Annals of Health Law

Volume 22
Issue 2 *Special Edition 2013*

Article 4

2013

Complementarity in Public Health Systems: Using Redundancy as a Tool of Public Health Governance

Lance Gable

Benjamin Mason Meier

Complementarity in Public Health Systems: Using Redundancy as a Tool of Public Health Governance

Lance Gable* & Benjamin Mason Meier**

I. INTRODUCTION

Modern notions of public health law embody an astounding complexity. Layers of authority arise from the accretion of legislative, regulatory, and common law developments over many years and across many subjects and jurisdictions.[1] As recognition of the variety and interconnectedness of public health threats has grown to encompass both proximal and distal determinants of health, the application and relevance of law has evolved to address these challenges.[2] Traditional understandings of public health law focused primarily on alleviation of infectious diseases, promotion of sanitation, and the constitutional powers authorizing these activities;[3] however, the current scope of public health law recognizes an expanded role of law to establish and support health infrastructure, regulate activities and behaviors that may threaten health, and grapple with disease prevention and health promotion across populations and jurisdictions.[4] Accordingly, public health systems—and the laws that enable and govern them—have evolved over time to include a wide array of participants governed by disparate legal regimes.

As with all complex systems of governance, many aspects of public health governance overlap or contain duplicative features. Public health problems transcend political, geographical, and jurisdictional borders. Consequently, public health governance cannot be neatly compartmentalized into discrete efforts and activities.[5] Moreover, the changing risks created by evolving

---

* Associate Dean and Associate Professor of Law, Wayne State University.

** Assistant Professor of Global Health Policy, University of North Carolina at Chapel Hill.

The authors would like to thank Lisa Todd for her outstanding research assistance on this article.

1. See generally LAWRENCE O. GOSTIN, PUBLIC HEALTH LAW: POWER, DUTY, RESTRAINT (2nd ed. 2008); WENDY E. PARMET, POPULATIONS, PUBLIC HEALTH, AND THE LAW (2009).

2. See generally DOROTHY PORTER, HEALTH, CIVILIZATION AND THE STATE: A HISTORY OF PUBLIC HEALTH FROM ANCIENT TO MODERN TIMES (1999).

3. Wendy E. Parmet, Health Care and the Constitution: Public Health and the Role of the State in the Framing Era, 20 HASTINGS CONST. L.Q. 267, 278-285(1993).

4. See PARMET, supra note 1; GOSTIN, supra note 1.

5. See David P. Fidler, Return of the Fourth Horseman: Emerging Infectious Diseases and International Law, 81 MINN. L. REV. 771, 774 (1997) (noting that "microbes do not

public health threats frequently demand a multi-actor response to increase the likelihood of success for public health strategies.[6] Yet the presence of such redundancy, within and across public health systems, has often generated criticism from researchers and practitioners. Critics view redundancy as wasteful, inefficient, or indicative of conflicting authorities. Much of the legal and policy debate on reforms to public health law and governance adopts a negative view of redundancy as inherently harmful to good governance, a lamentable feature of antiquated legal systems or an impediment to efficient service provision.[7] Efforts to impose greater hierarchy within and across public health systems,[8] to clearly delineate and differentiate jurisdictional powers,[9] or to use preemption to impose consistent rules on regulated industries[10] share the common goal to "reform" public health law to reduce aspects of redundancy.

However, redundancy should not be reflexively discounted in public health governance, as overlapping systems serve many beneficial functions in public health law. The problematic features of redundant systems and institutions—inconsistency in norms and processes, uncertainty driven by overlapping authority, and inefficiency of cost and effort—can be mitigated through strategies that allow for complementarity. Complementarity renames and reframes the concept of redundancy. Complementarity involves

---

recognize borders"); Lawrence O. Gostin, Meeting Basic Survival Needs of the World's Least Healthy People: Toward a Framework Convention on Global Health, 96 GEO. L.J. 331, 350-352 (2008) (noting the global spread of non-communicable diseases).

6. See, e.g., U.S. Dep't of Homeland Security, Federal Emergency Mgmt. Agency, Emergency Support Function #8—Public Health and Medical Services Annex, available at http://www.fema.gov/pdf/emergency/nrf/nrf-esf-08.pdf (last visited Jan. 14, 2013); World Health Org., Global Monitoring Framework and Strategy for the Global Plan Towards the Elimination of New HIV Infections Among Children by 2015 and Keeping Their Mothers Alive (EMTCT) (April 2012), available at http://apps.who.int/iris/bitstream/10665/75341/1/9789241504270_eng.pdf (last visited Jan. 14, 2013).

7. Lawrence O. Gostin, Glen Safford & Deborah Erickson, Using the Turning Point Model State Public Health Law, 31 J.L. MED. & ETHICS 88 (2003); James G. Hodge, Jr., Lawrence O. Gostin, Kristine Gebbie & Deborah L. Erickson, Transforming Public Health Law: The Turning Point Model State Public Health Act, 34 J.L. MED. & ETHICS 77 (2006).

8. See, e.g., James Balcius & Bryan A. Liang, Public Health Law & Military Medical Assets: Legal Issues in Federalizing National Guard Personnel, 18 ANNALS HEALTH L. 35 (2009); David L. Feinberg, Hurricane Katrina and the Public Health-Based Argument for Greater Federal Involvement in Disaster Preparedness and Response, 13 VA. J. SOC. POL'Y & L. 596 (2006); James G. Hodge, Jr. & Evan D. Anderson, Principles and Practice of Legal Triage During Public Health Emergencies, 64 N.Y.U. ANN. SURV. AM. L. 249 (2008); Kumanan Wilson et. al., Establishing Public Health Security in A Postwar Iraq: Constitutional Obstacles and Lessons for Other Federalizing States, 34 J. HEALTH POL. POL'Y & L. 381 (2009).

9. Deborah L. Erickson et al., The Power to Act: Two Model State Statutes, 30 J.L. MED. & ETHICS 57 (2002); Hodge, Gostin, Gebbie & Erickson, supra note 7.

10. William W. Buzbee, Asymetrical Regulation: Risk, Preemption, and the Floor /Ceiling Distinction, 82 N.Y.U. L. REV. 1547 (2007).

establishing and utilizing overlapping and duplicative systems to achieve beneficial policy outcomes. Thus, complementarity within overlapping and duplicative networks of governance:

- Creates opportunities to expand capacity, coordination, and systemic resiliency within and across public health systems;
- Augments policy and practice innovation and fosters flexibility and adaptability;
- Promotes government accountability and transparency; and
- Advances the development and promulgation of legal norms, resulting in policy harmonization and consistency conducive to improving public health.

Though these attributes of redundancy exist inherently, they are more likely to lead to beneficial outcomes through deliberate efforts to achieve complementarity across and within redundant systems and institutions. Additional research will be necessary to understand and adapt these systems to maximize their beneficial characteristics for good governance.[11]

This article articulates a positive view of redundancy and develops a detailed analysis of the potential benefits of systemic overlap, grounded in the idea of complementarity in public health law. Part II describes and challenges the prevailing negative assumptions about redundancy. Part III examines overlapping systems in public health law, noting how complementary laws have improved the effectiveness of public health governance in addressing infectious disease, non-communicable disease, and emergency preparedness. Part IV establishes the role of complementarity in public health governance, delineating its benefits as a basis for future research to assess the tradeoffs between redundancy and complementarity in public health. Based upon this initial assessment, Part V urges reconsideration of the reflexive assumptions against redundancy and further research into when complementary systems improve public health governance.

II. THE BASELINE PRESUMPTION AGAINST REDUNDANCY

Since the rise of the U.S. administrative state over the last several decades, government reformers and legal scholars have engaged in a rich debate over how to achieve effective and efficient public policy through varied models of governance.[12] Traditional governance models—typified by rigid hierarchy,

11. See generally Paul Schiff Berman, Global Legal Pluralism, 80 S. CAL. L. REV. 1155 (2007).

12. Scott Burris et al., Changes in Governance: A Cross-Disciplinary Review of Current

centralized systems, and government control[13]—have increasingly been supplanted or supplemented by more diverse governance systems in many arenas.[14] The resulting variations, often referred to as "New Governance" models, seek greater participation from non-governmental actors to render governance more adaptive, participatory, and flexible.[15] Further challenging traditional governance models, some legal and policy researchers articulate devolved governance models—non-hierarchical, multi-participant endeavors that operate through multiple, uncoordinated nodes[16] that nevertheless comprise a complex, adaptive system.[17] These models of governance are not exclusive; rather they are inextricably linked and operate simultaneously and concurrently.[18] The concept of complementarity builds on these New Governance and devolved governance models to articulate an expansive and flexible view of governance across overlapping or duplicative infrastructure.

A related discussion over the challenges of regulation in a federalist system highlights the ambiguities and inconsistencies that exist between federal and state regulatory powers.[19] Much of this literature has focused on

Scholarship, 41 AKRON L. REV. 1, 44–64 (2008).

13. Christopher K. Leman, Direct Government, in THE TOOLS OF GOVERNMENT: A GUIDE TO THE NEW GOVERNANCE 48, 49–53 (Lester M. Salamon ed., 2002). However, some scholars have suggested less hierarchical, more adaptive approaches within the rubric of traditional government actors. See Michael C. Dorf & Charles F. Sabel, A Constitution of Democratic Experimentalism, 98 COLUM. L. REV. 267, 314–23 (1998) (developing a theory of democratic experimentalism based on decentralization of government and the development of information pooling, public/private coordination, and mutual learning).

14. See, e.g., Nan D. Hunter, "Public-Private" Health Law: Multiple Directions in Public Health, 10 J. HEALTH CARE L. & POL'Y 89, 91 (2007) (describing changes in public health governance); David M. Trubek & Louise G. Trubek, New Governance & Legal Regulation: Complementarity, Rivalry, and Transformation, 13 COLUM. J. EUR. L. 539, 544–48 (2006) (outlining new governance approaches in the EU).

15. See Orly Lobel, The Renew Deal: The Fall of Regulation and the Rise of Governance in Contemporary Legal Thought, 89 MINN. L. REV. 342, 344 (2004) (describing and analyzing New Governance approaches in the United States); Lester M. Salamon, The New Governance and the Tools of Public Action: An Introduction, in THE TOOLS OF GOVERNMENT: A GUIDE TO THE NEW GOVERNANCE 1, 1–14 (Lester M. Salamon ed., 2002) (defining the New Governance paradigm).

16. Scott Burris et al., Nodal Governance, 30 AUSTRIAN J. LEGAL PHIL. 30 (2005); see also Gunther Teubner, Introduction to Autopoietic Law, in AUTOPOIETIC LAW: A NEW APPROACH TO LAW AND SOCIETY 1, 1 (Gunther Teubner ed., 1987) (describing a model of reflexive law that accounts for other social institutions); David P. Fidler, A Theory of Open-Source Anarchy, 15 IND. J. GLOBAL LEGAL STUD. 259, 282 (2008).

17. R. Chad Swanson et al., Rethinking Health Systems Strengthening: Key Systems Thinking Tools and Strategies for Transformational Change, 27 HEALTH POL'Y & PLAN. 54 (2012).

18. Lance A. Gable, Evading Emergency: Strengthening Emergency Responses Through Integrated Pluralistic Governance, 91 OR. L. REV. 375 (2012).

19. See, e.g., Robert B. Ahdieh, Dialectical Regulation, 38 CONN. L. REV. 863 (2006); William W. Buzbee, Recognizing the Regulatory Commons: A Theory of Regulatory Gaps, 89 IOWA L. REV. 1 (2003); Heather K. Gerken, Our Federalism(s), 53 WM. & MARY L. REV. 1549,

the task of appropriately implementing regulatory oversight by governments to address multi-jurisdictional problems such as environmental contamination, climate change, and communicable disease control.[20] These evolving theories of regulation provide insight into the evolution of regulatory governance in the U.S., including public health governance.[21] Attacks on redundancy pervade these debates, arising indirectly in the guise of concerns about efficiency, overlapping regulatory jurisdiction, and coexisting legal obligations.[22] Traditional examinations of public administration have been skeptical of redundancy in system design and institutional structure, suggesting the elimination or minimization of redundancies.[23]

Critics argue that redundant systems or legal requirements prevent clear, efficient, and streamlined outcomes.[24] According to this view, governance should use the fewest resources or apply the least regulation of an activity to achieve a stated goal.[25] In a society increasingly reliant upon logistical tautness and skyrocketing productivity, redundancy has become anathema. The impetus to do more with less animates not only private sector attempts to wring efficiencies from their workforce and production processes, but also government agencies facing budget shortfalls. This is noted in the context of overlap in federal regulations:

> Longstanding conventional wisdom holds that regulatory overlap entails waste and therefore should be eliminated whenever found. A standard prescription in efforts toward regulatory reform, for example, is to rid the government of duplicative agency programs. Criticisms of regulatory

1567 (2012); Robert A. Schapiro, Toward a Theory of Interactive Federalism, 91 IOWA L. REV. 243 (2005).

20. See, e.g., David E. Adelman & Kirsten H. Engel, Adaptive Federalism: The Case Against Reallocating Environmental Regulatory Authority, 92 MINN. L. REV. 1796 (2008); Jonathan H. Adler, Jurisdictional Mismatch in Environmental Federalism, 14 N.Y.U. ENVTL. L.J. 130 (2005); Daniel C. Esty, Revitalizing Environmental Federalism, 95 MICH. L. REV. 570 (1996); Richard L. Revesz, Federalism and Environmental Regulation: A Public Choice Analysis, 115 HARV. L. REV. 553 (2001).

21. See Erin Ryan, Federalism and the Tug of War Within: Seeking Checks and Balance in the Interjurisdictional Gray Area, 66 MD. L. REV. 503 (2007) (examining federalism issues arising during the response to Hurricane Katrina).

22. Jason Marisam, Duplicative Delegations, 63 ADMIN. L. REV. 181, 183–84 (2011).

23. See Martin Landau, Redundancy, Rationality, and the Problem of Duplication and Overlap, 29 PUB. ADMIN. REV. 346, 348 (1969) (noting that even skeptics of administrative dogmas have continued to dogmatically advocate for the elimination of redundancy, citing to Francis W. Coker, Dogmas of Administrative Reform, 16 AM. POL.SCI. REV. 399 (1922)).

24. See, e.g., J.B. Ruhl & James Salzman, Mozart and the Red Queen: The Problem of Regulatory Accretion in the Administrative State, 91 GEO. L. J. 757 (2003); Marisam, supra note 22.

25. See Landau, supra note 23, at 346–47 (criticizing this prevailing view of redundancy).

> overlap can be classified into four main categories: duplication, conflict, coordination, and complexity.[26]

The broad political push toward deregulation across many economic sectors[27] reflects a similar antipathy toward redundant legal oversight that may meddle with economic factors or interfere with market-driven efficiency.[28]

While criticisms of redundancy are myriad, two key issues related to regulatory misallocation recur in critical treatments of overlapping or duplicative laws or systems of governance:

Overregulation. One critique of redundancy arises from the concern that wasteful overregulation places inappropriately high burdens of cost and compliance on regulated entities.[29] Critics of redundancy express concern that duplicative legal regulations coupled with confusion and uncertainty about applicable laws and enforcement can render compliance overly difficult.[30] A related issue may be increased costs of enforcement and implementation for regulatory agencies—and by extension the general public—with little additional results to justify these extra costs.[31] Regulatory misallocation also may yield opportunity costs, as agencies or regulated parties fail to engage in productive activities due to rigorous demands or conflicts caused by redundant regulatory infrastructures.[32]

Underregulation. Conversely, redundant institutions may result in underregulation. Under such a "regulatory commons problem," regulatory agencies evade responsibility by assuming that other agencies with overlapping jurisdiction will address a specific mandate.[33] Thus, redundancy

---

26. Todd S. Aagaard, Regulatory Overlap, Overlapping Legal Fields, and Statutory Discontinuities, 29 VA. ENVTL. L.J. 237, 286 (2011) (citations omitted).

27. At the direction of President Obama, the United States has embarked on a thorough review of federal agency regulations to eliminate duplication, redundancy, and inconsistency. See Exec. Order No. 13,563, 3 C.F.R. 13563 (2011); Cass Sunstein, Cumulative Effects of Regulations, OFFICE OF INFORMATION AND REGULATORY AFFAIRS (March 20, 2012), available at http://www.whitehouse.gov/sites/default/files/omb/assets/inforeg/cumulative-effects-guidance.pdf.

28. Whether these assertions are supported by factual evidence is debatable, yet they motivate the prevailing wisdom about redundancy and regulation. See Rowan Miranda & Allan Lerner, Bureaucracy, Organizational Redundancy, and the Privatization of Public Services, 55 PUB. ADMIN. REV. 193, 193 (1995) (finding that service delivery arrangements that combine government and private sector or nonprofit entities may be more cost effective than services delivered by the private sector alone).

29. See Jody Freeman & Jim Rossi, Agency Coordination in Shared Regulatory Space, 125 HARV. L. REV. 1133, 1138 (2012) (citing Teresa M. Schwartz, Protecting Consumer Health and Safety: The Need for Coordinated Regulation Among Federal Agencies, 43 GEO. WASH. L. REV. 1031, 1032 (1975)).

30. Marisam, supra note 22.

31. Id.

32. Id.

33. William W. Buzbee, Contextual Environmental Federalism, 14 N.Y.U. ENVTL. L.J.

can lead to collective action problems where multiple participants reduce their effort, or zero out funding, expecting another entity to perform the necessary task.[34] In underregulating regulated entities, while some systems (e.g., courts) can successfully utilize redundant structures to correct errors and hold institutional actors accountable for mistakes through the subsequent review of judicial ruling through appeal and remand processes,[35] redundancy in other systems may allow for savvy entities to avoid regulation as regulatory agencies disclaim responsibility for governance failures or accede to industry demands due to collective action problems.[36]

Despite these concerns, some researchers and policymakers argue in favor of redundant systems. Consistent with their orientation toward less centralization and reduced government control, the New Governance and devolved governance models take a more accepting position on redundancy. This view implicitly incorporates redundancy into various theories articulating the potential governance benefits of polycentric regulatory structures,[37] pluralistic legal regimes with overlapping authority,[38] and widespread participation of multiple parties within and outside government.[39]

Legal and policy scholars have come to challenge the prevailing negative view of redundancy and highlighted its potentially positive impacts.[40] In his classic article, Martin Landau criticized the notion that redundancy connotes "whenever there is an excess or superfluity of anything" as unnecessarily negative.[41] Landau argued that institutions with redundant structures have

108, 121-26 (2005); Marisam, supra note 22.

34. Michael M. Ting, A Strategic Theory of Bureaucratic Redundancy, 47 AM. J. POL. SCI. 274, 275 (2003) (using game theory to examine the potential benefits and drawbacks of strategic redundancy).

35. Robert M. Cover, The Uses of Jurisdictional Redundancy: Interest, Ideology, and Innovation, 22 WM. & MARY L. REV. 639, 642 (1981).

36. Marisam, supra note 22.

37. Julia Black, Constructing and Contesting Legitimacy and Accountability in Polycentric Regulatory Regimes, 2 REG. & GOVERNANCE 137, 140 (2008) (identifying five central notions of decentered regulation: complexity, fragmentation, interdependencies, ungovernability, and rejection of a clear public/private distinction); Jody Freeman, Collaborative Governance in the Administrative State, 45 UCLA L. REV. 1, 4–7 (1997); Robert A. Schapiro, Polyphonic Federalism: State Constitutions in the Federal Courts, 87 CALIF. L. REV. 1409, 1411 (1999).

38. Berman, supra note 11; Christine Parker, The Pluralization of Regulation, 9 THEORETICAL INQUIRIES L. 349, 352–55 (2008) (examining the normative argument for legal pluralism in regulation); Brian Z. Tamanaha, A Non-Essentialist Version of Legal Pluralism, 27 J.L. & SOC'Y 296, 312–20 (2000) (outlining a non-essentialist theory of legal pluralism).

39. See Burris et al., supra note 16, at 4–6 (articulating a theory of nodal governance). But see Fidler, supra note 16, at 282 (arguing that a multiplicity of nodes will have anarchic effects on governance).

40. For a more detailed discussion of the positive aspects of redundancy, see infra Section IV.

41. Landau, supra note 23, at 346.

greater reliability and adaptability.[42] Additionally, he suggested that the Framers intentionally designed the U.S. government to contain multiple legal and institutional redundancies.[43] Robert Cover similarly challenged the negative views regarding redundancy. In a provocative reassessment of jurisdictional and institutional redundancy, Cover proposed that "instead of viewing the persistence of concurrency as a dysfunctional relic, one may hypothesize that it is a product of institutional evolution."[44]

In Cover's seminal essay on jurisdictional redundancy, he situated redundancy within the federalist jurisdictional structure of the American court system. Cover defined redundancy as "complex concurrency," comprised of three attributes: "strategic choice, synchronic redundancy, and diachronic or sequential redundancy."[45] Strategic choice (i.e., forum shopping) allows litigants to choose courts likely to be more favorable in deciding their case.[46] Synchronic redundancy permits multiple similar cases to be brought simultaneously in different jurisdictions.[47] Diachronic or sequential redundancy authorizes other jurisdictions to resolve some aspects of a case started elsewhere though appeal or remand.[48] Cover identified four potential benefits of jurisdictional redundancy: (1) reduction of error; (2) minimization of conflict and self-interest; (3) dissipation of strong ideological positioning; and (4) encouragement of innovation.[49]

Landau and Cover's insights on the positive potential of redundancy as a tool of governance and policy inspired others to consider the potential usefulness of redundancy in regulation and development of legal norms and structures.[50] As discussed below, redundancy permeates public health

42. Id. at 348.

43. Martin Landau, Federalism, Redundancy and System Reliability, 3 PUBLIUS 173, 187-188 (1973) (noting that redundancy in the United States system, exemplified by federalism and checks and balances across governmental branches, was address first in Federalist No. 10 to seek stability and reliability in the face of "instability, injustice, and confusion").

44. Cover, supra note 35, at 642.

45. Id. at 646.

46. Id.

47. Id. at 647–48.

48. Id. at 648–49.

49. Id. at 650.

50. See Robert M. Cover & T. Alexander Aleinikoff, Dialectical Federalism: Habeas Corpus and the Court, 86 YALE L.J. 1035, 1044–46 (1977); see also Ahdieh, supra note 19, at 866; Paul Schiff Berman, Federalism and International Law Through the Lens of Legal Pluralism, 73 MO. L. REV. 1151 (2008); Jessica Bulman-Pozen, Federalism As A Safeguard of the Separation of Powers, 112 COLUM. L. REV. 459, 479, 506 (2012); Allan Erbsen, Horizontal Federalism, 93 MINN. L. REV. 493, 500 (2008); Kirsten H. Engel, Harnessing the Benefits of Dynamic Federalism in Environmental Law, 56 EMORY L.J. 159 (2006); Johanna Kalb, Dynamic Federalism in Human Rights Treaty Implementation, 84 TUL. L. REV. 1025, 1055 (2010). For a more detailed discussion of applications of positive theories of redundancy and complementarity to public health governance, see infra Section IV.

systems and public health law, as does the default negative view of redundancy. As public health governance faces increasing complexity, this negative conception of redundancy should give way to a more nuanced understanding of its effects on public health that balances both positive and negative aspects of overlapping and duplicative systems.

III. REDUNDANCY IN PUBLIC HEALTH AND PUBLIC HEALTH LAW

Consistent with negative notions of redundancy, practitioners of public health law have sought to reduce redundant systems in public health governance. Public health governance has evolved through incremental reforms, resulting in pluralistic and uncoordinated systems. Although these developments were not pursued as a means to develop concurrent or duplicative systems, the current model is a fragmented system composed of overlapping institutions and legal authorities.[51] As part of a larger critique of public health law and an effort to improve public health governance, scholars have focused, inter alia, on the harms of redundant institutions in public health.

Given a presumption against redundant systems in public health governance—both within states and between state and federal authorities—public health practitioners have long pursued legal reform as a basis for streamlining public health systems.[52] The past decade has seen intense interest in "modernization" of state public health laws, which are the structural basis for public health practice and programs in the United States. These domestic criticisms of redundancy have been replicated at the international level, where researchers and practitioners have sought a basis to reduce overlapping systems and promote "efficiency" in global health governance.[53] Despite these criticisms of redundant laws and efforts to reduce redundancy in public health, overlapping systems—in infectious disease control, non-communicable disease reduction, and emergency preparedness—highlight how complementary systems can prove effective in meeting public health goals.

A. Infectious Disease Control

As the U.S. federalist system devolves public health authority to the state

51. GOSTIN, supra note 1.

52. Benjamin Mason Meier, James G. Hodge, Jr. & Kristine M. Gebbie, Transitions in State Public Health Law: Comparative Analysis of State Public Health Law Reform Efforts Following the Turning Point Model State Public Health Act, 99 AM. J. PUB. HEALTH 423 (2009).

53. David P. Fidler, Architecture Amidst Anarchy: Global Health's Quest for Governance, 1 GLOBAL HEALTH GOVERNANCE (2007), available at http://ghgj.org/Fidler_Architecture.pdf.

level, states have pursued varied models of public health law. This diversity is seen as particularly disadvantageous in infectious disease control, operating under the adage that "diseases know no borders" and drawing upon a 600-year global tradition of harmonizing infectious disease regulations to coordinate the actions of multiple jurisdictions for mutual benefit.[54] In the American public health tradition, each state's health codes have evolved independently, resulting in profound variations in the structure and substance of infectious disease control. State borders, however, are artificial in the context of disease, and jurisdictional boundaries prove an impediment to achieving a coordinated response to widespread threats.[55] Where varied laws have been amended over the years to respond to specific health threats, piecemeal state legislation creates disparate infectious disease control systems in which public health officials are accorded different levels of authority according to varying criteria that change with the type of disease.[56] Recognizing redundant authorities as a weakness of public health law in responding to contemporary health threats,[57] public health practitioners have worked over the past decade to "modernize" state public health authorities to reflect a nationwide model of public health governance and centralized hierarchies for infectious disease control.[58]

These efforts to achieve public health law reform have facilitated harmonization as a basis to structure complementarities in infectious disease control. Researchers and practitioners have worked to develop "model acts" to create concurrent public health authorities for each state public health system. The U.S. Department of Health and Human Services report, Healthy People 2010, viewed statutory revision as a key tool to harmonizing state public health systems.[59] Likewise, the 2003 Turning Point Model State Public Health Act provided a comprehensive template for states, tribes, and local governments interested in public health law reform.[60] As a basis for normative convergence, public health model acts provide a template to spur

54. DAVID P. FIDLER, INTERNATIONAL LAW AND INFECTIOUS DISEASE 20–39 (1999).

55. See generally 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 (1999).

56. LAWRENCE O. GOSTIN, PUBLIC HEALTH LAW: POWER, DUTY, RESTRAINT 13, 317–19 (2000).

57. INST. OF MED., THE FUTURE OF THE PUBLIC'S HEALTH IN THE 21ST CENTURY (2002), available at http://www.iom.edu/~/media/Files/Report%20Files/2002/The-Future-of-the-Publics-Health-in-the-21st-Century/Future%20of%20Publics%20Health%202002%20Report%20Brief.pdf.

58. Hunter, supra note 14, at 91.

59. U.S. Dep't of Health & Human Servs., Healthy People 2010 Final Review, CTRS. FOR DISEASE CONTROL AND PREVENTION (2011), available at http://www.cdc.gov/nchs/data/hpdata2010/hp2010_final_review.pdf.

60. Hodge, Gostin, Gebbie & Erickson, supra note 7, at 77.

independent state legal reforms based upon a universal set of policy goals for infectious disease control.[61] While the specific legislative language and legal authorities of these reforms will differ by state context and political constraints, the outcome of these divergent bills meet the same, uniform public health goals.[62] Harmonizing public health law across jurisdictions, these model acts stimulate public health law reform within states,[63] performance improvements among health departments,[64] and complementary systems for infectious disease control.

B. Non-Communicable Disease Reduction

In the context of non-communicable disease control, redundant laws and policies are criticized for limiting the centralized control thought necessary to respond to non-communicable disease. As local public health entities pursue independent public health responses, this "microgovernance" is faulted for jurisdiction-specific funding and authorities that lead to "duplicative, incomplete, and counterproductive interventions."[65] With these efforts presumed to be wastefully inefficient—both for regulatory agencies and regulated businesses—federal policy makers have pursued more "cost-effective" national responses to non-communicable disease threats.[66]

Yet despite these drawbacks, overlapping systems provide resilience, adaptability, and innovation in the public health response to non-communicable disease. Across jurisdictions, complementary systems allow innovative responses to non-communicable disease. Local policymakers serve as "norm entrepreneurs" in changing unhealthy behaviors.[67] Examples such as local tobacco control efforts across communities—which shifted the tide of tobacco use in America—and recent efforts to limit unhealthy food

61. Kenneth DeVille, The Turning Point Model State Public Health Act and Responsible Public Health Advocacy, 15 J. PUB. HEALTH MGMT. & PRAC. 281 (2009).

62. Meier, Hodge & Gebbie, supra note 52.

63. Hodge, Gostin, Gebbie & Erickson, supra note 7; Lawrence O. Gostin et al., The Model State Emergency Health Powers Act: Planning for and Response to Bioterrorism and Naturally Occurring Infectious Diseases, 288 JAMA 622 (2002).

64. Jacqueline Merrill et al., Examination of the Relationship Between Public Health Statute Modernization and Local Public Health System Performance, 15 J. PUB. HEALTH MGMT. & PRAC. 292 (2009).

65. Scott Burris, Governance, Microgovernance and Health, 77 TEMP. L. REV. 225, 355 (2004).

66. Megan Danko, Protecting Our Food: A Critical Look at the National Uniformity for Food Act of 2004 and Food Safety in America, 17 LOY. CONSUMER L. REV. 253 (2005); see also Kumanan Wilson et al., Establishing Public Health Security in A Postwar Iraq: Constitutional Obstacles and Lessons for Other Federalizing States, 34 J. HEALTH POL. POL'Y & L. 381 (2009).

67. William H. Dietz, Donald E. Benken & Alicia S. Hunter, Public Health Law and the Prevention and Control of Obesity, 87 MILBANK Q. 215 (2009).

consumption (seen in sodium and "transfat" consumption, school lunch options, and soda serving sizes) have proven effective locally in managing public health. This effort is aided by rapid uptake of policy reforms into local law and derailing of obstacles to regulation at the local level.[68] Such duplicative delegations across agencies further a multi-sectoral approach to "health in all policies,"[69] creating synergy across regulating agencies and allowing for recognition of the extent to which underlying determinants of non-communicable disease require a whole-of-government response.[70] Further, with concurrent governance stretching beyond the public sector, corporate actors have become policymakers in overlapping systems for non-communicable disease control.[71] This result is highlighted by a proliferating set of business practices restricting tobacco use among employees and creating workplace wellness programs. These flexible partnerships across government and non-government actors have proven effective where centralized hierarchies (at both the national and international level) have been incommensurate to the growing threat of non-communicable disease.

C. Emergency Preparedness

Critics view redundancy in emergency preparedness as leading to operational confusion and conflicting mandates that result in breakdowns during crises.[72] This operational confusion presents itself both across and within states.[73] Notwithstanding efforts to harmonize state emergency preparedness laws through model acts,[74] there is comparatively less understanding of how states will approach a cross-jurisdictional public health

68. Michelle M. Mello, David M. Studdert, & Troyen A. Brennan, Obesity—The New Frontier of Public Health Law, 354 NEW ENG. J. MED. 2601 (2006) (Because of the advantages of localized governance in non-communicable disease control, researchers and practitioners have come to see coordination as a threat to innovation, with a growing public health movement opposing industry-sponsored efforts to limit local governance through "preemption" by state law.); Scott Burris et al., Moving from Intersection to Integration: Public Health Law Research and Public Health Systems and Services Research, 90 MILBANK Q. 375 (2012).

69. TIMO STAHL ET AL., HEALTH IN ALL POLICIES: PROSPECTS AND POTENTIALS (2006), available at http://www.euro.who.int/__data/assets/pdf_file/0003/109146/E89260.pdf.

70. Steven H. Woolf & Paula Braveman, Where Health Disparities Begin: The Role of Social And Economic Determinants—And Why Current Policies May Make Matters Worse, 30 HEALTH AFF. 1852 (2011).

71. Hunter, supra note 14, at 105.

72. Robert M. Pestronk et al., Improving Laws and Legal Authorities for Public Health Emergency Legal Preparedness, 36 J.L. MED. & ETHICS 47 (2008).

73. Dorothy Puzio, An Overview of Public Health in the New Millenium: Individual Liberty vs. Public Safety, 18 J.L. & HEALTH 173, 179 (2004).

74. James G. Hodge, Jr., The Evolution of Law in Biopreparedness, 10 BIOSECURITY & BIOTERRORISM: BIODEFENSE STRATEGY, PRAC., & SCI. 38 (2012).

disaster,[75] in part because the federal government is reluctant to assume national authority in the context of emergencies.[76] Within states, there are often conflicting agency responsibilities—triggered in part by varying levels of emergency, disaster, and public health emergency declarations—that may create complications among regulatory agencies (and with non-agency actors) during emergency response efforts.[77] Given this confusion engendered by redundant institutions, the federal government has sought to unify emergency preparedness authorities through incentives for coordinated response protocols, financial support, and voluminous guidance.[78] During the Hurricane Katrina response, for example, better coordination among systems and the availability of alternative mechanisms of governance to effectuate rapid response could have circumvented the gridlocked bureaucracy and operational failures that occurred.[79] Yet even in emergency response situations, where efficient responses are paramount, complementary systems can play a positive role in effectuating good public health outcomes—provided these overlapping authorities have coordinated, or at least well-aligned features.[80] Under complementary emergency preparedness systems, there is a mechanism for effective governance even upon the failure of one or more concurrent systems and an opportunity to enhance the capacity and effectiveness of response efforts.[81]

IV. SHIFTING THE BASELINE: MOVING FROM REDUNDANCY TO COMPLEMENTARITY

Overlapping or duplicative public health systems have both negative and positive attributes of redundancy that impact their ability to influence public health governance. Whereas the negative attributes of redundancy produce primarily negative public health outcomes or negative externalities that overshadow potential benefits, positive overlap in the form of complementarity produces a beneficial outcome or meets a desired policy goal without undermining those benefits through negative consequences.

75. Corey P. Hanrahan & Bryan A. Liang, Promoting Public Health and Provider Response to Emergencies and Disasters, 11 U. PA. J.L. & SOC. CHANGE 29 (2008).

76. David L. Feinberg, Hurricane Katrina and the Public Health-Based Argument for Greater Federal Involvement in Disaster Preparedness and Response, 13 VA. J. SOC. POL'Y & L. 596 (2006).

77. James G. Hodge, Jr. et al., The Legal Framework for Meeting Surge Capacity Through the Use of Volunteer Health Professionals During Public Health Emergencies and Other Disasters, 22 J. CONTEMP. HEALTH L. & POL'Y 5 (2005).

78. Benjamin E. Berkman, Susan C. Kim & Lindsay F. Wiley, Assessing the Impact of Federal Law on Public Health Preparedness, 4 ST. LOUIS U.J. HEALTH L. & POL'Y 155 (2010).

79. Id. at 401–09.

80. Gable, supra note 18, at 445–53.

81. Id.

Thus, whether overlap or duplication is considered negative or positive is contextual and hinges on specific circumstances in the development and implementation of public health law. Public health governance has an opportunity to minimize the negative attributes of redundancy while advancing the beneficial attributes of complementarity, in effect moving from a model of regulatory efficiency to one of regulatory effectiveness. An examination of complementary public health legal authorities highlights how policymakers can address public health goals incrementally through autonomous and overlapping actors.

Building from the governance and regulatory literature (drawing on foundational theories on the beneficial aspects of overlapping institutions by Landau and Cover)[82] and looking to the experience of public health governance—as seen in the cases of infectious disease control, non-communicable disease reduction, and emergency preparedness—several possible benefits of public health complementarity emerge, including: (1) expansion of capacity and systemic resiliency; (2) innovation in policy and practice; (3) promotion of accountability and transparency; and (4) development of normative and procedural harmonization and consistency.[83]

A. Expansion of Capacity and Systemic Resiliency

The existence of multiple institutions and governance pathways connected to public health can expand the capacity of public health systems to address population health concerns and allow these systems to continue to function under unexpected challenges. More institutions means more opportunities for advancement of public health. As seen in the "health in all policies" approach to health promotion,[84] health disparities cannot be mitigated through the health sector alone. Multisectoral approaches to social determinants of health are essential.[85] Under these circumstances, complementarity results both (1) where multisectoral strategies to promote health have been adopted through coordinated collaborative planning and (2) where disparate uncoordinated actors have adopted common goals.

Complementarity can enhance the ability of public health practitioners and advocates to successfully take action to protect public health and allow institutional actors to more effectively target resources. For example, law can authorize or mandate the expansion of sources of information that contribute

82. See discussion of Landau and Cover, supra Section II.

83. This discussion does not claim to identify all of the potential benefits of complementarity or cite to all relevant examples within public health law and governance, but instead to provide an initial assessment of these potential benefits as a basis for further development.

84. See discussion of health in all policies in supra Section III.B.

85. STAHL ET AL., supra note 69.

surveillance data for public health threats through data sharing or expanding surveillance sources required to report data to public health officials. The revised International Health Regulations,[86] syndromic surveillance programs,[87] and state HIV and sexually transmitted infection reporting statutes[88] use this approach to gain the aggregative benefits of multiple, overlapping information sources to more accurately track infectious disease outbreaks.[89]

Complementary governance may help protect against governance failures and correct mistakes. Systems with multiple, concurrent institutions can achieve integrated pluralistic governance, allowing for continued functionality even when some aspects of the system fail to operate effectively.[90] This type of systemic resiliency is vital whether the challenge arises from specific institutions or entire systems losing capacity to provide public health services due to dwindling resources, incapacitation from a catastrophic event, or necessary corrections of previous failings.[91] For example, systemic failures of the public health system during Hurricane Katrina could have been mitigated with greater complementarity in response planning and capacity,[92] and subsequent efforts to redesign the emergency

86. WORLD HEALTH ORG., INTERNATIONAL HEALTH REGULATIONS (2nd ed. 2005), available at http://whqlibdoc.who.int/publications/2008/9789241580410_eng.pdf (see Article 11.1 allowing collection of data from both government and third-party sources); see also David P. Fidler & Lawrence O. Gostin, The New International Health Regulations: An Historic Development for International Law and Public Health, 34 J.L. MED. & ETHICS 85, 90 (2006).

87. Jean-Paul Chretien et al., Syndromic Surveillance: Adapting Innovations to Developing Settings, 5 PLOS MEDICINE 367-372 (2008); see also Larissa May, Jean-Paul Chretien & Julie A. Pavlin, Beyond Traditional Surveillance: Applying Syndromic Surveillance to Developing Settings - Opportunities and Challenges, 9 BMC PUB. HEALTH 242 (2009) (describing examples of syndromic surveillance used to detect sexually transmitted infections (STIs) and other public health concerns). But see David P. Fidler, Return of the Fourth Horseman: Emerging Infectious Diseases and International Law, 81 MINN. L. REV. 771 (1997) (offering a critical examination of surveillance strategies and outcomes).

88. CAL. HEALTH & SAFETY CODE § 121022(a) (West 2012)(requiring both health care providers and laboratories to report HIV infection cases by name to the local health officer, who is further required to report such cases to the California Department of Public Health); COLO. REV. STAT. ANN. §25-4-1405.5(2)(a)(I) (West 2013) (requiring both health care providers and laboratories to report diagnosed cases of HIV infection to the state or local health department).

89. This strategy for epidemic surveillance is also being used by social media and search engine programmers to track outbreaks in real time. See e.g., Explore Flu Trends Around the World, GOOGLE.ORG FLU TRENDS, http://www.google.org/flutrends/ (last visited Mar. 29, 2013).

90. Gable, supra note 18, at 434–36.

91. See Freeman & Rossi, supra note 29, at 1139 (citing Mathew D. McCubbins & Thomas Schwartz, Congressional Oversight Overlooked: Police Patrols Versus Fire Alarms, 28 AM. J. POL. SCI. 165, 166 (1984)).

92. Gable, supra note 18, at 436–45.

response system have considered models consistent with integrated pluralistic governance and complementarity.[93]

These features of complementarity provide a safety net to assure protection of the public's health. Given the highly unpredictable nature of public health threats, the existence of safeguards through complementary institutions can be significantly beneficial in gap-filling functions, enhanced response to social needs through pooled resources, and prevention of overinfluence by interest groups.[94] These potential advantages of complementarity belie the usual concerns about redundancy focused on inefficiency, cost, and lack of coordination. While overlapping or duplicative multi-sectoral and multi-participant efforts to improve health can be undermined by excessive fragmentation and collective action problems or by misallocation of resources,[95] even staunch critics of redundancy concede the need for systemic resilience during circumstances that pose a "risk of catastrophic and irreversible harms."[96] Moreover, such concerns about fragmentation and inefficiency may be alleviated with efforts to engage in strategic coordination and establish a systemic architecture designed to minimize those harmful effects and maximize complementary roles.

B. Innovation in Policy and Practice

Complementarity across overlapping public health laws and systems also can spur innovation in policy and practice through the introduction of flexibility and adaptability in policy development and in practical implementation of public health strategies. A legal system hidebound by hierarchy or rigidly, and limited by aggressive anti-regulatory interpretations of preemption doctrine, may not be able to engage in robust public health protection. By contrast, systems that exhibit complementarity and feature Cover's categories of synchronic or sequential redundancy create opportunities to protect public health through legal and policy

93. Id. at 444–45; see also U.S. DEP'T OF HEALTH AND HUMAN SERV., NATIONAL HEALTH SECURITY STRATEGY OF THE UNITED STATES OF AMERICA 5–17 (2009), http://www.phe.gov/Preparedness/planning/authority/nhss/strategy/Documents/nhss-final.pdf; BARACK OBAMA, PRESIDENTIAL POLICY DIRECTIVE 8: NATIONAL PREPAREDNESS (Mar. 30, 2011), http://www.dhs.gov/presidential-policy-directive-8-national-preparedness; U.S. DEP'T OF HEALTH & HUMAN SERVS., BIENNIAL IMPLEMENTATION PLAN FOR THE NATIONAL HEALTH SECURITY STRATEGY OF THE UNITED STATES OF AMERICA 12–53 (2010), http://www.phe.gov/Preparedness/planning/authority/nhss/comments/Documents/nhssbip-draft-100719.pdf.

94. Engel, supra note 50, at 178–79.

95. Fidler, supra note 53 (expressing concern that multiple participants in global health governance will undermine rather than augment capacity).

96. See Marisam, supra note 22, at 224 (referring to CASS R. SUNSTEIN, WORST-CASE SCENARIOS (2007)).

experimentation, adaptation to changing circumstances, and the ability to overcome bureaucratic obstacles through innovative uses of policy and procedure.[97] Synchronic redundancy recognizes that duplicative institutions, such as concurrent state public health agencies or court systems, can allow for simultaneous efforts to advance public health or other policy goals.[98] Impact litigation designed to hold industries that threaten public health accountable and spur legislative action often benefits from synchronic redundancy. Sequential redundancy pertains to overlapping authority that permits other institutions or actors to overturn, modify, or correct previous determinations or failures by others.[99] Thus, governance models that incorporate ideas of dynamic federalism[100] or a preference for "floor" preemption over complete preemption of state and local regulations by federal regulations[101] foster flexibility and adaptability consistent through complementarity. Permitting state and local governments to impose more stringent regulations than federal minimums to protect public health would employ sequential redundancy in a complementary way. By contrast, federal laws that preempt further state and local efforts to protect public health—as

97. Cover, supra note 35, at 647–49.

98. Notably, sequential redundancy also supports expanded capacity and systemic resiliency as described in supra Section IV. A.

99. Cover, supra note 35, at 648–49.

100. Ruhl and Salzman articulate the following benefits of redundancy in Dynamic Federalism:

> [W]hile it may appear inefficient to have several agencies whittling away at the same externality, the built-in redundancy of Dynamic Federalism can provide significant benefits. It gives the overall system of governance more space to track the evolving scales of externalities. It allows governance adaptation to transpire more quickly and with less political jockeying than static, exclusive jurisdiction models such as the matching principle, under which neat divisions of authority would have to be constantly redrawn. Having multiple agencies working within overlapping scales can also promote synergy between the agencies. Finally, the ability to adjust which agencies are involved allows greater flexibility to craft place-based coalitions of agencies responsive to the shifting and discontinuous spatial and temporal scales of the externalities—a flexibility that makes it possible to pass around the proverbial football as a complex cumulative effects problem changes form over time.

J.B. Ruhl & James Salzman, Climate Change, Dead Zones, and Massive Problems in the Administrative State: A Guide for Whittling Away, 98 CALIF. L. REV. 59, 104–05 (2010) (citing David E. Adelman & Kirsten H. Engel, Adaptive Federalism: The Case Against Reallocating Environmental Regulatory Authority, 92 MINN. L. REV. 1796, 1799–1800, 1808–10, 1817–18 (2008); Jacob E. Gersen, Overlapping and Underlapping Jurisdiction in Administrative Law, 2006 SUP. CT. REV. 201, 214 (2006); Benjamin K. Sovacool, The Best of Both Worlds: Environmental Federalism and the Need for Federal Action on Renewable Energy and Climate Change, 27 STAN. ENVTL. L.J. 397, 408, 448–51 (2008); Robert A. Schapiro, Toward a Theory of Interactive Federalism, 91 IOWA L. REV. 243, 292–93 (2005)).

101. Buzbee, supra note 10.

seen in restrictions on local regulations for tobacco,[102] firearms,[103] and product liability litigation[104]—undermine sequential redundancy.

Policy innovation can flourish across complementary systems. Cover cited the ability of courts in different circuits to formulate different interpretations of a regulation as a key to promoting innovation and overcoming ideologically-driven policy making through redundancy. In the context of public health law and governance, policy-making diversity across jurisdictions has advanced public health practice. In the context of non-communicable disease control, redundancy has served as a basis for legal experimentation; distinctions among dynamic local jurisdictions highlight effective systems for health promotion.[105] Flexible and adaptable systems provide more varied and robust opportunities for achieving outcomes otherwise constrained by a less diverse and dynamic system. An analogous potential benefit of added flexibility in public health governance could be the ability of agency decision-makers or public health advocates to evade barriers and bureaucratic bottlenecks, or to more quickly adapt to new public health challenges. Landau noted that duplication within governance allows for the detection and correction of errors within the system, while overlap "endows such systems with a very high degree of adaptability, of flexible and appropriately responsive changes to external stimuli."[106]

Such complementarity may promote beneficial competition between institutions, which can serve to improve both effectiveness and efficiency.[107] Facilitating effectiveness, Ruhl and Salzman further observe that diverse governance instruments are more effective in the hands of a manageable number of overlapping agencies as compared with a single agency or multiple agencies that do not overlap. With multiple overlapping agencies, it is possible to discover which instruments are most effective at handling the "particular externalities of a cumulative effects problem" and "passing instruments around as the cumulative effects problem evolves and its

102. Federal Cigarette Labeling and Advertising Act of 1965, 15 U.S.C. §§ 1331–1340 (2013).

103. Protection of Lawful Commerce in Arms Act (2005), 15 U.S.C. §§ 7901–7903 (2013) (protecting firearms sellers and manufacturers from civil lawsuits seeking "damages, injunctive, or other relief resulting from the misuse of their products by others").

104. Riegel v. Medtronic Inc., 128 S.Ct. 999 (2008) (preempting state law tort claim that medical device label approved by the FDA was defective).

105. Mark Pertschuk et al., Assessing the Impact of Federal and State Preemption in Public Health: A Framework for Decision Makers, J. PUB. HEALTH MGMT & PRAC. (2012).

106. Landau, supra note 43, at 189.

107. Gersen, supra note 100. But see Maria Ivanova & Jennifer Roy, The Architecture of Global Environmental Governance: Pros and Cons of Multiplicity, in GLOBAL ENVIRONMENTAL GOVERNANCE: PERSPECTIVES ON THE CURRENT DEBATE 48, 51–53 (Lydia Swart & Estelle Perry eds., Center for UN Reform Education 2007) (questioning the effectiveness of competition among participants in governance).

externalities change in form, intensity, and scale."[108] These mechanisms, while complex, could provide a means to achieve more complementary public health governance as agencies and other interested parties coordinate and interact to share ideas and solve health problems.

Finally, jurisdictional redundancy in the courts allows for strategic choice in public health impact litigation. Public health advocates have had a mixed record of success using the courts to advance health. While courts have traditionally given great deference to public health powers,[109] and have served as a venue for successful challenges to corporate practices that imperiled health and safety,[110] industry challenges to overturn public health regulations increasingly limit the governments' ability to protect public health.[111] Nevertheless, public health advocates and government actors will continue to use the concurrent structures of the judiciary to promote public health.

C. Promoting Accountability and Transparency

Complementarity within public health laws and systems can promote accountability and transparency across participants in public health governance. This facet of overlapping systems fosters the correction of errors through sequential redundancy.[112] Sequential redundancy in the form of federalism and judicial review provides robust opportunities for accountability and allows mistakes to be corrected through redundant mechanisms.[113] As a result, legal precedents and reform initiatives that limit judicial oversight or preempt state and local activity, as has occurred in relation to tobacco and firearms, may reduce accountability.[114]

---

108. Ruhl & Salzman, supra note 100, at 106–07.

109. See, e.g., Jacobson v. Massachusetts, 197 U.S. 11, 39 (1905) (upholding state police powers to compulsorily vaccinate for smallpox).

110. Williamson v. Mazda Motor of Am., Inc., 131 S. Ct. 1131, 1134 (2011) (holding that lawsuits are not pre-empted when manufacturers have choice of seatbelt style to install for rear seats).

111. See, e.g., R.J. Reynolds v. FDA, 845 F. Supp. 2d 266, 268 (D.D.C. 2012) (overturning FDA cigarette warning labels as a violation of the First Amendment right of free speech).

112. Cover, supra note 35, at 647–49.

113. See, e.g., Aziz Z. Huq, Forum Choice for Terrorism Suspects, 61 DUKE L.J. 1415, 1461, 1468 (2012) (discussing how appellate courts may exonerate the wrongfully convicted defendant).

114. See, e.g., Food & Drug Admin. v. Brown & Williamson Tobacco Corp., 529 U.S. 120, 126 (2000) (finding FDA's jurisdiction to regulate tobacco limited, later overturned by federal regulations); Protection of Lawful Commerce in Arms Act (2005), 15 U.S.C. §§ 7901–7903 (2013) (protecting firearms sellers and manufacturers from civil lawsuits seeking "damages, injunctive, or other relief resulting from the misuse of their products by others"); see also, Erwin Chemerinsky, Empowering States: The Need to Limit Federal Preemption, 33

Likewise, appropriately structured complementarity can heighten transparency. Systems with multiple participants have a greater need to share information to coordinate and collaborate effectively. Similarly, the expansion of participants in public health governance provides additional sources of information, which can contribute to the overall transparency of public health initiatives. For instance, numerous entities track and report health care-associated infections, including the National Healthcare Safety Network, the Centers for Disease Control and Prevention, state health departments, the Joint Commission, and some individual hospital themselves.[115] Likewise, expansion of multi-source communicable disease surveillance allow for disease tracking and well-informed targeting of public health resources based on more accurate data.[116]

This multiplicity of information sources to track infections can create much greater insight into the scope of the problems than discrete efforts. Transparency is not a given under this construct but can be achieved through legal requirements and incentives.

D. Producing Normative and Procedural Harmonization and Consistency

Redundancy across jurisdictional boundaries can promote normative and procedural consistency in addressing public health through the development of common approaches to resolving population health problems. Since state and local public health laws may vary considerably, researchers often express concern over the harmful health effects of inconsistent legal regimes.[117] However, as seen in the effective efforts of model laws to harmonize state public health laws for infectious disease control and emergency preparedness systems, systemic redundancy in a federalist system can reinforce public health governance.[118] The international development of Framework Conventions targeting tobacco control[119] and global health generally[120] has solidified the notion that a common legal template can set the basic

---

PEPP. L. REV. 69 (2005).

115. Benjamin Mason Meier, Patricia Stone & Kristine M. Gebbie, Public Health Law for the Collection and Reporting of Healthcare-Associated Infections, 36 AM. J. OF INFECTION CONTROL 537 (2008).

116. See, e.g., Chretien et al., supra note 87; May, Chretien & Pavlin, supra note 87.

117. Wendy E. Parmet, After September 11: Rethinking Public Health Federalism, 30 J. L. MED. & ETHICS 201 (2002).

118. Meier, Hodge & Gebbie, supra note 52.

119. WORLD HEALTH ORG., FRAMEWORK CONVENTION ON TOBACCO CONTROL (2003), available at http://www.who.int/tobacco/framework/WHO_FCTC_english.pdf.

120. Lawrence O. Gostin et al., The Joint Action and Learning Initiative: Towards a Global Agreement on National and Global Responsibilities for Health, 8 PLoS MED. e1001031 (2011), available at http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3091848/pdf/pmed.1001031.pdf.

parameters of public health laws and still allow flexibility for local innovation and norm-setting. With effective communication and evidentiary support, innovations in public health policy can spread and improve across jurisdictional boundaries as a direct consequence of complementarity.

Despite efforts to reach the harmonization described above, public health systems have not routinely achieved normative consistency across overlapping and duplicative systems. Indeed, the multiplicity of participants and concurrent legal regimes in public health governance may provoke tradeoffs between flexibility and consistency, or between innovation and harmonization. Normative and procedural harmonization can be compatible with other aspects of complementarity such as innovation, flexibility, and systemic resilience through the use of collaboration and communication. Through the employment of dialectical tools, common normative and procedural approaches to public health governance can be shared and improved.[121] Additionally, with further research, a more extensive typology of redundancy and complementarity in public health governance can developed and assessed.

V. CONCLUSION

Since Landau first challenged the presumptions against redundancy over 40 year ago, his observation stands true: "[T]he task remains to learn to distinguish between inefficient redundancies and those that are constructive and reinforcing—[including] the kind of knowledge which will permit the introduction of redundancies so that they can work to increase both reliability and adaptability."[122]

Moving from an examination of regulatory efficiency to one of regulatory effectiveness, most public health systems will have both redundant and complementary attributes. Complementarity will likely be advanced through coordination, communication, systemic-level assessments, pluralistic methods and participants, and consistent normative defaults, among other strategies. Mitigating the redundant and fostering the complementary should be the goal of public health governance. To understand the advantages and disadvantages of overlapping systems, public health law research will need to incorporate systems theory into its analysis and recognize law as integral to complex adaptive public health systems.[123]

Public health governance highlights the beneficial role of complementary

121. See Cover & Aleinikoff, supra note 50; Freeman & Rossi, supra note 29.

122. Landau, supra note 23, at 356.

123. R. Chad Swanson et al., Rethinking Health Systems Strengthening: Key Systems Thinking Tools and Strategies for Transformational Change, 27 HEALTH POL'Y & PLAN. 54 (2012).

systems in growing capacity and systemic resiliency; increasing innovation in policy and practice; promoting accountability and transparency; and supporting normative and procedural harmonization and consistency. While redundancy poses drawbacks in public health law, the point at which those drawbacks outweigh benefits of complementarity is unclear. Additional legal research will be needed to conceptualize this tension between redundancy and complementarity and categorize types of legal overlap, employing this typology to study the effects of overlapping systems on the public's health. Rather than reflexively assuming redundancy to be harmful to public health governance, research may determine those contexts in which complementary institutions can prove advantageous. This initial assessment applying theories of redundancy and complementarity to public health governance suggests that some overlap is inevitable, but that in many cases, it may bring with it significant benefits for the public's health.