Symphony or Cacophony? Orchestrating Federal Mechanics toward Covid-19 Response in the United States and Germany

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Abstract

Governance is a critical upstream tool in public health emergency preparedness, for it provides structure to emergency response. Pandemics, singular public health emergencies, pose challenges to inherently fragmented federal governance systems. Understanding and utilizing the facilitators of response embedded within the system is critical. In its examination of how contemporary federal systems addressed fragmentation in the face of the Covid-19 pandemic, this article uses two mitigation measures, community masking and vaccination administration to compare elements of federal system mechanics in the United States and Germany’s respective pursuits of public health goals. With particular focus on federal-state power-sharing, it analyzes the division and application of federal-state authority, therein examining mechanisms of executive expediency, as well as the cooperation of multilevel actors. Comparing the jurisdictions identifies inter-federal coordination, availability of exigency mechanisms, and federal guidance as facilitators of public health goal achievement.

Keywords

federalism – Covid-19 – public health federalism

1 Introduction

Federal systems are fragmented by design. Jurisdictions implementing federalism enjoy a governance structure that intentionally distributes power between...
multiple governments, frequently between national and subnational entities that each independently but simultaneously govern society.¹ Public health and safety is one aspect of society where there is a particular confluence of governmental authorities. Public health federalism, which in this article refers to the division of power and shared governmental authority in measures impacting public health, is one area where cooperation between governments can make all the difference between sickness and health. A critical upstream tool in public health emergency preparedness, government systems provide structure to pandemic responses. Responders must route chosen mitigation measures, which often require expediency, efficiency, and uniformity, through existing governance channels.² In numerous jurisdictions, federalism scaffolds those channels. However, public health emergencies, like pandemics, can challenge the divided governance inherent to the federal structure, for power-sharing can complicate the rapid evidence-based actions required for response.³

Jurisdictions have disassembled the ultimate goal of bringing the Covid-19 pandemic to an “end” (or at least to manageable endemic status) into concrete objectives surrounding infection prevention, control, and containment. The WHO’s current Covid strategic preparedness and response plan identifies public health goals oriented toward ending the pandemic, key among which are transmission suppression, exposure reduction, and mortality reduction. Specifically, the WHO identifies vaccination as one evidence-based measure to suppress transmission and reduce mortality, and names mask-wearing as an evidence-based measure that may reduce exposure.⁴ Introduction of these

¹ B.A. Garner (ed.), ‘Federalism’, in: Black’s Law Dictionary, 11th Edition (Toronto, ON: Thomson West, 2019); J.G. Hodge Jr., ‘The Role of New Federalism and Public Health Law’, Journal of Law and Health 12(2) (1998) 309–357.
² R.L. Haffajee and M.M. Mello, ‘Thinking Globally, Acting Locally – the U.S. Response to Covid-19’, New England Journal of Medicine 382(22) (2020) e75, 10.1056/NEJMp2006740.
³ S.H. Gordon, N. Huberfeld and D.K. Jones, ‘What Federalism Means for the US Response to Coronavirus Disease 2019’, Journal of the American Medical Association Health Forum 1(5) (2020) e200510, 10.1001/jamahealthforum.2020.0510.
⁴ World Health Organization (WHO), 2021, Covid-19 Strategic Preparedness and Response Plan: 1 February 2021 to 31 January 2022, available online at https://apps.who.int/iris/handle/10665/340072; Centers for Disease Control & Prevention (CDC), 2021 ‘Science Brief: Community Use of Cloth Masks to Control the Spread of Sars-Cov-2’, Centers for Disease Control & Prevention (7 May 2021), available online at https://www.cdc.gov/coronavirus/2019-ncov/science/science-briefs/masking-science-sars-cov2.html (accessed 22 October 2021); L.O. Gostin, G. Cohen and J.P. Koplan, ‘Universal Masking in the United States: The Role of Mandates, Health Education, and the Cdc’, Journal of the American Medical Association 324(9) (2020) 837–838, 10.1001/jama.2023.1527; J.T. Brooks and J.C. Butler, ‘Effectiveness of Mask Wearing to Control Community Spread of Sars-Cov-2’, Journal of the American Medical Association 325(10) (2021) 998–999, 10.1001/jama.2023.1505; J. Abaluck, L.H. Kwong, A. Styczynski, A. Haque, M.A. Kabir,
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measures yields important community health effects, including reductions in novel cases. Legal mechanisms, governed by federal strictures, are the means through which these measures enter a community, and consequently, impact transmission, exposure, and mortality. Accordingly, this paper concentrates on the legal actions taken to implement these two measures, mask mandates and immunization administration, within federal systems, therein using the measures as metrics to scrutinize approaches to multi-levelled decision-making in pursuit of pandemic public health objectives.

While Covid-19 poses similar challenges to nearly every nation and governance system, not all nations set about accomplishing pandemic-related public health goals in the same way. Germany and the United States offer fruitful ground for analysis of how federal jurisdictions pursue pandemic mitigation measures. Both of these high-income countries share a federal governance system, and opt for a cooperative, shared approach to public health regulation, structured by constitutional bounds, in which states play primary roles. In both countries, where traditions of subnational self-governance have endured, the federal governments reserve preemptive authority. Despite some shared principles of public health federalism, the countries’ populations have experienced drastically different Covid-19 related health outcomes over the course of the pandemic, especially during its first wave. By July 6, 2020, Germany saw 238.3 confirmed cumulative cases of Covid-19 per 100,000 people, a number far below that of the U.S., where 897.3 cases per 100,000 people had been confirmed by the same date. After vaccination approval, there was also significant differentiation in vaccination roll out between the two nations. Vaccination

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5. J.L. Bernal, N. Andrews, C. Gower, E. Gallagher, R. Simmons, S. Thelwall, J. Stowe, E. Tessier, N. Groves, G. Dabrera, R. Myers, C.N.J. Campbell, G. Amirthalingam, M. Edmunds, M. Zambon, K.E. Brown, S. Hopkins, M. Chand, and M. Ramsay, ‘Effectiveness of Covid-19 Vaccines against the B.1.617.2 (Delta) Variant’, New England Journal of Medicine 385(7) (2021) 585–594. 10.1056/NEJMoa2110889.

6. L.O. Gostin and L.F. Wiley, Public Health Law: Power, Duty, Restraint (Berkeley, CA: University of California Press, 2016) pp. 74–79; Article 31 Basic Law (Article 31 GG); Artic 72 Basic Law (Article 72 GG); A-B. Kaiser and R. Hensel, ‘Federal Republic of Germany: Legal Response to Covid-19’, in: J. King, O.L.M. Ferraz (eds.), The Oxford Compendium of National Legal Responses to Covid-19 (Oxford: Oxford University Press, 2021), available online at https://oxcon.ouplaw.com/view/10.1093/law-occq/law-occq-ez?rskey=emlCRs&result=8&prd=OCC19.

7. Johns Hopkins Coronavirus Resource Center, Cumulative Cases, available online at https://coronavirus.jhu.edu/data/cumulative-cases (accessed 6 January 2021).
administration at first lagged in Germany, where, by April 2021, Germany had only managed to vaccinate 7.83% of its population, while the U.S. had vaccinated 34.24%.\(^8\) Yet as of January 2022, Germany has fully vaccinated more of its population (73.42%) than the U.S. has (63.84%).\(^9\) While these statistics are influenced by intersecting social, economic, and political variables, it is important to examine the role governance plays in these figures.

Adding value beyond placing public health federalism, with its notable strengths and weaknesses, in the foreground, this article’s approach puts into sharp relief the potential impact governance structures can have on population health. Significantly, it relies on contemporary evidence to inform its analysis, uniquely examining structure, law, and outcome not in isolation, but combined. Analyzing the mechanics of federal systems in such a way permits the extrapolation of lessons on how systems of shared governance approach public health goals. Dissecting the genesis of potential facilitators of effective government action toward public health goals between these two countries has value not just for the comparison countries. Lessons from studying the federal mechanics of these two systems can be extrapolated to jurisdictions in search of normative scaffolding in the wake of the pandemic. It adds value for not only jurisdictions with, either in whole or in part, similarly fragmented governance systems, but also those entities within unitary systems that face procedural fragmentation when it comes to collaborating toward a common health goal and whose function is to address emergent public health threats.

Consequently, this article examines how two federal systems addressed inherent fragmentation in the face of the same crisis – the Covid-19 pandemic. Using two Covid-19 mitigation measures, mask-mandating and vaccination administration, this article compares important elements of federal system mechanics in two contemporary federal republics. With particular focus on federal-state power-sharing, it first provides background on the parameters of

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\(^8\) M. Eddy, ‘Germany, Once a Model, Is Swamped Like Everyone Else by Pandemic’s Second Wave’, *The New York Times* (20 February 2021), available online at https://www.nytimes.com/2021/02/20/world/europe/germany-coronavirus-second-wave.html; Our World in Data, *Share of the Population Fully Vaccinated against Covid-19*, available online at https://ourworldindata.org/explorers/coronavirus-data-explorer?zoomToSelection=true&facet=none&pickerSort=desc&pickerMetric=total_vaccinations_per_hundred&interval=Cumulative&Relative+to+Population=true&Align+outbreaks=false&country=DEU~USA&Metric=People+fully+vaccinated (accessed 22 October 2021).

\(^9\) Our World in Data, *Share of People Vaccinated against Covid-19*, available online at https://ourworldindata.org/explorers/coronavirus-data-explorer?zoomToSelection=true&facet=none&pickerSort=desc&pickerMetric=total_vaccinations_per_hundred&interval=Cumulative&Relative+to+Population=true&Align+outbreaks=false&country=DEU~USA&Metric=People+vaccinated+%28by+dose%29 (accessed October 28 2021).
public health federalism before comparing U.S. and German system mechanics involved in approaches to each mitigation measure. The article then identifies which powers belong to state versus federal levels of government, as well as mechanisms of implementation. Analysis of the comparison highlights the points at which each country tread similar paths toward pandemic expediency, as well as where they diverged, therein extrapolating possible facilitators of public health goal achievement within the federal structure that can optimize future response.

2 Covid-19 Mitigation Measures in Federal Systems – Comparing U.S. and German Approaches in Light of Divided Governance

The established mechanics that make shared governance possible ensure responsibilities for public health-related actions are spread between levels, subject to their own unique limits. While these bounds and structures exist, in similar forms across federal systems, they do not guarantee similar health outcomes. In scrutinizing mechanisms that facilitate Covid-19 interventions, this section aims to document where and by what means response differs, and the health effects thereof. This section explores shared responsibilities under divided governance, first outlining parameters of actors, then highlighting two examples of federal dynamics in play. In diving into the mechanism of community masking, it explores how both levels of governance, state and federal, use the authority of the executive toward the same mitigation effort. The second example shows how actors across levels of governance work together in the same process of administering vaccines.

2.1 Legal Parameters of Public Health Action

Understanding legal parameters that make up the architecture of each system is an essential first step to comprehending the orchestration of pandemic response. Constitutions in each country play important roles in dividing authority and clarifying competencies, even if fragmented.

2.1.1 Division of Authority in the U.S.

The U.S. Constitution provides the source of authority and parameters for the separation of powers. The Tenth Amendment of the U.S. Constitution reserves all powers not explicitly granted to the federal government for the states.10 Given that the constitution does not specifically grant health as a federal

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10 Gostin and Wiley, supra note 6.
competency, it is generally reserved to the states. Federal action in the field relies on constitutionally enumerated authorities to tax and spend for public welfare and to regulate interstate commerce.\(^\text{11}\) States’ plenary police powers, that is, the authority to protect the health, safety, and welfare of their populations, provide legal authority for state action on public health.\(^\text{12}\)

Executively, the federal government can indeed implement public health-oriented requirements on federal property and during interstate travel through executive orders.\(^\text{13}\) But within the executive branch, the reach of health agency authority is somewhat limited. Executive agents (e.g., the Surgeon General, Secretary for Health and Human Services, or their delegates) have statutory authority to order “measures, [that] ... in his judgment may be necessary” in order “to prevent the introduction, transmission, or spread of communicable diseases” in the country.\(^\text{14}\) The executive also retains the power to declare states of emergency that trigger activation of other federal emergency powers. Each declared by federal executives, the Public Health Service Act, Stafford Disaster Relief and Emergency Assistance Act, and the National Emergencies Act make logistical, technical, funding, and support available to states.\(^\text{15}\)

U.S. states have significantly more legal latitude to impose public health measures, like universal mask requirements, within their jurisdictions. Such power can be traced back to state police powers, and authority notably manifests through emergency declarations. Most all states have passed some form of law granting emergency powers to governors in times of crisis.\(^\text{16}\) These laws

\[^{11}\] L.F. Wiley, ‘Federalism in Pandemic Prevention and Response’, in: S. Burris, S. de Guia, L. Gable, D.E. Levin, W.E. Parmet and N.P. Terry (eds.), Assessing Legal Responses to Covid-19 (Boston, MA: Public Health Law Watch Public Health Law Watch, 2020) pp. 65–70.

\[^{12}\] Ibid.; Gostin and Wiley, supra note 6, p. 93; J.G. Hodge Jr., ‘Nationalizing Public Health Emergency Legal Responses’, Journal of Law, Medicine & Ethics 49 (2) (2021) 315–320, 10.1017/jme.2021.45.

\[^{13}\] Exec. Order No. 13991, 86 Fed. Reg. 7045 (20 January 2021), available online at https://www.federalregister.gov/presidential-documents/executive-orders/joe-biden/2021; W. Parmet, ‘Communicable Disease Law in the United States,’ in: D. Orentlicher and T.K. Hervey (eds.), The Oxford Handbook of Comparative Health Law (Oxford: Oxford University Press, 2021) chapter 5.

\[^{14}\] 42 U.S.C., para. 264 (2010).

\[^{15}\] 42 U.S.C. para. 247d (2010); 50 U.S.C. paras 1621, 1631 (2010); Association for State and Territorial Health Officials (ASTHO), Key Federal Laws and Policies Regarding Emergency Authority and Immunity, available online at https://www.astho.org/Programs/Preparedness/Public-Health-Emergency-Law/Emergency-Authority-and-Immunity-Toolkit/Key-Federal-Laws-and-Policies-Regarding-Emergency-Authority-and-Immunity/ (accessed 22 October 2021).

\[^{16}\] The Policy Surveillance Program, Covid-19: State Emergency Declarations & Mitigation Policies, available online at http://lawatlas.org/datasets/Covid-19-emergency-declarations (accessed 22 October 2021).
delineate the criteria that comprise an emergency, the process of declaring an emergency, and the emergency powers at governors’ disposal to address the emergency. Through combined police power and statutory authorizations, states can declare states of emergency, disaster, or public health emergency. While the exact mechanics and scope of these declarations vary between states, such declarations, which are often time-limited, generally enable streamlined law-making, law amendment, and law suspension via executive action, in addition to increased access to funding and other resources. Under these authorities, the state executive can implement Covid mitigation measures. In a sense, flipping the emergency switch in a state provides legal authority for facilitating mitigation measures. In the event of conflict between state and federal law, the supremacy clause of the U.S. Constitution allows the federal government to preempt state-level law. State governments can also preempt local action to prevent localities from enabling conflicting orders.

2.1.2 Division of Authority in Germany
Like in the U.S., the German constitution establishes authority and delegate competencies between state and federal levels of government. While authority for mitigation measures has evolved over the course of the pandemic in Germany, there is a division of power-sharing for such interventions between federal and state level governments. Generally, without specific grants of legislative power from the Basic Law, the German federal government cannot

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17 G. Sunshine, K. Thompson, A.N. Menon, N. Anderson, M. Penn and L.M. Koonin, ‘An Assessment of State Laws Providing Gubernatorial Authority to Remove Legal Barriers to Emergency Response’, Health Security 17(2) (2019) 156–161, 10.1089/his.2018.0126.
18 L. Rutkow, ‘An Analysis of State Public Health Emergency Declarations’, American Journal of Public Health 104(9) (2014) 1601–1605, 10.2105/ajph.2014.301948; J.G. Hodge Jr. and W. Johnson, Overview of Covid-19 Emergency Declarations, available online at https://www.networkforphl.org/wp-content/uploads/2020/03/Overview-Emergency-Declarations.pdf.
19 Association for State and Territorial Health Officials (ASTHO), State Emergency Declarations and Covid-19, available online at https://www.astho.org/StatePublicHealth/State-Emergency-Declarations-and-Covid-19/03-05-20/ (accessed 22 October 2021); Association for State and Territorial Health Officials (ASTHO), Emergency Declarations and Authorities Fact Sheet, available online at https://www.astho.org/Programs/Preparedness/Public-Health-Emergency-Law/Emergency-Authority-and-Immunity-Toolkit/Emergency-Declarations-and-Authorities-Fact-Sheet/ (accessed 22 October 2021); L.K. Cloud, K. Moran-McCabe, E. Platt and N. Prood, ‘A Chronological Overview of the Federal, State, and Local Response to Covid-19’, in: S. Burris, S. de Guia, L. Gable, D.E. Levin, W.E. Parmet and N.P. Terry (eds.), Assessing Legal Responses to Covid-19 (Boston, MA: Public Health Law Watch Public Health Law Watch, 2020) pp. 10–19; Sunshine et al., supra note 17.
20 Cloud et al., supra note 19, p. 14.
21 U.S. Const. Article VI, para. 2.
22 Cloud et al., supra note 19, p. 14.
legislate, leaving an area open for state level legislation.\footnote{Article 70 Basic Law (Article 70 GG).} States are generally responsible for the execution of federal legislation, and retain authority to pass their own laws, ordinances, and regulations.\footnote{Ibid.; Article 80 Basic Law (Article 80 GG); Article 83 Basic Law (Article 83 GG); Kaiser and Hensel, \textit{supra} note 6.} There are areas where the federal and state governments have concurrent competency in Germany.\footnote{Article 74(1) 19 Basic Law (Article 74(1) 19 GG).} Health is one such area, specifically, in the realm of contagious disease spread or prevention and public health emergency.\footnote{Ibid.} While states generally retain legislative power, Germany’s Basic Law constitutionally grants the federal government authority to legislate for measures that combat and contain disease among the population.\footnote{Article 74(1)(19) Basic Law (Article 74(1)(19) GG); Huster/Kingreen InfektionsschutzR-HdB, Kap. 1 Grundlagen des deutschen Infektionsschutzrechts Rn. 50, beck-online.} Accordingly, the German Infection Protection Act (\textit{Infektionsschutzgesetz} or \textit{IfSG}) is a code of federal statutes and regulations created to guide contagious disease outbreak prevention, detection, and response.\footnote{Para.1(1) IfSG; Kaiser and Hensel, \textit{supra} note 6.} Containing the legal bases for health protection in the face of pandemic, the \textit{IfSG} provides numerous articles authorizing measures that protect against the spread of communicable disease.\footnote{See, \textit{e.g.}, paras 24–32 IfSG; Kaiser and Hensel, \textit{supra} note 6.} States retain authority for executing these measures.\footnote{Para.32 IfSG, Sentence 1.} State executives can issue statutory ordinances or “Rechtsverordnungen” to implement these measures, and can transfer this authority to subordinate authorities via ordinance.\footnote{Ibid.} However, in the event of conflict between state and federal law, federal law takes precedence.\footnote{Para.31 GG.}

Prior to November 2020, para. 28(1) \textit{IfSG} in particular authorized competent authorities to take “necessary protective measures” to contain disease spread.\footnote{Para.28(1) IfSG.} Accordingly, states relied on the broad powers that “necessary protective measures” implied in issuing masking regulations.\footnote{A. Kießling, \textit{Die Konstruktionsfehler Des para. 28a Ifsg: Warum Die Zentrale Norm Der Epidemiebekämpfung Überarbeitet Werden Muss}, available online at https://verfassungsblog.de/die-konstruktionsfehler-des-%c2%a728a-ifsg/ (accessed 22 October 2021).} The provision harkened criticism not only for its broad grant of power but also for its lack of specificity.\footnote{Ibid.} The wish to grant significantly broad authority and to uphold the constitutional principle of certainty led to the creation of \textit{IfSG} para. 28a.
in November 2020, a statute enumerating a non-exhaustive list of permissible Covid specific measures.36 State issued statutory ordinances enacting these Covid containment measures must include a justification and also be limited in time (generally four weeks, plus possible renewal).37

Some mitigation measures can only be implemented after either the federal parliament (Bundestag) has declared an “epidemic situation of national scope,” or a state parliament has declared a similar epidemic situation within its jurisdiction.38 According to para. 5(1) IfSG, an epidemic situation of national scope exists when either the World Health Organization announces the existence of a health emergency of international concern, with the emerging threat’s presence pending in Germany, or when a communicable disease is spreading across the German states.39 The existence of an epidemic situation of national scope must be monitored by the federal government, and its declaration periodically renewed. This emergency declaration switch is also a new provision containing mechanisms introduced in March 2020 after the Covid pandemic began, and further developed later in the year.

2.2 Executive Efficiency: The U.S. versus the German Approach to Community Masking

Present observational and epidemiological analysis of community-level masking indicates that universal masking, as required by political or organizational actions, results in a reduction of new Covid-19 infections.40 Both American and German governmental entities employed community masking measures in efforts to reduce virus exposure among their populations, with fragmentation posing the potential for patchwork policies in each jurisdiction. This section details how each country utilized the executive within the federal structure and accompanying mechanisms to pursue masking goals.

2.2.1 U.S. Application and Effect

While the U.S. federal government acted within the bounds of its authorities to make mask-wearing more prevalent, states were the primary home for mask mandates. Mask-mandating authority at the federal level is somewhat limited

36 Kaiser and Hensel, supra note 6.
37 Para.28a (5) IfSG.
38 Kaiser and Hensel, supra note 6.
39 Para.5(1) IfSG.
40 CDC, supra note 4.; Brooks and Butler, supra note 4; W. Lyu and G.L. Wehby, ‘Community Use of Face Masks and Covid-19: Evidence from a Natural Experiment of State Mandates in the Us’, Health Affairs 39(8) (2020) 1419–1425, 10.1377/hlthaff.2020.00818; Abaluck et al., supra note 4; Gostin et al., supra note 4.
in comparison to the flexible authority of states. Absent a congressional act, it is unlikely that the federal government can successfully enact a national universal mask mandate requiring all residents to wear Covid-protective face coverings. The federal executive ordered masks on federal property and in transit hubs. The order establishes a minimum level of activity, and specifically permits subnational governments to impose more stringent requirements.

At the outset of the pandemic, even though the federal executive eventually declared states of emergency, critics lambasted the federal government for not acting quickly enough. All states, however, did declare emergencies, therein expanding executive authority in the context of the crisis. Every U.S. state declared some form of a state of emergency, disaster, or public health emergency in response to the emergence of Covid-19 as a pandemic threat, within a span of two weeks. In response to rising Covid infection rates, state governors or delegated subsidiary authorities proceeded to order mitigating measures, like mask-wearing in public, under authority sourced from these declarations. As of July 2020, 37 states implemented mask mandates. Mask mandates were often issued via some form of gubernatorial executive order or administrative order through power delegated to executive agents or subsidiary health authorities. Some federal guidance played a role in state masking action. Though legal authority to enact such mandates rests with state or local governments, many subnational entities adhered to fluctuating guidance issued by the Centers for Disease Control and Prevention (CDC), the federal agency primarily responsible for addressing and responding to public health threats.

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41 Gostin et al., supra note 4.
42 Requirement for Persons To Wear Masks While on Conveyances and at Transportation Hubs, 86 FR 8025-01.
43 Haffajee and Mello supra note 2; Hodge Jr., supra note 12.
44 The Policy Surveillance Program, supra note 16.
45 J.G. Hodge Jr., ‘National Legal Paradigms for Public Health Emergency Responses’, American University Law Review 71(1) (2021) http://dx.doi.org/10.2139/ssrn.3827288; L.O. Gostin, J.G. Hodge Jr. and L.F. Wiley, ‘Presidential Powers and Response to Covid-19’, Journal of the American Medical Association 323(16) (2020) 1547–1548, 10.1001/jama.2020.4335; Hodge Jr., supra note 12.
46 The Policy Surveillance Program, supra note 16.; Cloud et al., supra note 19.
47 Gostin et al., supra note 4; J. Raifman, K. Nocka, D. Jones, J. Bor, S. Lipson, J. Jay and P. Chan, Covid-19 Us State Policy Database: Face Mask Mandates, available online at https://statepolicies.com/data/graphs/face-masks/ (accessed 22 October 2021); e.g., Nev. Exec. Department Declaration of Emergency Directive 047 (27 July 2021), available online at https://nvhealthresponse.nv.gov/wp-content/uploads/2021/07/202107271450003613.pdf.
These mandates are largely non-uniform. Details of each order are very different from state to state, some more specific than others, and diverge on elements like effective date, duration of the order, locations and context where masks are required, the relation to vaccination status, grounds for exception, and more.48 States enacted and rescinded these mask orders on and off throughout the pandemic.49 Many mask orders are temporally limited or require periodic renewal for continued effect.50 While all states may have declared states of emergency, not all states required masking. Thirteen states had no mask mandate as of July 2020.51 The federal governance structure allows for disjointed, non-uniform mitigation policies, rife with subnational fragmentation that, when looking at a map of the U.S., permits a patchwork system of protective measures.52

While mask mandates were not implemented in isolation, jurisdictions that implemented this measure saw correlating decreases in Covid cases, suggesting success in Covid mitigation goals. While it is too simplistic to suggest a direct causal relationship between these regulations and health outcomes, very basic temporal trends suggest at least some degree of influence.53 In particular, one study of community mask use implies greater daily Covid-19

48 Gostin et al., supra note 4.
49 Hodge Jr., supra note 12.
50 Network for Public Health Law and National Association of Country and State Health Officials, Proposed Limits on Public Health Authority: Dangerous for Public Health, available online at https://www.networkforphl.org/wp-content/uploads/2021/05/Proposed-Limits-on-Public-Health-Authority-Dangerous-for-Public-Health-FINAL.pdf (accessed 22 October 2021).
51 The Policy Surveillance Program, supra note 16.
52 Gostin et al., supra note 4.
53 M.S. Gallaway, J. Rigler, S. Robinson, K. Herrick, E. Livar, K.K. Komatsu, S. Brady, J. Cunico and C.M. Christ, ‘Trends in Covid-19 Incidence after Implementation of Mitigation Measures – Arizona, January 22–August 7, 2020’, Morbidity and Mortality Weekly Report 69(40) (2020) 1460–1463, 10.15585/mmwr.mm6940e3; J. Howard, A. Huang, Z. Li, Z. Tufekci, V. Zdimal, H.-M. van der Westhuizen, A. von Delft, A. Price, L. Fridman, L.-H. Tang, V. Tang, G.L. Watson, C.E. Bax, R. Shaikh, F. Questier, D. Hernandez, L.F. Chu, C.M. Ramirez and A.W. Rimoin, ‘An Evidence Review of Face Masks against Covid-19’, Proceedings of the National Academy of Sciences of the United States of America 118(4) (2021) e2014564118, 10.1073/pnas.2014564118; H. Joo, G.F. Miller, G. Sunshine, M. Gakh, J. Pike, F.P. Havers, L. Kim, R. Weber, S. Dugmeoglu, C. Watson and F. Coronado, ‘Decline in Covid-19 Hospitalization Growth Rates Associated with Statewide Mask Mandates – 10 States, March–October 2020’, Morbidity and Mortality Weekly Report 70(6) (2021) 212–216, http://dx.doi.org/10.15585/mmwr.mm7006e2; G.P. Guy, F.C. Lee, G. Sunshine, R. McCord, M. Howard-Williams, L. Kompaniyets, C. Dunphy, M. Gakh, R. Weber, E. Sauber-Schatz, J.D. Omura and G.M. Massetti, ‘Association of State-Issued Mask Mandates and Allowing on-Premises Restaurant Dining with County-Level Covid-19 Case and Death Growth
case decline in states with mask mandates following mandate issuance, compared to states without mandates.\textsuperscript{54} Another study observes that in Kansas, where a governor-issued executive order enabled counties to opt-out of the mask-wearing requirement in public spaces, “Covid-19 incidence decreased in 24 counties with mask mandates but continued to increase in 81 counties without mask mandates” after the law went into effect.\textsuperscript{55} This information demonstrates how the executive used emergent powers to implement masking, though nonuniformly. Where indeed implemented, masking contributed to the pursuit of pandemic public health goals.

2.2.2 German Application and Effect
Initially, authority for a measure like mask mandating tested boundaries of federal authority in Germany, but the progression of the crisis saw the introduction of new provisions that attempted to clarify the distribution of authority between levels of German government. Use of then-existing IfSG measures provided in paras 5, 28 and 32 at the beginning of pandemic prompted amendments and adjustments that brought forth current paras 5, 28a and 28b, among other reforms, in response to criticism of insufficiency, uncertain authority and lack of consultation. The Bundestag first declared an epidemic situation of national scope as of 27 March 2020. However, this declaration was criticized, given that the then-existing iteration of IfSG para. 5 lacked a legal definition of “epidemic situation of national scope.”\textsuperscript{56} The current definition was enumerated in November 2020 by the Third Act for the Protection of the Population in the Event of an Epidemic Situation of National Significance.\textsuperscript{57}

Mask mandates in German states evolved over time, and states followed one another in introducing the measures, based on evolving authority. Now, para. 28a(1) IfSG establishes clearer authority for mask measures to prevent the spread of SARS-Cov-2, as it specifically names mask mandates as special protective measures to prevent coronavirus spread. To date, all sixteen German states invoked para. 32 or a combination of para. 32 and para. 28 (former and

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\textsuperscript{54} Gostin et al., supra note 4; Lyu and Wehby, supra note 40; Cloud et al., supra note 19.
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\textsuperscript{55} M.E. Van Dyke, T.M. Rogers, E. Pevzner, C.L. Satterwhite, H.B. Shah, W.J. Beckman, F. Ahmed, D.C. Hunt and John Rule, ‘Trends in County-Level Covid-19 Incidence in Counties with and without a Mask Mandate – Kansas, June 1–August 23, 2020,’ \textit{MMWR Morbidity Mortal Weekly Rep} 69(47) (2020) 1777–1781, http://dx.doi.org/10.15585/mmwr.mmm6947e2.
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\textsuperscript{56} Kießling, Hollo IfSG para. 5 Rn. 3–6.
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\textsuperscript{57} \textit{Ibid.}; Drittes Gesetz zum Schutz der Bevölkerung bei einer epidemischen Lage von nationaler Tragweite vom 18. November 2020 (BGBl. I 2020, Nr.52, S. 2397).
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comparing federal mechanics in u.s. & german covid responses

current) to institute some form of masking via executive “Verordnung.”58 That initial measure evolved, expanding mandatory mask-wearing in public retail and service settings, schools, universities, workplaces, “heavily frequented public places”59 and places of worship.60 The measure also evolved to elaborate on

58 Zweite Bayerische Infektionsschutzmaßnahmenverordnung (2. BayIfSMV) vom 16.04.2020, BayMBl. 2020 Nr. 205; Achtundzwanzigste Verordnung zum Schutz vor Neuninfektionen mit dem Coronavirus SARS-CoV-2 (Achtundzwanzigste Corona verordnung) vom 26. Juli 2021, BremGBl. 2021 Nr. 93, 638–693; Verordnung der Landesregierung über infektionsschützende Maßnahmen gegen die Ausbreitung des Virus SARS-CoV-2 (Corona-Verordnung – CoronaVO) Vom 14.08.2021, GBl. 2021, Nr. 26, 714; Verordnung zum Schutz vor Neuninfizierungen mit dem Coronavirus SARS-CoV-2 (Coronaschutzverordnung – CoronaSchVO) vom 17. August 2021, GV. NRW. 2021 Nr. 59, 958; Zweite Verordnung über den Umgang mit dem sars-CoV-2-Virus und Covid-19 in Brandenburg (Zweise sars-CoV-2-Umgangsverordnung – 2. sars-CoV-2-UmgV) vom 29. Juli 2021, GBl. 2021, Nr. 75; Verordnung zur Änderung infektionsrechtlicher Verordnungen zur Bekämpfung der Corona-Pandemie vom 1. September 2021, Amtsblatt I 2021 Nr. 64A, 2091-2; Verordnung über erforderliche Maßnahmen zum Schutz der Bevölkerung vor Infektionen mit dem Coronavirus sars-CoV-2 (sars-CoV-2-Infektionsschutzmaßnahmenverordnung – InfSchMV) vom 14. Dezember 2020, VBl. 2020, 1463; Sechsundzwanzigste Corona-Bekämpfungsverordnung Rheinland-Pfalz (26. CoBelVO) vom 8. September 2021, GBl. 2021, 534; Corona-Landesverordnung Mecklenburg-Vorpommern (Corona-LVO M-V) vom 23. April 2021, GVOBl. M-V 2021, 381, 523; Dritte Thüringer Verordnung über erforderliche Maßnahmen zur Eindämmung der Ausbreitung des Coronavirus SARS-CoV-2 (Dritte Thüringer sars-CoV-2-Eindämmungsmaßnahmenverordnung – 3. Thür SARS-CoV-2-EindmaßVO-) vom 18. April 2020, GBl. 2020, 135; Verordnung zur Eindämmung der Ausbreitung des Coronavirus SARS-CoV-2 in der Freien und Hansestadt Hamburg (Hamburgische sars-CoV-2-Eindämmungsverordnung – HmbSARS-CoV-2-EindämmungsVO) vom 23. April 2021, HmbGVBl. 2021, 205; Niedersächsische Verordnung über infektionspräventive Schutzmaßnahmen gegen das Coronavirus sars-CoV-2 und dessen Varianten (Niedersächsische Corona-Verordnung) vom 24. August 2021, Nds. GVBl. 2021, 583; Landesverordnung zur Bekämpfung des Coronavirus sars-CoV-2 (Corona-Bekämpfungsverordnung – Corona-BekämpfVO) vom 15. September 2021, GVOBl. 2021, 1127; para.6 Verordnung des Sächsischen Staatsministeriums für Soziales und Gesellschaftlichen Zusammenhalt zum Schutz vor dem Coronavirus sars-CoV-2 und Covid-19 (Sächsische Corona-Schutz-Verordnung – SachsCoronaSchVO) vom 19. Oktober 2021, SachsGVBl. 2021, 196; para. 2 Verordnung zum Schutz der Bevölkerung vor Infektionen mit dem Coronavirus sars-CoV-2 (Coronavirus-Schutzverordnung – CoSchuV-) vom 22. Juni 2021, GBl. 2021, 282; Vierzehnte Verordnung über Maßnahmen zur Eindämmung der Ausbreitung des neuartigen Coronavirus sars-CoV-2 in Sachsen-Anhalt (Vierzehnte sars-CoV-2-Eindämmungsverordnung – 14. sars-CoV-2-EindV) vom 16. Juni 2021, GBl. LSA 2021, 302.

59 Begründung der Neunten Bayerischen Infektionsschutzmaßnahmenverordnung (9. BayIfSMV) vom 30. November 2020, BayMBl. 2020, No. 684.

60 Dritte Bayerische Infektionsschutzmaßnahmenverordnung (3. BayIfSMV) vom 1. Mai 2020, BayMBl. 2020 No. 239.
the type of face covering, requiring that mask grade must be an FFP2 mask or equivalent, based on current IfSG authority.\textsuperscript{61}

While the specifics of these orders somewhat differed across the states (e.g., exact date of effect, minimum age of mask wearers), there is broad similarity in the locations where masks were required (e.g., shops and public transportation) and types of masks. Consensus can be attributed to non-binding harmonization conferences between the federal government and state executives. In August 2020, state leaders agreed that mouth and nose coverings should be worn in particular areas, and there should be a base fine across the states for violations.\textsuperscript{62} Facing a new virus variant, a later harmonization conference between the federal chancellor and state leaders recommended FFP2 or surgical mask-wearing in public settings and on public transportation.\textsuperscript{63} While these controversial conferences are not themselves legal instruments, but rather more political consensus meetings, they can result in legal effects in the states, which can implement measures via legal processes in state parliaments. As the crisis continues, each state continues to update its ordinances in accord both with harmonization measures and epidemiological needs. The city of Jena first introduced compulsory masking, citing to para. 28 IfSG as authority.\textsuperscript{64} Studies indicate that the city’s introduction of masking requirements led to an approximated 25% reduction in the cumulative Covid-case numbers twenty days

\textsuperscript{61} Dreizehnte Bayerische Infektionsschutzmaßnahmenverordnung (13. BayIfSMV) vom 5. Juni 2021, BayMBl. 2021 No. 384.

\textsuperscript{62} Presse- und Informationsamt der Bundesregierung (BPA), Telefonschaltkonferenz Der Bundeskanzlerin Mit Den Regierungschefinnen Und Regierungschefs Der Länder Am 27. August 2020, available online at https://www.bundesregierung.de/breg-de/aktuelles/telefonschaltkonferenz-der-bundeskanzlerin-mit-den-regierungschefinnen-und-regierungschefs-der-laender-am-27-august-2020-1783566 (accessed 10 October 2021) (in German).

\textsuperscript{63} Presse- und Informationsamt der Bundesregierung (BPA), Videoschaltkonferenz Der Bundeskanzlerin Mit Den Regierungschefinnen Und Regierungschefs Der Länder Am 19. Januar 2021 Beschluss, available online at https://www.bundesregierung.de/breg-de/suche/videoschaltkonferenz-der-bundeskanzlerin-mit-den-regierungschefinnen-und-regierungschefs-der-laender-am-19-januar-2021-1841020 (accessed 9 October 2021) (in German).

\textsuperscript{64} M. Debes, ‘Warum Jena?’, Zeit Online (2 April 2020), available online at https://www.zeit.de/gesellschaft/2020-04/mundschutzpflicht-atemschutzmaske-coronavirus-infektionsschutz-jena (in German); para. 11 (13) Vollzug des Gesetzes zur Verhütung und Bekämpfung von Infektionskrankheiten beim Menschen (Infektionsschutzgesetz – IfSG) vom 31.03.2020, available online at https://rathaus.jena.de/sites/default/files/2020-04/unterzeichnete%20Allgemeinver%C3%BCfung%C3%BCbung%20vom%2031.03.2020%20mit%20Begr%C3%BCndung_0.pdf (in German).
following introduction. Modelling indicates similar reductions for other areas in the country. Germany’s experience with masking illustrates how the executive took actions to implement masking, but overtime uniformity in masking resulted, despite divided governance, to positive health effect.

2.3 Inter-Level Cooperation: The U.S. versus the German Approach to Covid Vaccination Administration

An integral part of achieving the goal of transmission suppression and mortality reduction is vaccination administration. Within the task of vaccination administration lie manifold logistics, over which legal authorities exert influence. Examining the mechanics of vaccination administration, another dimension of pandemic mitigation, provides additional insight into inter-level cooperation, as multiple actors across both federal and state levels rely on one another to fulfill particular functions. This section highlights how entities across levels in federal systems fulfill functions in cooperation toward health objectives.

One such function is population identification. The federal governments of both the U.S. and Germany offer expert guidance to help indicate populations via their respective expert bodies, the Advisory Committee on Immunization Practices (ACIP) and the Standing Committee on Vaccination (Ständige Impfkommission, or STIKO). The CDC establishes immunization guidance, upon which states generally rely, based on ACIP recommendations. While not all U.S. states exactly mimicked ACIP’s recommendations, states generally incorporated ACIP guidance in their Covid-19 vaccination strategies. In Germany, STIKO issued recommendations for eligibility and prioritization of vaccination candidates. That advice was incorporated by the Federal Ministry of Health in

65 T. Mitze, R. Kosfeld, J. Rode and K. Wäle, ‘Face Masks Considerably Reduce Covid-19 Cases in Germany’, Proceedings of the National Academy of Sciences of the United States of America 117(51) (2020) 32293–32301, 10.1073/pnas.2015954117.
66 Ibid.
67 Centers for Disease Control & Prevention (CDC), Role of the Advisory Committee on Immunization Practices in Cdc’s Vaccine Recommendations, available online at https://www.cdc.gov/vaccines/acip/committee/role-vaccine-recommendations.html (accessed 14 October 2021).
68 Raifman et al., supra note 47; Johns Hopkins Coronavirus Resource Center, State Vaccination Plans, available online at https://coronavirus.jhu.edu/vaccines/vaccine-state-plans (accessed 22 October 2021).
its issued ordinance on Covid vaccinations (Coronavirus-Impfverordnung). In both cases, federal entity guidance is a part of state level performance.

A second function is implementation. Within implementation is the authorization of agents to administer a countermeasure. In the context of Covid-19, this involves operationalizing vaccinators to immunize the population. Typically, U.S. states generally retain authority to decide who administers vaccinations in their jurisdictions, through scope of practice laws and other regulations that determine which services professionals may provide. Emergency powers can once again streamline the state authorization process. In the months between Covid vaccine safety approval and nationwide distribution, states also expanded Covid vaccine administration authority to a wide variety of professionals, though each state did so independently. Federal law helped facilitate wider administration. The federal Public Readiness and Emergency Preparedness Act (PREP Act) shields providers and administrators of countermeasures, such as vaccines, from legal tort liability. The PREP Act can pre-empt state or local laws that may contradict or restrict liability protection when administering a pandemic countermeasure. Amendments to the PREP Act at the federal level during Covid supported states in vaccinator workforce expansion, making liability protections available to an expanded group of

69 Verordnung zum Anspruch auf Schutzimpfung gegen das Coronavirus SARS-CoV-2 (Coronavirus-Impfverordnung – CoronaImpfV) Vom 10. März 2021, BAnz AT 11.03.2021 V1, paras 1–4.
70 M. Davis, The Legal Framework for Administering Covid-19 Vaccines, available online at https://www.astho.org/StatePublicHealth/The-Legal-Framework-for-Administering-Covid-19-Vaccines/12-17-20/ (accessed 10 October 2023).
71 P. Pittman, N. Westfall, M. Ziemann and J. Strasser, ‘Who Is Allowed to Administer Covid-19 Vaccines? The List Is Growing’, Health Affairs Blog (2021) 10.1377/hblog20210333.893630; Minn. Emergency Exec. Order 20–107 (23 December 2020), https://mn.gov/governor/assets/EO%2020-107_Tcm1055-461846.pdf; Order of the Commissioner of Public Health Allowing Certain Individuals to Administer Influenza and Covid-19 Vaccines (11 March 2021), https://www.mass.gov/news/order-of-the-commissioner-of-public-health-allowing-certain-individuals-to-administer-2; Directive and Order Regarding Various Vaccination Matters Pursuant to the Governor’s Executive Order Relating to Various Healthcare Matters No. MDH 2020-12-08-01 (8 December 2020), https://health.maryland.gov/phpa/Documents/MDH%202020-12-08-01-%20Vaccination%20Matters.pdf; American Dental Association, Covid-19 Vaccine Regulations for Dentists Map, available online at https://success.ada.org/en/practice-management/patients/Covid-19-vaccine-regulations-for-dentists-map (accessed 22 October 2021).
72 C. Dower, J. Moore and M. Langelier, ‘It Is Time to Restructure Health Professions Scope-of-Practice Regulations to Remove Barriers to Care’, Health Affairs 32(11) (2013) 1971–1976, 10.1377/hlthaff.2013.0537.
73 42 U.S.C.A. para. 247d-6d (West).
countermeasure administrators. Some states, like California, cite to the PREP Act in their vaccinator expansion regulations. While not occurring in isolation, the expansion of providers with permission to administer Covid vaccines, coincides with a rise in doses administered. Along with vaccination eligibility, administration authority further expanded in California on March 30, 2021. From March, there was an increase in cumulative vaccinations administered. While state approaches ranged across the country, the federal PREP Act helped uniformly expand the scope of vaccinators, and consequently supported increases in vaccine administration, furthering the public health goal.

While authority for vaccination administration, a practice of medicine, is generally a state competence delegated to bodies of health professionals that regulate scope of practice activities in Germany, in the context of infectious disease, vaccination administration authority in Germany can be found in the federal IfSG. Importantly, IfSG amendment gave the Federal Ministry of Health ordinance-making power in the face of emergency. Specifically, IfSG para. 5(2) gives the Federal Ministry of Health power to ensure provision, distribution and dispensing of vaccinations through ordinances, so long as

74 Seventh Amendment to Declaration Under the Public Readiness and Emergency Preparedness Act for Medical Countermeasures Against Covid-19, 86 Fed. Reg. 14,462, 14,465 (16 March 2021).
75 Medical Board of California, News Releases: Covid-19 Updates, available online at https://www.mbc.ca.gov/News/Covid19-Updates.aspx; State of California Department of Consumer Affairs Waiver DCA-21-139 (30 March 2021), available online at https://www.dca.ca.gov/licenses/dca_21_139.pdf (accessed 20 October 2021).
76 State of California Department of Consumer Affairs Order 21–137 (30 March, 2021), available online at https://www.dca.ca.gov/licenses/dca_21_137.pdf; State of California Department of Consumer Affairs Waiver DCA-21-138 (30 March 2021), https://www.dca.ca.gov/licenses/dca_21_138.pdf; State of California Department of Consumer Affairs Waiver DCA-21-139 (30 March 2021), available online at https://www.dca.ca.gov/licenses/dca_21_139.pdf; State of California Department of Consumer Affairs Waiver DCA-21-140 (30 March 2021), https://www.dca.ca.gov/licenses/dca_21_140.pdf; State of California Department of Consumer Affairs Waiver DCA-21-141 (30 March 2021), available online at https://www.dca.ca.gov/licenses/dca_21_141.pdf; State of California Department of Consumer Affairs – Order Waiving Restrictions On Postgraduate Training Licensees Ordering And Administering Covid-19 Vaccines Outside Of Their Postgraduate Training Program (30 March 2021), available online at https://www.dca.ca.gov/licenses/dca_21_112.pdf.
77 Centers for Disease Control & Prevention (CDC), Trends in Number of Covid-19 Vaccinations in the U.S.: Daily Count, available online at https://Covid.cdc.gov/Covid-data-tracker/#vaccinationtrends_vaccetrends-total-daily%7CCA (accessed 22 October 2021).
78 Huster/Kingreen InfektionsschutzR-HdB, Kap. 5 Impfschutzrecht Rn. 97, beck-online; para. 20(4) IfSG; Huster/Kingreen InfektionsschutzR-HdB, Kap. 5 Impfschutzrecht Rn. 99, beck-online.
an epidemic situation of national scope is declared. Over time, the Federal Ministry of Health expanded the group of authorized persons who could administer vaccinations, from personnel affiliated with vaccination centers, which are organized by states, in December 2020 to many more non-vaccination center practitioners by August 2021. It was determined that state health authorities organize details of administration. Alongside increases in vaccinator authorizations, as well as vaccination supply and logistic support, vaccination rates steadily increased over the first six months of 2021. From April 7 on, immunization could occur in medical practices, where doses were available. In the weeks following vaccinator expansion, the percent of delivered doses that were administered increased, comparing doses administered in March 2021 (75.3% of those delivered) to September 2021 (90.3% administered doses of those delivered). Though federal entities relied on individual states to organize details of administration, its guidance on vaccinator authorization facilitated implementation. Together, these actions demonstrate cooperation of multiple entities between governance levels that act in concert to fulfill the functions required of a successful public health objective.

3 Analyzing Covid-19 Mitigation Measures in Federal Systems

The fragmentation built into systems of divided governance is not, in and of itself, an obstacle to obtaining public health goals. A successful response can be orchestrated when each system actor knows the bounds of its authority, and coordinates with its counterparts toward a common goal. To better understand public health federalism’s operation in the face of pandemic, this section aims to analyze the divergence of responses in systems with similar governance structure. Despite similarities in structure, U.S. and Germany

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79 Para. 5(2) IfSG, Sentence 1(c) and (d).
80 Para. 6 Verordnung zum Anspruch auf Schutzimpfung gegen das Coronavirus SARS-CoV-2 (Coronavirus-Impfverordnung – CoronaImpfV) Vom 18. Dezember 2020, BAnz AT 21.12.2020 V3; paras 1–4 Verordnung zum Anspruch auf Schutzimpfung gegen das Coronavirus SARS-CoV-2 (Coronavirus-Impfverordnung – CoronaImpfV) Vom 10. März 2021, BAnz AT 11.03.2021 V1; para. 3 Verordnung zum Anspruch auf Schutzimpfung gegen das Coronavirus SARS-CoV-2 (Coronavirus-Impfverordnung – CoronaImpfV) Vom 30. August 2021, BAnz AT 31.08.2021 V1.
81 Para. 6(2) Verordnung zum Anspruch auf Schutzimpfung gegen das Coronavirus SARS-CoV-2 (Coronavirus-Impfverordnung – CoronaImpfV) Vom 18. Dezember 2020, BAnz AT 21.12.2020 V3.
82 German Federal Ministry of Health, Impfdashboard.de, available online at https://impfdashboard.de/en/ (accessed 22 October 2021).
witnessed different Covid-related health outcomes. It compares similarities and differences, particularly in levels of action, mechanisms of action, and acting entities, to identify facilitators of mitigation measure optimization and positive health outcomes.

3.1 Concurrent and Diverging Paths to Pandemic Exigence
Preparedness, exigency, and expediency are key to pandemic response. Within bounds of fragmented powers, similarities and differences can be found in the paths each country took toward enacting expedient pandemic responses. Concurrence and divergence of these paths can be found at the locus of the actions, mechanisms to affect actions, and activation of government entities across levels.

Parallels in the exact locus of mitigation actions can be found in the U.S. and German federal systems. In both the U.S. and Germany, strong state level public health authority, bolstered by federal support, allows states to act with primary authority in implementing mitigation measures like masking and vaccination. States in both federal systems retain many public health competencies, as well as the authority to declare emergencies.

However, the locus of emergency declarations differs between these jurisdictions. Both nations can declare emergencies at the federal and state levels. However, in the U.S., state level emergency declaration opens pathways to expedited executive mitigation measures. In Germany, the federal declaration of an epidemiological situation of national concern triggers action, though states do retain power to declare this emergency as well. Whereas the U.S. has limited federal authority for universal community masking, and relies on state’s independent enactment of such a mitigation measure, German federal statute specifically names and permits masking measures taken by states.

States take leading roles in coordinating vaccination administration, whether through scope of practice discretion (U.S.) or implementation of an agency directive (Germany). States are also responsible for implementing federal body vaccination guidance. Both the U.S. and German systems rely on scientific advice from expert bodies (situated at the national level) to inform measures. While federal entities issued vaccination prioritization guidance in both countries, the U.S. approach allowed for more variation, as prioritization of vaccination phases was determined at the state level. A federal level agency order implemented more uniform prioritization across states in Germany. Power to determine vaccinator eligibility expansion is also concentrated at the federal level in this instance in Germany, whereas in the U.S., state level scope of practice laws and mechanisms facilitated vaccinator eligibility to a wider variety of vaccinators. State level action is accompanied by significant federal
facilitation, as evidenced through the vaccination administration metric. Federal level guidance from ACIP and STIKO facilitate administration in the U.S. and Germany, respectively. Federal action also helped coordinate eligible vaccinators, as PREP Act invocation illustrates. Germany’s Ministry of Health order, with its provisions on vaccination administration and organization, guided states in vaccination administration decisions.

Similarities and differences exist among the mechanisms each country used to implement mitigation-oriented measures. Executive actions play a significant role in mitigation measure implementation in the U.S. and German federal systems. Both the U.S. and Germany use executive legal instruments as mechanisms to implement mitigation measures. Often in both jurisdictions, these renewable executive actions are time-limited. While emergency declarations also function as implementation mechanisms in both jurisdictions, the significance of these declarations differ slightly. A federal level emergency declaration in the U.S. is not determinative of state-level expediency. Whereas U.S. federal emergency declarations facilitate financial and technical support, Germany’s public health-specific emergency declaration flips the switch on state-level executive mitigation action. U.S. states themselves provide declarations required for executive expediency. Germany also saw significant evolution of its public health emergency declaration device during the pandemic, whereas U.S. states deployed preexisting declaratory powers.

Germany’s system features a variety of harmonization mechanisms. The operation of non-binding harmonization discussions between states in Germany is a coordinated mechanism of action that lacks an equal in the U.S. federal system. Such interest in harmonization fomented uniformity in masking orders, while U.S. masking measures proved a much larger patchwork of mitigation. Arguably, the IfSG itself as a unified code also serves as a harmonization mechanism. Though the states retain significant autonomy under IfSG provisions, the statutes demarcate bounds of action and specify requirements associated with such actions across all German states. For example, IfSG statutes define criteria of an epidemic situation of national concern, whereas each U.S. state may enumerate varying criteria. The Federal Ministry of Health’s vaccination order harmonized particular aspects of vaccination

83 New York State Governor’s Press Office, Pennsylvania Joins New York, New Jersey and Connecticut’s Regional Coalition to Combat Covid-19, available online at https://www.governor.ny.gov/news/pennsylvania-joins-new-york-new-jersey-and-connecticuts-regional-coalition-combat-Covid-19 (accessed 22 October 2021) (Governors in New York, New Jersey, Connecticut, and Pennsylvania endeavored to regionally coordinate some Covid mitigation measures).
administration across states, such as vaccine recipients, though much organization remained state responsibility.

Activating actors across levels of government is key to cooperative pandemic response efforts in both countries. Vaccination administration particularly illustrates how in both jurisdictions many actors at multiple levels in federal systems work towards a common mitigation goal. Federally situated bodies issue expert guidance in the U.S. and Germany, respectively. State governments are responsible for implementing the guidance in their mitigation efforts. In Germany, the Federal Ministry of Health incorporated STIKO recommendations into vaccination administration guidance, which was then operationalized by states in their establishment and organization of vaccination administration. In the U.S., state actors, including governors and executive level health authorities, incorporated ACIP guidance into their vaccination plans, while mobilizing administrators. Coordination of these actors is required for successful measure implementation and, ultimately, optimal pursuit of transmission suppression and mortality reduction as pandemic public health goals.

3.2 Response Facilitators in Federal Systems

Mitigation efforts have distinct effects in both nations. Whereas a patchwork of masking provisions prevailed across the U.S., a discrepancy that may hinder transmission reduction, German states implemented more uniform measures. Over the course of the pandemic, both countries saw an increase in administration of delivered vaccination doses, a step toward mortality reduction. Comparing the effects of these measures can help identify facilitators of public health goal achievement. Three key facilitators stand out: coordination mechanisms, mechanisms of expedition, and federal regulatory floors and guidance.

Cohesion and coordination among federal states can facilitate achievement of public health goals in federal systems despite their fragmented nature. Numerous instruments within the federal structure can facilitate coordination, both between federal and subnational entities, as well as between states. Germany embraced cohesive measures through non-binding harmonization conferences, therein circumventing federal challenges through political means. The conferences fomented a uniform approach to masking, in contrast to the U.S. patchwork, thus helping reduce discrepancies within national borders. Because patchworks amid a pandemic may invite more vulnerability than policy innovation, such uniformity of regulation can play an important role in response. Inter-state conferences and dialogue also provide platforms to share knowledge and debate effective mitigation measures that subnational governments may be experimenting with, providing a balance between mitigation
innovation and fragmentation. Lack of coordination allows the sharp edges of fragmented governance to poke holes in pandemic response.

Despite its fragmented nature, the federal structure also facilitates expedited measures. When necessary, federal structure can permit expedient executive action through executive orders. Executive orders, as measures of expedition, can provide the necessary speed as well as the flexibility to evolve with evidence. Emergency declarations that give rise to expedited measures also win time against a virus. Expedited implementation procedures prevent time lost to political quandaries and dedicate time to action needed to mitigate transmission. Mask orders were implemented expeditiously across states in both countries when evidence indicated the virus spread via airborne droplets.

Federal systems establish confines of executive actions. Time limits, requiring renewal, serve as a check on executive actions, and allow opportunities to review and act upon new evidence while maintaining continuity. Legislatures can help support expediency and exigency by establishing clear parameters of action long before emergency strikes. For instance, legislatures can debate and pass statutes that lay out the specific conditions and duration of emergency actions. Such action incorporates constituent consultation, via their elected representatives, into exigent responses.

In systems where state-level action proves determinative, the existence of federal regulatory floors can facilitate mitigation measures. Localities’ flexibility to implement mitigation measures helped contain the spread of Covid before vaccines became available, allowing states to respond when a federal government opts not to act. But should a federal government opt to act, it can use authority within its scope to fill preparedness gaps, assisting state-led responses. In the U.S. for example, providing liability protection and other actions that expanded pools of vaccinators provided the groundwork for a common approach. Such a federal floor also preempted subnational contradictions that may have otherwise restricted administration. In Germany, creating, amending, and maintaining IfSG as a guide to states also provides a regulatory floor that outlines actors’ roles, rather than waiting for the judiciary to arbitrate. National guidance also facilitates response. Advisory capacities at federal levels can also prove helpful, providing a consolidated home for expertise that applies nationally.

84 A. Klafki, ‘Legal Harmonization through Interfederal Cooperation: A Comparison of the Interfederal Harmonization of Law through Uniform Law Conferences and Executive Intergovernmental Conferences’, German Law Journal 19(6) (2018) 1437–1460, 10.1017/S2071832200023105.
85 L.F. Wiley, ‘Public Health Emergency Reform Is Coming – These Six Principles Should Guide It’, Health Affairs Blog (2021) 10.1377/hblog20210105.516753.
86 Gostin and Wiley, supra note 6, p. 76.
Combined, these facilitators can smooth fragmentation that puts the mosaic of response at risk. However, despite the availability of these facilitators, one variable that should also be acknowledged is politics, an omnipresent variable in governance systems. Pandemic responses can hinge on the knife’s edge of politics. Even the examples mentioned in this article illustrate the permeation of politics. The German federal government led by Chancellor Angela Merkel played a significant role in encouraging and facilitating the harmonization conferences in Germany that fostered federal dialogue, both between states and between levels of government, and, consequently, uniformity in pandemic response. Likewise in the U.S., following President Joe Biden’s inauguration in 2021, the federal government concentrated its efforts to encourage community masking, compared to the preceding Donald Trump administration, which was criticized for inaction and division in its pandemic response. Polarized politics in the United States facilitated the patchwork masking policies, as many differentiations occurred across political lines. A rise in resistance to exigency measures has also grown over the course of the pandemic, with some states seeking to pass legislation that stymies or curbs the exercise of executive action during emergencies. Politics can prove to be a double-edged sword in a pandemic, either galvanizing action toward united response or entrenching fissures. But despite the fickleness of political climates, stakeholders can recognize the built-in mechanisms within the governance system to help achieve public health goals, and work to further cement facilitators into responses.

4 Conclusion

Covid-19 provides an opportunity to compare contemporary challenges to public health federalism. Two different pandemic mitigation goals illustrate the complex interworking of federal systems combatting the same viral threat. Germany and the U.S. provide examples of mitigation measures passing

87 J. Kates, J. Michaud, L. Levitt, K. Pollitz, T. Neuman, M. Long, R. Rudowitz, M. Musumeci, M. Freed and J. Cubanski, ‘Comparing Trump and Biden on Covid-19’, Kaiser Family Foundation (11 September 2020), available online at https://www.kff.org/Coronavirus-Covid-19/issue-brief/comparing-trump-and-biden-on-Covid-19/ (accessed 20 January 2022).

88 J.G. Hodge and J. Piatt, ‘Covid’s Counterpunch: State Legislative Assaults on Public Health Emergency Powers’, BYU Journal of Public Law (2022) in press; R. Wyant, ‘Examining Executive Authority During Public Health Emergencies: Challenges to Covid-19 Executive Orders & Implications for Future Public Health Policy’, Rappaport Center for Law and Public Policy Papers 1 (2021), available online at https://lawdigitalcommons.bc.edu/rappaport/1; T. Gabriel, ‘State Lawmakers Defy Governors in a Covid-Era Battle for Power’, New York Times (22 February 2021), available online at https://www.nytimes.com/2021/02/22/us/politics/republicans-democrats-governors-Covid.html.
through two systems that share some similar authorities, channels, mechanisms, organs, and boundaries, but maintain unique operations. While other Covid-19 interventions involve many other aspects of federal interplay, these measures illustrate that without facilitators such as coordination, mechanisms of expedition, and overarching guidance, the fragmented edges of shared governance can puncture efforts to secure health. Pandemic response in federal systems requires concerted action; reliance on individual fragments and isolated decision-making will not suffice. Federal structure features many mechanisms that aid pandemic response. While coordination, expedition, and federal guidance may all facilitate the implementation of mitigation measures, one of the greatest facilitators, crucial to preparedness, is actors’ understanding of the locus and limits of authority. When each instrument understands the function and extent of its role in the orchestra that is pandemic response, the result is more symphonic than cacophonic.