Policy Note

National Influenza Pandemic Preparedness Plans: Paths European Countries Can Consider Going Forward

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Abstract. This paper examines the future of National Influenza Pandemic Preparedness Plans in European countries. With many beginning to view COVID-19 management as normalizing, there has been an ongoing interest in learning how to improve public health infrastructure and response for related matters going forward. As the 2024-2025 flu season proved to be a significant one on the continent, the notion of pandemic planning has further moved to the forefront of policy, planning, and implementation concerns. To date, there appears to have been a variety of differing approaches to flu pandemics among the countries that have made their designs public. A review of causal factors that have limited the success of influenza pandemic plans in the past, as well as framing the findings using policy theories that can help inform the analysis, would allow for consideration of four different paths forward: creating state-focused plans for individual pathogens and specific emergency settings, looking towards all-hazard public health structures that include influenza pandemic planning, establishing whole-system civil emergency response procedures, and developing top-hazard public health planning that includes influenza pandemic response.

***Keywords*:** influenza, pandemic preparedness, health systems, Europe

This paper seeks to examine possible paths forward for national influenza pandemic planning across European countries. International Health Regulations 2005 (updated as of 2022) provided the international legal infrastructure for the management of the spreading of diseases. As such, it provides ongoing guidance to

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regional, national, and subnational governance structures. The document is binding on all World Health Organization (WHO) member states. Needing to establish rules that can allow for on-the-ground flexibility to ensure implementation, while pursuing unified mission at higher levels of interaction, requires the recognition of the complex environment of such efforts. Enabling multiple stakeholders to interact across varied policy domains in order to achieve control and eradication of pathogen activity is both difficult and nuanced work. WHO plays a crucial role in setting out standards for achieving these goals, where pandemic flu is concerned (World Health Assembly [WHA], 2005, 2021).

Globalizing cohesive approaches to flu pandemic management has been developing for a number of decades. Led by the World Health Organization, international frameworks for responding to such respiratory emergencies have been outlined in the 2005 "Epidemic Alert and Response: WHO Checklist for Influenza Pandemic Planning," and the 2018 update "A Checklist for Pandemic Influenza Risk and Impact Management: Building Capacity for Pandemic Response." In addition, the WHO produced "Pandemic Influenza Preparedness and Response: A WHO Guidance Document" in 2009. Most recently, the WHO's 2022 "Strengthening Pandemic Preparedness Planning for Respiratory Pathogens" provides further guidance for member states in the ongoing COVID-19 milieu by integrating existing hazard-specific and all-hazard planning models moving forward. As such, this latest WHO policy brief sets into motion a discussion on the various approaches to flu pandemic planning that are currently available at the national and subnational levels of engagement.

The European Union has built upon this guidance and offers its member states information and support for pandemic flu preparedness planning, as well. One recent example is the 2017 report of the European Centre for Disease Prevention and Control (ECDC) and the WHO Regional Office for Europe, entitled "Guide to Revision of National Pandemic Influenza Pandemic Preparedness Plans: Lessons from the 2009 A(H1N1) pandemic." Once built into operational activities at national and subnational levels, the chain of information and recommendations from global to local settings is crafted to ensure consistency across governance formats. But, to be sure, the interaction is intended to be a two-way street with all parties in the same path of development, contributing experiences and learning from each other. The 2021 creation of the "WHO Hub for Pandemic and Epidemic Intelligence" in Berlin, Germany further displays this intended connectivity across levels of governance and response.

The international health infrastructure sets the stage for the analysis of flu pandemic preparedness in this paper. A 2019 publication on natural hazard pandemic management (Mameli, 2019) and a recent review of available European plans (Hall-Radford et al., 2024) provide guidelines for considering future directions as revamping takes place during the 2024-2025 flu season.

Recent Efforts Examining European Flu Pandemic Preparedness Plans

Linking theory to practice in public policy emerges through the real-world alignment of planning and implementation. In theory, planning to address potential pandemics should be reflective of how envisioned policies will be carried out in the management of such emergencies. The relationship of coordination and cooperation

across sectors horizontally can be developed conceptually in order to visualize how the components of the response system need to react in an intertwined fashion. From developing performance measures to establishing responsibility—up to and including global actors—that centers vertically in the overall political system, a tiered and defined structure for focused engagement can be conjured and illustrated. The resulting map is then left to those who will act to confront the crises.

Two things in particular need to be highlighted on how such efforts can falter and lead to incomplete or ineffective outcomes. First, the plan itself may not be comprehensive or may simply be poorly articulated. Implementation can be sound, but has still been left in a position where it was unable to succeed due to a weak plan. Second, an appropriate plan can be improperly executed or discharged. In both situations, correction cannot properly take place until the assessment of weaknesses is discharged (Rossi et al., 2019, pp. 28). There have been a number of efforts to assess European influenza pandemic preparedness plans from 2001 to 2018 (Droogers et al., 2018). Hall-Radford et al. (2024) continue to pursue this process of comparative cross-policy analysis as noted in later discussions.

The data sources included in the 2024 study were the available European country preparedness plans at the time of the research. The 14 plans represent the sampling frame. A plan from Hungary was not included in the analysis due to translation problems (Hall-Radford et al., 2024, p. 572). The plans are from a variety of different periods due to the fact that there has not been an ongoing effort to update these documents in a cohesive fashion. However, there is a current effort by WHO to spur a membership-wide effort on this (WHO, 2022).

When Hall-Radford et al. (2024) examined the 14 national influenza pandemic plan implementation strategies, a number of issues emerged. First and foremost, only 14 country documents were able to be reviewed by the researchers. With the exception of Croatia, all 14 states were part of the European Union (EU) at the time of the examination of the plan. At present, the United Kingdom is no longer an EU member. Second, what was available to examine came from a variety of time periods, suggesting that plans might not be regularly revisited or insights are added in an ongoing manner (p. 572). The countries and dates of the documents provided by the researchers include: Croatia (2005), Finland (2012), France (2011), Germany (2016), Greece (2009), Ireland (2007), Italy (2021), Latvia (2020), Lithuania (2016), Luxembourg (2007), Portugal (2009), Slovakia (2005), Spain (2006), and United Kingdom (2011) (Hall-Radford et al., 2024, p. 572). In short, the sample examined raises some issues about overall continuity across the region when it comes to studying influenza pandemic planning. This is not the first time such a concern has been raised during the review (Droogers et al., 2018).

The authors of the most recent study established a framework for evaluating the existence of core areas for influenza pandemic strategies within individual national plans. These are areas that should be addressed in preparation for, and responding to, real-world crises of this nature based on the Health System Performance Assessment Framework for Universal Health Coverage of the European Observatory on Health Systems and Policies (Hall-Radford et al., 2024, p. 572). A three-point scale was used to capture the level of occurrence found in the documents of individual national plans, where strategies could be linked to the variables established for the research. The results were combined to analyze the

sample as a whole (Hall-Radford et al., 2024, p. 572). The purpose of this paper is not to challenge the work that has been done, but to further examine its results to determine if further insights can be learned for both theory and practice.

The aforementioned assessment focused on each country's ability to establish sound implementation strategies that would fulfill essential needs of "governance, financing, resource generation, and service delivery" (Hall-Radford et al., 2024, pp. 574-576).

Finland's influenza pandemic preparedness plan from 2012 was identified as the most robust of those studied in the areas previously mentioned. However, for those countries publishing ongoing assessment and adjustment of their plans, such as Italy in 2021, the updated documents have the opportunity to take into account lessons learned from more recent periods. In this case, deepened insights on the importance of influenza pandemic management involving such concerns as national and regional engagement are offered (Riccio et al., 2024).

While there were indeed elements of the plans that were well-constructed for many of the countries, other aspects were identified as having broken down. These weaknesses could lead to a variety of problems it left unaddressed during the influenza pandemic crisis management. Of the latter group, the resulting analysis reveals:

> Implementation strategies found in national influenza pandemic preparedness plans do not systematically consider all health system functions. Instead, they mostly focus on specific aspects of governance. In contrast, little to no mention is made of implementation strategies that aim to strengthen health financing. There was also a lack of implementation strategies to strengthen the health workforce, ensure the availability of medical equipment and infrastructure, govern the generation of resources, and ensure the delivery of public health services. (Hall-Radford et al., 2024, p. 571)

Before discussing how European national influenza pandemic preparedness planning implementation strategies might be improved, it would be prudent to first examine the root causes of the weaknesses in plan construction. Exploring causation can help establish the means of correction that can then be built into revamped documents.

Assessing European National Influenza Pandemic Plan Weaknesses

The governance and market category assessment tool presented in Table 1 was only applied to the areas of greatest weakness identified from the secondary research findings. The narrowing of the field of findings was the first step. With these areas identified, the governance and market categories were applied in a deductive fashion to flesh out where causation might be emerging from. Essentially, it is an exercise that attempts to establish future hypotheses for more rigorous research into the plans under review, or for future work that will be undertaken to update national flu preparedness plans. Given this context, this paper is anchored on a framework of qualitative analysis.

As a first cut at determining why there might be issues with the construction of national influenza pandemic preparedness plans, it is helpful to examine causation categories that can highlight core weaknesses that emerge in public sector activities. The list of governance failure categories and their associated fallacies is provided in Table 1, adapted from Robert Behn (1998). The categories speak broadly to public sector capacity issues. The first seven are from Behn's original construction. The remaining six categories in Table 1 emerged from the ongoing use of the material by this author to develop the areas of interest, as well as to include market categories into the mix (Mameli, 2016, 2023). The categories are meant to help unearth root explanations for limitations of governments in policy, planning, and implementation.

Table 1
Governance / Market Categories and Fallacies

Category	Fallacy
Organizational	Fallacy of organizational machines
Analytical	Fallacy of human prescience
Executive	Fallacy of executive comprehensiveness
Legislative	Fallacy of legislative clarity and fallacy of legislative democracy
Judicial	Fallacy of judicial omnipotence
Political	Fallacy of political hierarchy
Civic	Fallacy of civic engagement
Bureaucratic	Fallacy of bureaucratic leadership
Network	Fallacy of network activation
Natural Monopoly	Fallacy of competitive market
Information Asymmetry	Fallacy of balanced information
Externalities	Fallacy of planned results
Public Goods	Fallacy of shared benefits

As noted in the examined plans, limited consideration was given to ensure robust strategies in a variety of areas of flu pandemic response. Table 2 attempts to illustrate how certain categories can lead to deficiencies at the planning stage of developing implementation strategies, where healthcare management is concerned, and how they can operate in a negatively synergistic fashion. When considered together, there is a compounding effect of more than just one category upon the others.

Strategies for implementing policies need to be carefully developed. Especially where natural health hazard management is concerned, such efforts should not be entered into as an afterthought. Natural health hazards can emerge unexpectedly, and with devastating consequences, as the world relearned during the COVID-19 pandemic. While seasonal influenza outbreaks are not unknown to address at this point, the severity of disease as well as the possible development of new strains still require vigilance in tracking and response by public, not-for-profit, and private

health actors. In short, influenza should never be given short shrift as a threat of becoming an actual pandemic.

Table 2

Governance and Market Category Assessment Tool

Category/Result	Interaction	Fallacy
Organizational	X	Those developing plans need to be carefully monitored and guided in their efforts
Analytical	X	For effective strategies to be developed, appropriate foresight methods and techniques must be engaged
Executive	X	Leadership needs to remain focused, consistent, and capable of overall guidance for such projects
Legislative	X	National influenza pandemic preparedness plans need to be outlined clearly in enabling legislation
Judicial		
Political		
Civic		
Bureaucratic	X	Those with ground level expertise in relevant areas must be engaged in the process of plan development
Network	X	Vertical and horizontal networks must be activated in order to prevent gaps in plan results
Monopoly		
Information Asymmetry	X	Without comprehensive involvement of all necessary parties, opportunities for full plan development can be missed
Externalities		
Public Goods		

Given this understanding, national efforts should carefully craft thorough, flexible, and updatable plans and strategies specifically for influenza pandemic management. The United Kingdom's ongoing assessment of its COVID-19 experience speaks to how problems can multiply if these bases are missed (Hallett, 2024, pp. 45 & 90). Its overall work documents, including many of the category weaknesses, are highlighted in Table 2. To prevent patchwork efforts from emerging across countries and regions, the development of these documents should make every effort to prevent organizational, analytical, executive, legislative, bureaucratic, network, and asymmetric information shortcomings along the way. The sooner these areas are addressed in the planning process, the more likely it is that nations and their healthcare systems will be better positioned to face the continuing and new challenges in this arena.

Theoretical Framing

Understanding the complex nature of influenza pandemic preparedness planning entails linking together public policy theories that can further shed light on both the process and problems associated with such ventures. An initial view into how such concerns can be framed is to grasp the relationship between policy and planning in relation to the issue. Pandemic management offers a big and noisy doorway through which analysis can move forward, but pandemics are not the most common of events. As such, they need to be considered in a broader arc of health and disease progression. Influenza pandemics are nested within a regularized pattern of seasonal outbreaks that nations, regions, and the global community have become quite familiar with. Thus, it is here that thinking about pandemic management must begin to be structured. It is in this context that the theory of punctuated equilibrium is further discussed in this section.

Punctuated equilibrium theory emerges from natural science and the study of paleontology (Gould & Eldredge, 1977). In the domain of natural science, the theory posits that periods of stasis are interrupted abruptly by a shock that alters direction and development, either negatively or positively. The notion of change being sudden, rather than predictably linear, offered a view of development that challenged much of the thinking on more structured evolution. Baumgartner and Jones (1991, 1993) applied the same approach to how policies can emerge and change over time. Periods of a steady state, with a clear direction and policy response to public problems, could be suddenly altered by not only external forces reshaping issues in unforeseen ways but also by the internal workings of policy actors who would be attempting to shift power and control of an issue by seizing opportunities to change problem images (Jolicoeur, 2018).

Applying concepts that underpin the theory of punctuated equilibrium becomes essential to understanding how influenza pandemic preparedness planning fits into establishing an approach to managing the disease in Europe and other settings. Responding to seasonal influenza has become the status quo, both in theory and practice. Fitting pandemic occurrence into this trajectory requires more flexible thinking that necessitates drawing from the expertise of regularized response while constructing pathways to address less-than-usual emergency settings. Similarity and uniqueness mix when moving from seasonal outbreak management and planning to one involving pandemics.

Punctuated equilibrium theories from both natural and social sciences help us to better grasp what is taking place on the ground when applied to natural health hazards of this magnitude. Understanding the impact of abrupt change in the physical world indeed offers a way into visualizing the influence of pandemics on the human condition when managing them. The political and policy response depicts how emergency management for such events intersects with these shocks to accepted chains of more incremental development.

Following the discussion on punctuated equilibrium, we can proceed to exploring public policy theories that offer more concrete ways to examine how European influenza pandemic preparedness planning has developed. Policy capacity theory is one such avenue that connects findings of weaknesses in implementation to root causes of these limitations.

One consistent area of agreement among researchers is that policy capacity remains incompletely defined. There seems to be a general understanding that "capacity" has a direct relation to policy, program, and planning success or failure. However, the ways and mechanisms regarding how components of the differing definitions intersect with such results remain at odds with each other. A useful review of the complexity associated with this task in relation to public bureaucracies is offered by Peters (2015).

As discussed earlier, scholars, such as Behn (1998), have examined specific variables to determine important categories of influence on end results. Wu et al. (2015) focus on how to understand some of these same variables of importance, and use this approach to theorize and define the notion of policy capacity. To these scholars, policy capacity is determined by a set of skills and capabilities that result in success or failure, depending on balance and effectiveness. In essence, their work is quite useful in distilling how individual categories can begin to be compartmentalized in ways that offer a wider field of vision to those interested in applying them to assessments and reviews.

Brenton et al. (2023) engage in an exhaustive review of literature on the topic and provide a three-pronged sharpening of policy capacity conceptualizations that can be used to enhance analysis. They suggest that research should focus on examining administrative capital, contingent political management, and expectation satisfaction. When used to analyze results from the government and market category assessment tool found in Table 2 into broader silos of value, a better understanding of the problems and accomplishments European governments have experienced with influenza pandemic planning becomes more effectively anchored. In fact, we see that improving the areas of administrative capital and contingent political management can place the entire enterprise on a sounder footing moving forward.

These findings play into what has been found about European National Influenza Pandemic Preparedness Plans most recently. We see an interesting display of what could be both negative and positive policy diffusion developing across the major areas of review examined by Hall-Radford et al. (2024). Indeed, we find a mix of potentially positive examples taking place where governance implementation strategies are examined, and less so where resource generation and service delivery are studied. Most interestingly, there seems to be a negative effect for policy diffusion where financing is concerned. There seems to be a limited ability to move forward with effective implementation strategies in this area of policy development among many of the European nations studied.

Policy diffusion in the public health domain has been examined on a limited basis as a means to better understand how directions for action are chosen by governments (Fundytus et al., 2023). Diffusion is seen as occurring both horizontally across similar jurisdictions as well as vertically across levels of the overall political system. Schulze (2024) further adds a more general contextualizing of policy diffusion. With this perspective, both hard and soft approaches lead to such changes that need to be understood in relation to the level of diffusion involved. In addition, Wasserfallen (2018) highlights the distinctive issues relating to diffusion studies in the European context that need to be understood to ensure that this region is accurately examined regarding such issues. Clearly, it can be difficult to track down actual relationships leading to changes or the creation of a policy, plan, or implementation strategy.

Examining European nations' influenza pandemic preparedness plans as a single topic helps narrow the field of analysis. However, without a more extensive analysis of both the actors and contexts involved, the determination of the actual existence and reasons for diffusion remains somewhat speculative.

Complicating matters further is the degree of ambiguity surrounding the terminology used for policy development across multiple settings. While policy diffusion captures the general idea of motion and exchange, "policy transfer" and "policy convergence" speak more to actual processes (Cairney, 2019). And "policy learning" as well as "lesson drawing" address the mechanisms leading to choices (Cairney, 2019; Rose, 1991, 1993). Given these empirical and theoretical gaps, overall assessment is left incomplete, which hampers the ultimate goal of understanding how specific European influenza pandemic preparedness plans and implementation strategies may have emerged and why.

Policy evaluation can help to bring about a more comprehensive and agreed upon approach to the region as it moves forward with influenza pandemic preparedness planning (Patton et al., 2013, pp. 346-347). And indeed, this is what has been attempted over the last 20 years by differing assessment bodies and researchers. But as noted in the discussion about policy diffusion, understanding the interactions among the actors requires careful explication in order to not misinterpret what appear to be common threads of development. Further, a truly instructive analysis needs to focus on a relatively common time period for plans that are being examined, and a hopefully complete census of relevant European nations. Without these adjustments in place, policy evaluation is only left at the doorstep of establishing deeper findings.

Discussion

Influenza pandemics are not common events, and they are of enormous scale by definition. These facts differentiate such emergencies from many other natural hazards that do not rise to a level of global impact. Even though influenza may still be considered the most likely pandemic event that may occur, that does not change the fact that such pandemics are seen sporadically at best (Droogers et al., 2018). I suggest that this is among the chief reasons why there have been gaps in effective plan development in relation to implementation strategies among different European nations, which have been examined as part of the most recent assessment of these documents (Hall-Radford et al., 2024).

For influenza pandemic planning and its related implementation strategies to work up to their best potential, clear and concise communication is essential–and perhaps the most important aspect of interaction for players to engage in. Vertical and horizontal communication is critical to ensuring coordinated and collaborative success. Actors within nation-states and across levels of the political system writ large must harmonize and mesh their efforts vertically. Horizontally, similarly situated players managing similarly structured jurisdictions need to establish means of effectively engaging each other and learning from common knowledge and experience, both in real time as well as over time.

Technology has improved the ability of professionals tasked with addressing influenza pandemics to achieve this if proper methods and systems for response are in place. But communication is not the entire ball of wax, and it will not completely address national needs with regard to establishing credible implementation strategies

for issues of "governance, finance, resource generation and service delivery" (Hall-Radford et al., 2024). Indeed, communication can help provide a sound footing for effective governance—up to a point. But gaining sufficient traction to make a difference in on-the-ground action areas may be able to be articulated in concept, yet remain elusive for implementation due to the sheer enormity of the task.

Harnessing the powers of all relevant players, as well as galvanizing their efforts with a common direction that is comprehensive and understandable, is needed to resolve the task at hand. That said, which approach would work best for achieving such a goal? Continuing to improve on national influenza pandemic preparedness plans as they are currently constructed? Considering a change to an all-hazard approach to health preparedness that highlights the natural hazard of pandemics (The Joint Commission, 2022)? Developing whole-system civil emergency response protocols (Hallett, 2024)? Or, pursuing a top-hazard approach, which ranks the most essential needs first, and works down a list of priority-driven problems that include pandemic management (Bodas et al., 2020)? With the exception of whole-system civil emergency response, comparing these approaches had been explored before for other purposes by Bodas et al. (2020). Their work has been instructive in shaping the current paper's review, found in the succeeding discussion.

Considering and Comparing Future Paths for European Influenza Pandemic Planning

Pathogen- or emergency-specific approaches to health crises, a form of hazard-specific planning, offer focused and clear pathways for addressing known individual crisis types that may occur. As such, there is a limited opportunity for plans and strategies to become conflated with lessons combined across differing emergency types, health or otherwise, which can lead to confusion during implementation (Bodas et al., 2020, pp. 1-3). While this logic runs counter to the accepted use of the all-hazard approach currently supported widely by experts and practitioners in the field of emergency management, it may be uniquely suited to handling known pandemic threats.

Seasonal influenza is regularized, monitored, and handled in a standardized manner. Pandemics are a more complex event that requires the scaling up of tactics and methods well beyond what seasonal efforts require or necessitate. And, as what has been noted during the COVID-19 pandemic, the plans for influenza pandemic preparedness may not have been mapped well across different pandemics (Hall-Radford et al., 2024; Hallett, 2024). Given these observations, it is possible that different pandemic threats may require specialized preparedness plans. Should it be the case, the challenge is how to formulate plans and carry them out in the most effective and efficient means possible.

The all-hazard approach to disaster engagement offers a means of compiling and learning from natural and man-made events that provide insight into preparation and mitigation requirements for emergency response actors (See the United States Federal Emergency Management Agency chart in Bodas et al., 2020, p. 3). The logic focuses on the common needs emerging in crisis environments and highlights the required capabilities. Understanding how to structure results to improve planning in specific fields, such as health, is also pursued and offers a means of getting a leg up on emergency settings early. However, there are criticisms that limitations can emerge

from combining lessons in a way that can lead to both individual trees and even the entire forest being lost (Bodas et al., 2020, pp. 1-3). The all-hazards approach can prove to be a problem by providing incomplete guidance to actors in situations that are highly unusual or truly unique. Pandemics may fit this caveat. In addition, while there is an EU framework in place for public health emergencies that adheres to an all-hazard approach as of 2016, it was determined to be unclear how closely, if at all, member states met the requirements (Droogers et al., 2018). Actors may have found it difficult to see just how far they can reasonably be joined.

Despite these criticisms, it is important to note that health professionals continue to pursue this approach in various settings (The Joint Commission, 2022). Many countries and global organizations, such as the United States and the European Union, view this approach as an important guidance in areas of public health risk management. In short, all-hazard modeling has been, and remains, the "coin of the realm" among many influential actors in the field. Yet, as observed in the EU experience in its influenza preparedness planning, this does not mean that there may be gaps in the logic needing attention. As the WHO (2022) has noted in a recent policy brief on pandemic response, member states should look at ways to blend all-hazard and hazard-specific plans whenever they are possible.

A recent approach to blended planning has been explored by the United Kingdom in its experience with the COVID-19 pandemic(Hallett, 2024). In this approach, the national government focuses on a whole-system civil emergency planning. This narrows the field of discussion from all-hazard planning, but still allows for a general approach in severe emergencies (including pandemics) that can be marshalled together for analysis (Hallett, 2024, p. 95). The goal is to ascertain what societal goods need to be deployed, and in what ways they can be used to address overwhelming threats to national safety and well-being. Similar to all-hazard planning, the whole-system civil emergency planning may leave out some elements of response specific to catastrophic disasters, such as when addressing pandemic influenza. However, the whole-system civil emergency planning's strength is in its ability to initiate the establishment of a path to respond to known, new, and previously unknown crises of an all-encompassing magnitude. While United Kingdom actors are still hammering out some specifics for the whole-system civil emergencies model, the approach is clear (Hallett, 2024, p. 16). It is also useful for helping others recognize that examining such comprehensive events as their own genre can be beneficial for planning.

Pathogen- or emergency-specific approaches to pandemic management are individually focused. On the other hand, all-hazard approaches that include pandemic response are intended to be a part of a balanced and multi-focused template. Tempering this broad view is an attempt to sharpen such an analysis by zeroing in on blended whole-system civil emergencies. Top-hazard approaches to pandemic management round out the discussion. The top-hazard response plan is guided by anticipation of risk, with a counterintuitive result for issues that might be rated as being of the greatest severity (Bodas et al., 2020, p. 4). A wide range of emergencies is examined based on their needs and the likelihood of being encountered. As such, scenarios that are less likely to occur in the variety of potential natural and man-made threats can end up getting less attention than those that are more likely to occur. Thus, pandemics, being a less-than-expected occurrence, would be on the lower end of preparation and response planning priorities. Even though it is argued that

pandemic planning does not have to be given short shrift in this scenario, it is hard to see how a less-likely threat would receive sufficient attention even in the planning stages (Bodas et al., 2020, p. 4).

Looking at the four options described in the preceding discussions, it is important to note that they remain intertwined with each other, given the current knowledge base for emergency preparedness and response, whether focusing on health issues or not. Yet, it is important to determine which ways forward offer the most security in handling future emergencies, specifically influenza pandemics. As discussed above, pathogen-specific pandemic planning appears to be the most ideal in this regard, if it can be improved upon in practice to address weaknesses as noted in the governance and market categories matrix presented earlier in the paper. Addressing these weaknesses would increase the necessary policy capacity to develop more complete planning strategies.

Settling on a way forward that is pathogen-specific for influenza pandemic preparedness planning does not mean disregarding the lessons from all-hazards planning, or whole-system and top-hazard perspectives. What it does mean is that knowledge about planning and preparedness should be funneled through a narrow corridor of application. And that this is done because pandemics remain unusual and somewhat unique in human affairs. It is important not to be drawn into the logic of believing that a false choice exists. Ultimately, this is not an "either/or" decision being made. It is more of a decision focusing on emphasis.

Conclusion

The purpose of this paper is fourfold. First, examine broad findings from the most recent assessment of European National Influenza Pandemic Preparedness Plans. Second is to offer an analysis of the limitations of the examined plans using a tool that surfaces relevant governance and market categories, which can then be used to improve specific areas in the future. Third is to apply a theoretical framework to better understand the circumstances surrounding the actors and plans through the application of various public policy theories. Fourth is to consider ways forward that cover the overall planning process, which can become more productive in the future.

Regarding the first objective, a 2024 assessment of 14 available European influenza pandemic plans revealed specific weaknesses in areas of implementation strategy focused on "health financing, the health workforce, medical equipment and infrastructure, the generation of resources, and the delivery of public health services" (Hall-Radford et al., 2024, p. 571). The method and sample are briefly discussed here, but the point was not to take issue with the analysis. Rather, it was to work with the results.

Second, the reasons why the implementation strategies in question might have been lacking were examined. Insights were then offered to improve specific areas moving forward. Governance categories associated with organizational, analytical, executive, legislative, bureaucratic, and network weakness are identified in this. Information asymmetry is discussed as a market category that adds to the complications found in the original analysis of plans. Making headway on each of these areas when constructing plans could bolster results in the identified areas of weakness.

With regard to the third purpose, a theoretical approach is proposed to visualize the effort to successfully craft influenza pandemic preparedness planning in some European states. Public policy theories, which include punctuated equilibrium, policy capacity, policy diffusion, and policy evaluation, are presented to frame the discussion within the context of public health care in pandemic management. Policy capacity theory, in particular, links the governance and market categories that need to be addressed. It is hoped that this perspective will allow for an increased focus on critical issues that affect plan development.

Finally, different ideas were examined for crafting response documents, from an emergency management perspective, to provide insights into the specific problem of influenza pandemic preparedness planning in Europe. Four views were considered with regard to planning during pandemics: pathogen- or emergency-specific planning, all-hazard planning, whole-system civil emergency planning, and top-hazard planning. Given the unique characteristics of influenza pandemics, this paper argues that pathogen- or emergency-specific plans is the best suited for such scenarios, while still keeping in mind the lessons and insights from all-hazard, whole-system civil emergency, and top-azard approaches.

While I argue that pathogen/emergency-specific planning for known pandemic threats should be adopted and developed in European states, it is not the only approach that should be explored further in the years ahead. Considering that unforeseen pandemics from currently unknown pathogens may likely emerge at some point in the future, a dual track, which allows for blended whole-system emergency planning as well, should be taken. Adopting this planning approach acknowledges the conclusions arrived at in the United Kingdom's recent work investigating the COVID-19 pandemic (Hallett, 2024, p. 9). It also recognizes the unique elements of influenza pandemic management within a framework that properly captures the comprehensive nature of this particular crisis type.

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