GOODFELLOW ET AL., *supra* note 32, at 52.

108. *Id.*

109. *Id.* at 52-53.

110. *Id.* at 53.

111. *Id.*

112. *See supra* notes 99-101 and accompanying text.

ARTIFICIAL INTELLIGENCE AND DISCRIMINATION

potentially suffer discrimination as a result of the rule “most birds fly” because their special circumstances would not be addressed.¹¹³

E. Examples of Algorithmic Bias and the Risk of Discrimination in Health Care

Algorithmic bias can function in unanticipated ways that lead to discrimination against particular groups. This concern is not merely hypothetical.

A widely publicized example is an algorithm commonly used by health systems to identify patients who could benefit from “high risk management” and who should thus receive special attention.¹¹⁴ The algorithm exhibited significant racial bias, and the problem was rooted in its use of past health-care costs as a proxy for medical risks or conditions.¹¹⁵ Because racial minorities often face health-care access barriers, they frequently spend less money on health care than others. Thus, their history of expenditures may not reflect their true health status or indicate the care they should have obtained if it were available to them. Economically disadvantaged individuals who utilize medical services infrequently and at low cost often have acute medical problems such as severe hypertension, diabetes, renal failure, anemia, and high cholesterol, which are prevalent in African American communities.¹¹⁶ Yet, when the algorithm was deployed, its risk scores failed to reveal that African Americans were often sicker than their White counterparts who received referrals for special services.¹¹⁷ Thus, the algorithm favored Whites over African Americans with greater needs. Flawed algorithms were likely used by health systems that served up to 200 million Americans.¹¹⁸

Winterlight Labs, a Toronto-based startup, built a machine-learning tool to distinguish individuals with Alzheimer’s disease from those without the ailment based on short samples of their speech in response to a picture-description task.¹¹⁹ It turned out that the technology was effective only for native English speakers of a specific Canadian dialect and that it misdiagnosed others.¹²⁰ It misinterpreted

113. GOODFELLOW ET AL., *supra* note 32, at 53.

114. Ziad Obermeyer, Brian Powers, Christine Vogeli & Sendhil Mullainathan, *Dissecting Racial Bias in an Algorithm Used to Manage the Health of Populations*, 366 SCI. 447, 447, 449 (2019); Charlotte Jee, *A Biased Medical Algorithm Favored White People for Health-Care Programs*, MIT TECH. REV. (Oct. 25, 2019), <https://www.technologyreview.com/f/614626/a-biased-medical-algorithm-favored-white-people-for-healthcare-programs>.

115. Obermeyer et al., *supra* note 114, at 447; Jenna Wiens et al., *Diagnosing Bias in Data-Driven Algorithms for Healthcare*, 26 NATURE MED. 25, 25-26 (2020).

116. Obermeyer et al., *supra* note 114, at 447-50.

117. *Id.* at 447, 449.

118. *Id.* at 447.

119. Kathleen C. Fraser, Jed A. Meltzer & Frank Rudzicz, *Linguistic Features Identify Alzheimer’s Disease in Narrative Speech*, 49 J. ALZHEIMER’S DISEASE 407, 407 (2016) (asserting that the researchers “obtain[ed] state-of-the-art classification accuracies of over 81% in distinguishing individuals with [Alzheimer’s disease] from those without”).

120. Dave Gershgorn, *If AI Is Going to be the World’s Doctor, It Needs Better Textbooks*,

pauses, mispronunciations, and uncertainty rooted in language barriers as indicators of cognitive decline.¹²¹

Two commentators focused on machine learning that created programs to analyze images of skin lesions and to distinguish between malignant and benign moles.¹²² They noted that the “patient data are heavily collected from fair-skinned populations in the United States, Europe, and Australia.”¹²³ Consequently, they worry that the algorithms will not perform well on images of people of color, which could lead to misdiagnoses.¹²⁴

Even algorithms that learn from accurate, fully representative data can inadvertently perpetuate discrimination. Epic, a major vendor of health information systems, released an AI tool to help medical practices identify patients who are likely to miss appointments.¹²⁵ The tool, which was built into Epic’s EHRs, provided a numerical estimate of no-show likelihood, thereby encouraging clinicians to book a second patient into certain slots.¹²⁶ Because one of the input variables was prior no-shows, researchers found that the scores correlated to socio-economic status.¹²⁷ People living in poverty tend more often to have transportation or childcare problems or difficulty taking time off from work.¹²⁸ Therefore, when they did arrive at appointments, they were more likely to find a second patient booked at the same time and to receive rushed and inadequate care regardless of the complexity of their health problems.¹²⁹

As AI technology comes into even greater use in health care, bias problems may well proliferate. Commentators have contemplated numerous other potential AI initiatives that could be tainted by bias and perpetuate discrimination.¹³⁰ To illustrate, because African American patients receive, on average, less pain treatment than Caucasians, an AI system trained on EHRs might learn to recommend lower doses of pain drugs to African American patients regardless of their need for relief.¹³¹ As a second example, research has shown that African

QUARTZ (Sept. 6, 2018), <https://qz.com/1367177/if-ai-is-going-to-be-the-worlds-doctor-it-needs-better-textbooks>.

121. *Id.*

122. Adelwole S. Adamson & Avery Smith, *Machine Learning and Health Care Disparities in Dermatology*, 154 JAMA DERMATOLOGY 1247, 1247 (2018).

123. *Id.*

124. *Id.*

125. Sara G. Murray, Robert M. Wachter & Russell J. Cucina, *Discrimination by Artificial Intelligence in a Commercial Electronic Health Record—A Case Study*, HEALTH AFF. (Jan. 31, 2020), <https://www.healthaffairs.org/doi/10.1377/hblog20200128.626576>.

126. *Id.*

127. *Id.*

128. *Id.*

129. *Id.*

130. See, e.g., Rajkomar et al., *supra* note 21, at 867.

131. Price, *supra* note 1.

ARTIFICIAL INTELLIGENCE AND DISCRIMINATION

American women with chest pain are less likely to have cardiac catheterizations than are White men with the same symptoms.¹³² An algorithm designed to identify patients who should undergo the procedure may well recommend the treatment for African American women at an inappropriately low rate.¹³³ Likewise, transgender individuals may suffer discrimination if algorithms require a binary sex input that accepts only male or female designations.¹³⁴ Algorithms may generate treatment recommendations that are incorrect or a poor fit for their needs and circumstances.

F. Other Discrimination Risks Associated with AI

1. Inequitable Deployment of AI

AI algorithms could perpetuate discrimination in other ways as well. Despite the concerns articulated above, AI is beneficial for many patients.¹³⁵ Sound learning algorithms that are free of bias can help doctors make accurate diagnostic and treatment decisions.¹³⁶ For example, they can identify patients at risk of complications or poor outcomes so that doctors can tailor their therapies accordingly.¹³⁷

Yet resource-poor health-care providers that serve largely disadvantaged populations may not have the means to obtain and use sophisticated AI technology.¹³⁸ Commentators have noted that “informatics interventions are disproportionately available to well-off, educated, young, and urban patients and to urban and academic medical centers.”¹³⁹ Health disparities will be exacerbated if low-income, minority, and rural populations are deprived of the benefits of AI technology that improve outcomes in other communities.¹⁴⁰

2. Racially Tailored Medicine

Some learning algorithms deliberately adjust outputs on the basis of race in

132. Kevin A. Schulman et al., *The Effects of Race and Sex on Physicians’ Recommendations for Cardiac Catheterization*, 340 NEW ENG. J. MED. 618, 618 (1999).

133. Rajkomar et al., *supra* note 21, at 869.

134. Rachel Metz, *AI Software Defines People as Male or Female. That’s a Problem*, CNN (Nov. 21, 2019, 11:32 AM ET), <https://www.cnn.com/2019/11/21/tech/ai-gender-recognition-problem/index.html>.

135. *See supra* Section I.B.

136. *See supra* notes 51-55 and accompanying text.

137. *Id.*

138. Rajkomar et al., *supra* note 21, at 868.

139. Tiffany C. Veinot, Hannah Mitchell & Jessica S. Ancker, *Good Intentions Are Not Enough: How Informatics Interventions Can Worsen Inequality*, 25 J. AM. MED. INFORMATICS ASS’N 1080, 1081 (2018).

140. *See supra* text accompanying note 27 (including equal allocation of resources in the definition of AI fairness).

an effort to better tailor therapies to particular populations.¹⁴¹ For example, a recent prostate cancer study showed that AI analysis of digital images can detect differences in the appearance of cancer between African American and White patients.¹⁴² Researchers employed a learning algorithm to look for patterns in images of both the tumor itself and the tissue outside the tumor, known as the stroma.¹⁴³ They believe that “considering population-specific information . . . has the potential to substantially improve accuracy of prognosis and risk stratification in . . . [African American] patients with prostate cancer.”¹⁴⁴ Similar studies are planned with respect to breast cancer.¹⁴⁵

A 2020 *New England Journal of Medicine* article revealed that many clinical algorithms include “race corrections.”¹⁴⁶ They do so because their developers believe that adjustments are justified by analyses of historical data about patient attributes and clinical outcomes.¹⁴⁷ The article provides the following examples:

- An American Heart Association heart failure risk score algorithm assigns three extra points to patients identified as “nonblack” so that Black patients are categorized as being at lower risk of death.
- An algorithm designed to assess kidney function reports higher estimated glomerular filtration rates for patients identified as Black, suggesting that they have better kidney function.
- The Kidney Donor Risk Index indicates a higher risk of graft failure for donors identified as Black, thus marking Black individuals as less suitable donors.
- The Vaginal Birth after Cesarean algorithm predicts a lower likelihood of vaginal birth success for African American and Hispanic women who have had a previous Cesarean, making it more likely that they will undergo further surgeries.
- An algorithm that predicts the likelihood of kidney stones in emergency

141. Hersh K. Bhargava et al., *Computationally Derived Image Signature of Stromal Morphology Is Prognostic of Prostate Cancer Recurrence Following Prostatectomy in African American Patients*, 26 *CLINICAL CANCER RES.* 1915, 1915 (2020); Darshali A. Vyas, Leo G. Eisenstein & David S. Jones, *Hidden in Plain Sight—Reconsidering the Use of Race Correction in Clinical Algorithms*, 383 *NEW ENG. J. MED.* 874 (2020).

142. Bhargava et al., *supra* note 141.

143. *Id.* at 1921 (“[T]his study is the first to show the role of stromal features in prostate cancer . . .”).

144. *Id.* at 1915.

145. Case Western Reserve University, *AI Reveals Differences in Appearance of Cancer Tissue between Racial Populations*, *EUREKALERT* (Mar. 5, 2020), https://www.eurekaalert.org/pub_releases/2020-03/cwru-ard030520.php.

146. Vyas et al., *supra* note 141, at 874. See also Jessica P. Cerdeña, Marie V. Plaisime & Jennifer Tsai, *From Race-Based to Race-Conscious Medicine: How Anti-Racist Uprisings Call Us to Act*, 396 *LANCET* 1125, 1125-27 (2020).

147. Vyas et al., *supra* note 141, at 879.

ARTIFICIAL INTELLIGENCE AND DISCRIMINATION

room patients with flank pain adds three points out of a possible thirteen to nonblack patients, thus assessing Black patients as less likely to have kidney stones.¹⁴⁸

All of these algorithmic outcomes could divert resources away from African American patients or otherwise disadvantage them.¹⁴⁹

Paying attention to population differences can potentially enable physicians to treat patients more effectively. The prostate cancer researchers discussed above aim to predict cancer recurrence more accurately and thus to determine which patients should receive aggressive therapies.¹⁵⁰ The developers of the other algorithms listed above believe that they are enhancing the accuracy of diagnoses and treatment recommendations based on empirical evidence.¹⁵¹ Indeed, renowned studies, such as the Framingham Heart Study, which established now widely accepted risk factors for heart disease, have been criticized for lacking diverse study populations.¹⁵² The Framingham Heart study derived its data from a small, middle-class town in Massachusetts with a predominantly White population of Western European descent.¹⁵³ Subsequent studies have explored racial/ethnic differences in cardiovascular disease and its risk factors and found that population-specific insights are informative for purposes of implementing preventive care.¹⁵⁴

Nevertheless, racially tailored medicine carries its own serious risks,¹⁵⁵ and

148. *Id.* at 874-79; see also Neil R. Powe, *Black Kidney Function Matters: Use or Misuse of Race?*, 324 JAMA 737, 737 (2020); Keith Churchwell et al., *Call to Action: Structural Racism as a Fundamental Driver of Health Disparities: A Presidential Advisory from the American Heart Association*, 142 CIRCULATION e1, e11 (2020) (urging the American Heart Association to “reconsider when and how to include race/ethnicity and social determinants measures in risk calculators”); James A. Diao et al., *Clinical Implications of Removing Race From Estimates of Kidney Function*, JAMA (Dec. 2, 2020), doi:10.1001/jama.2020.22124 (noting that many U.S. medical centers are abandoning the algorithmic race adjustment for kidney function and that doing so may increase chronic kidney disease diagnoses among Black adults and improve access to care but may also exclude certain kidney donors and impact drug therapies).

149. Vyas et al., *supra* note 141, at 874 (“Many of these race-adjusted algorithms guide decisions in ways that may direct more attention or resources to white patients than to members of racial and ethnic minorities”).

150. Case Western Reserve University, *supra* note 145.

151. Vyas et al., *supra* note 141, at 879 (explaining that “researchers followed defensible empirical logic,” adjusting for race in their models after performing regression analyses on clinical data sets and finding that “minority patients routinely have different health outcomes from white patients”).

152. Sandeep Jauhar, Opinion, *The Heart Disease Conundrum*, N.Y. TIMES (Nov. 28, 2015), <https://www.nytimes.com/2015/11/29/opinion/sunday/the-heart-disease-conundrum.html> (“Framingham risk models do not tell the whole story for nonwhite ethnic groups.”).

153. *Id.*

154. See Crystel M. Gijsberts et al., *Race/Ethnic Differences in the Associations of the Framingham Risk Factors with Carotid IMT and Cardiovascular Events*, PLOS ONE, July, 2015, art. no. e0132321, at 2.

155. See generally Sharona Hoffman, “Racially-Tailored” Medicine Unraveled, 55 AM. U. L.

some institutions have ceased using algorithms that adjust for race.¹⁵⁶ First, race¹⁵⁷ in scientific studies is generally determined through subjects' self-reported identification.¹⁵⁸ Yet, millions of Americans are of mixed race.¹⁵⁹ They currently constitute up to 6.9 percent of the population,¹⁶⁰ and experts project that their number will triple by 2060.¹⁶¹ Individuals may identify as being of a particular race but have a multi-racial background or even appear to be of different ancestry.¹⁶² Counting such persons as members of a single race could skew research results.

Second, treating physicians attempting to apply algorithmically generated diagnostic or treatment recommendations may face a conundrum when their patients are of mixed background.¹⁶³ If the guidelines are different depending on ancestry, which ones should a doctor use for a patient who is multiracial?¹⁶⁴

Third, differences that are perceived as "racial" in truth are sometimes socioeconomic.¹⁶⁵ For example, the health status of some (but certainly not all) African American patients might be affected by poverty or stress.¹⁶⁶ It would thus be inappropriate to make generalizations about all African Americans, and instead, researchers should focus on the impact of financial resources or emotional wellbeing.¹⁶⁷

Fourth, so-called racial distinctions may in reality be genetic differences.¹⁶⁸ A

REV. 395 (2005).

156. Powe, *supra* note 148, at 737 ("A number of institutions have taken steps to remove the use of race in equations involving estimated glomerular filtration rates (eGFRs).").

157. Race is in itself a problematic term and is widely perceived as a social construct. See Sharona Hoffman, *Is There a Place for "Race" as a Legal Concept*, 36 ARIZ. ST. L.J. 1093, 1093 (2004). We prefer more precise terms such as color, ancestry, national origin, and others. *Id.* at 1159. We refer to race here because that is the language used in the relevant scientific studies.

158. Bhargava et al., *supra* note 141, at 1916 ("Patient race was self-reported.").

159. Kim Parker, Juliana Menasce Horowitz, Rich Morin & Mark Hugo Lopez, *Chapter 2: Counting Multiracial Americans*, PEW RES. CTR. (June 11, 2015), <https://www.pewsocialtrends.org/2015/06/11/chapter-2-counting-multiracial-americans> (finding that "6.9% of Americans 18 or older have a multiracial background" but noting that only "2.1% of adult Americans . . . said they were [of] two or more races in the Census Bureau's 2013 American Community Survey").

160. *Id.*

161. Marisa Franco, *What Racial Discrimination Will Look Like in 2060*, SCI. AM. BLOGS (Nov. 29, 2019), <https://blogs.scientificamerican.com/voices/what-racial-discrimination-will-look-like-in-2060>.

162. Nicholas Vargas & Kevin Stainback, *Documenting Contested Racial Identities Among Self-Identified Latina/os, Asians, Blacks, and Whites*, 60 AM. BEHAV. SCIENTIST 442, 442 (2016).

163. Vyas et al., *supra* note 141, at 880 ("Guidelines are silent on such issues—an indication of their inadequacy.").

164. *Id.*

165. Vyas et al., *supra* note 141 at 879-80.

166. *Id.*

167. *Id.*

168. See Hoffman, *supra* note 155, at 419-21 (providing the examples of cystic fibrosis, sickle cell anemia, and the BRCA1 and BRCA2 mutations that are associated with breast and ovarian

ARTIFICIAL INTELLIGENCE AND DISCRIMINATION

particular genetic mutation that affects disease vulnerability or treatment response might be more common in one racial group than in others.¹⁶⁹ Nevertheless, many members of the race in question will not have the genetic abnormality while some people with different ancestries will.¹⁷⁰ For example, sickle cell anemia affects not only African Americans, but also people with ancestors from Greece, Sicily, and the Arabian Peninsula, and it is not prevalent among Black South Africans.¹⁷¹ Indeed, experts note that there are more genetic variations within racial groups than among them.¹⁷² Consequently, algorithms that treat all patients identified as being of a particular race the same could provide numerous individuals with inadequate and inappropriate care and severely exacerbate health disparities.¹⁷³

Fifth, racially tailored medicine raises concerns about stigmatization and discrimination.¹⁷⁴ Research findings that emphasize biological differences among racial populations may convey the message that some racial groups are biologically inferior to others.¹⁷⁵ For example, minorities might be seen as more diseased than non-minority patients if they are deemed more vulnerable to the recurrence of certain cancers.¹⁷⁶ Publicity about racially tailored research in the popular press could fuel the fires of prejudice and discrimination.

III. LITIGATING DISCRIMINATION CLAIMS

Algorithmic discrimination can hurt patients and exacerbate health disparities. Aggrieved individuals may seek compensation through litigation. Patients who suffer harm during the course of their diagnosis or treatment can turn to tort theories, regardless of whether AI was involved.¹⁷⁷ For example, they might sue

cancer, all of which are common in particular populations but not exclusive to them).

169. *Id.*

170. *Id.*

171. Hoffman, *supra* note 155, at 419; Ambrose Wonkam et al., *The Burden of Sickle Cell Disease in Cape Town*, 102 S. AFR. MED. J. 752, 752 (2012) (South Africa has a low incidence of sickle cell disease”).

172. Vyas et al., *supra* note 141 at 879.

173. *Id.* at 879-80 (urging clinicians who employ race-adjusting algorithms to “be thoughtful and deliberate users”).

174. Hoffman, *supra* note 155, at 421-24.

175. *Id.*

176. Alex Tsodikov et al., *Is Prostate Cancer Different in Black Men? Answers from Three Natural History Models*, 123 CANCER 2312, 2312 (2017) (“Black race has been identified as an independent prognostic factor for disease recurrence in multiple reports . . .”); Case Western Reserve University, *supra* note 145 (“This new work on prostate cancer builds on mounting evidence that clear biological differences between races can be discovered at a cellular level”).

177. Megan Sword, *To Err is Both Human and Non-Human*, 88 UMKC L. REV. 211, 219-21 (2019); Shailin Thomas, *Artificial Intelligence, Medical Malpractice, and the End of Defensive Medicine*, PETRIE-FLOM CTR.: BILL OF HEALTH (Jan. 26, 2017), <http://blogs.harvard.edu/billofhealth/2017/01/26/artificial-intelligence-medical-malpractice-and-the-end-of-defensive-medicine> (“As algorithms improve and doctors use them more for diagnosing and decision-making,

physicians and hospitals for medical malpractice or vendors for a device's design defects.¹⁷⁸ The topic of AI and tort litigation has been addressed elsewhere and is beyond the scope of this Article.¹⁷⁹

This work's contribution is to focus specifically on discrimination claims. If plaintiffs wish to challenge discriminatory algorithms and to have them eliminated or corrected, their most direct route is discrimination theory.

Presumably, health-care providers will use AI in good faith and trust that the technology will improve health-care outcomes. If they do not or they act with deliberate indifference to AI's discriminatory effects, they could face intentional discrimination claims. However, as demonstrated in Part II, AI can sometimes lead to unintentional discrimination when seemingly neutral algorithms disadvantage particular groups. In such cases, the applicable discrimination principle is disparate impact. This Part explores the theory of disparate impact and its significant limitations in the health-care field. It explains why disparate impact is unlikely to be a fruitful litigation path for plaintiffs aggrieved by AI outcomes. It also addresses potential litigation alleging intentional discrimination.

A. Disparate Impact

The disparate impact theory has developed most fully in the employment arena. We therefore begin with a discussion of employment discrimination litigation under Title VII of the Civil Rights Act (Title VII) and briefly address housing discrimination caselaw before tackling disparate impact as applied to health care.

1. What Is Disparate Impact?

The disparate impact theory enables plaintiffs to prove discrimination without

the traditional malpractice notions of physician negligence and recklessness may become harder to apply.”).

178. W. Nicholson Price II, *Medical Malpractice and Black Box Medicine*, in *BIG DATA, HEALTH LAW, AND BIOETHICS*, *supra* note 95, at 295, 300 (“Providers . . . could be held liable for harmful use of black-box medical algorithms depending on the prevailing customary practice and the extent that custom is considered dispositive.”); Nicolas Terry, *Of Regulating Healthcare AI and Robots*, 18 *YALE J. HEALTH POL’Y, L. & ETHICS* 133, 162-63 (2019) (describing several “very difficult” questions relating to potential product liability litigation involving AI); Saurabh Jha, *Can You Sue an Algorithm for Malpractice? It Depends*, *STAT* (Mar. 9, 2020), <https://www.statnews.com/2020/03/09/can-you-sue-artificial-intelligence-algorithm-for-malpractice>.

179. See A. Michael Froomkin, Ian Kerr & Joelle Pineau, *When AIs Outperform Doctors: Confronting the Challenges of a Tort-Induced Over-Reliance on Machine Learning*, 61 *ARIZ. L. REV.* 33, 35-36 (2019); Efsthimios Parasidis, *Clinical Decision Support: Elements of a Sensible Legal Framework*, 20 *J. HEALTH CARE L. & POL’Y* 183, 218-25 (2018); Price, *supra* note 178.

ARTIFICIAL INTELLIGENCE AND DISCRIMINATION

proving intent to discriminate.¹⁸⁰ Title VII, which prohibits employment discrimination based on race, color, religion, sex, and national origin, empowers aggrieved parties to bring disparate impact cases against employers.¹⁸¹ The seminal Supreme Court disparate impact ruling came in the 1971 *Griggs v. Duke Power Co.* case.¹⁸² *Griggs* was a class action in which African American plaintiffs successfully challenged an employer's requirement of a high school diploma or passing a standardized general intelligence test for purposes of being hired or transferring to a better job.¹⁸³ The employer could not prove that the two requirements were related to satisfactory job performance, and both disproportionately disqualified African Americans.¹⁸⁴

Underlying the Title VII disparate impact theory is the premise that “some employment practices, adopted without a deliberately discriminatory motive, may in operation be functionally equivalent to intentional discrimination.”¹⁸⁵ Advocates can use the disparate impact theory to challenge not only standardized testing by employers, but also other practices that are not job-related and systematically disadvantage members of a class that is protected under the civil rights laws.¹⁸⁶ Examples are employers' exclusion of workers with criminal records, which adversely affect African Americans and Hispanics,¹⁸⁷ and strength tests, which have an adverse impact on women.¹⁸⁸

The Fair Housing Act, which prohibits housing discrimination based on color, disability, familial status, national origin, race, religion, and sex, also enables private parties to litigate disparate impact cases.¹⁸⁹ In the 2015 case of *Texas Department of Housing and Community Affairs v. Inclusive Communities Project*,

180. Michael Selmi, *Was the Disparate Impact Theory a Mistake?*, 53 UCLA L. REV. 701, 702 (2006).

181. 42 U.S.C. § 2000e-2(k) (2018).

182. 401 U.S. 424 (1971) (citing 42 U.S.C. § 2000e-2).

183. *Id.* at 425-26 (1971).

184. *Id.*

185. *Pippin v. Burlington Res. Oil & Gas Co.*, 440 F.3d 1186, 1199 (10th Cir. 2006) (quoting *Ortega v. Safeway Stores, Inc.*, 943 F.2d 1230, 1242 (10th Cir. 1991)).

186. *Griggs*, 401 U.S. at 430 (referring to any “practices, procedures, or tests neutral on their face, and even neutral in terms of intent” that “operate to ‘freeze’ the status quo of prior discriminatory employment practices”).

187. U.S. EQUAL EMP'T OPPORTUNITY COMM'N, EEOC-CVG-2012-1, ENFORCEMENT GUIDANCE ON THE CONSIDERATION OF ARREST AND CONVICTION RECORDS IN EMPLOYMENT DECISIONS UNDER TITLE VII OF THE CIVIL RIGHTS ACT (2012), <https://www.eeoc.gov/laws/guidance/enforcement-guidance-consideration-arrest-and-conviction-records-employment-decisions#V> (We are referring specifically to Part V, entitled “Disparate Impact Discrimination and Criminal Records.”).

188. U.S. EQUAL EMP'T OPPORTUNITY COMM'N, EEOC-NVTA-2007-2, EMPLOYMENT TESTS AND SELECTION PROCEDURES (2007), <https://www.eeoc.gov/laws/guidance/employment-tests-and-selection-procedures>.

189. 42 U.S.C. § 3604 (2018).

Inc., the plaintiff asserted that the Department’s allocation of low income housing tax credits had a disparate impact on African American residents.¹⁹⁰ The Supreme Court confirmed that disparate impact claims are cognizable under the Fair Housing Act.¹⁹¹

One would think that plaintiffs would likewise be able to apply the disparate impact theory to health-care practices, such as AI use, that disproportionately disadvantage women or racial minority groups. An algorithm is typically facially neutral but it could affect various populations differently because of design defects or flawed training data.¹⁹² Under current law, however, the disparate impact theory does not furnish the majority of private parties with a suitable litigation tool in health-care cases.

2. Title VI

Title VI of the Civil Rights Act of 1964 prohibits programs receiving federal financial assistance from engaging in discrimination based on race, color, or national origin.¹⁹³ Title VI regulations clarify that covered entities may not use “criteria or methods of administration which have the effect of subjecting individuals to discrimination.”¹⁹⁴ The regulations thus forbid practices that have a disparate impact on protected groups.¹⁹⁵ Health-care entities such as hospitals and nursing homes receiving payments from the federal programs Medicare and Medicaid, as most do, are covered by Title VI.¹⁹⁶

Title VI is enforced both by the Department of Health and Human Services’ (HHS) Office of Civil Rights (OCR) and by private litigation, but to limited effect.¹⁹⁷ Civil rights advocates have criticized OCR for not enforcing Title VI aggressively enough.¹⁹⁸ In addition, in 2001, the Supreme Court foreclosed the possibility of disparate impact litigation by private parties.¹⁹⁹ In *Alexander v. Sandoval*, the Court held that there is no private right of action to enforce the disparate impact regulations promulgated under Title VI.²⁰⁰ Consequently, private parties can pursue only claims of intentional discrimination associated with AI, and OCR has sole authority to handle AI-related disparate impact violations

190. 576 U.S. 519, 519 (2015).

191. *Id.*

192. *See supra* Sections II.A-E.

193. 42 U.S.C. § 2000d (2018).

194. 28 C.F.R. § 42.104(b)(2) (2020); 45 C.F.R. § 80.3(b)(2) (2020).

195. 28 C.F.R. § 42.104(b)(2) (2020); 45 C.F.R. § 80.3(b)(2) (2020).

196. BARRY R. FURROW ET AL., *LAW AND HEALTH CARE QUALITY, PATIENT SAFETY, AND LIABILITY* 385 (8th ed. 2018).

197. *Id.*

198. *Id.*

199. *Alexander v. Sandoval*, 532 U.S. 275, 275 (2001).

200. *Id.*

relating to race, color, or national origin.²⁰¹

3. Section 1557 of the Affordable Care Act

Section 1557 of the Patient Protection and Affordable Care Act (ACA) prohibits discrimination based on race, color, national origin, sex, age, or disability in particular health programs or activities.²⁰² In describing the protected classes, the statute refers to individuals protected by Title VI of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972 (addressing sex discrimination), Section 504 of the Rehabilitation Act of 1973 (addressing disability discrimination), and the Age Discrimination Act of 1975.²⁰³

The provision covers health programs or activities that receive federal financial assistance or that the federal government administers.²⁰⁴ These generally include “hospitals, health clinics, health insurance issuers, state Medicaid agencies, community health centers, physician’s practices and home health care agencies.”²⁰⁵ Note that HHS maintains that funds provided under Medicare Part B (which pays for physicians’ services) do not constitute federal financial assistance, so some physicians may not be bound by the Section 1557 antidiscrimination mandate.²⁰⁶ However, the statute applies to doctors receiving Medicaid payments and other forms of financial support, so the majority of physicians are covered.²⁰⁷

For purposes of this Article, a particularly important question is whether Section 1557 allows for disparate impact claims. The relevant statutory language is, “The enforcement mechanisms provided for and available under such title VI, title IX, section 794, or such Age Discrimination Act shall apply for purposes of violations of this subsection.”²⁰⁸ Could racial minorities who are disproportionately disadvantaged by an AI algorithm assert disparate impact claims under Section 1557 while the theory is unavailable under Title VI? The

201. Our research did not reveal any AI-related disparate impact cases that were pursued by OCR thus far.

202. 42 U.S.C. § 18116(a) (2018).

203. *Id.* (“[A]n individual shall not, on the ground prohibited under title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d et seq.), title IX of the Education Amendments of 1972 (20 U.S.C. 1681 et seq.), the Age Discrimination Act of 1975 (42 U.S.C. 6101 et seq.), or section 794 of title 29, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under, any health program or activity, any part of which is receiving Federal financial assistance . . .”).

204. *Id.*

205. *Section 1557: Frequently Asked Questions*, U.S. DEP’T HEALTH & HUMAN SERVICES, <https://www.hhs.gov/civil-rights/for-individuals/section-1557/1557faqs/index.html> (last reviewed May 18, 2017).

206. FURROW ET AL., *supra* note 196, at 416; *Section 1557: Frequently Asked Questions*, *supra* note 205.

207. FURROW ET AL., *supra* note 196, at 416.

208. 42 U.S.C. § 18116(a) (2018).

question of private litigation of disparate impact allegations under Section 1557 has generated considerable controversy.

A former HHS regulation establishes that aggrieved individuals have a private right of action under Section 1557.²⁰⁹ Under the Obama administration, HHS stated that it “interprets Section 1557 as authorizing a private right of action for claims of disparate impact discrimination”²¹⁰

In *Rumble v. Fairview Health Services*, the plaintiff alleged that he received inferior care because he was a transgender man, in violation of Section 1557.²¹¹ A district court ruled that Congress intended to create a new cause of action for discrimination in health care that is independent of the enforcement mechanisms for the statutes listed in Section 1557 (Title VI, Title IX, the Age Discrimination Act, and the Rehabilitation Act).²¹² Based on this holding, Section 1557 plaintiffs could bring both disparate treatment and disparate impact claims.²¹³ According to the *Rumble* court, the fact that Title VI or Title IX is understood to ban disparate impact cases would not constitute an obstacle for plaintiffs bringing disparate impact claims under Section 1557.²¹⁴

Other courts, however, have disagreed. In *Southeastern Pennsylvania Transportation Authority v. Gilead Sciences, Inc.*, a district court held that Section 1557 does not permit private litigation of disparate impact claims related to race.²¹⁵ The case involved allegations that Gilead’s pricing scheme for its Hepatitis C drugs disproportionately disadvantaged racial minorities and low-income patients in violation of Section 1557.²¹⁶ The court emphasized the statute’s incorporation of “the enforcement mechanisms” of the other civil rights statutes.²¹⁷ It thus concluded that the plain language of the law reveals that Congress adopted Title VI’s exclusion of disparate impact claims in Section 1557.²¹⁸

Several district courts have held that Section 1557 also precludes individuals’ disparate impact claims for sex discrimination claimants.²¹⁹ This is because Title

209. Nondiscrimination in Health Programs and Activities, 81 Fed. Reg. 31,375, 31,472 (May 18, 2016) (codified at 45 C.F.R. § 92.302(d)). 45 C.F.R. § 92.302 was later repealed by Nondiscrimination in Health and Health Education Programs or Activities, Delegation of Authority, 85 Fed. Reg. 37,160, 37,201-04 (June 19, 2020).

210. Nondiscrimination in Health Programs and Activities, 81 Fed. Reg. at 31,440.

211. No. 14-CV-2037 (SRN/FLN), 2015 WL 1197415, at *1 (D. Minn. Mar. 16, 2015).

212. *Id.* at *11.

213. *Id.*

214. *Id.*; see *infra* notes 219-220 and accompanying text (discussing Title IX).

215. 102 F. Supp. 3d 688, 698-701 (E.D. Pa. 2015).

216. *Id.* at 693, 695.

217. *Id.* at 698; see 42 U.S.C. § 18116(a) (2018) (“The enforcement mechanisms provided for and available under such title VI, title IX, section 794, or such Age Discrimination Act shall apply for purposes of violations of this subsection.”).

218. *Gilead*, 102 F. Supp. 3d at 701.

219. See *Weinreb v. Xerox Bus. Servs., LLC Health & Welfare Plan*, 323 F. Supp. 3d 501, 521

ARTIFICIAL INTELLIGENCE AND DISCRIMINATION

IX of the Education Amendments of 1972 does not permit private litigation of sex discrimination claims based on disparate impact.²²⁰

To date, there appears to have been no Section 1557 disparate impact cases filed for age discrimination.²²¹ However, as in the case of Title VI and Title IX, private litigation of disparate impact claims is precluded by the Age Discrimination Act of 1975, which is referenced in Section 1557.²²² Thus, most courts would likely reject age-related disparate impact claims under Section 1557.

With respect to disability, there is less certainty. The Sixth Circuit held that Section 1557 prohibits disparate impact claims by disability discrimination litigants because it has interpreted the Rehabilitation Act of 1973, which Section 1557 incorporates, as barring such claims.²²³ By contrast, other circuits have found that disparate impact claims are viable under the Rehabilitation Act and thus would likely hold that the same is true for Section 1557.²²⁴

The Supreme Court has yet to speak on the matter of disparate impact claims under Section 1557. However, in June 2020, the Trump administration enacted a regulation explicitly establishing that Section 1557 adopts the enforcement mechanisms of each of the statutes that it incorporates.²²⁵ This rule prevents almost all plaintiffs from pursuing disparate impact challenges under Section 1557.

(S.D.N.Y. 2018), *appeal filed*, No. 18-2809 (2d Cir. Sept. 21, 2018); *Condry v. UnitedHealth Grp., Inc.*, No. 17-cv-00183-VC, 2018 WL 3203046, at *4 (N.D. Cal. June 27, 2018) (“[D]isparate impact claims on the basis of sex are not cognizable under section 1557.”), *appeal filed*, No. 20-16857 (9th Cir. Sept. 24, 2020); *Briscoe v. Health Care Serv. Corp.*, 281 F. Supp. 3d 725, 738 (N.D. Ill. 2017); *York v. Wellmark, Inc.*, No. 4:16-cv-00627-RGE-CFB, 2017 WL 11261026, at *15-16 (S.D. Iowa Sept. 6, 2017), *aff’d*, 965 F.3d 633 (8th Cir. 2020).

220. *Weinreb*, 323 F. Supp. 3d at 521; *Briscoe*, 281 F. Supp. 3d at 739.

221. Nondiscrimination in Health and Health Education Programs or Activities, 84 Fed. Reg. 27,846, 27,851 n.22 (proposed June 14, 2019) (“To the Department’s knowledge, no disparate impact claims on the basis of age have been filed under Section 1557 in a Federal court.”).

222. *Kamps v. Baylor Univ.*, 592 F. App’x. 282, 285-86 (5th Cir. 2014).

223. *Doe v. BlueCross BlueShield of Tenn., Inc.*, 926 F.3d 235, 242 (6th Cir. 2019).

224. *See* *Ga. State Conf. of Branches of NAACP v. Georgia*, 775 F.2d 1403, 1428 (11th Cir. 1985) (citing 34 C.F.R. § 104.4); *Prewitt v. U.S. Postal Serv.*, 662 F.2d 292, 305 (5th Cir. Unit A Nov. 1981); *see also* *Alexander v. Choate*, 469 U.S. 287, 299 (1985) (“[W]e assume without deciding that § 504 reaches at least some conduct that has an unjustifiable disparate impact upon the handicapped.”).

225. *HHS Finalizes Rule on Section 1557 Protecting Civil Rights in Healthcare, Restoring the Rule of Law, and Relieving Americans of Billions in Excessive Costs*, U.S. DEP’T HEALTH & HUMAN SERVICES (June 12, 2020), <https://www.hhs.gov/about/news/2020/06/12/hhs-finalizes-rule-section-1557-protecting-civil-rights-healthcare.html>. This rule further asserted that the government will interpret the term “sex” in the Section 1557 context as encompassing only male or female “as determined by biology.” *Id.* However, in June of 2020, in *Bostock v. Clayton County*, the Supreme Court held that for purposes of Title VII, the term “sex” covers sexual orientation and gender identity. 140 S. Ct. 1731 (2020). This decision may well impact other areas of the law and change future interpretations of Section 1557.

B. Intentional Discrimination

In extreme cases, plaintiffs may sue health-care providers for intentional discrimination that is related to AI.²²⁶ For example, if malevolent health-care providers deliberately create algorithms that will disadvantage minority patients and then use them as justifications to undertreat those individuals, they may be liable for intentional discrimination.

In addition, courts have determined that deliberate indifference can constitute intentional discrimination under the civil rights laws.²²⁷ In order to prove deliberate indifference, the plaintiff must show that the defendant had actual knowledge of the alleged discrimination and the ability to redress it but failed to do so.²²⁸ Thus, for example, if health-care providers become aware that their AI disproportionately deprives minority patients of referrals to high-risk management programs or underestimates their risk of contracting serious diseases and do not intervene to rectify the problem,²²⁹ they could face intentional discrimination claims under Title VI or Section 1557.

IV. IMPLEMENTING LEGAL INTERVENTIONS

AI oversight requires a multi-faceted approach that involves many stakeholders.²³⁰ Private litigants, AI developers, AI users, and the government all have a role to play in promoting algorithmic fairness.²³¹ This Part recommends three forms of legal interventions to address AI discrimination problems. The first is a private cause of action for disparate impact.²³² The second is a quality control mandate in the form of an algorithmic accountability act.²³³ The third, addressed

226. *See supra* notes 201 and 209 and accompanying text (discussing litigation rights under Title VI and Section 1557).

227. *Sunderland v. Bethesda Hosp., Inc.*, 686 F. Appx. 807, 815 (11th Cir. 2017) (concluding that a jury could find that the defendant-hospital acted with deliberate indifference in violation of the Rehabilitation Act when it relied on a malfunctioning video-remote-interpreting device to communicate with a deaf patient despite the patient's complaints and requests for an alternative method of accommodation); *Blunt v. Lower Merion Sch. Dist.*, 767 F.3d 247, 273 (3d Cir. 2014) (“[D]eliberate indifference may, in certain circumstances, establish intentional discrimination for the purposes of a Title VI claim.”); *S.H. ex rel. Durrell v. Lower Merion Sch. Dist.*, 729 F.3d 248, 262 (3d Cir. 2013) (noting that appellate courts have “held that deliberate indifference satisfies the requisite showing of intentional discrimination”).

228. *Blunt*, 767 F.3d at 273 (citing *Davis ex rel. LaShonda D. v. Monroe Cty. Bd. of Educ.*, 526 U.S. 629, 645-49 (1999)).

229. *See supra* text accompanying notes 114-118, 146-148.

230. MITCHELL, *supra* note 1, at 124.

231. *Id.*

232. *See infra* Section IV.A.

233. *See infra* Section IV.B.

briefly, is FDA regulation.²³⁴

A. Private Cause of Action for Disparate Impact Discrimination in Health Care

Most if not all medical AI algorithm developers are well-intentioned and strive in good faith to improve human health through their work.²³⁵ Nevertheless, algorithms can generate discriminatory outcomes.²³⁶ This is a classic example of disparate impact, or unintentional discrimination.²³⁷ Assume a physician applies an algorithm to help diagnose all patients with particular symptoms. The algorithm is thus a facially neutral mechanism, and the physician has no intention of discriminating against any patients. However, if the algorithm nevertheless disproportionately disadvantage a particular population, its use may be unlawful.²³⁸

As in the case of other disparate impact claims, defendants would not be liable for discrimination if their use of an algorithm is justified by business necessity, such as when an algorithm truly helps doctors make sound treatment decisions.²³⁹ Thus, if an algorithm is shown consistently to improve the accuracy of disease prognosis and treatment choice, its use is permissible. This is true even if the algorithm leads clinicians to make different decisions for people with different demographics.²⁴⁰

The Fair Housing Act, Title VII, and other employment discrimination laws permit private litigants to pursue disparate impact claims in the areas of housing and the workplace.²⁴¹ For example, in *DeHoyos v. Allstate Corp.*, the plaintiffs brought a class action to challenge Allstate's credit-scoring system under the Fair Housing Act and other laws because it caused African American and Hispanic customers to pay higher insurance premiums than White customers.²⁴² In *Muñoz*

234. See *infra* Section IV.C.

235. See *supra* Section I.B (discussing the benefits of AI).

236. See *supra* Section II.E (providing examples of algorithmic bias).

237. See *supra* Section III.A.

238. *Id.*

239. See *supra* notes 182-186 and accompanying text (discussing employment discrimination litigation).

240. See *supra* notes 142-144 and accompanying text (discussing a cancer study that focused on differences between African American and White patients).

241. See Kelly Cahill Timmons, *Accommodating Misconduct under the Americans with Disabilities Act*, 57 FLA. L. REV. 187, 200-05 (2005) (discussing disparate impact under the Americans with Disabilities Act); *Questions and Answers on EEOC Final Rule on Disparate Impact and "Reasonable Factors Other Than Age" Under the Age Discrimination in Employment Act of 1967*, U.S. EQUAL EMP. OPPORTUNITY COMMISSION, <https://www.eeoc.gov/regulations/questions-and-answers-eeoc-final-rule-disparate-impact-and-reasonable-factors-other-age> (last visited July 7, 2020).

242. 240 F.R.D. 269, 275 (W.D. Tex. 2007) (seeking final approval of a proposed settlement); see also *Rodriguez v. Bear Stearns Cos.*, No. 07-cv-1816 (JCH), 2009 WL 995865, at *7 (D. Conn.

v. *Orr*, a class of Hispanic males sued the U.S. Air Force under Title VII to challenge its civilian employee promotion system, which involved an algorithm.²⁴³

In the era of AI and “black-box medicine,” it is irrational to prohibit plaintiffs from pursuing such claims in the health-care arena. Government enforcement of disparate impact cases alone is inadequate because it depends on political priorities, which may disfavor civil rights cases, and on resources, which are often scarce.²⁴⁴

Consequently, it is useful to adopt private enforcement as an adjunct to government oversight and an incentive for statutory compliance. To that end, Congress should amend existing civil rights legislation to explicitly bar disparate impact discrimination and add private rights of action for aggrieved individuals. While we are not the first to suggest it,²⁴⁵ this approach is now ripe for reconsideration.

1. Amending Title VI and Other Long-Standing Civil Rights Statutes

In 2008, the late Congressman John Lewis (D-GA) and Senator Edward Kennedy (D-MA) proposed the Civil Rights Act of 2008.²⁴⁶ The findings section of the bill states that “[t]he Sandoval decision contradicts settled expectations created by title VI of the Civil Rights Act of 1964, title IX of the Education Amendments of 1972 . . . , the Age Discrimination Act of 1975 . . . , and section 504 of the Rehabilitation Act of 1973”²⁴⁷ The findings further state, emphatically, that administrative enforcement alone could not achieve compliance with the antidiscrimination laws and that enforcement by “private attorneys general” is vital.²⁴⁸

The Civil Rights Act of 2008 would have amended Title VI, Title IX, and the Age Discrimination Act of 1975 to prohibit “[d]iscrimination (including exclusion from participation and denial of benefits) based on disparate impact.”²⁴⁹ The bill noted that the Rehabilitation Act of 1973 already covers disparate impact and

Apr. 14, 2009) (denying defendants’ motion to dismiss plaintiffs’ claims “that defendants’ predatory servicing practices disproportionately harmed minority borrowers”).

243. 200 F.3d 291, 292 (5th Cir. 2000) (addressing a discovery dispute regarding plaintiffs’ access to the algorithm).

244. See *supra* notes 202-203 and accompanying text; see also Dayna Bowen Matthew, *Health Care, Title VI, and Racism’s New Normal*, 6 GEO. J.L. & MOD. CRITICAL RACE PERSP. 3, 56 (2014) (“The public-private litigation model has historically proved to be an indispensable weapon in the attack against subtle and complex racial discrimination.”).

245. See *infra* Section IV.A.1.

246. See Civil Rights Act of 2008, S. 2554, 110th Cong. (2008); Civil Rights Act of 2008, H.R. 5129, 110th Cong. (2008).

247. S. 2554 § 101(2).

248. *Id.* § 101(3).

249. *Id.* § 102(a)(2), (b)(2), (c)(2).

allows private parties to litigate disparate impact claims.²⁵⁰

The proposed bill also added an explicit right of action for any violation of the statute, including the disparate impact provisions.²⁵¹ However, the bill specified that in disparate impact cases, aggrieved individuals could recover only equitable relief, attorney's fees, and costs.²⁵² A finding of liability would thus require defendants to correct the AI problem but inflict limited financial pain.

The bill did not pass,²⁵³ but its aspirations were not forgotten. Professor Dayna Bowen Matthew renewed the call for a Title VI amendment in a 2014 article.²⁵⁴ Professor Matthew emphasizes the importance of combined private and governmental enforcement efforts and of empowering victims of implicit bias to seek redress for the harms they have suffered.²⁵⁵ The only vehicle for doing so is a private right of action for disparate impact claims. Under Matthew's proposal, as under the proposed 2008 Civil Rights Act, plaintiffs would be able to recover only equitable remedies, including attorneys' fees and costs in disparate impact cases.²⁵⁶

Professor Matthew asserts that legislative history reveals that "[f]rom its inception, health care equity has been at the core of the legislative purpose for Title VI."²⁵⁷ A private disparate impact cause of action would thus restore the law to its original purpose.²⁵⁸ Now algorithmic bias threatens to exacerbate health disparities as clinicians increasingly rely on AI. This is an opportune time to reinvigorate efforts to promote health equity and bolster civil rights enforcement.

2. Amending Section 1557 of the ACA

The Civil Rights Act of 2008 would have ensured that Section 1557 would allow private litigants to assert disparate impact claims.²⁵⁹ Objections to such a right of action are based on Section 1557's reference to Title VI, Title IX, and the Age Discrimination Act, which have been deemed to preclude disparate impact litigation by private parties.²⁶⁰ A new law explicitly adding such a right of action to those civil rights statutes would sweep away arguments about Section 1557's limited scope of litigation rights.

Admittedly, however, amending Title VI would dramatically impact all

250. *Id.* § 101(9).

251. *Id.* § 103(a)(2), (b)(2), (c).

252. *Id.* § 104.

253. Govtrack, *H.R. 5129 (110th): Civil Rights Act of 2008*, <https://www.govtrack.us/congress/bills/110/hr5129> (last visited Dec. 9, 2020)..

254. See Matthew, *supra* note 244, at 54-58.

255. *Id.*

256. *Id.* at 55.

257. *Id.* at 12.

258. *Id.* at 61.

259. See *supra* Section IV.A.1.

260. See *supra* Section III.A.

programs receiving federal financial assistance and thus reach well beyond health care.²⁶¹ If Congress wishes to implement a more modest legislative intervention than the Civil Rights Act of 2008, it could amend Section 1557.²⁶² Congress could add language that plainly states that aggrieved individuals can assert disparate impact claims under the statute.²⁶³ This would limit the scope of reform to health-care cases only, whereas the Civil Rights Act of 2008 would have been much broader.²⁶⁴ In the absence of such an amendment, civil rights advocates can urge the Biden administration to reverse the Trump administration rule²⁶⁵ and hope that more courts will follow *Rumble v. Fairview Health Services* in interpreting Section 1557.²⁶⁶

B. The Algorithmic Accountability Act

A different legislative pathway is the enactment of a law that establishes oversight for algorithms and promotes AI integrity. To that end, Senators Cory Booker (D-NJ) and Ron Wyden (D-OR) and Representative Yvette Clarke (D-NY) introduced the “Algorithmic Accountability Act” in the 116th Congress on April 10, 2019.²⁶⁷

The bill is rooted in concern about discrimination. Its sponsors issued a press release in which Senator Wyden stated that “[I]nstead of eliminating bias, too often . . . algorithms depend on biased assumptions or data that can actually reinforce discrimination against women and people of color.”²⁶⁸ Accordingly, the purpose of the bill is to “require[] companies to study the algorithms they use, identify bias in these systems and fix any discrimination or bias they find.”²⁶⁹

1. The Statutory Requirements

The bill would do the following:

- Authorize the Federal Trade Commission (FTC) to formulate regulations requiring covered entities to conduct impact assessments of highly

261. See *supra* note 193 and accompanying text.

262. 42 U.S.C. § 18116(a) (2018).

263. *Id.*

264. See *supra* Section IV.A.1.

265. See *supra* note 225 and accompanying text.

266. No. 14-CV-2037 (SRN/FLN), 2015 WL 1197415, at *1 (D. Minn. Mar. 16, 2015); see *supra* text accompanying notes 211-214.

267. Algorithmic Accountability Act of 2019, S. 1108, 116th Cong. (2019); Algorithmic Accountability Act of 2019, H.R. 2231, 116th Cong. (2019); Press Release, U.S. Senator Cory Booker of N.J., Booker, Wyden, Clarke Introduce Bill Requiring Companies to Target Bias in Corporate Algorithms, (Apr. 10, 2019), <https://www.booker.senate.gov/news/press/booker-wyden-clarke-introduce-bill-requiring-companies-to-target-bias-in-corporate-algorithms>.

268. Press Release, U.S. Senator Cory Booker of N.J., *supra* note 267.

269. *Id.*

ARTIFICIAL INTELLIGENCE AND DISCRIMINATION

sensitive automated decision systems.

- Require covered entities to evaluate their use of automated decision systems and their training data in order to determine if there are problems related to accuracy, fairness, bias, discrimination, privacy or security.
- Require covered entities to assess the extent to which their information systems protect data subjects' privacy and ensure data security.
- Require covered entities to address any problems they discover during the impact assessments.²⁷⁰

A covered entity is any person, partnership, or corporation that is subject to FTC regulations and earns more than \$50 million annually, possesses or controls personal information from at least one million people or consumer devices, or primarily acts as a data broker that acquires, processes, and sells consumer data.²⁷¹ In its current form, the bill therefore would not reach many health-care providers.²⁷²

2. Critique of the Bill

Many hailed the Algorithmic Accountability Act as a positive first step in promoting algorithmic fairness.²⁷³ But others voiced opposition to the bill and highlighted several shortcomings.²⁷⁴

First, the bill applies only to large or high-revenue companies, and thus smaller companies would remain unregulated with respect to AI use.²⁷⁵ Second, the bill relies exclusively on the FTC for enforcement, and consumer advocates argue that the agency's enforcement activities are often anemic.²⁷⁶ Third, it does not require input from diverse stakeholders for purposes of impact assessment.²⁷⁷ In fact, it states that companies should consult with external third parties, such as

270. S. 1108 §§ 2(2), 2(6), 3(b); Press Release, U.S. Senator Cory Booker of N.J., *supra* note 267.

271. S. 1108 § 2(5).

272. *Id.*; MARKUS H. MEIER, BRADLEY S. ALBERT & KARA MONAHAN, FED. TRADE COMM'N, OVERVIEW OF FTC ACTIONS IN HEALTH CARE SERVICES AND PRODUCTS 1 (2019), https://www.ftc.gov/system/files/attachments/competition-policy-guidance/overview_health_care_june_2019.pdf (explaining that the FTC's "Health Care Division consists of approximately 40 lawyers and investigators who work exclusively on health care antitrust matters," implying that the FTC has regulatory power over health-care entities).

273. Kaminski & Selbst, *supra* note 12.

274. *Id.*; Joshua New, *How to Fix the Algorithmic Accountability Act*, CTR. FOR DATA INNOVATION (Sept. 23, 2019), <https://www.datainnovation.org/2019/09/how-to-fix-the-algorithmic-accountability-act>.

275. S. 1108 § 2(5); New, *supra* note 274.

276. Kaminski & Selbst, *supra* note 12.

277. *Id.*

“independent auditors or technology experts,” only “if reasonably possible.”²⁷⁸ Fourth, the bill does not mandate that the public have any access to impact assessment outcomes.²⁷⁹ If the proposal directed the FTC to produce annual summary reports with de-identified assessment information, it could potentially provide the public with valuable data while safeguarding industry interests in proprietary information.²⁸⁰ Other criticisms include regulatory overreach, lack of definitional clarity, and insufficient guidance, among other alleged shortcomings.²⁸¹

3. *Moving Forward*

The proposed Algorithmic Accountability Act did not become law.²⁸² However, at least a couple of local jurisdictions have begun to focus attention on the integrity of AI practices. In 2017, the New York City Council established a task force to formulate recommendations for promoting public accountability with respect to the city’s algorithm use.²⁸³ The task force issued its report in November of 2019.²⁸⁴ The report emphasizes the importance of “[p]romoting fairness, equity, accountability, and transparency in the use” of automated-decision systems.²⁸⁵ In 2019, legislators in Washington State held a hearing on an algorithmic accountability bill that would establish guidelines for the state government’s “procurement and use of automated decision systems.”²⁸⁶

In order to establish a national standard for algorithmic fairness, Congress should persist in its efforts to pass AI-oversight legislation. A national solution would be preferable to local solutions because AI use is widespread and crosses state borders.²⁸⁷ Both health-care providers and AI vendors often operate in

278. *Id.* (quoting S. 1108 § 3(b)(1)(C)).

279. Kaminski & Selbst, *supra* note 12; New, *supra* note 274.

280. Kaminski & Selbst, *supra* note 12.

281. New, *supra* note 274.

282. S. 1108: *Algorithmic Accountability Act of 2019*, GOVTRACK.US, <https://www.govtrack.us/congress/bills/116/s1108> (last visited June 3, 2020).

283. Press Release, N.Y. Civil Liberties Union, City Council Passes First Bill in Nation to Address Transparency, Bias in Government Use of Algorithms (Dec. 11, 2017), <https://www.nyclu.org/en/press-releases/city-council-passes-first-bill-nation-address-transparency-bias-government-use>.

284. N.Y.C. AUTOMATED DECISION SYS. TASK FORCE, NEW YORK CITY AUTOMATED DECISION SYSTEMS TASK FORCE REPORT (2019), <https://www1.nyc.gov/assets/adstaskforce/downloads/pdf/ADS-Report-11192019.pdf>.

285. *Id.* at 18-19.

286. H.B. 1655, 66th Leg., Reg. Sess. 1 (Wash. 2019); S.B. 5527, 66th Leg., Reg. Sess. 1 (Wash. 2019); DJ Pangburn, *Washington Could Be the First State to Rein in Automated Decision-Making*, FAST COMPANY (Feb. 8, 2019), <https://www.fastcompany.com/90302465/washington-introduces-landmark-algorithmic-accountability-laws>.

287. *See, e.g.,* Vyas et al., *supra* note 141, at 1-6 (describing a variety of race-adjusting

ARTIFICIAL INTELLIGENCE AND DISCRIMINATION

multiple states.²⁸⁸ For purposes of this Article, the law should provide HHS with jurisdiction to regulate algorithmic use by all health-care providers. To the extent possible, any future proposal should consider and address the critiques of the existing Algorithmic Accountability Act bill.²⁸⁹

An algorithmic quality-control mandate should be a supplement to and not a replacement for litigation rights. The law might also include a private cause of action for individuals harmed by biased or flawed algorithms. Thus, if Congress does not amend the anti-discrimination laws,²⁹⁰ the Algorithmic Accountability Act could serve as an alternative pathway for relief for aggrieved patients.

C. FDA Regulation

At this time, it is unclear how and to what extent the FDA will ultimately regulate AI.²⁹¹ FDA regulation is currently a patchwork and is continuously evolving.²⁹²

The FDA acknowledges that its “traditional paradigm of medical device regulation was not designed for adaptive artificial intelligence and machine learning technologies.”²⁹³ In 2019, the FDA published a discussion paper detailing its “foundation for a potential approach to premarket review for artificial intelligence and machine learning-driven software modifications.”²⁹⁴ But the FDA has not enacted a clear set of AI regulations to date.²⁹⁵ The FDA typically does not regulate algorithms that are developed and employed in-house by health-care

algorithms that are commonly used in a variety of specialties).

288. Christian D. Becker, Katherine Dandy, Max Gaujean, Mario Fusaro & Corey Scurlock, Commentary, *Legal Perspectives on Telemedicine Part 1: Legal and Regulatory Issues*, PERMANENTE J., Summer 2019, at 93, 94 (discussing cross-state licensure for telemedicine practitioners that enables them to practice in multiple states); *About Mayo Clinic*, MAYO CLINIC, <https://www.mayoclinic.org/about-mayo-clinic> (last visited July 27, 2020), (stating that the Mayo Clinic has campuses in Minnesota, Arizona, and Florida); *Top Artificial Intelligence Companies in Healthcare to Keep an Eye on*, MED. FUTURIST (Jan. 21, 2020), <https://medicalfuturist.com/top-artificial-intelligence-companies-in-healthcare> (naming national companies such as Google Health and IBM Watson Health as key players).

289. See *supra* Section IV.B.2.

290. See *supra* Section IV.A.

291. Bradley Merrill Thompson, *New Developments in FDA Regulation of AI*, MED. DEVICE & DIAGNOSTIC INDUSTRY (Apr. 9, 2020), <https://www.mddionline.com/new-developments-fda-regulation-ai>.

292. See Sharona Hoffman, *What Genetic Testing Teaches About Predictive Health Analytics Regulation*, 98 N.C. L. REV. 123, 154-56 (2019) (discussing regulatory uncertainty).

293. *Artificial Intelligence and Machine Learning in Software as a Medical Device*, U.S. FOOD & DRUG ADMIN., <https://www.fda.gov/medical-devices/software-medical-device-samd/artificial-intelligence-and-machine-learning-software-medical-device> (current as of Oct. 5, 2020).

294. U.S. FOOD & DRUG ADMIN., *supra* note 43.

295. Murray et al., *supra* note 125 (describing the FDA’s “evolving regulatory landscape”).

entities.²⁹⁶ The agency has clarified that it intends to regulate certain types of software, such as software that analyzes “physiological signals” for diagnosis or therapeutic purposes,²⁹⁷ and it has approved many algorithms used in the field of radiology.²⁹⁸ The FDA also intends to focus attention on tools that are opaque and do not allow clinicians to review the basis of recommendations independently (i.e., black-box algorithms).²⁹⁹

Determining the proper scope of FDA regulation in the realm of AI is beyond the scope of this article. However, to the extent that the agency does regulate AI algorithms, it should include requirements of algorithmic fairness in its oversight standards.³⁰⁰

V. IMPROVING ALGORITHM DESIGN, VALIDATION, AND MONITORING PROCESSES

It is appropriate and necessary to legislate quality control mandates for medical AI algorithms.³⁰¹ But how can AI developers and users realistically ensure that these algorithms do not exacerbate health disparities and perpetuate discrimination? There is already a robust literature about promoting fairness in algorithms.³⁰² Doing so requires deliberate action. As Professors Michael Kearns and Aaron Roth explain,

[A]lgorithms . . . are good at optimizing what you ask them to optimize, but they cannot be counted on to do things you’d like them to do but didn’t ask for, nor to avoid doing things you don’t want but didn’t tell them not to do. Thus if we ask for accuracy

296. Price, *supra* note 1.

297. U.S. FOOD & DRUG ADMIN., CLINICAL DECISION SUPPORT SOFTWARE: DRAFT GUIDANCE FOR INDUSTRY AND FOOD AND DRUG ADMINISTRATION STAFF 10-11, 25 (2019), <https://www.fda.gov/media/109618/download>; Thompson, *supra* note 291.

298. Data Sci. Inst., *FDA Cleared AI Algorithms*, AM. C. RADIOLOGY, <https://www.acrdsi.org/DSI-Services/FDA-Cleared-AI-Algorithms> (last visited July 7, 2020).

299. Murray et al., *supra* note 125.

300. See *infra* Section V.A, for recommendations as to how vendors can promote algorithmic fairness.

301. See *supra* Section IV.B.3.

302. See generally KEARNS & ROTH, *supra* note 10; Chouldechova & Roth, *supra* note 25, at 82 (“[T]he last two years have seen an unprecedented explosion in interest from the academic community in studying fairness and machine learning.”); Kenneth Holstein, Jennifer Wortman Vaughan, Hal Daumé III, Miroslav Dudík & Hanna Wallach, *Improving Fairness in Machine Learning Systems: What Do Industry Practitioners Need?*, CHI CONF. ON HUM. FACTORS COMPUTING SYSTEMS PROC., paper no. 600, at 1 (2019) (“The potential for machine learning (ML) systems to amplify social inequities and unfairness is receiving increasing popular and academic attention.”); Paulus & Kent, *supra* note 88 (proposing a provisional framework for evaluating clinical prediction models for bias and fairness).

but don't mention fairness, we won't get fairness. If we ask for one kind of fairness, we'll get that kind but not others.³⁰³

This Article's purpose is not to develop a comprehensive blueprint for eliminating algorithmic bias and discriminatory AI outcomes. Instead, we want to show only that experts can take a large number of steps to protect patients. Some of these steps can be mandated in the Algorithmic Accountability Act or its regulations, and others will be best practices that developers and users implement as appropriate.³⁰⁴

This Part outlines a variety of interventions that both AI designers and users can implement to promote fairness. It also addresses ambiguities in the concept of algorithmic fairness and the need for further research in the field.

A. Algorithm Developers

Developers of medical AI algorithms should focus on fairness concerns during the requirements, design, implementation, and validation processes.³⁰⁵ Developers must recognize the potential for discrimination with respect to AI that relies on population-specific identity³⁰⁶ and AI that could have a disparate impact on disadvantaged populations.³⁰⁷

Since developing AI algorithms is a form of software engineering, ensuring their fairness and overall quality calls for applying software engineering best practices with special attention to fairness.³⁰⁸ Well-managed software development projects typically involve a series of phases, including requirements analysis and specification, design, implementation, testing, deployment, and operation.³⁰⁹

1. Requirements Analysis

Requirements analysis and specification involves determining and documenting the *requirements* for the software: what functionality and other attributes it must have to meet the needs of its users and other stakeholders.³¹⁰ To help ensure that the requirements are complete, developers should elicit input from

303. KEARNS & ROTH, *supra* note 10, at 87.

304. *See supra* Section IV.B (discussing the Algorithmic Accountability Act).

305. *See generally* IAN SOMMERVILLE, *SOFTWARE ENGINEERING* 66 (8th ed. 2007) (detailing the lifecycle of software).

306. *See supra* Sections II.E and IV.A.2.

307. *See supra* Section III.A.

308. Yuriy Brun & Alexandra Meliou, *Software Fairness*, *PROC. 26TH ACM JOINT EUR. SOFTWARE ENGINEERING CONF. & SYMP. ON FOUND. SOFTWARE ENGINEERING* 754, 754 (2018).

309. SOMMERVILLE, *supra* note 305, at 66-67.

310. KARL E. WIEGERS, *SOFTWARE REQUIREMENTS* 7 (2d ed. 2003).

each distinct class of potential users and other stakeholders.³¹¹ In the case of medical AI algorithms, relevant stakeholders include: representatives of the protected group(s) and other patient groups, doctors, other caregivers, health informaticians, data scientists, and experts on discrimination.³¹² Requirements analysis should determine the fairness requirements and other ethical requirements for the algorithm, along with its medical purpose, the circumstances under which it will be used, its inputs and outputs, and its reliability, safety, performance, usability, and security requirements.³¹³ Developers should select specific measures for assessing achievement of these properties.³¹⁴ The requirements specifications should be validated by having them reviewed and critiqued by stakeholders, and, possibly, by implementing a prototype with which users can interact and which they can evaluate well before the production version is ready.³¹⁵

2. *Software Design*

Software design involves creating a high-level description of a solution to the problem of satisfying the software requirements.³¹⁶ The description includes the software's components, their required functionality and constraints, their interfaces and their interactions, the flow of data and control between components, and the application's user interface.³¹⁷ In the case of medical AI algorithms, data scientists must additionally determine the type of learning algorithm or predictive model that will be employed (e.g., deep neural network), the specific inputs to the algorithm, and the specific output(s).³¹⁸

3. *Software Implementation*

Software implementation involves programming the solution, typically by a

311. *Id.* at 101.

312. Rajkomar et al., *supra* note 21, at 866.

313. *Id.*; see Johan Ordish, Hannah Murfet & Alison Hall, *Algorithms as Medical Devices*, PHG FOUND. 41-44 (2019), <https://www.phgfoundation.org/documents/algorithms-as-medical-devices.pdf> (discussing requirements for software and manufacturers).

314. WIEGERS, *supra* note 310, at 342 (“Software measurements provide insights into your projects, products, and processes that are more accurate than subjective impressions or vague recollections of what happened in the past.”).

315. *Id.* at 53-54.

316. SOMMERVILLE, *supra* note 305, at 245-46.

317. *Id.*

318. SHALEV-SHWARTZ & BEN-DAVID, *supra* note 4, at 13-14. Deep neural networks, or deep learning, is a type of machine learning that allows computers “to learn from experience and understand the world in terms of a hierarchy of concepts, with each concept defined through its relation to simpler concepts.” GOODFELLOW ET AL., *supra* note 32, at 1. Therefore, computers learn more complicated concepts by building on simpler ones. *Id.*

ARTIFICIAL INTELLIGENCE AND DISCRIMINATION

combination of writing new program code and exploiting existing code.³¹⁹ In the case of AI applications, high-quality implementations of learning algorithms are usually already available in various machine-learning code libraries.³²⁰ Exploiting them requires making specific choices about data representations, parameters, settings, and other details.³²¹ In addition, to make their software usable by health-care workers, developers must implement an intuitive user interface to guide users in invoking the algorithm appropriately to help solve a particular medical problem.³²² As software components are acquired or developed, they are integrated with other components into working versions of the overall system, which have increasingly complete functionality.³²³ Fairness issues could, in principle, arise at any point as the result of design or implementation choices.³²⁴ It stands to reason that these problems are more likely to become evident to developers and users, and thus fixable, if fairness receives special attention during design reviews and during users' evaluation of design prototypes.

Medical AI algorithms have an additional stage of implementation that non-AI software does not have: training the algorithm with data from real patients, including both individuals exhibiting the conditions of interest and individuals not exhibiting them.³²⁵ It is critically important that the training data be representative of the larger patient population to which a medical AI algorithm will be applied, including with respect to protected classes.³²⁶

The main method for achieving representativeness is random sampling; that is, using a random mechanism, such as a pseudorandom number generator, to select individuals from the larger population, with every individual having a nonzero probability of selection.³²⁷ However, simple random sampling may be inadequate if a protected class or other important class of patients is rare because then it is likely that the class will be under-sampled.³²⁸ Alternative sampling

319. SOMMERVILLE, *supra* note 305, at 67, 447-49 (discussing component reuse).

320. See, e.g., *An End-to-End Open Source Machine Learning Platform*, TENSORFLOW, <https://www.tensorflow.org> (last visited June 30, 2020).

321. SOMMERVILLE, *supra* note 305, at 76-79 (discussing software design and implementation).

322. *Id.* at 363-66.

323. *Id.* at 33.

324. Rajkomar et al., *supra* note 21, at 870 (emphasizing the need to focus on fairness at all stages of AI development and implementation).

325. See *supra* notes 38-41 and accompanying text.

326. See *supra* Section II.B (discussing selection bias).

327. CARL-ERIK SÄRNDAL, BENGT SWENSSON & JAN WRETMAN, MODEL ASSISTED SURVEY SAMPLING 21 (1992) (stating that random sampling protects against selection bias and is viewed as objective); Yaron Ilan, *Generating Randomness: Making the Most Out of Disorder*, 49 J. TRANSLATIONAL MED. 49 (2019) (discussing pseudorandom-number generators).

328. Lyman L. McDonald, *Sampling Rare Populations*, in SAMPLING RARE OR ELUSIVE SPECIES: CONCEPTS, DESIGNS, AND TECHNIQUES FOR ESTIMATING POPULATION PARAMETERS 11, 16-17 (William L. Thompson ed., 2004).

designs such as stratified sampling and adaptive sampling can be used to adequately sample such rare classes.³²⁹

4. Testing

For virtually all software, the final and most important form of validation is testing.³³⁰ At the testing stage, the software is executed on a set of test cases that developers created or an automated tool generated.³³¹ The algorithm's behavior and output are checked for conformance to requirements and to developer and user expectations.³³² Typically, developers test the final application in-house and end users test it in the field.³³³

Medical AI algorithms require additional testing that goes beyond that applied to other kinds of software.³³⁴ We recommend that prior to general release of a medical AI algorithm, developers evaluate it for safety, efficacy, and fairness on a large, representative sample of patients that is different from the sample from which they obtained training data. Admittedly, it may sometimes be very difficult to obtain a sizeable and appropriate sample of the relevant patient population.³³⁵ However, researchers have developed techniques to reduce data bias.³³⁶

Developers should collect the following during this evaluation: (1) measures of the outcome of interest (e.g., the proportion of patients correctly diagnosed as a result of applying the algorithm), (2) general measures of predictive performance, such as sensitivity and specificity,³³⁷ and (3) measures relating to the fairness and

329. *Id.* at 18-19 (discussing stratification of population). “In stratified sampling, the population is divided into nonoverlapping subpopulations called strata. A probability sample is selected in each stratum.” SÄRNDAL ET AL., *supra* note 327, at 100. Scientists who adaptively sample search for a population of interest at predetermined locations, and if appropriate subjects are found, they continue to search nearby. David R. Smith, Jennifer A. Brown & Nancy C.H. Lo, *Application of Adaptive Sampling to Biological Populations*, in SAMPLING RARE OR ELUSIVE SPECIES: CONCEPTS, DESIGNS, AND TECHNIQUES FOR ESTIMATING POPULATION PARAMETERS, *supra* note 328, at 77, 77.

330. RON PATTON, SOFTWARE TESTING 21 (2001).

331. PAUL AMMANN & JEFF OFFUTT, INTRODUCTION TO SOFTWARE TESTING 21-22, 67 (2d ed. 2016).

332. *Id.* at 5-6.

333. SOMMERVILLE, *supra* note 305, at 540 (“For most systems, programmers take responsibility for testing the components that they have developed.”); see PATTON, *supra* note 330, at 244 (discussing beta testing).

334. Sara Gerke, Boris Babic, Theodoros Evgeniou & I. Glenn Cohen, *The Need for a System View to Regulate Artificial Intelligence/Machine Learning-Based Software as Medical Device*, 3 NPJ DIGITAL MED., art. no. 53, 2020, at 1, 4.

335. See *supra* Section II.B (discussing selection bias).

336. See Faisal Kamiran, Indrè Žliobaitė & Toon Calders, *Quantifying Explainable Discrimination and Removing Illegal Discrimination in Automated Decision Making*, 35 KNOWLEDGE & INFO. SYSTEMS 613, 615-16 (2013) (discussing local massaging, local preferential sampling, and local direct classification).

337. XIAO-HUA ZHOU, NANCY A. OBUCHOWSKI & DONNA K. MCCLISH, STATISTICAL METHODS

proportionality of the allocation of health-care resources.³³⁸ We recommend that, when possible, developers compute these measures for the whole sampled population and for the protected and non-protected subgroup(s) separately in order to enable comparisons between groups.

5. Deployment and Operation

Health-care providers should decide whether to deploy a medical AI algorithm only after all stakeholder groups have carefully evaluated testing results.³³⁹ Even when a medical AI algorithm is deemed fit for general use and is deployed, its evaluation should not stop.³⁴⁰ Rather, developers and users should monitor and evaluate the software continuously for reliability, safety, and fairness over its entire operational life. In between changes to the algorithm or its usage, evaluation could be less intensive (e.g., experts can review records of randomly sampled uses of the algorithm). However, if the algorithm is changed, the software should be evaluated as rigorously as it was before it was first deployed to ensure that changes did not accidentally introduce software defects.³⁴¹ Finally, the developers should also provide a mechanism by which users can report discrimination or other problems they encounter.

Proper validation, auditing, and monitoring can detect fairness problems, and appropriate interventions can often fix them.³⁴² If an algorithm cannot be repaired, it should be abandoned or used selectively in a manner that avoids harm to protected groups. In the case of the algorithm that predicted which patients would miss appointments,³⁴³ experts redesigned the algorithm to omit personal attributes such as ethnicity, religion, financial status, and body mass index and left only prior history of health-care use and information about appointments in order to reduce (though not eliminate) its discriminatory impact.³⁴⁴ In the case of the algorithm used to identify candidates for high-risk management care programs,³⁴⁵ designers addressed its disparate impact by replacing the future cost variable with a variable

IN DIAGNOSTIC MEDICINE 14 (2d ed. 2011) (explaining that sensitivity is a test's "ability to detect the condition when it is present" and specificity is a test's "ability to exclude the condition in patients without the condition").

338. Rajkomar et al., *supra* note 21, at 870.

339. *Id.*

340. *Id.*

341. AMMANN & OFFUTT, *supra* note 331, at 304 (discussing regression testing and explaining that it is "the process of re-testing software that has been modified").

342. Abu-Elyounes, *supra* note 31, at 52 (emphasizing the importance of auditing); Rajkomar et al., *supra* note 21, at 870.

343. *See supra* text accompanying notes 125-129.

344. Murray et al., *supra* note 125. *See infra* text accompanying notes 370-371, for additional steps taken to eliminate the algorithm's harmful consequences.

345. *See supra* text accompanying notes 114-118.

“that combined health prediction with cost prediction.”³⁴⁶

Developers (and users) should apply special scrutiny to algorithms that correct for race.³⁴⁷ Experts suggest that they focus on three specific questions.³⁴⁸ First, do strong evidence and statistical analyses support the need for race correction?³⁴⁹ Second, is the race correction justified by a “plausible causal mechanism for the racial difference”?³⁵⁰ Third, does the race correction diminish or intensify health inequities?³⁵¹

Experts are developing a growing number of tools to promote fairness within the AI industry.³⁵² One example is IBM’s AI Fairness 360.³⁵³ This is an open-source software toolkit that “enables developers to use state-of-the-art algorithms to regularly check for unwanted biases . . . and to mitigate any biases that are discovered.”³⁵⁴ Such tools, in combination with other interventions discussed in this Article, have the potential to mitigate algorithmic biases and enhance fairness in meaningful ways.³⁵⁵

B. Algorithm Users

Some AI users develop algorithms themselves, and some employ AI that third parties develop with or without supplying their own training data.³⁵⁶ Clinicians who use AI obtained from outside vendors can be responsible for discriminatory outcomes that it generates, and thus they would do well to engage in their own assessment of the technology and its impacts.³⁵⁷ Like developers, AI users should

346. Obermeyer et al., *supra* note 114, at 453.

347. *See supra* Section II.F.2.

348. Vyas et al., *supra* note 141, at 880.

349. *Id.*

350. *Id.*

351. *Id.* (“In many cases, this appraisal will require further research into the complex interactions among ancestry, race, racism, socioeconomic status, and environment.”).

352. Holstein et al., *supra* note 302, at 1 (“A surge of recent work has focused on the development of algorithmic tools to assess and mitigate . . . unfairness.”).

353. *AI Fairness 360*, IBM DEVELOPER, <https://developer.ibm.com/technologies/artificial-intelligence/projects/ai-fairness-360> (last updated Mar. 9, 2020).

354. *Id.*

355. Abu-Elyounes, *supra* note 31, at 44-45 (“While these tools could be useful and might be able to point out potential problematic behavior of algorithms, they cannot be used alone, and should be taken with a grain of salt because mitigating bias cannot be fixed by a miracle.” *Id.* at 45.); Holstein et al., *supra* note 302, at 1-2 (“If such tools are to have a positive and meaningful impact on industry practice, however, it is crucial that their design be informed by an understanding of practitioners’ actual challenges and needs for support in developing fairer ML systems.” *Id.* at 2 (citation omitted).).

356. Emily J. Tait, Robert W. Kantner, Hilda C. Galvan & Jonathan M. Linas, *Proposed Algorithmic Accountability Act Targets Bias in Artificial Intelligence*, JONES DAY (June 2019), <https://www.jonesday.com/en/insights/2019/06/proposed-algorithmic-accountability-act>.

357. *See supra* Part III.

ARTIFICIAL INTELLIGENCE AND DISCRIMINATION

be vigilant about discrimination when implementing AI that adjusts for race³⁵⁸ and AI that could have a disparate impact on disadvantaged populations.³⁵⁹

The FTC issued AI guidance to parties under its jurisdiction in April of 2020.³⁶⁰ Relevant recommendations include the following:

- If you deny consumers something of value based on algorithmic decision-making, explain why.
- If you use algorithms to assign risk scores to consumers, also disclose the key factors that affected the score, rank ordered for importance.
- Don't discriminate based on protected classes.
- Focus on inputs, but also on outcomes.
- Make sure that your AI models are validated and revalidated to ensure that they work as intended, and do not illegally discriminate.³⁶¹

Much of the FTC's advice applies to health-care providers.

1. Transparency

Health-care providers should consider discussing their use of AI with patients. Patients would likely appreciate knowing that clinicians are trying to use state-of-the-art technology for their benefit and would value an explanation of any anticipated AI limitations.

Professor I. Glenn Cohen has analyzed whether failure to disclose AI use constitutes a violation of the informed consent doctrine.³⁶² He concludes that it does not, with a few possible but uncertain exceptions, “such as when patients inquire about the involvement of AI/ML, when the medical AI/ML is more opaque, when it is given an outsized role in the final decision-making, or when the AI/ML is used to reduce costs rather than improve patient health.”³⁶³ Indeed, if physicians research medical literature or query colleagues in the process of making a medical decision, they are not obligated to disclose to patients that they did so.³⁶⁴ Arguably, AI is an analogous source of input.³⁶⁵ Nevertheless, in some cases, as Professor

358. *See supra* Section II.F.2.

359. *See supra* Section II.E.

360. Andrew Smith, *Using Artificial Intelligence and Algorithms*, FED. TRADE COMMISSION (Apr. 8, 2020, 9:58 AM), <https://www.ftc.gov/news-events/blogs/business-blog/2020/04/using-artificial-intelligence-algorithms>.

361. *Id.*

362. I. Glenn Cohen, *Informed Consent and Medical Artificial Intelligence: What to Tell the Patient?*, 108 GEO. L.J. 1425, 1432 (2020) (explaining that the informed consent doctrine provides that “liability could attach if a physician did not inform the patient of the risk and benefits of proposed treatment or nontreatment”).

363. *Id.* at 1428-29.

364. *Id.* at 1443-44.

365. *Id.*

Cohen notes, clinicians might protect themselves from liability through disclosure and obtaining the patient’s consent (e.g., if the doctor intends to rely exclusively on AI in making an important decision).³⁶⁶ Even if there is no danger of liability, discussing AI use might be the right thing to do in order to be candid with patients and keep them fully informed about their care.³⁶⁷

2. Monitoring and Assessing AI Use

Health-care providers should always remain vigilant about AI outcomes and do their best to detect any discriminatory outcomes. Jones Day, a prominent law firm, advises clients using externally-developed AI to investigate the developers’ mechanisms for eliminating bias and to assess whether their AI has a disparate impact on any class protected by the civil rights laws.³⁶⁸ Likewise, a group of Stanford University researchers advises that doctors using machine-learning systems educate themselves “about their construction, the data sets they are built on, and their limitations” in order to avoid “ethically problematic outcomes.”³⁶⁹

Clinicians using AI must be prepared to intervene as soon as discrimination problems become apparent. For example, when users realized that an algorithm designed to predict appointment no-shows had an adverse impact on disadvantaged populations, they decided it was inappropriate to double-book the appointments in question and divert resources away from vulnerable individuals.³⁷⁰ Instead, they implemented “patient-positive” actions, such as appointment reminders and outreach to the identified people.³⁷¹ It is also possible that a health-care providers’ patient mix will change over time, and an algorithm that was not problematic when initially deployed will generate discriminatory outcomes for a new patient population.

In time, the health-care community may develop clinical practice guidelines and educational materials about best practices that minimize AI-related discrimination. For now, providers should recognize that they should not blindly

366. *Id.* at 1466.

367. Laura M. Cascella, *Artificial Intelligence and Informed Consent*, MEDPRO GROUP, <https://www.medpro.com/artificial-intelligence-informedconsent> (last visited June 13, 2020) (describing what clinicians should disclose to patients about their AI use); Emily Sokol, *Artificial Intelligence’s Impact on Patient Safety, Outcomes*, HEALTHITANALYTICS (Aug. 19, 2019), <https://healthitanalytics.com/news/artificial-intelligences-impact-on-patient-safety-outcomes> (“Patients should also be informed of the potential for inaccurate diagnosis, whether that be over-diagnosis or misdiagnosing as the result of AI technologies.”).

368. Tait et al., *supra* note 356.

369. Danton S. Char, Nigam H. Shah & David Magnus, *Implementing Machine Learning in Health Care—Addressing Ethical Challenges*, 378 NEW ENG. J. MED. 981, 983 (2018).

370. Murray et al., *supra* note 125; *see supra* text accompanying notes 125-129.

371. Murray et al., *supra* note 125.

trust their AI and leave it entirely unchecked.³⁷²

C. Having Realistic Expectations

Improving algorithmic fairness is hard work, and fully achieving fairness is likely impossible.³⁷³ In one study, researchers interviewed and surveyed 267 machine-learning practitioners about fairness-related challenges that they face, and respondents identified numerous difficulties.³⁷⁴ For example, many AI teams lack a process to collect and curate balanced and representative training datasets.³⁷⁵ Respondents stated that they struggled to determine which subpopulations they should consider to guard against selection bias in particular applications. To illustrate, while it is natural to think about ethnicity and gender when worrying about inclusivity, the relevant attribute that may skew algorithmic outcomes could be being a native English speaker.³⁷⁶ In addition, teams often strain to discern the causes of unanticipated fairness problems, especially in the case of black-box AI.³⁷⁷

In some instances, there are competing fairness goals, and they cannot all be fulfilled simultaneously.³⁷⁸ Imagine that an algorithm is designed to decide which applicants should receive loans and to promote fairness with respect to race.³⁷⁹ The algorithm's developers will have to make some choices. They could emphasize group fairness, that is, that the same percentage of applicants of all races should get loans.³⁸⁰ In the alternative, they could emphasize individual fairness, meaning that two applicants who are identical in all ways except for race should always be

372. Price, *supra* note 178, at 295-96 (“[W]hile providers and facilities are ill suited to evaluate the substantive accuracy of black-box medical algorithms, they could and perhaps should be required to exercise due care to evaluate procedural quality—the expertise of the developer and the availability of independent external validation . . .”).

373. MITCHELL, *supra* note 1, at 108 (“[I]t is often hard to tease out subtle biases and their effects.”); Richard Berk, Hoda Heidari, Shahin Jabbari, Michael Kearns & Aaron Roth, *Fairness in Criminal Justice Risk Assessments: The State of the Art*, SOC. METHODS & RES. (forthcoming, first published July 2018) (manuscript at 1), <https://journals.sagepub.com/doi/pdf/10.1177/0049124118782533> (“[T]here are at least six kinds of fairness, some of which are incompatible with one another . . .”).

374. Holstein et al., *supra* note 302, at 3-5, 6-12.

375. *Id.* at 6 (“A software engineer . . . described their team’s current data collection practices as ‘almost like the wild west’.”).

376. *Id.*; see also *supra* notes 119-121 and accompanying text (describing a speech-analysis machine-learning tool that misdiagnosed non-native speakers as having Alzheimer’s disease because it misinterpreted pauses and mispronunciations).

377. Holstein et al., *supra* note 302, at 7.

378. KEARNS & ROTH, *supra* note 10, at 84-86 (discussing “fairness fighting fairness” (capitalization in title omitted)); Brun & Meliou, *supra* note 308, at 755.

379. Brun & Meliou, *supra* note 308, at 755; see *supra* note 30.

380. *Id.*

treated the same in terms of loan approval.³⁸¹ Imagine further that there is a significant correlation between race and income, with Whites generally having higher incomes.³⁸² If so, it will be impossible both to give the same percentage of applicants of all races loans and to treat all pairs of applicants that are identical in every way but race the same.³⁸³ If applicants need to earn at least \$75,000 to obtain a loan, the algorithm could safeguard individual fairness, but group fairness will be unattainable because Whites will receive loans at a higher rate than African Americans.³⁸⁴ By contrast, if the lender emphasizes equalizing the percentage of applicants of all races who obtain approval for loans, it will sacrifice individual fairness.³⁸⁵ Some minorities will receive loans without having an adequate income, but the same will not be true for Whites.³⁸⁶ In this hypothetical, consequently, it is impossible to achieve the dual goal of group fairness and individual fairness.³⁸⁷

The AI community, therefore, will have to be realistic about the degree and types of fairness that it can achieve. It may sometimes need to identify and prioritize conflicting fairness goals. Achieving comprehensive equality of outcomes, performance, and allocation is likely impossible.³⁸⁸ In addition, the government and industry must remain committed to funding and pursuing research regarding algorithmic fairness. Experts have identified a variety of vital research directions.³⁸⁹ These relate to collecting and curating high quality and appropriately diverse training datasets, fairness-oriented debugging tools, auditing methods, and educational resources.³⁹⁰

CONCLUSION

The health-care community is justifiably enthusiastic about the many possible advantages of AI. But not everyone consistently benefits from the introduction of this innovative technology, and algorithms are raising growing concerns about fairness and bias.

As AI use proliferates in medicine, it is important that providers recognize its hazards and understand that some of these can lead to ethical challenges and liability exposure. AI algorithms adopt biases that are embedded in training data or that result from training data that is not sufficiently diverse and representative.³⁹¹

381. *Id.*

382. *Id.*

383. *Id.*

384. *Id.*

385. *Id.*

386. *Id.*

387. See *supra* note 31, for other sources discussing the tension among different fairness goals.

388. See *supra* text accompanying note 27.

389. Holstein et al., *supra* note 302, at 12.

390. *Id.*

391. See Ben Dickson, *Healthcare Algorithms Are Biased, and the Results Can Be Deadly*, PC

ARTIFICIAL INTELLIGENCE AND DISCRIMINATION

In addition, some deliberately adjust for race without adequate justification for doing so. These problems can lead to patient harm and unlawful discrimination.

Private plaintiffs face very difficult terrain in attempting to litigate disparate impact discrimination claims in the health-care arena. Nevertheless, as Representative Yvette Clarke stated, “Algorithms shouldn’t have an exemption from our anti-discrimination laws.”³⁹² Consequently, this Article argues that it is necessary to reinstate disparate impact litigation as a private enforcement tool in the AI era. It also recommends that Congress legislate AI-oversight requirements through an algorithmic accountability act and that the FDA consider the potential for discrimination in its algorithmic approval processes.

It is true that many algorithms constitute black-box medicine and that even their developers often cannot fully explain how they function.³⁹³ Nevertheless, both developers and users must make every effort to determine whether AI exacerbates health disparities and perpetuates discrimination. To that end, the Article describes a variety of interventions that both developers and users should implement while designing, validating, using, and monitoring AI in order to bolster fairness. At the same time, the health-care community must accept that it is difficult to define fairness and that it may need to prioritize among conflicting fairness goals.

As alluring as AI is and as tempting as it may be to trust it wholeheartedly, combatting discrimination requires human oversight. In the words of Dr. Steven Goodman and colleagues, “the only solution is to apply to artificial intelligence algorithms the very thing they are designed to supersede—human intelligence.”³⁹⁴

With proper fairness-oriented oversight, AI can fulfill its promise of improving overall human health. Moreover, AI could in fact help combat discrimination by identifying those in greatest need and promoting more equitable allocation of health resources.³⁹⁵

MAG. (Jan. 23, 2020), <https://www.pcmag.com/opinions/healthcare-algorithms-are-biased-and-the-results-can-be-deadly>.

392. Press Release, U.S. Senator Cory Booker of N.J., *supra* note 267.

393. *See supra* notes 48-50 and accompanying text.

394. Steven N. Goodman, Sharad Goel & Mark R. Cullen, Editorial, *Machine Learning, Health Disparities, and Causal Reasoning*, 169 ANNALS INTERNAL MED. 883, 884 (2018).

395. Rajkomar et al., *supra* note 21, at 870.

Democratizing the Law of Social Distancing

Lindsay F. Wiley*

Abstract:

Public health emergency statutes should give executive-branch officials clear authority to respond swiftly in a crisis while setting forth principles to guide executive discretion. Statutes already provide specific authorizations and statutory guardrails for individually targeted measures like isolation and quarantine. New legislation is needed to provide similarly specific authorizations and guardrails for compulsory social distancing and face mask orders. Reforms should facilitate democratic accountability for executive-branch decisions in addition to protecting individual rights. This article offers five key principles to guide legislation. First, statutes should mandate transparency, which is critical to secure the public's trust. To ensure compulsory orders are conditioned on a demonstrated threat of significant risk and a suitable fit between the means and clearly stated ends, mandated disclosures should include statements of the strategic purpose orders are intended to serve, the scientific understanding on which they are based, and the criteria for when they can be lifted. Second, statutes should provide officials with a graded range of alternatives to ensure a sustainable emergency response that can be tailored to evolving conditions and understanding. To facilitate a scaled response that balances the risk of contributing to community transmission against other public priorities, classifications of services, businesses, and activities as essential or high-priority should be developed in advance. Third, statutes should provide substantive standards to ensure orders are neutral laws of general applicability that do not discriminate on the basis of religion. Fourth, to enable widespread voluntary compliance and minimize unjust distribution of the benefits and burdens of public health intervention, statutes should mandate that restrictions must be accompanied by financial and other material supports, legal protections, and accommodations for safer alternatives to restricted activities to the greatest extent possible within available resources. Finally, statutes should authorize criminal enforcement against individuals who violate social distancing orders only if executive-branch officials establish that it is the least restrictive alternative available to achieve the government's purpose. These principles should also guide executive officials as they exercise the discretion granted to them under existing statutes.

* Professor of Law and director of the Health Law and Policy Program, American University Washington College of Law. The author wishes to thank Peter D. Jacobson, Wendy E. Parmet, Debra Perlin, Mariam Seifter, and Ilya Somin for their helpful comments.

TABLE OF CONTENTS

INTRODUCTION 53

I. PUBLIC HEALTH EMERGENCY LAW BEFORE THE 2020 CORONAVIRUS PANDEMIC 61

 A. TWENTIETH CENTURY FOUNDATIONS 61

 B. PUBLIC HEALTH LAW MODERNIZATION..... 64

 C. SPECIFIC STATUTORY AUTHORITIES FOR SOCIAL DISTANCING 68

II. THE U.S. RESPONSE TO THE 2020 CORONAVIRUS PANDEMIC 69

 A. THE FAILURE OF SCREENING, ISOLATION, AND QUARANTINE TO CONTAIN THE PANDEMIC 70

 B. THE USE OF SOCIAL DISTANCING AND FACE MASKS TO MITIGATE COMMUNITY TRANSMISSION AND “FLATTEN THE CURVE” 72

 C. THE BREAK-DOWN OF CONSENSUS: RESISTANCE TO MITIGATION AND CALLS TO “CRUSH THE CURVE” BY ACHIEVING SUPPRESSION 76

III. COMMUNITY MITIGATION IN THE COURTS..... 81

 A. EMERGENCY STANDARDS OF JUDICIAL REVIEW 83

 B. GOVERNMENT ACTION THAT INFRINGES ON FUNDAMENTAL RIGHTS 86

 C. ARBITRARY, CAPRICIOUS, OR UNREASONABLE GOVERNMENT ACTION.... 94

 D. LACK OF STATUTORY AUTHORITY FOR EXECUTIVE ACTION..... 98

 E. SEPARATION OF POWERS CONSTRAINTS ON EXECUTIVE ACTION 101

IV. PROPOSED STATE LEGISLATIVE REFORMS 106

 A. THE STRATEGIC PURPOSE OF ORDERS, THE SCIENTIFIC UNDERSTANDING ON WHICH THEY ARE BASED, AND CRITERIA FOR LIFTING THEM SHOULD BE DISCLOSED TO THE PUBLIC IN SPECIFIC TERMS..... 108

 B. STATUTES SHOULD AUTHORIZE A GRADED RANGE OF INTERVENTIONS AND CLASSIFICATIONS OF SERVICES, BUSINESSES, AND ACTIVITIES AS ESSENTIAL OR HIGH-PRIORITY SHOULD BE DEVELOPED IN ADVANCE 113

 C. SUBSTANTIVE STANDARDS SHOULD ENSURE ORDERS ARE NEUTRAL LAWS OF GENERAL APPLICABILITY THAT DO NOT DISCRIMINATE ON THE BASIS OF RELIGION..... 115

 D. STATUTES SHOULD MANDATE PROVISION OF SUPPORTIVE MEASURES,

YALE JOURNAL OF HEALTH POLICY, LAW, AND ETHICS	19:3 (2020)
LEGAL PROTECTIONS, AND ACCOMMODATION OF SAFER ALTERNATIVES TO RESTRICTED ACTIVITIES WITHIN AVAILABLE MEANS.....	117
E. CRIMINAL ENFORCEMENT AGAINST INDIVIDUALS SHOULD BE AUTHORIZED ONLY IF JUSTIFIED AS THE LEAST RESTRICTIVE ALTERNATIVE.....	118
CONCLUSION	119

INTRODUCTION

Most people had never heard of “social distancing” before 2020.¹ Now, the term is ubiquitous, but poorly defined. “Social distancing” is often used to describe individual responsibility for staying at least six feet away from people who are not part of their household.² I call that “physical distancing,” to distinguish it from the society-wide, government-led measures that are the focus of this Article.³ The

1. Measures to “increase social distance” were described in pre-pandemic plans and public health literature in the mid-aughts. *See, e.g.*, CTRS. FOR DISEASE CONTROL & PREVENTION, PUBLIC HEALTH GUIDANCE FOR COMMUNITY-LEVEL PREPAREDNESS AND RESPONSE TO SEVERE ACUTE RESPIRATORY SYNDROME (SARS) VERSION 2 SUPPLEMENT D APP. D1 7 (2004), <https://www.cdc.gov/sars/guidance/d-quarantine/app1.pdf> (describing “community-wide measures to increase social distance,” as a set of interventions distinct from isolation of the infected and quarantine of the exposed to be applied to “[a]ll members of a community” under specified conditions); Lawrence O. Gostin, *Influenza Pandemic Preparedness: Legal and Ethical Dimensions*, 34 HASTINGS CTR. RPT. 10, 11 (2004) (describing legal authority to “restrict social mixing and increase social distance” by “closing down civic activities, meeting places, large gatherings, and transportation” as distinct from quarantine and isolation to “separate the infected and exposed from healthy individuals”); Robert J. Glass, Laura M. Glass, Walter E. Beyeler & H. Jason Min, *Targeted Social Distancing Designs for Pandemic Influenza*, 12 EMERGING INFECTIOUS DISEASES 1671, 1671 (2006) (describing social distancing in terms of “strategically controlling [social contact networks] during a period of pandemic”). References to “social distance” and “social mixing” were previously used in studies examining the influence of social networks on HIV transmission. *See, e.g.*, Rodrick Wallace, *Social Disintegration and the Spread of AIDS: Thresholds for Propagation Along “Sociogeographic” Networks*, 33 SOC. SCI. & MED. 1155 (1991).

2. *See, e.g.*, *Social Distancing: Keep a Safe Distance to Slow the Spread*, CTRS. FOR DISEASE CONTROL & PREVENTION (last updated Nov. 17, 2020), <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/social-distancing.html>.

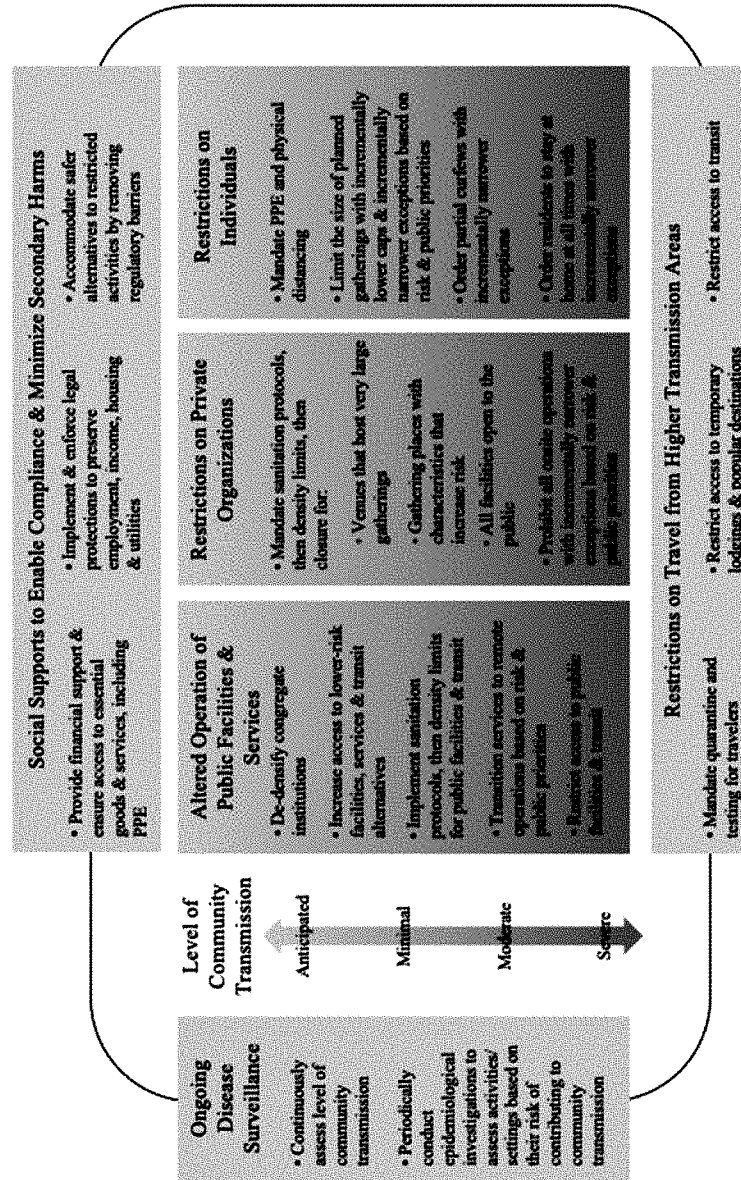
3. Physical distance is certainly relevant to social distancing, but requiring individuals to maintain a distance of six feet while they otherwise go about their daily lives would probably not be adequate to control the spread of disease. In part, this is because six feet of distance may not be enough to prevent transmission when people spend sustained time together in enclosed poorly ventilated spaces. The scientific understanding of the extent to which SARS-COV-2 is transmitted through small aerosol droplets that drift farther than six feet in enclosed, poorly ventilated spaces has evolved throughout the pandemic. But even in the earliest weeks, a highly influential modeling report assumed that “[t]ransmission events occur through contacts made between susceptible and infectious individuals in either the household, workplace, school or randomly in the community, with the latter depending on spatial distance between contacts.” NEIL M. FERGUSON ET AL., IMPERIAL COLLEGE COVID-19 RESPONSE TEAM REPORT 9: IMPACT OF NON-PHARMACEUTICAL INTERVENTIONS (NPIs) TO REDUCE COVID-19 MORTALITY AND HEALTHCARE DEMAND 4 (2020), <https://www.imperial.ac.uk/media/imperial-college/medicine/sph/ide/gida-fellowships/Imperial-College-COVID19-NPI-modelling-16-03-2020.pdf> (emphasis added). Thus, the report’s authors also advised attention to the “contact-time” between people from different households, which may be small at mass gatherings “compared to the time spent at home, in schools or workplaces and in other community locations such as bars and restaurants.” *Id.* at 8. More relevant to my point, pre-pandemic plans generally assumed that, to be successful, social distancing interventions would require shared responsibility among governments, private organizations, and individuals. Public health interventions that rely exclusively on individual behavior change tend to be ineffective. Thus, many public health interventions are designed to change the context in which individuals make choices, in addition to

terms “quarantine” and “lockdown” have been widely used to describe governmental orders aimed at reducing overall contacts during the coronavirus pandemic. But “quarantine” is used by epidemiologists and regulators to refer to targeted restrictions on individuals who are known to have been exposed to infection.⁴ “Lockdown,” which suggests a binary lockdown/reopen switch, is a poor fit for the varying governmental interventions that have been dialed up or down to adjust overall levels of contact in response to local conditions. I define “social distancing” as a graded range of governmental restrictions and supports to achieve an overall reduction in contacts among the general population, regardless of known exposure or infection (see Figure 1).

providing education and recommendations to guide those choices. *See* LAWRENCE O. GOSTIN & LINDSAY F. WILEY, *PUBLIC HEALTH LAW: POWER, DUTY RESTRAINT* 23-26 (3d ed. 2016) (contrasting the behavioral and social-ecological models of public health problem solving).

4. Federal, state, and local statutes specifically authorize isolation of individuals who are reasonably believed to be infected, and quarantine of those who are reasonably believed to have been exposed to infection. *See, e.g.*, GOSTIN & WILEY, *supra* note 3, at 425-28 (reviewing quarantine and isolation authorities). Governments at every level — federal, state, and local — have used a particular type of quarantine, known as a travelers’ quarantine, to slow the spread of the coronavirus pandemic. Ross D. Silverman, *Contact Tracing, Intrastate and Interstate Quarantine, and Isolation*, in SCOTT BURRIS, WENDY PARMET, & LANCE GABLE, *EDS. COVID-19 RAPID LEGAL ASSESSMENT* (2020); *see also* GOSTIN & WILEY, *supra* note 3, at 424 (discussing travelers’ quarantines). Restrictions on travelers may be individually targeted to a degree that compulsory social distancing and face covering requirements are not. Limits on travelers across international, state, and local borders also raise distinct questions regarding the boundedness of communities and communitarianism as a foundational principle on which public health intervention sometimes rests. *See* BONNIE HONIG, *EMERGENCY POLITICS: PARADOX, LAW, DEMOCRACY* 130 (2009) (discussing the “paradox of bounded communities” and proximity of neighbors as a justification for helping some, but not others, “not as a problem but as an opportunity”). I am setting aside the issue of travelers’ quarantines to give it the in-depth treatment it deserves in a follow-up project.

Figure 1. A Graded Range of Law & Policy Interventions for Social Distancing Among the General Population



In our treatise, *Public Health Law: Power, Duty, Restraint*, Professor Lawrence Gostin and I cautioned that compulsory social distancing would raise

complex questions for which legal precedents provided few answers. “Undoubtedly the courts would uphold reasonable community restrictions,” we wrote, “but legal and logistical questions loom: who has the power to order closure, by what criteria, and for what period of time?”⁵ Compulsory social distancing orders, and orders for the general public to wear face masks or other personal protective equipment (PPE) regardless of infection or exposure, do not fall neatly within specific statutory grants of authority the way quarantine and other individually targeted public health interventions do. Few pre-2020 judicial precedents are directly on point.

Over the last several months, the courts have issued hundreds of decisions defining the boundaries of public health emergency authority. Unsurprisingly, these cases have centered on the two central tensions in public health law: the balance “between the common good and civil liberties”⁶ and the balance “between principles of open, transparent, and participatory governance and the need for expertise-driven, efficient, and efficacious government responses to public health problems.”⁷ Some challengers have argued that emergency orders infringe upon constitutionally protected individual rights. Some have argued that orders exceed the scope of executive officials’ statutory authority or that broad statutory delegations to the executive violate state-constitution separation of powers requirements. Some have brought both types of claims — rights-based and structural.

Coronavirus emergency orders and judicial responses to them have evolved throughout the pandemic. In the early months, most judges were hesitant to second-guess executive decisions made under conditions of scientific uncertainty and great peril. On the whole, they took a very forgiving stance toward sweeping public health responses.⁸ As the pandemic has worn on, however, a few courts have begun to move more aggressively to overturn emergency orders and curtail executive authority.⁹ The Supreme Court’s recent decision in *Roman Catholic*

5. GOSTIN & WILEY, *supra* note 3, at 432; *see also* Lawrence O. Gostin & Lindsay F. Wiley, *Governmental Public Health Powers During the COVID-19 Pandemic: Stay-at-Home Orders, Business Closures, and Travel Restrictions*, 323 JAMA 2137 (2020) (“Long-term, compulsory stay-at-home orders applicable across a large geographic area are untested in the courts.”).

6. GOSTIN & WILEY, *supra* note 3, at 151.

7. *Id.* at 154.

8. *See* Lindsay F. Wiley & Steve I. Vladeck, *COVID-19 Reinforces the Argument for “Regular” Judicial Review—Not Suspension of Civil Liberties—In Times of Crisis*, HARV. L. REV. BLOG (April 9, 2020), <https://blog.harvardlawreview.org/covid-19-reinforces-the-argument-for-regular-judicial-review-not-suspension-of-civil-liberties-in-times-of-crisis>; *see also* Lindsay F. Wiley & Stephen I. Vladeck, *Coronavirus, Civil Liberties, and the Courts: The Case Against ‘Suspending’ Judicial Review*, 133 HARV. L. REV. F. 179 (2020); Part III.A., *infra*.

9. *See, e.g.*, County of Butler v. Wolf, No. 2:20-cv-677, 2020 WL 5510690 (W.D. Pa. Sept. 14, 2020) (holding stay-at-home and business closure orders violate the First and Fourteenth Amendments), *stayed pending appeal*, County of Butler v. Wolf, 2020 WL 5868393 (3d Cir. Oct. 1,

Diocese of Brooklyn v. Cuomo signals a major shift in the fate of legal challenges to coronavirus emergency orders, just as the third wave of the pandemic hits the United States.¹⁰ The Court enjoined New York from imposing limits on the plaintiffs' houses of worship that are more restrictive than limits on "essential" businesses.¹¹ By applying strict scrutiny, the majority appears to have rejected a doctrine many lower courts have relied on to uphold other types of restrictions.¹² Many state and local governments will need to retool their approach to compulsory social distancing restrictions in light of this new precedent.¹³ A new wave of emergency orders is coming that will differ from what we have seen so far.

A new wave of legislative reform driven by lessons learned during the pandemic is also on the horizon. Sweeping reforms often follow in the aftermath of an actual or threatened crisis. In the decade after the jetliner and anthrax attacks of 2001, for example, Congress and state legislatures across the country passed hundreds of bills to specify the emergency powers available to executive-branch officials and provide statutory protections for individuals subjected to compulsory medical examinations, testing, quarantine, isolation, and vaccination.¹⁴ Social distancing and face mask orders, which had not been widely used in the U.S. in decades, got little attention from reformers bent on modernization.¹⁵ The result — hundreds of coronavirus emergency orders resting on older, broader grants of authority with minimal guidance from the legislature — has caused confusion and consternation in the courts.¹⁶ Now, we are on the cusp of a new decade of reforms.

This Article's aim is to guide development of legislation defining the outer bounds of executive authority to order compulsory social distancing and use of PPE for the general public. In the coming months and years, many state legislatures will codify the law of social distancing that is currently emerging from the courts and from precedent-setting executive orders. Congress could reform federal disease control laws as well. The widely divergent lessons legislators have learned

2020); In re Certified Questions, No. 161492, 2020 WL 5877599, (Mich. Oct. 2, 2020) (holding that a 1945 emergency management statute violates the Michigan constitution's separation of powers requirement by improperly delegating legislative powers to the executive branch). These cases are outliers and the Pennsylvania case is likely to be reversed on appeal, but they may indicate growing frustration with sweeping executive orders and growing desire to curtail similar executive responses in the future.

10. Roman Catholic Diocese of Brooklyn v. Cuomo, 141 S. Ct. 63 (2020).

11. *Id.*

12. See Part III.A., *infra*.

13. See Part IV.C, *infra*.

14. See Part I.B, *infra*.

15. See, e.g., Lawrence O. Gostin, Scott Burris & Zita Lazzarini, *The Law and the Public's Health: A Study of Infectious Disease Law in the United States*, 99 COLUM. L. REV. 59, 66 (1999) (indicating that the authors were focused on incorporating "modern scientific and constitutional developments" into state public health statutes).

16. See Part III, *infra*.

from the pandemic may simply reinforce existing political divides. Some legislators will seek to strip executive officials of their emergency powers.¹⁷ Others will prefer to leave broad grants of authority undisturbed, relying on the courts to continue to uphold most executive orders. This Article argues for a middle ground by asserting that reforms are needed to specifically authorize and guide executive action. These reforms could be helpful for ongoing response to the current pandemic — and for the next crisis, which could pose different, and perhaps even greater, threats to the public’s health and the rule of law. Legislators who wish to put executive actions on firmer statutory footing should offer reform proposals that respond to concerns about executive overreach without stripping executive powers.

I draw lessons from three sources to inform my recommendations for legislative reform: judicial opinions adjudicating legal challenges to coronavirus emergency orders,¹⁸ political theories of emergency politics,¹⁹ and longstanding principles of public health law and ethics.²⁰ I largely reject a fourth source of potential guidance: the Model State Emergency Health Powers Act²¹ (MSEHPA) promulgated in the aftermath of the 2001 terrorist attacks in an effort to modernize public health law. These individually targeted measures MSEHPA authorizes are highly restrictive (isolation and quarantine orders may confine individuals with no exceptions for essential work, errands, or outdoor exercise) or invasive (for example, medical tests, examinations, treatments, and vaccination). The statutory guardrails modernization reformers recommended were similarly focused on individuals. Modernization reformers assumed individualized risk assessments (ensured through individual rights to notice, a hearing, and legal representation)²²

17. See, e.g., S.B. 1166, 2019-2020 Leg., Reg. Sess. (Pa. 2020); S.B. 29, 2020 Leg., 2d Spec. Sess. (La. 2020); S.B. 311, 133d Gen. Assemb., Reg. Sess. (Ohio 2020); Jake Zuckerman, *Lawmakers Send Bill to Governor to Kneecap Health Department Authority*, OHIO CAPITAL J. (Nov. 19, 2020), <https://ohiocapitaljournal.com/2020/11/19/lawmakers-send-bill-to-governor-to-kneecap-health-department-authority/>; Melinda Deslatte, *Louisiana COVID-19 Special Session Opens with Power Debate*, ASSOCIATED PRESS (Sept. 28, 2020), <https://apnews.com/article/virus-outbreak-john-bel-edwards-pandemics-louisiana-archive-e8cfeb44108aea9a30c1498b3de3c1fd>; *Lawmakers Move to Limit a Governor’s Disaster Powers*, ASSOCIATED PRESS (July 15, 2020), <https://apnews.com/f4c271a1292cb1add64daf41a82a05cf>.

18. See Part II, *infra*.

19. I draw especially heavily on the work of political and legal theorist Bonnie Honig, who argues that emergencies do not, and should not, obviate the fact that there is “no getting away from the need in a democracy for the people to decide.” HONIG, *supra* note 4, at 3 (2009).

20. See Gostin, Burris & Lazzarini, *supra* note 15 (laying the groundwork for post-9/11 public health law modernization efforts and offering useful lessons for the coming decade of reforms).

21. MODEL STATE EMERGENCY HEALTH POWERS ACT (MSEHPA) (CTR. FOR L. & PUB.’S HEALTH 2001), <http://www.publichealthlaw.net/MSEHPA/MSEHPA.pdf>.

22. *Id.* at § 605 (providing for temporary holds pursuant to written directives, followed by the possibility of a petition for a court order to hold an individual beyond an initial 10-day period, hearing rights, and court-appointed legal counsel).

and use of the least restrictive alternative²³ were feasible and possibly constitutionally required.

The requirements many state statutes impose on quarantine orders and other individually targeted measures are simply not feasible for compulsory social distancing and face mask orders. Social distancing is not governed — *nor is it governable* — by statutory requirements mandating individualized risk assessments²⁴ and use of the least restrictive alternative.²⁵ Compulsory social distancing is different from quarantine. The statutory constraints that guide and limit its use must also be different. New legislation — which could be guided by the development of a new model act²⁶ — is needed.

As they refine the limits on executive emergency powers in the coming decade, I urge legislatures to consider five key principles, which emphasize public disclosure requirements to promote transparency and accountability in addition to statutory protections for individual rights. *First*, because widespread voluntary cooperation is the primary means of securing compliance — even for measures that are purportedly mandatory — legislatures should provide clear requirements for transparency and communication, which are critical to secure the public’s trust.²⁷ To ensure executive officials’ use of compulsory powers is conditioned on a demonstrated threat of significant risk²⁸ and a suitable fit between the means and clearly stated ends,²⁹ this communication should include statements of the strategic purpose orders are intended to serve, the scientific understanding on which they are based, and the criteria that will be relied on to determine whether they are

23. *Id.* at § 604(b)(1) (“Isolation and quarantine must be by the least restrictive means necessary to prevent the spread of a contagious or possibly contagious disease to others.”).

24. *See, e.g.*, WISC. STAT. § 252.06(3) (2009) (“If the local health officer is not a physician, he or she shall consult a physician as speedily as possible where there is reasonable doubt or disagreement in diagnosis and where advice is needed [regarding the need for isolation].”). In addition, many provide procedural protections. In some states, quarantine statutes require health officials to obtain a court order for the quarantine to be legally enforceable.

25. *See, e.g.*, ALASKA STAT. § 18.15.385(b)(1) (2004) (“[I]solation and quarantine shall be by the least restrictive means necessary to prevent the spread of a contagious or possibly contagious disease that poses a significant risk to public health.”); *id.* at § 18.15.385(d) (“The department shall file a petition for a written order [from the superior court authorizing the isolation or quarantine]. The petition must allege . . . that the individual is unable or unwilling to behave so as not to expose other individuals to danger of infection.”).

26. In March of 2020, the Uniform Law Commission has convened a study committee—chaired by Diane Boyer-Vine, with Professor Wendy Parmet serving as the reporter—to make a recommendation regarding whether a new uniform act or model act on state emergency health powers would be advisable.

27. *See* Gostin, Burris & Lazzarini, *supra* note 15, at 94-95 (discussing the importance of maintaining the public’s trust and cooperation), 120 (recommending that state legislatures recognize voluntary cooperation as the primary means of securing compliance).

28. *Id.* at 121.

29. *See* GOSTIN & WILEY, *supra* note 3, at 60 (discussing means-ends fit as an ethical principle that should guide public health regulation, regardless of whether it is constitutionally required).

working and when they can be lifted. Time limited, but renewable orders should ensure these statements are periodically updated. *Second*, public health statutes should provide executive officials with a graded range of alternatives to ensure a sustainable emergency response that can be tailored to adjust to evolving conditions and scientific understanding.³⁰ To facilitate a scaled response and promote greater democratic deliberation on policy choices, classifications among businesses and activities based on public priorities should be developed in advance. *Third*, legislatures should provide statutory guardrails to ensure orders are neutral laws of general applicability that do not discriminate on the basis of religion. *Fourth*, to enable widespread voluntary compliance and minimize unjust distribution of the benefits and burdens of public health intervention, restrictions and mandates should be accompanied by supports, legal protections, and accommodations to enable compliance with public health guidelines and minimize secondary harms.³¹ I recommend that legislatures require executive officials to implement supportive measures and guidance to the fullest extent possible within available means. *Finally*, criminal enforcement against individuals who violate social distancing and face mask orders should be authorized only as a last resort. Communication, support for safer alternatives to restricted activities, and administrative sanctions and civil penalties for licensed businesses and other organizations should be prioritized over criminal enforcement. Legislatures should require executive officials to justify criminal enforcement as the least restrictive alternative available to achieve the government's purpose. These principles should also guide executive-branch officials as they exercise their discretion under existing statutes.

This Article proceeds in four parts. In Part I, I describe the evolution of public health emergency law through the turn of the twenty-first century, which determined the governmental powers available at the start of the coronavirus pandemic. In Part II, I describe the community mitigation strategy implemented to slow the spread of the 2020 coronavirus pandemic in the United States after containment efforts failed. In Part III, I map the legal challenges to coronavirus emergency orders adjudicated in state and federal courts and describe their key themes. Finally, I propose statutory guardrails for state legislatures to guide the use of compulsory social distancing and PPE for the general public.

30. *Id.* at 123-24.

31. *See, e.g.*, Lindsay F. Wiley & Samuel R. Bagenstos, *The Personal Responsibility Pandemic: Centering Solidarity in Public Health and Employment Law* 52 ARIZ. ST. L.J. (forthcoming 2021).

I. PUBLIC HEALTH EMERGENCY LAW BEFORE THE 2020 CORONAVIRUS PANDEMIC

In the decades prior to the 2020 coronavirus pandemic, state and local authorities ordered compulsory medical examinations, testing, quarantine, isolation, treatment, and vaccination of individuals to address public health threats ranging from measles, tuberculosis, and syphilis, to HIV, SARS, and Ebola. Following an effort to modernize public health emergency statutes prompted by the HIV epidemic, the 2001 terrorist attacks, the 2003 SARS outbreak, and concerns about novel influenza strains with pandemic potential, these powers are now specifically authorized in most states, via statutes that offer guardrails to guide executive discretion. In contrast, social distancing and face covering had not been widely required for the general public in the United States since the 1918 influenza pandemic and mid-century outbreaks of polio. These measures were largely sidelined in public health emergency law modernization reforms. As a result, 2020 coronavirus orders have largely relied on older, broader grants of authority in public health, disaster management, and civil defense statutes.

A. Twentieth Century Foundations

In the first half of the twentieth century, local officials frequently exercised broadly defined public health powers to control the spread of disease. State statutes typically authorized local health officials to “make all such . . . regulations as they shall deem necessary for the preservation of the public health”³² or “[t]o do all acts . . . which may be necessary or expedient for . . . the suppression of disease.”³³ Rarely, state supreme courts found that specific measures, such as vaccination, required specific authorization from the legislature.³⁴ More typically, early- and mid-twentieth century courts found broad delegations of public health power constitutionally proper and sufficient to encompass measures that were not authorized in specific terms.³⁵ Following the Supreme Court’s opinion in *Jacobson*

32. *Kirk v. Board of Health*, 65 S.E. 387, 388 (S.C. 1909) (quoting the state statute on which a local health board relied to order a resident infected with leprosy to be isolated).

33. *People v. Tait*, 103 N.E. 750, 752 (Ill. 1913) (quoting the statute relied on by a local board of health to impose penalties on a parent who sent his child to school while she was ill with scarlet fever).

34. *See, e.g., State v. Burdge*, 70 N.W. 347 (Wis. 1897) (finding the state board of health lacked properly delegated power to adopt a compulsory vaccination rule absent a specific legislative authorization); *cf. Mathews v. Kalamazoo Bd. of Educ.*, 86 N.W. 1036 (Mich. 1901) (finding that local school boards did not have statutory authority to require vaccination absent a specific legislative authorization).

35. *See, e.g., People ex rel. Lieberman v. Van De Carr*, 67 N.E. 913, 914 (N.Y. 1903) *aff’d sub nom. New York v. Van De Carr*, 199 U.S. 552 (1905) (finding that “[t]he vesting of powers more or less arbitrary in various officials and boards is necessary, if the work of prevention and regulation is to ward off fevers, pestilence, and the many other ills that constantly menace great centers of

*v. Massachusetts*³⁶ and analogous state court decisions, courts typically required that compulsory quarantine, isolation, and vaccination must be justified by “public necessity”³⁷ and must not be “oppressive, arbitrary or unreasonable.”³⁸

Jacobson, decided in 1905, was a “nuanced and Delphic opinion”³⁹ articulating the tensions between individual liberties and public health necessities and between executive flexibility and judicial review. The Court upheld a Massachusetts statute empowering municipal boards of health to mandate vaccination for smallpox. The decision offered a ringing endorsement of public health as a counterweight to individual rights: “the rights of the individual in respect of his liberty may at times, under the pressure of great dangers, be subjected to such restraint, to be enforced by reasonable regulations, as the safety of the general public may demand.” The Court also endorsed judicial deference to the scientific findings of experts exercising authority delegated by the legislature. Concluding that “[t]he authority to determine for all what ought to be done in such an emergency must have been lodged somewhere or in some body,” the Court approved the legislature’s choice “to refer that question, in the first instance, to a board of health composed of persons . . . appointed . . . because of their fitness to determine such questions.”⁴⁰ The Court repeatedly noted the presence of a statutory standard authorizing local officials to make vaccination compulsory “only when, in the opinion of the board of health, that was necessary for the public health or the public safety.”⁴¹

The *Jacobson* Court also recognized constitutional limits on the board’s discretion, reasoning that the “power of a local community to protect itself against an epidemic . . . might be exercised in particular circumstances and in reference to particular persons in such an arbitrary, unreasonable manner, or might go so far beyond what was reasonably required for the safety of the public, as to authorize

population”); *Kirk*, 65 S.E. at 389 (finding that a state statute authorizing local health boards to make rules and regulations “as they deem necessary for the preservation of the public health” was not an unconstitutional delegation of legislative power); *McCandless v. Campbell*, 20 Haw. 411, 417 (1911) (describing delegation of “the power to enact regulations concerning the public health” to municipal corporations or local boards of health as an “exception” to the “established doctrine of constitutional law that the power conferred upon the legislature to make laws cannot be delegated to any other body or authority”).

36. 197 U.S. 11, 26 (1905).

37. *Kirk*, 65 S.E. at 390; *People v. Tait*, 103 N.E. at 752.

38. *Huffman v. District of Columbia*, 39 A.2d 558, 560 (D.C. 1944).

39. Wendy E. Parmet, *Rediscovering Jacobson in the Era of COVID-19*, 100 B.U. L. REV. ONLINE 117, 119 (2020).

40. *Jacobson*, 197 U.S. at 27; see also *New York v. Van De Carr*, 199 U.S. 552, 561 (1905) (describing *Jacobson* as having “sustained a compulsory vaccination law which delegated to the board of health of cities or towns the determination of the necessity of requiring the inhabitants to submit to compulsory vaccination”).

41. *Jacobson*, 197 U.S. at 27.

SOCIAL DISTANCING

or compel the courts to interfere for the protection of such persons.”⁴² Following prevailing standards of the time,⁴³ the Court limited judicial review to cases where “a statute purporting to have been enacted to protect the public health, the public morals, or the public safety, has no real or substantial relation to those objects, or is, beyond all question, a plain, palpable invasion of rights secured by the fundamental law.”⁴⁴

State and local officials imposed socially disruptive measures to slow the spread of disease among the general population regardless of infection or exposure in response to the 1918 influenza pandemic and mid-century polio outbreaks. In the 1918 flu pandemic, many U.S. cities and a few states ordered bars, saloons, theaters, churches, and schools to close and prohibited gatherings.⁴⁵ Some went further and closed many types of retail stores.⁴⁶ Many local governments ordered the general public to wear face masks.⁴⁷ Legal challenges were largely rejected by the courts, which described the flu pandemic orders as “reasonable measures to slow the spread of disease.”⁴⁸ In the aftermath of the pandemic, at least some

42. *Id.* at 28.

43. See Parmet, *supra* note 39, at 131 (arguing that in *Jacobson* the Supreme Court recognized for the first time that the Constitution provides some protection for bodily integrity); Josh Blackman, *What Rights Are “Essential”? The 1st, 2nd, and 14th Amendments in the Time of Pandemic*, 44 HARV. J. L. & PUB. POL’Y (forthcoming 2021) (manuscript at 43) (arguing that “*Jacobson* was decided during a time when the Due Process Clause of the Fourteenth Amendment was understood to prohibit ‘arbitrary’ or ‘irrational’ forms of legislation[, b]ut that standard of review did not resemble the modern rational basis test”).

44. *Jacobson*, 197 U.S. at 31.

45. In October 1918, the U.S. Surgeon General issued a bulletin advising state and local public health boards to prohibit public gatherings and order churches, theaters, saloons, and similar gathering places to close, and many complied. Jason Marisam, *Local Governance and Pandemics: Lessons from the 1918 Flu*, 85 U. DET. MERCY L. REV. 347 (2008); see also Nancy Tomes, “*Destroyer and Teacher*”: *Managing the Masses During the 1918-1919 Influenza Pandemic*, 125 PUB. HEALTH RPTS 48 (2010) (describing the social history of state and local decisions about social distancing and community hygiene in the 1918 pandemic).

46. Tomes, *supra* note 45.

47. Marisam, *supra* note 45, at 360; see also Bradford Luckingham, *To Mask or Not to Mask: A Note on the 1918 Spanish Influenza Epidemic in Tucson*, 25 J. ARIZ. HISTORY, 191, 194 (1984) (discussing Tucson’s mask mandate and related criminal enforcement actions).

48. See, e.g., *Alden v. State*, 179 P. 646 (Ariz. 1919) (rejecting a habeas corpus petition by a movie theater owner arrested for violating a local health board order); *Globe Sch. Dist. v. Bd. of Health*, 179 P. 55 (Ariz. 1919) (denying an injunction of a local health board order declaring it “unlawful for two or more persons to congregate in the United States post office, any bank, store, meat market, or other business house, shooting gallery, pool hall, theater, motion picture show, skating rink, lodge, church, school, social gathering, card party, or other place of amusement or entertainment in the city of Globe or vicinity.”). But see *Bd. of Health v. Clayton*, 106 A. 813 (N.J. 1919) (upholding a lower court order setting aside a conviction of the defendant saloon owner for “invit[ing] people to congregate in his saloon . . . such an action being dangerous to human life and health, there being an epidemic of influenza in Paterson . . .”); Luckingham, *supra* note 47 (discussing an unpublished judicial order invalidating a Tucson board of health order mandating face masks on the grounds that an exception for school children rendered it underinclusive and therefore

legislatures adopted provisions specifically authorizing state and local health officials to regulate gatherings and close gathering places and schools, though only a few states currently have such provisions in place.⁴⁹ To mitigate midcentury polio outbreaks, local authorities again relied on efforts to decrease social mixing by periodically closing schools, swimming pools, libraries, theaters, and other gathering places during the peak of local outbreaks.⁵⁰

B. Public Health Law Modernization

In the late twentieth and early twenty-first centuries, public health law experienced a renaissance. The emergence of HIV prompted reexamination of statutory authorities.⁵¹ Public health law scholars noted that “public health statutes across the country reflect[ed] an approach to communicable disease fashionable in the [early twentieth] century.”⁵² Moreover, they did “not reflect significant contemporary developments in constitutional and public health law.”⁵³ Gostin and others warned against relying on modern courts to follow *Jacobson*’s “highly submissive” standard of review.⁵⁴ Professor Wendy E. Parmet suggested that modern courts would review a quarantine regulation “for the procedural protections it provides, and for its *reasonableness*.”⁵⁵ Gostin’s warning was more dire. He asserted that “criteria in public health statutes for depriving an individual of liberty would be likely to be held *constitutionally invalid* if challenged in court today.”⁵⁶ Many states passed legislation in the late 1980s to update quarantine powers. The emphasis was on procedural protections to ensure an individualized

it violated the Equal Protection Clause).

49. See *In re Certified Questions*, No. 161492, 2020 WL 5877599, at *32 (Mich. Oct. 2, 2020) (Viviano J., concurring in part and dissenting in part) (noting that a “1919 law passed in the wake of the influenza epidemic” was the predecessor to the state’s modern provision, Mich. C. L. 333.2253).

50. See DAVID M. OSHINSKY, *POLIO: AN AMERICAN STORY 2* (2005) (“[In early June [1949], the [San Angelo, Texas] city council voted to close all indoor meeting places for a week . . . [theaters went dark, the municipal swimming pool was closed, and churches suspended service for one Sunday, and] bars and bowling alleys shut their doors.”); *id.* at 346 (“Public events were cancelled, and swimming pools, movie theaters, and libraries were closed [in Hickory, North Carolina in the summer of 1944]”); *id.* photo of a 1952 March of Dimes poster (recommending to parents that children should refrain from “mix[ing] with new groups” during polio outbreaks).

51. Scott Burris, *Rationality Review and the Politics of Public Health*, 34 VILLANOVA L. REV. 933 (1989); Wendy Parmet, *AIDS and Quarantine: The Revival of an Archaic Doctrine*, 14 HOFSTRA L. REV. 53 (1985); Kathleen M. Sullivan & Martha A. Field, *AIDS and the Coercive Power of the State*, 23 HARV. C.R.-C.L. L. REV. 139 (1988).

52. Larry O. Gostin, *The Future of Communicable Disease Control: Toward a New Concept in Public Health Law*, 64 MILBANK Q. 79, 79 (1986).

53. Parmet, *supra* note 51, at 54-55.

54. Gostin, *supra* note 52, at 86; see also Burris, *supra* note 51, at 33 (questioning “precisely how much of *Jacobson* remains viable”).

55. Parmet, *supra* note 51, at 77 (emphasis added).

56. Gostin, *supra* note 52, at 86 (emphasis added).

assessment of the risk the subject posed of transmitting infection to others, as well as substantive standards requiring “that restrictions on freedom represent the ‘least restrictive alternative’ available to achieve a ‘compelling state interest.’”⁵⁷

In a foundational 1999 law review article, Professors Scott Burris and Zita Lazzarini joined Gostin to set forth an ambitious agenda for ongoing efforts to reform infectious disease control law.⁵⁸ They offered several key principles to guide modernization efforts. Three of their recommendations are particularly relevant for my purposes. *First*, legislatures should recognize that voluntary cooperation is the primary means of securing compliance with disease control interventions, even when they are purportedly mandatory.⁵⁹ *Second*, executive officials’ use of compulsory powers should be conditioned on a demonstrated threat of significant risk.⁶⁰ *Third*, public health statutes should provide executive officials with a graded range of alternatives and use of the least restrictive alternative should be mandated by law.⁶¹

In the aftermath of the jetliner and anthrax attacks of 2001,⁶² Gostin’s call for “a coherent statutory basis for the future of public health law”⁶³ In collaboration with other experts, he drafted a model state statute to guide reforms. In October 2001, they released the Model State Emergency Health Powers Act (MSEHPA), funded by the Centers for Disease Control and Prevention.⁶⁴ The MSEHPA was controversial⁶⁵ but influential. By the fifth anniversary of the 9/11 attacks, 38 states and the District of Columbia had passed a total of 66 bills or resolutions that included provisions from or closely related to the MSEHPA.⁶⁶ Many of these

57. ALBERT R. JONSEN & JEFF STRYKER, EDs., *THE SOCIAL IMPACT OF AIDS IN THE US* 35 (1993).

58. Gostin, Burris & Lazzarini, *supra* note 15, at 119.

59. *Id.* at 94-95, 120.

60. *Id.* at 121.

61. *Id.* at 123-24.

62. GOSTIN & WILEY, *supra* note 3, at 401 (“A week after the terrorist attacks of September 11, 2001, letters containing anthrax bacteria were mailed from Trenton, New Jersey to the three major network news stations in New York City, and to two tabloid newspapers, sickening twenty-two people and killing five.”).

63. Gostin, *supra* note 52, at 79.

64. MSEHPA, *supra* note 21.

65. Among other groups, the American Civil Liberties Union criticized the MSEHPA for failing to include sufficient safeguards for individual liberty, privacy, and equality, for defining public health emergency too broadly and thus creating an opportunity for state officials to use emergency powers in response to diseases for which compulsory quarantine and treatment are unwarranted. *Q & A on the Model State Emergency Health Powers Act*, AM. CIV. LIBERTIES UNION, <https://www.aclu.org/other/model-state-emergency-health-powers-act> (last visited Oct. 13, 2020). Some public health law scholars were highly critical of the MSEHPA’s inadequate protections for civil liberties. *E.g.*, George J. Annas, *Bioterrorism, Public Health, and Human Rights*, 21 *HEALTH AFF.* 94, 94-95 (2002).

66. THE CENTER FOR LAW & THE PUBLIC’S HEALTH, *THE MODEL STATE EMERGENCY HEALTH POWERS ACT (MSEHPA) STATE LEGISLATIVE ACTIVITY* (2006), <http://www.publichealthlaw.net>

statutes specifically empowered state officials to declare a public health emergency, which would trigger authorizations for state and local health officials to issue disease control orders.⁶⁷ Emergency declarations were typically time-limited, but renewable.⁶⁸

The public health emergency provisions in the MSEHPA and the state legislation it inspired focused predominantly on individually targeted measures to achieve *containment* — stopping the spread of infection from initial cases (typically international travelers) to other people before community transmission becomes widespread, primarily through screening, isolation, and quarantine of individuals.⁶⁹ They had paid scant attention to *community mitigation* — compulsory social distancing and use of personal protective equipment (PPE) by the general public to flatten the curve of the epidemic when containment has failed.⁷⁰

[/MSEHPA/MSEHPA%20Leg%20Activity.pdf](#)

67. Lainie Rutkow, *An Analysis of State Public Health Emergency Declarations*, 104 AM. J. PUB. HEALTH 1601, 1601 (2014).

68. *Id.*

69. See Rochelle P. Walensky & Carlos del Rio, *From Mitigation to Containment of the COVID-19 Pandemic: Putting the SARS-CoV-2 Genie Back in the Bottle*, 323 JAMA 1889, 1889-90 (2020) (“As part of pandemic preparedness, epidemiologists promote ‘containment strategies’ designed to prevent community transmission.”); see also MIQUEL PORTA, ED., A DICTIONARY OF EPIDEMIOLOGY 51 (5th ed. 2008) (defining containment as “regional eradication of communicable disease”).

70. Walensky & del Rio, *supra* note 69, at 1889 (“When disease outpaces containment, countries rely on ‘mitigation strategies.’ Countries like China, Italy, Spain, and the U.S. moved from containment [of the coronavirus pandemic] to mitigation, albeit at differing paces.”). The now-ubiquitous phrase “flatten the curve” refers to a mitigation strategy identified through historical analysis of the 1918 influenza pandemic and endorsed in U.S. pandemic influenza plans in 2007. See CTRS. FOR DISEASE CONTROL & PREVENTION, INTERIM PRE-PANDEMIC PLANNING GUIDANCE 9 (2007) (“Reshaping the demand for healthcare services by using [nonpharmaceutical interventions (NPIs), including social distancing] . . . means reducing the burdens on the medical and public health infrastructure by decreasing demand for medical services at the peak of the epidemic and throughout the epidemic wave; by spreading the aggregate demand over a longer time; and, to the extent possible, by reducing net demand through reduction in patient numbers and case severity Recent preliminary analyses of cities affected by the 1918 pandemic show a highly significant association between the early use of multiple NPIs and reductions in peak and overall death rates.”); see also Noreen Qualls et al., *Community Mitigation Guidelines to Prevent Pandemic Influenza — United States, 2017*, 66 MORBIDITY & MORTALITY WEEKLY REPORT 1, 18 (2017) (“Although there is limited empirical evidence supporting the effectiveness of implementing any individual measure alone (other than school closures and dismissals), the evidence for implementing multiple social-distancing measures in combination with other NPIs includes systematic literature reviews, historical analyses of the 1918 pandemic, and mathematical modeling studies.”). Some experts have advocated for a stronger response to the coronavirus pandemic aimed at *suppression*—crushing the curve to very low levels of community transmission. See Walensky & del Rio, *supra* note 69, at 1889 (“For . . . COVID-19, countries like South Korea—an example of successful containment—had a coordinated governmental response, testing on a massive scale, and prompt contact tracing and quarantine.”).

The term *social distancing* first appeared in the mid-aughts in federal plans to guide state and local responses to coronavirus and flu epidemics. A January 2004 CDC plan for possible resurgence of SARS used the phrase “community-wide measures to increase social distance,” to describe this strategy as something distinct from isolation of the infected and quarantine of the exposed.⁷¹ Social distancing was designed to apply to “[a]ll members of a community in which 1) extensive transmission . . . is occurring, 2) a significant number of cases lack clearly identifiable epidemiologic links at the time of evaluation, and 3) restrictions on persons known to have been exposed [i.e., quarantines] are considered insufficient to prevent further spread.”⁷² A 2005 Homeland Security Council strategy for pandemic influenza advised that individuals and families should be prepared for “limitation of attendance at public gatherings and nonessential travel for several days or weeks.”⁷³ The 2006 plan for implementing this strategy addressed the timing of different degrees of social distancing measures, noting that “[l]ow-cost or sustainable social distancing measures” such as holding work meetings via teleconference and advising individuals to keep a physical distance of three to six feet from others “should be introduced immediately after a community outbreak begins.”⁷⁴ The plan noted that more disruptive measures, such as “snow day” closures of all schools and workplaces, “can be sustained only for limited periods” and “should be reserved for situations in which the need for disease containment is critical.”⁷⁵

Prior to 2020, the few reports that discussed sheltering in place for the general population broached it as a voluntary measure, and one on which experts disagreed.⁷⁶ Several empirical and policy evaluations of social distancing and other community mitigation measures were published in the academic literature, but few seriously contemplated long-term orders to shelter in place and cease all non-essential business operations.⁷⁷ The SARS-CoV and influenza strains on which

71. CTRS. FOR DISEASE CONTROL & PREVENTION, PUBLIC HEALTH GUIDANCE FOR COMMUNITY-LEVEL PREPAREDNESS AND RESPONSE TO SEVERE ACUTE RESPIRATORY SYNDROME (SARS) VERSION 2 SUPPLEMENT D APP. D1 7 (2004), <https://www.cdc.gov/sars/guidance/d-quarantine/app1.pdf>.

72. *Id.*

73. HOMELAND SEC. COUNCIL, NATIONAL STRATEGY FOR PANDEMIC INFLUENZA 11 (2005).

74. HOMELAND SEC. COUNCIL, NATIONAL STRATEGY FOR PANDEMIC INFLUENZA: IMPLEMENTATION PLAN 108 (2006).

75. *Id.*

76. *See, e.g.*, Julia E. Aledort et al., *Non-Pharmaceutical Public Health Interventions for Pandemic Influenza: An Evaluation of the Evidence Base*, 7 BMC PUB. HEALTH 208, 211 tbl.3, 213 fig.1 (2007) (assessing “voluntary sheltering” at home—defined as “sequestration of healthy persons to avoid exposure”—in consultation with an expert panel, which was in disagreement as to its advisability).

77. *See, e.g.*, World Health Organization Writing Group, *Nonpharmaceutical Interventions for Pandemic Influenza, National and Community Measures*, 12 EMERGING INFECTIOUS DISEASES 88,

these plans were based were more lethal than SARS-CoV-2 (the novel coronavirus strain that causes COVID-19),⁷⁸ but easier to control — in part because they did not spread through significant asymptomatic or pre-symptomatic transmission. Specific provisions authorizing health officials to order limits on gatherings and closure of gathering places for the general population were not added to state public health emergency statutes in many jurisdictions, in spite of pandemic preparedness plans indicating they may be needed.

C. Specific Statutory Authorities for Social Distancing

Some states do have specific statutory provisions authorizing bans on gatherings or assemblages, closure of schools, and personal movement controls, but these provisions do not encompass all conceivable compulsory social distancing measures. Some of these statutory provisions specifically refer to public health necessities, while others refer only to ensuring public safety or public order. Some require the declaration of an emergency or disaster pursuant to statutory criteria and (typically renewable) time limits, but others do not.

In a few states, health officials are specifically authorized to prohibit gatherings and to close schools and other gathering places. For example, Colorado’s public health statute includes a 2008 provision authorizing local public health agencies “[t]o close schools and public places and to prohibit gatherings of people when necessary to protect public health,”⁷⁹ but this provision does not clearly encompass closures of private businesses.⁸⁰ Wisconsin has a similar, but slightly broader provision empowering the state health department to “close schools and forbid public gatherings in schools, churches, *and other places* to

89–90 (2006) (describing social distancing as involving cancellation of mass gatherings and closure of schools, colleges, theaters, and other public gathering places); Aledort et al., *supra* note 76 (A panel of experts advised that “community restrictions could be considered on a case-by-case basis, for example, cancellation of an event to which thousands would travel. However, efforts to forcibly limit public assembly or movement were seen as legally and ethically problematic, especially when there is limited scientific evidence supporting such restrictions [Though] less invasive *voluntary* efforts to reduce social contact, especially self-isolation of the sick at home, self-quarantine of the exposed, and, when feasible, sheltering by the well ought to be widely supported [by the general public].”) (emphasis added).

78. SARS-CoV was a distinct strain from SARS-CoV-2. It had a case-fatality rate of about 10–15%. *Update 49: SARS Case Fatality Ratio, Incubation Period*, WORLD HEALTH ORG. (May 7, 2003), https://www.who.int/csr/sars/archive/2003_05_07a/en/.

79. COLO. REV. STAT. § 25-1-506(3)(b)(VII) (2013); S.B. 08-194, 66th Gen. Assemb., Reg. Sess. (Colo. 2008).

80. *See Larimer Cty. Pub. Health v. Maniacs Gym*, 2020 WL 1943829 (Apr. 1, 2020) (relying on the local public health agency’s quarantine power, and not its power to close “public places” or “prohibit gatherings” to issue a preliminary injunction against the owner of a gym which remained open to members in defiance of a local order prohibiting nonessential on-site business operations).

control outbreaks and epidemics,”⁸¹ but this provision may not encompass prohibitions on private house parties.⁸² Neither of these authorities is contingent on a formal emergency declaration.

Some of the most sweeping authorities to control personal movement are found in civil defense, emergency, and disaster statutes enacted in the World War II, Civil Rights, and Vietnam War eras.⁸³ These provisions, aimed at equipping governors to quell civil unrest, were not adopted with communicable disease threats foremost in legislators’ minds, but were generally drafted broadly enough to encompass pandemics as “naturally occurring” disasters or emergencies. For example, a provision in Massachusetts’s Civil Defense Act, adopted in 1950, grants the governor authority “related to . . . [a]ssemblages, parades or pedestrian travel, in order to protect the physical safety of persons or property.”⁸⁴ Pennsylvania’s disaster management statute, adopted in 1978, authorizes the governor to “[c]ontrol ingress and egress to and from a disaster area, the movement of persons within the area and the occupancy of premises therein,”⁸⁵ a provision drafted broadly enough to encompass all movements, whether in public areas or privately owned premises. California’s Emergency Services Act, adopted in 1970, includes the broadest possible delegation to the executive. During a declared emergency, it grants the governor “the right to exercise within the area designated *all police power vested in the state* by the Constitution and laws of the State of California in order to effectuate the purposes of [emergency mitigation and protection of health and safety].”⁸⁶

II. THE U.S. RESPONSE TO THE 2020 CORONAVIRUS PANDEMIC

To slow the spread of the coronavirus pandemic, all fifty governors and many tribal, local officials have exercised broad powers available to them under public health statutes and emergency declarations to alter the operations of businesses and other organizations and to restrict the movement of individuals.⁸⁷ After

81. WISC. STAT. § 252.02(3) (2015) (emphasis added).

82. *See* Wis. Legislature v. Palm, 942 N.W.2d 900, 970 (2020) (Hagedorn, J., dissenting) (noting that the plaintiffs appear to acknowledge statutory authority to close schools and churches and forbid other “public gatherings” but argue those powers do not authorize the full range of restrictions imposed in the stay-at-home order).

83. PATRICK S. ROBERTS, DISASTERS AND THE AMERICAN STATE 127-145 (2013).

84. MASS. GEN. LAWS ch. 639, § 7(g) (1950).

85. 35 PA. CONS. STAT., § 7301(f)(7) (2014); *see also* ALASKA STAT. § 26.23.020(g)(7) (2004) (accord); GA. CODE ANN. § 38-3-51(d)(7) (2010) (accord); LA. REV. STAT. § 29-724 (C)(3) (accord).

86. CAL. GOV’T CODE § 8627 (West 2017) (emphasis added).

87. Jennifer Kates, Josh Michaud & Jennifer Tolbert, *Stay-at-home Orders to Fight COVID-19 in the United States: A Scattershot Approach*, KAISER FAMILY FOUND. (Apr. 5, 2020), <https://www.kff.org/coronavirus-policy-watch/stay-at-home-orders-to-fight-covid19> [<https://perma.cc/WXK4-BCPU>]; *see also* *State Actions to Mitigate the Spread of COVID-19*,

containment measures failed in the United States and United Kingdom, an influential report released by the Imperial College of London's COVID-19 Task Force in mid-March modeled the impact of multilayered nonpharmaceutical interventions, also known as community mitigation measures, which the task force assumed would be necessary to reduce peak impacts on health systems.⁸⁸ The report concluded that while we wait for widespread distribution and acceptance of a safe and effective vaccine, some degree of community mitigation may be needed on an intermittent basis — in some places at some times — for 18 months or more.⁸⁹

A. The Failure of Screening, Isolation, and Quarantine to Contain the Pandemic

In January 2020, in response to reports of a pneumonia outbreak in Wuhan, China caused by a novel coronavirus strain, federal officials initiated containment measures to prevent the epidemic from reaching the U.S. The containment strategy relied on federal, state, and local communicable disease control authorities to screen and identify infected and exposed travelers entering the U.S. from China and isolate or quarantine them. Public health entry screening began at major international airports in the U.S. on January 17,⁹⁰ but there is no evidence that airport screening resulted in detection of any reported cases during the containment phase.⁹¹ Two Americans who had recently returned from Wuhan tested positive for the novel coronavirus on January 21 and 24 after arriving at hospitals with symptoms; they were treated in isolation rooms.⁹² The State Department

KAISER FAMILY FOUND., <https://www.kff.org/health-costs/issue-brief/state-data-and-policy-actions-to-address-coronavirus/#socialdistancing> [https://perma.cc/4HYP-BKLU] (last visited June 5, 2020) (tracking state social-distancing executive orders).

88. See FERGUSON ET AL., *supra* note 3, at 6-7.

89. *Id.* at 15.

90. *Public Health Screening to Begin at 3 U.S. Airports for 2019 Novel Coronavirus ("2019-nCoV")*, CTRS. FOR DISEASE CONTROL & PREVENTION (Jan. 17, 2020), <https://www.cdc.gov/media/releases/2020/p0117-coronavirus-screening.html>; *First Travel-Related Case of 2019 Novel Coronavirus Detected in United States*, CTRS. FOR DISEASE CONTROL & PREVENTION (Jan. 21, 2020), <https://www.cdc.gov/media/releases/2020/p0121-novel-coronavirus-travel-case.html> (describing expansion of public health entry screening to additional airports).

91. Out of 256 individuals across 34 jurisdictions for whom CDC staff recommended testing in January 2020—at a time when testing was available in the U.S. solely through CDC—six were identified through airport screening. CDC did not specify whether any of the six identified through airport screening were among the 11 who tested positive in the U.S. in January. Kristina L. Bajema, et al., *Persons Evaluated for 2019 Novel Coronavirus — United States, January 2020*, 69 MORBIDITY & MORTALITY WEEKLY REPORT 166 (2020).

92. *First Travel-Related Case of 2019 Novel Coronavirus Detected in United States*, *supra* note 90; *Second Travel-Related Case of 2019 Novel Coronavirus Detected in United States*, CTRS. FOR DISEASE CONTROL & PREVENTION (Jan. 24, 2020), <https://www.cdc.gov/media/releases/2020/p0124-second-travel-coronavirus.html>.

repatriated hundreds of Americans from Wuhan.⁹³ Under the first federal quarantine order issued in more than 50 years,⁹⁴ they were held in government-provided facilities while being monitored for symptoms and tested for infection.⁹⁵ On January 30, CDC reported the first instance of human-to-human transmission occurring within the U.S. — between one of the first travel-acquired cases and a household contact.⁹⁶ The following day, Health and Human Services Secretary Alex Azar declared a Public Health Emergency,⁹⁷ formalizing efforts to support development and distribution of diagnostic tests, therapeutics, and vaccines.

It was evident by late February that moderate community transmission was occurring in multiple regions of the U.S. in spite of containment efforts. Individuals who had not travelled overseas and did not appear to have encountered someone previously known to have been infected were testing positive for COVID-19.⁹⁸ In an effort to encourage self-isolation, many state and local health departments issued recommendations or orders directing people to stay home if they had symptoms characteristic of coronavirus infection.⁹⁹ But reports from China, Germany, and elsewhere indicated that asymptomatic or pre-symptomatic individuals were capable of transmitting infection to others, rendering guidance focused on people who were symptomatic inadequate to achieve containment.¹⁰⁰

93. *HHS and CDC Receive Flight Carrying Repatriated US Citizens*, CTRS. FOR DISEASE CONTROL & PREVENTION (Jan. 29, 2020), <https://www.cdc.gov/media/releases/2020/s0129-repatriated-US-citizens.html>.

94. *Transcript for CDC Media Telebriefing: Update on 2019 Novel Coronavirus (2019-nCoV)*, CTRS. FOR DISEASE CONTROL & PREVENTION (Jan. 31, 2020), <https://www.cdc.gov/media/releases/2020/t0131-2019-novel-coronavirus.html>.

95. *CDC Issues Federal Quarantine Order to Repatriated U.S. Citizens at March Air Reserve Base*, CTRS. FOR DISEASE CONTROL & PREVENTION (Jan. 31, 2020), <https://www.cdc.gov/media/releases/2020/s0131-federal-quarantine-march-air-reserve-base.html>.

96. *CDC Confirms Person-to-Person Spread of New Coronavirus in the United States*, CTRS. FOR DISEASE CONTROL & PREVENTION (Jan. 30, 2020), <https://www.cdc.gov/media/releases/2020/p0130-coronavirus-spread.html>.

97. *HEALTH & HUMAN SVS. SEC`Y ALEX AZAR, DETERMINATION THAT A PUBLIC HEALTH EMERGENCY EXISTS* (Jan. 31, 2020), <https://www.phe.gov/emergency/news/healthactions/phe/Pages/2019-nCoV.aspx>.

98. *See CDC Confirms Possible Instance of Community Spread of COVID-19 in U.S.*, CTRS. FOR DISEASE CONTROL & PREVENTION (Feb. 26, 2020), <https://www.cdc.gov/media/releases/2020/s0226-Covid-19-spread.html>; *CDC Announces Additional COVID-19 Presumptive Positive Cases*, CTRS. FOR DISEASE CONTROL & PREVENTION (Feb. 28, 2020), <https://www.cdc.gov/media/releases/2020/s0228-additional-COVID-19-cases.html>.

99. *See, e.g., Local Health Officials Announce New Recommendations to Reduce Risk of Spread of COVID-19*, KING COUNTY (Mar. 4, 2020), <https://www.kingcounty.gov/depts/health/news/2020/March/4-covid-recommendations.aspx>.

100. Matt Apuzzo, Selam Gebrekidan & David D. Kirkpatrick, *How the World Missed COVID-19's Silent Spread*, N.Y. TIMES (Jun. 27, 2020), <https://www.nytimes.com/2020/06/27/world/europe/coronavirus-spread-asymptomatic.html>; Ruiyun Li et al., *Substantial undocumented infection facilitates the rapid dissemination of novel coronavirus (SARS-CoV-2)*, 368 SCIENCE 489 (2020).

Several countries ramped up widespread testing and contact tracing to contain or suppress the spread of asymptomatic infection. But in the U.S., these efforts were slow to start and were quickly outpaced by widespread community transmission. The FDA initially restricted testing to labs that had obtained special approval.¹⁰¹ Early CDC guidelines sharply limited which patients should be referred for testing.¹⁰² Testing supplies were scarce.¹⁰³ Lack of access to testing left people unsure about whether they posed a risk of transmitting the virus to others and state and local leaders ill equipped to deploy individually targeted disease control strategies.

B. The Use of Social Distancing and Face Masks to Mitigate Community Transmission and “Flatten the Curve”

Initially, public health messages aimed at the general public urged people to maintain a distance of 6 feet from people outside of their households, to wash hands frequently, to wear face masks only if sick, and to work from home if possible. But as reports of overwhelmed hospitals in Italy dominated U.S. media,¹⁰⁴ and as scientific understanding of the public health threat evolved, guidance — and eventually mandatory orders — changed rapidly. Public health experts sounded the alarm, urging governments and institutions to act immediately to “flatten the curve” and protect hospital capacity by implementing social distancing plans.¹⁰⁵

In mid-March, federal guidelines struggled to keep pace with the restrictions imposed by state and local governments. On March 12, CDC quietly posted a

101. *Lab Advisory: Reminder: COVID-19 Diagnostic Testing*, CTRS. FOR DISEASE CONTROL & PREVENTION (Feb. 18, 2020), https://www.cdc.gov/csels/dls/locs/2020/reminder_covid-19_diagnostic_testing.html.

102. *Update and Interim Guidance on Outbreak of 2019 Novel Coronavirus (2019-nCoV)*, CTRS. FOR DISEASE CONTROL & PREVENTION (Feb. 1, 2020), <https://emergency.cdc.gov/han/han00427.asp>.

103. Michael D. Shear et al., *The Lost Month: How a Failure to Test Blinded the U.S. to Covid-19*, N.Y. TIMES (Mar. 28, 2020), <https://www.nytimes.com/2020/03/28/us/testing-coronavirus-pandemic.html> (“[A]s the deadly virus spread from China with ferocity across the United States between late January and early March, large-scale testing of people who might have been infected did not happen — because of technical flaws, regulatory hurdles, business-as-usual bureaucracies and lack of leadership at multiple levels . . . [T]he overall response by the government was too slow, especially when it came to logistical questions like getting enough testing supplies to those who needed them.”).

104. See, e.g., Jason Horowitz, *Italy’s Health Care System Groans Under Coronavirus—A Warning to the World*, N.Y. TIMES (Mar. 12, 2020), <https://www.nytimes.com/2020/03/12/world/europe/12italy-coronavirus-health-care.html>.

105. Helen Branswell, *Why “Flattening the Curve” may be the World’s Best Bet to Slow the Coronavirus*, STAT (Mar. 11, 2020). The now-ubiquitous phrase originated with a historical analysis of the 1918 pandemic and was endorsed in U.S. pandemic flu plans in 2007. See CTRS. FOR DISEASE CONTROL & PREVENTION, INTERIM PRE-PANDEMIC PLANNING GUIDANCE 9 (2007).

document titled “Implementation of Mitigation Strategies for Communities with Local COVID-19 Transmission.”¹⁰⁶ The document was removed from the CDC website sometime later in the year. Described as “a framework for actions which local and state health departments can recommend in their community,” the document advised that “actions should be guided by the local characteristics of disease transmission, demographics, and public health and healthcare system capacity.”¹⁰⁷ In places with “substantial” community transmission, defined as occurring when “healthcare staffing [is] significantly impacted [and there are] multiple cases within communal settings like healthcare facilities, schools, mass gatherings etc.,”¹⁰⁸ the framework recommended that “[a]ll individuals should limit community movement and adapt to disruptions in routine activities (e.g., school and/or work closures) according to guidance from local officials.”¹⁰⁹ The CDC framework additionally recommended that organizations should “cancel community and faith-based gatherings of any size.”¹¹⁰

The White House issued competing guidance on March 16.¹¹¹ The “15 Days to Stop the Spread” guidelines recommended that certain groups — people who feel ill, people who test positive for coronavirus and their family members, and people who are older or who have serious underlying health conditions that put them at increased risk — should stay at home. It also recommended that everyone should “avoid social gatherings in groups of more than 10 people,” “eating or drinking at bars, restaurants, and food courts,” and “discretionary travel, shopping trips, and social visits.”¹¹² With respect to closures, the guidelines noted that “[g]overnors in states with evidence of community transmission should close schools in affected and surrounding areas” and “[i]n states with evidence of community transmission, bars, restaurants, food courts, gyms, and other indoor and outdoor venues where groups of people congregate should be closed.”¹¹³

In the latter half of March, state and local governments rapidly issued orders that exceeded what federal guidelines recommended. Lack of testing left leaders uncertain about whether substantial community transmission would soon overwhelm hospitals, prompting many to adopt the precautionary principle.¹¹⁴ The

106. *Implementation of Mitigation Strategies for Communities*, CTRS. FOR DISEASE CONTROL & PREVENTION (March 12, 2020) (on file with author).

107. *Id.* at 1.

108. *Id.* at 9.

109. *Id.* at 7.

110. *Id.*

111. *15 Days to Slow the Spread*, WHITE HOUSE (March 16, 2020), <https://www.whitehouse.gov/articles/15-days-slow-spread/>.

112. *Id.*

113. *Id.*

114. Branswell, *supra* note 105 (quoting Caitlin Rivers, an assistant professor of epidemiology at the Johns Hopkins Center for Health Security: “I think that in terms of the decision-makers, we are in a place right now where we don’t have the data we wish we had in order to inform these

same day the White House issued its 15 Days guidance, seven local health officers in the San Francisco Bay Area followed the examples set by China and Italy and issued mandatory shelter-in-place orders and prohibitions on all onsite business operations deemed nonessential.¹¹⁵ The orders indicated violations would be misdemeanor offenses punishable by fine, imprisonment, or both. Later, guidance issued to the San Francisco Police Department indicated that police may educate, admonish, seek voluntary compliance, and use enforcement for violations of the shelter-in-place order against businesses and individuals.¹¹⁶

The Bay Area orders opened the flood gates. Within two weeks, the majority of state governors had followed their lead.¹¹⁷ The details of orders varied. Nearly all states and many local governments closed schools and ordered bars, restaurants, theaters, gyms, shopping malls, and other settings where people tend to gather indoors to close or limit their operations.¹¹⁸ In a majority of jurisdictions, officials went further, closing all non-essential businesses to the public, with specified exceptions for health-care, food and agriculture, home repair, first responders, and other sectors deemed “essential” or “life-sustaining.”¹¹⁹ Several jurisdictions followed the Bay Area Orders model by prohibiting all non-essential on-site business activities, even for facilities closed to the public.¹²⁰ All states adopted limits on gatherings, though caps varied.¹²¹ Most governors also adopted state-wide mandates for the general public to stay home except for essential work, errands, and some forms of outdoor exercise. Some state and local orders threatened violators with criminal penalties. Others relied on administrative sanctions and civil penalties, including citations, fines, and loss of business licenses. By the end of March, when the White House replaced its 15 Days guidance with “30 Days to Slow the Spread,”¹²² the majority of states had gone

decisions. So what I think we’re seeing is decision-makers struggling to pull the trigger on these really big, impactful decisions without having a clear sense of the current status.”)

115. See, e.g., CITY & CNTY. OF S.F. ADMIN. ORDER NO. C19-07 (Mar. 16, 2020), <https://sfgsa.org/sites/default/files/Document/OrderC19-07ShelterinPlace.pdf> [https://perma.cc/QY48-MFZW]; Julia Prodis Sulek, *Meet the Doctor Who Ordered the Bay Area’s Coronavirus Lockdown, the First in the U.S.*, MERCURY NEWS (Mar. 29, 2020, 3:55 PM), <https://www.mercurynews.com/2020/03/29/she-shut-down-the-bay-area-to-slow-the-deadly-coronavirus-none-of-us-really-believed-we-would-do-it> [https://perma.cc/K4DH-QYG8] (describing the events that led seven local jurisdictions to simultaneously issue shelter-in-place orders).

116. SAN FRANCISCO POLICE DEPARTMENT, NOTICE 20-045: ENFORCEMENT OF PUBLIC HEALTH ORDERS (Mar. 23, 2020), <https://www.sanfranciscopolice.org/sites/default/files/2020-03/SFPDNotice20.045.20200323.pdf>.

117. Kates et al., *supra* note 87.

118. *Id.*

119. *Id.*

120. *Id.*

121. *Id.*

122. *The President’s Coronavirus Guidelines for America: 30 Days to Slow the Spread*, WHITE

significantly further than the White House or CDC guidance recommended.

In April, more states added stay-at-home orders and others issued extensions.¹²³ Several state and local governments also issued mandatory face mask requirements, physical distancing requirements, and capacity or density limits to reduce the risk of transmission for essential workers and customers at essential businesses.¹²⁴ CDC reversed its earlier guidance directing that masks should only be worn by health workers and people who are sick. Later, this early guidance against masks for the general public would be widely reported as having been motivated by the need to conserve scarce supplies for health workers. But the mask guidance flip-flop was also driven by evolving understanding of the risk of asymptomatic or pre-symptomatic spread. Like social distancing, mask mandates for the general public were based on the need to treat everyone as if they could be silently spreading the virus to others.

Federal, state, and local governments also sought to provide supports and legal protections alongside the restrictions and mandates, but not nearly enough to meet dire needs. Many jurisdictions released some people in custody to de-densify congregate institutions. Many issued orders halting evictions and utility shut-offs.¹²⁵ Some sought to provide financial support to businesses and households. Some removed regulatory barriers to open up more public space for safer alternatives to restricted activities. For example, many local governments closed streets to make more room for outdoor dining, exercise, and socializing. Congress passed two coronavirus response statutes: one on March 18¹²⁶ and another on March 27.¹²⁷ These bills provided important financial supports for businesses and some relief for households. But they did not prioritize the massive ramp-up of resources for testing, tracing, and supported isolation that would be required to

HOUSE (March 30, 2020), https://www.whitehouse.gov/wpcontent/uploads/2020/03/03.16.20_coronavirus-guidance_8.5x11_315PM.pdf.

123. Kates et al., *supra* note 87.

124. *Id.*

125. *See, e.g.*, OFFICE OF THE MAYOR OF SAN FRANCISCO, TWELFTH SUPPLEMENT TO MAYORAL PROCLAMATION DECLARING THE EXISTENCE OF A LOCAL EMERGENCY DATED FEBRUARY 25, 2020 (Apr. 30, 2020), https://sfmayor.org/sites/default/files/Twelfth_Supplement_043020.pdf; Emily A. Benfer, Solomon J. Greene & Margaret Hagan, Approaches to Eviction Prevention (Aug. 6, 2020) (unpublished manuscript) (available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3662736). The CDC issued a federal eviction freeze order, relying on a provision in the Public Health Service Act that provides broad authority to federal health officials to adopt measures to control the spread of specific communicable diseases. Lindsay F. Wiley, *CDC's Boundary-Pushing Eviction Freeze*, ACS EXPERT FORUM (Sept 3, 2020), <https://www.acslaw.org/expertforum/cdcs-boundary-pushing-eviction-freeze/>. I will address the legal issues surrounding CDC's authority and potential reforms to the Public Health Service Act in a future project.

126. Families First Coronavirus Response Act, Pub. L. No. 116–127, 134 Stat. 178 (2020).

127. Coronavirus Aid, Relief, and Economic Security (CARES) Act, Pub. L. No. 116–136, 134 Stat. 281 (2020).

implement a less disruptive approach to pandemic response.

C. The Break-Down of Consensus: Resistance to Mitigation and Calls to “Crush the Curve” by Achieving Suppression

By mid-April, lack of consensus about the strategic purpose of compulsory social distancing and shelter-in-place orders became painfully clear. Mitigation efforts had successfully prevented widespread community transmission from reaching many parts of the country, leaving their hospital capacity intact.¹²⁸ The number of cases, hospitalizations, and deaths reported per day began to flatten and eventually decline at the national level. But national-level trends can be driven by large population centers like New York City and may not align with local conditions. A growing number of protestors demanded that stay-at-home orders be lifted and businesses be allowed to reopen since hospitals were not overwhelmed.¹²⁹

Meanwhile, some commentators had begun calling for a more aggressive plan to “crush the curve.”¹³⁰ Achieving long-term suppression of community transmission would save lives, minimize social disruption, and allow the economy to rebound more sustainably. Touting these benefits, some argued that stay at home orders and business closures should remain in place until human-to-human transmission was nearly eradicated.¹³¹ Experts offered detailed roadmaps, but these proposals depended on a massive and near-immediate expansion of capacity for easy-access testing.¹³² There was no indication that Congress would provide the

128. See Joel Rose, *U.S. Field Hospitals Stand Down, Most Without Treating Any COVID-19 Patients*, NATIONAL PUBLIC RADIO (May 7, 2020), <https://www.npr.org/2020/05/07/851712311/u-s-field-hospitals-stand-down-most-without-treating-any-covid-19-patients>.

129. Charles Ornstein, *How America’s Hospitals Survived the First Wave of the Coronavirus*, PROPUBLICA (June 15, 2020), <https://www.propublica.org/article/how-americas-hospitals-survived-the-first-wave-of-the-coronavirus>.

130. Joel Achenbach, *As Social Distancing Shows Signs of Working, What’s Next? Crush the Curve, Experts Say*, WASH. POST (April 8, 2020), https://www.washingtonpost.com/national/health-science/as-social-distancing-shows-signs-of-working-whats-next-crush-the-curve-experts-say/2020/04/08/3c720e06-7923-11ea-b6ff-597f170df8f8_story.html.

131. *Id.* (“We should not end social distancing and reopen the economy until we know the infection rate is nearly zero “Aggressive mitigation measures, such as social distancing and the closure of nonessential businesses, should continue, even when the trend is moving in the right direction.”).

132. *E.g.*, DANIELLE ALLEN ET AL., ROADMAP TO PANDEMIC RESILIENCE: MASSIVE SCALE TESTING, TRACING, AND SUPPORTED ISOLATION (TTSI) AS THE PATH TO PANDEMIC RESILIENCE FOR A FREE SOCIETY (2020) (advocating for a massive scale-up of testing, tracing, and supported isolation to enable disease control while gradually easing social distancing restrictions); Harvey V. Fineberg, *Ten Weeks to Crush the Curve*, 382 NEW ENGL. J. MED. e37 (2020) (arguing that if the President established unified command to coordinate supply chains and ensure capacity to perform millions of diagnostic tests within two weeks, the U.S. could achieve lasting suppression within ten weeks).

necessary funding any time soon.¹³³ But “crush the curve” proponents were not always clear on the extent to which suppression required interventions *other* than social distancing, causing some to argue that if stay-at-home orders were kept in place just a little longer, sustainable suppression could be achieved.¹³⁴

The influential March 16 Imperial College Task Force report had laid out the dilemma. *Mitigation* would flatten the curve but allow an unconscionable number of deaths over the course of the pandemic.¹³⁵ Therefore, the reports authors determined that, “[f]or countries able to achieve it, this leaves *suppression* as the preferred policy option.”¹³⁶ The report defined suppression as “reduc[ing] the reproduction number (the average number of secondary cases each case generates), *R*, to below 1 and hence . . . reduc[ing] case numbers to low levels or (as for SARS or Ebola) eliminat[ing] human-to-human transmission.”¹³⁷ In addition to “social distancing of the entire population,” this would require successful isolation and quarantine of infected and exposed individuals.¹³⁸ The task force warned, however, that “this type of intensive intervention package . . . will need to be maintained until a vaccine is widely distributed and accepted — given . . . that transmission will quickly rebound if interventions are relaxed.”¹³⁹ They suggested a third option, intermittent social distancing, could “allow interventions to be relaxed temporarily in relative short time windows,” but warned that this approach would require a disease surveillance strategy to trigger re-tightening of restrictions in response to changing disease trends.¹⁴⁰

Although the Imperial College Report that influenced U.S. lawmakers had laid out the available options in clear terms, elected officials issuing and renewing stay-at-home orders were far from clear about which choice they were making. The White House guidelines — with their use of the phrase “slow the spread,” and the lighter, more sustainable restrictions they recommended — appear to have adopted

133. See Emily Cochrane, *Dispute Over Virus Testing Delays Deal on Aid to Small Businesses and Hospitals*, N.Y. TIMES (Apr. 20, 2020), <https://www.nytimes.com/2020/04/20/us/politics/congress-coronavirus-bill.html>.

134. See, e.g., Bruce Lashan, *Don't Flatten the Curve, Crush It, Doctors Urge Gov. Northam*, WUSA9 (Apr. 27, 2020), <https://www.wusa9.com/article/news/health/coronavirus/dont-flatten-the-curve-crush-it-end-coronavirus-network-urges-virginia-covid-19/65-31a13a56-82d1-452f-bbd8-f815483260e8>.

135. FERGUSON ET AL., *supra* note 3, at 1.

136. *Id.* (emphasis added).

137. *Id.* at 3. Some “crush the curve” proponents argued social distancing restrictions should be maintained at March levels until the reproduction level was zero. See Achenbach, *supra* note 130 (“Lee Riley, a University of California at Berkeley professor of infectious disease, said aggressive mitigation should continue long after the reproduction number drops below one. How long? ‘I would say one month after you drive down the *R* naught to zero,’ he said.”).

138. *Id.* at 1.

139. *Id.* at 2.

140. *Id.*

mitigation, rather than suppression, as the goal. The Bay Area Orders and the state orders that followed — with their stringent restrictions that no one could have imagined leaving in place for 18 months — appear to have been intended to buy time to deploy more targeted, testing-based strategies. In New York, Governor Cuomo referred to his order closing all nonessential businesses and prohibiting all gatherings of any size for any purpose other than essential work by the acronym “PAUSE,” which suggested the restrictions would be able to achieve their purpose (described vaguely as “reduc[ing] the spread of this virus”) within a matter of weeks, not months or years.¹⁴¹

By April 16, a month after the Bay Area Orders were issued, the President had lost patience with business closures and limits on gatherings. The White House released its “Guidelines for Opening Up America Again.” The White House plan recommended a phased approach to resuming social gatherings and reopening schools and the types of businesses that the previous White House guidelines had recommended should be closed.¹⁴² Notably, there were no criteria for lifting mandatory orders to stay at home or reopening other nonessential businesses, since those measures had not been endorsed by the White House in the first place. The guidelines established “gating” criteria for reopening large venues and gyms after a sustained downward trajectory in the number of syndromic and reported cases for 14 days and at a point when hospitals are able to treat patients without resorting to crisis standards of care. Whether these criteria were based on a mitigation or suppression rationale was unstated. But a sustained downward trajectory in cases would appear to be consistent with suppression, making the plan quite cautious. The day after the reopening plan was released, the President tweeted that states must immediately “LIBERATE,” fueling anti-lockdown protests.¹⁴³

Crucially, the White House plan left states responsible for securing the infrastructure need to safely lift restrictions on high-risk settings. The guidelines defined testing, tracing, and disease surveillance as “core *state* preparedness

141. N.Y. Governor’s Office, *Governor Cuomo Signs the “New York State on PAUSE” Executive Order*, STATE OF N.Y. (Mar. 20, 2020), <https://www.governor.ny.gov/news/governor-cuomo-signs-new-york-state-pause-executive-order>.

142. *President Donald J. Trump Announces Guidelines for Opening Up America Again*, WHITE HOUSE (Apr. 16, 2020), <https://www.whitehouse.gov/briefings-statements/president-donald-j-trump-announces-guidelines-opening-america>; *Guidelines: Opening Up America Again*, WHITE HOUSE (April. 16, 2020), <https://www.whitehouse.gov/openingamerica/>; see also Michael D. Shear et al., *Inside Trump’s Failure: The Rush to Abandon Leadership Role on the Virus*, N.Y. TIMES (July 18, 2020), <https://www.nytimes.com/2020/07/18/us/politics/trump-coronavirus-response-failure-leadership.html> (“[White House aides’] ultimate goal was to shift responsibility for leading the fight against the pandemic from the White House to the states. They referred to this as “state authority handoff.”).

143. Ben Collins and Brandy Zadronzy, *In Trump’s “LIBERATE” Tweets, Extremists See a Call to Arms*, NBC NEWS (Apr. 17, 2020), <https://www.nbcnews.com/tech/security/trump-s-liberate-tweets-extremists-see-call-arms-n1186561>.

responsibilities.”¹⁴⁴ President Trump repeatedly expressed skepticism regarding the wisdom of ramping up testing, arguing that “by doing all of this testing, we make ourselves look bad.”¹⁴⁵ Later, when Congress considered legislation to provide federal funding for these needs, the President argued funding for testing should be zeroed out.¹⁴⁶ Congressional negotiations repeatedly broke down and no new legislation was passed.

In May, many state and local governments eased restrictions as rapidly as they imposed them. All-or-nothing “light switch” thinking dominated the “reopen” phase, just as it had for the “lockdown” phase. Few officials referenced the likelihood that restrictions would need to be re-tightened in the future, suggesting they had rejected the Imperial College Task Force’s intermittent social distancing strategy. Eventually, most states reopened bars, indoor dining at restaurants, gyms, and other higher-risk settings like movie theaters and bowling alleys in spite of the White House gating criteria not being met. Some jurisdictions maintained requirements for the general public to wear face masks and physically distance.¹⁴⁷ To say there was no strategic plan would be an understatement.

In June, cases predictably surged in several places that had been largely spared during the spring. State and local governments began the first of multiple phases of re-tightening restrictions in an effort to “dial down” social mixing. In late June and July in the face of mounting case counts, state and local leaders unbundled social distancing into its distinct components and took a more nuanced approach to weighing the pros and cons of each intervention.¹⁴⁸ Many more state and local governments issued face mask orders.¹⁴⁹ Several re-tightened restrictions on large gatherings and re-closed bars and indoor dining.¹⁵⁰ But the failure to clearly state

144. *Id.* (emphasis added).

145. *Remarks by President Trump and Vice President Pence at a Meeting with Governor Reynolds of Iowa*, WHITE HOUSE (May 6, 2020), <https://www.whitehouse.gov/briefings-statements/remarks-president-trump-vice-president-pence-meeting-governor-reynolds-iowa/>.

146. Erica Werner & Jeff Stein, *Trump Administration Pushing to Block New Money for Testing, Tracing and CDC in Upcoming Coronavirus Relief Bill*, WASH. POST (July 18, 2020), <https://www.washingtonpost.com/us-policy/2020/07/18/white-house-testing-budget-cdc-coronavirus/>.

147. *See, e.g.*, Md. Exec. Order No. 20-04-15-01 (April 15, 2020) (requiring the general public to wear face coverings and maintain physical distance in retail establishments and on public transportation).

148. *See, e.g.*, Ariz. Exec. Order No. 2020-43 (June 23, 2020) (imposing restrictions on “organized public gatherings” of more than 50 people and ordering bars, indoor fitness centers, indoor movie theaters, waterparks, and tubing operators to pause operations); Tex. Exec. Order No. GA-28 (June 26, 2020) (ordering bars to limit their service to carry-out, drive-through, or delivery only and closing rafting and tubing operators).

149. *See, e.g.*, Kan. Exec. Order No. 20-52 (Jul. 2, 2020) (ordering the general public to wear face masks, subject to specified exceptions).

150. *See e.g.*, CAL. DEP’T OF PUB. HEALTH, STATEWIDE PUBLIC HEALTH OFFICER ORDER (July 13, 2020), <https://www.cdph.ca.gov/Programs/CID/DCDC/CDPH%20Document%20Library>

the purpose of these orders (or the criteria by which their success would be judged) continued. And the likelihood of a nationally funded and coordinated testing and tracing system remained low. Given the utter abdication of responsibility by the President and the Senate majority, sparing hospitals from becoming overwhelmed was the most state and local governments could hope for in the second half of 2020.

In late summer and early fall, many large institutions resumed face-to-face operations. Hundreds of thousands of travelers descended on the small city of Sturgis, South Dakota for its annual motorcycle rally, crowding into indoor bars. Many colleges and universities welcomed students back to campuses. In many states, pre-kindergarten through twelfth grade schools reopened with onsite classes. Reported cases began to grow exponentially in dozens of states, and hospital capacity was strained in many areas simultaneously, particularly in the Midwest.

Governors, mayors, and health officials took widely divergent approaches to the rise of the fall wave. Some local jurisdictions imposed tight restrictions that targeted particular neighborhoods or populations. In Boulder, Colorado, the county health department issued an order directing all residents of 37 specific addresses (known for housing Colorado University students) to stay at home with very narrow exceptions and prohibiting gatherings for 18- to 22-year-olds.¹⁵¹ Mayor Bill DeBlasio, with approval from Governor Andrew Cuomo, closed schools and all non-essential businesses in nine New York City zip codes where test-positivity rates were creeping upwards.¹⁵² Many other officials openly embraced a hands-off approach, arguing that wearing a mask and avoiding crowds should be matters of personal choice, rather than government control. After being diagnosed with COVID-19 himself, President Trump advised the American people not to fear the virus and not to let it control their lives.¹⁵³

Shortly after the 2020 election, a task force convened by President-Elect Joe Biden began promoting a more nuanced approach to compulsory social distancing. The task force indicated the President-Elect would work with state and local governments to implement a scaled, intermittent approach to social distancing.

[/COVID-19/SHO%20Order%20Dimming%20Entire%20State%207-13-2020.pdf](#) (closing bars and indoor restaurant service).

151. BOULDER CTY. PUB. HEALTH, AMENDED PUBLIC HEALTH ORDER 2020-07-03 (Sept. 28, 2020), <https://assets.bouldercounty.org/wp-content/uploads/2020/09/pho-2020-07-09232020.pdf>.

152. *Mayor de Blasio Sends State Proposal to Close Schools and Non-Essential Businesses in Nine New York City Zip Codes*, STATE OF N.Y. (Oct. 4, 2020), <https://www1.nyc.gov/office-of-the-mayor/news/693-20/mayor-de-blasio-sends-state-proposal-close-schools-non-essential-businesses-nine-new-york#/0>.

153. Gina Kolata & Roni Caryn Rabin, “Don’t be Afraid of Covid,” *Trump Says, Undermining Public Health Messages*, N.Y. TIMES (Oct. 8, 2020), <https://www.nytimes.com/2020/10/05/health/trump-covid-public-health.html>.

Their report also said he would work with Congress to provide financial support for businesses, households, and public health infrastructure.¹⁵⁴

By the end of the year, several governors and mayors were tightening restrictions in response to local conditions.¹⁵⁵ Some hesitated to restrict indoor restaurant service or close any businesses even while imposing harsh limits on social gatherings.¹⁵⁶ Others doubled-down on their refusal to take the pandemic seriously. Even as South Dakota's per-capita death rate emerged as one of the highest in the world, Governor Kristi Noem criticized restrictions and warnings issued by other leaders, promising "We won't stop or discourage you from thanking God and spending time together this Thanksgiving."¹⁵⁷

III. COMMUNITY MITIGATION IN THE COURTS

Due to the unprecedented nature of the coronavirus pandemic, the widespread and deeply intrusive measures adopted by most states and many local jurisdictions in the spring of 2020 were largely untested — scientifically or legally. Experts anticipated benefits based on modeling and planning exercises developed in preparation for a novel influenza pandemic¹⁵⁸ — and limited studies of measures implemented in mainland China, Hong Kong, and other places across the globe¹⁵⁹ — but ongoing research and surveillance were needed to assess these measures in real time. By the end of March 2020, churches, business owners, and private individuals had filed a handful of lawsuits challenging gathering bans, restrictions on places of worship, restrictions on businesses, travel restrictions, and orders to

154. *Priorities: COVID-19*, BIDEN-HARRIS TRANSITION (Nov. 11, 2020), <https://buildbackbetter.com/priorities/covid-19/>.

155. *See, e.g.*, N.M. DEPT. PUB. HEALTH., PUBLIC HEALTH ORDER RE COVID-19 (Nov. 13, 2020) (prohibiting all nonessential onsite business operations and all gatherings of people from two or more households and limiting restaurants to carry-out service); Ky. Exec. Order No. 2020-968 (Nov. 18, 2020) (closing bars and indoor dining and limiting "indoor social gatherings" to no more than 8 people from no more than 2 households); Minn. Exec. Order No. 20-99 (Nov. 17, 2020) (closing bars, fitness centers, and other indoor gathering places and prohibiting indoor dining and all gatherings of people from more than one household, whether indoors or outdoors).

156. *See, e.g.*, R.I. Exec. Order No. 20-98 (Nov. 19, 2020), <https://governor.ri.gov/documents/orders/Executive-Order-20-98.pdf>. (prohibiting all gatherings of people from more than one household—whether indoors or outdoors—unless a professional caterer is hired or the event is held at a restaurant, in which case up to 25 (indoors) or 75 (outdoors) attendees are permitted).

157. *South Dakota's Kristi Noem Among Governors Ignoring CDC Advice On Thanksgiving Gatherings*, CBS MINNESOTA (Nov. 21, 2020), <https://minnesota.cbslocal.com/2020/11/21/south-dakota-gov-kristi-noem-ignores-cdc-advice-on-thanksgiving-gatherings/>.

158. *See, e.g.*, Glass et al., *supra* note 1; QUALLS ET AL., *supra* note 70.

159. *See, e.g.*, KYLIE E. C. AINSLIE ET AL., IMPERIAL COLLEGE COVID-19 RESPONSE TEAM REPORT 11: EVIDENCE OF INITIAL SUCCESS FOR CHINA EXITING SOCIAL DISTANCING POLICY AFTER ACHIEVING CONTAINMENT 2 (2020), <https://www.imperial.ac.uk/nrc-global-infectious-disease-analysis/covid-19/report-11-china-exiting-social-distancing/>.

shelter in place. Many more lawsuits followed in the weeks and months of restrictions that followed. Lawsuits were brought by public health authorities seeking judicial enforcement of coronavirus mitigation measures,¹⁶⁰ by advocates seeking release of people in custody to protect them from unsanitary conditions,¹⁶¹ by state authorities asserting their preemption of local power to issue and enforce emergency orders,¹⁶² by landlords seeking to overturn eviction freezes,¹⁶³ and by state legislatures and individual legislators asking courts to lift or modify restrictions. As consensus broke down and many leaders implemented scaled responses, business owners and religious groups challenged distinctions among various types of services, businesses, and activities, arguing they were arbitrary and discriminated on the basis of religion.¹⁶⁴

Restrictions and mandates for social distancing purposes raise a wide range of legal issues. Plaintiffs have argued that restrictions violate their individual rights under the First Amendment, Second Amendment, and the Fourteenth Amendment's procedural due process, substantive due process, equal protection, and regulatory takings doctrines.¹⁶⁵ They have also relied on state constitutional and statutory protections for individual rights. State-law limits on administrative discretion derived from constitutional separation of powers doctrines have posed

160. *See, e.g., Larimer County Public Health v. Maniacs Gym, LLC*, 2020 WL 1943829 (Colo. Dist. Ct. Apr. 1, 2020) (granting a preliminary injunction ordering the defendant to cease business operations in violation of a public health order issued by the county public health director ordering gymnasiums to close); *St. Louis Cty. v. House of Pain Gym Servs.*, 4:20CV655 RLW, 2020 WL 2615746 (E.D. Mo. May 22, 2020) (denying defendant gyms' motion to dismiss a common law nuisance claim brought by the county to enforce its health officer's stay-at-home order, which the defendants had removed to federal court).

161. HEALTH IS JUSTICE: COVID-19 DECARCERATION DECISION SPREADSHEET (last updated Aug. 5, 2020), https://docs.google.com/spreadsheets/d/1L1VGAF-G1VRgi-7a_pFhkTNPRi89MfMjT9E_Gjxiac/edit#gid=393515537 (compilation of hundreds of decarceration suits by the Columbia University Health is Justice Initiative).

162. *See, e.g., Greg Bluestein & Jeremy Redmon, Judge Orders Mediation in Georgia's Mask Mandate Lawsuit*, ATLANTA J.-CONST. (July 23, 2020), <https://www.ajc.com/politics/politics-blog/bottoms-kemp-discuss-settlement-in-georgias-mask-mandate-lawsuit/ACJP3ANHHRDOZFAMNLSKIX5GW4/>. As they define the scope of state executive power, state legislatures should determine the extent to which state executive-branch officials are empowered to preempt local authority to respond to a public health emergency. Arguments that state laws should not preempt local measures that are more protective of public health are consistent with my arguments for statutory guardrails that emphasize transparency and accountability alongside protections for individual rights, but preemption raises distinct issues that are beyond the scope of this article. *See, e.g., Kim Haddow, Derek Carr, Benjamin D. Winig & Sabrina Adler, Preemption, Public Health, and Equity in the Time of COVID-19*, in BURRIS, ET AL., *supra* note 4 ("State governments should permanently remove state preemption of more protective local laws related to COVID-19 response.").

163. *See, e.g., Baptiste v. Kennealy*, 1:20-CV-11335-MLW, 2020 WL 5751572 (D. Mass. Sept. 25, 2020).

164. *See* Part III.B and C *infra*.

165. *Id.*

particularly thorny challenges for executive orders. None of these constraints imposes an absolute limit on government intervention. Protections for individual rights are balanced against government interests. Separation of powers doctrines are loosely defined and rarely deployed as hard limits. Ultimately, the courts have had considerable discretion to shape their own role in pandemic response. The vast majority of challenges to social distancing and face mask orders have failed.

For my purposes, five themes running through the judicial opinions reviewing coronavirus mitigation measures from March through November 2020 are important: *First*, many courts have adopted highly deferential “emergency” standards of review, which a majority of the Supreme Court now appears to disfavor, muddling judicial guidance to the legislatures. *Second*, judges have enjoined enforcement of some mitigation measures that infringe on fundamental rights, particularly those that discriminate on the basis of religion. *Third*, for the most part, judges have asked whether emergency orders are arbitrary or capricious and have occasionally found that distinctions among businesses and activities fail this lenient standard. *Fourth*, many courts have found that coronavirus community mitigation measures do not fit within specific statutory delegations of authority, but most have upheld orders as a valid exercise of more broadly defined authorities. *Fifth*, disputes over the boundary between executive and legislative authority have played a prominent role in challenges to coronavirus emergency orders, but most courts have upheld broad delegations. Legislatures in some states appear eager to weigh in on the next steps in the coronavirus pandemic response, but the judiciary has, for the most part, indicated that the courts are not the appropriate venue for them to do so.

A. Emergency Standards of Judicial Review

Several courts adjudicating coronavirus civil liberties challenges have grappled with what Professor Stephen Vladeck and I have described as “the central (and long-running) normative debate over emergency powers: Should constitutional constraints on government action be suspended in times of emergency (because emergencies are ‘extraconstitutional’), or do constitutional doctrines forged in calmer times adequately accommodate exigent circumstances?”¹⁶⁶ In early April, the Fifth Circuit “reduced” the complex 1905 Supreme Court decision in *Jacobson v. Massachusetts* to “a clear and easy test” dictating suspension of ordinary, heightened standards of review for measures that infringe upon civil liberties during a public health emergency.¹⁶⁷ Quoting

166. Wiley & Vladeck, *COVID-19 Reinforces the Argument for “Regular” Judicial Review—Not Suspension of Civil Liberties—In Times of Crisis*, *supra* note 8.

167. Parmet, *supra* note 39, at 131; *In re Abbott*, 954 F.3d 772 (5th Cir. 2020). *Cf.* Binford v. Sununu, No. 217-2020-CV-00152 (N.H. Super. Ct. Mar. 25, 2020) (relying on *Smith v. Avino*, 91

Jacobson, In re Abbott held that “when faced with a society-threatening epidemic, a state may implement emergency measures that curtail constitutional rights so long as the measures have at least some ‘real or substantial relation’ to the public health crisis and are not ‘beyond all question, a plain, palpable invasion of rights secured by the fundamental law.’”¹⁶⁸ Several courts followed the Fifth Circuit, adopting the highly deferential “plain, palpable violation” language as the definitive standard of review for public health emergency orders.¹⁶⁹ For ease of reference, I refer to this as the *Jacobson* suspension doctrine.

In November, the Supreme Court applied strict scrutiny to enjoin occupancy limits for houses of worship.¹⁷⁰ The application of strict scrutiny in *Roman Catholic Diocese of Brooklyn v. Cuomo* appears to indicate that a majority of the Court rejects the *Jacobson* suspension doctrine, at least as applied to claims of religious discrimination. It is not clear, however, whether a majority of the Court might support the *Jacobson* suspension doctrine if another right—such as the right to choose an abortion or the right to travel—were at issue. Four justices (Justices Samuel Alito, Brett Kavanaugh, Clarence Thomas, and Neil Gorsuch) have signed opinions expressly opposing the *Jacobson* suspension doctrine for First Amendment challenges to emergency orders.¹⁷¹ One of them, Kavanaugh, has

F.3d 105, 109 (11th Cir. 1996) to hold that usual, heightened scrutiny of state laws interfering with civil liberties should be “suspended” for the duration of an emergency and adopting a good faith/some factual basis test to uphold an emergency order limiting gatherings to fewer than 50 people).

168. *Id.* at 784.

169. *See, e.g., In re Rutledge*, 956 F.3d 1018, 1027 (8th Cir. 2020) (holding that the district court abused its discretion by failing to apply the *Jacobson* standard to an emergency restriction on abortion); *but see Robinson v. Att’y Gen.*, 957 F.3d 1171, 1181 (11th Cir. 2020) (holding that the district court did not err in reading *Jacobson* and *Smith* in light of *Casey* and concluding that the burdens imposed by emergency restrictions on abortion were undue under *Casey*, and that they impinged the right to an abortion in a “plain, palpable” fashion under *Jacobson*). Public health and constitutional scholars have argued that the highly deferential way in which many courts have applied *Jacobson*’s language in 2020 does not comport with how the courts of the time would have understood it. *See, e.g., Wiley & Vladeck, supra* note 8, at 191 (arguing that the Supreme Court’s reference to what was “reasonable” in *Jacobson* was far more robust than what we tend to think of today as “minimum rationality” rational basis review); *Parment, supra* note 39, at 131 (arguing that *Jacobson* “offered a mélange of criteria for when courts should intervene (unreasonable, oppressive, plain and palpable invasions of rights),” not the “clear and easy test” that many courts in 2020 have “reduced” it to); *Blackman, supra* note 43, at 43 (arguing that the standard of review adopted in *Jacobson* “did not resemble the modern rational basis test—even where the Supreme Court referred to a ‘rational’ basis”).

170. *Roman Catholic Diocese of Brooklyn v. Cuomo*, 141 S. Ct. 63 (2020); *see also* part III.B. and Part IV.C, *infra*.

171. In July, Justice Alito explicitly discussed the *Jacobson* suspension doctrine in his dissent from a decision denying a Nevada church’s request for injunctive relief. Writing for himself, Kavanaugh, and Thomas, Alito argued “it is a mistake to take language in *Jacobson* as the last word on what the Constitution allows public officials to do during the COVID–19 pandemic.” *Calvary Chapel Dayton Valley v. Sisolak*, 140 S. Ct. 2603, 2608 (Alito, J., dissenting). It is worth noting, however, that Alito’s dissent drew a distinction between substantive due process claims and First

indicated that he might hold a *different* view of the judiciary’s role, at least when voting rights are at issue.¹⁷² In that context, Kavanaugh endorsed “a limited role of the federal courts in COVID-19 cases.”¹⁷³ Justices Stephen Breyer, Elena Kagan, and Sonia Sotomayor appear to agree with Chief Justice Roberts “that courts must grant elected officials ‘broad’ discretion when they ‘undertake to act in areas fraught with medical and scientific uncertainties.’”¹⁷⁴ Three justices (Breyer, Kagan, and Sotomayor) have specifically praised a lower court judge for “declin[ing] to second guess the State’s judgment about what should qualify as an essential business.”¹⁷⁵ No justices have expressly endorsed the *Jacobson* suspension doctrine, however.¹⁷⁶

Ongoing uncertainty over the validity of the *Jacobson* suspension doctrine

Amendment claims. *Id.* (describing *Jacobson* as involving “a substantive due process challenge to a local ordinance requiring residents to be vaccinated for small pox” and contrasting that with “statewide measures of indefinite duration . . . challenged under the First Amendment or other provisions not at issue in [*Jacobson*].”). The reference to “other provisions” could also encompass Second Amendment challenges. In *Catholic Diocese*, Gorsuch wrote a concurring opinion eviscerating the *Jacobson* suspension doctrine. Roman Catholic Diocese (Gorsuch, J., concurring) (arguing “*Jacobson* didn’t seek to depart from normal legal rules during a pandemic, and it supplies no precedent for doing so”). Gorsuch also carved out a possible exception for substantive due process claims, however. *Id.* (using scare quotes to refer to *Jacobson*’s adjudication of a “‘substantive due process’ right to ‘bodily integrity’” and arguing that “[e]ven if judges may impose emergency restrictions on rights that some of them have found hiding in the Constitution’s penumbras, it does not follow that the same fate should befall the textually explicit right to religious exercise”).

172. In *Democratic National Committee v. Wis. State Legislature*, 141 S. Ct. 28 (Oct. 26, 2020) (Kavanaugh, J., concurring) (mem.), Kavanaugh quoted Roberts’s quotation of *Jacobson* (though without attribution to either) in support of his argument that refusing to stay a lower court order enjoining limits on mail-in voting was inconsistent with “the limited role of the federal courts in COVID-19 cases.” *Id.*; compare *id.* (“This Court has consistently stated that the Constitution principally entrusts politically accountable state legislatures, not unelected federal judges, with the responsibility to address the health and safety of the people during the COVID–19 pandemic.”) with *South Bay United Pentecostal Church v. Newsom*, 140 S. Ct. 1613, 1613 (Roberts, C.J., concurring) (quoting *Jacobson* 197 U.S. 11, 28 (1905) (“Our Constitution principally entrusts ‘[t]he safety and the health of the people’ to the politically accountable officials of the States ‘to guard and protect.’”).

173. *Democratic National Committee*, 141 S. Ct. 28 (Kavanaugh, J. concurring).

174. *Roman Catholic Diocese of Brooklyn v. Cuomo*, 141 S. Ct. 63, 78 (2020) (Breyer, J. dissenting) (quoting *S. Bay United Pentecostal Church v. Newsom*, 140 S. Ct. 1613, 1613 (Roberts, C.J., concurring)).

175. *Id.*

176. Roberts has twice relied on *Jacobson* for what he describes as the “uncontroversial” proposition that “[o]ur Constitution principally entrusts ‘[t]he safety and the health of the people’ to the politically accountable officials of the States ‘to guard and protect.’” *Catholic Diocese* (Roberts, C.J., dissenting) (quoting *S. Bay United Pentecostal Church v. Newsom*, 140 S. Ct. 1613, 1613 (Roberts, C.J., concurring)). However, in *Catholic Diocese*, he clarified that his citation to *Jacobson* should not be interpreted as an endorsement of the *Jacobson* suspension doctrine. *Id.* Moreover, Roberts refuted Gorsuch’s characterization of the other dissenting justices (Breyer, Sotomayor, and Kagan) as “‘cutting the Constitution loose during a pandemic,’ yielding to ‘a particular judicial impulse to stay out of the way in times of crisis,’ or ‘shelter[ing] in place when the Constitution is under attack.’” *Id.* (quoting *id.* (Gorsuch, J., concurring)).

makes it more difficult for state legislatures to draw lessons from coronavirus court orders. Indeed, this is one of the arguments Vladeck and I made against the suspension principle.¹⁷⁷ It is now clear that pre-November cases applying the *Jacobson* suspension standard to orders that discriminate against religious institutions are not valid precedents. Whether other pre-November precedents relying on suspension remain valid is open to debate. Several courts *have* applied ordinary standards of review, however, and even decisions that have adopted a more deferential stance offer some guidance. Even before *Roman Catholic Diocese*, some courts rejected the suspension principle outright, but found that mitigation measures were likely to satisfy ordinary standards of review, including intermediate and strict scrutiny.¹⁷⁸ Some lower courts wisely applied both the *Jacobson* suspension standard and the ordinary standard, and determined that challenged orders were likely to be upheld either way. Perhaps the key lesson of the *Jacobson* suspension doctrine for state legislatures is that they should provide statutory protections, rather than depending on judicial activism, to define the boundaries of executive authority in a public health emergency.

B. Government Action that Infringes on Fundamental Rights

Criticism of the extent to which fundamental civil liberties have been limited in response to the 2020 coronavirus pandemic was initially confined to a small minority of staunch advocates. Even the American Civil Liberties Union (ACLU) has been hesitant to weigh in on social distancing. ACLU's initial press release cautioned that "[a]s the government takes the necessary steps to ensure public health, it must also safeguard people's due process, privacy, and equal protection rights."¹⁷⁹ As the pandemic continued, however, and as it became clear that the public broadly supported compulsory social distancing and mask mandates, ACLU stepped back from scrutinizing these measures, preferring instead to focus on securing release of people from crowded institutions, advocating against

177. See Wiley & Vladeck, *supra* note 8, at 194-97.

178. See, e.g., *Bayley's Campground Inc. v. Mills*, 463 F.Supp. 3d 22 (D. Me. 2020) (finding that restrictions on travelers and temporary lodgings are likely to satisfy strict scrutiny review because no less restrictive alternative was available to the state given lack of access to virus testing); *Henry v. DeSantis*, 461 F.Supp. 3d 1244, at 1254-55 (S.D. Fla. 2020) (upholding stay-at-home order after finding that rights to associate for purely social purposes do not trigger heightened scrutiny under the First Amendment and that the plaintiff's Fourteenth Amendment claims did not trigger intermediate or strict scrutiny because she did not properly allege a suspect classification or infringement of a fundamental right); *Minnesota Voters Alliance v. Walz*, No. 20-CV-1688, 2020 WL 5869425 (D. Minn. Oct. 2, 2020) (finding that a face-mask order was likely to withstand intermediate scrutiny, without determining whether intermediate scrutiny was required).

179. *ACLU Comment on COVID-19 Emergency Declaration*, AM. CIV. LIBERTIES UNION (Mar. 13, 2020), <https://www.aclu.org/press-releases/aclu-comment-covid-19-emergency-declaration>.

coronavirus abortion restrictions, and expanding access to mail-in voting.¹⁸⁰ Some governors responded flippantly to questions about the balance between public health and fundamental rights. In mid-April, New Jersey Governor Phil Murphy told Fox News host Tucker Carlson he “wasn’t thinking of the Bill of Rights” when he issued his stay-at-home order because the constitutionality of the orders was “above [his] pay grade.”¹⁸¹

Businesses connected to constitutionally protected fundamental rights brought some of the first coronavirus civil liberties challenges. In the first opinion from a state’s highest court, the Supreme Court of Pennsylvania rejected a preliminary injunction request by the owner of a gun shop deemed nonessential and an individual seeking to buy a firearm, arguing the closure violated the right to bear arms.¹⁸² Swayed by the dissenting justices, however, the governor quietly exempted gun shops.¹⁸³ Firearms dealers and gun ranges have argued limits on their operation infringe upon the Second Amendment right to bear arms as well as state statutory provisions protecting gun rights.¹⁸⁴ Another early group of suits challenged restrictions on abortion implemented in the name of preserving health care capacity.¹⁸⁵ Each of these groups of cases have been addressed in law review articles that drill down into the specific issues they raise.¹⁸⁶ I address them briefly here to highlight how they fit into the bigger picture of the emerging law of social distancing.

First Amendment rights to freedom of religion, assembly, association, and expression have played a predictably prominent role in coronavirus civil liberties

180. David Cole, *Civil Liberties Never Sleep: The ACLU in the Pandemic*, AM. CIV. LIBERTIES UNION (Apr. 10, 2020), <https://www.aclu.org/news/civil-liberties/civil-liberties-never-sleep-the-aclu-in-the-pandemic/>. I will withhold comment on these issues, which will certainly be addressed by election law experts.

181. Katherine Timpf, *The Bill of Rights is Not “Above” Any Government Leader’s “Pay Grade”*, NAT’L REV. (Apr. 16, 2020), <https://www.nationalreview.com/2020/04/the-bill-of-rights-is-not-above-any-government-leaders-pay-grade/>.

182. *Civil Rights Defense Firm v. Wolf*, Civ. No. 63 MM 2020 (Pa. Mar. 22, 2020).

183. Marc Levy et al., *Wolf Reopens Gun Shops, Orders More Residents to Stay Home*, ASSOCIATED PRESS (Mar. 24, 2020), <https://apnews.com/d8dde6f12ec1d238da2db09375d8e84f>.

184. See, e.g., *Lynchburg Range & Training, LLC v. Northam*, 2020 WL 2073703 (Apr. 27, 2020) (citing federal and state constitutional rights to bear arms and a Virginia statute providing that the state’s emergency law “is not to be construed to . . . [e]mpower the Governor, any political subdivision, or any other governmental authority to in any way limit or prohibit the rights of the people to keep and bear arms”); see also *Altman v. County of Santa Clara*, 2020 WL 2850291 (N.D. Calif. June 2, 2020).

185. See, e.g., Aziza Ahmed, *How the COVID-19 Response is Altering the Legal and Regulatory Landscape on Abortion*, 7 J. L. & BIOSCIENCES 1 (2020).

186. See, e.g., B. Jessie Hill, *Essentially Elective: The Law and Ideology of Restricting Abortion During the COVID-19 Pandemic*, 106 VA. L. REV. ONLINE 99 (2020); Blackman, *supra* note 43; Joyce Lee Malcolm, *Self-Defense, an Unalienable Right in a Time of Peril: Protected and Preserved by the Second Amendment*, LIBERTY & LAW CENTER Research Paper No. 20-02 (draft dated Oct. 14, 2020), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3703895.

litigation, but aside from freedom of religion, these claims have largely been rejected by the courts. The cases on religious liberty will certainly generate a rich literature of their own.¹⁸⁷ I address them briefly here only to note that the key issue has been the extent to which orders discriminate on the basis of religion or, alternatively, are neutral laws of general applicability. A generally applicable law that imposes incidental burdens on religious practices is subject to rational basis review under current Supreme Court precedent,¹⁸⁸ while a law that discriminates against religious practices must withstand strict scrutiny.¹⁸⁹ In *South Bay United Pentecostal Church v. Newsom*, Chief Justice Roberts offered a clear path forward for state and local orders restricting religious services. Roberts emphasized the nondiscriminatory nature of the challenged executive orders in light of “similar or more severe restrictions on comparable secular gatherings” like theaters and concerts.¹⁹⁰ But following the appointment of Justice Amy Coney Barrett to the Court, the majority now sees things differently. In *Catholic Diocese*, the Court followed several lower court judges in comparing gatherings at places of worship to spontaneous collections of shoppers in retail settings, including liquor stores.¹⁹¹ As the Western District of Kentucky put it in one of several cases enjoining enforcement of restrictions against holiday church services: “if beer is essential, so is Easter.”¹⁹² Under *Catholic Diocese*, orders that “single out houses of worship” for restrictions that do not apply to other settings — including commercial establishments, factories, and public services deemed “essential” — will be subjected to strict scrutiny.¹⁹³

In *Ramsek v. Beshear*, the Eastern District of Kentucky offered a rare rebuke of a state gathering ban on freedom-of-assembly grounds, holding that “a blanket prohibition on gathering in large groups to express constitutionally protected speech is unconstitutional. When liberty is at stake, policy makers must be more precise.”¹⁹⁴ The plaintiffs were residents who opposed the governor’s orders and

187. See, e.g., Blackman, *supra* note 43; Caroline Mala Corbin, *Religious Liberty in a Pandemic*, 70 DUKE L.J. ONLINE 1 (2020).

188. *Emp’t Div., Dep’t of Human Res. of Or. v. Smith*, 494 U.S. 872, 878-79 (1990).

189. *Church of the Lukumi Babalu Aye, Inc. v. City of Hialeah*, 508 U.S. 520, 553 (1993).

190. 140 S. Ct. 1613, 1613 (2020) (denying application for injunctive relief) (Roberts, C.J., concurring)

191. *Roman Catholic Diocese of Brooklyn v. Cuomo*, 141 S. Ct. 63 (2020); see also *S. Bay*, 140 S. Ct. 1613 at 1614 (Kavanaugh, J., dissenting).

192. *On Fire Christian Ctr., Inc. v. Fischer*, 2020 WL 1820249 (W.D. Ky. April 11, 2020).

193. *Roman Catholic Diocese of Brooklyn v. Cuomo*, 141 S. Ct. 63 (2020). Whether lighter restrictions for schools or essential factories would be permissible was not addressed in the case in detail, but the majority did describe schools and factories as having “contributed to the spread of COVID-19” and being “treated less harshly” than the plaintiffs. In reality, however, the challenged order directed local health departments to close schools. N.Y. Exec. Order No. 202.68 (Oct. 6, 2020).

194. *Ramsek v. Beshear*, 2020 WL 3446249 *1 (E.D. Ky. June 24, 2020).

wished “to express their views through protesting.”¹⁹⁵ Suggesting that “expressive conduct — such as gathering — in a public forum” is a form of protected speech, the judge enjoined state officials “from enforcing the prohibition on mass gatherings as it relates to in-person, political protests.”¹⁹⁶ The court found the gathering ban to be a content-neutral time, place, and manner restriction and applied intermediate scrutiny. Ultimately, the court found the ban failed the intermediate scrutiny test because there were less restrictive alternatives available to accomplish the governor’s purposes: “Clearly, policymakers have some tools at their disposal which will help mitigate the spread of coronavirus while still allowing Kentuckians to exercise their First Amendment freedoms [M]aintaining a social distance of six feet, wearing masks, and frequent and thorough handwashing each help to reduce the likelihood of transmission of coronavirus from person to person. The Commonwealth has required implementation of these tools in places like restaurants, office buildings, and auctions, but continues to wholly prohibit gatherings for political protest above a set number no matter the circumstance.”¹⁹⁷

Other courts have rejected First Amendment claims. In *Geller v. de Blasio*, for example, a plaintiff who planned to organize a gathering to protest coronavirus executive orders brought suit seeking to enjoin the city from enforcing a ban on non-essential gatherings of any size.¹⁹⁸ The Southern District of New York applied intermediate scrutiny, but found the order was reasonable and narrowly tailored and therefore the plaintiff was unlikely to succeed on the merits.¹⁹⁹ In *Henry v. DeSantis*, the Southern District of Florida rejected the First Amendment claims of a plaintiff who did not have specific plans to engage in political protests on the grounds that “[t]he Supreme Court has not found a generalized right of *social* association under the First Amendment’s freedom of association.”²⁰⁰ The Eastern District of California reached a similar conclusion in a freedom-of-association claim brought by a fitness center, which argued that “[w]hen . . . staff and customers interact, they engage in expressive association and the advancement of

195. *Id.*

196. *Id.*

197. *Id.* at *10.

198. *Geller v. de Blasio*, 2020 WL 2520711 *3-*4 (S.D.N.Y. 2020); *accord* *McCarthy v. Cuomo*, 2020 WL 3286530, *4 (E.D.N.Y.); *accord* *SH3 Health Consulting, LLC v. Page*, 2020 WL 2308444 (E.D. Mo. May 8, 2020); *accord* *Benner v. Wolf*, 2020 WL 2564920 (M.D. Pa. May 21, 2020).

199. *Geller v. de Blasio*, 2020 WL 2520711 *3-*4. Other courts have upheld restrictions on political protests after adopting the Jacobson suspension standard (see, e.g., *SH3 Health Consulting*, 2020 WL 2308444, at *12), but the precedential value of these cases after *Roman Catholic Diocese* is in doubt.

200. *Henry v. DeSantis*, 461 F.Supp. 3d 1244, 1254 (S.D. Fla. 2020) (citing *City of Dallas v. Stanglin*, 490 U.S. 19, 25 (1989) (internal quotation marks omitted)).

shared beliefs.”²⁰¹ The court noted the lack of precedents “support[ing] the idea that the freedom to associate is designed to protect this type of non-expressive, commercial interaction.”²⁰²

Challenges to face mask orders on First Amendment grounds have been unsuccessful. In an early case, *Antietam Battlefield KOA v. Hogan*,²⁰³ the plaintiffs argued that being required to wear face masks amounted to compelled expressive conduct. Finding that “requirements for face coverings . . . reduce the chance that respiratory droplets containing the virus will infect others,” the Maryland federal district court found that the order satisfied the *Jacobson* suspension standard of review. In a later case, *Minnesota Voters Alliance v. Walz*, a different federal district court held that “even if wearing or not wearing a face covering was inherently expressive, [the governor’s face mask order] is clearly constitutional, whether analyzed under [an intermediate scrutiny standard that would ordinarily apply to some types of regulations of expressive conduct] or *Jacobson*.”²⁰⁴ In doing so, the court found that “federal health officials recommend face coverings as an effective way to slow the spread of COVID-19, and this recommendation finds support in recent studies.”²⁰⁵

Several coronavirus plaintiffs have argued that restrictions on their business operations amounted to uncompensated regulatory takings in violation of the Fifth Amendment (incorporated to the states via the Fourteenth Amendment) or similar provisions found in state constitutions. Thus far, the courts have uniformly rejected this argument.²⁰⁶ As a federal district judge held in *McCarthy v. Cuomo*, restrictions on certain types of businesses “do not deny [business owners] all economically beneficial use of [their] property” because they could alter their business operations to provide services deemed essential.²⁰⁷

Thus far, few courts have clearly identified the Fourteenth Amendment

201. Best Supplement Guide, LLC v. Newsom, No. 2:20-cv-00965-JAM-CKD, 2020 WL 2615022 at *4 (E.D. Cal. May 22, 2020).

202. *Id.*

203. 461 F. Supp. 3d 214 (D. Md. 2020).

204. *Minnesota Voters Alliance v. Walz*, No. 20-CV-1688, 2020 WL 5869425 (D. Minn. Oct. 2, 2020).

205. In past crises, judges have frequently relied on guidelines from CDC or the WHO when assessing the best available scientific evidence. The lack of consistent guidelines from CDC regarding social distancing in 2020 and the fact that the White House released conflicting guidelines may have played a role in some judges’ decisions to embrace a suspension standard of review. See Lindsay F. Wiley, *Public Health Law and Science in the Community Mitigation Strategy for Covid-19*, 7 J. L. & BIOSCIENCES 15aa019 (2020).

206. See, e.g., *Lawrence v. Colorado*, No. 1:20-cv-00862-DDD-SKC, 2020 WL 2737811 (D. Colo. April 19, 2020) (“temporary moratoria on various business activities . . . are not compensable takings”); accord *Friends of Danny DeVito v. Wolf*, 227 A.3d 872, 881 (Pa. 2020).

207. See, e.g., *McCarthy v. Cuomo*, 2020 WL 3286530, *5 (E.D.N.Y. 2020).

substantive due process rights implicated by coronavirus emergency measures,²⁰⁸ and even fewer have found community mitigation measures to run afoul of them. In *Roberts v. Neace*, the Eastern District of Kentucky enjoined enforcement of the governor's restrictions on out-of-state travel, finding that the restrictions infringed upon rights protected by substantive due process and would probably fail the strict scrutiny test because they were not narrowly tailored to serve a compelling state interest.²⁰⁹ In *Bayley's Campground Inc. v. Mills*, however, the federal district court for Maine upheld even more stringent travel restrictions. The court applied strict scrutiny to a 14-day quarantine on those entering from out-of-state, coupled with a prohibition on rental of temporary lodgings to people who had not yet completed their quarantine within the state of Maine.²¹⁰ The court expressly held that the right to travel is fundamental, but ultimately deemed Maine's restrictions likely to withstand strict scrutiny. The court found that there was no less restrictive means available to achieve the state's purpose given that, at the time, there was limited access diagnostic testing capacity.²¹¹ Notably, the state did not examine what the state's purpose in specific terms, beyond noting that "the pandemic is a compelling justification for restrictions on constitutional liberties."²¹²

Only a few plaintiffs have "challenge[d] the constitutionality of the very concept of a stay-at-home order, which some have described as "plac[ing] plaintiffs under house arrest unless they are engaged in activity the government deems essential or which are otherwise authorized."²¹³ Most courts have rejected these claims when they've addressed the plaintiffs' likelihood of success on the merits.²¹⁴ In *McGhee v. City of Flagstaff*, for example, a federal district court

208. In some cases, courts have relied on the *Jacobson* suspension doctrine to avoid determining whether a fundamental right is implicated by the challenged restriction. *See, e.g., Amato v. Elicker*, No. 3:20-cv-464, 2020 WL 2542788 (D. Conn. May 19, 2020) ("The Plaintiffs argue that [an executive order closing all non-essential businesses] violates their constitutional 'right to earn an honest living.'" I need not decide whether the Constitution protects such a right because, even if it did, states have broad powers to protect public health during epidemics . . . [T]he Governor's order has a "real or substantial relation" to public health and safety and the action is not "beyond all question, a plain, palpable invasion of rights.").

209. *Roberts v. Neace*, 457 F. Supp. 3d 595 (E.D. Ky. 2020).

210. *Bayley's Campground Inc. v. Mills*, 463 F.Supp. 3d 22 (D. Me. 2020).

211. *Id.*

212. *Id.* at 30.

213. *Hawse v. Page*, Case No. 4:20cv588, 2020 WL 2322999 (E.D. Mo. May 11, 2020) (internal quotation marks omitted) (denying defendants' motion to dismiss the plaintiff's substantive due process challenge to stay-at-home order without addressing the plaintiffs' likelihood of success on the merits because the defendants' motion did not address the plaintiffs' due process claim).

214. In some cases, courts did not reach the merits of these claims because they found it insufficiently likely that the stay-at-home order would be enforced. *See, e.g., Faust v. Inslee*, No. C20-5356, 2020 WL 2557329, *2 (W.D. Wash. May 20, 2020) (denying motion for a temporary restraining order to a plaintiff who had previously protested the stay-at-home order and planned to do so again on the grounds that she had "fail[ed] to establish a realistic threat of any criminal enforcement action as a result of her course of conduct"); *Lighthouse Fellowship Church v. Northam*,

rejected the plaintiff's argument that orders to stay at home violated his rights to freedom of movement and travel. Applying the *Jacobson* suspension standard, the court noted that the order included exceptions for "engaging in constitutionally protected activities, outdoor exercise, caring for family members or friends in other residences, attending work or volunteering in essential functions, visiting retailers, and other 'essential activities.'"²¹⁵ Similarly, In *Lawrence v. Colorado*, a federal district court cautioned that state officials "underestimate the potential constitutional implications of a stay-at-home order" but ultimately upheld the challenged restrictions based on the *Jacobson* suspension doctrine. The court found that the plaintiff "has not shown that being denied [social visits or travel] under the present circumstances constitutes a plain and palpable deprivation of any recognized constitutional right."²¹⁶ In *Best Supplement Guide, LLC v. Newsom*, a federal district court rejected the plaintiff's right to travel argument because "although the Supreme Court . . . 'certainly [is] not dismissive of the possibility'" that a right to intrastate travel exists, the court "cannot find that the State and County orders violate 'beyond all question' [quoting *Jacobson*] a right that is not yet known to exist."²¹⁷

Henry v. DeSantis may be the only case in which a federal district judge has authored an opinion expressly dismissing a Fourteenth Amendment challenge to a stay-at-home order without resorting to the *Jacobson* suspension doctrine.²¹⁸ In addition to rejecting a First Amendment freedom-of-assembly challenge, the court found that the order to stay at home except for purposes the governor deemed essential did not infringe upon a fundamental right and thus did not trigger heightened scrutiny. Although the plaintiff's complaint centered primarily on the termination of her employment, which she attributed to the governor's restrictions, the court noted that "[t]ime and again, the Supreme Court has determined that there

462 F. Supp. 3d 635, 644 (E.D. Va. 2020) (denying motion for injunction pending appeal under the *Ex parte* Young doctrine "because there is no evidence that the Governor himself enforced, threatened to enforce, or advised other agencies to enforce his Orders against Plaintiff or any other individual or entity") (internal quotation marks and citations omitted). Indeed, many governors and local officials explicitly assured the public that enforcement actions would be minimal or nonexistent. The use of purportedly mandatory public health orders as a form of strong recommendation in response to the coronavirus pandemic merits further attention from scholars of public health law and ethics.

215. *McGhee v. City of Flagstaff*, No. CV-20-08081-PCT-GMS, 2020 WL 2308479, *5 (D. Ariz. May 8, 2020).

216. *Lawrence v. Colorado*, 455 F. Supp. 3d 1036, 1076 (April 19, 2020) (citing *City of Dallas v. Stanglin*, 490 U.S. 19, 25, (1989)) (no general constitutional right of social association); *Zemel v. Rusk*, 381 U.S. 1, 15-16 (1965) (right to travel may be restricted where necessary to protect area from disease)).

217. *Best Supplement Guide, LLC v. Newsom*, No. 2:20-cv-00965-JAM-CKD, 2020 WL 2615022 *5 (E.D. Cal. May 22, 2020).

218. *Henry v. DeSantis*, 461 F. Supp. 3d 1244, 1254-55 (S.D. Fla. 2020).

is no fundamental right to a job, or right to work.”²¹⁹

In *County of Butler v. Wolf*, the federal district court for the Western District of Pennsylvania departed from these precedents.²²⁰ Judge William Stickman held that Pennsylvania’s stay-at-home order and closure of businesses violated the plaintiff’s substantive due process rights to intrastate travel and to economic liberty. Relying on precedents invalidating laws prohibiting cruising, loitering, and vagrancy, as well as juvenile curfew laws, Judge Stickman identified rights to intrastate travel and freedom of movement as fundamental to the concept of ordered liberty.²²¹ Although those precedents had applied intermediate scrutiny on the grounds that anti-loitering laws and similar restrictions on movement are akin to time, place, and manner restrictions on the freedom of speech, Judge Stickman argued that the greater intrusiveness of the stay-at-home order merited the application of strict scrutiny.

Noting that the economic liberty argument in *Lochner* had never been “repudiated” by the U.S. Supreme Court, Judge Strickland — erroneously according to the intervening century of precedents — also applied strict scrutiny to the order closing businesses not deemed life-sustaining.²²² Economic rights to use one’s property and earn one’s livelihood as one sees fit have been overwhelmingly rejected as a basis for applying strict scrutiny under the U.S. Constitution in the modern era.²²³ As a matter of state constitutional law, however, some state courts have found them to be fundamental. For example, an Ohio trial court held that coronavirus emergency orders restricting business operations violated fundamental rights to “own and use property and earn a living” recognized in the state constitution.²²⁴

219. *Id.* at 1255 (citing *Stop the Beach Renourishment, Inc. v. Fla. Dep’t of Env’tl. Protection*, 560 U.S. 702, 722, (2010) (“[T]he ‘liberties’ protected by substantive due process do not include economic liberties.”); *Helm v. Liem*, 523 F. App’x 643, 645 (11th Cir. 2013) (“[T]he right to work in a specific profession is not a fundamental right.”)).

220. *County of Butler v. Wolf*, No. 2:20-cv-677, 2020 WL 5510690 (W.D. Pa. Sept. 14, 2020), *stay pending appeal granted*, No. 20-2936, 2020 WL 5868393 (3d Cir. Oct. 1, 2020).

221. *Id.* (citing *Lutz v. City of York*, 899 F.2d 255 (3d Cir. 1990)); *City of Chicago v. Morale*, 527 U.S. 41, 53-54 (1999); *Papachristou v. Jacksonville*, 405 U.S. 156, 164-65 (1972); *Waters v. Barry*, 711 F. Supp. 1125, 1134 (D.D.C. 1989).

222. *Id.*

223. *See, e.g.*, *SH3 Health Consulting, LLC v. Page*, 459 F.Supp. 3d 1212, 1226 (E.D. Mo., May 8, 2020) (rejecting the notion that the Due Process Clause of the Fourteenth Amendment protects plaintiffs’ “right to conduct their business and to earn a living”); *Henry v. DeSantis* 461 F.Supp. 3d 1244, 1255 (S.D. Fla. 2020) (“Time and again, the Supreme Court has determined that there is no fundamental right to a job, or right to work.”); *see also* *N.D. State Bd. of Pharmacy v. Snyder’s Drug Stores, Inc.*, 414 U.S. 156, 167 (1973) (“[W]e emphatically refuse to go back to the time when courts used the Due Process Clause to strike down state laws, regulatory of business and industrial conditions, because they may be unwise, improvident, or out of harmony with a particular school of thought.”) (quoting *Williamson v. Lee Optical of Okla., Inc.*, 348 U.S. 483, 488 (1955)).

224. *Rock House Fitness, Inc. v. Acton*, No. 20CV000631, 2020 WL 3105522 at *4 (May 20,

Although Judge Strickland's order is an outlier unlikely to be followed by many other judges, the lack of more precedents upholding stay-at-home orders following application of ordinary standards of review is concerning. Some feel strongly that stay-at-home orders should be re-imposed now that we are entering what are likely to be the darkest days of the current pandemic. I do not share this view based on what we now understand about the risks of transmission. But the lack of supportive precedents should also be concerning to legislators as they prepare for the next pandemic, which could present even greater dangers. The fact that most judicial opinions upholding stay-at-home orders have relied heavily on the *Jacobson* suspension doctrine is not surprising, given the widespread support for the doctrine among lower courts in the early months of 2020 when stay-at-home orders were common. It is concerning, however, that orders to stay at home are now more vulnerable to constitutional challenge—during this pandemic and the next one—with only one clearly valid precedent supporting their use.²²⁵

Overall, however, most community mitigation measures have been upheld by at least some courts without relying exclusively on the suspension doctrine. Moreover, there have been very few instances in which courts have applied strict scrutiny to these measures. While rights to freedom of personal movement and travel are the most intuitive fit for broad challenges to stay-at-home orders, they are not well established as fundamental rights triggering strict scrutiny under the Fourteenth Amendment. Setting aside religious freedom cases, most community mitigation restrictions have been upheld so long as they are not arbitrary, capricious, or unreasonable.²²⁶

C. Arbitrary, Capricious, or Unreasonable Government Action

State and local governments have broad authority to regulate or even close businesses in the name of protecting the public's health. However, the Fourteenth Amendment's guarantees of equal protection and due process have been interpreted as barring the exercise of that authority in an arbitrary, capricious, or otherwise unreasonable manner. This prohibition applies even in situations where the parties do not successfully assert a fundamental right or suspect

2020).

225. *Henry v. DeSantis*, 461 F. Supp. 3d 1244, at 1254-55 (S.D. Fla. 2020).

226. *See, e.g., League of Indep. Fitness Facilities and Trainers v. Whitmer*, 814 Fed. App'x. 125, 126 (6th Cir. 2020) ("Some [legal challenges to COVID-19 orders] involve individual rights for which precedent requires courts to apply a heightened level of scrutiny to government actions, for example, the free exercise of religion. But many other cases involve executive actions that, by precedent, are viewed only through the lens of a very modest, or 'rational basis,' standard of review. And almost without exception, courts in those instances have appropriately deferred to the judgments of the executive in question.") (citations omitted).

classification.²²⁷ The rational basis standard of review applied to these challenges is easily met and few courts applying it have struck down coronavirus emergency measures.²²⁸ Nonetheless, the decisions upholding orders reveal the extent to which state and local officials have struggled to craft emergency provisions that draw a multitude of distinctions determining which businesses are ordered to close or operate at reduced capacity or require face-masks or institute other controls and which gatherings are prohibited or subjected to specific caps or other requirements.

Early challenges called on courts to examine executive officials' designation of businesses as essential or not. In *McCarthy v. Cuomo*, for example, a federal district judge rejected an equal protection challenge from an owner of a business deemed non-essential. "Given the seriousness of the COVID-19 pandemic," the court found it "exceedingly unlikely that plaintiffs will be able to demonstrate that the [governor's orders] do not have a rational basis."²²⁹ Consistent with other opinions in the early months of the pandemic, she did not offer further analysis.

Matters became even more complicated as executive-branch officials lifted restrictions on some types of non-essential businesses while keeping others closed. In *League of Independent Fitness Facilities and Trainers, Inc. v. Whitmer*, a three-judge panel of the Sixth Circuit provided an extended discussion of what rational basis requires of state and local executives seeking to defend classifications between businesses whose operations are restricted and those allowed to conduct business as usual. The plaintiffs argued that the Michigan governor's order violated equal protection "by treating indoor fitness facilities (which remain completely closed) differently from bars, restaurants, and salons (which may open with restrictions)."²³⁰ The lower court had issued a preliminary injunction prohibiting enforcement of the order against the plaintiffs, based on a finding that the differential treatment of these facilities "failed even [the] deferential test" applied to non-suspect classifications "because the Governor did not adequately explain during the hearing . . . her somewhat unique treatment of indoor fitness

227. If a state action neither infringes a fundamental right nor draws a suspect nor quasi-suspect classification, courts apply rational basis review. *FCC v. Beach Commc'ns, Inc.*, 508 U.S. 307, 313 (1993).

228. *See, e.g., Hund v. Cuomo*, Case No. 20-cv-1176, 2020 WL 6699524 (W.D.N.Y. Nov. 13, 2020) (granting a preliminary injunction barring enforcement of an order prohibiting advertised and ticketed music performances at restaurants while allowing music performances that are "incidental to the dining experience" on the grounds that it was likely to be found arbitrary and thus would fail even the *Jacobson* suspension standard of review).

229. *McCarthy v. Cuomo*, Case No. 20-cv-2124, 2020 WL 3286530, *6 (E.D.N.Y. 2020); *see also Commcan, Inc., v. Baker*, No. 2084CV00808-BLS2, 2020 WL 1903822 (Mass. Dist. Ct. April 16, 2020) ("[T]he Governor was not legally required to implement a different alternative or ensure that his emergency closure orders impose the smallest possible economic burden on [the plaintiffs].").

230. *League of Indep. Fitness Facilities and Trainers*, 814 Fed. App'x. at 126 (granting stay of lower court injunction).

facilities, relying instead on conclusory statements that gyms are ‘dangerous.’”²³¹ The court of appeals stayed the lower court’s injunction, reasoning that, “unlike exacting forms of scrutiny applied in other contexts, the Governor was not required to explain that choice at all, let alone exhaustively. Rather, the relevant standard merely requires “rational speculation” that offers “conceivable” support to the Governor’s order.”²³²

The Sixth Circuit panel went on to assess the governor’s evidence in support of the closure of indoor fitness centers “[a]gainst the backdrop of that low bar,” and quoted the governor’s court filings at length. I include the lengthy passage here because it provides a helpful illustration of how distinctions such as these have been based on differential risk of increasing community transmission:

[E]ven the most ventilated indoor facility is susceptible to respiratory spread of the virus. The danger is only amplified when people congregate (even with social distancing) in a confined space and work out. By its nature, working out is sustained vigorous physical activity, which necessarily means heavy breathing and sweating and, therefore, acute, propulsive bursts of virus shedding by anyone in that confined space who might be infected. Apart from individual exercisers in proximity, there is the added risk of individuals working out together or organized groups working out for extended trainer-led sessions. And the risk of viral spread is only heightened further by the sharing of exercise equipment among many different people over the course of the day, even when good-faith efforts are made to clean that equipment after each use. At a fitness center, these factors merge to significantly increase the incidence of this highly contagious and asymptotically transmittable virus spreading.²³³

The appellate court held up the governor’s district court brief as “a paradigmatic example of ‘rational speculation.’”²³⁴ Under the circumstances, the court declined to require the governor to offer “evidence or empirical data” to support the distinctions drawn in her emergency order.²³⁵ Rather, the court “must accept [the Governor’s] generalizations even when there is an imperfect fit between means and ends.”²³⁶ The appellate court expressed understanding for the district court’s “frustration at the justifications underlying these executive actions,”

231. *Id.* (internal citations omitted).

232. *Id.*

233. *Id.* at *3 (quoting Governor’s Dist. Ct. Br. at 20).

234. *Id.*

235. *Id.* (quoting *FCC v. Beach Commc’ns, Inc.*, 508 U.S. 307, 315 (1993)).

236. *Id.* (quoting *Heller v. Doe*, 509 U.S. 312, 321 (1993)).

noting that “[a]mong other uncertainties of the decisionmaking process, the Order does not close every venue in which the virus might easily spread.”²³⁷ But, the court reasoned, to avoid being arbitrary or capricious “the Governor’s order need not be the most effective or least restrictive measure possible to attempt to stem the spread of COVID-19.”²³⁸ The court concluded with a genuflection to the politically accountable branches: “Crises like COVID-19 can call for quick, decisive measures to save lives. Yet those measures can have extreme costs — costs that often are not borne evenly. The decision to impose those costs rests with the political branches of government”²³⁹

In *Talleywhacker, Inc. v. Cooper*, the Eastern District of North Carolina offered similar analysis to uphold restrictions that “require[d] entertainment and fitness facilities to remain closed, but allow[ed] restaurants, breweries, wineries, and distilleries to reopen, along with personal care, grooming, and tattoo businesses.”²⁴⁰ The court deferred to the governor’s reliance on the advice of state health secretary, Dr. Mandy Cohen:

Defendant drew this classification upon the advice of Dr. Cohen, and her team of medical advisors, who concluded that entertainment and fitness facilities “bring together large groups of people in an indoor setting where they will be largely stationary or sitting for long periods of time.” As a result, “the risk of spreading COVID-19 is higher” at these facilities. Moreover, at such venues, “patrons’ compliance with personal protection measures is likely to decrease” because “alcohol consumption [is] expected and part of the entertainment environment.” Finally, where behavior at such venues often includes yelling over loud music, singing, and dancing, and where COVID-19 is transmitted through respiratory droplets, these venues exacerbate the risk of COVID-19 transmission.²⁴¹

Based on what it deemed “plausible reasons,” the court concluded “the classification drawn by [the governor’s executive order] is rationally related to the state’s legitimate interest.”²⁴² The court found the plaintiffs’ assertions that their adult entertainment venues presented risks similar to restaurants, which were allowed to reopen, noting the “importance” of restaurants “to the community as a whole.”²⁴³ The court expressed approval of Dr. Cohen’s description of the governor’s orders as “employ[ing] a ‘dimmer switch’ approach to the reopening of businesses, gradually easing restrictions on high-risk activities, instead of allowing all businesses to reopen at once, in order to monitor the spread of COVID-

237. *Id.*

238. *Id.*

239. *Id.* at *4.

240. *Talleywhacker, Inc. v. Cooper*, 465 F. Supp. 3d 523 (E.D.N.C. 2020).

241. *Id.*

242. *Id.*

243. *Id.*

19.”²⁴⁴

Predictably, most community mitigation measures have survived highly deferential rational basis review. Nonetheless, courts have probed the classifications state and local executives have drawn between different types of businesses and gatherings. Their analysis illustrates the need for state and local executives to carefully articulate the scientific understanding on which their determinations are based.

D. Lack of Statutory Authority for Executive Action

In March 2020, when state and local executive-branch officials surveyed the authorities available to them by statute, many found that powers to ban gatherings, order businesses to close, ban gatherings, and order the general public to shelter in place — as officials in China and Italy had done — were not clearly defined. One of the most important effects of state and local emergency declarations is that they trigger *ex ante* delegations of authority from the legislature. By passing an emergency powers statute, the legislature pre-commits to a delegation of some — or in the case of California, all — of the state’s power to regulate for the general welfare to executive-branch officials so they may respond swiftly in a crisis. But few states have specific statutory provisions authorizing officials to mandate social distancing and use of face masks. Several courts have fielded claims that coronavirus emergency orders were *ultra vires* because they exceeded the scope of executive-branch officials’ statutory authority.

For example, as the plaintiffs in one of the earliest coronavirus challenges pointed out, Pennsylvania public health emergency statutes did not equip the governor with any specific “power or authority to shutter businesses.”²⁴⁵ But Governor Tom Wolf relied on a curfew provision in an older disaster management statute, which empowered him to control “movement of persons” and “occupancy of premises” within a declared disaster area.²⁴⁶ On March 22, in a per curiam decision in *Civil Rights Defense Firm, P.C., v. Wolf*, the Pennsylvania Supreme Court denied the plaintiffs’ request for injunctive relief without discussing the merits.²⁴⁷ A few weeks later in *Friends of Danny DeVito v. Wolf*, (no, not *that* Danny DeVito²⁴⁸), the court described the governor’s “broad authority” derived

244. *Id.*

245. *Civil Rights Defense Firm v. Wolf*, Civ. Docket No. 63 MM 2020, Petitioner’s Emergency, *Ex Parte* Application for Extraordinary Relief at 14 (Mar. 20, 2020).

246. PA. OFFICE OF THE GOVERNOR, ORDER OF THE GOVERNOR OF THE COMMONWEALTH OF PENNSYLVANIA REGARDING THE CLOSURE OF ALL BUSINESSES THAT ARE NOT LIFE SUSTAINING (Mar. 19, 2020) (citing 35 PA. CONS. STAT. § 7301(f)), <https://www.scribd.com/document/452416027/20200319-TWW-COVID-19-Business-Closure-Order>.

247. *Civil Rights Defense Firm v. Wolf*, Civ. No. 63 MM 2020 (Pa. 2020).

248. *Friends of Danny DeVito v. Wolf*, 227 A.3d 872, 881 (Pa. 2020). (“Petitioner Friends of

SOCIAL DISTANCING

from the state constitution and the disaster management statute and “firmly grounded in the commonwealth’s police power.”²⁴⁹ After a lengthy discussion of the statutory interpretation cannon of *ejusdem generis*, which counsels against “the expansion of a list of specific items to include other items not ‘of the same kind’ as those expressly listed,”²⁵⁰ the court determined “[t]he COVID-19 pandemic is, by all definitions, a natural disaster and a catastrophe of massive proportions.”²⁵¹ Thus, it fell within the disaster management statute’s provision for any “other catastrophe which results in substantial damage to property, hardship, suffering or possible loss of life.”²⁵² Any other determination could have resulted in invalidation of Pennsylvania’s social distancing orders. The state’s subsequent face mask order, in contrast to the stay-at-home orders challenged in *Friends of Danny DeVito*, was issued by the state secretary of health pursuant to the health department’s authority “to determine and employ the most efficient and practical means for the prevention and suppression of disease”²⁵³ and other public health powers.²⁵⁴ It’s unclear why Governor Wolf declined to rely on the health department’s authority to issue the state’s stay-at-home order, though it is possible doing so would have opened up the order to an administrative law challenge for failure to follow the appropriate rulemaking process.

Other courts have been less generous in their statutory interpretation of executive emergency powers. In *Rock House Fitness v. Acton*,²⁵⁵ an Ohio trial court ruled that Ohio Department of Health Director Amy Acton’s April 30 order maintaining limits on high-risk settings like fitness centers while lifting other restrictions was *ultra vires*. The court largely ignored Acton’s assertion that the order was authorized by a general grant of authority to “make special orders . . . for preventing the spread of contagious or infectious diseases.”²⁵⁶ The judge instead characterized Acton’s order as having “quarantined the entire people of the state of Ohio, for much more than 14 days” in violation of the statutory guardrails

Danny DeVito . . . is a Pennsylvania candidate committee . . . formed to operate and administer the candidacy of Danny DeVito, a candidate for the 45th District of the Pennsylvania State House of Representatives.”).

249. *Id.* at 885-86.

250. *Id.* at 888.

251. *Id.* at 889.

252. *Id.*

253. 71 PA. CONS. STAT. § 532(a).

254. The health secretary’s mask orders also refer to several other provisions, but they appear to be less on point than 71 PA. STAT. § 532(a). PA. DEP’T OF HEALTH, ORDER OF THE SECRETARY OF THE PENNSYLVANIA DEPARTMENT OF HEALTH REQUIRING UNIVERSAL FACE COVERINGS (July 1, 2020), <https://www.governor.pa.gov/wp-content/uploads/2020/07/20200701-SOH-Universal-Face-Coverings-Order.pdf>.

255. *Rock House Fitness, Inc., v. Acton*, No. 20CV000631, 2020 WL 3105522 (Ohio Ct. Com. Pl. May 20, 2020).

256. OHIO DEP’T OF HEALTH, DIRECTOR’S STAY SAFE OHIO ORDER (Apr. 30, 2020), .

applicable to individual quarantine orders.²⁵⁷ He went on to hold that “[t]he director has no statutory authority to close all businesses, including the plaintiffs’ gyms, which she deems non-essential[,] for a period of two months. She has acted in an impermissibly arbitrary, unreasonable, and oppressive manner and without any procedural safeguards.”²⁵⁸

In *Wisconsin Legislature v. Palm* — arguably the most notorious court decision in the pandemic to date²⁵⁹ — the Wisconsin Supreme Court lifted the state health department’s extended stay-at-home order²⁶⁰ pursuant to a request for preliminary injunction from the state legislature.²⁶¹ The court described Secretary-Designee Andrea Palm²⁶² as having “quarantine[d] ‘[a]ll individuals present within the State of Wisconsin’ by ordering them ‘to stay at home or at their place of residence’ with exceptions she deems appropriate.”²⁶³ The court found that Palm’s order exceeded the scope of the state quarantine statute because it was “not based on persons infected or suspected of being infected.”²⁶⁴

Moreover, the court found the order was not a permissible exercise of the health department’s broad authorities to “implement all emergency measures necessary to control communicable diseases” or “to [guard] against any introduction of communicable disease into the state” under other provisions of the state’s public health statute.²⁶⁵ In the words of Justice Patience Roggensack’s

257. *Rock House Fitness*, 2020 WL 3105522, at *4.

258. *Id.*

259. The Wisconsin Supreme Court’s other big coronavirus decision—blocking the governor’s order suspending in-person voting in the state’s April 7 primary election—would be a close runner up. *Wis. Legislature v. Evers*, Civ. No. 2020AP608-OA, unpublished order (Wis. April 6, 2020); see also *Republican National Committee v. Democratic National Committee*, 140 S. Ct. 1205 (2020) (staying district court order granting a preliminary injunction which would have required the state to count absentee ballots postmarked after election day).

260. The order invalidated by *Wisconsin Legislature v. Palm* was Wisconsin Dep’t of Health Svcs. Emergency Order 28 (Apr. 16, 2020). The April 16 order extended restrictions which had previously been imposed by the secretary in a March 24 health department order.

261. *Wis. Legislature v. Palm*, 942 N.W.2d 900 (Wis. 2020).

262. The state senate has refused to hold a vote on Palm’s confirmation since her nomination in 2019. Anthony Dabruzzi, *Wisconsin Health Secretary Still Awaits Confirmation from Senate*, SPECTRUM NEWS 1 (Apr. 28, 2020), <https://spectrumnews1.com/wi/madison/news/2020/04/28/health-secretary-still-not-confirmed->

263. *Wis. Legislature*, 942 N.W.2d at 916 (Wis. 2020); see also *Rock House Fitness, Inc., v. Acton*, 2020 WL 3105522 (Ohio Ct. Com. Pl. May 20, 2020) (applying statutory guardrails for quarantine and isolation of individuals to Ohio’s order closing businesses, restricting travel, and ordering the general public to stay at home); see also Lindsay F. Wiley, *Wisconsin’s “Safer at Home” Order Isn’t a Quarantine—But that Doesn’t Mean it Isn’t Necessary to Control the Spread of Coronavirus*, AM. CONST. SOC’Y EXPERT F. (May 7, 2020), <https://www.acslaw.org/expertforum/wisconsins-safer-at-home-order-isnt-a-quarantine-but-that-doesnt-mean-it-isnt-necessary-to-control-the-spread-of-coronavirus/>.

264. *Wis. Legislature v. Palm*, 942 N.W.2d 900 (Wis. 2020).

265. *Id.* at 914-18.

opinion for the majority, the court “cannot expansively read statutes with imprecise terminology that purport to delegate lawmaking authority to an administrative agency.”²⁶⁶ This result, according to Roggensack, was dictated by a 2011 amendment to the state’s Administrative Procedure Act (APA), part of then-governor Scott Walker’s efforts to roll back business regulation.²⁶⁷ The court held that agencies were prohibited from “circumventing [the 2011 amendment’s] new ‘explicit authority’ requirement by simply utilizing broad statutes describing the agency’s general duties or legislative purpose as a blank check for regulatory authority.”²⁶⁸ The court’s narrow interpretation of broad grants of authority to control communicable disease was entwined with its expansive interpretation of a separate provision directing that “unless a rule has been promulgated [via an emergency rulemaking process subject to legislative veto] or the [agency] action is ‘explicitly required or explicitly permitted by statute,’ [the agency] has no power to implement or enforce its directives.”²⁶⁹

Public health advocates condemned the Wisconsin Supreme Court’s decision as “reckless.”²⁷⁰ Champions of pro-business regulatory reform welcomed it as a sign that the court was “reining in” the administrative state.²⁷¹ Because the broad power to control communicable disease did not “explicitly permit” compulsory social distancing via limits on business operations, gatherings, and travel, Wisconsin’s extended “safer at home” order was lifted.

E. Separation of Powers Constraints on Executive Action

The nondelegation doctrine — the principle that broad delegations of policymaking authority from the legislature to the executive may violate constitutionally mandated separation of powers — is a more prominent limit on

266. *Id.* at 917.

267. *Id.* The court relied on Wis. STAT. § 227.10(2m) (2011), which provides: “No agency may implement or enforce any standard, requirement, or threshold, including as a term or condition of any license issued by the agency, unless that standard, requirement, or threshold is explicitly required or explicitly permitted by statute or by a rule that has been promulgated in accordance with [proscribed rulemaking processes].” See MacIver Institute, *Reining in the Administrative State: Wisconsin Legislature v. Palm and the Explicit Authority Requirement* (May 27, 2020), <https://www.maciverinstitute.com/2020/05/reining-in-the-administrative-state-wisconsin-legislature-v-palm-and-the-explicit-authority-requirement/>; Kirsten Koschnick (Comment), *Making “Explicit Authority” Explicit Deciphering Wis. Act 21’s Prescriptions for Agency Rulemaking Authority*, 2019 Wis. L. REV. 993.

268. Wis. Legislature v. Palm, 942 N.W.2d at 917 (quoting Koschnick, *supra* note 267, at 996).

269. *Id.*

270. Representative Lisa Subeck Condemns Supreme Court rule in Wisconsin Legislature v. Palm, WISCONSIN LEGISLATURE (May 14, 2020), <https://legis.wisconsin.gov/assembly/78/subeck/news/press-releases/representative-lisa-subeck-condemns-supreme-court-rule-in-wisconsin-legislature-v-palm/>.

271. See, e.g., MacIver Institute, *supra* note 267.

administrative discretion in some states than it has been at the federal level. More routine public health regulations have been struck down in recent decades on separation of powers grounds in states with rigid limits on agency discretion.²⁷² Courts rigorously reviewing broad delegations typically look for adequate statutory guardrails to guide implementation and judicial review to determine whether the legislature's authorization of decisionmaking power crosses the line from executive implementation into improper policy-making by executive-branch officials.²⁷³ This doctrine has reared its head in several state-court decisions reviewing coronavirus emergency measures.

In *Wisconsin Legislature v. Palm*, the state supreme court did not strike down the health secretary's order on nondelegation grounds, but invoked the nondelegation doctrine indirectly to call her actions into question. The court noted that "[a] delegation of legislative power to a subordinate agency will be upheld if the purpose of the delegating statute is ascertainable and there are procedural safeguards to insure that the board or agency acts within that legislative purpose."²⁷⁴ The court reasoned that procedural safeguards provided by rulemaking — which Secretary Palm had not followed — secured structural, as well as individual-rights constraints on administrative action: "Palm cannot point to any procedural safeguards on the power she claims. At oral argument, she continuously referenced judicial review; but judicial review takes place after an allegation is made that an individual's rights have been violated . . ."²⁷⁵ In addition to providing an opportunity for public comment, the rulemaking procedures at issue would also have permitted the legislature to functionally override Palm's orders without the support that would be required to adopt new legislation and survive a gubernatorial veto. Filing suit and asking the courts to intervene also allowed the legislature to shape the pandemic response without passing a new statute to constrain the administration's authority.

272. See, e.g., *N.Y. Statewide Coal. of Hispanic Chambers of Commerce v. N.Y. City Dep't of Health & Mental Hygiene*, 16 N.E.3d 538, 541 (N.Y. 2014) ("[T]he New York City Board of Health, in adopting the 'Sugary Drinks Portion Cap Rule', exceeded the scope of its regulatory authority. By choosing among competing policy goals, without any legislative delegation or guidance, the Board engaged in law-making and thus infringed upon the legislative jurisdiction of the City Council of New York."); *Boreali v. Axelrod*, 517 N.E.2d 1350 (N.Y. 1987) (holding that the New York State Public Health Council overstepped its regulatory authority when it adopted regulations prohibiting smoking in a wide variety of indoor areas open to the public that had previously been considered, but not adopted, by the state legislature).

273. See, e.g., *Blue Cross & Blue Shield of Mich. v. Milliken*, 367 N.W.2d 1, 51-53 (Mich. 1985) ("Challenges of unconstitutional delegation of legislative power are generally framed in terms of the adequacy of the standards fashioned by the Legislature to channel the agency's or individual's exercise of the delegated power.").

274. *Wis. Legislature v. Palm*, 942 N.W.2d 900 (Wis. 2020) (internal quotation marks and citations omitted).

275. *Id.* at 913 (internal citations omitted).

Several months after the Wisconsin decision, the Michigan Supreme Court ruled that a 1945 civil defense statute — which the governor relied on to extend her emergency declarations after the legislature refused to renew them under a 1976 emergency management statute — was unconstitutional under the nondelegation doctrine.²⁷⁶ The majority of the court interpreted the language of the 1945 statute broadly. Typical for a mid-century civil defense statute, it empowered the governor to declare an emergency “[d]uring times of great public crisis, disaster, rioting, catastrophe, or similar public emergency within the state . . . when public safety is imperiled.”²⁷⁷ Upon such a declaration, the governor was authorized to “promulgate reasonable orders, rules, and regulations as he or she considers necessary to protect life and property or to bring the emergency situation within the affected area under control.”²⁷⁸ The statute also included specific authority to control occupancy, ingress, and egress, and “places of amusement and assembly” within the area affected by the emergency.²⁷⁹ The court rejected the legislature’s argument that the 1945 statute was inapplicable to epidemics. The majority also found a dissenting justice’s argument that “public safety” emergencies are distinct from and exclude “public health” emergencies²⁸⁰ unpersuasive. Instead, the court declared the 1945 statute’s delegation of the entirety of the state’s police powers to the governor during a properly declared emergency unconstitutional.

The Michigan Supreme Court’s nondelegation analysis relied on a state precedent tying the specificity of the statutory guardrails required to survive a nondelegation challenge to the specificity of the power the statute authorizes. “Challenges of unconstitutional delegation of legislative power are generally framed in terms of the adequacy of the standards fashioned by the Legislature to channel the agency’s or individual’s exercise of the delegated power. The preciseness required of the standards will depend on the complexity of the subject.”²⁸¹ Ultimately, “the standards prescribed for guidance must be as

276. *In re Certified Questions*, No. 161492, 2020 WL 5877599 (Mich. Oct. 2, 2020).

277. MICH. COMP. LAWS. § 10.31(1).

278. *Id.*

279. *Id.*

280. *In re Certified Questions*, No. 161492, 2020 WL 5877599, at *29 (Mich. Oct. 2, 2020) (Viviano, J., concurring in part and dissenting in part).

281. *Id.* at 13 (quoting *Blue Cross & Blue Shield of Mich. v. Milliken*, 367 N.W.2d 1 (Mich. 1985)). The Michigan Supreme Court also cited *Whitman v. American Trucking Ass’ns*, 531 U.S. 457, 475, (2001) (“[T]he degree of agency discretion that is acceptable varies according to the scope of the power . . . conferred.”) and *Synar v. United States*, 626 F. Supp. 1374, 1386 (D.D.C. 1986) (“[T]he ultimate judgment regarding the constitutionality of a delegation must be made not on the basis of the scope of the power alone, but on the basis of its scope plus the specificity of the standards governing its exercise. When the scope increases to immense proportions . . . the standards must be correspondingly more precise.”).

reasonably precise as the subject-matter requires or permits.”²⁸² “In other words, it is one thing if a statute confers a great degree of discretion, i.e., power, over a narrow subject; it is quite another if that power can be brought to bear on something as ‘immense’ as an entire economy.”²⁸³ The court also pointed to the challenged order’s invocation of criminal sanctions, its impact on fundamental rights, and its lack of hard time-limits as reasons to require more specific statutory limits than the 1945 statute’s procedures for emergency declaration and its reasonableness and necessity standards provided.

In the aftermath of these state supreme court decisions, Wisconsin and Michigan officials issued new orders relying on more specific statutory authorizations to restrict public gatherings.²⁸⁴ Challenges to these October orders were filed shortly thereafter, relying on statutory interpretation and nondelegation arguments.²⁸⁵ The greater specificity of the statutory authorizations at issue may be a saving grace, but it may also open the door to narrow statutory constructions that exclude the Michigan order’s requirement of face masks in commercial establishments²⁸⁶ or the Wisconsin order’s application to “spontaneous gatherings” of people transiently passing through commercial establishments.²⁸⁷

Other state supreme courts have rejected similar nondelegation challenges to coronavirus emergency orders. In *Elkhorn Baptist Church v. Brown*, the Oregon Supreme Court reversed a trial court ruling that would have lifted the state’s

282. *Id.* (quoting *Osius v. St. Clair Shores*, 75 N.W.2d 25 (Mich. 1956) (alteration marks omitted)).

283. *Id.* at 14. Here, the court cited a *Lochner*-era precedent, *Schechter Poultry Corp. v. United States*, 295 U.S. 495, 539 (1935).

284. The Wisconsin order dated October 5, 2020 relies on WIS. STAT. § 252.02(3) (2015) (“The department may close schools and forbid public gatherings in schools, churches, and other places to control outbreaks and epidemics.”). The Michigan order dated October 9, 2020 relies on MICH. COMP. LAWS § 333.2253 (“If the director determines that control of an epidemic is necessary to protect the public health, the director by emergency order may prohibit the gathering of people for any purpose and may establish procedures to be followed during the epidemic to insure continuation of essential public health services and enforcement of health laws. Emergency procedures shall not be limited to this code.”)

285. As of this writing, the Wisconsin order has been enjoined by an intermediate state court pending appeal. The court did not discuss the rationale for its finding that the challengers were likely to succeed on the merits. *Tavern League of Wis., Inc. v. Andrea Palm*, No. 2020CV128 (Mich. Ct. App., Oct. 23, 2020).

286. MICH. DEP’T OF HEALTH & HUMAN SERVS., EMERGENCY ORDER UNDER MCL 333.2253 — GATHERING PROHIBITION AND FACE COVERING ORDER (Oct. 9, 2020), https://www.michigan.gov/documents/coronavirus/MDHHS_epidemic_order_-_Gatherings_masks_bars_sports_-_FINAL_signed_704740_7.pdf.

287. WIS. DEP’T OF HEALTH SERVS., EMERGENCY ORDER 3 — LIMITING PUBLIC GATHERINGS (Oct. 6, 2020), https://content.govdelivery.com/attachments/WIGOV/2020/10/06/file_attachments/1564232/EmO03-LimitingPublicGatherings.pdf?fbclid=IwAR3iXfWxqaJ4NcudkarVF7dT0KyPPHnSgchVYG7XPIJVwdMJCnKBUyP0Ck4.

compulsory social distancing provisions.²⁸⁸ The court held that neither a 28-day statutory time limit on public health emergencies²⁸⁹ nor a 30-day limit on a constitutional provision governing catastrophic disasters²⁹⁰ limited the governor's coronavirus response measures because they were independently authorized by a broader emergency management statute that does not include time limits.²⁹¹ Moreover, the court found that delegation of all police powers to the governor without statutory time limits did not violate the state's nondelegation doctrine. The court found the governor's emergency powers are limited by statutory provisions requiring them "to be exercised in a manner consistent with . . . address[ing] the declared emergency" and permitting the legislature to terminate the governor's emergency declaration.²⁹² The court also noted the powers were subject to civil liberties constraints under the federal and state constitutions.²⁹³

In a similar case, *Beshear v. Acree*, the Supreme Court of Kentucky rejected a nondelegation challenge by the state's attorney general (an independently elected official who is a political rival of the governor) and business owners.²⁹⁴ The court reasoned that the state constitution "which provides for a part-time legislature incapable of convening itself, tilts toward emergency powers in the executive branch."²⁹⁵ The governor's orders have relied on a 1998 emergency management statute authorizing him to declare curfews and establish their limits, prohibit or limit the sale or consumption of goods, and "to perform and exercise other functions, powers, and duties deemed necessary to promote and secure the safety and protection of the civilian population."²⁹⁶ The state supreme court held that "to the extent [the governor's emergency powers] are perceived as legislative, [the statute] is a lawful delegation of that power with sufficient standards and procedural safeguards to pass constitutional muster."²⁹⁷ The court noted the potential danger of overruling decades of precedent "recogniz[ing] the lawful delegation of legislative powers . . . especially in circumstances that would leave the Commonwealth without day-to-day leadership in the face of a pandemic affecting all parts of the state."²⁹⁸

Legislative efforts to constrain executive action played an important role in other states as well. Although the Pennsylvania Supreme Court blessed the

288. *Elkhorn Baptist Church v. Brown*, 366 Or. 506 (2020).

289. OR. REV. STAT. § 433.

290. OR. CONST. art. X-A.

291. *Id.* (citing OR. REV. STAT. § 410).

292. *Id.*

293. *Id.*

294. *Beshear v. Acree*, No. 2020-SC-0313-OA, 2020 WL 6736090 (Ky. Nov. 12, 2020).

295. *Id.* at *1.

296. KY. REV. STAT. 39A.100.

297. *Beshear*, 2020 WL 6736090 at *1.

298. *Id.*

governor's exercise of sweeping powers to respond to the pandemic, it also noted in *Friends of Danny DeVito* that “[a]s a counterbalance to the exercise of the broad powers granted to the Governor, the Emergency Code provides that the General Assembly by concurrent resolution may terminate a state of disaster emergency at any time.”²⁹⁹ Several weeks later, in *Wolf v. Scarnati*, the Pennsylvania Supreme Court rejected the validity of the legislature’s attempt to do exactly that.³⁰⁰ In a case similar to *Wolf v. Scarnati*, Kansas Governor Laura Kelly brought suit seeking clarification as to whether the legislature’s attempted revocation of her emergency order was valid.³⁰¹ In *Kelly v. Legislative Coordinating Council*, the Kansas Supreme Court held that the legislative coordinating council lacked statutory authority to revoke the order following the procedure it adopted, rendering its purported revocation a legal nullity.³⁰²

IV. PROPOSED STATE LEGISLATIVE REFORMS

Broadly defined statutory limits — such as those the Oregon and Kentucky supreme courts have deemed adequate — should be enough to save public health measures from running afoul of loose nondelegation constraints in most states. But clearer statutory guardrails would put compulsory social distancing and face mask orders on firmer footing. Statutory requirements are also crucial to ensure individual rights, public health necessities, and other public priorities are balanced in a way that is clear to voters seeking to hold state, local, and federal policymakers politically accountable.

Legislatures should revise state public health emergency statutes, local public health emergency ordinances, and the federal Public Health Service Act to give executive-branch officials the authority they need to respond to a crisis swiftly while setting forth *ex ante* statutory limits on executive discretion. These statutes already provide specific authorizations and statutory guardrails for individually targeted measures like compulsory screening, isolation, and quarantine. New legislation is needed to provide similarly specific authorizations and guardrails for compulsory measures to increase social distancing and use of personal protective equipment among the general public, regardless of known infection or exposure, during a declared public health emergency.

Statutory guardrails should provide a basis for courts to determine whether executive actions are *ultra vires* and to ensure that broadly defined powers do not run afoul of constitutional prohibitions on legislative delegations of policymaking authority. Nondelegation doctrine is not rigorous enough to impose significant

299. *Friends of Danny DeVito v. Wolf*, 227 A.3d 872, 881, 886 (Pa. 2020).

300. *Wolf v. Scarnati*, No. 104 MM 2020, 2020 WL 3567269 (Pa. July 1, 2020).

301. *Kelly v. Legislative Coordinating Council*, 460 P.3d 832 (Kan. 2020).

302. *Id.*

limits on emergency-powers delegations under most state-court precedents,³⁰³ but the coronavirus cases reveal vulnerabilities that should be addressed through legislative reforms nonetheless.

Although I call for specific statutory authorizations based on the lessons learned in this pandemic, I am cognizant that statutory guardrails should be drafted broadly enough to address serious public health threats that may differ in important ways from SARS-CoV-2. My primary focus is on serious communicable diseases with epidemic potential — those caused by the appearance of a novel or previously controlled or eradicated infectious agent or toxin³⁰⁴ that is transmissible from person to person and poses a high probability of spreading rapidly to many people and causing a large number of deaths or serious disabilities in the affected population.³⁰⁵ An intentional attack or accidental release of a biologic, radio-nuclear, or chemical agent that is not transmitted from person to person may warrant similar actions, including orders to shelter in place or use personal protective equipment, but I do not address those scenarios in detail here.

The next public health emergency will almost certainly raise new issues — whether because it's driven by different routes of transmission or exposures, has a higher case fatality rate, or disproportionately affects different age and demographic groups, such as children or young adults. To address the coming stages of this pandemic and other public health emergencies we may face in the future, legislatures should equip executive officials with a range of alternatives that can be tailored to the crisis at hand.

Here, my aim is to begin a conversation by setting forth general principles as well as some specific examples of how they might be implemented in draft legislation. I am certain my proposals will generate opposing views. Civil libertarians may see them as insufficient to protect individual rights. Public health advocates may view them as hobbling a swift and nimble emergency response. The debates will inevitably be heated. It's time for them to begin.

303. *See, e.g.*, *Blue Cross & Blue Shield v. Milliken*, 367 N.W.2d 1, 52-53 (Mich. 1985).

304. “*Infectious* diseases are caused by agents (also known as pathogens) or by the toxins they produce. Most infectious disease pathogens are viruses, bacteria, or fungi. Parasitic diseases are caused by protozoa or helminths (worms). With the exception of prions (misfolded proteins that cause some types of encephalopathies), all known infectious disease pathogens are [biological] organisms.” GOSTIN & WILEY, *supra* note 3, at 347 (emphasis added).

305. A *communicable* disease is an infectious disease that is transmissible from person to person, including through indirect routes of transmission. A *serious* communicable disease is one that is virulent enough to cause death or serious disabilities in people who are infected. A serious communicable disease *with epidemic potential* is one with potential to spread rapidly to many people. The term pandemic is used to describe the global experience of coronavirus epidemics across a wide region of the globe. *See id.*

A. The Strategic Purpose of Orders, the Scientific Understanding on which They are Based, and Criteria for Lifting Them Should be Disclosed to the Public in Specific Terms

Transparency, accountability, and sustainability are essential to maintaining the public's trust, which is a precious resource in a public health emergency.³⁰⁶ Constitutional challenges have, to some extent, required state and local executives to articulate to the courts (and, indirectly, to the public) the purpose of their orders and the scientific understanding on which they are based. But for the most part, executives have stated their purposes in terms that are far too general to ensure accountability.

In particular, most state and local officials have not been transparent about the extent to which the success and sustainability of state and local orders depends on federal intervention. In the US, state and local executives hold the reins on social distancing and face mask orders. But they lack the financial resources and inter-state coordinating authority required to ramp up testing, contact tracing and financial supports for households and businesses.³⁰⁷ As a result, state and local leaders were not equipped to make good use of the time bought by strict stay-at-home orders in the spring. And on their own, they could not achieve suppression. In the fall, when mitigation efforts were most needed in many places, some officials imposed harsh limits on private gatherings that do not generate revenue while allowing high-risk commercial establishments to stay open. They could have been more transparent about the fact that the lack of federal financial support for businesses and workers made business closures untenable so they were doing the best they could under the circumstances.³⁰⁸ Instead, many claimed that evidence (which they did not release to the public), indicated private gatherings, rather than workplaces or commercial establishments, were the greatest factor driving increased community transmission.³⁰⁹ Statutory requirements could ensure greater transparency and accountability by clarifying what state and local executive-branch officials can — and cannot — achieve on their own without federal assistance.

An individualized risk assessment requirement would effectively take compulsory social distancing and face covering orders off the table in a situation

306. Gostin, Burris & Lazzarini, *supra* note 15, at 94-95.

307. See Lindsay F. Wiley, *Federalism in Pandemic Prevention and Response*, in COVID-19 RAPID LEGAL ASSESSMENT (Scott Burris, Wendy Parmet, & Lance Gable, eds.) (2020).

308. Amanda Mull, *The Logic of Pandemic Restrictions is Falling Apart*, THE ATLANTIC (Nov. 25, 2020), <https://www.theatlantic.com/health/archive/2020/11/pandemic-restrictions-no-logic/617204/>.

309. Apoorva Mandavilli, *Small Gatherings Spread the Virus, but Are They Causing the Surge?*, N.Y. TIMES (Nov. 23, 2020), <https://www.nytimes.com/2020/11/23/health/coronavirus-holiday-gatherings.html>.

SOCIAL DISTANCING

where community transmission is widespread and access to rapid, reliable testing is limited. The MSEHPA and many state statutes subject individually targeted measures — such as compulsory testing, isolation, quarantine, treatment, and vaccination — to procedural requirements aimed at ensuring an impartial and individualized assessment of the risks the individual poses of transmitting infection to others. Imposing such a requirement on compulsory social distancing and face covering would mean that each individual and business would be entitled to a notice, a hearing, and representation by counsel before restrictions could be deemed justified by the risk the individual or businesses poses to others. In theory, the courts could have determined that an individualized risk assessment is constitutionally required to justify business closures, orders limiting travel, and orders mandating the use of face coverings. Doing so would have effectively required the government to make testing more widely available so that individually targeted measures could be used in place of the more disruptive forms of social distancing. But this approach was stymied by our federal system of government. State and local governments hold the reins on social distancing and face masks. But only the federal government has adequate resources (states are prohibited from deficit-spending) and interstate and international authority to coordinate supply chains to ensure access to testing. Once transmission becomes widespread, state and local leaders simply are not equipped to implement a response that relies solely on individually targeted measures following individualized risk assessments.

Instead of guaranteeing rights to procedural protections aimed at ensuring an individualized assessment, statutory guardrails should require executive branch officials to articulate their generalized risk assessment to the public at large. Statutes should require officials to state: (1) the strategic purpose orders are intended to serve, (2) the scientific understanding on which they are based, and (3) the criteria that will be relied on to determine whether they are working and when they can be modified or lifted. Orders should be time limited — but subject to an unlimited number of renewals — to ensure officials communicate the scientific understanding behind any assumptions that have led them to extend or modify restrictions.

Even in the absence of a statutory disclosure mandate, state and local officials could adopt this transparency principle of their own accord. Disclosure requirements will allow reviewing courts to determine whether the timing and degree of restrictions and mandates are based on the best available scientific understanding regarding the risk of transmission and whether the means adopted are consistent with a strategic purpose. Thus, disclosures may decrease the risk of orders being overturned on constitutional grounds. Perhaps more importantly, disclosure requirements will facilitate political accountability by clarifying the choices and responsibility of elected officials at each level of government. Indeed, that may be one reason why a statutory mandate is necessary to prompt officials to

provide the level of transparency that pre-pandemic guidance recommended.

Coronavirus opinions have generally assumed that the purpose of executive orders is obvious and unchallenged: to combat the pandemic. But such a broadly defined purpose does little to ensure transparency and accountability. A more specific statement of the strategic purpose for executive orders should identify the criteria by which success or failure will be evaluated. If the strategic purpose of the orders is mitigation to keep the curve of a communicable disease epidemic within available health care capacity, then the relevant criteria may relate to actual or projected availability of hospital resources. If the strategic purpose is mitigation to buy time for implementation of other responses, such as testing and tracing or a vaccine or therapeutic, then the relevant criteria may relate to the attainment of specific milestones in implementation. If the strategic purpose is suppression, the relevant criteria may be expressed solely in terms of attaining a specific benchmark in measures of transmissibility.

Whether the stated criteria are attainable or not and whether they strike the right balance between disease control and other priorities must be left to constituents to judge.³¹⁰ If, for example, a state or local government order specifies that it will remain in effect until the percent-positive rate of screening tests falls below a certain threshold (indicating sufficient testing capacity) or until the percentage of newly reported cases that were known contacts of previously reported cases rises above a certain threshold (indicating a transition from widespread community transmission to more localized transmission compatible with suppression), then it will be clearer to constituents that they should pressure federal and other officials to provide the resources necessary to achieve those benchmarks. If the order specifies a suppression goal and the constituents feel that is not feasible or not justified given the burdens that would be required, they may pressure the legislature to modify or lift the executive order. If the order specifies a goal of mitigation to stay within available health care capacity and constituents feel that is not ambitious enough, they may pressure the executive to take a more aggressive approach. “Crush the curve” proponents did exactly that in mid-April, and successfully convinced some governors to leave restrictions in place a little longer.

Executive officials should also be required to articulate the current scientific understanding on which their orders — including any extensions or modifications of previous orders — are based.³¹¹ For communicable disease, the risk of transmission should be assessed in terms of the virulence and transmissibility of the infectious agent or toxin, the routes of transmission, and the level of community

310. See Honig, *supra* note 4.

311. Cf. Gostin, Burris & Lazzarini, *supra* note 15, at 121 (arguing that compulsory measures should be based on a demonstrated threat of significant risk).

transmission in the affected area. Virulence refers to an agent's capacity to cause overt disease and death in a person who is infected. It is typically measured in terms of infection-fatality or case-fatality rates — the proportion of infected individuals (or those with confirmed infections, known as “cases”) who die of the disease — though these measures do not account for serious and potentially long-term morbidity among survivors.³¹² Transmissibility refers to an agent's capacity to spread from person to person.³¹³ It is typically measured in terms of the reproduction number (also known as R_0 or “R naught”). As we have seen with SARS-CoV-2, virulence and transmissibility are not static measures inherent to a particular agent or toxin, rather they are influenced by characteristics of the affected population and the environmental, social, economic, political, and cultural factors that shape how people interact with each other and the course of infection. Executive officials must be alert to the dynamic nature of virulence and transmissibility and update their orders as appropriate.

Routes of transmission for a novel infectious agent or toxin may be poorly understood at the beginning of a crisis, requiring officials to reassess mandates and restrictions in light of new evidence. For any given agent or toxin, the routes of transmission may be respiratory (via droplets that are directly inhaled or ingested or indirectly transmitted via “fomites,” such as door handles), fecal-oral contact (which is usually indirect via contaminated water or food), sexual contact, oral contact (direct or indirect, via shared utensils or drinks), or skin contact (direct or indirect via shared bedding, towels, or clothing). Laboratory studies and epidemiological investigations tracing the chains of transmission improve our scientific understanding of a novel agent or toxin over time, which may lead to changing public health recommendations.

In the 2020 pandemic, for example, many scientific advisors initially assumed that the exclusive — or at least primary — route of SARS-CoV-2 transmission was large respiratory droplets that spread to others via direct inhalation, handshaking or fomites, leading to recommendations to stay six feet apart (the typical distance by which large droplets fall to the ground), wash hands, and sanitize high-touch surfaces frequently. Over time, consensus shifted to emphasize the risk of transmission through small droplets capable of floating in the air for longer periods played a significant role, leading to recommendations to avoid spending time with non-household members in poorly ventilated indoor spaces even if a distance of 6 feet was maintained. Whether people are capable of transmitting infection in the absence of signature symptoms is a particularly important question for public health recommendations. Initially, scientists assumed SARS-CoV-2 was transmitted by people who felt sick, so they recommended that people wear masks

312. See GOSTIN & WILEY, *supra* note 3, at 347 (defining virulence); *id.* at 52 (discussing the strengths and weaknesses of mortality and morbidity as measures of disease burden).

313. *Id.* at 347.

if they had symptoms. Over time, however, as it became clear that people without symptoms could spread infection, guidelines shifted to recommend face coverings for the general public.

The level of community transmission in a local area is a critical component of risk assessment. Any given activity may be more or less safe depending on how likely it is that someone present is infected. The risks will vary from place to place and time to time, as they have during the 2020 pandemic. Accurately assessing community transmission requires a public health surveillance strategy. Haphazard clinical testing through a fragmentary mix of private, free-market health care providers and publicly financed test sites may not provide reliable data to inform executive-branch decisions. Public health surveillance through random-sample testing, monitoring of sentinel sites, or syndromic surveillance (with or without the use of clinical tests, which may not be available in the early stages of a pandemic or for some agents or toxins) is distinct from clinical testing of people with symptoms or testing of known contacts of cases for quarantine purposes. A disease surveillance strategy should be considered a critical component of pandemic response. Executive officials should be required to describe the public health surveillance strategy they have implemented to monitor and continually reassess the need for varying degrees of compulsory disease control measures.

The capacity of elected officials and judges to navigate these complex scientific concepts varies, which is why I recommend legislatures should build them into statutory authorizations *ex ante* and should authorize public health agencies and their leaders — not governors or mayors — to issue compulsory social distancing and face mask orders. For the most part, judges have done an admirable job of navigating the evolving scientific understanding regarding SARS-CoV-2 and COVID-19. Most judges have not exhibited the same skepticism as some litigants with regard to the government's assertions that COVID-19 is a serious communicable disease that spreads rapidly from person to person via respiratory transmission. In *South Bay*, Chief Justice Roberts relied on evidence that the risk of transmission for SARS-CoV-2 is greatest where “people . . . congregate in large groups [or] remain in close proximity for extended periods.”³¹⁴ His reasoning captured the current scientific understanding regarding the risks of SARS-CoV-2 transmission better than the prefatory clauses of the executive orders he permitted to stand.

Statutory guardrails demanding greater clarity and transparency of the scientific reasoning behind social distancing restrictions and face covering mandates will make it easier for courts to assess whether they are arbitrary and capricious. For well-reasoned orders, transparency may also enhance public trust

314. *S. Bay United Pentecostal Church v. Newsom*, 140 S. Ct. 1613, 1613 (2020) (denying injunctive relief) (Roberts, C.J., concurring).

and cooperation. As a constitutional matter, strict scrutiny will require a stronger government justification and more narrowly tailored measures than my proposed disclosure requirements would ensure. But the coronavirus cases suggest courts are unlikely to apply strict scrutiny to many types of social distancing measures. When religious liberty, fundamental rights, or suspect classifications are at issue, statutory requirements should trigger executive-branch officials to more clearly articulate their reasoning in preparation for more searching judicial review.

B. Statutes Should Authorize a Graded Range of Interventions and Classifications of Services, Businesses, and Activities as Essential or High-Priority Should be Developed in Advance

Ideally, public health emergency statutes should offer health officials a graded range of interventions,³¹⁵ allowing them to dial compulsory social distancing measures up or down as needed to respond to changing local conditions (see Figure 1). Mandating use of the least restrictive alternative for every form of compulsory social distancing and face covering — as Gostin, Burris, and Lazzarini recommended for individually targeted restrictions³¹⁶ — would not be consistent with constitutional standards. As the coronavirus cases have demonstrated, most courts in most instances will require only that the measure have a rational basis. Following the recommendations of public health law scholars, the MSEHPA and state statutes influenced by it, mandate use of the least restrictive alternative for compulsory testing, treatment, isolation, quarantine, and vaccination. Compulsory social distancing and face covering orders are less invasive than these individually targeted measures. Although commentators typically use the term *quarantine* to describe stay-at-home orders, a truly compulsory quarantine order imposes significantly more limitations on personal movement. Quarantine orders may also be enforced by significantly more invasive policing than stay-at-home orders. In 2020, orders directing the general public to stay at home have included broad exceptions for “essential” work and movement and have largely (though not exclusively) been enforced through voluntary compliance and warnings. Subjecting all compulsory social distancing and face covering requirements to the equivalent of strict scrutiny in the courts could overly constrain common-sense measures. The longstanding public health standard of reasonable necessity, with some additional limits to ensure measures do not discriminate on the basis of religion and do not unduly burden the exercise of fundamental rights probably strikes a better balance between public health needs and individual rights.

To ensure that emergency measures satisfy rational basis requirements (and perhaps also increase the likelihood they will withstand heightened scrutiny if

315. Gostin, Burris & Lazzarini, *supra* note 15, at. at 123-24.

316. *Id.*

courts apply it) legislation should also provide guidance regarding classifications among businesses and activities. Executive officials have struggled to draw distinctions among businesses in ways that “ensure[] that similarly situated entities would be treated the same.”³¹⁷ Statutes should specifically authorize health officials to address higher-risk settings based on the best available evidence while providing exceptions for high-priority services (life-sustaining, essential, or otherwise) guided by legislative pronouncements. Statutes authorizing a graded range of interventions would empower health officials to draw difficult distinctions and thus avoid more sweeping (but less discriminatory) restrictions.

Statutory provisions should specifically authorize executive-branch officials to develop classifications that designate which facilities and activities are likely to pose higher risks for various routes of transmission. That could be swimming pools and fountains for water-borne infections transmitted through the fecal-oral route, such as polio. Or it could be bars, dine-in restaurants, and other places where people tend to congregate for long periods of time indoors for infections transmitted through small respiratory droplets, such as SARS-CoV-2.

To define which workers and businesses should be permitted to continue onsite operations even when a stay-at-home order and widespread business closures are in effect, some leaders have looked to external sources for guidance. Pennsylvania’s orders, for example, relied on the North American Industry Classification System (NAICS), a code developed by the federal Office of Management and Budget and used by the U.S. Census Bureau for classification purposes.³¹⁸ Other states relied on the list of critical infrastructure workers identified by the federal Cybersecurity & Infrastructure Security Agency (CISA) to draft exemptions from their stay-at-home orders.³¹⁹ These sources should be directly incorporated into authorizing legislation to ensure classifications are clear, well-vetted, and withstand rational basis review. Other priorities, such as child care and education, might also be designated by the legislature as having high public priority. Ultimately, health authorities should be authorized to override

317. *Friends of Danny DeVito v. Wolf*, 227 A.3d 872, 881 (Pa. 2020).

318. *Id.*

319. *Hartman v. Acton*, Case No. 2:20-CV-1952, 2020 WL 1932896, *6 (S.D. Ohio Apr. 21, 2020) (rejecting equal protection, procedural due process, and substantive due process arguments to the Ohio Department of Health’s March 22, 2020 stay-at-home order); *see also* CYBERSECURITY AND INFRASTRUCTURE SEC. AGENCY, ADVISORY MEMORANDUM ON IDENTIFICATION OF ESSENTIAL CRITICAL INFRASTRUCTURE WORKERS DURING COVID-19 RESPONSE (Mar. 28, 2020) (“The Cybersecurity and Infrastructure Security Agency (CISA) executes the Secretary of Homeland Security’s authorities to secure critical infrastructure. Consistent with these authorities, CISA has developed, in collaboration with other federal agencies, State and local governments, and the private sector, an ‘Essential Critical Infrastructure Workforce’ advisory list. This list is intended to help State, local, tribal and territorial officials as they work to protect their communities, while ensuring continuity of functions critical to public health and safety, as well as economic and national security.”).

predetermined priorities based on risk-based classifications, as warranted by the best available scientific understanding regarding the nature of the pandemic threat. But establishing legislative priorities in advance may help executive orders that impose looser limits on high-priority settings withstand judicial review.

C. Substantive Standards Should Ensure Orders are Neutral Laws of General Applicability that Do Not Discriminate on the Basis of Religion

Typical religious worship services bear all the hallmarks of a high-risk setting for SARS-CoV-2 transmission and could certainly pose similar risks in a future pandemic. Congregants tend to gather indoors with people from multiple households, talking or singing for an hour or more. To withstand scrutiny under *Catholic Diocese*, emergency orders should describe the gatherings to which they apply and the capacity limits they impose in terms that are tailored to these risks, rather than imposing location- or purpose-specific restrictions on houses of worship or religious services.³²⁰

Under *Catholic Diocese*, prohibitions on gatherings, capacity limits on gathering places, and any other restrictions must be drafted as “neutral” laws of “general applicability”³²¹ that do not “single out houses of worship” for restrictions that do not apply to other settings — including commercial establishments, factories, and public services deemed “essential.”³²² It is no longer sufficient for state and local governments to apply “[s]imilar or more severe restrictions . . . to comparable secular gatherings, including lectures, concerts, movie showings, spectator sports, and theatrical performances, where large groups of people gather in close proximity for extended periods of time,” as suggested by Chief Justice Roberts in his *South Bay* concurrence.³²³ Departing from the Court’s approach in *South Bay*, *Catholic Diocese* found that even an order exempting activities Roberts

320. See Lindsay F. Wiley, *The Role of Religious Liberty in (the Development of) Social Distancing Law*, BERKELEY CTR. FOR RELIGION, PEACE & WORLD AFFAIRS (June 3, 2020), <https://berkeleycenter.georgetown.edu/responses/the-role-of-religious-liberty-in-the-development-of-social-distancing-law>.

321. *Church of the Lukumi Babalu Aye, Inc. v. City of Hialeah*, 508 U.S. 520, 533 (1993). In addition, public health emergency statutes should provide an express exemption from the state’s Religious Freedom Restoration Act, if it has one. Not all social distancing orders run afoul of state RFRA. See, e.g., *Cassell v. Snyders*, 458 F.Supp. 3d 981 (N.D. Ill. May 3, 2020) (holding state RFRA claim was unlikely to succeed on the merits because “no equally effective but less restrictive alternatives are available under these circumstances”). But it is an issue the legislature should address.

322. *Roman Catholic Diocese of Brooklyn v. Cuomo*, 141 S. Ct. 63 (2020). Whether lighter restrictions for schools or essential factories would be permissible was not addressed in the case in detail, but the majority did describe schools and factories as having “contributed to the spread of COVID-19” and being “treated less harshly” than the plaintiffs. In reality, however, the challenged order directed local health departments to close schools. N.Y. Exec. Order No. 202.68 (Oct. 6, 2020).

323. *S. Bay United Pentacostal Church v. Newsom*, 140 S. Ct. 1613 (Roberts, C.J. concurring) (emphasis added).

deemed “dissimilar . . . such as operating grocery stores, banks, and laundromats, in which people neither congregate in large groups nor remain in close proximity for extended periods”³²⁴ could be deemed discriminatory based solely on the fact that it singles out houses of worship or religious gatherings by name.³²⁵

State and local officials could issue (and new legislation should authorize in specific terms) orders prohibiting sustained gatherings in which more than a certain number of individuals or people from more than a certain number of households spend sustained time together in close contact, regardless of where those gatherings take place. Orders could specifically exempt transitory collections of people who are moving through the same space for only brief periods of time. This exemption could permit lower-risk retail stores and many essential workplaces to remain open even as sustained gatherings are restricted. Another approach would be to order (and specifically authorize in new legislation) capacity limits that would apply to all facilities, regardless of their “essential” status. These “ultra-neutral” approaches may ultimately prove untenable in jurisdictions that wish to permit on-site instruction in schools or even on-site work at places whose operations cannot be halted without impeding access to essential goods and services.

Even before *Catholic Diocese*, many state and local governments had backed off of limits on religious services, even when cases and hospitalizations are surging and even as they have re-tightened limits on similarly high-risk settings like bars, dine-in restaurants, theaters, and other entertainment venues. In one of the first orders to reimpose restrictions in response to the summer wave, Arizona Governor Doug Ducey re-imposed a ban on gatherings of 50 or more people but exempted activities protected by the First Amendment, an exemption not made in the state’s March ban.³²⁶ *Catholic Diocese* is likely to prompt most jurisdictions to adopt a similarly hands-off approach to religious houses of worship—and perhaps to other activities protected by the First Amendment as well. But legislation should not assume that such draconian constitutional constraints will be applied by courts in future pandemics that pose different or greater risks. Authorizing legislation should support the ability of health officials to draw distinctions based on the risk of transmission, while avoiding singling out houses of worship for specific restrictions.

324. *Id.*; see also *Roberts v. Neace*, 457 F. Supp. 3d 595, 600 (E.D. Ky. 2020) (“It is abundantly clear that the ‘object or purpose of’ Kentucky’s mass gathering ban is not ‘the suppression of religion or religious conduct.’ To the contrary, the plain text of the challenged order categorically bans all ‘mass gatherings’ as a means of preventing the spread of a life-threatening virus.”) (quoting *Church of the Lukumi Babalu Aye, Inc. v. City of Hialeah*, 508 U.S. 520, 533 (1993)).

325. See *Roman Catholic Diocese of Brooklyn*, 141 S. Ct.

326. See *Ariz. Exec. Order No. 2020-43*, *supra* note 148.

D. Statutes Should Mandate Provision of Supportive Measures, Legal Protections, and Accommodation of Safer Alternatives to Restricted Activities within Available Means

Mandates and restrictions in the absence of social supports to increase voluntary cooperation and minimize secondary harms threaten to exacerbate unjust health disparities along racial, socioeconomic, gender, and disability lines. Moreover, social supports help maintain the public's trust, bolstering the effectiveness of public health measures. Due to logistical, legal, and ethical constraints, restrictions that are mandatory in theory rely on widespread voluntary cooperation in practice. Throughout a public health crisis, sustained social supports to enable safe compliance with restrictions and guidelines and spread the burdens as widely as the benefits are absolutely crucial to the success of the public health response.

The legislature should condition the validity of mandatory orders on reasonable steps by executive-branch officials to provide supports and accommodations for safer alternatives to restricted activities, within available resources. Supports, legal protections, and removal of legal barriers to safer alternatives to restricted activities should be implemented in multiple settings. Governmental responsibility should be exercised immediately to secure the health and safety of people in custody, detention, and foster care, including through de-densification. Upon initiation of school and business closures and orders to stay at home, governments should act immediately to ensure safe, sanitary, and accessible housing conditions. Officials should strongly consider halting eviction and utility shut-offs to secure housing stability in the midst of a crisis.³²⁷ People experiencing homelessness should be exempted from enforcement of mandatory orders to shelter in place. Moreover, safe, sanitary, and uncrowded shelter that is physically accessible for people with disabilities should be offered to people who are unhoused, experiencing homelessness, or living in communal settings. Supports, accommodations, and legal protections are also needed to shield people exposed to work-related risks, including critical-infrastructure workers, low-wage workers, and people who share a home with workers exposed to on-the-job risks.

Regardless of whether a new statutory requirement is adopted, health officials should work with affected businesses, organizations, and households to help them adapt to and minimize the impacts of social, economic, educational, and cultural disruptions. Authorities should also provide information to the general public and any particularly affected groups about available resources for mental health support, nutrition support, educational assistance, and other social services

327. *Elmsford Apartment Associates, LLC v. Cuomo*, 2020 WL 3498456 (S.D.N.Y. June 29, 2020) (granting defendant's motion for summary judgment dismissing plaintiff apartment owners' due process and regulatory takings challenge to state eviction moratorium order).

available to assist with meeting essential needs and coping with disruptions. They should provide guidance and support for the general public and any particularly affected groups, businesses, or organizations regarding safer alternatives to restricted activities, including by providing logistical support and access to public spaces and facilities. This guidance and support should be provided in coordination with other federal, state, local, and tribal government authorities and private organizations.

A statutory mandate to take reasonable steps within available resources would require health officials to demonstrate that they are making an effort to provide supports without overly constraining their ability to impose restrictions. I have borrowed this approach — referred to as “progressive realization” — from international human rights instruments that require member states to demonstrate that they are taking steps to fulfill their affirmative obligations.³²⁸ In situations where federal financial support is not forthcoming — as has been the case in for much of 2020 — state and local government actions would be held to a standard that takes their lack of resources into account. An assessment of the concrete steps officials have taken to support and accommodate safer alternatives to restricted activities could be part of judicial review, which could be guided by flexible statutory guidelines based on a progressive realization principle.

E. Criminal Enforcement Against Individuals Should be Authorized Only if Justified as the Least Restrictive Alternative

I have argued that a statutory requirement that compulsory social distancing or face covering orders must be justified as the least restrictive alternative available to achieve the government’s purpose would be inappropriate in most situations. But here, I carve out an exception. Criminal enforcement against individuals who violate social distancing and face mask orders should be deployed by executive-branch officials and authorized by new public health emergency statutes only as a last resort. There are multiple alternatives that should be pursued, or at least deemed futile based on the best available evidence, prior to imposing or threatening criminal penalties to enforce restrictions on personal movement or mandates for individuals to wear face coverings. Communication campaigns, support for safer alternatives to restricted activities, and administrative sanctions and civil penalties for licensed businesses and other organizations should be prioritized over criminal enforcement against individuals. Legislatures should require executive officials to justify criminal enforcement as the least restrictive alternative available to achieve a compelling state purpose.

328. UN Committee on Economic, Social and Cultural Rights, General Comment No. 3: The Nature of States Parties’ Obligations (Dec. 14, 1990), E/1991/23, available at <https://www.refworld.org/docid/4538838e10.html>.

SOCIAL DISTANCING

In the absence of criminal enforcement, compulsory mandates and restrictions on individual behavior — requirements to wear masks, to refrain from interacting with people from another household, even in a private home, or requirements to stay home except for expressly permitted purposes — are really just hortatory mandates (an intentional oxymoron) or muscular recommendations.³²⁹ If so, what is the advantage of issuing an order with “the power of a rule” but no mechanism for enforcement. What is the power of a rule without the threat of enforcement? Why not simply issue an advisory, as some state and many local governments have done?

Some officials appear to believe that their commands are more likely to be heeded if they come in the form of a mandatory order, even if there is no penalty for violations. Perhaps they are right. Until further evidence is developed, I believe it would be premature for new legislation to impose a least restrictive alternative standard on orders to stay at home, or limit gatherings, or wear face coverings so long as those orders are *not* accompanied by criminal penalties.

Minimal enforcement efforts may be one reason we still have few answers to the question of whether ordering the general public to stay at home is truly constitutionally permissible. Though courts have granted wide leeway to stay at home orders in 2020, surely the result would be different if militarized police forces were patrolling the streets, conducting raids on private homes, or arresting people by the thousands — instead of merely by the dozens³³⁰ — for violations. Widespread criminal enforcement simply isn’t logistically feasible when a pandemic affects so many parts of the country simultaneously, but the next crisis could strike a more limited geographic area. Criminal enforcement of compulsory social distancing or face mask orders should require strong justification. If the courts might be reluctant to demand it, legislatures should.

CONCLUSION

Reformers seeking to modernize public health emergency laws at the turn of the twenty-first century focused primarily on individually targeted measures that are highly restrictive (quarantine and isolation orders) or invasive (tests, physical examinations, and vaccination). The statutory guardrails they recommended assumed that procedural protections (individual rights to notice, hearings, and representation by counsel) to ensure an individualized risk assessment and use of the least restrictive alternative were both feasible and constitutionally (or at least ethically) required. In the absence of criminal enforcement against individuals,

329. I plan to address this question in a follow-up project.

330. Ashley Southall, *Scrutiny of Social-Distance Policing as 35 of 40 Arrested Are Black*, N.Y. TIMES (May 7, 2020), <https://www.nytimes.com/2020/05/07/nyregion/nypd-social-distancing-race-coronavirus.html>.

compulsory social distancing and face covering orders are less restrictive of fundamental rights than individually targeted measures. At the same time, they cause far more disruption to social, economic, and cultural activity. Are individualized risk assessments, individually enforceable procedural rights, and statutes mandating use of the least restrictive alternative the appropriate mechanisms for constraining the use of these powers? The courts appear to be answering in the negative. Unfortunately, many judges have relied on suspension standards of review to avoid clarifying the relationship between social distancing and individual rights. But most judges who have delved more deeply into these issues have found that rational basis review — not strict scrutiny — applies to most social distancing and face mask orders.

But if constitutional protections for civil liberties will not substantially constrain the blunt instrument of social distancing beyond the limited contexts of religious worship, abortion rights, and gun sales, what will? I believe the answer lies in the other key tension at the heart of public health law — between expertise-driven regulation and democratic governance. Scientific risk assessments are critical to public health governance,³³¹ but pandemic response — like any other form of public health intervention — also requires moral and policy choices.³³² Fully insulating pandemic mitigation measures from the requirements of transparency and accountability that typically adhere to government action is untenable in a constitutional democracy. Judges are appropriately reluctant to rely on constitutional protections for civil liberties — some of which rely on in turn on unsettled and untested doctrines — to usurp control. They may be more comfortable reviewing executive officials' compliance with statutory standards that express the legislature's preferences regarding the appropriate balance between competing policy priorities in a public health crisis. Statutes should set forth the legislature's *ex ante* policy determinations and robust requirements of transparency and consistency with the best available scientific understanding as well as requirements for executive-branch officials to offer guidance, accommodations, and support for safer alternatives to restricted activities and services. These requirements are a better fit for constraining compulsory social distancing than individual rights to procedural protections.

In some states, some legislators are so offended by what they perceive to be executive overreach that they are seeking to strip officials of existing emergency powers.³³³ Specific authorizations subject to rigorous statutory guardrails offer an

331. GOSTIN & WILEY, *supra* note 3, at 52 (“science-based risk assessments provide a surer grounding for decisionmaking and avoid reflexive actions based on irrational fears, speculation, stereotypes, or myths”).

332. *Id.* (“public health has a sociopolitical dimension that reasonably takes community values into account”).

333. See Wiley & Vladeck, *Coronavirus, Civil Liberties, and the Courts: The Case Against*

alternative that would express the legislature’s concerns about unbridled executive authority without tying the government to the mast. Even those who feel stay-at-home orders went too far in the spring of 2020 must recognize that the current pandemic is an evolving situation with the potential to become more dangerous over time. Moreover, a future epidemic could pose a threat coronavirus-response critics might view as more severe — with a higher case-fatality rate or higher mortality for children, for example.

Pre-coronavirus pandemic plans — such as the CDC’s 2004 plan for possible SARS resurgence — caution that the most extreme disease control measures “[m]ay be controversial because of infringement on personal liberties,” and that it “[m]ay be difficult to solicit cooperation for extended periods, particularly if the rationale is not readily apparent or was not clearly explained.”³³⁴ They advise that implementation “[r]equires excellent communication mechanisms to inform affected persons and to maintain public confidence in the appropriateness of the chosen course of action; [m]ay need to provide replacements for affected activities (e.g., school, essential service providers); and [m]ust address mental health and financial support for affected population.”³³⁵ Elected and appointed officials would do well to keep this advice in mind as they navigate the challenges ahead. Clear communication of goals and supports to enable compliance and minimize secondary harms are critical. The public’s trust is a scarce and precious resource in a pandemic and the worst of this crisis may yet be ahead of us. State legislatures are beginning to weigh in on the pandemic response. Stripping executive officials of authority to respond to the crisis — as some legislators are seeking to do — is an untenable solution that puts the lives and wellbeing of the populace at risk. Statutory guardrails for executive actions to implement social distancing and mandate the use of PPE are needed, however, to ensure that civil liberties, economic, social, and cultural needs are balanced against public health necessities in a way that promotes democratic accountability and transparency.

‘Suspending’ Judicial Review, supra note 8.

334. CDC (2004), *supra* note 71, at 7.

335. *Id.*

Health Justice Strategies to Combat the Pandemic: Eliminating Discrimination, Poverty, and Health Disparities During and After COVID-19

Emily A. Benfer, Seema Mohapatra, Lindsay F. Wiley & Ruqaiijah Yearby*

Abstract:

Experience with past epidemics made it predictable that people living in poverty, people of color, and other marginalized groups would bear the brunt of the coronavirus pandemic due to the social determinants of health (SDOH). The SDOH are subdivided into structural and intermediary determinants. Structural determinants include forms of subordination (discrimination and poverty) that influence intermediary determinants (health care, housing, and employment). The COVID-19 pandemic has magnified and accelerated the harms caused by these determinants, limiting health equity among historically marginalized groups and low-income populations. Black, Latino, and Indigenous populations have higher COVID-19 infection and mortality rates, higher rates of unemployment, less access to health care, and greater risk of eviction during the pandemic, among other significant inequities. Without robust and swift government interventions, the impacts of the pandemic will be wide and deep. This Article analyzes mechanisms of these determinants in the pandemic setting and provides solutions using the health justice framework. The health justice framework offers three principles: structural, supportive, and empowering. First, legal and policy responses must address the structural determinants of health. Second, interventions mandating

* Emily A. Benfer, Visiting Professor of Law at Wake Forest University School of Law; LLM, Georgetown Law Center; J.D., Indiana University Robert H. McKinney School of Law. Seema Mohapatra, tenured Associate Professor of Law and Dean's Fellow at Indiana University Robert H. McKinney School of Law; J.D., Northwestern University School of Law; M.P.H. in Chronic Disease Epidemiology, Yale University School of Public Health; B.A. (Natural Sciences, with a minor in Women's Studies), Johns Hopkins University. Lindsay F. Wiley, Professor of Law; Director, Health Law and Policy Program, American University Washington College of Law; J.D., Harvard Law School; M.P.H., Johns Hopkins School of Public Health; A.B., Harvard University. Ruqaiijah Yearby, Professor of Law and Member of the Center for Health Law Studies, Saint Louis University, School of Law; Co-Founder and Executive Director, Institute for Healing Justice, Saint Louis University; J.D., Georgetown University Law Center; M.P.H. in Health Policy and Management, Johns Hopkins School of Public Health.; B.S. (Honors Biology), University of Michigan. We would like to thank Crystal Lewis, Health Equity and Policy Fellow, Saint Louis University, School of Law, for her contribution. Authors are listed in alphabetical order to denote equal contributions to the article.

HEALTH JUSTICE STRATEGIES

healthy behaviors must be accompanied by material support and legal protections to enable compliance while minimizing harms. Third, historically marginalized communities must be engaged and empowered as leaders in the development and implementation of interventions and the attainment of health justice. To demonstrate the application of these principles, this Article focuses on two structural determinants of health (discrimination and poverty) and three intermediary determinants (health care, housing, and employment).

TABLE OF CONTENTS

INTRODUCTION 125

**I. DISCRIMINATION, POVERTY, AND BARRIERS TO HEALTH IN THE
PANDEMIC SETTING..... 130**

II. THE HEALTH JUSTICE FRAMEWORK FOR PANDEMIC RESPONSE..... 136

III. HEALTH JUSTICE IN HEALTH CARE..... 141

 A. HEALTH CARE IS A SOCIAL DETERMINANT OF HEALTH 141

 B. HEALTH CARE DISCRIMINATION AS A BARRIER TO HEALTH JUSTICE
 DURING THE COVID-19 PANDEMIC..... 143

 C. APPLYING THE HEALTH JUSTICE FRAMEWORK TO ACHIEVE HEALTH
 CARE EQUITY 146

IV. HEALTH JUSTICE IN HOUSING..... 147

 A. HOUSING IS A SOCIAL DETERMINANT OF HEALTH..... 147

 B. HOUSING DISCRIMINATION AS A BARRIER TO HEALTH JUSTICE
 DURING COVID-19 150

 C. APPLYING THE HEALTH JUSTICE FRAMEWORK TO ACHIEVE HOUSING
 EQUITY 157

V. HEALTH JUSTICE IN EMPLOYMENT..... 162

 A. EMPLOYMENT AS A SOCIAL DETERMINANT OF HEALTH 162

 B. EMPLOYMENT DISCRIMINATION AS A BARRIER TO HEALTH JUSTICE
 DURING COVID-19 164

 C. APPLYING THE HEALTH JUSTICE FRAMEWORK TO ACHIEVE
 EMPLOYMENT EQUITY 168

CONCLUSION 171

INTRODUCTION

People with low socioeconomic status¹ and people of color² entered the COVID-19 pandemic more vulnerable to infection and mortality than their more privileged peers due in part to conditions linked to discrimination and poverty.³ COVID-19 is more dangerous for, and has a higher mortality rate among, low-income people, people of color, and people with underlying chronic conditions, such as hypertension, diabetes, and lung disease.⁴ These conditions disproportionately affect Black, Latino, and Indigenous communities, and people living in poverty.⁵ Emerging data suggests that socioeconomic factors, such as poverty, were also significant predictors of infection and death rates.⁶ In 2018, 38.1 million people, or 11.8% of the U.S. population, were living in poverty.⁷ “The

1. See Michael G. Marmot, *Understanding Social Inequalities in Health*, 46 PERSP. IN BIOLOGY & MED. S9 (2003).

2. Merlin Chowkwanyun & Adolph L. Reed, Jr, *Racial Health Disparities and Covid-19—Caution and Context*, 383 NEW ENG. J. MED. 201 (2020); Ibram X. Kendi, *Stop Blaming Black People for Dying of the Coronavirus*, ATLANTIC (Apr. 14, 2020), <https://www.theatlantic.com/ideas/archive/2020/04/race-and-blame/609946>.

3. People with disabilities were also disproportionately vulnerable. See Gloria L. Krahn, Deborah Klein Walker & Rosaly Correa-De-Araujo, *Persons with Disabilities as an Unrecognized Health Disparity Population*, 105 AM. J. PUB. HEALTH, at S198 (2015).

4. Nancy Krieger, Pamela D. Waterman & Jarvis T. Chen, *COVID-19 and Overall Mortality Inequities in the Surge in Death Rates by Zip Code Characteristics: Massachusetts, January 1 to May 19, 2020*, 110 AM. J. PUB. HEALTH 1850 (2020).

5. See, e.g., CTRS. FOR DISEASE CONTROL & PREVENTION, NATIONAL HEALTH INTERVIEW SURVEY: SUMMARY HEALTH STATISTICS tpls.A-1a, A-2a & A-4a (2018). Tables A-1a, A-2a, and A-4a respectively provide statistical information on the incidence of coronary heart disease and hypertension); asthma and chronic bronchitis; and diabetes.

6. See Samrachana Adhikari, Nicholas P. Pantaleo & Justin M. Feldman, *Assessment of Community-Level Disparities in Coronavirus Disease 2019 (COVID-19) Infections and Deaths in Large US Metropolitan Areas*, JAMA NETWORK OPEN (July 28, 2020); W. Holmes Finch & Maria E. Hernández Finch, *Poverty and Covid-19: Rates of Incidence and Deaths in the United States During the First 10 Weeks of the Pandemic*, 5 FRONTIERS SOC. (June 15, 2020); Gregorio A. Millett et al., *Assessing Differential Impacts of COVID-19 on Black Communities*, 47 ANNALS EPIDEMIOLOGY 37 (2020); Caitlin Brown & Martin Ravallion, *Poverty, Inequality, And COVID-19 In The US*, VOX EU (Aug. 10, 2020), <https://voxeu.org/article/poverty-inequality-and-covid-19-us>. See also Jonathan Jay et al., *Neighbourhood Income and Physical Distancing During the COVID-19 Pandemic in the United States*, NATUR HUMANE HUM. BEHAV (2020) (forthcoming) (reporting data suggesting that “people in lower-income neighborhoods have faced barriers to physical distancing”); Supriya Kumar et al., *The Impact of Workplace Policies and Other Social Factors on Self-Reported Influenza-Like Illness Incidence During the 2009 H1N1 Pandemic*, 102 AM. J. PUB. HEALTH 132 (2012) (finding that “the absence of certain policies, such as paid sick leave,” which disproportionately affects certain groups, led to increased cases of influenza-like illness during the 2009 H1N1 pandemic).

7. Jessica Semega et al., *Income and Poverty in the United States: 2018*, U.S. CENSUS BUREAU 12 (2019), <https://www.census.gov/content/dam/Census/library/publications/2019/demo/p60-266.pdf>.

lower a person's socioeconomic status, the more limited their resources and ability to access essential goods and services, and the greater their chance of suffering from chronic disease, including conditions like heart disease, lung disease, and diabetes that may increase the mortality risk of COVID-19."⁸ Past infectious disease epidemics in the United States and governmental responses to them made it highly predictable that people living in poverty and people of color would bear the brunt of the coronavirus pandemic⁹ due to discrimination and other forms of subordination that limit equal access to resources in the realms of health care, housing, and employment.

Disparities in COVID-19 infection and death—and the chronic conditions that exacerbate them—stem from the social determinants of health. The social determinants of health “encompass[] the full set of social conditions in which people live and work.”¹⁰ The social determinants of health are subdivided into “structural determinants” and “intermediary determinants.”¹¹ Structural determinants of health are “social and political mechanisms that generate, configure and maintain social hierarchies”¹² and organizations and institutions that

8. Emily A. Benfer & Lindsay F. Wiley, *Health Justice Strategies to Combat COVID-19: Protecting Vulnerable Communities During a Pandemic*, HEALTH AFF. BLOG (March 19, 2020), <https://www.healthaffairs.org/doi/10.1377/hblog20200319.757883/full>.

9. See Robert J. Blendon et al., *Public Response to Community Mitigation Measures for Pandemic Influenza*, 14 EMERGING INFECTIOUS DISEASES 778 (2008); Philip Blumenshine et al., *Pandemic Influenza Planning in the United States from a Health Disparities Perspective*, 14 EMERGING INFECTIOUS DISEASES 709 (2008); Monica Schoch-Spana et al., *Stigma, Health Disparities, and the 2009 H1N1 Influenza Pandemic: How to Protect Latino Farmworkers in Future Health Emergencies*, 8 BIOSECURITY & BIOTERRORISM: BIODEFENSE STRATEGY, PRAC. & SCI. 243 (2010); Sandra Crouse Quinn et al., *Racial Disparities in Exposure, Susceptibility, and Access to Health Care in the US H1N1 Influenza Pandemic*, 101 AM. J. PUB. HEALTH 285 (2011), <https://ajph.aphapublications.org/doi/10.2105/AJPH.2009.188029>.

10. COMM'N ON THE SOC. DETERMINANTS OF HEALTH, WORLD HEALTH ORG., A Conceptual Framework for Action on the Social Determinants of Health 9 (2010), https://www.who.int/sdhconference/resources/ConceptualframeworkforactiononSDH_eng.pdf.

11. *Id.* at 6. “The vocabulary of ‘structural determinants’ and ‘intermediary determinants’ underscores the causal priority of the structural factors.” *Id.* Some initiatives in the United States tend to focus exclusively on the intermediary determinants when discussing the social determinants of health. For example, Healthy People 2020, a major initiative of the U.S. federal government, describes the social determinants of health as including five key areas: health and health care; neighborhood and built environment; economic stability; education; and social and community context. The impact of the social determinants of health is evidenced by health disparities due to unequal access to health care for prevention and disease management (health and health care); substandard housing and poor air quality (neighborhood and built environment), unequal wages (economic stability), and inequitable funding of primary and secondary education (education), among others. *Social Determinants of Health*, Healthy People 2020, U.S. DEP'T OF HEALTH & HUM. SERVS., <https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health>.

Disregard for the structural determinants of health undermines the effectiveness of initiatives that focus on the intermediary determinants of health divorced from their root causes.

12. COMM'N ON THE SOC. DETERMINANTS OF HEALTH, *supra* note 10, at 5.

can impact behavior.¹³ Structural determinants (discrimination, poverty, and other forms of subordination, as well as the political and legal systems in which subordination is embedded), impact the intermediary determinants of health. The intermediary determinants include material and environmental circumstances, such as health care, housing, and employment conditions.¹⁴

The impacts of the pandemic on health disparities will be wide and deep. Unemployment and mass evictions are disproportionately occurring among people of color.¹⁵ Disruptions to education and early childhood development are impacting those who were already living at or near the poverty line, in addition to Black, Latino, Indigenous, and other people of color.¹⁶ Due to loss of income and employment and diminished financial resources caused by the pandemic, Black, Latino, Indigenous, and other people of color also face a higher chance of child welfare intervention and separation of children from their families, which have long-term consequences for health and well-being.¹⁷ In the pandemic setting, policymakers must address a wide range of impacts, including decarceration and deinstitutionalization for people living in congregate settings, access to food and other necessities, and access to education, among other barriers to health.

While the United States waits for safe, effective, and widely distributed antiviral therapies and vaccines, health officials have deployed community mitigation measures to slow the spread of disease and flatten the curve of the epidemic. In the absence of mass testing, state and local governments have adopted a widely varying range of restrictions aimed at increasing physical distancing among the general population and shielding the most vulnerable from exposure. As we have previously observed, “[a]lthough widely discussed in terms of the steps *individuals* should take, [this] social distancing also demands commitment from federal, state, and local governments to financially support and protect marginalized populations, such as low-income communities and communities of

13. See Golden et al., *Upending the Social Ecological Model to Guide Health Promotion Efforts Toward Policy and Environmental Change*, 42 HEALTH EDUC. & BEHAV. 94 (2015); Kenneth R. McLeroy et al., *An Ecological Perspective Health Promotion Programs*, 15 HEALTH EDUC. Q. 351 (1988).

14. *Id.* at 6. COMM’N ON THE SOC. DETERMINANTS OF HEALTH, *supra* note 10, at 6.

15. Elise Gould & Valerie Wilson, *Black Workers Face Two of the Most Lethal Preexisting Conditions for Coronavirus—Racism and Economic Inequality*, ECON. POL’Y INST. (June 1, 2020), <https://files.epi.org/pdf/193246.pdf>; Emily Benfer et al., *The COVID-19 Eviction Crisis: An Estimated 30-40 Million People in America Are at Risk*, ASPEN INST. (Aug. 7, 2020), <https://www.aspeninstitute.org/blog-posts/the-covid-19-eviction-crisis-an-estimated-30-40-million-people-in-america-are-at-risk>.

16. Jack P. Shonkoff & David R. Williams, *Thinking About Racial Disparities in COVID-19 Impacts Through a Science-Informed, Early Childhood Lens*, CTR. ON THE DEVELOPING CHILD, HARV. UNIV. (Apr. 27, 2020) <https://developingchild.harvard.edu/thinking-about-racial-disparities-in-covid-19-impacts-through-a-science-informed-early-childhood-lens>.

17. *Id.*

color.”¹⁸

Federal coronavirus relief bills have provided some financial support and legal protections to enable compliance and minimize the secondary harms caused by restrictions.¹⁹ However, many low-income individuals and people of color have not benefited from these programs, and where they have, the support is minimal. Moreover, infectious disease control and public health emergency laws rarely contemplate—let alone require—the provision of financial supports, protections, or mechanisms for addressing poverty and the long-standing practices of racial discrimination, which exacerbate the risk of infection. Additionally, because these measures are often stopgap in nature, they do not provide long-term protection for marginalized populations.

Health justice is an emerging framework for eradicating unjust health disparities, especially those caused by discrimination, poverty, and other forms of subordination.²⁰ The framework highlights the need to engage and empower

18. Benfer & Wiley, *supra* note 8.

19. See, e.g., Coronavirus Aid, Relief, and Economic Security (CARES) Act, Pub. L. No. 116-136, 134 Stat. 281 (2020); see also Lindsay F. Wiley & Samuel R. Bagenstos, *The Personal Responsibility Pandemic: Centering Solidarity in Public Health and Employment Law*, ARIZ. ST. L. J. (forthcoming 2021), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3656789 (critiquing the federal government’s pandemic response, especially for its focus on individual behavior and responsibility, which has “placed disproportionate burdens on those who are already disadvantaged”).

20. See, e.g., Lindsay F. Wiley, *Health Law as Social Justice*, 24 CORNELL J. L. & PUB. POL’Y 47, 47 (2014) (“[d]rawing on the experiences of the reproductive justice, environmental justice, and food justice movements, and on the writings of political philosophers and ethicists on health justice” to discuss health justice as a framework for the use of law to reduce health disparities); Emily A. Benfer, *Health Justice: A Framework (and Call to Action) for the Elimination of Health Inequity and Social Injustice*, 65 AM. U. L. REV. 275 (2015) (discussing health justice as a framework for eliminating health inequity and social injustice among low-income communities and communities of color); Lindsay F. Wiley, *From Patient Rights to Health Justice*, 37 CARDOZO L. REV. 833 (2016) (proposing the health justice model as an alternative to existing health law models for examining questions of health care quality and access); Lindsay F. Wiley, *Applying the Health Justice Framework to Diabetes as a Community-Managed Social Phenomenon*, 16 HOUS. J. HEALTH L. & POL’Y 191 (2016) (applying the health justice framework to diabetes disparities); Lindsay F. Wiley, *Tobacco Denormalization, Anti-Healthism, and Health Justice*, 18 MARQ. BENEFITS & SOC. WELFARE L. REV. 203 (2017) (applying the health justice framework to tobacco-related disparities); ELIZABETH TOBIN-TYLER & JOEL B. TEITELBAUM, *ESSENTIALS OF HEALTH JUSTICE: A PRIMER* 15 (2018) (noting that the authors “settled on *health justice* [for their title] because it tends to be relatively more recognized and understood by a greater number of people [than health equity]” and “[f]urthermore, ‘justice’ is often linked in people’s minds to the legal system;” and defining health justice in terms of “laws, policies, systems, and behaviors that are evenhanded with regard to and display genuine respect for *everyone’s* health and well-being”); Medha D. Makhoul, *Health Justice for Immigrants*, 4 U. PA. J.L. & PUB. AFF. 235 (2019) (applying the health justice framework to assess public commitments to health care access for immigrants); Yael Cannon, *The Kids Are Not Alright: Leveraging Existing Health Law to Attack the Opioid Crisis Upstream*, 71 FLA. L. REV. 765 (2019) (applying the health justice framework to assess public commitments to meet the needs of people with adverse childhood experiences across the life-course); Emily A. Benfer et al., *Health Justice*

marginalized populations in developing and implementing solutions and calls for policymakers to provide access to basic health-related rights, protections, and supports that eliminate health disparities. This Article suggests that policymakers not only apply the health justice framework to address discrimination and poverty, but also use it as a key strategy to protect and support marginalized populations, which include low-income communities and communities of color, both during and after the COVID-19 pandemic. Executive-branch officials should apply the health justice framework in the development and implementation of emergency and public health orders.²¹ Judges should apply it in their adjudication of challenges to those orders. Legislatures should apply it in any reforms they adopt in response to the pandemic. Community organizations should also be guided by the health justice framework in their efforts to advocate for the needs of marginalized communities in pandemic response.

Part I provides an overview of discrimination and poverty, which create barriers to health in the pandemic setting. Part II describes the health justice framework and how it can be engaged in the pandemic setting. Parts III, IV, and V apply the health justice framework to three of the intermediary determinants of health (health care, housing, and employment) that support resilience and equip marginalized communities with the resources necessary to withstand the immediate impacts of the pandemic.²² This application demonstrates how the health justice framework can be adopted across other structural and intermediary determinants of health to ensure the elimination of avoidable illness and death among marginalized people during and after the pandemic.

Strategies to Eradicate Lead Poisoning: An Urgent Call to Action to Safeguard Future Generations, 19 YALE J. HEALTH POL'Y L. & ETHICS 146 (2020); Matthew B. Lawrence, *Against the "Safety Net,"* 72 FLA. L. REV. 49 (2020) (applying the health justice framework to critique the safety net metaphor for public benefits); Angela Harris & Aysla Pamukcu, *The Civil Rights of Health: A New Approach to Challenging Structural Inequality*, 67 UCLA L. REV. 758, 758 (2020) ("argu[ing] that a civil rights of health initiative built on a health justice framework can help educate policymakers and the public about the health effects of subordination, create new legal tools for challenging subordination, and ultimately reduce or eliminate unjust health disparities").

21. Lindsay F. Wiley, *Democratizing the Law of Social Distancing*, 19 YALE J. HEALTH POL'Y L. & ETHICS (2020).

22. Education is also a key pillar of the social determinants of health, *see supra* note 4, and has been severely impacted by the pandemic, but the impacts of disruptions to early childhood, K-12, and post-secondary education on health generally play out over a longer time period than the impacts of health care, housing, and employment disruption. In this project, our focus here is on immediate impacts, but we welcome collaborations between public health and education law and policy experts to address the intermediate and long-term impacts of education disruption on health disparities in future projects. A forthcoming piece by Seema Mohapatra is applying the health justice framework in various aspects of children's lives, including educational impacts. Seema Mohapatra, *Justice for Children During and After the Pandemic*, ANNALS HEALTH L. (forthcoming 2021) (on file with authors).

I. DISCRIMINATION, POVERTY, AND BARRIERS TO HEALTH IN THE PANDEMIC SETTING

Discrimination and poverty are forms of subordination that prevent racial and ethnic minorities, people living in poverty, and other marginalized groups from equal access to material and environmental circumstances, such as health care, housing, and employment. Subordination is “a set of policies, practices, traditions, norms, definitions, cultural stories, and explanations that function to systematically hold down one social group to the benefit of another social group.”²³ In this paper, the term discrimination is not limited to what courts recognize as a basis for legal remedies; it also includes actions described as discrimination, bias, and unfair treatment in public health and sociology literature, even though they may not be deemed legally actionable by US courts.²⁴ Discrimination—interpersonal, institutional, and structural—has exacerbated poor health outcomes among marginalized groups prior to the pandemic and continues to do so during it.²⁵ Interpersonal discrimination reinforces social norms of prejudice through individual interactions. Specifically, this occurs when an individual consciously and/or unconsciously restricts low-income individuals’ or racial and ethnic minorities’ equal access to material and environmental circumstances based on stereotypes and prejudice.²⁶ Institutional discrimination operates through “neutral” organizational practices and policies that limit equal access to services for individuals who are poor and racial and ethnic minorities.²⁷ Structural

23. ROBIN DIANGELO, *WHAT DOES IT MEAN TO BE WHITE?: DEVELOPING WHITE RACIAL LITERACY* 44 (2012).

24. See JOE R. FEAGIN, *SYSTEMIC RACISM: A THEORY OF OPPRESSION* (2006); Eduardo Bonilla-Silva, *Rethinking Racism: Toward A Structural Interpretation*, 62 AM. SOC. REV. 465 (1997); Chandra L. Ford & Collins O. Airhihenbuwa, *Critical Race Theory, Race Equity, and Public Health: Toward Antiracism Praxis*, 100 AM. J. PUB. HEALTH S30 (2010); Chandra L. Ford & Collins O. Airhihenbuwa, *The Public Health Critical Race Methodology: Praxis for Antiracism Research*, 71 SOC. SCI. & MED. 1390 (2010); David R. Williams et al., *Understanding How Discrimination Can Affect Health*, 54 HEALTH SERVS. RES. 1374 (2019).

25. Discrimination also includes internalized and superstructural forms. Internalized discrimination is when racial and ethnic minorities accept stereotypes about themselves and those who share the same racial identities, while believing that members of other racial groups are superior, which can be harmful to the psychological wellbeing and physical health of racial and ethnic minorities. Kira Hudson Banks & Jada Stephens, *Reframing Internalized Racial Oppression and Charting a Way Forward*, 12 SOC. ISSUES & POL’Y Rev. 91, 92-94 (2018). Superstructural discrimination includes the value systems and arrangements that create enduring power differentials among different groups. Michael D. Sweat & Julie A. Denison, *Reducing HIV Incidence in Developing Countries with Structural and Environmental Interventions*, 9 AIDS, at S251. (1995). All forms of discrimination reinforce hierarchy and subordination.

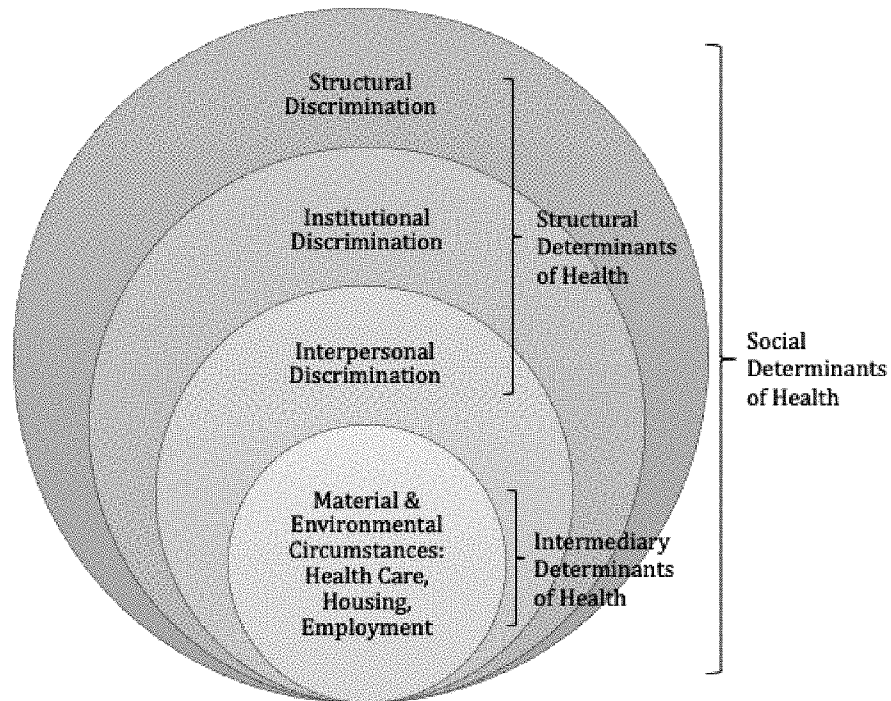
26. Ruqaiyah Yearby, *Internalized Oppression: The Impact of Gender and Racial Bias in Employment on the Health Status of Women of Color*, 49 SETON HALL L. REV. 1037, 1046 (2019).

27. Leith Mullings & Amy J. Schulz, *Intersectionality and Health: An Introduction*, in GENDER, RACE, CLASS AND HEALTH 3 (Leith Mullings & Amy J. Schulz eds., 2005).

discrimination operates at a societal level and refers to the way laws and policies are written or enforced, which advantages the majority and disadvantages minorities in their access to opportunity and resources.²⁸ When those disadvantaged are racial and ethnic minorities, it is deemed structural racism, which is often evidenced by “the embedding of socially and culturally enforced racial hierarchies in societal norms, institutional practices, and laws; it is often not explicitly identified as race-based and is perpetuated in the implicit assumptions that guide everyday institutional practices, such as clinical resource allocation and decision making in a segregated health care system.”²⁹ Figure 1 shows how the different levels of discrimination interact with material and environmental circumstances, such as health care, housing, and employment.

28 Ruqaiijah Yearby, *Structural Racism and Health Disparities: Reconfiguring the Social Determinants of Health to Include the Root Cause*, 48 J. L. MED. & ETHICS 518 (2020); Ruqaiijah Yearby & Seema Mohapatra, *Law, Structural Racism, and the COVID-19 Pandemic*, 7 J. L. & BIOSCIENCES 1 (2020).

29 Kristen Pallok, et al, *Structural Racism—A 60-Year-Old Black Woman with Breast Cancer*, 380 NEW ENG. J. MED. 1489, 1491 (2019).

Figure 1. Discrimination and Material and Environmental Circumstances³⁰

All three levels of discrimination interact with the political and legal determinants of health. Law is one of the tools used to structure society in a discriminatory way, while institutional and interpersonal discrimination reinforce the discriminatory structure of our society as illustrated in the examples discussed below.

The heavy use of command-and-control mandates by state and local governments as part of the community mitigation response to the coronavirus pandemic has exposed people of color, people experiencing homelessness, and other marginalized individuals to interpersonally discriminatory police surveillance and enforcement. For example, despite recommendations to adopt an education-first approach to policing, in which stay-at-home and face-covering orders are not enforced through arrests,³¹ these policies were applied in a

30. Ruqaiyah Yearby, Lindsay F. Wiley, Emily A. Benfer & Seema Mohapatra, *Discrimination and Material and Environmental Circumstances* (2020). See also McLeroy et al., *supra* note 13; COMM'N ON THE SOC. DETERMINANTS OF HEALTH, *supra* note 10; Golden et al., *supra* note 13; Yearby et al., *Structural Racism and Health Disparities*, *supra* note 28, at 518.

31. Rosa Brooks & Christy Lopez, *Policing in a Time of Pandemic: Recommendations for Law Enforcement*, EDMOND J. SAFRA CTR. FOR ETHICS, HARV. UNIV. (Apr. 10, 2020),

discriminatory way.³² For example, in New York City, while police officers were handing out free masks and advising, but not requiring, people gathering outdoors in predominately White affluent neighborhoods to wear them, other officers were arresting and cracking down on Black and Latino people for gathering and not wearing masks.³³ These mandates are an example of interpersonal discrimination because individual officers treated affluent White people differently than they treated Black and Latino people.

Institutional discrimination also negatively impacts the health of low-income communities and communities of color, which makes them more vulnerable to the harms of COVID-19.³⁴ For example, the decision to prioritize funding hospital-based resources left low-income disabled individuals and elderly individuals in long-term care facilities that were understaffed by workers, creating fertile conditions for the virus to spread among vulnerable residents.³⁵ This “neutral” organizational decision left low-income disabled individuals and the elderly without equal access to quality health care services, resulting in unnecessary COVID-19 infections and deaths.³⁶

As a result of racist, xenophobic, and ableist criminal and immigration enforcement policies and socioeconomic drivers of crime and migration, many people of color and those with low socioeconomic status are more likely to be confined in prisons, jails, and detention facilities. Mass incarceration is an example of structural discrimination, where policymakers’ decisions resulted in laws, such as the “three strike” rule and the Anti-Drug Abuse Act of 1986 that punished people with rock cocaine more harshly than those with powder cocaine, that

<https://ethics.harvard.edu/files/center-for-ethics/files/7policingpandemic.pdf>; Robert Gatter & Seema Mohapatra, *COVID-19 and the Conundrum of Mask Requirements*, 77 WASH. & LEE L. REV. ONLINE 17, 29-30 (2020).

32. Pascal Emmer et al., *Unmasked: The Impacts of Pandemic Policing*, COVID-19 POLICING PROJECT (October 2020), <https://communityresourcehub.org/wp-content/uploads/2020/12/Unmasked.pdf>.

33. Ashley Southall, *Scrutiny of Social-Distance Policing as 35 of 40 Arrested Are Black*, N.Y. TIMES (May 29, 2020), <https://www.nytimes.com/2020/05/07/nyregion/nypd-social-distancing-race-coronavirus.html>.

34. Benfer & Wiley, *supra* note 8; Yearby & Mohapatra, *supra* note 28 (citing Brietta R. Clark, *Hospital Flight From Minority Communities: How Our Existing Civil Rights Framework Fosters Racial Inequality in Healthcare*, 9 DEPAUL J. HEALTHCARE L. 1023, 1035 (2005) (“Hospital closures set into motion a chain of events that threaten minority communities’ immediate and long-term access to primary care, emergency and nonemergency hospital care. . . .”)).

35. Joanne Kenen, Rachel Roubein & Susannah Luthi, *How Public Health Failed Nursing Homes*, POLITICO (April 6, 2020), <https://www.politico.com/news/2020/04/06/public-health-failed-nursing-homes-167372>.

36. Nina A. Kohn, *The Pandemic Exposed a Painful Truth: America Doesn’t Care About Old People*, WASH. POST (May 8, 2020), https://www.washingtonpost.com/outlook/nursing-home-coronavirus-discrimination-elderly-deaths/2020/05/07/751fc464-8fb7-11ea-9e23-6914ee410a5f_story.html.

disproportionately harmed low-income and racial and ethnic minorities.³⁷ As a result, people of color make up the majority of the prison population and are subject to overcrowded congregate settings, increased risk of contracting COVID-19, and limited access to health care.³⁸

Poverty is also a major barrier to health because it decreases material and environmental circumstances, such as health care and housing, among others.³⁹ In 2018, 8% of Whites were in poverty, compared to 21% of Blacks and 18% of Latinos.⁴⁰ Working age women (18-64) had a poverty rate of 12.3%, while working age men (18-64) had a poverty rate of 9%.⁴¹ Reports from the Bureau of Labor Statistics show that in 2017, 6.9 million working adults were poor, with women (4.5%) more likely to be among the working poor compared to men (3.5%).⁴² Moreover, Blacks (7.9%) and Latinos (7.9%) were twice as likely to be among the working poor compared to Whites (3.9%) and Asians (2.6%).⁴³ Working women of color, such as Black women (10.0%) and Latino women (9.1%), were more likely to be in poverty compared to White women (4.5%) and men (3.5%).⁴⁴

As a result of structural determinants of health (discrimination and poverty), racial and ethnic minorities, people living in poverty, and other marginalized groups lack equal access to the intermediary determinants of health, such as health care, housing, and employment, among others. Figure 2 illustrates the connection between subordination and social hierarchies; political and legal systems; material and environmental circumstances, and the health system as social determinants of health, which cause disparities in health outcomes: COVID-19 infection, illness, potentially long-term disability, and death. This Figure is not intended to be a comprehensive description of the structural and intermediary determinants of health that make up the social determinants of health, but rather a frame that can be adapted to address other contexts.

37. Jelani Jefferson Exum, *Forget Sentencing Equality: Moving From the “Cracked” Cocaine Debate Toward Particular Purpose Sentencing*, 18 LEWIS & CLARK L. REV. 95, 99, 101-02 (2014).

38. *A State-by-State Look at Coronavirus in Prisons*, MARSHALL PROJECT (Nov. 20, 2020), <https://www.themarshallproject.org/2020/05/01/a-state-by-state-look-at-coronavirus-in-prisons>.

39. Ruqaiyah Yearby, *Breaking the Cycle of “Unequal Treatment” with Health Care Reform: Acknowledging and Addressing the Continuation of Racial Bias*, 44 U. CONN. L. REV. 1281, 1308-09 (2012).

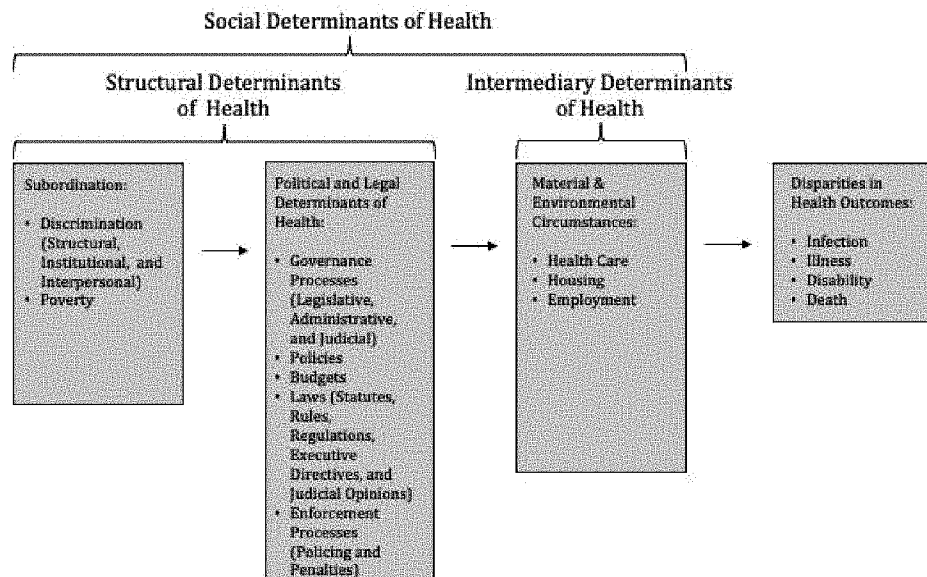
40. Semega et al., *supra* note 7, at 13 fig.8, 15, 50 tbl.B-1, <https://www.census.gov/library/publications/2019/demo/p60-266.html>.

41. *Id.* at 15 & fig.10.

42. *A Profile of the Working Poor, 2017*, U.S. BUREAU OF LAB. STAT. 1, 4 (Apr. 2019), <https://www.bls.gov/opub/reports/working-poor/2017/pdf/home.pdf>.

43. *Id.* at 3.

44. *Id.* at 9 & tbl.2.

Figure 2. Subordination and Law as Social Determinants of Health⁴⁵

In this Article, we focus on the influence of poverty and the three levels of discrimination on health care, housing, and employment, which result in disparities in COVID-19 infections and deaths for people in low-income communities and communities of color. In the health care context, poverty limits access to health care and the prejudice of some health care providers limits racial and ethnic minorities' and indigenous people's access to care, which is evidence of interpersonal discrimination. Institutional discrimination is also present in the health care context when health care institutions close hospitals in low-income communities and communities of color to relocate in well-off communities as a result of "neutral" policies that disproportionately harm low-income communities and communities of color.⁴⁶ Hence, these populations are more likely to suffer

45. Ruqaiyah Yearby, Lindsay F. Wiley, Emily A. Benfer & Seema Mohapatra, *Subordination and Law as Social Determinants of Health* (2020). See also, Yearby et al. *Discrimination and Material & Environmental Circumstances* (2020), *supra* Figure 1, and Harris & Pamukcu, *supra* note 20, at 758.

46. Alan Sager & Deborah Socolar, *Closing Hospitals in New York State Won't Save Money But Will Harm Access to Care*, B.U. SCH. OF PUB. HEALTH 27-31 (Nov. 20, 2006), <http://www.bu.edu/sph/files/2015/05/Sager-Hospital-Closings-Short-Report-20Nov06.pdf>. Michelle Ko et al., *Residential Segregation and the Survival of U.S. Urban Public Hospitals*, 7 MED. CARE RES. & REV. 243 (2014); Renee Y. Hsia et al., *System-Level Health Disparities in California Emergency Departments: Minorities and Medicaid Patients Are at Higher Risk of Losing Their Emergency Departments*, 59 ANNALS EMERGENCY MED. 358 (2012); Renee Yuen-Jan Hsia & Yu-

from diseases that increase the risk of COVID-19, more likely to die from COVID-19, and more likely to have a friend or family member who has died from COVID-19 than non-Latino White people.⁴⁷ Access to safe and decent housing is tied to economic status in the United States, and thus, poverty prevents equal access to housing. Furthermore, structural discrimination in housing, such as neutral decisions not to enact laws mandating safe housing or preventing utility shut-off, restricts people with low socioeconomic status and people of color from accessing safe and healthy housing and clean water. Consequently, people with low socioeconomic status and people of color live in housing where they cannot wash their hands, the best way to prevent the spread of COVID-19. As a result of structural discrimination in employment, laws prevent people with low socioeconomic status and racial and ethnic minorities from acquiring paid sick leave or a living wage, leaving these workers in poverty. Therefore, these individuals cannot stay at home even when they are sick, and thus, they are more likely to contract COVID-19 than their more privileged peers.

Discrimination, poverty, and other forms of subordination are structural determinants of health inequities that prevent equal access to the intermediary determinants of health.⁴⁸ Applying the health justice framework will not only address poverty and discrimination in health care, housing, and employment, which cause disparities in COVID-19 infections; it will also serve as a way to protect and support low-income communities and communities of color during and after the pandemic across multiple social determinants of health.

II. THE HEALTH JUSTICE FRAMEWORK FOR PANDEMIC RESPONSE

The health justice framework, which aims to eliminate health disparities caused by discrimination and poverty and empower historically marginalized communities, is a powerful instrument for policymakers charged with protecting public health of all people during and in the aftermath of the COVID-19 pandemic. We have written elsewhere about the key commitments of the health justice framework.⁴⁹ In this Article we discuss the interplay of discrimination, law, poverty, and other structural determinants of health that have caused health

Chu Shen, *Rising Closures of Hospital Trauma Centers Disproportionately Burden Vulnerable Populations*, 30 HEALTH AFF. 1912 (2011); Yu-Chu Shen et al., *Understanding The Risk Factors of Trauma Center Closures: Do Financial Pressure And Community Characteristics Matter?*, 47 MED. CARE 968 (2009).

47. Shikha Garg et al., *Hospitalization Rates and Characteristics of Patients Hospitalized with Laboratory-Confirmed Coronavirus Disease 2019—COVID-NET, 14 States, March 1-30, 2020*, 69 MORBIDITY & MORTALITY WKLY. REP. 458, 459 (2020); *Health Equity Considerations and Racial and Ethnic Minority Groups*, CTRS. FOR DISEASE CONTROL & PREVENTION (Jul. 24, 2020), <https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/racial-ethnic-minorities.html>.

48. COMM'N ON THE SOC. DETERMINANTS OF HEALTH, *supra* note 10.

49. *See supra* note 20 and accompanying text.

disparities during the pandemic and that can be addressed by adopting a health justice framework for pandemic response. Ultimately, “[a]ny solution to racial health inequalities must be rooted in the material conditions in which those inequalities thrive. Therefore, we must insist that for the health of the [B]lack community and, in turn, the health of the nation, we address the social, economic, political, legal, educational, and health care systems that maintain structural racism. Because as the COVID-19 pandemic so expeditiously illustrated, all policy is health policy.”⁵⁰

The health justice framework provides a mechanism for systems-level transformation of governmental responses to health disparities to achieve health equity, in which “every person has the opportunity to attain his or her full health potential and no one is disadvantaged from achieving this potential because of social position or any other socially determined circumstance.”⁵¹ It offers three overarching principles to prevent and eliminate health disparities during and after the COVID-19 pandemic. The health justice framework is structural, supportive, and empowering. We use these three adjectives as shorthand for the three principles we examine below.

First, legal and policy interventions must address the structural determinants of health inequities.⁵² The structural determinants of health are “social and political mechanisms that generate, configure and maintain social hierarchies,” a phrase from the World Health Organization (WHO) Commission on the Social Determinants of Health⁵³ that we interpret to include discrimination, colonization, ableism, poverty, and other forms of subordination.⁵⁴ Subordination is embodied in the political and legal systems that also act as structural determinants of health

50. Rachel R. Hardeman, Eduardo M. Medina & Rhea W. Boyd, *Stolen Breaths*, 383 *NEW ENG. J. MED.* 197, 198 (2020).

51. Health Equity, *CTRS. FOR DISEASE CONTROL & PREVENTION*, <https://www.cdc.gov/chronicdisease/healthequity/index.htm> (last visited Nov. 8, 2020) (internal quotation marks omitted).

52. Harris & Pamukcu, *supra* note 20, at 806 (“[H]ealth justice . . . places subordination at the center of the problem of health disparities . . .”); Wiley, *Health Law as Social Justice*, *supra* note 20, at 87 (“Health justice naturally expands the focus beyond access to health care to address the community conditions that play such an important role in determining health disparities.”); *id.* at 85 (“[Achieving health justice] will take organizing from the ground up; social change that transforms the current systems of neglect, bias, and privilege into systems—policies, practices, institutions—that truly support health[y] communities for all.”) (quoting a now-inactive website developed by The Praxis Project).

53. *COMM’N ON THE SOC. DETERMINANTS OF HEALTH*, *supra* note 10, at 25.

54. The WHO Commission’s framework describes offers “the labor market, the educational system, and political institutions including the welfare state” as examples of the structural determinants of health. *Id.* We agree that these examples qualify as structural determinants, but in the health justice framework, it is important to name and center racism, poverty, and other forms of subordination.

in their own right.⁵⁵ Because emergencies typically exacerbate long-standing and interconnected crises in marginalized communities, legal and policy responses must address root causes in addition to immediate needs through structural redress and remediation. Subordination and the laws, policies, and institutions in which it is embedded impact the intermediary determinants of health, including health care access, housing security, and employment income.⁵⁶ Together, these determinants contribute to the disproportionate burden of public health emergencies on low-income communities, communities of color, and other marginalized groups.

Second, interventions mandating healthy behaviors must be accompanied by supports and protections that address inequities in the intermediary determinants of health.⁵⁷ Intermediary determinants include the material and environmental circumstances in which people live and work and their access to and treatment within the health system.⁵⁸ Financial supports and legal protections are critical to enable compliance and minimize harms; without them, interventions will be ineffective and unjust. Governmental efforts to influence individual behaviors have been a cornerstone of the response to COVID-19. Public health and emergency orders have mandated that individuals minimize close contacts outside the home, seek testing and self-isolate if infectious, and cooperate with contact tracers and self-quarantine if exposed. Eventually, they may mandate compulsory vaccination for some types of workers. But unless these behaviors are supported by legal protections, financial supports, and accommodations to increase access to both, the benefits and burdens of behavioral mandates will be unjustly distributed. The ability to comply—and therefore the distribution of the benefits of public health intervention—varies sharply depending on poverty, employment, housing status, and access to health care at both the individual and community levels. Health justice also requires that the burdens of public health interventions, including the closure of businesses, health care facilities, and schools, be minimized and mitigated for marginalized communities.

Third, low-income communities and communities of color must be engaged and empowered as leaders in the development and implementation of laws, policies, or other interventions aimed at protecting or promoting health.⁵⁹

55. *Id.*

56. The intermediary determinants of health include “material circumstances; psychosocial circumstances; behavioral and/or biological factors; and the health system itself.” *Id.* at 6. Our focus here is on material circumstances (particularly with respect to employment and housing) and the health system (health care access).

57. Wiley, *Health Law as Social Justice*, *supra* note 20, at 95-96 (“[I]nterventions [grounded in health justice] reflect collective responsibility for health rather than individualistic interventions aimed at urging people to change their behaviors without necessarily making it easier for them to do so”).

58. *Id.*

59. Harris & Pamukcu, *supra* note 20, at 765 (describing “the emergent health justice

HEALTH JUSTICE STRATEGIES

Interventions adopted under the banner of public health—including interventions expressly aimed at eliminating disparities—are often tainted by racism, classism, and other forms of subordination. “[P]robing inquiry into the effects of social and cultural bias on the design and implementation of measures to reduce health disparities” is a key commitment of health justice.⁶⁰ These efforts cannot be led by communities who have benefited from the very forms of subordination that must be dismantled if health justice is to be achieved. Empowerment of affected communities in decision-making processes helps ensure that the design and implementation of interventions intended to benefit them are actually tailored to their needs.⁶¹

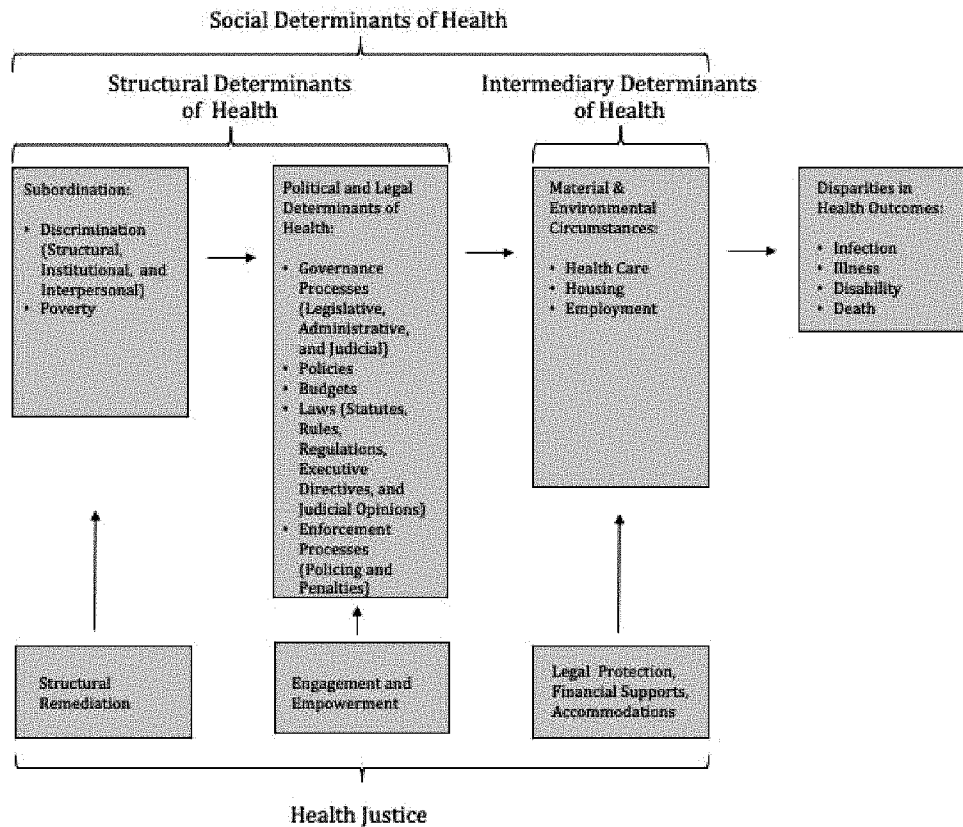
Figure 3 illustrates how each prong of the health justice framework addresses structural and intermediary determinants of health in order to prevent disparities in health outcomes modeled in Figure 2.

movement [as] a framework that places the empowerment of marginalized populations at the center of action”); Wiley, *Health Law as Social Justice*, *supra* note 20, at 101 (“[T]he health justice framework [should] root ongoing efforts to ensure access to health care and healthy living conditions more firmly in community engagement and participatory parity.”).

60. Wiley, *Health Law as Social Justice*, *supra* note 20, at 53.

61. Harris & Pamukcu, *supra* note 20, at 806 (“[H]ealth justice . . . calls for subordinated communities to speak and advocate for themselves. Embracing social movements as equal partners . . . acknowledges the internal limitations of public health and law. Moreover, allowing marginalized groups an equal voice empowers them against the possibility of abusive alliances of public health and law.”).

Figure 3. The Health Justice Framework and the Social Determinants of Health⁶²



A structurally supportive and empowering pandemic response grounded in health justice will ensure that historically subordinated communities are equipped to protect themselves from harm by mitigating the effects of—and ultimately dismantling—long-standing discrimination and poverty. To demonstrate the application of the health justice framework and principles, as well as provide an example of how the health justice framework can be used to address health disparities, we focus on two forms of subordination as structural determinants of health (discrimination and poverty) and how they relate to three intermediary

62. Ruqaiyah Yearby, Lindsay F. Wiley, Emily A. Benfer & Seema Mohapatra, *The Health Justice Framework and the Social Determinants of Health* (2020). In this Figure, we apply the health justice framework from Wiley, *Health Law as Social Justice*, *supra* note 20, and Benfer, *Health Justice: A Framework*, *supra* note 20, to *supra* Figure 2.

determinants of health (health care, housing, and employment), which are pillars that support resilience and equip marginalized communities with the resources to withstand the immediate impacts of the pandemic.

III. HEALTH JUSTICE IN HEALTH CARE

A. Health Care Is a Social Determinant of Health

Health care has long been recognized as a social determinant of health. Over two decades of research has shown that equal access to quality health care is limited by discrimination, which restricts low-income individuals' and people of color's access to quality care.⁶³ Specifically, low-income and Black, Latino, Indigenous, and other people of color have faced barriers to quality health care for decades, limiting their access to health care facilities and high-quality health care providers.⁶⁴ Thus, health care discrimination, institutional and interpersonal, is itself a social determinant of health.

Institutional discrimination, which operates through “neutral” organizational practices and policies, has limited racial and ethnic minorities' equal access to health care. Research studies show that health care institutions have closed hospitals in low-income communities and communities of color to relocate in more affluent communities as a result of “neutral” policies that disproportionately harmed low-income communities and communities of color.⁶⁵ Due to the dearth of hospitals and physician offices in many low-income and racially segregated communities, those who live in such communities face difficulties in accessing health care.⁶⁶ A domino effect has occurred. As hospitals have closed in low-income communities and communities of color, health care providers who used to work at the shuttered hospitals have left. The remaining hospitals in these areas are overburdened, which results in poorer care than in other areas.⁶⁷ “Neutral” decisions to close hospitals in low-income communities and communities of color often failed to consider the need for the equal distribution of health care facilities among all communities, leaving these marginalized communities without access to health care and provider services.⁶⁸

63. Yearby, *Breaking the Cycle of “Unequal Treatment” with Health Care Reform*, *supra* note 39.

64. *Id.*

65. See Sager & Socolar, *supra* note 46.

66. Yearby & Mohapatra, *supra* note 28; David Barton Smith, *Healthcare Divided: Race and Healing a Nation* 200 (1999); and David G. Whiteis, *Hospital and Community Characteristics in Closures of Urban Hospitals, 1980-87*, 107 PUB. HEALTH REP. 409 (1992).

67. As hospitals closed in predominantly Black neighborhoods, physicians connected to the hospitals left the area and the remaining hospitals' resources were strained, causing the care provided to gradually deteriorate. Clark, *supra* note 34, at 1033-35.

68. Many of these “neutral” decisions were tied to more to the race of the community residents

This lack of access to care has led to Black people having “higher rates of untreated respiratory disease and cardiovascular disease, which are risk factors for COVID-19.”⁶⁹ In her book *Just Medicine: A Cure for Racial Inequality in American Health Care*, Dayna Bowen Matthew notes that health care disparities are the cause of over 83,000 minority patient deaths, and that disparities persist even after controlling for income and insurance status.⁷⁰ This suggests that people of color face interpersonal discrimination unrelated to their income and insurance status.

Indeed, racial and ethnic minorities have long been subject to poor treatment by health care providers because of interpersonal discrimination.⁷¹ In one study, almost 70% of medical students surveyed “exhibited implicit preferences for [W]hite people” and “other studies have found that physicians tend to rate [Black] patients more negatively than [W]hite [patients] on a number of registers, including intelligence, compliance, and propensity to engage in high-risk health behaviors.”⁷² Black people often sense this interpersonal discrimination against them, which results in delays seeking care, an interruption in continuity of care, non-adherence, mistrust, reduced health status, and avoidance of the health care system.⁷³ Additionally, Black people are much less likely to encounter a physician who is also Black than White Americans or Asian Americans are to encounter physicians who look like them. One study showed that increasing the workforce of Black doctors could protect Black men from dying of heart-related ailments and reduce the Black-White gap in cardiovascular mortality among men by 19%.⁷⁴ Lack of access to health care has a significant impact on poor health outcomes for low-income individuals and people of color, which has been exacerbated by the COVID-19 pandemic.

than economic reasons. See Yearby, *Breaking the Cycle of “Unequal Treatment” with Health Care Reform* *supra* note 39, at 1301-06.

69. Yearby & Mohapatra, *supra* note 28.

70. Rachel Sachs et al., *Structural Racism and COVID-19*, WRITTEN DESCRIPTION (June 11, 2020), <https://writtendescription.blogspot.com/2020/06/structural-racism-and-covid-19.html> (citing Dayna Bowen Matthew, *Just Medicine: A Cure for Racial Inequality in American Health Care* 1 (2015)).

71. Janice A. Sabin et al., *Physicians’ Implicit and Explicit Attitudes About Race by MD Race, Ethnicity, and Gender*, 20 J. HEALTH CARE POOR & UNDERSERVED 896, 907 (2009).

72. Kimani Paul-Emile, *Patients’ Racial Preferences and the Medical Culture of Accommodation*, 60 UCLA L. REV. 462, 492 (2012).

73. *Id.* at 493.

74. Marcella Alsan, Owen Garrick & Grant C. Graziani, *Does Diversity Matter for Health? Experimental Evidence from Oakland*, 109 AM. ECON. REV. 4071, 4071 (2019). See also Emily Cleveland Manchanda et al., *Inequity in Crisis Standards of Care*, 383 NEW ENG. J. MED. e16 (2020); Pallok et al., *supra* note 29.

B. Health Care Discrimination as a Barrier to Health Justice During the COVID-19 Pandemic

Low-income individuals and people of color, who are bearing the brunt of COVID-19 infections and deaths because of poverty and discrimination, lack access to adequate health care services and facilities. The full extent of these disparities is not known because many states, counties, cities, and health care facilities took a “colorblind” approach to the novel coronavirus and did not report racial or ethnicity statistics.⁷⁵ However, even with incomplete data, stark disparities have emerged. “[C]ounties that are majority-[B]lack have three times the rate of infections and almost six times the rate of deaths as counties where [W]hite residents are in the majority.”⁷⁶ These disparities are in part due to poverty and discrimination.⁷⁷ Access to health care in the United States is driven by ability to pay and health insurance, whether it is public insurance, such as Medicare or Medicaid, or private insurance, which is often provided as a perk of employment. Insurance coverage differs greatly by race with Black, Latino, and Indigenous people often uninsured or underinsured.⁷⁸ Ninety-one percent of disproportionately Black counties are in the South, where many states have not expanded Medicaid under the Affordable Care Act, leaving many low-income adults without health insurance.⁷⁹ These racially segregated counties have much higher rates of COVID-19 infection and death than majority White counties.⁸⁰

Additionally, although COVID-19 testing sites were chosen using “neutral” policies, in the early days of the COVID-19 pandemic, people in low-income communities and communities of color were less likely to have access to coronavirus testing due to the lack of hospitals and physicians’ offices in these areas. Although the Coronavirus Aid, Relief, and Economic Security Act (CARES Act) provides Medicaid coverage for COVID-19 testing and treatment, it has not addressed racial and ethnic disparities in access to health care.⁸¹ For example, lack

75. Cleveland Manchanda et al., *supra* note 74.

76. Reis Thebault, Andrew Ba Tran & Vanessa Williams, *The coronavirus Is Infecting and Killing Black Americans at an Alarming High Rate*, WASH. POST (Apr. 7, 2020), <https://www.washingtonpost.com/nation/2020/04/07/coronavirus-is-infecting-killing-black-americans-an-alarmingly-high-rate-post-analysis-shows/>.

77. Yearby, *Structural Racism and Health Disparities*, *supra* note 28.

78. Heeju Sohn, *Racial and Ethnic Disparities in Health Insurance Coverage: Dynamics of Gaining and Losing Coverage over the Life-Course*, 36 POPUL. RES. & POL’Y REV. 181 (2017).

79. Millett et al., *supra* note 6, at 39.

80. Erin Schumaker, *Majority White Counties Have Significantly Fewer COVID-19 Cases: Study*, ABC NEWS (August 12, 2020), <https://abcnews.go.com/Health/majority-white-counties-significantly-fewer-covid-19-cases/story?id=72328054> (citing Gregorio A. Millett et al., *White Counties Stand Apart: The Primacy of Residential Segregation in COVID-19 and HIV Diagnoses*, 34 AIDS PATIENT CARE & STDs 417 (2020)).

81. Coronavirus Aid, Relief, and Economic Security (CARES) Act, Pub. L. No. 116-136, § 3211(b), 134 Stat. 281, 368 (2020). The act did not provide coverage for undocumented immigrants,

of access to health care services is having a deadly impact on Black people in St. Louis. In April 2020, all but three deaths from COVID-19 in St. Louis afflicted Black people, however, Black communities did not get public testing sites until after the data was released.⁸² More specifically, the “[p]redominately Black north St. Louis got its first testing site April 2, three weeks after the first sites went up in the suburbs,” and the “information campaign targeting [B]lack residents did not start until a week after that.”⁸³ By that time, everyone person who had died from COVID-19 in St. Louis was Black. According to Dr. Will Ross, the chairman of the St. Louis health advisory board making decisions about the COVID-19 response, Black lives were unnecessarily lost because “race neutral” decisions by the government regarding the placement of testing sites ignored the fact that Black communities most impacted by COVID-19 lacked access to public testing sites.⁸⁴

During the pandemic, especially when COVID-19 tests were scarce, lack of access to a primary health care provider and racially prejudicial decisions to dismiss the symptoms of racial and ethnic minorities has exacerbated the harm in these communities. Interpersonal discriminatory practices in health care delivery also delayed care for COVID-19 symptoms. Black people may have been more likely to be turned away by health care providers than their non-Black peers, even when they reported similar symptoms and risk factors. Examples abound.⁸⁵ In one case, Black teacher Rana Zoe Mungin was twice denied a COVID-19 test and her symptoms were dismissed by an EMT as a panic attack.⁸⁶ She later passed away from COVID-19 at Brooklyn’s Brookdale Hospital. There have also been numerous such reports of Black people seeking testing and treatment for COVID-19, who have been turned away.⁸⁷ Unfortunately, just like Rana Zoe Mungin, many of those turned away have since died.⁸⁸

and it “permitted states to create an option to cover COVID-19–related testing for those who are uninsured individuals with a federal match, but it did not require this support.” Yearby & Mohapatra, *supra* note 28.

82. Paulina Cachero, *All but 3 People Who Died from COVID-19 in St. Louis, Missouri, were Black* (Apr. 12, 2020), <https://www.businessinsider.com/all-but-three-people-who-died-from-covid-19-in-st-louis-were-black-2020-4>.

83. Robert Samuels et al., *This is What Happens to Us: How U.S. Cities Lost Precious Time to Protect Black Residents from the Coronavirus*, THE WASH. POST (June 3, 2020), <https://www.washingtonpost.com/graphics/2020/politics/coronavirus-race-african-americans/>.

84. *Id.*

85. Jasmin Barmore, *5-Year-Old with Rare Complication Becomes First Michigan Child to Die of COVID-19*, DETROIT NEWS (Apr. 20, 2020), <https://www.detroitnews.com/story/news/local/detroit-city/2020/04/19/5-year-old-first-michigan-child-dies-coronavirus/5163094002>.

86. Arielle Mitropoulos & Mariya Moseley, *Beloved Brooklyn Teacher, 30, Dies of Coronavirus After She Was Twice Denied a COVID-19 Test*, ABC NEWS (April 28, 2020), <https://abcnews.go.com/Health/beloved-brooklyn-teacher-30-dies-coronavirus-denied-covid/story?id=70376445>.

87. *Id.*

88. Shamar Walters & David K. Li, *New York City Teacher Dies from COVID-19 After She*

Furthermore, Black people, though disparately harmed by COVID-19, have been erased in certain discussions of progression of the disease. For example, when physicians started noting the symptoms of novel coronavirus that can be observed, such as “pink and white” COVID toes, any similar symptoms in dark skin were not noted.⁸⁹ In this way, the default descriptions applied to only White patients. Moreover, when low-income people and people of color become severely ill, they may be less likely to receive scarce resources such as antiviral drugs or ventilator support, due to biased protocols for allocation. For example, researchers point out that though many allocation guidelines consider “social value” in allocating resources, they favor those patients with better health.⁹⁰ This harms groups that suffer from disproportionate health ills, including racial minorities and people with disabilities, which could further exacerbate existing health inequities.⁹¹ Moreover, even the fairest guidelines can only limit the influence of conscious considerations among people applying them, leaving room for unconscious biases to affect decision making.⁹²

Many state and institutional resource allocation protocols do not even allow race and social factors to be considered. Although these “neutral” policies may seem “colorblind,” and therefore equitable, they are actually unfair to communities of color and disadvantaged communities.⁹³ Research has shown that:

The conditions in which people are born, grow, live, work, and age are responsible for most of the unjust, preventable, and systemic differences in outcomes among groups, including differential rates of chronic and life-shortening conditions such as hypertension, diabetes, chronic kidney disease, and chronic obstructive pulmonary disease. Some 70 to 80% of the difference

Was Denied Tests, Family Says, NBC NEWS, (April 29, 2020) <https://www.nbcnews.com/news/us-news/new-york-city-teacher-dies-covid-19-after-she-was-n1195516>; *Detroit Man with Virus Symptoms Dies After 3 ERs Turn Him Away, Family Says: “He Was Begging for His Life,”* CBS NEWS (April 22, 2020), <https://www.cbsnews.com/news/coronavirus-detroit-man-dead-turned-away-from-er>.

89. Michele K. Evans et al., *Diagnosing and Treating Systemic Racism*, 383 NEW ENG. J. MED. 274, 274 (2020).

90. Somnath Saha & Mary Catherine Beach, *A Model for Avoiding Unequal Treatment During the COVID-19 Pandemic*, Health AFF. Blog (May 14, 2020), <https://www.healthaffairs.org/doi/10.1377/hblog20200511.691265/full>.

91. *Id.* One model policy out of the University of Pittsburgh attempts to address this issue by using a weighted system to even the playing field for those from a disadvantaged area or essential workers. Douglas B. White et al., *Model Hospital Policy for Fair Allocation of Scarce Medications to Treat COVID-19*, UNIV. OF PITTSBURGH SCH. OF MED. 1 (May 28, 2020), <https://ccm.pitt.edu/sites/default/files/2020-05-28b%20Model%20hospital%20policy%20for%20allocating%20scarce%20COVID%20meds.pdf>.

92. *Id.* Cleveland Manchanda et al., *supra* note 74.

93. *Id.*

in life expectancy between Blacks and Whites can be explained by socioeconomic factors.⁹⁴

Thus, “neutral” protocols that look at life expectancy or prognosis as guides for allocating ventilators and other potentially scarce supplies discriminate against Black people, even when they do not consider race.

C. Applying the Health Justice Framework to Achieve Health Care Equity

The COVID-19 pandemic demonstrates the inequities of the health care system in the United States. It also presents an opportunity to effect health justice by addressing discrimination and poverty. First, the legal and policy response must address the social and structural determinants of health, in this case, access to health care. These responses must directly target discrimination and poverty using a variety of suggested interventions. These interventions include providing supports, which is the second prong of the health justice framework.

First, Medicaid and other health care coverage should be expanded so that COVID-19 treatment is covered for more people, including undocumented immigrants. The health insurance system in the United States “enables a tiered and sometimes racially segregated health care delivery structure to provide different quality of care to different patient populations.”⁹⁵ It is worth seriously considering whether such tiered systems of Medicare, Medicaid, private insurance, and self-pay should be replaced with some form of universal single-payer health care. This will help ensure more equitable care and ultimately achieve health justice by addressing the underlying discrimination that thwarts access to health, increasing the risk of COVID-19 infection and death for low-income individuals and people of color. Additionally, inequalities in access to health care coverage must be addressed when making treatment and resource allocation decisions.

To further tackle discrimination, public health professionals and health care providers in charge of educating low-income communities and communities of color about healthy behaviors must be trained to address their own prejudice. Specifically, they need to receive education about interpersonal discrimination during their professional programs and at least yearly once they enter practice. Also, underrepresented minority physicians must be added to the physician workforce in all specialties; financial support for training, recruiting, and retaining such physicians is needed to improve the lives of minority communities and ensure culturally sensitive care. In light of the dearth of high-quality health care services in low-income communities and communities of color, equal access to health care facilities must be realized. Using cancer care as an example, in Chicago, only two

94. *Id.*

95. Hardeman, Medina & Boyd, *supra* note 50, at 198.

of the twelve Chicago hospitals designated as quality cancer care centers are in the predominantly Black South Side of Chicago,⁹⁶ despite higher rates of exposure to carcinogens.⁹⁷ “Black women in Chicago were almost 40% less likely than [W]hite women to receive breast care at a breast imaging center of excellence.”⁹⁸ In these areas, the lack of specialists and adequate equipment in hospitals results in inferior care.⁹⁹ Marginalized communities should also have access to free coronavirus testing via mobile sites. Like many of the former suggestions, this also maps onto the second prong of the health justice framework requiring that interventions mandating healthy behaviors be accompanied by supports.

Finally, the third prong of health justice requires engaging marginalized communities as leaders in the development of any interventions and the attainment of health justice. We encourage robust community involvement in developing these solutions because these marginalized communities will otherwise continue to be denied access to quality health care. For example, without involving the community in decisions regarding testing, many of the initial testing facilities and resources were not available to predominately Black and low-income communities, such as St. Louis, MO, Nashville, TN, Shreveport, LA, Jackson County, MO, and Merrillville, IN.¹⁰⁰ Additionally, priorities in health care access should be determined by the communities impacted by the lack of health care access. Community leaders and organizations should be empowered to help drive health policy decisions for their communities.

Access to health care is a necessary component of health justice. We suggest a variety of legal and policy measures and supports to achieve access to health care, including robust insurance coverage, access to health care facilities and testing, and culturally competent care. We also advocate for leadership from within Black, Latino, Indigenous, and other marginalized communities to drive these efforts to increase access.

IV. HEALTH JUSTICE IN HOUSING

A. Housing Is a Social Determinant of Health

There is strong evidence that housing is a social determinant of health.

96. Pallok, *supra* note 29, at 1489-90.

97. *Cancer Facts & Figures for African Americans 2019-2021*, AM. CANCER SOC’Y 20 (2019), <https://www.cancer.org/content/dam/cancer-org/research/cancer-facts-and-statistics/cancer-facts-and-figures-for-african-americans/cancer-facts-and-figures-for-african-americans-2019-2021.pdf>.

98. Pallok, *supra* note 29, at 1490.

99. *Id.*

100. Samuels et al., *supra* note 83; Blake Farmer, *Long-Standing Racial and Income Disparities Seen Creeping Into COVID-19 Care*, NPR – NASHVILLE PUBLIC RADIO AND KAISER HEALTH NETWORK (Apr. 16, 2020), <https://khn.org/news/covid-19-treatment-racial-income-health-disparities>.

Housing stability, quality, safety, and affordability all affect health outcomes, as do environmental and social characteristics of neighborhoods.¹⁰¹ At the same time, foreclosure, housing instability, and homelessness are all pathways to poor health.¹⁰² In fact, the mere threat of eviction can increase stress levels, anxiety, and depression.¹⁰³ Eviction leads to overcrowding, homelessness, doubling up and couch surfing, which could place renters at greater risk of contracting COVID-19.¹⁰⁴ Evictions are associated with several interrelated conditions, including all-cause mortality,¹⁰⁵ emergency department utilization,¹⁰⁶ sexually transmitted infections,¹⁰⁷ HIV-related treatment outcomes,¹⁰⁸ needle sharing,¹⁰⁹ exposure to violence,¹¹⁰ mental health hospitalization,¹¹¹ and suicide,¹¹² among other poor health outcomes.¹¹³ In addition, residential crowding, a potential outcome of eviction, is associated with respiratory disease,¹¹⁴ which is a risk factor for COVID-19 complications and mortality. For women, eviction is associated

101. Ana V. Diez Roux, *Investigating Neighborhood and Area Effects on Health*, 91 AM. J. PUB. HEALTH 1783 (2001).

102. Brief for Am. Med. Ass'n et al. as Amici Curiae Supporting Respondents at 15-26, *Brown v. Azar*, No. 20-cv-03702 (N.D. Ga. Oct. 9, 2020) [hereinafter Public Health Brief]; Lauren Taylor, *Housing and Health: An Overview of the Literature*, HEALTH AFF. (June 7, 2018), https://www.healthaffairs.org/doi/10.1377/hpb20180313.396577/full/HPB_2018_RWJF_01_W.pdf.

103. Matthew Desmond & Rachel Tolbert Kimbro, *Eviction's Fallout: Housing, Hardship, and Health*, 94 SOC. FORCES 295, 317 (2015); Hugo Vásquez Vera et al., *The Threat of Home Eviction and its Effects on Health Through the Equity Lens: A Systematic Review*, 175 SOC. SCI. & MED. 199, 202 (2017). Allison K. Groves et al. *Housing Instability and HIV Risk: Expanding our Understanding of the Impact of Eviction and Other Landlord-Related forced moves*, AIDS & Behavior (2021) <https://link.springer.com/article/10.1007/s10461-020-03121-8>.

104. Public Health Brief, *supra* note 102, at 15-26.

105. Yerko Rojas, *Evictions and Short-Term All-Cause Mortality: A 3-Year Follow-Up Study of a Middle-Aged Swedish Population*, 62 INT'L J. PUB. HEALTH 343, 346 (2016).

106. ROBERT COLLINS & DAVID REED, *The Effects of Evictions in Low-Income Households*, N.Y.U. WAGNER SCH. OF PUB. SERV. 3 (Dec. 2018).

107. Linda M. Niccolai et al., *Eviction from Renter-Occupied Households and Rates of Sexually Transmitted Infections: A County-Level Ecological Analysis*, 46 SEXUALLY TRANSMITTED DISEASES 63, 65 (2019).

108. Mary Clare Kennedy et al., *Residential Eviction and Risk of Detectable Plasma HIV-1 RNA Viral Load Among HIV-Positive People Who Use Drugs*, 21 AIDS & BEHAVIOR 678, 681 (2017).

109. Andreas Pilarinos et al., *The Association Between Residential Eviction and Syringe Sharing Among a Prospective Cohort of Street-Involved Youth*, 14 HARM REDUCTION J. at 3 (2017).

110. Mary Clare Kennedy et al., *Residential Eviction and Exposure to Violence Among People Who Inject Drugs in Vancouver, Canada*, 41 INT'L J. DRUG POL'Y 59, 61 (2017).

111. COLLINS & REED, *supra* note 106, at 3.

112. Yerko Rojas & Sten-Åke Stenberg, *Evictions and Suicide: A Follow-Up Study of Almost 22,000 Swedish Households in the Wake of the Global Financial Crisis*, 70 J. EPIDEMIOLOGY & COMMUNITY HEALTH 409 (2016).

113. For a comprehensive overview of co-morbidities associated with eviction, see Public Health Brief, *supra* note 102, at 15-26.

114. P. Braverman et al., *How Does Housing Affect Health?*, ROBERT WOOD JOHNSON FOUND. (May 1, 2011), <https://www.rwjf.org/en/library/research/2011/05/housing-and-health.html>.

with physical and sexual assault,¹¹⁵ drug use and related harms,¹¹⁶ mental illness,¹¹⁷ and repeated episodes of housing precarity in the future.¹¹⁸

Lack of stable and safe housing disrupts employment, social networks, education, and the receipt of social services benefits.¹¹⁹ It sets children back emotionally¹²⁰ and academically,¹²¹ results in lead poisoning¹²² and food insecurity,¹²³ and, as a condition correlated with adverse childhood experiences,¹²⁴ has negative long-term health impacts. For children whose mothers are evicted during pregnancy, eviction results in adverse birth outcomes, including pre-term pregnancies and low birth weights.¹²⁵ Eviction almost always leads to a downward move,¹²⁶ into poorer quality housing, residential instability, homelessness, and

115. Nihaya Daoud et al., *Pathways and Trajectories Linking Housing Instability and Poor Health Among Low-Income Women Experiencing Intimate Partner Violence (IPV): Toward a Conceptual Framework*, 56 *WOMEN & HEALTH* 208 (2016).

116. Alexandra B. Collins et al., *Surviving the Housing Crisis: Social Violence and the Production of Evictions Among Women Who Use Drugs in Vancouver, Canada*, 51 *HEALTH & PLACE* 174, 179 (2018).

117. Patty R. Wilson & Kathryn Laughon, *House to House, Shelter to Shelter: Experiences of Black Women Seeking Housing After Leaving Abusive Relationships*, 11 *J. FORENSIC NURSING* 77 (2015); Allison Bovell-Ammo & Megan Sandel, *The Hidden Health Crisis of Eviction*, B.U. SCH. OF PUB. HEALTH (Oct. 5, 2018), <https://www.bu.edu/sph/2018/10/05/the-hidden-health-crisis-of-eviction/>.

118. Craig Evan Pollak et al., *When Storms Collide: Evictions, COVID-19, and Health Equity*, *HEALTH AFF. BLOG* (Aug. 4, 2020), <https://www.healthaffairs.org/doi/10.1377/hblog20200730.190964/full>.

119. Diana Hernandez & Shakira Suglia, *Housing as a Social Determinant of Health*, ROBERT WOOD JOHNSON FOUND. (2016), <https://healthequity.globalpolicysolutions.org/wp-content/uploads/2016/12/Housing2.pdf>.

120. Diana Becker Cutts, et al, *US Housing Insecurity and the Health of Very Young Children*, 101 *AM. J. PUB. HEALTH* 1508 (2011).

121. Kathleen M. Ziol-Guest & Claire C. McKenna, *Early Childhood Housing Instability and School Readiness*, 85 *CHILD DEV.* 103 (2014).

122. Gabriel L. Schwartz et al., *Is Eviction Poisonous?: A Survival Analysis of Eviction and Lead Poisoning in a National Urban Birth Cohort*, in *Cycles of Disadvantage: Eviction and Children's Health in the United States* 5 (Apr. 2020) (unpublished Ph.D. dissertation, Harvard University), <https://dash.harvard.edu/bitstream/handle/1/37365869/SCHWARTZ-DISSERTATION-2020.pdf?sequence=1>.

123. Kathryn M. Leifheit, et al., *Eviction in Early Childhood and Neighborhood Poverty, Food Security, and Obesity in Later Childhood and Adolescence: Evidence from a Longitudinal Birth Cohort*, 11 *SSM – POPUL. HEALTH* (Apr. 4, 2020).

124. Amber Bellazaire, *Preventing and Mitigating the Effects of Adverse Childhood Experiences*, NAT'L Conference of State Legislatures 2 (Aug. 2018), https://www.ncsl.org/Portals/1/HTML_LargeReports/ACEs_2018_32691.pdf.

125. Kathryn M. Leifheit et al., *Severe Housing Insecurity During Pregnancy: Association with Adverse Birth and Infant Outcomes*, 17 *INT'L J. ENVTL. RES. & PUB. HEALTH* 1 (Nov. 21, 2020).

126. *Why Eviction Matters*, EVICTION LAB, PRINCETON UNIV. (2018), <https://evictionlab.org/why-eviction-matters/>.

negative health consequences for adults¹²⁷ and children.¹²⁸ The health conditions and high health care expenditures associated with eviction also increase vulnerability to future eviction.¹²⁹ In this way, eviction is a cause of poverty and perpetuates longstanding patterns of housing instability.¹³⁰

B. Housing Discrimination as a Barrier to Health Justice During COVID-19

People of color entered the pandemic at extreme risk of housing instability, due to structural factors that include the United States' sordid history of racially discriminatory housing laws, higher rates of eviction among people of color, and the growing inequities in a person's ability to afford a home based on race. Leading up to the pandemic, the United States was in the midst of a severe affordable housing crisis that affected Black and Latino populations at higher rates than White populations. According to Harvard's Joint Center for Housing Studies, prior to the pandemic, 20.5 million families struggled to pay rent¹³¹ and only one in four eligible renter households received financial assistance.¹³² The risk of housing displacement is especially heightened among renters of color.¹³³ After controlling for education, Black households are more than twice as likely as White households to be evicted.¹³⁴ In another study of multiple cities, approximately 80% of people facing eviction were non-White.¹³⁵ Black women are evicted at higher rates than other groups,¹³⁶ with 1 in 5 Black female renters reporting that they have

127. Desmond & Kimbro, *supra* note 103.

128. Megan Sandel et al., *Unstable Housing and Caregiver and Child Health in Renter Families*, 141 PEDIATRICS (Feb. 2018); Pollak et al., *supra* note 118.

129. Heidi L. Allen et al., *Can Medicaid Expansion Prevent Housing Evictions?*, 38 HEALTH AFF. 1451 (2019).

130. Pollak et al., *supra* note 118.

131. Sean Veal & Jonathan Spader, *Nearly a Third of American Households Were Cost-Burdened Last Year*, JOINT CTR. FOR HOUSING STUD. OF HARV. U. (Dec. 7, 2018) <https://www.jchs.harvard.edu/blog/more-than-a-third-of-american-households-were-cost-burdened-last-year/>.

132. JOINT CENTER FOR HOUSING STUD. OF HARV. U., *The State of the Nation's Housing 2018* 5 (2018), https://www.jchs.harvard.edu/sites/default/files/Harvard_JCHS_State_of_the_Nations_Housing_2018.pdf.

133. Tim Robustelli et al., *Displaced in America: Mapping Housing Loss Across the United States*, NEW AMERICA (2020), <https://www.newamerica.org/future-property-rights/reports/displaced-america/>.

134. Katherine Lucas McKay, Zach Neumann & Sam Gilman, *20 Million Renters Are at Risk of Eviction; Policymakers Must Act Now to Mitigate Widespread Hardship*, ASPEN INST. (June 19, 2020) <https://www.aspeninstitute.org/blog-posts/20-million-renters-are-at-risk-of-eviction/>.

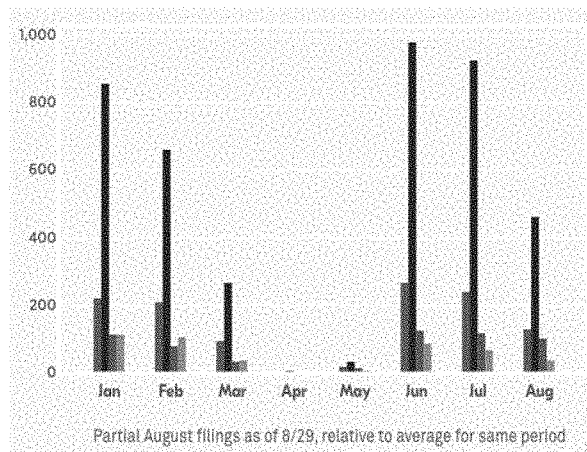
135. Cities studied included New York, Chicago, Baltimore, Philadelphia, Los Angeles, and Oakland. See Chester Hartman & David Robinson, *Evictions: The Hidden Housing Problem*, 14 HOUSING POL'Y DEBATE 461, 467 (2003).

136. Matthew Desmond, *Eviction and the Reproduction of Urban Poverty*, 118 AM. J. SOC. 88, 91 (2012).

experienced eviction compared with 1 in 12 Latino women and 1 in 15 White women.¹³⁷ Black female renters are at high risk, with filings for eviction double the rate of White renters in 17 out of 36 states studied.¹³⁸ Black women with children have the highest risk.¹³⁹ The pandemic has only increased these disparities.

The Eviction Tracker System, developed by the Eviction Lab at Princeton University, tracks eviction filing rates in numerous cities and states and found that census tracts with high Black populations had much higher rates of eviction than other areas during the pandemic in multiple cities. (See Figures 4, 5, and 6.)

Figures 4, 5, and 6. Eviction Filing Rate by Race in Milwaukee, Wisconsin; Cleveland, Ohio; and Richmond, Virginia¹⁴⁰

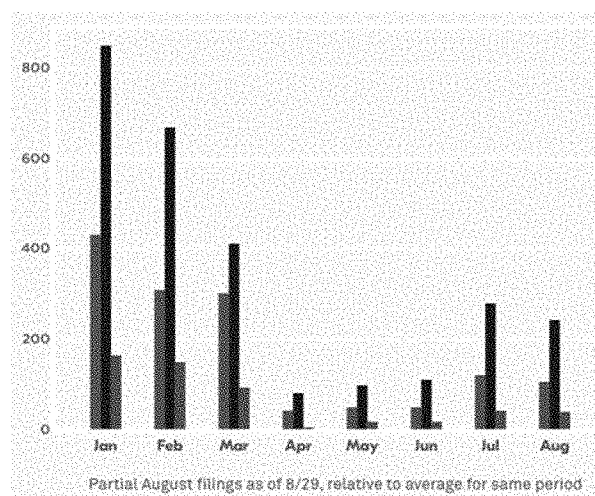
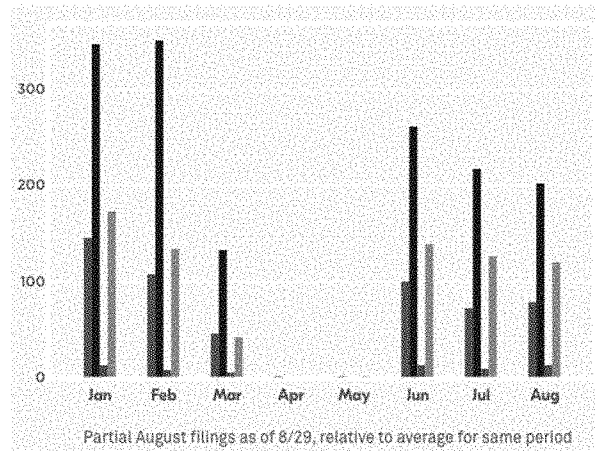


137. Rachel Dovey, *What 80 Million Eviction Records Can Tell City Leaders*, NEXT CITY (Apr. 9, 2018), <https://nextcity.org/daily/entry/what-80-million-eviction-records-can-tell-city-leaders>.

138. Sophie Beiers et al., *Clearing the Record: How Eviction Sealing Laws Can Advance Housing Access for Women of Color*, ACLU (Jan. 10, 2020), <https://www.aclu.org/news/racial-justice/clearing-the-record-how-eviction-sealing-laws-can-advance-housing-access-for-women-of-color/>.

139. Matthew Desmond & Rachel Tolbert Kimbro, *Eviction's Fallout: Housing, Hardship, and Health*, 94 SOC. FORCES 295, 298 (2015).

140. *Eviction Tracking System*, Eviction Lab (2020), <https://evictionlab.org/eviction-tracking/> (filing rates were lower during the months of April and May due to state and local eviction moratoriums).



The eviction trends are, in part, explained by the disproportionate rates of job and wage loss among people of color that decreased ability to pay rent. In April, 44% of Blacks and 61% of Latinos said that they or someone in their household had experienced a job or wage loss due to the coronavirus outbreak, compared with only 38% of White adults.¹⁴¹ As of July 7, 2020, the U.S. Census reported that half of U.S. adults live in households that have suffered COVID-19 related job loss, but among Black and Latino groups, that rate is 57% and 62% respectively.¹⁴² In

141. Kim Parker, Juliana Menasce Horowitz & Anna Brown, *About Half of Lower-Income Americans Report Household Job or Wage Loss Due to COVID-19*, PEW RES. CTR. (Apr. 21, 2020), <https://www.pewsocialtrends.org/2020/04/21/about-half-of-lower-income-americans-report-household-job-or-wage-loss-due-to-covid-19/>.

142. *Week 10 Household Pulse Survey: July 2 - July 7*, U.S. CENSUS BUREAU (July 15, 2020), <https://www.census.gov/data/tables/2020/demo/hhp/hhp10.html>.

one study of eviction during the pandemic, the majority of tenants facing eviction (50% of whom were Black) reported unemployment or a decrease in income related to COVID-19 hardship as the reason for rental shortfall.¹⁴³ Underscoring the pandemic's immense toll, researchers at the UC Berkeley Turner Center for Housing Innovation estimate that 50 million renters live in households that suffered COVID-19-related job or income loss,¹⁴⁴ with almost 40% occurring in low-income households.¹⁴⁵ The demand for financial assistance is further evidence of rent hardship, with a 92% increase in daily rental assistance requests¹⁴⁶ and food pantry requests increasing by as much as 2,000 percent in some states.¹⁴⁷ Similarly, during the pandemic, renters took on financial risk by paying for rent on credit cards at an increased rate.¹⁴⁸ This will only widen the wealth gap and collapse any remaining safety net.

Communities of color are more susceptible to COVID-19-related job and wage loss and the housing displacement it causes because of structural discrimination that has led to lack of wealth accumulation, access to credit or emergency funds to cover expenses, and poverty. The disproportionate impact on racial and ethnic minorities is in part due to decades of laws and policies that perpetuated housing discrimination repeatedly infringed on the rights of low-income communities and communities of color, and continues today.¹⁴⁹ The federal government created the Federal Housing Administration (FHA) in 1934, which subsidized housing builders as long as none of the homes were sold to Black

143. Ninette Sosa, *A Closer Look: Arkansas Evictions During COVID-19; Tenant Stories*, KNWA FOX24 (Aug. 3, 2020), <https://www.nwahomepage.com/news/a-closer-look/a-closer-look-arkansas-evictions-during-covid-19-tenant-stories/>.

144. Elizabeth Kneebone, *Estimating COVID-19's Near-Term Impact on Renters*, TURNER CTR. FOR HOUSING INNOVATION U.C. BERKELEY (Apr. 24, 2020), <https://turnercenter.berkeley.edu/blog/estimating-covid-19-impact-renters>.

145. Board of Governors of the Federal Reserve System, *Report on the Economic Well-Being of U.S. Households in 2019, Featuring Supplemental Data from April 2020* 53 (May 2020), <https://www.federalreserve.gov/publications/files/2019-report-economic-well-being-us-households-202005.pdf>.

146. Rachel Garg et al., *Rent Requests Higher in States with Few Protections for Renters*, WASHINGTON U. (Apr. 30, 2020), <https://hcrf.wustl.edu/items/rent-requests-higher-in-states-with-few-protections-for-renters/>.

147. Balaji Golla et al., *Food Pantries – Updated*, WASHINGTON U. (Mar. 26, 2020), <https://hcrf.wustl.edu/items/food-pantries-updated/>.

148. Will Parker, *Out-of-Work Apartment Tenants Putting Monthly Rent on Plastic*, WALL STREET J. (Apr. 15, 2020), <https://www.wsj.com/articles/out-of-work-apartment-tenants-putting-monthly-rent-on-plastic-11586966251>.

149. Dale Van Ollefen, *Civil Rights Leaders Respond to Trump Administration's Latest Attack on Fair Housing, Legacy of Martin Luther King, Jr.*, NAT'L FAIR HOUSING (Jan. 16, 2020) <https://nationalfairhousing.org/2020/01/16/civil-rights-leaders-respond-to-trump-administrations-latest-attack-on-fair-housing-legacy-of-martin-luther-king-jr/>; see also The Leadership Conference on Civil & Human Rights, *Trump Administration Civil and Human Rights Rollbacks*, C.R. (2020), <https://civilrights.org/trump-rollbacks/>.

people, a practice that was called “redlining.”¹⁵⁰ The FHA also published an underwriting manual that stated housing loans to Black people would not be insured by the federal government.¹⁵¹ The FHA policies, examples of structural discrimination, advantaged White people seeking to buy homes, thereby increasing wealth accumulation, while relegating Black people to racially segregated neighborhoods and substandard housing. The effects are apparent today in entrenched segregation, lack of wealth accumulation, and urban disinvestment.¹⁵² Because one way Americans attain wealth is homeownership, it is not surprising that the median wealth of a White family is nearly twelve times that of a Black family.¹⁵³ Making matters worse, Black families lost all homeownership gains made over the last fifty years due to predatory lending practices in the early 2000s and the foreclosure crisis that followed.¹⁵⁴

Due to structural discrimination, communities of color are at heightened risk of peril as millions of adults and children face eviction and homelessness in the midst of a pandemic. As a result of the extreme socioeconomic divide, over 70% of Black and Latino adults entered the pandemic lacking the emergency funds to cover three months of expenses, compared to under half of White adults.¹⁵⁵ Without a safety net, when crisis strikes, the downward fall is immediate and precipitous, and recovery may be impossible. This is especially true in a pandemic setting and in light of mounting rental debt and sustained unemployment among people of color.

Eviction leads to homelessness, overcrowding, and transiency, which increase contact with others and make compliance with pandemic health guidelines difficult or impossible and increase the transmission rate of infectious disease.¹⁵⁶ Recent

150. Richard Rothstein, *The Color of Law: A Forgotten History of How Our Government Segregated America*, ECON. POL’Y INST. (2017), <https://www.epi.org/publication/the-color-of-law-a-forgotten-history-of-how-our-government-segregated-america/>.

151. *Id.*

152. Benfer & Wiley, *supra* note 8.

153. Janelle Jones, *The Racial Wealth Gap: How African-Americans Have Been Shortchanged out of the Materials to Build Wealth*, WORKING ECONS. BLOG (Feb. 13, 2017), <https://www.epi.org/blog/the-racial-wealth-gap-how-african-americans-have-been-shortchanged-out-of-the-materials-to-build-wealth/>.

154. Ruqaiyah Yearby, *Racial Disparities in Health Status and Access to Health Care: The Continuation of Inequality in the United States Due to Structural Racism*, 77 AM. J. ECONS. AND SOC. 1113 (2018).

155. Mark Hugo Lopez et al., *Financial and Health Impacts of COVID-19 Vary Widely by Race and Ethnicity*, PEW RES. CTR. (May 5, 2020), <https://www.pewresearch.org/fact-tank/2020/05/05/financial-and-health-impacts-of-covid-19-vary-widely-by-race-and-ethnicity/>.

155. Jamie Smith Hopkins, *The Invisible Hazard Afflicting Thousands of Schools*, CTR. FOR PUB. INTEGRITY (Feb. 17, 2017), <https://publicintegrity.org/environment/the-invisible-hazard-afflicting-thousands-of-schools/>.

156. Emily Benfer et al., *Health Consequences of Eviction During the COVID-19 Pandemic* (2020) (unpublished manuscript) (on file with author).

studies demonstrate that evictions may increase the spread of COVID-19 and that the absence or lifting of eviction moratoriums are associated with an increased rate of COVID-19 infection and death.¹⁵⁷ By driving families to poorer neighborhoods, eviction and housing displacement may also lead to less frequent COVID-19 testing and medical attention.¹⁵⁸ Eviction is also associated with decreased access to primary and specialty medical care, regardless of an individual's housing status post-eviction.¹⁵⁹ Even when infected individuals present with COVID-19 symptoms, eviction decreases the likelihood that they will seek timely medical attention that could stem community transmission.¹⁶⁰ In addition, those facing eviction have difficulty prioritizing their health needs while struggling to maintain housing.¹⁶¹ From this baseline, eviction itself amplifies individual risk of COVID-19 complications and mortality.

In addition to inequalities in wealth and COVID-19 risk, communities of color are plagued by crumbling infrastructure, environmental injustice,¹⁶² and poverty.¹⁶³ This is often the result of the lack of investment in communities of color resulting from “neutral” policies that are examples of institutional discrimination. Racially segregated neighborhoods that are predominately Black have less economic investment and fewer resources, such as places to exercise or for children to play, which is associated with higher rates of cardiovascular disease risk among Black women.¹⁶⁴ These neighborhoods also have more pollution, noise, environmental hazards and an overcrowded housing stock that is associated with asthma, obesity, and cardiovascular disease,¹⁶⁵ which increase the susceptibility of contracting

157. Justin Sheen et al., *The Effect of Eviction Moratoriums on the Transmission of SARS-CoV-2*, GITHUB (Sept. 8, 2020), https://github.com/alsnhll/COVID19EvictionSimulations/blob/master/The_effect_of_eviction_moratoriums_on_the_transmission_of_SARS-CoV-2.pdf.

157. Kathryn M. Leifheit et al., *Expiring Eviction Moratoriums and COVID-19 Incidence and Mortality* (Oct. 2020) (unpublished manuscript), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3739576.

158. Stephanie Schmitt-Grohé, Ken Teoh & Martín Uribe, *Covid-19: Testing Inequality in New York City*, 8 CEPR PRESS 41 (2020).

159. Mary Clare Kennedy et al., *Residential Eviction and Risk of Detectable Plasma HIV-1 RNA Viral Load Among HIV-Positive People Who Use Drugs*, 21(3). AIDS BEHAV. 678 (2017).

160. Robert Collinson & Davin Reed, *The Effects of Evictions on Low-Income Households* (2018) (unpublished manuscript), <https://bit.ly/3lrYftK>.

161. Danya E. Keene, Monica Guo & Sascha Murillo, “*That Wasn’t Really a Place to Worry About Diabetes*”: *Housing Access and Diabetes Self-Management Among Low-income Adults*, 197 SOC. SCI. MED. 71 (2018).

162. Jamie Smith Hopkins, *The Invisible Hazard Afflicting Thousands of Schools*. CTR. FOR PUB. INTEGRITY (Feb. 17, 2017), <https://publicintegrity.org/environment/the-invisible-hazard-afflicting-thousands-of-schools>.

163. Benfer & Wiley, *supra* note 8.

164. Lee Mobley et al., *Environment, Obesity, and Cardiovascular Disease Risk in Low-Income Women*, 30 AM J. PREVENTATIVE MED. 327, 327 (2006).

165. Ingrid Ellen et al., *Neighborhood Effects on Health: Exploring the Links and Assessing the Evidence*, 23 J. OF URBAN AFF. 391, 393 (2001); Nicole Larson et al., *Neighborhood Environments:*

COVID-19.¹⁶⁶

People at the highest risk of eviction are more likely to live in substandard housing conditions that threaten their health,¹⁶⁷ such as poor ventilation, pest infestations, and mold—all closely associated with the development of respiratory conditions and general poor health.¹⁶⁸ Similarly, evictions force renters into living conditions that increase exposure to social determinants of poor health. Communities of color are affected by substandard conditions at a higher rate than predominately White communities. Thirty-five million, or 40% of, homes in U.S. metropolitan areas have one or more health and safety hazards, and rental properties in these areas have a greater prevalence of health-harming conditions than owner-occupied units.¹⁶⁹ Substandard homes are concentrated in low-income communities and communities of color.¹⁷⁰ Two million people in the United States live in severely inadequate homes that lack heat, hot water, electricity, or maintenance of structural defects, and also have other severe problems, which have all been linked to negative health outcomes.¹⁷¹ Tenants in rental housing disproportionately suffer the negative health effects—including asthma, respiratory distress, carbon monoxide poisoning, high blood pressure, heart disease, lead poisoning, mental health impairment, and cancer, among others—that result from environmental hazards in substandard housing. It is widely recognized that one's zip code is more indicative of health than genetic code.¹⁷² In the pandemic setting, zip code also predisposes low-income communities and historically marginalized groups to COVID-19 contraction and mortality.

Disparities in Access to Healthy Foods in the U.S., 36 AM. J. OF PREVENTATIVE MED. 74, 74 (2009); LaVonma Lewis et al., *African Americans Access to Healthy Food Options in South Los Angeles Restaurants*, 95 AM. J. OF PUB. HEALTH 668, 672 (2005); Roux, *supra* note 101, at 1786; Renee Walker et al., *Disparities and Access to Healthy Food in the United States: A Review of Food Deserts Literature*, 16 HEALTH & PLACE 876, 881 (2010).

166. Blumenshine et al., *supra* note 9.

167. Wilhelmine D. Miller, Craig E. Pollack & David R. Williams, *Healthy Homes and Communities: Putting the Pieces Together*, 40 AM. J. PREVENTATIVE MED., at S48 (2011).

168. Emily A. Benfer & Allyson E. Gold, *There's No Place Like Home: Reshaping Community Interventions and Policies to Eliminate Environmental Hazards and Improve Population Health for Low-Income and Minority Communities*, 11 HARV. L. & POL'Y REV. S1 (2017).

169. See *State of Healthy Housing*, NAT'L CTR. FOR HEALTHY HOUSING (2013), <http://nchharchive.org/Policy/2013StateofHealthyHousing.aspx>.

170. Benfer & Wiley, *supra* note 8.

171. Office of the Surgeon General, *The Surgeon General's Call to Action to Promote Healthy Homes*, U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES, vii (2009).

172. See Douglas S. Massey & Nancy A. Denton, *AMERICAN APARTHEID: SEGREGATION AND THE MAKING OF THE UNDERCLASS* (1993); Douglas S. Massey, *American Apartheid: Segregation and the Making of the Underclass*, 96 AM. J. OF SOC. 329 (1990); Douglas S. Massey & Nancy A. Denton, *Hypersegregation in U.S. Metropolitan Areas: Black and Latino Segregation Along Five Dimensions*, 26 DEMOGRAPHY 373 (1989); Douglas S. Massey & Mary J. Fischer, *How Segregation Concentrates Poverty*, 23 ETHNIC AND RACIAL STUD. 670 (2000); Douglas S. Massey & Jonathan Tannen, *A Research Note on Trends in Black Hypersegregation*, 52 DEMOGRAPHY 1025 (2015).

All of these housing inequalities are rooted in structural and institutional discrimination and increase the likelihood that people of color will be hardest hit by the pandemic. For example, policies that allowed industry and freeway development in low-income communities and communities of color benefited the well-off by granting them access to the city from the suburbs, while destroying low-income communities and communities of color, an example of structural discrimination.¹⁷³ Institutional discrimination is also present in housing decisions that seem “neutral” but disproportionately harm low-income individuals and people of color. For example, many states have yet to provide housing supports for the homeless, toll utility shut-offs, or guarantee access to safe, decent and health housing. As a result of these “neutral” decisions many low-income individuals and racial and ethnic minorities are left without a way to social distance, making them more vulnerable to COVID-19 infection.¹⁷⁴ Without intervention, we can expect disparities to deepen, especially in the housing context, as COVID-19 mortality¹⁷⁵ and job loss¹⁷⁶ and the lack of income to pay the rent affect communities of color at higher rates than other groups.¹⁷⁷

C. Applying the Health Justice Framework to Achieve Housing Equity

Especially in a pandemic setting, the achievement of health justice requires equity in housing, which means access to safe, decent, and affordable housing. First, the legal and policy response must address the structural and intermediary determinants of health. This requires the prevention of eviction and homelessness, social supports to enable individuals to maintain stable housing and safely shelter in place, and long-term investment in affordable housing and areas of opportunity to redress longstanding housing disparities.

To direct resources to homelessness response and prevention, states and cities can include homeless shelters as “essential services” that receive access to emergency supplies during an outbreak and divert emergency funds to reduce exposure to the virus for individuals experiencing or at high risk of homelessness. To support individuals facing homelessness, localities can provide temporary housing in hotels or motels, or permanent supportive housing to reduce exposure

173. Deborah N. Archer, *White Men’s Roads Through Black Men’s Homes: Advancing Racial Equity Through Highway Reconstruction*, 73 VAND. L. REV. 1259 (2020).

174. Yearby, *Structural Racism and Health Disparities*, *supra* note 28.

175. *COVID-19 Racial Disparities in U.S. Counties*, AMFAR (2020), https://ehe.amfar.org/inequity?_ga=2.51214761.1618924293.1588715818-1730120696.1588715818.

176. Mark Hugo Lopez, et al., *Financial and Health Impacts of COVID-19 Vary Widely by Race and Ethnicity*, PEW RES. CTR. (May 5, 2020), <https://www.pewresearch.org/fact-tank/2020/05/05/financial-and-health-impacts-of-covid-19-vary-widely-by-race-and-ethnicity>.

177. Emily A. Benfer et al., *Eviction, Health Inequity, and the Spread of COVID-19: Housing Policy as a Primary Pandemic Mitigation Strategy*, J. URBAN HEALTH (2021).

to COVID-19 among marginally housed seniors, people with underlying health conditions, and individuals experiencing homelessness, and living in communal shelters. During the pandemic, California Governor Newsom launched “Project Roomkey,” an initiative to secure hotel and motel rooms to protect homeless individuals from COVID-19 with the goal of securing 15,000 rooms.¹⁷⁸ However, exemplifying “NIMBYism” and discrimination, cities filed for an injunction, arguing that the measure put their communities at higher risk of COVID-19 spread.¹⁷⁹ The U.S. District Judge David O. Carter dismissed the NIMBY-rooted argument and upheld the plan. He determined that “under state law, the county can use city property to address the public health crisis, consistent with Newsom’s declaration of emergency.”¹⁸⁰ The provision of safe and decent housing or apartment style shelter is necessary to both protect people who are homeless from contracting COVID-19 and requiring significant medical interventions, as well as to address the underlying roots of disparity in exposure. The federal CARES Act included \$4 billion for Emergency Solutions Grants (ESG) to help reduce the number of people living in homeless encampments and congregate shelters, but more is needed to prevent an increase in homelessness and to increase access to assistance,¹⁸¹ such as stimulus checks.¹⁸² The National Alliance to End Homelessness recommends a four-phase pandemic framework including immediate and long-term actions that ultimately move people experiencing homelessness into greater housing stability, including permanent supportive housing.¹⁸³

To address the structural and intermediary determinants of health related to eviction during the pandemic, state governors, policymakers and courts should

178. Office of Governor Gavin Newsom, *At Newly Converted Motel, Governor Newsom Launches Project Roomkey: A First-in-the-Nation Initiative to Secure Hotel & Motel Rooms to Protect Homeless Individuals from COVID-19*, STATE OF CALIFORNIA (Apr. 3, 2020), <https://www.gov.ca.gov/2020/04/03/at-newly-converted-motel-governor-newsom-launches-project-roomkey-a-first-in-the-nation-initiative-to-secure-hotel-motel-rooms-to-protect-homeless-individuals-from-covid-19>.

179. City News Service, *Judge: Governor’s Orders Override Cities’ Objections to Homeless Hotel Housing*, L.A. DAILY NEWS (Apr. 27, 2020), <https://www.dailynews.com/2020/04/23/judge-governors-orders-override-cities-objections-to-homeless-hotel-housing>.

180. *Id.*

181. Senator Debbie Stabenow & Senator Chuck Schumer, *Racial Disparities on Full Display: COVID-19 is Disproportionately Affecting Communities of Color*, DEMOCRATIC POL’Y & COMM. COMMITTEE 1, 5 (Apr. 30, 2020), <https://www.stabenow.senate.gov/imo/media/doc/DPCC%20Report%20on%20Racial%20Disparities.pdf>.

182. Letter from Members of Congress, to Steven T. Mnuchin, U.S. Department of Treasury, and Charles Retting, Internal Revenue Service (Apr. 22, 2020), https://bluntrochester.house.gov/uploadedfiles/irs_and_stimulus_checks_for_homeless_population.pdf.

183. The National Alliance to End Homelessness et al., *The Framework for an Equitable COVID-19 Homelessness Response Version*, 4 HOUSING EQUITY FRAMEWORK 3 (Oct. 19, 2020), <https://endhomelessness.org/wp-content/uploads/2020/04/COVID-Framework-4.29.2020-1.pdf>.

adopt eviction and foreclosure moratoriums and financial support to preserve housing. Moratoriums should apply to all evictions and all renters and suspend every stage of the eviction process, including initiation (notice and filing), court process (hearing and issuance of writ of possession), and enforcement of an order of eviction.¹⁸⁴ They should include tenant education and be applied uniformly and enforced. They should extend beyond the state of emergency and be coupled with supportive measures, such as a prohibition on late fees and rent raises and a guaranteed right to counsel, and housing stabilization measures, including rental assistance and a grace period to pay rent. During the pandemic, U.S. state and local policymakers instituted a patchwork of emergency orders and legislation that effectuated eviction moratoriums. However, the moratoriums varied in length and application and few suspended all stages in the eviction process or provide supportive measures.¹⁸⁵ The majority of moratoriums were lifted in May 2020, before COVID-19 was contained and before financial assistance was distributed, which resulted in an eviction crisis estimated to affect 30 to 40 million adults and children.¹⁸⁶ The federal CARES Act established a temporary 120-day moratorium on the nonpayment of rent evictions in federally assisted housing and federally backed mortgages.¹⁸⁷ The Act required landlords to provide 30 days' notice of eviction once the moratorium expired on July 24, 2020. In addition, the Federal Housing Finance Agency issued and extended foreclosure and eviction moratorium on single-family homes. However, it was unclear whether a unit is covered under the CARES Act, and only a few state courts required certification that a property is exempt from the federal moratorium.¹⁸⁸ On September 4, 2020, the Centers for Disease Control and Prevention issued a nationwide moratorium on eviction for non-payment of rent, provided tenants deliver a declaration of eligibility to their landlords. However, at the time of this Article, the order was eroded by the agency's Frequently Asked Questions notice, was inconsistently implemented and interpreted across states, and was not coupled with tenant education, rental assistance, or enforcement mechanisms. Without improvements, it cannot fully address the social and structural determinants of eviction because many eligible renters were not protected and, for those who did exercise their

184. Emily A. Benfer, et al., *What an Effective Eviction Moratorium Must Include*, SHELTER FORCE (Mar. 24, 2020), <https://shelterforce.org/2020/03/24/what-an-effective-eviction-moratorium-must-include/>.

185. Emily A. Benfer, *COVID-19 Eviction Moratoria: Federal (CDC), State, Commonwealth, and Territory*, GOOGLE (2020), <http://bit.ly/COVID19EvictionFreezeUS>; *COVID-19 Housing Policy Scorecard*, EVICTION LAB (2020), <https://evictionlab.org/covid-policy-scorecard/>.

186. Benfer et al., *Health Consequences of Eviction During the COVID-19 Pandemic*, *supra* note 156; Benfer et al., *The COVID-19 Eviction Crisis*, *supra* note 15.

187. Coronavirus Aid, Relief, and Economic Security Act of 2020, Pub. L. No. 116-136, § 4022, 134 Stat. 281 (2020).

188. Benfer et al., *supra* note 156.

rights, the mounting rent will still be due when it expires, and renters will likely face eviction at that time. Ultimately, to prevent the immediate eviction crisis, the United States must adopt a nationwide eviction moratorium, rental assistance to cover rental debt and rent burden, and the civil right to counsel for those facing eviction to ensure equal access to justice in the process.

Because the pandemic has exacerbated long-standing and interconnected crises in housing in low-income communities and communities of color, the first prong also requires that legal and policy responses must address root problems in addition to immediate needs. To redress housing precarity among communities of color, the United States should invest in low-income communities and communities of color by providing rental subsidies and engaging in new construction and rehabilitation that will increase long-term affordable housing. Federal, state, and local policymakers must reform the housing market in a way that provides equal access to housing, thriving communities, and areas of opportunity to ensure that a person's livelihood is no longer determined by zip code. The Federal Housing Administration must redress racially discriminatory policies that locked Black families out of asset accumulation and resulted in the long-term disinvestment in communities of color. The Enterprises must address the persistence of mortgage lending discrimination and the inattention to affordable housing. Ultimately, the United States should create the right to safe and decent housing. The 1949 Housing Act set the national housing goal: "the realization as soon as feasible of the goal of a decent home and a suitable living environment for every American family."¹⁸⁹ COVID-19 underscores the urgency of achieving this goal, especially for historically marginalized communities.

Second, interventions mandating healthy behaviors must be accompanied by legal protection, financial supports, and accommodations to enable compliance while minimizing harms. This means that, in addition to preserving the tenancy, renters must have access to water and electricity if they are to comply with social distancing mandates. States must prevent utility shut offs and restore any disconnected service in order to allow residents to safely shelter in place. The COVID-19 pandemic and social distancing requirements create a situation in which utility shut off would result in a life-threatening emergency. Clean water and electric, gas, and steam utilities are crucial to one's ability to follow recommended hygiene practices, cook and preserve foods, and heat and cool a home. Most states have already adopted medical exceptions to utility shut off, including if the termination of service would affect an elderly individual and where a serious illness, life threatening emergency, low-income hardship, or extreme weather is documented.¹⁹⁰ However, these measures may not apply to people who

189. 42 U.S.C. § 1441a (1949).

190. Benfer & Wiley, *supra* note 8.

are sheltering in place before contracting the coronavirus. Despite the necessity of water and electricity to maintain health and heed shelter in place orders, not every state has a utility disconnection moratorium,¹⁹¹ in part due to the governance of utilities by state and the inability of governors to require service. State policymakers and governors in over half the states ordered the suspension of utility disconnections.¹⁹² In some states, these orders are limited to certain populations, such as low-income or senior customers, and those experiencing hardship or illness due to COVID-19.¹⁹³ Where the state has not ordered disconnection suspension, investor-owned utility companies and state utility boards have suspended disconnections and, in some areas, late fees.¹⁹⁴

To prevent debt and support long-term stability, utility companies should forgive—and federal, state, and local governments should help carry—any consumer debt incurred while combating COVID-19 and waive late fees. The federal stimulus packages included funding for heating and cooling bills through the Low-Income Home Energy Assistance Program (LIHEAP) and \$300 million to bring high-speed internet to rural communities and ensure health care providers can perform telehealth services.¹⁹⁵ To protect residents—and the public’s—health, local and state governments can issue and enforce protections against utility shut-off, at a minimum while social distancing recommendations are in effect, and ideally for 120 days after the pandemic is contained, to enable people to recover from the economic crisis it has created.

Further applying the second prong of health justice, when a key component of the public health response is urging people to stay home, securing safe and sanitary conditions in low-income housing must remain a priority. Every jurisdiction has municipal public health and building codes that are designed to protect health and safety by setting minimum requirements. For example, the majority of states have adopted a warranty of habitability standard, the Uniform Residential Landlord Tenant Act, the International Building Code and the International Residential Code, which, taken together, prohibit environmental hazards in the home.¹⁹⁶

191. Energy Justice. *LIVE: Utilities That Have and Have Not Suspended Disconnects Amid COVID-19*, CLEAN ENERG. (Aug. 7, 2020), <https://cleanenergy.org/blog/live-utilities-that-have-and-have-not-suspended-disconnects-amid-covid-19/>.

192. David Pomerantz, *LIVE: Utilities That Have and Have Not Suspended Disconnects Amid COVID-19*, ENERGY AND POL’Y INST. (Aug. 28, 2020), <https://www.energyandpolicy.org/utilities-disconnect-coronavirus/>; Office of Governor Gretchen Whitmer, *Exec. Order No. 2020-28 (COVID-19)*, STATE OF MICHIGAN (2020), https://www.michigan.gov/whitmer/0,9309,7-387-90499_90705-523414--,00.html.

193. *State Response Tracker*, NAT’L ASS’N OF REG. UTIL. COMMISSIONERS (2020), <https://www.naruc.org/compilation-of-covid-19-news-resources/state-response-tracker/>.

194. *Id.*

195. Coronavirus Aid, Relief, and Economic Security Act of 2020, Pub. L. No. 116-136, § 4022, 134 Stat. 281 (2020).

196. Adopted by the Uniform Law Commission in 1972, the URLTA set standards to govern

Robust enforcement is essential to protect the health and wellbeing of low-income people and must be increased to prevent deleterious health harms to low-income people forced to shelter in place in substandard housing. As of 2016, 23% percent of local health departments were engaged in activities to promote safe and healthy housing and 31% of departments conducted housing inspections.¹⁹⁷ During the COVID-19 pandemic, housing and public health inspectors must be deployed to low-income communities to support remediation efforts. After the pandemic, inspections should continue to identify and resolve conditions that are hazardous to health.

Finally, the third prong of health justice requires engaging marginalized communities as leaders in the development of any interventions and the attainment of health justice. People at risk of housing displacement must be included in decision-making bodies and provided resources necessary to participate. They must be consulted as interventions are developed and given autonomy over decision-making that will affect their lives. COVID-19 Task Forces must include affected populations and the conveners must provide resources, such as compensation, training, childcare, and transportation, to enable participation. The formation of tenant unions across the country during the eviction crisis demonstrates a way for tenants to increase bargaining power and ensure greater control over their home environment and community. The model of equity between parties can be adopted across all systems that have a nexus with housing.

The pandemic magnified and accelerated inequities in housing and presented an opportunity to prevent the devastating harms of eviction and housing instability in a targeted and comprehensive way. Ultimately, applying the health justice framework to the housing crisis in order to eliminate health disparities caused by discrimination and poverty can increase housing security, long-term wellbeing, and access to opportunity for millions of adults and children well into the future.

V. HEALTH JUSTICE IN EMPLOYMENT

A. *Employment as a Social Determinant of Health*

Employment is inextricably tied to health disparities. For example, the social determinants framework states “21% of African Americans work in jobs that put them at high risk for injury or illness compared to only 13% of white people.”¹⁹⁸ It

the landlord and tenant relationship. Twenty-one states adopted the URLTA, with more influenced by particular sections. John Ahlen & Lynn Foster, *Uniform Residential Landlord Tenant Law: Changes on the Way*, 28 PROB. & PROP. MAG. 21 (2014).

197. NATIONAL ASSOCIATION OF COUNTY & CITY HEALTH OFFICIALS, 2016 NAT'L PROFILE OF LOC. HEALTH DEP'T 77, 128 (2016), https://www.naccho.org/uploads/downloadable-resources/ProfileReport_Aug2017_final.pdf.

198. *Social Determinants of Health: Interventions and Resources — Employment, Healthy*

is also way most Americans obtain health insurance and the income necessary to pay for health care.¹⁹⁹

Women of color remain disproportionately employed in low-wage occupations, such as “jobs that involve cooking, cleaning, and caregiving.”²⁰⁰ Based on a Center for American Progress 2007 report, “nearly half—43 percent—of the 29.6 million employed women in the United States were clustered in just 20 occupational categories, of which the average annual median earnings were \$27,383.”²⁰¹ Specifically, 62% of Latino women, 57% of Black women, and 53% of White women are clustered into low-wage service and sales and office occupations.²⁰² This is in comparison to 26% of Latino women, 35% of Black women, and 43% of White women, who are employed in higher-wage management, professional, and related jobs.²⁰³ Many of these low-wage workers who are considered the working poor have been designated as essential workers. In fact, almost a quarter of essential workers are considered low-income workers.²⁰⁴

A recent New York Times analysis of census data crossed with the federal government’s essential workers guidelines found that “one in three jobs held by women has been designated as essential during this pandemic . . . [and] nonwhite women are more likely to be doing essential jobs than anyone else.”²⁰⁵ The Centers for Disease Control and Prevention (CDC) found that African Americans account

People 2020, U.S. DEP’T OF HEALTH & HUM. SERVS. (2020), <https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-health/interventions-resources/employment>.

199. *Id.*

200. TERESA AMOTT & JULIE MATTHAEI, RACE, GENDER, AND WORK: A MULTICULTURAL ECONOMIC HISTORY OF WOMEN IN THE U.S. (1996); JACQUELINE JONES, LABOR OF LOVE, LABOR OF SORROW: BLACK WOMEN, WORK, AND THE FAMILY FROM SLAVERY TO THE PRESENT (1885); Nina Banks, *Black Women’s Labor Market History Reveals Deep-Seated Race and Gender Discrimination*, ECON. POL’Y INST. (Feb. 19, 2019), <https://www.epi.org/blog/black-womens-labor-market-history-reveals-deep-seated-race-and-gender-discrimination/>.

201. Alexandra Cawthorne Gaines, *The Straight Facts on Women in Poverty*, CTR. FOR AM. PROGRESS (Oct. 8, 2008), <https://www.americanprogress.org/issues/women/reports/2008/10/08/5103/the-straight-facts-on-women-in-poverty>. U.S. Bureau of Labor Statistics, *Labor Force Statistics from the Current Population Survey*, U.S. DEP’T OF LAB. (Nov. 22, 2019), <https://www.bls.gov/cps/earnings.htm>.

202. Milia Fisher, *Women of Color and the Gender Wage Gap*, CTR. FOR AM. PROGRESS (Apr. 14, 2015), <https://www.americanprogress.org/issues/women/reports/2015/04/14/110962/women-of-color-and-the-gender-wage-gap>.

203. *Id.*

204. Hye Jin Rho, Hayley Brown & Shawn Fremstad, *A Basic Demographic Profile of Workers in Frontline Industries*, CTR. FOR ECON. AND POL’Y RES. 8 (Apr. 2020), <https://cepr.net/wp-content/uploads/2020/04/2020-04-Frontline-Workers.pdf>.

205. Campbell Robertson & Robert Gebeloff, *How Millions of Women Became the Most Essential Workers in America*, N.Y. TIMES (Apr. 18, 2020), <https://www.nytimes.com/2020/04/18/us/coronavirus-women-essential-workers.html>.

for 30% of all licensed practical and vocational nurses, while Latinos account for 53% of all agricultural workers, jobs deemed “essential” during the COVID-19 pandemic.²⁰⁶ Additionally, essential workers who are poor or people of color are more likely to work in crowded and unsanitary conditions such as nursing homes and meat processing plants and distribution warehouses, without adequate protective gear.²⁰⁷ Emerging research demonstrates that individuals who are poor or people of color have higher rates of exposure to COVID-19 due to employment conditions such as lack of paid sick leave, low-wages, and lack of health insurance, among other risk factors.²⁰⁸ These inequalities in employment are due to structural discrimination.

B. Employment Discrimination as a Barrier to Health Justice During COVID-19

Inequalities in employment, which have caused disparities in COVID-19 infections for individuals who are poor and people of color, are due in large part to structural discrimination. For example, many laws that expanded collective bargaining rights in the 1930s and 1950s either explicitly excluded racial and ethnic minorities or allowed unions to discriminate against racial and ethnic minorities.²⁰⁹ These employment laws benefited White people by providing them with access to unions that bargained for paid sick leave. However, they left racial and ethnic minority workers without union representation and paid sick leave, forcing them to go to work even when they were sick and increasing disparities in their exposure to pandemic viruses, like COVID-19. To this day, many racial and ethnic minorities still do not have paid sick leave²¹⁰ and other employment laws still limit racial and ethnic minorities’ access to equal pay, which causes disparities in exposure to COVID-19. The plight of agricultural workers and home health care workers is illustrative of this point.

Twenty-one percent of workers deemed essential during the COVID-19 pandemic work in the food and agricultural industry,²¹¹ which have been hotspots

206. *COVID-19 in Racial and Ethnic Minority Groups*, CTRS. FOR DISEASE CONTROL & PREVENTION (July 24, 2020), <https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/racial-ethnic-minorities.html>.

207. Marmot, *supra* note 1; Rho, Brown & Fremstad, *supra* note 204; Kristi L. Kirschner, Lisa I. Iezzoni & Tanya Shah, *The Invisible COVID Workforce: Direct Care Workers for Those with Disabilities* (July 27, 2020), <https://www.commonwealthfund.org/blog/2020/invisible-covid-workforce-direct-care-workers-those-disabilities>.

208. Shonkoff & Williams, *supra* note 16.

209. Danyelle Solomon et al., *Systematic Inequality and Economic Opportunity*, CTR. FOR AM. PROGRESS (Aug. 7, 2019), <https://www.americanprogress.org/issues/race/reports/2019/08/07/472910/systematic-inequality-economic-opportunity/>.

210. Kumar et al., *supra* note 6, at 134-40.

211. Celine McNicholas & Margaret Poydock, *Who Are Essential Workers? A Comprehensive Look at Their Wages, Demographics, and Unionization Rates*, ECON. POL’Y INST. (May 19, 2020),

for COVID-19 infections. In mid-April, there were already signs of outbreaks tied to agriculture businesses as evidenced by the 100 COVID-19 cases linked to a produce-processing plant in Rhode Island. By June over 2,076 agricultural workers in New York, 1,948 in California, and over 1,000 in Illinois, Texas, Iowa, Washington, and Minnesota were infected with COVID-19.²¹² As of September 10, 2020, more than 60,000 food and agricultural workers have tested positive for COVID-19 and 258 have died.²¹³ More specifically, 6,999 farmworkers have tested positive and 15 farmworkers have died. A majority of agricultural workers are racial and ethnic minorities who live in poverty and do not have paid sick time. For example, agricultural workers tend to be immigrants from countries such as Mexico, Central America, and the Caribbean who work in 42 of the 50 states, including California, Illinois, Texas, and Washington.²¹⁴ Almost a third of agricultural workers have incomes below the poverty level and do not have paid sick leave. This is because agricultural workers are not fully covered by the Fair Labor Standards Act of 1938 (FLSA).²¹⁵

The FLSA limited the work week to 40 hours and established federal minimum wage and overtime requirements, but exempted from these protections domestic, agricultural, and service workers, who are predominately racial and ethnic minorities.²¹⁶ In 1966, the minimum wage requirements were applied to *most* agricultural workers, yet these workers still do not receive overtime and are paid fifty cents less than the minimum wage.²¹⁷ Also, instead of the minimum wage, some workers are still paid based on each piece of food they pick.²¹⁸ The failure to provide agricultural workers with higher wages and overtime pay is due to structural discrimination. The initial failure to cover these workers under the FLSA benefited White workers by boosting their wages, while limiting the wages of immigrants. The current lack of protections under the FLSA benefit White farmers by limiting their employee costs, while harming racial and ethnic minority workers that cannot afford to miss work even when they are sick. Therefore, these

<https://www.epi.org/blog/who-are-essential-workers-a-comprehensive-look-at-their-wages-demographics-and-unionization-rates>.

212. Amy Sowder, *COVID-19 Cases Mount as Summer Harvesting Heats Up*, PACKER (June 18, 2020), <https://www.thepacker.com/article/covid-19-cases-mount-summer-harvesting-heats>.

213. Leah Douglas, *Mapping Covid-19 Outbreaks in the Food System*, FOOD & ENV'T REPORTING NETWORK, (Sept. 10, 2020) <https://thefern.org/2020/04/mapping-covid-19-in-meat-and-food-processing-plants>.

214. Monica Schoch-Spana et al., *supra* note 9, at 243-53.

215. The Fair Labor Standards Act of 1938, 29 U.S.C. §§ 201-19 (2018).

216. Peggie R. Smith, *Aging and Caring in the Home: Regulating Paid Domesticity in the Twenty-First Century*, 92 IOWA L. REV. 1835, 1857 (2007); Solomon et al., *supra* note 209.

217. Autumn Canny, *Lost in a Loophole: The Fair Labor Standards Act's Exemption of Agricultural Workers from Overtime Compensation Protections*, 10 DRAKE J. AGRIC. L. 355 (2005).

218. *Fact Sheet #12: Agricultural Employers Under the Fair Labor Standards Act (FLSA)*, U.S. DEP'T OF LAB., (Jan. 2020), <https://www.dol.gov/agencies/whd/fact-sheets/12-flsa-agriculture>.

racial and ethnic minority workers are forced to work even when they are sick, increasing the risk of exposure to viruses for all agricultural workers because they work in close quarters.

Health care workers have also been disproportionately infected with COVID-19. Thirty percent of all essential workers work in the health care industry.²¹⁹ As of September 10, 2020, more than 157,298 health care personnel have tested positive for COVID-19 and 697 have died.²²⁰ Unfortunately, these numbers are not disaggregated by job, but many of the most vulnerable health care workers during the COVID-19 pandemic are home health care workers, who work in close contact with patients vulnerable to COVID-19.²²¹ Home health care workers, who are considered domestic workers, are also left unprotected. Two-thirds of home health care workers are women of color.²²² Although the Medicaid program²²³ primarily funds home health care workers, the wages of these workers are so low that one in five (20%) home care workers are living below the federal poverty line, compared to 7% of all U.S. workers, and more than half rely on some form of public assistance including food stamps and Medicaid.²²⁴ They also do not have paid sick leave.

Even though the Department of Labor (DOL) issued regulations in 2015 that for the first time made the FLSA apply to *most* home health care workers,²²⁵ many workers still remain unprotected. The DOL under the Trump Administration has issued guidance suggesting that home health care workers employed by home health care companies, also referred to as nurse or caregiver registries, are independent contractors.²²⁶ This is significant because the FLSA does not cover independent contractors. These practices have disadvantaged home health care workers by limiting their wages and access to paid sick leave.

The failure to provide home health care workers with higher wages and paid sick leave is due to structural discrimination. The initial failure to cover these

219. Celine McNicholas & Margaret Poydock, *supra* note 211.

220. *COVID-19 Data Tracker: Cases & Deaths Among Healthcare Personnel*, CTRS. FOR DISEASE CONTROL & PREVENTION (Sept. 10, 2020), https://covid.cdc.gov/covid-data-tracker/?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2F2019-ncov%2Fcases-updates%2Fcases-in-us.html#health-care-personnel.

221. Yearby & Mohapatra, *supra* note 28.

222. *Id.*

223. 42 U.S.C. §§ 1396, 1396a(a)(1)–(2), (5) (2006 & West Supp. 2018).

224. *U.S. Home Care Workers: Key Facts*, PHI, 5-6 (2018).

225. 80 C.F.R. §§ 55029-30 (2015).

226. Memorandum from Bryan Jarrett, Acting Administrator, to Regional Administrators (July 13, 2018), <https://www.dol.gov/agencies/whd/field-assistance-bulletins/2018-4>; Labor and Employment Group, *Labor Classification in the Home Health Care Industry: A Sign of What's to Come?*, BALLARD SPAHR LLP (July 16, 2018), <https://ballardspahr.com/alertspublications/legalalerts/2018-07-16-labor-classification-in-the-home-health-care-industry-a-sign-of-whats-to-come>.

workers under the FLSA benefited White workers by boosting their wages, while limiting the wages of racial and ethnic minorities, particularly women of color. Seventy-seven years later, when most home health care workers were finally covered by the FLSA, companies began classifying them as independent contractors. This benefits home health care companies by lowering employment costs because among other things companies then do not have to pay workers minimum wage or overtime pay. As a result of low wages and lack of paid sick leave, home health care workers must continue to work in close proximity to patients that are often vulnerable to COVID-19, increasing home health care workers' exposures to COVID-19.

During the COVID-19 pandemic, many low-wage workers²²⁷ have been deemed as “essential” including agricultural workers²²⁸ and home care workers, yet they do not have adequate wages or personal protective gear.²²⁹ The federal government is also currently seeking to lower the wages of immigrant agriculture workers during the COVID-19 pandemic, at the same time it is increasing visa approvals to ensure that US farmers have enough immigrant workers for spring planting.²³⁰ Additionally, unlike health care workers providing care in institutional settings, home care workers have not been provided with masks. In fact, one worker said, “her colleagues had been making protective masks out of paper towels” and another worker had been making “hand sanitizers out of supplies she bought herself.”²³¹

The CARES Act²³² the largest economic relief bill in U.S. history, has approved \$2.2 trillion to help businesses and individuals affected by the pandemic and economic downturn, giving workers health coverage for COVID-19, increased unemployment benefits, and paid sick leave.²³³ But the CARES Act does not cover

227. Beatrice Jin & Andrew McGill, *Who Is Most at Risk in the Coronavirus Crisis: 24 Million of the Lowest-Income Workers*, POLITICO (March 21, 2020), <https://politico.com/interactives/2020/coronavirus-impact-on-low-income-jobs-by-occupation-chart>.

228. Alejandra Borunda, *Farm Workers Risk Coronavirus Infection to Keep the U.S. Fed*, NAT'L GEOGRAPHIC (Apr. 10, 2020), <https://www.nationalgeographic.com/science/2020/04/farmworkers-risk-coronavirus-infection-keep-us-fed>.

229. Christopher Ingraham, *Why Many 'Essential' Workers Get Paid So Little According to Experts*, SEATTLE TIMES (Apr. 6, 2020), <https://www.seattletimes.com/business/why-do-so-many-essential-workers-get-paid-so-little-heres-what-economists-have-to-say>.

230. Franco Ordonez, *White House Seeks to Lower Farmworker Pay to Help Agricultural Industry*, NPR (Apr. 10, 2020), <https://www.npr.org/2020/04/10/832076074/white-house-seeks-to-lower-farmworker-pay-to-help-agriculture-industry>.

231. Andrew Donlan, *'I Deserve to Be Respected: ' Home Care Workers Make Emotional Plea for Better Treatment*, HOME HEALTH CARE NEWS (Apr. 15, 2020), <https://homehealthcarenews.com/2020/04/i-deserve-to-be-respected-home-care-workers-make-emotional-plea-for-better-treatment/>.

232. Coronavirus Preparedness and Response Supplemental Appropriations Act of 2020, Pub. L. No. 116-136, Tit. III, 134 Stat. 146, 147 (2020).

233. Erica Warner et al., *Senate Approves \$2.2 Trillion Corona Virus Bill Aimed at Slowing*

most agricultural workers and home health care workers. Because roughly 50% of agriculture workers are undocumented immigrants, employment relief or the expanded health care protections provided by the CARES Act does not cover them.²³⁴ Home care workers are also not covered by the CARES Act because home care industry advocates argued that there would be a worker shortage if they were included.²³⁵ Thus, the CARES Act is an example of structural discrimination because it primarily advantages White workers, while disadvantaging racial and ethnic minorities who do not receive the protections of the CARES Act, leaving them unprotected and in poverty.

C. Applying the Health Justice Framework to Achieve Employment Equity

As briefly discussed in Section III, due to the economic impacts of the pandemic, Latino and Black people have experienced higher rates of job loss and financial hardship. “Nearly three-quarters of Black (73%) and Hispanic adults (70%) said they did not have emergency funds to cover three months of expenses; around half of White adults (47%) said the same,” and “Black (48%) and Hispanic adults (44%) were more likely than white adults (26%) to say they ‘cannot pay some bills or can only make partial payments on some of them this month.’”²³⁶ Thus, the impact of employment inequalities before and during the COVID-19 pandemic has disproportionately harmed the poor and racial and ethnic minorities, which is not addressed by current relief bills. Thus, policymakers need to adopt the health justice framework to not only address the impact of discrimination, but also the impact of poverty.

The patchwork of federal and state COVID-19 laws does not address these structural inequalities.²³⁷ Thus, federal and state policymakers must use the health justice framework to address these problems. First, the legal and policy response must address the social and structural determinants of health by providing workers with a living wage and health insurance to address employment inequalities. For instance, governments must provide paid sick leave to all workers, even if they are independent contractors, “because it reduces costly spending on emergency health care, reduces the rate of influenza contagion, and saves the U.S. economy \$214

Economic Free Fall, WASH. POST, (Mar. 25, 2020), <https://www.washingtonpost.com/business/2020/03/25/trump-senate-coronavirus-economic-stimulus-2-trillion>.

234. Borunda, *supra* note 228.

235. Donlan, *supra* note 231.

236. Mark Hugo Lopez, Lee Rainie & Abby Budiman, *Financial and Health Impacts of COVID-19 Vary Widely by Race and Ethnicity*, PEW RES. CTR. (May 5, 2020), <https://www.pewresearch.org/fact-tank/2020/05/05/financial-and-health-impacts-of-covid-19-vary-widely-by-race-and-ethnicity>.

237. Yearby & Mohapatra, *supra* note 28.

billion annually in increased productivity and reduced turnover.”²³⁸

Second, the interventions mandating health behaviors, such as staying at home from work when sick, must be accompanied by supports to enable compliance and minimize harms, such as paid sick leave and a guaranteed basic income. Thirty-four million workers, including 54% of Latino and 38% of Black workers, have no paid sick leave.²³⁹ Without sick leave, working people are 1.5 times more likely to go to work with a contagious disease and three times more likely to go without medical care compared to those with paid sick days.²⁴⁰ The National Governor’s Association and the Association of State and Territorial Health Officials pointed to these risk factors as the reason for stark disparities, particularly in low-income communities, for the higher rate of COVID-19 infection and mortality.²⁴¹ Some governors have tried to address these issues. For example, the Arkansas governor received approval from CMS to use some CARES Act funding to provide payments to direct care workers.²⁴² Eligible workers, all direct care workers except those working in nursing homes and hospitals,²⁴³ will receive a bonus of \$125 per week for part-time workers (20 to 39 hours) and \$250 per week for full-time workers (40 or more hours).²⁴⁴ If the worker is employed in a facility “where someone has tested positive for COVID-19[, they] will get an additional \$125 a week for working one to 19 hours a week, \$250 for those working 20 to 39 hours and \$500 a week for those working 40 hours or more.”²⁴⁵ The payments will be retroactive to April 5 and will continue until at least May 30.²⁴⁶

The New Hampshire governor has also decided to use some of the CARES Act funding to provide direct care workers and others working in Medicaid-funded

238. Benfer & Wiley, *supra* note 7.

239. *Id.*

240. *Id.*

241. Hemi Tewarson et al., *Roadmap to Recovery: A Public Health Guide for Governors*, NGA (Apr. 21, 2020), <https://www.nga.org/wp-content/uploads/2020/04/NGA-Report.pdf>.

242. Elisha Morrison, *CMS Approves Some Healthcare Worker Bonuses*, SALINE COURIER (Apr. 16, 2020), https://www.bentoncourier.com/covid-19/cms-approves-some-healthcare-worker-bonuses/article_3946adc8-800c-11ea-944a-1b151690787e.html.

243. KATV, *Governor Announces Bonus Pay for Some Health Workers: COVID-19 Death Toll Rises to 34* ABC7 (Apr. 15, 2020), <https://katv.com/news/local/governor-announces-bonus-pay-for-health-workers-at-long-term-care-facilities> (“Eligible workers include: Registered Nurses; Licensed practical nurses; Certified nurse aides; Personal care aides assisting with activities of daily living under the supervision of a nurse or therapist; Home health aides assisting with activities of daily living under the supervision of a nurse or therapist; Nursing assistive personnel; Direct care workers providing services under home and community-based waiver; Intermediate Care Facility direct care staff including those that work for a state-run Human Development Center; Assisted Living direct care staff members; Hospice service direct care workers; and Respiratory therapists.”).

244. Morrison, *supra* note 242.

245. *Id.*

246. The governor will extend the payments an additional 30 days if COVID-19 cases on May 30th exceed 1,000. *Id.*

residential facilities with weekly \$300 payments for working during the COVID-19 pandemic until the end of June.²⁴⁷ Twelve states and the District of Columbia have already passed laws to increase wages for direct care workers above the set Medicaid rate before the COVID-19 pandemic,²⁴⁸ which they could use to increase the wages of home care workers. Other states should use the examples set by Arkansas and New Hampshire and seek CMS approval to use CARES Act funding to increase the wages of home care workers. Although admirable, these are not universal solutions.

Members of low-income communities and communities of color are already relegated to working in low-paying jobs. Due to the record high unemployment rates and grim realities for low-income communities and communities of color, this is the optimal time for policymakers to adopt legal and policy responses that address the root problem of employment inequities: poverty and discrimination. A guaranteed basic minimum income and health insurance for workers from these communities would minimize the economic harms of not going to work, enabling them to comply with social distancing measures.²⁴⁹ The ideas of a guaranteed basic minimum income and paid sick leave are not new. In 1976, Alaska implemented a guaranteed basic income called the Alaska Permanent Fund and has been sending dividends to every Alaskan resident since 1982.²⁵⁰ Thus, for almost 20 years, Alaska has provided guaranteed support for residents, helping to address poverty, with no change in full-time employment.

Third, many employment policies aimed at putting an end to poverty are ill-informed and ineffective. Thus, policymakers must engage low-income communities and historically marginalized groups in the development of any interventions to end poverty and attain health justice. For example, most recently policymakers have tried to condition the receipt of Medicaid on work requirements, ignoring the data that most individuals are already working. This is best illustrated by home health care workers, paid by the federal government, who are still so poor that they remain in poverty and eligible for Medicaid. Moreover,

247. Mia Summerson, *NH Moves to Boost Pay for Long-term Care Workers*, SENTINELSOURCE (Apr. 14, 2020), https://www.sentinelsource.com/news/local/nh-moves-to-boost-pay-for-long-term-care-workers/article_78db684f-a0a6-5eaf-bf0d-29caac8811b4.html.

248. The states include Arizona, California, Colorado, the District of Columbia, Illinois, Indiana, Maine, Minnesota, Montana, New York, Pennsylvania, Rhode Island, and Washington. See Ruqaiyah Yearby et al., *State Wage Pass Through Laws for Direct Care Workers* (Aug. 31, 2020), (unpublished manuscript) (tracking state laws that increase wages for direct care workers providing care to elderly Medicaid patients as of August 31, 2020).

249. Kimberly Amadeo & Thomas J. Brock, *What is Universal Basic Income? Pros and Cons of a Guaranteed Income*, BALANCE (Aug. 19, 2020), <https://www.thebalance.com/universal-basic-income-4160668>.

250. Michael J. Coren, *When You Give Alaskans a Universal Basic Income, They Still Keep Working*, QUARTZ (Feb. 13, 2018), <https://qz.com/1205591/a-universal-basic-income-experiment-in-alaska-shows-employment-didnt-drop>.

COVID-19 relief must apply to all essential workers regardless of immigration status or independent contractor designation.

During the COVID-19 pandemic, many racial and ethnic minorities, people living in poverty, and other marginalized groups have been unable to stay at home or socially distance because they work in positions deemed to be essential. Although these workers have been labeled as essential, they have not been provided with the economic support necessary to keep them safe, such as paid sick leave and health insurance, as a result of structural discrimination. This problem is illustrated by the disproportionate COVID-19 infections and deaths of agriculture and home health care workers who lack paid sick leave, because they were explicitly excluded from the CARES Act and other laws providing this benefit. To address this problem, policymakers should use the health justice framework to include low-income communities and historically marginalized groups in the development of legal and policy responses to address employ inequalities, such as providing a living wage, health insurance, paid sick leave, and a guaranteed basic income.

CONCLUSION

The COVID-19 pandemic magnified and accelerated the impact of longstanding discrimination, poverty, and health inequities among low-income communities and historically marginalized groups. Health justice is an effective framework for eradicating unjust health disparities, especially those caused by discrimination and poverty.²⁵¹ The achievement of health justice requires addressing the roots of and preventing new forms of discrimination and poverty both during and after the COVID-19 pandemic. The application of the health justice framework to the supportive pillars of health care, housing, and employment demonstrates how the framework can be adopted across numerous social determinants of health and structures to ensure the elimination of discrimination, poverty, and poor health among marginalized people during and after the pandemic.

251. Benfer & Wiley, *supra* note 7.