Public Health Law: A Framework for Addressing Misinformation and Health Equity

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Abstract

As a public health issue that evades simple legal categorization, health misinformation has contributed to significant health harms, highlighted by the COVID-19 pandemic. However, health misinformation is not a new phenomenon and its effects have been felt during many major public health events, including H1N1, Ebola, and other disease outbreaks. Health misinformation also affects a myriad of other public health concerns like cancer treatment, autism, and gender-affirming care. The harms resulting from health misinformation include health disparities and inequities for communities along varying sociodemographic lines. Left unchecked, misinformation continues to harm health, interferes with community literacy and access to accurate information, and ultimately undermines trust in science, evidence-based recommendations, and government institutions.

While efforts to combat misinformation have encompassed many areas of law (including privacy, technology, and tort), misinformation continues to spread, resulting in both short- and long-term harms. Combating the broad scope of misinformation-related harms requires systematic law and policy efforts that are equity-focused, evidence-based, and involve interdisciplinary and cross-sector collaboration. Public health law has not historically been viewed as a vehicle for combating misinformation, representing a missed opportunity to leverage established expertise on the issue and strengthen interdisciplinary efforts to address misinformation. This article aims to fill that gap by presenting public health law as a lens for the development of legal and policy structures to effectively address health misinformation and disinformation in a way that focuses on health and information disparities and equity, incorporates evidence-based science, and serves as a framework to unite various sectors, professions, and theories that will facilitate necessary interdisciplinary collaboration.

Introduction

Even before the COVID-19 pandemic, scholars predicted that—given the large amount of misinformation and fear circulating during health crises—public health laws might threaten public health rather than improve it when their implementation is driven by such misinformation.[1] This includes "an unfortunate array of examples where" evidence-based science has been disregarded in deference to misinformation and the fear it generates, such as overly restrictive quarantine measures during the Ebola scare in the United States, criminalization of HIV, and childhood vaccine exemptions.[2] As misinformation spreads about a topic—such as reproductive health or gender-affirming care—and becomes enacted into law, these problems may compound.[3]

The sheer scale at which misinformation has spread[4] during the COVID-19 pandemic has highlighted these dangers, leading "people to decline COVID-19 vaccines, reject public health measures such as masking and physical distancing, and use unproven treatments" as well as to the "harassment of and violence against public health workers, health professionals, airline staff, and other frontline workers."[5] This Article seeks to examine the use of a public health law framework to address these issues. Part I defines what public health law is and provides examples of how it can be utilized to address challenges like health inequities resulting from misinformation. Part II then discusses how public health law could be leveraged as a framework for designing legal and policy strategies that (1) support making accurate information available and debunking misinformation, (2) hold those

1 Michael R. Ulrich, *Law and Politics, An Emerging Epidemic: A Call for Evidence-Based Public Health Law*, 42 Am. J.L. & Med. 256, 256 (2016).

2 *Id.*

3 *See, e.g.*, Naomi Thomas, *Doctors Worry That Online Misinformation Will Push Abortion-Seekers Toward Ineffective, Dangerous Methods*, CNN (July 13, 2022), https://www.cnn.com/2022/07/13/health/abortion-misinformation-social-media/index.html (discussing abortion misinformation); *see also* Meredith McNamara et al., *Scientific Misinformation and Gender Affirming Care: Tools for Providers on the Front Lines*, 71 J. Adolescent Health 251, 251 (2022) (discussing misinformation in criminalization of gender-affirming care for youth).

4 While using the phrase "misinformation has spread" for the sake of convenience, the authors recognize that misinformation is an inanimate object, acted upon by people and the systems which people create.

5 U.S. Dep't of Health & Hum. Servs., Off. of the Surgeon Gen., Confronting Health Misinformation: The U.S. Surgeon General's Advisory on Building a Healthy Information Environment 4 (2021), https://www.ncbi.nlm.nih.gov/books/NBK572169/ [hereinafter Surgeon General Advisory].

that spread misinformation responsible, and (3) develop health, education, journalism, and media laws and policies that enhance community resilience to misinformation, including the establishment of interdisciplinary, cross-sector partnerships. We conclude that although no single recommendation or effort can be sufficient given the scope of the challenge, a public health law framework sets the stage for legal and policy structures that can begin rebuilding trust with communities through equity, transparency, and accountability.

I. Background

To set the stage for further discussion, it is first helpful to align on definitions of terms used throughout the Article, and to provide additional context that will frame a public health lens.

A. Definitions

There is no singular definition for "misinformation" and related terms, and definitions may morph over time, making it important to identify a definition for any terms used to provide context and precision.[6] This Article uses the term "misinformation" as an umbrella term for information that is false or misleading and can result in harm.[7] While there are important differences between classes of information that fall under the overarching term "misinformation," law and policy strategies at the systems level may be effective to combat all types of information at once. This Article will specify if a strategy applies specifically to a certain category of misinformation.

In addition to the use of "misinformation" as an umbrella term, this Article uses the following working definitions. "Misinformation" as a specific term refers to information that is false or misleading but is not spread for personal gain or intended to cause harm. "Disinformation" is false or misleading and spread for personal gain or with the intent to cause harm. "Malinformation" is also sometimes incorporated as a form of misinformation that is otherwise true, although sometimes taken out of context, and spread for personal gain or with the intent to

6 *See, e.g.*, Rohan Ó. Fathaigh et al., *The Perils of Legally Defining Disinformation*, 10 Internet Pol'y Rev., no. 4, 2021, at 1, 3–4 (2021) (providing three definitions of disinformation and recognizing "the general consensus seems to be that there is no clear, uniform or legal definition").

7 *See* Surgeon General Advisory, *supra* note 5, at 4 (using misinformation as an umbrella term).

cause harm. These definitions generally align with nascent attempts to craft meaningful legal definitions of misinformation or disinformation both within the United States and internationally.[8] Public health or scientific efforts to define misinformation may provide additional, if controversial, detail.[9]

Finally, this Article focuses on health misinformation—or misinformation that more directly impacts the health of individuals and populations—such as misinformation about a disease or a treatment or prevention measures. While it is beyond the scope of the instant discussion, we recognize that other types of misinformation, such as political misinformation or environmental misinformation, could result in negative health impacts.

B. Public Health Context

Misinformation that harms health is an important public health issue. The U.S. Surgeon General declared health misinformation "a serious threat to public health,"[10] and it is one of just six public health priorities adopted by the Surgeon General's office.[11]

As a sampling of potential harms, health misinformation may cause members of the public to fail to follow health guidance.[12] Exposure

8 *See, e.g.*, Cal. Bus. & Prof. Code § 2270 (West 2023); *see also* Fathaigh et al., *supra* note 6, at 4; Int'l Ctr. for Not-for-Profit L., *Legal Responses to Disinformation – A Policy Prospectus* 2, ICNL (2021), https://www.ohchr.org/sites/default/files/Documents/Issues/Expression/disinformation/2-Civil-society-organisations/International-Center-for-Non-Profit-Law2.pdf.

9 *See, e.g.*, Surgeon General Advisory, *supra* note 5, at 17 (citing Sylvia Chou Wen-Ying et al., *Where We Go From Here: Health Misinformation on Social Media*, 110 Am. J. Pub. Health (Special Issue) S273 (2020) ("One key issue is whether there can be an objective benchmark for whether something qualifies as misinformation. Some researchers argue that for something to be considered misinformation it has to go against 'scientific consensus.' Others consider misinformation to be information that is contrary to the 'best available evidence.'"); Tara Kirk Sell et al., *National Priorities to Combat Misinformation and Disinformation for COVID-19 and Future Public Health Threats: A Call for a National Strategy* 9–10, Johns Hopkins Ctr. for Health Sec. (2021), https://centerforhealthsecurity.org/sites/default/files/2023-02/210322-misinformation.pdf; *cf.* Cal. Bus. & Prof. Code § 2270(b)(4) (West 2023) (defining misinformation as "false information that is *contradicted by contemporary scientific consensus contrary to the standard of care*" (emphasis added)).

10 Surgeon General Advisory, *supra* note 5, at 2–3.

11 Off. of the Surgeon Gen., *Current Priorities*, U.S. Dep't of Health & Hum. Servs, https://www.hhs.gov/surgeongeneral/priorities/index.html (last visited July 18, 2023).

12 Surgeon General Advisory, *supra* note 5, at 4.

to misinformation can also result in reduced trust in science, journalism, health professionals, and government institutions generally, including public health.[13] This loss of trust, in turn, may make individuals less receptive to corrective or accurate information, and therefore more susceptible to the harms of misinformation.[14] A report from the Johns Hopkins Center for Health Security determined that, between May 2021 and October 2021, "misinformation and disinformation [about COVID-19 vaccines] caused between $50 and $300 million worth of total harm every day."[15]

With a mission "to protect and promote the health of all people in all communities," combating misinformation lies squarely within the purview of public health services.[16] However, from a legal standpoint, public health may be under-considered and under-utilized in these efforts due to historical context.

1. Historical Definition of Public Health Law

Historically, the public health system functioned to control disease, originally through use of isolation or quarantine.[17] With advancements in science, public health later incorporated sanitation.[18] Often these measures relied on more traditional views of law as a set of rules, produced by a governing body, "for the regulation of society."[19] The story of the Broad Street pump exemplifies these developments. As bacteriology, or the germ theory, developed, a physician in London noticed a connection between hundreds of cholera deaths and proximity to a water pump on Broad Street.[20] By talking to local residents about

13 Briony Swire-Thompson & David Lazer, *Public Health and Online Misinformation: Challenges and Recommendations*, 41 Ann. Rev. Pub. Health 433, 440–43 (2020).

14 *Id.* at 440.

15 Richard Bruns et al., *COVID-19 Vaccine Misinformation and Disinformation Costs an Estimated $50 to $300 Million Each Day* 2, Johns Hopkins Ctr. for Health Sec. (2021), https://centerforhealthsecurity.org/sites/default/files/2023-02/20211020-misinformation-disinformation-cost.pdf (emphasis omitted).

16 Ctrs. for Disease Control & Prevention, *10 Essential Public Health Services*, CDC (2020), https://www.cdc.gov/publichealthgateway/publichealthservices/essentialhealthservices.html.

17 Comm. for the Study of the Future of Pub. Health, *A History of the Public Health System*, *in* The Future of Public Health 56, 57 (1988) [hereinafter Future of Public Health].

18 *Id.* at 58–59.

19 David P. Fidler, *A Globalized Theory of Public Health Law*, 30 J.L. Med. & Ethics 150, 152 (2022).

20 Theodore H. Tulchinsky, *John Snow, Cholera, the Broad Street Pump; Waterborne*

their water supply and identifying the locations of deaths and comparing their sources of water, he identified the source of the outbreak as the public water pump on Broad Street.[21] Identifying the cause inspired legal regulation to maintain sanitation and prevent further disease through "legislation forcing the overhaul of London's water and sewage systems, which after completion, contributed to the nonreturn of cholera."[22]

The public health model continued to evolve further, later incorporating health education and access to health care.[23] As recognized by the Centers for Disease Control and Prevention ("CDC"), public education on hygiene and sanitation, amongst other public health advancements, resulted in the decline of waterborne diseases from the nineteenth century into the twentieth century.[24] Throughout the 1900s, "[a]s public [health] agencies moved into clinical care and education," largely in response to tuberculosis, "the orientation of public health shifted from disease prevention to promotion of overall health."[25] The seminal case of *Jacobson v. Massachusetts* recognized the broad authority of governments to use police power to protect public health and safety so long as the law was not "a plain, palpable invasion of rights secured by the [Constitution]."[26] Into the twenty-first century, courts have continued to recognize states' sovereign power to make laws subject to individual constitutional rights as interpreted by the United States Supreme Court and the limitations of such rights on that power.[27]

These developments paved the way for a broader, more modern conception of public health and public health law into the present.

2. Modern Definition of Public Health Law Framework

Beyond direct disease control measures, public health education, and access to clinical care, public health actors now recognize an ability to address social or structural determinants of health in ways that "require less individual effort" and have "great[er] population impact."[28]

Diseases Then and Now, *in* Case Studies in Public Health 77, 80–81 (2018).

21 *Id.*

22 *Id.* at 82.

23 *See* Future of Public Health, *supra* note 17, at 65–66.

24 Tulchinsky, *supra* note 20, at 86.

25 Future of Public Health, *supra* note 17, at 66.

26 Jacobson v. Massachusetts, 197 U.S. 11, 12 (1905).

27 *See* Wendy K. Mariner et al., Jacobson v. Massachusetts*: It's Not Your Great-Great-Grandfather's Public Health Law*, 95 Am. J. Pub Health 581, 582 (2005).

28 Thomas R. Frieden, *A Framework for Public Health Action: The Health Impact Pyramid*, 100 Am. J. Public Health 590, 591 (2010).

These include longer-term efforts to provide "protective interventions" and ultimately change population health contexts by addressing other drivers of health inequity, such as income inequality, employment and education opportunity, political power and participation in governance, and structural discrimination.[29]

The CDC recognizes "10 Essential Public Health Services," encouraging public health departments to engage in activities that address the social determinants of health.[30] Perhaps more importantly, laws are recognized "as both structural and social determinants of health" influencing health from larger systems determined by "the confluence of historical legacies, cultural values, political machinations, and economic principles" to the more immediate social realities of everyday life, such as the built environment, social connection, economic opportunity, and access to resources.[31] Understanding law as a determinant of health allows public health to use law as a tool to advance equity, improve health outcomes, and accelerate efforts to address health inequities at a systemic or structural level.[32] Other approaches, like health justice, similarly recognize that social determinants of health drive disparities for lower-income, Black, Indigenous, and people of color ("BIPOC") and other populations experiencing greater health inequities.[33] In spite of the role law and policy have played in contributing to these inequities, law and policy changes, amongst other interventions, also have the potential to "position all citizens to capably function in each area of freedom" and realize greater justice within society.[34] Other scholars and advocates situate a "civil rights of health" initiative within the context of health justice, reinforcing the idea that public health can use the tools

29 *Id.*; *see also* ChangeLab Solutions, A Blueprint for Changemakers: Achieving Health Equity Through Law & Policy (2019), https://www.changelabsolutions.org/sites/default/files/2019-04/Blueprint-For-Changemakers_FINAL_201904.pdf.

30 *See* Ctrs. for Disease Control & Prevention, *supra* note 16; Ctrs. for Disease Control & Prevention, *Examples of How the Social Determinants of Health Can Be Addressed Through the 10 Essential Public Health Services*, CDC, https://www.cdc.gov/publichealthgateway/sdoh/Ten-Essential-Services-SDOH.html (last visited Feb. 28, 2023).

31 Samantha Bent Weber & Dawn Pepin, *Why Law is a Determinant of Health*, 50 Stetson L. Rev. 401, 408 (2021).

32 Samantha Bent Weber & Matthew Penn, *Public Health Strategies: A Pathway for Public Health Practice to Leverage Law in Advancing Equity*, 28 J. Pub. Health Mgmt. & Prac. (Supplement) S27, S31 (2022).

33 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, 335–36 (2015).

34 *Id.* at 336.

of law and policy to move upstream to address disparities and improve health outcomes, and calling for alliance between public health and civil rights advocates in recognition of the important role civil rights can play in health outcomes.[35]

In this view, public health law moves beyond the mere "application of professional legal skills in the development of health policy and the practice of public health."[36] Rather, public health law can provide a theoretical framework for integrating approaches that may more effectively address social problems at a systems or structural level, including extensive, long-term collaboration between professionals of various fields "to develop shared conceptual and methodological frameworks that not only integrate but also transcend their respective disciplinary perspectives."[37] Applying these principles has resulted in approaches such as Health in All Policies ("HiAP"), which emphasizes "health equity/sustainability, benefits for health and non-health sectors, intersectoral collaboration, a goal of creating structural or procedural change, and the need to engage community groups and stakeholders" often with "[h]ealth departments . . . tak[ing] the lead in developing HiAP activities and engaging other governmental agencies and external partnerships."[38]

In further development of the transdisciplinary nature of public health law practice, public health law practitioners have identified "5 Essential Public Health Law Services" to improve the practice of public health through "the design, implementation, monitoring, evaluation, and scale-up of legal measures" utilizing evidence-based solutions, interdisciplinary practice, community engagement, and continuing policy surveillance and analysis.[39] These five essential public health law services seek to implement the practice of using scientific evidence to address disparities through (1) targeting research at strategically relevant issues, (2) using scientific evidence to underpin the development of legal

35 Angela P. Harris & Aysha Pamukcu, *The Civil Rights of Health: A New Approach to Challenging Structural Inequality*, 67 UCLA L. Rev. 758, 806 (2020).

36 Scott Burris et al., *A Transdisciplinary Approach to Public Health Law: The Emerging Practice of Legal Epidemiology*, 37 Ann. Rev. Pub. Health 135, 138 (2015).

37 *Id.* at 141 (citing Daniel Stokols et al., *The Science of Team Science: Overview of the Field and Introduction to the Supplement*, 35 Am. J. Preventive Med. (Supplement) S77, S79 (2008)).

38 Dawn Pepin et al., *Collaborating for Health: Health in All Policies and the Law*, 45 J.L. Med. & Ethics (Supplement) 60, 60–61 (2017).

39 Scott Burris et al., *Better Health Faster: The 5 Essential Public Health Law Services*, 131 Pub. Health Reps. 747, 748 (2016) (some text pulled from Figure with capitalization removed).

solutions, (3) engaging the community to develop effective policies and support their enforcement, and (4) enforcing policies equitably and (5) pursuing ongoing surveillance to ensure desired improvements in health outcomes.[40]

3. Public Health Law in the Context of Misinformation

To move beyond a purely theoretical discussion, we consider how this modern public health law framework can be applied in the specific context of misinformation. As discussed above, exposure to misinformation can result in negative health outcomes, and addressing such negative outcomes naturally fits within public health's framework of protecting and promoting the health of all people and their communities. Additional elements of the modern public health law framework make it a useful tool to address misinformation through its focus on health equity and its recognition of law and policy as tools to achieve greater equity, especially through interdisciplinary collaboration.

a. Misinformation, Disparities in Health Outcomes, and Achieving Health Equity

Evidence and experience from the COVID-19 pandemic and beyond points to the presence of disparities in health outcomes due to misinformation exposure and less access to resources. Although too numerous to cover in full, we provide illustrations of the types of public health research conducted into disparities around misinformation.

For example, vaccine hesitancy among people of color and tribal communities may be informed by "centuries of egregious medical experimentation without informed consent, forced sterilization, the weaponization of disease, and other attacks."[41] Importantly, the long-perpetuated legacy of injustice, combined with ongoing systemic discrimination, have contributed to mistrust in government and in science and medicine, particularly when it comes to research.[42] Again, lack of trust in government or public health may make individuals less receptive to accurate information promulgated from these sources, and

40 *Id.* at 747.

41 Trust for America's Health et al., *Building Trust in and Access to a COVID-19 Vaccine Among People of Color and Tribal Nations* 4, TFAH (2020), https://www.tfah.org/wp-content/uploads/2020/12/VaccineConveningPolicyBriefFnl.pdf.

42 *Id.*

therefore more vulnerable to the negative impacts of misinformation.[43] This may explain why research has noted differences in responses to COVID-19 vaccine misinformation based on race.[44] BIPOC communities also often experience a lack of access to resources and information, leading to calls for public health messaging to be tailored to reach populations experiencing health inequities through culturally appropriate communication and to be translated where necessary.[45]

It is critical that individuals have access to health information, the ability to understand it, and the ability to interpret the information, as lack thereof contributes to disparities.[46] Applied to the context of misinformation and COVID-19, research has shown people may struggle to find—and differentiate between accurate and inaccurate—information about COVID-19 online, while another study has found that "COVID-19 misinformation exposure was associated with misinformation belief, and that misinformation belief was linked to fewer preventive behaviors."[47] Literacy, in particular, can highlight the compounding nature of some disparities. Literacy rates may differ along "[a] number of socio-demographic variables," contributing to worse health outcomes for populations with lower literacy rates.[48] Meanwhile, systemic discrimination based on sociodemographic differences that are linked with disparities in literacy rates, such as race and socioeconomic status, additionally drive health disparities.[49]

As discussed above, the CDC's ten essential public health services center on equity and recognize that law and policy are tools of systemic change, which can improve overall health by eliminating barriers that prevent individuals from having equal opportunity at a healthier life.[50] The equity focus of these essential public health services lends credence to the use of public health law as a framework in the context

43 *See* Swire-Thompson & Lazer, *supra* note 13, at 440–42.

44 Sahil Loomba et al., *Measuring the Impact of COVID-19 Vaccine Misinformation on Vaccination Intent in the UK and USA*, 5 Nature Hum. Behav. 337, 341–42 (2021).

45 Trust for America's Health et al., *supra* note 41, at 1, 9; Sara J. Willems et al., *The Magnification of Health Disparities During the COVID-19 Pandemic*, 10 J. Allergy & Clinical Immunology Pract. 903, 905 (2022).

46 *See* Salman Bin Naeem & Maged N. Kamel Boulos, *COVID-19 Misinformation Online and Health Literacy: A Brief Overview*, 18 Int'l J. Env't Res. & Pub. Health, no. 15, 2021, at 1, 3–4.

47 *Id.*

48 Diane Levin-Zamir & Isabella Bertschi, *Media Health Literacy, eHealth Literacy, and the Role of the Social Environment in Context*, 15 Int'l J. Env't Res. & Pub. Health, no. 8, 2018, at 1, 2–5.

49 *See, e.g.*, Trust for America's Health et al., *supra* note 41, at 4, 5.

50 Ctrs. for Disease Control & Prevention, *supra* note 16.

of misinformation. Health inequities amongst different populations are evident with respect to misinformation, which supports the use of a framework like public health law to address the issue because it prioritizes equity to correct and prevent these disparities. Furthermore, public health law incorporates scientific evidence into the law and policymaking process, including scientific evidence of disparities, which can aid decision-makers in tailoring appropriate solutions.

b. Public Health Law Use of Law and Policy to Address Social Determinants of Health

Misinformation may itself be considered a social determinant of health.[51] Law is a recognized determinant of health in its own right and can also be used as a tool to achieve public health goals of improved health equity and health outcomes, which prompts the use of public health law to address misinformation.[52] Therefore, under a modern framework of public health law, law and policy are tools for removing the systemic and structural barriers that have resulted in inequities caused by misinformation.

More broadly, public health law offers a promising lens with which to conceive of a systems approach to combatting misinformation in a way that could unite otherwise divided areas of law and other professions. As described above, conceptions of modern public health law emphasize the interdisciplinary or transdisciplinary nature of the practice.[53] For example, public health law can incorporate science not only into the evidence base of tailoring solutions but also into the research and evaluation of solutions through legal epidemiology to determine laws' effectiveness and encourage continued improvement.[54] Lastly, public health law as a framework allows the public to play the important role of facilitating "intersectoral collaboration" and involving community groups and stakeholders for the express goal of achieving

51 *See, e.g.*, Jessica Morley et al., *Public Health in the Information Age: Recognizing the Infosphere as a Social Determinant of Health*, 22 J. Med Internet Res., no. 8, 2020, at 1, 6 (referring to "the whole informational environment", including misinformation, as a social determinant of health).

52 *See* Bent Weber & Penn, *supra* note 32.

53 *See* Burris et al., *supra* note 39.

54 *See* Scott Burris et al., *The Growing Field of Legal Epidemiology*, 26 J. Pub. Health Mgmt. Pract. (Supplement) S4, S4 (2020) (Legal epidemiology "is the scientific study and deployment of law as a factor in the cause, distribution, and prevention of disease and injury in a population").

health equity in the context of misinformation.[55]

The rest of this Article moves from applying public health law as an abstract framework to the concept of misinformation broadly to the concrete application of public health law principles as one method to unify a variety of legal and policy strategies for combating misinformation.

II. Unifying Legal and Policy Approaches to Combating Misinformation Under Public Health Law

This Article examines existing law and policy recommendations using a public health law framework across three areas: (1) making accurate information available to the public and debunking misinformation, (2) holding accountable those who spread misinformation, and (3) examining and combating misinformation through interdisciplinary or cross-sector approaches. As appropriate, we first supply a selection of the scientific evidence base to support intervention and follow with an application of that evidence to the tailoring of law and policy solutions.

A. Making Accurate Information Available and Debunking Misinformation

Public health research has sought to identify how information spreads through individuals, communities, and social networks; how people react to accurate information, corrective information, or misinformation; and what factors may lead to greater individual susceptibility or resilience to misinformation. This evidence base can be used to help craft legal and policy solutions that make accurate information available and debunk misinformation.

An underlying, basic premise is that individuals react differently to misinformation. For example, when a person is exposed to health misinformation it may (1) decrease their belief in accurate public health information, (2) have no effect on their belief, or (3) reduce their belief in the misinformation itself.[56] An effective intervention under

55 *See* Pepin et al., *supra* note 38.

56 *See, e.g.*, Loomba et al., *supra* note 44, at 344 ("[E]xposure to misinformation lowers individuals' intent to vaccinate to protect themselves and lowers their altruistic intent to vaccinate to protect others[.]"); *see also* Santosh Vijaykumar et al., *How Shades of Trust and Age Affect Responses to COVID-19 (Mis)information: Randomized Survey Experiment Among WhatsApp Users in UK and Brazil*, 8 Humans. & Soc. Sci. Commc'ns, no. 2, 2021, at 1, 5–6, 9.

a public health law framework might, therefore, target law and policy solutions at people whose belief in accurate information would be reduced upon exposure to misinformation. Additional evidence could help further tailor solutions, such as evidence recognizing that belief in "misinformation in health contexts" may occur "(a) despite exposure to (scientifically) accurate data, (b) in the absence of accurate data or messages to the contrary, or/and (c) within historical or contextual legacies."[57]

Along those same lines, as initially described above, public health research has identified a variety of sociodemographic differences in how populations may receive and react to misinformation, including age, race, ethnicity, gender, level of education, socioeconomic status, employment status, political beliefs, and religious beliefs.[58] This leads to an important limitation on the application of science within a legal context, namely the limitation of designing or implementing laws and policies that draw lines based on certain classes that are protected under the Equal Protection Clause and the Due Process Clause of the United States Constitution—especially those that receive heightened levels of scrutiny, like race, ethnicity, national origin, or gender.[59] Even

57 Arunima Krishna & Teresa L. Thompson, *Misinformation About Health: A Review of Health Communication and Misinformation Scholarship*, 65 Am. Behav. Scientist, no. 2, 2019, at 1, 10–11 (citing Sei-Hill Kim et al., *Barriers to Clinical Trial Participation: Comparing Perceptions and Knowledge of African American and White South Carolinians*, 20 J. Health Commc'n. 816, 816 (2015)) ("Historical and contextual factors too contributed to the [anthrax] scare being magnified in the eyes of the American population, given that the anthrax attacks came immediately in the wake of the horrific events of 9/11, further stoking the population's fears. Historical and contextual factors may also contribute, albeit in part, to exacerbate misinformation and its spread" such as "widespread misperceptions and distrust arising from historical abuses of human subjects in biomedical research . . . particularly among minority populations.").

58 *See, e.g.*, Loomba et al., *supra* note 44; *see also* James N. Druckman et al., *The Role of Race, Religion, and Partisanship in Misperceptions About COVID-19*, 24 Grp. Processes & Intergroup Rels. 638, 648–51 (2021).

59 *See, e.g.*, Caroline Marschilok et al., *Equal Protection*, 18 Geo. J. Gender & L. 537, 541–45 (2017); *see also* Bolling v. Sharpe, 347 U.S. 497, 500 (1954) (holding that the concept of equal protection also applies against the federal government through the Due Process Clause of the Fifth Amendment). "Strict scrutiny," which a court will apply to a policy with a facial classification based on certain characteristics including race or national origin, requires that the policy is narrowly tailored to achieve a compelling government interest. "Intermediate scrutiny," which a court will apply to a policy with a facial classification based on certain characteristics including sex or gender, requires that the policy is substantially related to furthering an important government interest. Marschilok et al., *supra* note 59, at 541–42, 545.

those laws that are meant to confer benefits or remedy harms can be struck down when they distinguish based on protected classes.[60] For example, the United States Court of Appeals for the Sixth Circuit found racial and gender preferences under a pandemic relief program for small business invalid based on an application of strict scrutiny and intermediate scrutiny, respectively, under the Equal Protection Clause.[61] While some sociodemographic differences may be more complicated to recognize when seeking to address misinformation through the use of law and policy, there is still value in collecting information about and understanding population-level disparities.[62] Research will continue to develop, and answers may change over time, making it important to develop either flexible laws and policies or to provide for updating and improving laws based on what the research says.[63]

1. Grant of Funds to Specify Speech

A number of public health law approaches for combating misinformation may be taken within this context of how information spreads, how people react to it, and existing legal limitations. For example, when the government grants funds, it may be able to use its spending power to specify what speech the recipient of funding can make when using those funds if the regulation is "reasonable in light of the purpose of the government program."[64] In this context, public

60 *See, e.g.*, Sophie House, *Legal Frameworks for Addressing Racial Disparities in Housing*, Housing Solutions Lab (2022), https://localhousingsolutions.org/wp-content/uploads/2022/04/Legal-Frameworks-to-Address-Racial-Disparities_Final.pdf._

61 Vitolo v. Guzman, 999 F.3d 353, 365–66 (6th Cir. 2021).

62 *See* Equitable Data Working Group, *A Vision for Equitable Data* 1, 2, The White House (2022), https://www.whitehouse.gov/wp-content/uploads/2022/04/eo13985-vision-for-equitable-data.pdf. ("[D]ata that can be broken down and analyzed by race, ethnicity, gender, disability, income, veteran status, age, or other key demographic variables—is essential to this task. It offers more precise statistical indicators of population well-being, as well as insight into who can and cannot access government programs and whether benefits and services are reaching underserved and underrepresented communities.").

63 *See, e.g.*, *Memorandum on Restoring Trust in Government Through Scientific Integrity and Evidence-Based Policymaking*, The White House (2021), https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/27/memorandum-on-restoring-trust-in-government-through-scientific-integrity-and-evidence-based-policymaking/.

64 *See, e.g.*, Nicholas Bruno, Agency for International Development v. Alliance for Open Society International*: An Alternative Approach to Aid in Analyzing Free Speech Concerns Raised by Government Funding Requirements*, 93 Tex. L. Rev. 1569, 1579–86 (2015).

health agencies may grant funds to community members or other organizations to develop and promote specified public health messages in an effort to make accurate information more available or debunk misinformation. The Communities for Immunity initiative, an effort organized by multiple federal offices and community organizations, used this strategy by providing funding to museums, libraries, and cultural organizations throughout the United States, which could in turn make grants within their local communities to support efforts that would increase confidence in COVID-19 vaccines.[65] In one instance, local health officials and local arts organizations in Springfield, Massachusetts used their Communities for Immunity funding to form the Trust Transfer Project ("TTP").[66] Through the TTP, organizers sought to provide grants to local artists who would create messaging to highlight the importance of COVID-19 protection measures, like handwashing, mask wearing, and social distancing, while specifying that "messaging could not reflect public health misinformation and disinformation."[67]

2. Trust-Building Efforts

However, the TTP recognized there was greater underlying need to rebuild trust between public health and the community, as many individuals held fear and mistrust of the public health system due to "past historical projects and experiments."[68] Under the modern public health law framework, trust can play an important role, creating receptiveness toward public health authority and increasing individuals' belief in accurate COVID-19 related information.[69] Evidence supports the need to increase or rebuild trust in public health as surveys indicate confidence has fallen.[70] Evidence also provides potential solutions, with the Organization for Economic Cooperation and Development

65 *About*, Cmtys. for Immunity, https://community.astc.org/communitiesforimmunity/about (last visited Jan. 14, 2024).

66 Vida Mikalcius, *Transferring Trust: An Art-Based Public Health Campaign Reveals the Key to Community Resilience*, Am. All. of Museums (July 8, 2022), https://www.aam-us.org/2022/07/08/transferring-trust-an-art-based-public-health-campaign-reveals-the-key-to-community-resilience/.

67 *Id.*

68 *Id.*

69 Jon Agley & Yunyu Xiao, *Misinformation About COVID-19: Evidence for Differential Latent Profiles and a Strong Association with Trust in Science*, 21 BMC Pub. Health, art. no. 89, at 1, 5–8 (2021); *see also* Swire-Thompson & Lazer, *supra* note 13, at 440, 442.

70 *See* Brian Kennedy et al., *Americans' Trust in Scientists, Other Groups Declines*, Pew Rsch. Ctr. (Feb. 15, 2022), https://www.pewresearch.org/science/2022/02/15/americans-trust-in-scientists-other-groups-declines/.

("OECD") "identif[ying] five main determinants of people's trust in government: [(1)] responsiveness and [(2)] reliability in delivering public services and anticipating new needs . . . and institutions' perceived [(3)] integrity, [(4)] openness and [(5)] fairness."[71] Finally, to advance public health's mission of health for all, public health law can center equity in trust-building efforts, as trust may vary between different populations.[72] This may include community engagement to develop or improve partnerships between the community and health departments, build or rebuild community trust in public health and science, and enhance connection within the community itself, often by working with existing, trusted community leaders in these efforts.[73] Such strategies were also used by TTP, which partnered with local businesses and organizations as well as individuals.[74] TTP involved community members by partnering with "bodegas, grocery stores, barbershops, and salons to mosques, churches, senior centers, and banks," which were then paired with local artists.[75] The artists were then able to create works that resonated with the community, and which community members requested to have displayed, such as *Turtle Island Daughter* by Gabriela Sepulveda, which depicted masking and was popular with Latinx and Native American communities, as well as *We Will Hold Hands Again* by Mari Chavez, which depicted social distancing practices and was popular with local churches.

Overall, the example of TTP embodies the use of a public health law framework in combating misinformation by incorporating science and equity into legal solutions, applying both traditional and modern uses of law and policy, and facilitating interdisciplinary collaboration to support better program design and outcomes.

B. Holding Those Accountable Who Spread Misinformation

Another common set of law and policy recommendations for

71 Monica Brezzi et al., *An Updated OECD Framework on Drivers of Trust in Public Institutions to Meet Current and Future Challenges* 10, Org. for Econ. Co-operation & Dev. (2021), https://www.oecd-ilibrary.org/docserver/b6c5478c-en.pdf.

72 *See id.* at 23 ("Demographic and socio-economic factors such as gender, age income and education are important in capturing differences in public trust in government and often combine with other factors such as perception of the government's competence and values."); *see also* Trust for America's Health et al., *supra* note 41.

73 *What is Health Equity*?, CDC, https://www.cdc.gov/healthequity/whatis/index.html (last visited July 1, 2022).

74 Mikalcius, *supra* note 66.

75 *Id.*

combating misinformation seeks to hold those accountable who spread misinformation. We examine how a public health law lens may be applied to these efforts, such as professional licensing and regulation of health care providers and liability for social media companies, as well as alternatives suggested by the public health law framework, such as more proactive collaboration with health care providers and exercising caution before using punitive approaches.

1. Professional Licensing and Regulation of Physicians and Other Health Care Providers

There has been documented concern about health care providers spreading misinformation during the COVID-19 pandemic—particularly "[p]hysicians who make false claims about COVID-19 vaccines and mitigation measures[,] often couch[ing] them in technical language that sounds convincing to nonscientists."[76] This leads to calls for disciplinary action by state licensing boards, under the theory that professional consequences will help stop or reduce health care providers' spread of misinformation.[77] In further evidence for the benefit of adopting such a solution, research has identified a small number of individuals, three of whom are physicians, who were responsible for spreading 65% of anti-vaccine content on Facebook and X (formerly Twitter).[78]

However, using a public health law lens to further examine the potential health outcomes of such interventions may provide less support for the use of disciplinary action, or at least a reduced focus when compared to other law and policy strategies. For example, California recently enacted a law stating that "[i]t shall constitute unprofessional conduct for a physician and surgeon to disseminate misinformation or disinformation related to COVID-19."[79] If a California physician disseminates such misinformation, the physician could be subject to enforcement by a licensing board, including investigation

76 *See, e.g.*, Rita Rubin, *When Physicians Spread Unscientific Information About COVID-19*, 327 JAMA 904, 905 (2022).

77 *Id.*

78 *The Disinformation Dozen: Why Platforms Must Act on Twelve Leading Online Anti-Vaxxers* 12–39, Ctr. for Countering Digital Hate (2021), https://counterhate.com/wp-content/uploads/2022/05/210324-The-Disinformation-Dozen.pdf (information that the three identified individuals are physicians appears in the appendix profiling each individual); *Disinformation Dozen: The Sequel* 10–21, Ctr. for Countering Digital Hate (2021), https://counterhate.com/wp-content/uploads/2022/05/Disinformation-Dozen-The-Sequel.pdf.

79 Cal. Bus. & Prof. Code § 2270(a) (West 2023).

and potential suspension or revocation of licensure or probationary terms of practice.[80] Shortly after its enactment, the California law was challenged as unconstitutionally vague under the Due Process Clause of the Fourteenth Amendment and enforcement of its provisions has been preliminarily enjoined pending further proceedings.[81] By contrast, many states have considered laws that would instead shield "licensed professionals who spread disinformation or push claims about COVID-19 that are contrary to established science."[82]

Even if an appropriate intervention limiting physician speech could be drafted such that it would survive legal challenge for vagueness, attempts to navigate the protections of the First Amendment may prove difficult and ineffective.[83] Further still, professional consequences do not necessarily remove a physician's social platform—for example, they may continue to post on social media and they may choose to move into non-medical practice, both of which would allow them to continue spreading misinformation.[84] In fact, some researchers conclude that "[s]ince the start of the pandemic, national legislation meant to discourage the creation and spread of misinformation also served to create the conditions under which it is more likely . . . to flourish by undermining legitimate journalism and eroding trust in institutions of authority."[85] A public health law framework would suggest avoiding the negative health impacts of these outcomes.

While punitive actions against individual physicians are one

80 *See id.* §§ 2220, 2221(a).

81 Høeg v. Newsom, 652 F. Supp. 3d 1172, 1191 (E.D. Cal. 2023).

82 *COVID-19 Dis-/Misinformation and State Legislature Attacks on Medical Boards Undermine Public Health: PHR*, Physicians for Hum. Rts. (Mar. 1, 2022), https://phr.org/news/covid-19-dis-misinformation-and-state-legislature-attacks-on-medical-boards-undermine-public-health-phr/.

83 *See, e.g.*, Carl H. Coleman, *Physicians Who Disseminate Medical Misinformation: Testing the Constitutional Limits on Professional Disciplinary Action*, 20 First Amend. L. Rev. 113, 144 (2022) ("The foregoing analysis suggests that disciplinary actions are unlikely to play a major role in responding to physicians who disseminate medical misinformation . . . the limited availability of disciplinary actions means that physicians who disseminate medical information may face no legal repercussions.").

84 *See, e.g.*, Barbara Feder Ostrov, *Conspiracy Theory Doctor Surrenders Medical License*, CalMatters (Feb. 5, 2021), https://calmatters.org/health/2021/02/conspiracy-theory-doctor-surrenders-medical-license/ ("A San Francisco doctor infamous for spreading misinformation . . . can no longer practice medicine after surrendering his license to California's medical board. . . . Cowan wrote on his website that he closed his practice . . . with plans to reemerge as an 'unlicensed health coach.'").

85 Roxana Radu, *Fighting the 'Infodemic': Legal Responses to COVID-19 Disinformation*, 6 Soc. Media & Soc'y, July-Sept. 2020, at 1, 3.

possible tool to combat misinformation, public health law provides additional tools in this context. Public health officials may create policies that prioritize debunking misinformation that is spread by health care professionals rather than punishing those who spread it.[86] Taking a positive approach, the public health law lens would encourage proactive, interdisciplinary collaboration between public health officials and health care providers.[87] Health care providers often have public trust, as well as clinical knowledge, making them good sources of accurate information and well positioned to debunk misinformation.[88] This could be achieved through laws and policies that encourage the provision of social media and communications training for providers, such as through continuing professional education to maintain licensure, as well as broader frameworks that support ongoing collaboration between public health officials and health care providers.[89]

2. Social Media Regulation

Moving upstream from the regulation and liability of individuals within a profession, a public health law framework examines structural determinants that facilitate the spread of misinformation and the use of law and policy tools to address those determinants. Attention to social media in the context of misinformation, particularly during the COVID-19 pandemic, provides ample material for discussion.

Once again, a public health law framework begins with examining the scientific evidence to support the need for, and design of, intervention. For example, some research has identified that "top-down misinformation on social media accounted for 69% of total social media engagements in [the] sample . . . driven in part by very high levels of engagement with misinformation posted or spread by high-level elected officials, celebrities, and other prominent public figures."[90] This

86 *See, e.g.*, *Search: Physicians*, Pub. Health Commc'ns Collaborative, https://publichealthcollaborative.org/?s=physician (last visited Apr. 5, 2023) (flagging misinformation spread by physicians).

87 *See* Shari Bornstein et al., *Improving Collaboration Between Public Health and Medicine: A Timely Survey of Clinician Public Health Knowledge, Training, and Engagement*, 5 Mayo Clin. Proc.: Innovation Quality Outcomes, no. 1, 2021, at 11.

88 John Robert Bautista et al., *US Physicians' and Nurses' Motivations, Barriers, and Recommendations for Correcting Health Misinformation on Social Media: Qualitative Interview Study*, 7 JMIR Pub. Health & Surveillance, no. 9, art. e27715, 2021, at 1, 2 (exploring physicians and nurses in the context of social media use).

89 *See id.*; *see also* Bornstein et al., *supra* note 87.

90 J. Scott Brennen et al., *Types, Sources, and Claims of COVID-19 Misinformation* 5,

mirrors findings, discussed above, that a small number of individuals are responsible for wide spread of vaccine misinformation.[91] However, as already addressed in the context of licensed health care providers in Section II.B.1, while punitive approaches that seek to hold individuals accountable are one possible tool, they are potentially less effective given their challenges and drawbacks.

Instead, some approaches explore liability for social media companies for their role in allowing misinformation to spread unchecked, or even recommending or promoting misinformation as content. However, social media companies are protected under § 230 of the Communications Decency Act, a federal statute that provides companies with immunity from civil liability for information their users generate.[92] This protection can complicate attempts to use law as a tool to regulate misinformation on social media platforms. While cases raising issues around § 230 recently reached the Supreme Court, the Court decided them on other grounds, leaving open the question of whether social media companies may be held liable as it relates to misinformation under the existing law.[93]

A few appellate courts have reached differing conclusions on a state's ability to prohibit social media companies from regulating or censoring content on their platforms, including misinformation.[94] In a potential circuit split, the United States Court of Appeals for the Eleventh Circuit held that Florida's attempts to prohibit social media companies from engaging in content moderation "unconstitutionally burden" these companies' First Amendment rights as private actors to control the content on their platforms,[95] while the United States Court of Appeals for the Fifth Circuit, attempting to distinguish the Florida law, held that similar prohibitions on content moderation in Texas were permissible and did not "compel[] nor obstruct[] the [p]latforms' own speech in any way."[96] One suggested solution to the legal barriers posed by § 230 is

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Reuters Inst. (April 2020), https://reutersinstitute.politics.ox.ac.uk/sites/default/files/2020-04/Brennen%20-%20COVID%2019%20Misinformation%20FINAL%20%283%29.pdf.

91 *See* sources cited *supra* note 78.

92 *See* 47 U.S.C. § 230.

93 Gonzalez v. Google LLC, 598 U.S. 617, 622 (2023) (referencing companion case Twitter, Inc. v. Taamneh, 598 U.S. 471 (2023)).

94 NetChoice, LLC v. Att'y Gen., Fla., 34 F.4th 1196, 1203 (11th Cir. 2022); NetChoice, LLC v. Paxton, 49 F.4th 439, 445 (5th Cir. 2022), *cert. granted in part*, 216 L. Ed. 2d 1313 (2023).

95 NetChoice v. Att'y Gen., Fla., 34 F.4th at 1203.

96 NetChoice, LLC v. Paxton, 49 F.4th at 494.

to narrowly amend the Act's protection in a way that will hold companies liable if they promote "health misinformation through an algorithm" in "a period during which a public health emergency" has been declared.[97] While social media regulations to combat misinformation will continue to be worth exploring, a public health law framework would also urge caution and encourage additional research, considering the lack of scientific evidence base around the effectiveness of such interventions.

Given the legal complexity and the potential for government regulation to create circumstances that will facilitate the spread of misinformation, a public health law framework might suggest alternative solutions for improving population health outcomes by changing the structures within which misinformation spreads.[98] These efforts might include "[e]nhancing access to and inquiry into social media platforms' practices" and "building and rebuilding trust in the institutions people count on to support informed public discourse and debate"—namely, by allowing researchers to better access data so that the spread of misinformation on social media platforms can be analyzed and by requiring social media companies to be transparent about their policies around content and misinformation control.[99] For example, regulators might enact laws and policies to protect researchers and journalists who access and use social media data in the public interest, require social media companies to provide specified data to public interest researchers, or require social media companies to give the public more transparent "information about their content moderation policies and practices," all while pursuing equitable solutions that recognize "historical and current imbalances of power" and lift up "community-led solutions to forging social bonds."[100]

Other recommendations for systemic changes in social media environments in which misinformation spreads include (1) solutions that "increase competition and alter the power dynamics between platforms and their users" through either data portability or "comprehensive federal privacy legislation, which would establish stronger consumer

97 S. 2448, 117th Cong. § 3(a) (2021); *see also* Michael L. Rustad & Thomas H. Koenig, *Creating a Public Health Disinformation Exception to CDA Section 230*, 71 Syracuse L. Rev. 1251, 1253 (2021) (proposing a "notice-and-takedown reform . . . enabl[ing] government regulators and direct victims who relied upon dangerously false online public health information to order websites to disable the harmful content.").

98 *See supra* Section II.B.1.

99 Aspen Digital, Commission on Information Disorder: Final Report 13, 28 (2021), https://www.aspeninstitute.org/wp-content/uploads/2021/11/Aspen-Institute_Commission-on-Information-Disorder_Final-Report.pdf.

100 *Id.* at 28–29.

protections, lessen pervasive data collection, and limit its uses," and (2) amending antitrust and competition laws to decrease online platforms' power.[101] While regulation of speech and platforms may run the risk of chilling speech, some researchers argue that over the past twenty years technology and media companies have failed to ensure their tools and platforms are trustworthy and legislators have rarely acted to hold companies accountable, necessitating additional regulation.[102]

3. Enforcement Through Tort Liability

Many types of law may be used for enforcement against the spread of misinformation. While it is beyond the scope of this Article to examine all possible options, we look at how a public health law framework informs the application of torts like fraud laws, generally requiring "a false assertion . . . with intent to deceive" and "[r]esulting damage," as well as other civil liability and enforcement actions.[103]

While the First Amendment generally "does not permit governmental control over the content of messages expressed by private individuals," some types of speech that "present[] true harm or the potential of harm from the statements" are exempted from these protections, including fraud.[104] In addition to direct application of fraud laws to hold individuals accountable, fraud may also inform the application of other laws, such as a licensing regulation to "rescind the licenses of physicians 'who purvey views based on anecdote, myth, hearsay, rumor, ideology, fraud, or some combination of all of these, particularly during an epidemic.'"[105] However, under a straight application of fraud laws, much misinformation falls within a "gap in the law" because "fraud law developed to focus almost exclusively on personal deceptions while almost entirely ignoring impersonal deceptions like deceptions on the

101 David Ardia et al., *Addressing the Decline of Local News, Rise of Platforms, and Spread of Mis- and Disinformation Online: A Summary of Current Research and Policy Proposals*, Ctr. for Info., Tech., & Pub. Life (2020), https://citap.unc.edu/news/local-news-platforms-mis-disinformation/.

102 Johanna Gunawan et al., *The COVID-19 Pandemic and the Technology Trust Gap*, 51 Seton Hall L. Rev. 1505 (2020).

103 Wes Henricksen, *Fraud Law and Misinfodemics*, 2021 Utah L. Rev. 1229, 1244 (2021).

104 Rustad & Koenig, *supra* note 97, at 1297–98.

105 Carl H. Coleman, *Physicians Who Disseminate Medical Misinformation: Testing the Constitutional Limits on Professional Disciplinary Action*, 20 First Amend. L. Rev. 113, 124 (2022) (citing Arthur L. Caplin, Opinion, *Revoke the License of Any Doctor Who Opposes Vaccination*, Wash. Post (Feb. 6, 2015), https://www.washingtonpost.com/opinions/revokethe-license-of-any-doctor-who-opposes-vaccination/2015/02/06/11a05e50-ad7f-11e4-9c91-e9d2f9fde644_story.html).

public," meaning when individuals are harmed by misinformation, they generally have no remedy under tort law.[106]

Even where fraud, tort, or other laws resulting in liability may be applicable, the threat of liability and the pursuit of tort claims can have negative consequences that inadvertently facilitate the spread of misinformation. Examples of the way tort claims and liability help contribute to the spread of misinformation, each addressed further below, include overbroad protections for social media companies disincentivizing their regulation of misinformation, a chilling effect on journalistic efforts to combat misinformation, and the potential for the trial process to result in the misapplication of science in the adjudication of tort claims. As introduced above, § 230 of the Communications Decency Act provides immunity for social media companies for information their users post on their platforms.[107] However, in the face of wide-ranging possible tort liability, detractors argue that "[f]ederal courts have overextended CDA Section 230's liability shield to encompass any secondary liability for all torts, so long as the website is not the content-creator that originates with third parties," resulting in difficulty regulating social media platforms to halt the spread of misinformation.[108] Conversely, while insulation from liability under § 230 fails to provide incentive for social media companies to act against misinformation, threats of liability against journalists have resulted in the press being "paralyzed in its ability to respond effectively [to aspersions of 'fake news']" due to "reduced or at least increasingly unstable protections for its journalistic work," resulting in "opportunities for corruption, unchecked authoritarianism, and a profoundly diminished version of democracy."[109] Lastly, as enforcement of laws reaches the judiciary, courts may misunderstand or misapply science, resulting in opinions that embody misinformation, such as judges' use of "very narrow interpretations of *Daubert* to exclude peer-reviewed, accepted methodology in toxic tort cases."[110] As above, a public health law framework may suggest avoiding the negative health effects of these outcomes by utilizing other approaches to change the systems

106 *See* Henricksen, *supra* note 103, at 1229 (defining "misinfodemic" as "events where misinformation facilitates the spread of a disease or causes some other health-related outcome").

107 47 U.S.C. § 230.

108 *See* Rustad & Koenig, *supra* note 97, at 1294–95.

109 Lili Levi, *Real "Fake News" and Fake "Fake News"*, 16 First Amend. L. Rev. 232, 267 (2017).

110 Brie D. Sherwin, *Anatomy of a Conspiracy Theory: Law, Politics, and Science Denialism in the Era of COVID-19*, 8 Tex. A&M L. Rev. 537, 576 (2021).

and structures under which misinformation spreads.

4. Equitable Enforcement

Regardless of the specific strategy, public health law's centering of equity should also be applied to the enforcement of laws, which can provide a way to mitigate any negative impacts of necessary enforcement actions. Inequitably enforced laws have the potential to "create, maintain, or exacerbate existing health inequities."[111] This lens has been applied to pandemic-responsive public health laws as well, noting that "[o]verreliance on the traditional criminal enforcement" of policies and "[o]verpolicing, particularly in communities where residents are disproportionately people of color" may result in undermining trust in government and public health and worsening health outcomes.[112] However, public health institutions and professionals have the opportunity to build trust during the policymaking process through community engagement and participatory governance by explaining why certain laws or policies may be proposed within a community, and sharing decision-making with community members when it comes to implementation and enforcement.[113] Given that lack of trust factors into both the initial spread of misinformation and public health's ability to combat that spread, the lens of equitable enforcement should be applied to all legal efforts, especially those that include punitive measures, when seeking to address misinformation while improving health outcomes.

C. Interdisciplinary and Cross-Sector Approaches to Combating Misinformation

A third category of law and policy solutions especially well suited to the public health law framework is the use of interdisciplinary and cross-sector partnerships to combat misinformation. This final section uses a public health law framework to examine law and policy recommendations for combating misinformation in the context of (1) education, (2) journalism, and (3) social media.

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111 *Equitable Enforcement to Achieve Health Equity: An Introductory Guide for Policymakers and Practitioners* 4, ChangeLab Solutions (2020), https://www.changelabsolutions.org/product/equitable-enforcement-achieve-health-equity.

112 Maya Hazarika Watts et al., *Equitable Enforcement of Pandemic-Related Public Health Laws: Strategies for Achieving Racial and Health Justice*, 111 Am. J. Pub. Health 395, 395 (2021).

113 *Id.* at 397.

1. Education

Education has one of the strongest evidence-based foundations connecting it to health outcomes, including the influence of education on other opportunities that affect health like employment, insurance coverage, and income.[114] School closures as a control measure during the COVID-19 pandemic renewed discussion of education as a social determinant of health, including how to balance the importance of education with disease control measures. Other education-related outcomes directly implicate policies that seek to address misinformation. For example, as discussed above, lower rates of health literacy specifically have been associated with worse health outcomes related to misinformation, and disparities in literacy rates among different communities lead to inequitable health outcomes for those populations.[115] Conversely, integrating health literacy into the education system, especially for children, can be an important way to improve health literacy and associated health outcomes.[116]

As such, public health law may seek to embed health education within education curricula as one way to improve health literacy and improve health outcomes as they relate to misinformation exposure and resiliency. In states and on issues where localities have the discretion to set their own education curricula, public health may be able to work directly in an interdisciplinary manner with education officials.[117] To further effectuate these solutions through legal means, governments may also create new education laws providing for health education and critical thinking that can combat misinformation. For example, New Jersey passed a first-of-its-kind law requiring the inclusion of "information literacy" in its Student Learning Standards.[118] However, states may also prohibit certain types of curricula, such as recent legislation restricting

114 The Lancet Public Health, *Education: A Neglected Social Determinant of Health*, 5 Lancet Pub. Health, no. 7, art. e361, 2020; Katherine Keisler-Starkey & Lisa N. Bunch, *Health Insurance Coverage in the United States: 2021* 31–32, U.S. Census Bureau (2022), https://www.census.gov/content/dam/Census/library/publications/2023/demo/p60-281.pdf.

115 *See* Bin Naeem & Boulos, *supra* note 46, at 3–4; *see also* Levin-Zamir & Bertschi, *supra* note 48.

116 M. Elaine Auld et al., *Health Literacy and Health Education in Schools: Collaboration for Action* 8–9, Nat'l Acad. Med. (2020), https://nam.edu/wp-content/uploads/2020/07/Health-Literacy-and-Health-Education-in-Schools.pdf.

117 Rachelle Johnsson Chiang, *Local Health Department and School Partnerships*, Nat'l Ass'n of Chronic Disease Dirs. (2017), https://chronicdisease.org/resource/resmgr/school_health/nacdd_health_department_and_.pdf.

118 N.J. Stat. Ann. § 18A:7F-4.4(b) (West 2023).

the teaching of critical race theory or instruction on LGBTQ+ issues.[119] As discussed above, efforts by governments to restrict speech may instead facilitate conditions under which misinformation will spread.[120]

Some recommendations encourage further interdisciplinary and cross-sector collaborations between "[g]overnments, public health organisations, international organisations, civil society, media organisations and tech companies" to "work[] together to improve people's media, digital and health literacy skills."[121] Where limited in collaborations with schools, whether by state prohibitions or preemption of local authority, public health may still seek other education partners, and libraries have been particularly important. For example, in the context of the COVID-19 pandemic, federal agencies funded "healthcare providers, librarians, and community organizers" to "educate and reduce misinformation within [the Latinx] community."[122] In San Diego County, "a consortium of public and academic libraries[] aim[ed] to develop health information literacy and health misinformation resilience" with the consortium, ultimately receiving federal funding to continue to their efforts.[123]

2. Journalism

The pandemic has highlighted the importance of local media as a potential source of accurate information within communities. However, the negative economic effects of the pandemic have generally

119 *See* Paton Moody, *Don't Say Gay (or Race) Bills*, CRT Forward Tracking Project (2022), https://crtforward.law.ucla.edu/dont-say-gay-or-race-bills/.

120 Radu, *supra* note 85.

121 Org. for Econ. Co-operation & Dev., *Combatting COVID-19 Disinformation on Online Platforms* 5, OECD (2020), https://read.oecd-ilibrary.org/view/?ref=135_135214-mpe7q0bj4d&title=Combatting-COVID-19-disinformation-on-online-platforms.

122 *Use of Podcasts to Reduce Misinformation in the Time of COVID-19: A Collaboration of Librarians, Healthcare Providers, and Community Organizations*, Nat'l Libr. of Med. (2022), https://www.nnlm.gov/training/class/use-podcasts-reduce-misinformation-time-covid-19-collaboration-librarians-healthcare (including reference to the All of Us project); *see also Who We Are*, Nat'l Insts. of Health, https://allofus.nih.gov/ (last visited July 16, 2022) (describing All of Us as "supported and overseen by the National Institutes of Health").

123 Jeffery Loo et al., *Building Resilience to Health Misinformation in Local Communities: A Public and Academic Libraries Partnership in San Diego County*, Coal. for Networked Info. (2022), https://www.cni.org/topics/teaching-learning/building-resilience-to-health-misinformation-in-local-communities; April Green, *San Diego Circuit Libraries Receive Funding for Campaign Against Health Misinformation*, UC San Diego Today (Nov. 1, 2022), https://today.ucsd.edu/story/san-diego-circuit-libraries-receive-funding-for-campaign-against-health-misinformation.

resulted in the continued decline and disappearance of local media. For example, researchers have documented the decline of "[m]ore than one-fourth of the country's newspapers," creating "vast news deserts."[124] In the context of misinformation, "200 counties do not have a local newspaper, nearly 50% of counties only have one newspaper, . . . and more than 6% of counties have no dedicated news coverage" which leaves those communities "vulnerable to mis- and disinformation and exacerbat[es] political polarization."[125]

As discussed above, differences in access to information, and in ability to interpret that information, result in misinformation-related health disparities.[126] Public health law, then, suggests interventions to improve health equity. Within the context of existing structures, some researchers suggest that improving the quality of health journalism to "help[] readers and viewers better understand how to decide what is trustworthy information could improve health literacy, and thereby therapeutically impact health outcomes."[127] This could be achieved through a variety of interdisciplinary policy collaborations, such as through improved "academic programs that offer degrees, to ongoing professional education for working journalists, to organizations that connect researchers to reporters and editors."[128] In addition, public health and other experts may use media as a tool to platform their messaging for a wider audience, as described by Rachel M. Werner, Executive Director of the Leonard David Institute of Health Economics ("LDI") at the University of Pennsylvania:

> We've witnessed a disturbing rise in anti-science sentiment and behaviors driven by willful misinformation during the pandemic. . . . It's gratifying to see so many LDI Fellows stepping up to meet this challenge. Using the popular media as a platform to disseminate our Fellows' expertise is a vital part of the political process and the development of rational health policy.[129]

124 Ardia et al., *supra* note 101.

125 *Id.*

126 Bin Naeem & Boulos, *supra* note 46, at 3–4; *see also* Trust for America's Health et al., *supra* note 41.

127 Ivan Oransky, *Will Improvements in Health Journalism Improve Health Literacy*, 40 Info. Servs. & Use 27, 36 (2020).

128 *Id.* at 33.

129 Hoag Levins, *More Penn Scientists Make Op-Eds a Health Policy Advocacy Tool*, Penn LDI (Oct. 26, 2021), https://ldi.upenn.edu/our-work/research-updates/more-penn-scientists-make-op-eds-a-health-policy-advocacy-tool/.

> However, researchers have also identified that "mainstream sources" of traditional media, such as "high-credibility news outlets," "scientific websites," and "other widely credible sites . . . . had a higher impact on the spread of conspiracy theories."[130] Information about conspiracy theories spread more widely from these sources because "users usually read and share sources they trust, and mainstream sources have a higher reach and acceptance in society."[131] Given that journalism and media can play a negative role, it may be warranted to apply the same principles discussed in Section II.B.2, as originally applied to social media, to explore how law and policy could be used in this context to improve structural determinants of health around misinformation-related health impacts. Like other forms of speech, press may be complicated to regulate through law due to First Amendment protections.[132] However, some regulation may be permissible, for example, government regulation could "[o]ffer[] the press better legal protection to engage in newsgathering and resist censorship . . . [to] rebuild[] the public's trust in the 'real' news" such as by "enhancing FOIA and state sunshine laws."[133]

3. Social Media

While above we considered more punitive, regulatory approaches or liability for social media companies, it is worth addressing separately the potential for social media use in preventive or collaborative strategic approaches through an interdisciplinary and cross-sector lens.

Evidence has shown that "[t]he internet in general and social media in particular have become important sources of information for many people seeking medical and health-related information," suggesting social media is one avenue for public health messaging efforts that seek to provide accurate information and debunk misinformation.[134]

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130 Orestis Papakyriakopoulos et al., *The Spread of COVID-19 Conspiracy Theories on Social Media and the Effect of Content Moderation*, Harv. Kennedy Sch. Misinformation Rev. (2020), https://misinforeview.hks.harvard.edu/article/the-spread-of-covid-19-conspiracy-theories-on-social-media-and-the-effect-of-content-moderation/.

131 *Id.* at 4–5. (internal citations omitted).

132 RonNell Andersen Jones & Sonja R. West, *The Fragility of the Free American Press*, 112 Nw. U. L. Rev. Online 47, 53 (2017).

133 Levi, *supra* note 109, at 319.

134 *See*, Mehdi Mourali & Carly Drake, *The Challenge of Debunking Health Misinformation in Dynamic Social Media Conversations: Online Randomized Study of Public Masking During COVID-19*, 24 J. Med. Internet Rsch., no. 3, art. e34831, 2022; *see also* Rupali Jayant Limaye et al., *Building Trust While Influencing Online COVID-19 Content in the*

While broad social media and communications policies may allow public health to engage in messaging campaigns on social media, public health entities could benefit from establishing policies at the institutional level that expressly address messaging efforts to combat misinformation.[135] This also implicates an analysis of governmental structure, as public health entities may be covered by broader governmental policies and yet retain authority to craft their own more-specific policies with respect to misinformation.[136]

In addition to social media platforms serving as a tool, social media companies can be active partners and collaborators in an interdisciplinary, cross-sector approach, such as "boost[ing] efforts by public health authorities by, for example, upranking links to recommendations from recognised health authorities."[137] Social media companies may similarly work with government, public health entities, and third-party fact checkers "to debunk false rumours about COVID-19, label that content as false and notify people trying to share such content that it has been verified as false" and "[o]ffer[] free advertising to authorities."[138] In fact, social media companies may employ a variety of similar strategies, such as overlaying factual content on misinformation; restricting, limiting, or banning users that repeatedly spread misinformation; altering algorithms to prevent the promotion or distribution of misinformation; allowing users to aid in content moderation; and providing data to researchers that will help public health better understand the spread of misinformation and craft appropriate legal and policy solutions.[139]

Social Media World, 2 Lancet Digital Health e277, e278 (2020).

135 *See, e.g.*, *Social Media Guidelines*, City of Austin (2011), https://www.austintexas.gov/edims/document.cfm?id=193484 (example of a more detailed social media policy, expressly permitting independent public health social media accounts and community engagement); *see also DSHS Public Social Media Policy*, Tex. Dep't of State Health Servs., https://www.dshs.texas.gov/socialmedia-policy.aspx (last visited Mar. 14, 2023) (example of a broader policy, which on its face does not appear to prohibit public health from using social media for engagement).

136 For instance, the City of Austin's Social Media Guidelines may apply to Austin Public Health as part of the city government, yet Austin Public Health has engaged in strategic planning which, in part, addresses its "ability to engage and communicate with the community before, during, and after a disaster or emergency in ways that effectively connect people with accurate information." *See, e.g.*, *2020-2025 Strategic Plan: Goals & KPIs*, Austin Pub. Health (2019), https://austintexas.app.box.com/s/rmte9nvldnq9svejln87uwbs5f4ssrlu; *see also* Social Media Guidelines, *supra* note 135.

137 *See* Jayant Limaye et al., *supra* note 134.

138 Org. for Econ. Co-operation & Dev., *supra* note 121, at 4.

139 *See* Erin Simpson & Adam Conner, *Fighting Coronavirus Misinformation and*

Under the potential circuit split described in Section II.B.2, where content moderation has potentially not been prohibited by state law, social media companies as private actors may be able to adopt many of these strategies through voluntary, internal policy changes under the existing legal framework of social media regulation.[140] However, policies for affirmative use of social media platforms or collaboration with social media companies can be enshrined in law, like those that would protect researchers and increase availability of social media data to bolster the use of evidence-based decision-making under a public health law framework.[141]

Conclusion

Utilizing public health law as a framework for addressing misinformation shows promise for its centering of equity, its incorporation of evidence-based science, and its potential to unite otherwise disparate types of law and theories as well as various sectors and professions. While the instant Article focuses on health misinformation in the context of the COVID-19 pandemic, the same principles could likely be applied, and further refined, by examining them in the context of other types of misinformation, such as misinformation about reproductive health and LGBTQ+ communities.

Disinformation, Ctr. for Am. Progress (2020), https://www.americanprogress.org/article/fighting-coronavirus-misinformation-disinformation/ (on overlaying factual content, regulating user accounts, and changes to algorithms); *see also* Leticia Bode, *User Correction as a Tool in the Battle Against Social Media Misinformation*, 4 Geo. L. Tech. Rev. 367 (2020) (on user involvement in content moderation); Dep't of Homeland Sec., Public-Private Analytic Exchange Program, Combatting Targeted Disinformation Campaigns (2019), https://purl.fdlp.gov/GPO/gpo150650 (on sharing data with researchers).

140 *See* NetChoice, LLC v. Att'y Gen., Fla., 34 F.4th 1196 (11th Cir. 2022); NetChoice, LLC v. Paxton, 49 F.4th 439 (5th Cir. 2022), *cert. granted in part*, 216 L. Ed. 2d 1313 (2023).

141 *See* Aspen Digital, *supra* note 99, at 11, 32–33, 67.