

The Nordic governments' responses to the Covid-19 pandemic: A comparative study of variation in governance arrangements and regulatory instruments

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Abstract

Government responses to the Covid-19 pandemic in the Nordic states—Denmark, Finland, Iceland, Norway, and Sweden—exhibit similarities and differences. This article investigates the extent to which crisis policymaking diverges from normal policymaking *within* the Nordic countries and whether variations *between* the countries are associated with the role of expertise and the level of politicization. Government responses are analyzed in terms of governance arrangements and regulatory instruments. Findings demonstrate some deviation from normal policymaking *within* and considerable variation *between* the Nordic countries, as Denmark, Finland, and to some extent Norway exhibit similar patterns with hierarchical command and control governance arrangements, while Iceland, in some instances, resembles the case of Sweden, which has made use of network-based governance. The article shows that the higher the influence of experts, the more likely it is that the governance arrangement will be network-based.

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1. Introduction

The Covid-19 pandemic, which began in 2020, represents the perfect storm for national political systems (Lynggaard *et al.*, 2022; Zahariadis *et al.*, 2022). The crisis that emerged in the wake of the pandemic has fundamentally challenged the political institutions, political processes as well as many national policies. To cope with this multifaceted crisis, national political systems have responded through various governance arrangements and regulatory instruments (Lynggaard *et al.*, 2022; Zahariadis *et al.*, 2022). This article asks how variation in the use of governance arrangements and regulatory instruments between the Nordic countries can be explained with the help of a within-country variation. Answering this question will reveal whether the Covid-19 pandemic has challenged normal policymaking within the Nordic countries and what is likely to explain between-country variation in approaches to governance and regulation.

The analysis reveals some variation within and considerable variation between the Nordic countries. When it comes to within-country variation, Norway and Sweden exhibit the least deviation from normal policymaking, and the greatest differences are in Denmark, Iceland, and Finland. When it comes to between-country variation, Denmark and Finland exhibit similar patterns with a more hierarchical and command and control governance arrangement, while Sweden is different from the other Nordic countries regarding governance arrangements and the use of regulatory instruments. Norway and Iceland occupy a middle ground but for different reasons. Norway is closer to Denmark and Finland regarding governance arrangement, and Iceland is closer to Sweden, whereas the reverse is the case regarding regulatory instruments. In terms of explaining variation between the Nordic countries, this article shows that a reduced reliance on experts is linked to hierarchical governance arrangements. By contrast, a higher reliance on experts and a smaller level of politicization are linked to network-based consensus-oriented governance arrangements.

The reasons for focusing on the Nordic countries are threefold. Empirically, several studies have already examined how different Nordic governments, including Norway (Christensen & Lægheid, 2020a, 2020c), Denmark (Rubin & de Vries, 2020), Sweden (Pierre, 2020), and Finland (Neuvonen, 2020), initially responded to the pandemic. However, only a few systemic longitudinal cross-country comparative studies exist (see Lynggaard *et al.*, 2022; Yan *et al.*, 2020; Zahariadis *et al.*, 2022), particularly for the Nordic countries (Greve *et al.*, 2021) or a subset hereof (Rubin *et al.*, 2021). Cross-country comparisons are key to study variation in crisis responses. The focus on Denmark, Finland, Iceland, Norway, and Sweden is highly empirically relevant because the “Nordic model” is praised internationally for its performance in terms of government quality (de la Porte *et al.*, 2022; Rothstein, 1998). Therefore, it is interesting to examine how it performs under circumstances of extreme stress. Methodologically, the focus on the Nordic countries allows us to keep many structural background factors constant that could explain variation, as the political systems are relatively similar (Wivel & Nedergaard, 2017). Theoretically, the empirical and methodological focus allows us to study the roles of expertise (Baekkeskov, 2016) and politicization (Wolff & Ladi, 2020). The two concepts represent different approaches to deal with complex societal problems, such as a pandemic. Expertise, on the one hand, is necessary to search rationally for the most optimal responses to complex problems. Politicization, on the other hand, refers to the need to account for the interests of different political actors in the policy process. The role of expertise and politicization is highly relevant for understanding pandemics and epidemics historically (Skydsgaard, 2021) as well as currently (Baekkeskov, 2016; Rubin *et al.*, 2021). Across time, starting with Venice in the 15th century and across different geographical contexts, a dividing line can be observed between what the experts (be they bureaucrats or doctors) recommend in terms of lockdowns and quarantines and demands on the rulers from ordinary citizens to maintain social interaction that is important to their livelihoods.

The article continues as follows. In the next section, a brief review of the comparative literature exploring how different variables impact Covid-19 policy responses is presented. Afterwards, the theoretical framework is discussed. The subsequent section outlines the method and empirical material used. The following section comprises country analysis and cross-country comparison. The final section discusses the findings and outlines the broader implications.

2. Explaining variations in government responses to Covid-19: Expertise and politicization

The comparative empirical literature on explanatory variables that impact Covid-19 policy outcomes is rapidly growing (e.g., Egger et al., 2021; Goetz et al., 2021; Greer et al., 2021; Lynggaard et al., 2022; McConnell & Stark, 2021; Zahariadis et al., 2022). By contrast scholarship on how within-country differences affect variations in national responses to the pandemic is scarce. The same applies to analytical endeavors linking modes of governance and politicization with the use of expertise.

Jensen et al. (2022) gauges changes in the use of expertise in 31 European states during the pandemic concluding that despite the severity of the crisis, there is little evidence for a profound and lasting change in how governments use experts. The authors refrain from linking the reported differences in expert usage to variations in policy outcome.

Christensen and Læg Reid (2022) conduct a study of how experts were plugged into pandemic crisis governance in Norway and discuss how politicization countered a transition to technocracy. As they do not embark on comparative analysis, it is unclear what, if any, effect this has on policy responses. Boswell et al. (2021) relate educational levels of political leaders with policy stringency but do not situate their findings in the wide governance context.

Zahariadis et al. (2022) analyze policy style differences in several countries, but chiefly pair their findings with levels of public trust when accounting for national variations in policy responses. Engler et al. (2021) gauge variations in the restrictions of individual freedoms and the concentration of power during the first wave of the pandemic in 34 European countries but do not engage with politicization or the role of expertise.

While not specifically addressing the use of expertise, Bolleyer and Salát's (2021) study on parliaments vis-à-vis executives covering six EU member states, does focus on within-country politicization and governance mode difference. Their findings suggest single party governments are more susceptible to executive aggrandizement in the face of crisis than both coalition governments in general and governments with strong populist parties. Louwerse et al. (2021) likewise examine the role of opposition parties in parliamentary debates and finds that oppositional contestation of government measures is stronger for political parties with no prior government experience. But neither of the two above articles explores the link to more specific policy responses.

In an edited volume, Lynggaard et al. (2022) enlist nearly 50 authors to conduct 31 case studies of European democracies examining how changes in within-country patterns of governance relate to levels of politicization and policy responses. Four clusters of countries, one of which consists of the five Nordic states, are compared. While a structured comparison is carried out in a dedicated chapter, emphasis is mostly on how the Nordic states differed in their application of nodality, authority, treasurer, and organization. It is also examined which individuals and institutions were respectively empowered and disempowered during the crises and in this context, considerable attention is devoted to experts. Yet in line with all the literature reviewed above the study falls short of assessing if variations between countries regarding governance arrangements and the use of regulatory instruments are associated with the role of expertise and the level of politicization.

In sum, no work on Covid-19 policy response has aspired to compare how within-country differences may affect variations in national responses to the pandemic taking account of changes in modes of governance, levels of politicization, and the use of expertise. Accordingly, the unique contribution of the present article is to simultaneously compare within- and between-country variations using the role of expertise and politicization as independent variables while governance arrangements and invoked regulatory instruments are the dependent variables. Against this backdrop, the following section presents the dependent variables regarding governance arrangements and regulatory instruments and the two independent variables: expertise and politicization. We define each variable in a systematized way and simplify them into several empirical indicators (Adcock & Collier, 2001). For the independent variable, we also establish the value during normal policymaking and develop propositions based on existing theories for how each is linked to the dependent variable in explaining cross-country variation.

2.1. Dependent variable: Governance arrangements

The governance arrangement is defined as structures and processes by which regulatory instruments to cope with the pandemic are proposed, scrutinized, and enacted (Pierre & Peters, 2021). It is the systems that link the involved ministries and agencies, including ministers and civil servants, to coordinate crisis management.

Empirically, we classify governance arrangement as to whether it is a (i) hierarchically structured command and control process or (ii) a network-based structure in which decisions are made by consensus (Scharpf, 1994).

2.2. Dependent variable: Regulatory instruments

The regulatory instruments capture variation in policies. Although regulation is a multidimensional concept, we define regulatory instruments as tools enacted by policymakers for “the sustained and focused attempt to alter the behavior of others according to defined standards and purposes with the intention of producing a broadly identified outcome or outcomes, which may involve mechanisms of standard setting, information-gathering and behavior modification” (Black, 2002; Koop & Lodge, 2017). Empirically, we rely on 10 indicators from the Oxford Covid-19 Tracker. The 10 indicators representing highly invasive regulatory instruments are (1) stay-at-home requirement, (2) restrictions on internal movement, (3) restrictions on gathering size, (4) restrictions on international travel, (5) contact tracing, (6) workplace closure, (7) facial coverings, (8) cancellation of public events, (9) closure of public transport, and (10) school closure. A challenge with these indicators, however, is that they concern whether regulatory instruments are present and not whether and to what extent these instruments have been used. To account for this situation, we also consider the scope, which ranges from not or cautiously applied, over selectively applied to comprehensively applied.

2.3. Theorizing the association between expertise and the dependent variables

Expertise-informed policymaking occurs when actors with a specialized knowledge—based on academic training and scientific criteria of what constitutes valid knowledge—influence the choice of governance arrangements and regulatory instruments to cope with a policy problem (Fischer, 1990). A situation characterized by uncertainty and a lack of information about the problem-solving capacity paves the way for increased use of expertise (March & Simon, 1993). The role of expertise in policymaking varies among public administrations in the Nordic countries. All of them give priority to evidence-based expert advice from within and outside the public administration. However, Sweden stands out structurally by allowing greater independence to semi-independent government agencies, whereas the political control with bureaucratic experts is higher in the other Nordic countries (Lægreid, 2018). Variations among other Nordic countries are subtle.

According to a recent major survey among top executives, experts in Denmark and Norway feel politicians are the most trustful of their expertise. In Finland experts align with the Nordic average; and Iceland is below average (Öberg & Wockelberg, 2016). On the other hand, among the Nordic countries, senior executives in Finland attach the most importance to their role as suppliers of expertise; Norway aligns with the average; and Denmark and Iceland are slightly below average (Virtanen, 2016). This leads us to the following ranking regarding expertise involvement in policymaking under normal circumstances: Sweden (High) > Finland (Moderate) = Denmark (Moderate) = Norway (Moderate) > Iceland (Low).

Experts tend to organize in so-called epistemic communities which can be seen as networks of professionals that together form causal beliefs about policy problems (Cross, 2013; Haas, 1992; Haas, 2008). Though the backgrounds of the professionals in the epistemic communities might differ they share a set of common—often scientific—criteria for creating and evaluating knowledge that bind them together. The influence of epistemic communities is conditioned by their ability to establish a consensus on the causes, effects, and solutions to policy problems based on their professional criteria of valid knowledge. Following this line of reasoning, we expect that higher levels of expert influence to co-occur with governance arrangements that are network-based and rely on consensus (P1).

When choosing which regulatory instruments to apply to a policy problem, experts rely on evidence-based knowledge and are unlikely to adjust tools unless they are presented with strong new evidence (Baekkeskov, 2016). When faced with a policy problem, experts are likely to search for optimal solutions based on evidence without the need to make political tradeoffs (Lasswell, 1956). This means that experts can choose from a wider spectrum of regulatory instruments measured in terms of scope and invasiveness. Hence, when faced with a massive threat to public health and a high degree of uncertainty, we expect that governments highly reliant on experts and respond relying on invasive regulatory instruments to bring down infection numbers to

coincide (P2). The correlation is a condition upon the fact that expert consensus is that invasive instruments are necessary to decrease infection in society.

To examine the two propositions empirically, we look at whether (i) health experts are trusted; (ii) national policies were in line with the recommendations of health experts; and (iii) national health experts chose regulatory instruments.

2.4. Theorizing the association between politicization and the dependent variables

Politicization is the process of making issues the object of politics (Palonen, 2003). Interest groups, governments, and political parties are usually the agents of politicization when it comes to deciding which issues are considered salient. Although there are minor variations when it comes to conflict between groups in society among the Nordic countries, more variation is found in the level of opposition power in parliament, which we consider important for politicization (Coppedge *et al.*, 2019). The scope of issues and the degree to which they are politicized depends on the level of political polarization, a higher level of the latter results in a higher level of the former. The Nordic countries are all characterized by a high level of parliamentary oversight and governmental control, including relatively strong parliament committees. Parliamentary control is possibly slightly weaker in Iceland than in Finland and Denmark, but Norway and Sweden represent the highest levels of parliamentary control among the Nordic countries (Garritzmann, 2017; Persson, 2018). At the same time, during the 1990s and 2000s, bloc politics with two distinctive government alternatives saw a revival, especially in Sweden and Norway and to a lesser extent in Denmark. Bloc politics is less pronounced in Iceland and Finland (Aylott, 2011). Against this backdrop, we come to the following ranking regarding the level of politicization under normal policymaking: Sweden (High) = Norway (High) > Denmark (Moderate) = Finland (Moderate) > Iceland (Low).

As for explaining cross-country variation, we expect that politicization increases the likelihood of having a hierarchical command and control governance arrangement. This is particularly the case when governments cannot rely on a parliamentary majority (Tsebelis, 2002). There are two reasons why politicization and hierarchical command and control are expected to go hand in hand. First, there is the government as the subject of politicization where hierarchical command and control allows the government to use its agenda-setting power to determine issues that it would like to politicize (Cobb & Elder, 1971). Second, there is the government as object of politicization from opposition parties and interest groups where hierarchical command and control enables a united defense (Moe, 1985). The logic is here that in the face of politicization, government will centralize and apply hierarchical command and control to increase its chances of reelection. Together, this leads us to expect that higher levels of politicization are correlated with having a hierarchical command and control governance arrangement (P3). A caveat is in place, as a governance arrangement based on network and consensus could be a strategy to diffuse responsibility in the face of politicization which means that we need to pay attention to it as a potential blame avoidance strategy (Weaver, 1986).

Politicization is also expected to influence the dynamics of the government opposition in relation to the scope and invasiveness of the regulatory instruments being deployed. It is widely recognized that left-wing parties usually prefer more regulation than right-wing parties in order to reduce or eliminate inequalities between groups in society (Lukes, 2003). Conversely, most right-wing parties in democratic political systems usually place more emphasis on the individual's right to self-determination, which is why they prefer less regulation. Therefore, it must be expected that left-wing governments, all other things being equal, will prefer Covid-19 regulation with a wider scope and which is more invasive as compared to their right-wing counterparts and vice versa. With this as the baseline, higher levels of politicization are likely to be associated with less intrusive outcomes under a left-wing government and vice versa (P4). The reason being that intrusive regulatory instruments are likely to be challenged by right-wing parties and vice versa. In other words, under a left-wing government politicization moderates the regulatory scope and invasiveness to a lower level and the other value around.

To examine the two propositions empirically, we look at the extent to which (i) opposition and supporting parties' questions government policies, (ii) opposition and supporting parties vote to support the government policies in parliament, and (iii) interest groups and social groups mobilize against (draft) government policies.

3. Method

Covid-19, which emerged in China in 2019 and spread to the rest of the world as a pandemic in 2020, is a common natural threat to all political systems. Given this common threat, choosing the Nordic countries is an advantageous setting because the countries are similar in many ways, which other studies have considered important for explaining variation. The polities of the Nordic countries are built around strong welfare states, emphasizing egalitarianism and consensus among groups in society. Politics in the Nordic countries is parliamentary, corporatist and trust-based with a strong emphasis on rule of law. The policies of the Nordic countries are often pragmatic and incremental (Wivel & Nedergaard, 2017). The many highly stable similarities between the political systems enable us to use a most similar system design, for which a large number of potential background conditions that could be related to the choice of governance arrangement and the invasiveness of regulatory instruments are held constant (Przeworski & Teune, 1970). In terms of time, the analysis is demarcated to focus on the outbreak of the pandemic from early 2020 to March 2021.

The article seeks to examine two kinds of variation. Descriptively, it compares within-country variation, that is, similarities and differences between normal policymaking in the Nordic countries and policymaking related to the pandemic. Theoretically, based on four propositions, it examines between-country variation in terms of the associations between expertise and politicization on the one hand, and government responses in terms of governance arrangements and regulatory instruments on the other. As this is a small-N study, we focus on associations rather than causal connections between variables as the latter would require large-N panel data. Thus, studies with more or other countries might find other associations or lack thereof. However, small-N studies offer some protection against spurious or endogenous associations as well as omitted variables because they examine the process associating the independent and dependent variables. Moreover, small-N studies can serve as input for large-N studies by helping with model specification or as a robustness check (Lieberman, 2005).

The article makes use of structured, focused comparison in the comparative case study tradition (George & Bennett, 2005). We compared the five Nordic countries on the independent and dependent variables and examined the extent to which variation in these are related to the variation in government responses in terms of governance arrangements and regulatory instruments. In doing so, we have established several indicators outlined in the theory section, which are mapped through primary sources, such as government and administrative documents, and secondary sources, including academic articles, newspaper articles, and in some cases also expert interviews.

4. Analysis: The Nordic governments' responses to the Covid-19 pandemic

Several actors have been key in the Nordic countries in handling the pandemic, which Table 1 summarizes. The most significant differences concern the governments. Denmark, Norway, and Sweden have had minority governments, while Iceland and Finland have had majority governments. There is also significant variation when it comes to the government's composition, from the Danish one-party government to the Finnish five-party government. Variation can also be detected on the government's ideological composition. Denmark, Finland, and Sweden have left-leaning governments, whereas Norway has a center-right-wing government and Iceland a mixed government composed of conservatives and socialists.

The following analyzes how each Nordic country has handled the pandemic using, on one hand, the theoretical categories discussed in terms of governance arrangements and regulatory instruments and, on the other hand, expertise, and politicization. The results are then compared across countries and are related to the theoretical expectations.

4.1. Denmark

4.1.1. Governance arrangement

The governance arrangement has included many affected ministries and their agencies, as well as the already existing crisis management unit called NOST (Den Nationale Operative Stab) (Christensen *et al.*, 2021, p. 27). Yet, a selective approach to collecting expert advice pitted the two key public centers of epidemiological knowledge against one another, resulting in privileged policy access for one at the expense of the other. This deviates from

Table 1 Actor constellations across Nordic countries

Country/actors	Denmark	Finland	Iceland	Norway	Sweden
Government	Single-party minority-social democratic	Five-party majority government led by social democrats	Majority coalition of three parties, including conservatives and left socialists	Three-party minority center-right government	Minority-social democratic and greens
Health authority	Danish Health Authority—supervision through national guidelines and licensing of regions (hospitals)	Ministry of Social Affairs and Health—advisory of fairly autonomous hospital districts	Ministry of Health—in charge of the provision of health services in the country, including the provision of specialist care and running of hospitals	Norwegian Directorate of Health (NDH)—coordinate, oversees, and supervise specialist care and health enterprises	Public Health Authority (PHA)—advisory of highly autonomous regions (hospitals)
Epidemiologist authority	State Serum Institute—fairly autonomous advisory	Institute for Health and Welfare—fairly autonomous advisory	Chief epidemiologist—highly autonomous advisory	Norwegian Institute of Public Health (NIPH)—fairly autonomous expert body on infection control	PHA—highly autonomous advisory with semi-executive authority

the consensus networked approach of governance associated with the Danish model (Ornston, 2021, p. 257). Expertise advocating more invasive measures gained privileged access in a government exercising centralized top-down management, achieving effective coordination in the process. Moreover, legal expertise was disregarded in relation to the most spectacular intervention during the pandemic in terms of the culling of all minks, as an official commission of inquiry revealed strong centralized steering instead of a networked consensus approach (Jensen & Borre, 2021). Although the governance structure producing key regulatory responses was hierarchically characterized by a strong authoritative center in the form of the prime minister's office, the polity retained substantive network elements as the government engaged intensely with parliament in relation to compensating measures.

4.1.2. Regulatory instruments

The government's initial response to the pandemic was an early March 2020 recommendation to cancel public events with more than 1000 participants. A lockdown entailing a closure of educational premises and all, but "critical" public sector workplaces followed one week later, supplemented by restrictions on international travels. Subsequently, several service professionals were ordered to halt operations. A reopening in stages began in late April 2020 and concluded with the lifting of most travel bans in late June (Ornston, 2021, pp. 250–251). From mid-September 2020, containment regulation was gradually reintroduced, starting with face mask requirements and limitations to opening hours for bars and restaurants in the capital region, which reentered the second lockdown of similar scope to the first in early December, followed by the rest of the country.

However, certain highly invasive measures were avoided altogether, including legally sanctioned "stay at home requirements" and "restrictions on internal movement." Public transport remained operational. Seven mainly rural municipalities suffered a two-week full closure of public transport following an outbreak of the Cluster 5 strain from mink fur farms. Facial coverings were introduced during the second lockdown, while only applying to crowded indoor public spaces, they nonetheless constitute the main difference between the first and the second lockdown with the latter being slightly more comprehensive than the former.

4.1.3. Expertise

In tune with the Nordic model, scientific expertise commands a key position in Danish policymaking. Accordingly, epidemiological experts were vigorously consulted by the government in relation to lockdown and

reopening policies. This expertise was drawn from three institutional settings: the State Serum Institute, which has a narrow pandemic and pharmaceutical perspective; the Danish Health Authority, tasked with taking a societal perspective on health issues; and various university-based experts. The government signaled great confidence in expertise, and ministers were often flanked by senior experts. Expert input also decisively influenced adopted policy measures. However, the government engaged selectively with expertise, sidelining the societally focused Danish Health Authority in favor of the pandemic-focused State Serum Institute (Christensen *et al.*, 2021). Hence, the Danish Health Authority's advice on keeping the society open, avoiding travel bans, and initially not recommending masks were gradually overruled. Although there is no evidence suggesting this changed the autonomy of said center of expertise, it strongly underlines that the government decided which expert advice would inform policy responses. The radical decision to cull all mink also featured a disregard for legal expertise, as the governmental orders turned out to lack a legal basis (Mogensen, 2021).

4.1.4. Politicization

The first lockdown in March 2020 was executed with a broad consensus. The initial measures encountered practically no political opposition, enabling the government to fast-track revisions of the Epidemic Law and instigate several unprecedented policies (Folketinget, 2020, pp. 7–10). Politicization was far more pronounced during the reopening. Center-right parties adopted a pro-business stance, calling for a faster opening, whereas center-left parties urged caution to shield health staff. However, changes in the political backdrop affected politicization during the second lockdown. Firstly, the emergence of popular contestation manifested in small highly publicized demonstrations (Mandag Morgen, 2021). Secondly, a case against a former minister and infights over the controversial decision on culling all minks of the country's substantial fur farming sector enhanced the level of politicization (Korsgaard, 2020). In connection with the second reopening, the right-wing parties supported by business interest pushed to accelerate this, while the left-wing parties advocated for a more cautious approach. In one case, the right-wing parties did not partake in a compromise on reopening, and in other cases, a single right-wing party has not supported a compromise (Hagemann-Nielsen *et al.*, 2021). This shows an increasing politicization, especially in connection with the second reopening.

4.2. Finland

4.2.1. Governance arrangement

Decisionmaking centered on the trio of the prime minister's office, Ministry of Social Affairs and Health, and Finnish Institute for Health and Welfare (THL). It was largely hierarchical, top-down leadership, with the prime minister in a central role, while, consensual elements, including cooperation with opposition parties, were also visible. The government established a high-level COVID-19 working group in the prime minister's office, which brought together the leading civil servants from sectoral ministries. The government convened more often compared to normal policymaking, with active coordination and joint press conferences with the chairs of the five coalition partners. Thus, strong coordination at the highest executive level was accompanied by the Ministry of Social Affairs and Health in lead responsibility for the regulatory instruments (Prime Minister's Office, 2021). In late March 2020, the president, together with the government, suggested the establishment of a special decisionmaking body, a so-called "Corona First" for leading the crisis response, but the prime minister rejected the idea (Tiihonen, 2021). Although Finland is a unitary state, tensions emerged between the government and the subnational authorities, particularly the Regional State Administrative Agencies (*aluehallintovirasto*), whose competence covers public health and safety measures. For the most part, these regional actors complied with governmental recommendations, but open conflicts also occurred. Notably, the National Coalition Party mayor of Helsinki regularly clashed with social democratic ministers, advocating lighter restrictions.

4.2.2. Regulatory instruments

The government adopted a "hybrid strategy," which it communicated and followed throughout the pandemic. The hybrid strategy refers "to a move from extensive restrictive measures to enhanced management of the pandemic. Alongside the controlled dismantling of restrictive measures, the strategy focused on testing, tracing, isolating, and treating" (Tiirinki *et al.*, 2020, p. 653). Health officials conducted contact tracing by interviewing those tested positive. The Covid-19 tracking mobile app was launched in fall 2020, proving highly popular but very

ineffective in tracing. Initially, no real face mask obligation was issued. By fall 2020, however, experts favored a nonmandatory mask recommendation for crowded situations. The most command-type and uniform regulatory instruments based on national-level authority were adopted during the three-month state of emergency that lasted until June 16, 2020: schools, restaurants, and most public facilities were closed; larger public gatherings were prohibited; international borders were closed; and people aged greater than 70 were instructed to stay in self-quarantine conditions. The most invasive restriction on internal movement took place on March 28, 2020, when the government closed off the highly affected Helsinki and surrounding Uusimaa region from the rest of the country for 19 days. At no stage was public transportation closed as such, but schedules were limited due to a dramatic fall in customer demand. As the second lockdown did not entail any internal movement restrictions and less comprehensive school closures, Finland enjoyed a moderate drop in the application and scope of regulatory instruments invoked.

4.2.3. *Expertise*

The Finnish political culture is characterized by trust in scientific expertise (Ruostetsaari, 2017) facilitating a strong role for experts in governmental crisis communication. During the Covid-19 pandemic, the government regularly cited expert opinion, particularly the Finnish Institute for Health and Welfare (THL), for example, when declaring the state of emergency and in relation to face masks. THL experts and select civil servants appeared regularly in the media, often alongside the ministers. Generally, the government followed the recommendations. However, at times, THL and other leading medical experts called for tougher measures, and constitutional experts challenged the legality of certain lockdown provisions (Mörttinen, 2021). At the same time, the experts did not always agree amongst themselves, for example, THL and the regional authorities or doctors from university hospitals sent different messages.

4.2.4. *Politicization*

The first year of the crisis saw a shift from a national consensus supporting restrictions to a more frustrated and divided nation. Initially, normal party politics was put on hold, with strong public support for the measures. The public seemed to appreciate the swift action and tough line, and neither politicians nor the media proposed less stringent policies or earlier relaxation of the emergency measures. The opposition could hardly criticize the government for not taking the situation seriously. However, from autumn 2020 onwards, politicians, experts, interest groups, and citizens increasingly disagreed about the regulatory instruments, while other policy issues returned to public debates. Particularly businesses and trade unions, as well as the cultural sector, became vocal and even defiant in their critiques of the lockdown measures. The government did not help matters with its ever-changing vocabulary. Inside the five-party left-leaning cabinet, some conflicts occurred between the Social Democrats and the Centre Party. The Centre Party which represents sparsely populated areas suffering lower infection rates, held key ministerial portfolios related to finance and economy and expressed discomfort with the tighter restrictions favored by the Social Democrats. Yet, overall, the government displayed unity during the crisis. In October 2020, Krista Kiuru, the social democratic Minister of Family Affairs and Social Services in charge of most Covid-19 regulatory instruments, survived a no confidence vote in the Eduskunta tabled by the National Coalition Party regarding conflicting accounts of face mask instructions.

4.3. **Iceland**

4.3.1. *Governance arrangement*

The governance arrangement developed partly on an ad hoc basis during the Covid-19 crisis with a troika of experts representing the chief epidemiologist, the Directorate of Health and the Department of Civil Protection and Emergency Management at the center of a network of policy actors ranging from the cabinet and ministries to health institutions, the research community and DeCODE genetics—a private company that provided access to various necessary but scarce resources and capabilities in the pandemic's early stages. The policy response was at once centralized, with the troika at the center, and flexible with many different actors lending a hand. The cabinet devoted major attention to crisis management, but given the high degree of ministerial autonomy, it worked officially through the agency of individual ministers. The centralized nature of the health sector—with little autonomous power in the regions—gave little scope for conflict over regional variations in implementation. The small, centralized but relatively unbureaucratic system of government in Iceland turned some of its weaknesses into strengths when faced with the crisis. Although often criticized for inept policy preparations, lack of

procedural formality, and over-politicization (e.g., Kristinsson, 2013), the system proved capable of a swift and efficient response to the crisis. This was achieved in no small part through the application of ad hoc governance mechanisms and flexible policy objectives in response to unforeseen developments. Hence, the informal elevation of experts as key policymakers and the substantial level of political consensus on heeding their advice suggest a highly network-based governance arrangement.

4.3.2. *Regulatory instruments*

Regulatory instruments were applied cautiously with emphasis on information and cooperation, but were also fine-tuned according to the state of the epidemic (cf. Sigurgeirsdóttir, 2021). The first social gathering ban was put in place by mid-March, limiting the number of people allowed to assemble to 100. Those restrictions were tightened a week later, decreasing the number to 10, but then lifted and reinstated as the epidemic developed. Certain highly invasive measures were avoided altogether, such as stay-at-home requirements, restriction on internal movements, and closure of public transport. Yet the second lockdown enhanced the scope of some invoked instruments including cancellations of public events and restrictions on gathering sizes. This was partially offset by the decision to keep all educational facilities open as opposed to the closure of upper secondary schools and universities during the first lockdown. Instruments limiting personal freedoms were almost entirely based on proposals made by the chief epidemiologist.

4.3.3. *Expertise*

The most distinguishing characteristic of Iceland's handling of the crisis was the prominent role experts played (e.g., Scudellari, 2020). The public face of government was the troika of experts. This defined the issue in terms of a technical and medical trajectory—concerned with safeguarding human lives—rather than the potential threats to individual liberties and the state of the economy. The troika held daily direct broadcasts, reaching a public viewer ratio of up to 30%. Characteristically, the responsible ministers were not present during the daily broadcast sessions and tended to express themselves with care concerning individual regulatory instruments. The troika enjoyed an extremely high degree of public trust (Social Science Research Institute, 2021) and was quickly established as the effective leadership in the fight against Covid-19. A wider network of experts also involved in the containment measure dialogue included the National University Hospital, the University of Iceland, and the private company DeCODE genetics. Although formal decisionmaking was done in the name of the relevant minister (usually the Minister of Health) after consultations in the cabinet, the government rarely deviated from the advice of the troika, particularly the chief epidemiologist.

4.3.4. *Politicization*

Iceland experienced an unusually low degree of politicization during the crisis. Although the opposition criticized the government for lack of consultations, there were few attempts to polarize the issue, and at no stage did social unrest or widespread civil disobedience emerge. The broad spectrum covered by the majority coalition (from the conservative Independence Party to the socialist Left Greens) may have helped constrain dissent, especially among conservatives. Some of those most critical of the infringements of personal liberties were in fact supporters of the government, the Independence Party. For the opposition parties, criticizing the government's handling of the crisis would have instantly put them in conflict with expert advice at considerable risks to their credibility. Even in the context of the parliamentary election held in September 2021, the management of the Covid-19 pandemic was hardly contested and ranked low among the electorate (Félagsvísindastofnun, 2021).

The low degree of politicization especially applied to periods when the epidemic was either spreading or peaking. In such circumstances, the problem tended to be perceived as a medical problem to be dealt with according to the advice of the troika and its network. Slightly higher degrees of politicization could be observed during periods of decreasing or low contagion. In such circumstances, pressure grew from affected industries and (to a lesser extent) political skeptics of the high degree of government control and the limitations to personal liberties induced by the crisis. The latter could be observed primarily, but not exclusively, on the political right. Particularly, representatives of tourism, the restaurant sector, and the performing arts tended to oppose major lockdowns and generally interpreted the situation as less serious than the health authorities did.

4.4. Norway

4.4.1. Governance arrangement

The crisis management was characterized by a general strengthening of the central government apparatus and hierarchical steering and coordination from the top. The prime minister and the minister of health (MH) were heavily engaged, as was the ministry of justice, and there was great emphasis on advice from the expert agencies. The expertise played a central role in informing the political decisions, but there was rather a strong steering and control from the ministry, which up to the end of 2021 submitted approximately 300 written assignments to the Norwegian Directorate of Health (NDH) and Norwegian Institute of Public Health (NIPH). The established network arrangements for crisis management within the central government were mainly sidelined in the handling of the Covid-19 pandemic. However, ad hoc network arrangements, such as the Covid-19 committee within the cabinet; more informal daily meetings between the MH, NDH, and NIPH, headed by the secretary general in the MH; and an expert colloquium between NDH, NIPH, and health enterprises were important arenas. The strong collaboration within the central government apparatus was supplemented by consultation with stakeholders and external expert advice.

These network arrangements worked mainly in the shadow of the hierarchy. The traditional consultation and cooperation between public authorities and social partners practice was challenged, but not dismantled. It was constrained by the urgency of the decisionmaking processes. Taken together, the governance arrangements were a combination of hierarchy and networks through formal arrangements and informal consultation. Overall, the Norwegian governance arrangement was characterized by governance informed by experts, rather than governance by experts.

4.4.2. Regulatory instruments

The Norwegian response to the pandemic is characterized by the initial regulations from March 2020, partly deregulations in some areas from early May 2020, reregulations from late October 2020, which encompassed restrictions on public activities, restrictions on visits to nursing homes, restrictions on serving of alcohol in restaurants and bars, border closures and so forth. Schools and kindergartens were closed, especially in the first period. Infection tracing intensified in February and March 2021, and a comprehensive strategy of testing, isolation, and quarantine was enforced. However, the use of face masks started late, and Norway never instigated curfews or very strong authoritative regulatory instruments for people visiting public places or shops. Yet, a ban on internal travel was briefly in force, while border closure, restrictions on cultural and social events, and closing of kindergartens and elementary schools were in effect somewhat longer. The scope of the regulatory measures was broad at the beginning, characterized by national standardization, but over time, there was more room for local variation and adaptation. Hence, on aggregate Norway witnessed a slight decrease in scope due to the absence of restrictions on internal movement during the second lockdown.

4.4.3. Expertise

The role of expertise in the Norwegian crisis management is characterized by some disagreement among the experts but also by collaboration between political, administrative, and expert executives. The decisions were not left to sector experts alone. The different tradeoffs between health, individual freedom, and economy were made by the political executives, and there was a rather open and transparent communication about divergent views to the public in joint press briefings (Christensen & Læg Reid, 2020b). The NIPH, the epidemiological expert body with a rather independent position, systematically advised on softer measures and was sceptical toward the final stricter regulatory instruments by the government. However, the NDH, which was organized closer to the political leadership and with coordinative authority in the interaction with NIPH, side-lined or disagreed with some NIPH advice and recommended stricter regulations. The government basically followed the advice of NDH in their final decisions (NOU, 2021, p. 6). The Norwegian decisionmaking regime went beyond the narrow sector-based epidemiological expertise and diversified the list of experts informing the decisionmaking process. Thus, they included economic experts and experts on the effects of school closures on children and young people, but their advice was not that important, at least not from the latter group (Christensen & Læg Reid, 2022). Legal experts were not involved much, except regarding the law of emergency power.

4.4.4. Politicization

The politicization was low but increased over time, as illustrated by more critical political opposition and media debate, especially related to deregulations and vaccine allocation. Repeating changes in the regulatory regime with more than 200 changes in different means and measures in the Covid-19 provisions resulted in a more confusing regulatory regime, which fueled the public debate. The political opposition had some influence through bipartisan collaboration in parliament on the economic compensation packages and on the corona emergency act, but not much on the regulatory instruments. Overall, the government established a national consensus on how to manage the pandemic. The government's crisis management was not a core topic in the general election in September 2021. It was not among the top five issues in the media coverage, which illustrates that the crisis management was rather depoliticized.

4.5. Sweden

4.5.1. Governance arrangement

The Swedish political-administrative system is fragmented with agencies, regions, and local authorities all enjoying extensive autonomy in relationship to government departments. Furthermore, agencies are restricted by the constitution from interfering with regions and local authorities. They can issue recommendations, negotiate, and provide information, but they cannot give formal commands. Regions oversee medical care, and local authorities manage nursing homes and service facilities for the elderly. Thus, the two perhaps most important sectors of public service during the pandemic were not operating under the auspices of central government but were run by autonomous systems of subnational institutions. This means that the system is essentially neither a strict top-down, hierarchical system with firm command and control processes nor a networked system guided by consensual decisionmaking. Rather, Swedish governance is characterized by strong regions and local authorities enjoying extensive autonomy in relation to central government. If the system is fragmented under normal circumstances that fragmentation becomes a significant obstacle to coordinating a response to a pandemic. The Covid-19 pandemic management was similar to other crises guided by the so-called "responsibility principle" (*ansvarsprincipen*), which states that those actors and institutions that are responsible for various functions and processes during normal circumstances should also be responsible for those functions during a crisis. The combined outcome of these institutional and procedural arrangements was that government ministries and the coordinating bodies put in place to manage their response to the pandemic had to rely on formal levers and informal channels to direct the agencies, regions, and local authorities. As central political control over regions and local authorities is limited, government ministries had to engage the national association of regions and local authorities, SALAR. As a membership-based organization, SALAR is not regulated by public law.

4.5.2. Regulatory instruments

The Public Health Authority (PHA) and the government had a preference for relying on social norms and following recommendations and guidelines from the authorities, using formal, coercive regulatory instruments only when deemed absolutely necessary. Hence, several regulatory instruments were not used, for instance, restrictions on internal movement, facial coverings, and closure of public transport. Here, given the World Health Organization's (WHO) recommendation and the practice in many other countries, facial coverings stand out. Senior epidemiologists did not recommend wearing face masks. Sweden refrained from instigating a comprehensive measure during the first wave, limiting interventions to closing some schools. The second wave sparked a more robust regulatory response including cancellations of public indoor events, restrictions for inbound international travelers, limitations on both private and public gathering sizes, and mandatory proactive contact tracing. The shift between the two lockdowns meant Sweden went from being the Nordic country relying the least on regulatory instruments to a middle ground case surpassing Norway while coming close to Iceland and Finland in terms of the number and scope of regulatory instruments invoked.

4.5.3. Expertise

The role of PHA is to advise government on a wide range of public health-related issues. Government, in turn, weighs expert advice and public health concerns against other salient factors, including the impact of the PHA's recommendations on the economy (Pierre, 2020). The government placed significant trust in the PHA's epidemiologists, continuing to do so even after governments in Denmark and Norway overruled the advice they received

from their experts as the number of Covid-19 cases rose dramatically in March and April 2020. The epidemiologist community in Sweden was deeply divided on how the pandemic should be contained. Notably, the PHA did not endorse the WHO's recommendations on the use of face masks, nor did they seem to consider the ramifications of asymptomatic transmission of the Covid-19 virus. Instead, the PHA largely relied on evidence from similar epidemic outbreaks in the past, without giving due attention to the possibility that Covid-19 behaves differently than, for instance, the 2009 H1N1 virus in terms of contagion, mortality, or asymptomatic transmission. The PHA recommended the government to keep society open, to prioritize the protection of the most vulnerable groups in society and to “flatten the curve” of people admitted to hospitals to avoid overloading the health care system. The scenario that Sweden would sustain higher death tolls in the early phases of the pandemic compared to countries that were locked down appears to have been seen as a corroboration of the strategy and that locked down countries would reach and perhaps even surpass the Swedish death numbers once they reopened. Again, the government tended to trust the experts in the PHA. National policies reflected the advice of the PHA, and the political leadership did not challenge the PHA's rather subtle regulatory approach, relying more on recommendations than coercive rules. This is not to suggest that the PHA dictated all aspects of the pandemic handling, but their expert opinions weighed heavily in the government's decisions on how to respond to the Covid-19 pandemic. From June and throughout the remainder of 2020, the government became significantly more active (Statskontoret, 2020), including daily contact with the PHA and the Social Welfare Agency.

4.5.4. Politicization

In the pandemic's early phases, the parliamentary opposition kept a rather low profile and did not challenge the government's decisions. This was a period where the pandemic was handled almost exclusively by the executive branch; the Cabinet and the executive agencies. Later in 2020, and to a significant extent inspired by comparisons with other Scandinavian countries, opposition parties became more active and assertive in questioning the PHA's advice and the government's execution of that advice. As the pandemic moved into 2021, the opposition stepped up further, requesting parliamentary hearings with the Minister of Social Welfare and other cabinet members. This was also the time when the first reports from the Corona Commission were published. The government found itself in a position where it defended the PHA, whose advice it had implemented, while accepting full responsibility for the handling of the pandemic. In terms of extra-parliamentary opposition, there has certainly been extensive criticism of the government and the PHM. However, this criticism has appeared mainly in the media, including social media, and not in an organized fashion.

4.6. Comparison of the Nordic countries

Table 2 reduces the information from the case studies into ordinal qualitative categories and shows the score of the independent variables under normal policymaking in brackets established in the theory section. The national aggregate scope of regulatory instruments for both lockdowns is indicated numerically (see also subsequent Table 3).

4.6.1. Mapping within-country variation between normal policymaking and Covid-19 policymaking

When comparing differences between the role of expertise during normal policymaking and Covid-19 policymaking, Iceland displayed the largest difference, as expert influence has been much higher during the

Table 2 Nordic pandemic management

Country/analytical categories	Denmark	Finland	Iceland	Norway	Sweden
Governance arrangement	Hierarchical	Hierarchical	Network	Hierarchical	Mixed
Regulatory instruments	High—8.5	High—8	Moderate—6.5	Moderate—5.5	Low—3.5
Expertise	Low (moderate)	Moderate (moderate)	High (low)	Moderate (moderate)	High (high)
Politicization	High (moderate)	Moderate (low)	Low (low)	Moderate (moderate)	Moderate (high)

Table 3 Regulatory instruments invoked during the first lockdown (a) and second lockdown (b)

Regulatory instruments/scope	Not or cautiously applied (score = 0)	Selectively applied (score = 1/2)	Comprehensively applied (score = 1)
<i>(a) First lockdown</i>			
(1) Stay-at-home requirement	None (D, N, I, S, F)	Night curfew	All
(2) Restrictions on internal movement	None (S, D, I)	Certain districts (N, F)	Nationwide
(3) Restrictions on gathering size	None (S)	Public (D, F, I)	Public + private (N)
(4) Restrictions on international travel	Certain destinations (S)	Inbound (D, F, I, N)	Outbound
(5) Contact tracing	App/voluntary (I, N, S)	Proactive voluntary (D, F)	Proactive mandatory
(6) Workplace closure	Select non-food shops and/or personal services (S)	Most non-food shops and/or personal services (D, F, I, N)	Manufacturing
(7) Facial coverings	None (D, F, N, S)	Inside public spaces (I)	Outdoor
(8) Cancellation of public events	None (S)	Indoor (I, N)	All (D, F)
(9) Closure of public transport	None (reduced service) (D, F, I, N, S)	Night	All
(10) School closure (primary, secondary, or tertiary)	One level (N)	Two levels (I, S)	All three levels (D, F)
D = Denmark = 4	$4 \times 0 = 0$	$4 \times \frac{1}{2} = 2$	$2 \times 1 = 2$
F = Finland = 4.5	$3 \times 0 = 0$	$5 \times \frac{1}{2} = 2\frac{1}{2}$	$2 \times 1 = 2$
I = Iceland = 3	$4 \times 0 = 0$	$6 \times \frac{1}{2} = 3$	$0 \times 1 = 0$
N = Norway = 3	$5 \times 0 = 0$	$4 \times \frac{1}{2} = 2$	$1 \times 1 = 1$
S = Sweden = 0.5	$9 \times 0 = 0$	$1 \times \frac{1}{2} = \frac{1}{2}$	$0 \times 1 = 0$
<i>(b) Second lockdown</i>			
(1) Stay-at-home requirement	None (D, F, I, N, S)	Night curfew	All
(2) Restrictions on internal movement	None (D, F, I, N, S)	Certain districts	Nationwide
(3) Restrictions on gathering size	None	Public (D, F)	Public + private (I, N, S)
(4) Restrictions on international travel	Certain destinations	Inbound (D, F, I, N, S)	Outbound
(5) Contact tracing	App/voluntary (I, N)	Proactive voluntary (D, F)	Proactive mandatory (S)
(6) Workplace closure	Select nonfood shops and/or personal services (S)	Most nonfood shops and/or personal services (D, F, I)	Manufacturing
(7) Facial coverings	None (F, S)	Inside public spaces (D, I, N)	Outdoor
(8) Cancellation of public events	None	Indoor (N, S)	All (D, F, I)
(9) Closure of public transport	None (reduced service) (D, F, I, N, S)	Night	All
(10) School closure (primary, secondary or tertiary)	One level (S)	Two levels (F)	All three levels (D)
D = Denmark = 4.5	$3 \times 0 = 0$	$5 \times \frac{1}{2} = 2\frac{1}{2}$	$2 \times 1 = 2$
F = Finland = 3.5	$4 \times 0 = 0$	$5 \times \frac{1}{2} = 2\frac{1}{2}$	$1 \times 1 = 1$
I = Iceland = 3.5	$4 \times 0 = 0$	$3 \times \frac{1}{2} = 1\frac{1}{2}$	$2 \times 1 = 2$
N = Norway = 2.5	$4 \times 0 = 0$	$3 \times \frac{1}{2} = 1\frac{1}{2}$	$1 \times 1 = 1$
S = Sweden = 3	$6 \times 0 = 0$	$2 \times \frac{1}{2} = 1$	$2 \times 1 = 2$

Note: The table summarizes the extent to which 10 regulatory instruments were enacted in the five Nordic states. The left column contains the 10 regulatory instruments. The subsequent columns detail the extent to which instruments were applied given as either: cautiously (score = 0), selectively (score = 1/2) or comprehensively (score = 1). The fields spell out what the scores entail for each regulatory instrument and list the countries with the given score. The last row summarizes scores with the first field accumulating national scores.

pandemic leaving limited space for politics. Denmark comes second but here expert influence declined because the top political leadership asserted itself. The Icelandic approach to expertise can be interpreted as an attempt to avoid blame; the experts take potential criticism about the regulatory instruments needed to counter the crisis,

and politicians come in when positive decisions are to be taken on reopening. Finland, Norway, and Sweden conform to the expectations based on normal policymaking prior to the pandemic.

Comparing countries' rankings regarding politicization under normal policymaking (indicated in brackets) with the empirical findings during the pandemic displays considerable variation for Denmark and Finland, where the level of politicization was more pronounced than anticipated. In Sweden, we see the opposite trend, where there has been more unity and less politicization during the pandemic. Only Iceland and Norway conform to expectations by having low and moderate levels, respectively, during normal policymaking and the pandemic.

4.6.2. Examining between-country variation

As far as governance arrangements are concerned, there are significant differences. Denmark and Finland have notably stronger direct and indirect presences of hierarchy, with the prime ministers applying command and control approaches. Norway also exhibits centralization but with a strong consensus-oriented decisionmaking process. As already indicated, Iceland is characterized by a network-based approach, with three agencies at the center and relevant public and private bodies attached, and most decisions are taken by consensus. Sweden is also closest to the network-based approach, although it must be considered loosely coupled with relatively autonomous units, where decisions are made through negotiation and not consensus. When observing cross-country variation in governance arrangements, it is important to emphasize that all Nordic countries gave priority to networks and consensus in decisionmaking during the pandemic, which is in line with the Nordic model (de la Porte *et al.* 2022). Hence, the variation we observe is a question of degree between the Nordic countries, which cannot be extended *per se* beyond the region, and none of them conforms completely to the model of hierarchical command and control.

If we look at regulatory instruments, all the Nordic countries are characterized by giving significant weight to trust-based approaches and information, economic compensation, and public services, such as universal health care systems. This is in line with the Nordic model (Ibid.). However, there are important differences, which are highlighted in Table 3. Denmark and Finland employed authoritative regulatory instruments more extensively than the other Nordic countries. Norway came in third in the first lockdown but dropped in the second lockdown, whereas Iceland moved toward applying more invasive measures. Sweden's late legislative changes are relatively radical but have seen little use in terms of scope. Thus, Sweden scores the lowest on the application of invasive regulatory instruments during the first lockdown but surpasses Norway during the second lockdown. Regional measures affected Norway, Denmark, and Finland, with the policing of physical access to Helsinki as the most dramatic manifestation. Table 3 summarizes national use of regulatory instruments; scores are based on the most invasive scope.

Looking at the experts' role, there is considerable variation between the Nordic countries. At one end of the spectrum, we find Denmark, where the experts have a minor role compared to the politicians, who are not afraid of overruling their assessments. In this respect, Finland is somewhat like Denmark, where party politics has been decisive in relation to the chosen governance arrangement and regulatory instruments. However, it is important to emphasize that experts in both countries are heeded and that regulatory instruments are often justified with reference to expert assessments. In the middle of the spectrum is Norway, where experts are important, but their recommendations are moderated by ministries and agencies in relation to political logic. For Denmark, Finland, and Norway, disagreement among health experts meant that politicians could choose between different regulatory options while justifying it with references to expertise. Iceland is located at the other end of the spectrum and is markedly unique. Here, experts have a leading role and are decisive regarding regulatory instruments, while politicians play second fiddle. In Sweden, experts are assigned a leading role by design under normal and pandemic policymaking.

We can now turn to whether we can observe covariation in line with our two propositions concerning the relationship between expertise and governance arrangement as well as regulatory instruments. The first proposition is confirmed because a higher influence of experts goes together with having a governance arrangement for pandemic management, which is network- and consensus-based. The second proposition, which assumed that experts use more invasive regulatory instruments because they can do what is necessary, is disconfirmed by the case studies. By contrast, experts, especially in Sweden and Iceland, make use of less invasive regulatory

instruments. Furthermore, in Denmark, Finland, and Norway, where the experts' room for maneuvering is more limited, advocacy by the health authorities for softer regulatory instruments was often subsequently overruled by the politicians, sometimes with reference to other experts. The various case studies indicate why this seems to be the case: if politicians steer the process through hierarchical command and control, they tend to use more invasive regulatory instruments to reduce the likelihood of being blamed for excess mortality and to show political leadership in times of crisis. Furthermore, we see a tendency of isomorphism in Denmark, Finland, and Norway, which is not captured by our theoretical framework, as governments relied on advice from WHO and copied other countries.

In relation to politicization, Denmark, Finland, Norway, and Sweden are characterized by a low degree of politicization at the beginning of the pandemic, where all political parties and civil society organizations support the governance arrangements and regulatory instruments for coping with the pandemic. However, the degree of politicization increases over time. Especially, right-wing parties challenge strict regulatory instruments when they are in opposition, and sometimes from within the government if they took part in the governing coalition. Still, Norway maintains a cooperative approach, while this partially breaks down in Denmark, where major political parties do not take part in important decisions. The broad expert-based approach to dealing with the pandemic in Iceland meant that the crisis remained depoliticized.

Turning to the explanatory value of our expectations concerning politicization, the third proposition states that politicization increases the likelihood of having a hierarchical command and control governance arrangement is *prima facie* confirmed by the case studies. However, the evidence from the case studies suggests that the move toward hierarchical command and control governance arrangements happened in Finland, Denmark, and partly Norway prior to politicization at a time when there was still a "rally round the flag effect." Thus, though the association is present, the cause and the effect do not follow the expected temporal sequence. Yet, the mechanism is to some extent captured by the theoretical logic of the proposition as government applies command and control to better control which issues it would like to politicize. The fourth proposition, which predicts that politicization is likely to lead to less or more invasive regulatory instruments depending upon the government's leaning, is partly disconfirmed. Although in several of the Nordic countries we see how right-wing parties or politicians challenge invasive regulatory instruments, only one case showed that they are successful in changing the policies of the government. Yet, it is difficult to access this proposition given our empirical evidence because it is likely that governments have watered down some regulatory instruments *ex ante* to avoid criticism.

5. Conclusion and discussion

This article endeavored to examine variation within and between the five Nordic countries regarding the management of the pandemic. Looking at within-country variation first, all the Nordic countries, except Norway and Sweden, changed the *modus operandi* during the pandemic from normal policymaking. In Iceland, the role of expertise increased, whereas in Denmark, it decreased. The level of politicization increased in Denmark and Finland. Yet, the level of variation is higher between the Nordic countries during the pandemic. Our comparison reveals several notable patterns. On the one hand, Denmark and Finland had politics-led pandemic management, which made use of more invasive regulatory instruments, while Iceland and Sweden employed expert-led pandemic management. The politics-led pandemic management response is characterized by limiting the role of expertise, increasing levels of politicization, and a hierarchical governance arrangement in which the prime minister's office is in a strong position to assert its will. By contrast, expert-led pandemic management is characterized by high influence of experts, lower levels of politicization, and more network-based governance arrangements.

In terms of explaining variation between the Nordic countries, the proposition, which states that the higher the influence of experts, the more likely it is that the governance arrangement will be network-based and rely on consensus, is confirmed. The role of expertise in the management of the pandemic goes a long way in capturing variation between the Nordic countries. Yet, it is not sufficient because all the Nordic countries, except Sweden, embarked on policy isomorphism (not captured by the article's theoretical framework) by copying other countries and/or heeding advice from WHO. In Sweden, this did not happen, as dominating experts stuck to their own approaches to pandemic management.

This study confirms the value of focusing and examining the impact of expertise and politicization and, thus, offers an important supplement to the comprehensive global comparative study by Greer et al. (2021). It also adds to the findings of Egger et al. (2021) because substantial variation in responses between equally affluent states characterized by high levels of health spending and public trust is observed. Future studies should leverage the insights that most similar states in terms of the structural features identified by respectively Egger et al. (2021) and Greer et al. (2021) can exhibit variation in their responses due to dissimilarities in governance arrangements and levels of politicization.

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Data availability statement

Data sharing is not applicable to this article as no new data were created or analyzed in this study.

References

- Adcock, R., & Collier, D. (2001). Measurement validity: A shared standard for qualitative and quantitative research. *American Political Science Review*, 95(3), 529–546.
- Aylott, N. (2011). Parties and Party Systems in the North. In T. Bergmen & K. Strøm (Eds.), *The Madisonian turn* (pp. 297–328). University of Michigan Press.
- Baekkeskov, E. (2016). Same threat, different responses: Experts steering politicians and stakeholders in 2009 H1N1 vaccination policy-making. *Public Administration*, 94(2), 299–315.
- Black, J. (2002). Critical reflections on regulation. *Australian Journal of Legal Philosophy*, 27, 1–35.
- Bolleyer, N., & Salát, O. (2021). Parliaments in times of crisis: COVID-19, populism and executive dominance. *West European Politics*, 44(5–6), 1103–1128.
- Boswell, J., Corbett, J., Rhodes, R. A. W., & Salomonsen, H. (2021). The comparative ‘court politics’ of Covid-19: Explaining government responses to the pandemic. *Journal of European Public Policy*, 28(8), 1258–1277.
- Christensen, J. G., Askim, J., Gyrd-Hansen, D., & Østergaard, L. (2021). *Håndteringen af covid-19 i foråret 2020 Rapport afgivet af den af Folketingets Udvalg for Forretningsordenen nedsatte udredningsgruppe vedr. håndteringen af covid-19*. Folketinget.
- Christensen, T., & Læg Reid, P. (2020a). Balancing governance capacity and legitimacy: How the Norwegian government handled the COVID-19 crisis as a high performer. *Public Administration Review*, 80(5), 774–779.
- Christensen, T., & Læg Reid, P. (2020b). The Corona virus crisis – Crisis communication, meaning-making and reputation management. *International Public Management Journal*, 23(5), 713–729.
- Christensen, T., & Læg Reid, P. (2020c). The Norwegian government response to the corona pandemic. In P. Joyce, F. Maron, & P. S. Reddy (Eds.), *Good public governance in a global pandemic*. IIAS-IISA.
- Christensen, T., & Læg Reid, P. (2022). Scientization under pressure—The problematic role of expert bodies during the handling of the COVID-19 pandemic. *Public Organization Review*, 22, 291–307.
- Cobb, R. W., & Elder, C. D. (1971). The politics of agenda-building: An alternative perspective for modern democratic theory. *The Journal of Politics*, 33(4), 892–915.
- Coppedge, M., Gerring, J., Knutsen, C. H., Lindberg, S. I., Teorell, J., Altman, D., Bernhard, M., Fish, M. S., Glynn, A., Hicken, A., Lührmann, A., Marquardt, K. L., McMann, K. M., Paxton, P., Pemstein, D., Seim, B., Sigman, R., Skaaning, S. E., Staton, J. K., ... Ziblatt, D. (2019). V-Dem Codebook V9. *SSRN Electronic Journal*, 9, 1–388.
- Cross, M. K. D. (2013). Rethinking epistemic communities twenty years later. *Review of International Studies*, 39(1), 137–160.
- de la Porte, C., Jensen, M. D., & Kvist, J. (2022). Going Nordic: Can the Nordic model tackle grand challenges and be a beacon to follow? Regulation & Governance, Online first (41852462). <https://doi.org/10.1111/rego.12494>
- Egger, C. M., Magni-Berton, R., Roché, S., & Aarts, K. (2021). I do it my way: Understanding policy variation in pandemic response across Europe. *Frontiers in Political Science*, 3, 622069. <https://doi.org/10.3389/fpos.2021.622069>
- Engler, S., Brunner, P., Loviat, R., Abou-Chadi, T., Leemann, L., Glaser, A., & Kübler, D. (2021). Democracy in times of the pandemic: Explaining the variation of COVID-19 policies across European democracies. *West European Politics*, 44(5–6), 1077–1102.
- Félagsvísindastofnun. (2021). <https://fel.hi.is/is/fylgiskraking-fyrir-althingiskosningar-2021>

- Fischer, F. (1990). *Technocracy and the politics of expertise*. Sage.
- Folketinget. (2020). *Året, der gik, i Folketinget – Beretning om folketingsåret 2019-20*. Folketinget.
- Garritzmann, J. L. (2017). How much power do oppositions have? Comparing the opportunity structures of parliamentary oppositions in 21 democracies. *Journal of Legislative Studies*, 23(1), 1–30.
- George, A., & Bennett, A. (2005). Process-tracing and historical explanation—Chapter 10. In *Case studies and theory development in the social sciences* (pp. 43–53). MIT Press.
- Goetz, K. H., Martinsen, D. S., & Müller, W. C. (2021). COVID-19 in Europe: Political reactions and consequences. *West European Politics*, 44(5–6), 1003–1024.
- Greer, S. L., King, E. J., da Fonseca, E. M., & Peralta-Santos, A. (Eds.). (2021). *Coronavirus politics: The comparative politics and policy of COVID-19*. University of Michigan Press.
- Greve, B., Blomquist, P., Hvinden, B., & van Gerven, M. (2021). Nordic welfare states—Still standing or changed by the COVID-19 crisis? In *Social policy and administration* (pp. 295–311). Blackwell Publishing.
- Haas, P. (2008). Epistemic communities. In *The Oxford handbook of international environmental law*. Oxford University Press.
- Haas, P. M. (1992). Introduction: Epistemic communities and international policy coordination. *International Organization*, 46(1), 1–35.
- Hagemann-Nielsen, F., Ingvorsen, E. S., & Trolle, J. S. (2021). *Blå blok bliver ikke en del af ny genåbningsaftale: 'Vi er blevet smidt ud'*. <https://www.dr.dk/nyheder/politik/blaa-blok-bliver-ikke-en-del-af-ny-genaabningsaftale-vi-er-blevet-smidt-ud>
- Jensen, H., & Borre, M. (2021). Eksperter ser en særlig tendens i minksagen: »Hvis statsministeren vil tage æren for det gode, må hun også tage ansvaret for det dårlige«. *Berlingske Tidende*. <https://www.berlingske.dk/politik/eksperter-ser-en-saerlig-tendens-i-minksagen-hvis-statsministeren-vil-tage>
- Jensen, M. D., Lynggaard, K., & Kluth, M. (2022). Paths, punctuations and policy learning—Comparing patterns of European use of scientific expertise during the Covid-19 crisis. *Public Organization Review*, 22, 223–247.
- Koop, C., & Lodge, M. (2017). What is regulation? An interdisciplinary concept analysis. *Regulation and Governance*, 11(1), 95–108.
- Korsgaard, K. (2020, November 10) Dagens overblik: Minkordre var i strid med grundloven, men støttepartier giver afdæmpet kritik. *Altinget*. <https://www.alinget.dk/artikel/dagens-overblik-minkordre-var-i-strid-med-grundloven-men-stoettepartier-giver-afdaempet-kritik>
- Kristinsson, G. H. (2013). Raunhæf skynsemi eða stefnufálm? Samband þings og framkvæmdarvalds við undirbúning opinberrar stefnumótunar. *Stjórnmal & stjórnsýsla*, 9(2), 257–277.
- Lægred, P. (2018). Nordic administrative traditions. In P. Nedergaard & A. Wivel (Eds.), *The Routledge handbook of Scandinavian politics* (1st ed., pp. 80–91). Routledge.
- Lasswell, H. D. (1956). *The decision process: Seven categories of functional analysis*. University of Maryland.
- Lieberman, E. S. (2005). Nested analysis as a mixed-method strategy for comparative research. *American political science review*, 99(3), 435–452.
- Louwerse, T., Sieberer, U., Tuttnauer, O., & Andeweg, R. B. (2021). Opposition in times of crisis: COVID-19 in parliamentary debates. *West European Politics*, 44(5–6), 1025–1051.
- Lukes, S. (2003). Epilogue: The grand dichotomy of the twentieth century. In T. Ball & R. Bellamy (Eds.), *The Cambridge history of twentieth-century political thought* (pp. 602–626). Cambridge University Press.
- Lynggaard, K., Jensen, M. D., & Kluth, M. (Eds.). (2022). *Governments' responses to the Covid-19 pandemic in Europe: Navigating the perfect storm*. Palgrave Macmillan.
- Mandag Morgen. (2021). *De Samler Frustrerede Danskere i Protest mod Coronarestriktioner*. <https://www.mm.dk/artikel/fem-noeglepersoner-i-coronaoproeret>
- March, J. G., & Simon, H. A. (1993). *Organizations*. Wiley.
- McConnell, A., & Stark, A. (2021). Understanding policy responses to COVID-19: The stars haven't fallen from the sky for scholars of public policy. *Journal of European Public Policy*, 28(8), 1115–1130.
- Moe, T. (1985). The politicized presidency. In J. E. Chubb & P. E. Peterson (Eds.), *New direction in American politics* (pp. 244–263). Brookings Institution.
- Mogensen, L. T. (2021). Minkskandalen kan udvikle sig livsfarligt for Mette Frederiksen. *Information*. <https://www.information.dk/indland/2021/10/minkskandalen-kan-udvikle-livsfarligt-mette-frederiksen>
- Mörttinen, M. (2021). *Valtioneuvoston ydin kriisitilanteessa: Covid-19 pandemian painee suomalaiselle päätöksenteolle*. Sitra.
- Neuvonen, P. J. (2020). The COVID-19 policymaking under the auspices of parliamentary constitutional review: The case of Finland and its implications. *European Policy Analysis*, 6(2), 226–237.
- NOU. (2021). *Myndighetenes håndtering av koronapandemien. Rapport fra Koronakommisjonen*. Statsministerens Kontor.
- Öberg, S. A., & Wockelberg, H. (2016). Nordic administrative heritages and contemporary institutional design. In *Nordic Administrative Reforms* (pp. 57–78). Palgrave Macmillan.
- Ornston, D. (2021). Denmark's response to COVID-19 – A participatory approach to policy innovation. In S. L. Greer, E. J. King, E. M. da Fonseca, & A. Peralta-Santos (Eds.), *Coronavirus politics: The comparative politics and policy of COVID-19*. University of Michigan Press.
- Palonen, K. (2003). Four times of politics: Policy, polity, politicking, and politicization. *Alternatives: Global, Local, Political*, 28(2), 171–186.
- Persson, T. (2018). The parliaments of the Scandinavian countries. In *The Routledge handbook of Scandinavian politics* (pp. 103–113). Routledge.
- Pierre, J. (2020). Rudeges against pandemics: Sweden's COVID-19 containment strategy in perspective. *Policy and Society*, 39(3), 478–493.

- Pierre, J., & Peters, B. G. (2021). *Advanced introduction to governance*. Elgar advanced introductions series. Edward Elgar Publishing.
- Prime Minister's Office. (2021). Selvitys koronakriisin aikana toteutetun valtioneuvoston kriisijohtamisen ja valmiuslain käyttöönoton kokemuksista. *Valtioneuvoston selvitys*, 2021, 1.
- Przeworski, A., & Teune, H. (1970). *The logic of comparative social inquiry*. Mallabar.
- Rothstein, B. (1998). *Just institutions matter*. Cambridge University Press.
- Rubin, O., & de Vries, D. H. (2020). Diverging sensemaking frames during the initial phases of the COVID-19 outbreak in Denmark. *Policy Design and Practice*, 3(3), 277–296.
- Rubin, O., Errett, N. A., Upshur, R., & Baekkeskov, E. (2021). The challenges facing evidence-based decision making in the initial response to COVID-19. *Scandinavian Journal of Public Health*, 49(7), 790–796.
- Ruostetsaari, I. (2017). Stealth democracy, elitism, and citizenship in Finnish energy policy. *Energy Research & Social Science*, 34, 93–103.
- Scharpf, F. W. (1994). Games real actors could play. *Journal of Theoretical Politics*, 6(1), 27–53.
- Scudellari, M. (2020). How Iceland hammered COVID with science. *Nature*, 587, 536–539. <https://www.nature.com/articles/d41586-020-03284-3>
- Sigurgeirsdóttir, S. (2021). Iceland. *Health System Response Monitor*. <https://www.covid19healthsystem.org/countries/iceland/countrypage.aspx>
- Skydsgaard, M. A. (2021). *Fra pest til corona, 1349*. Danmarkshistorier, vol. 50. Aarhus Universitetsforlag.
- Social Science Research Institute. (2021). *COVID tracking*. <https://fel.hi.is/is/covid-tracking>
- Statskontoret. (2020). *Förvaltningsmodellen under pandemin*. Statskontoret.
- Tiihonen, S. (2021). Pääministerin nousu kriisijohtajaksi. *Politiikka*, 63(1), 82–93.
- Tiirinki, H., Tynkkynen, L., Sovala, M., Atkins, S., Koivusalo, M., Rautiainen, P., Jormanainen, V., & Keskimäki, I. (2020). COVID-19 pandemic in Finland – Preliminary analysis on health system response and economic consequences. *Health Policy and Technology*, 9(4), 649–662.
- Tsebelis, G. (2002). *Veto players: How political institutions work*. Russell Sage Foundation.
- Virtanen, T. (2016). Roles, values, and motivation. In *Nordic administrative reforms* (pp. 79–103). Palgrave Macmillan.
- Weaver, R. K. (1986). The politics of blame avoidance. *Journal of Public Policy*, 6(4), 371–398.
- Wivel, A., & Nedergaard, P. (2017). Introduction: Scandinavian politics between myth and reality. In P. Nedergaard & A. Wivel (Eds.), *The Routledge handbook of Scandinavian politics* (pp. 1–9). Routledge.
- Wolff, S., & Ladi, S. (2020). European union responses to the Covid-19 pandemic: Adaptability in times of permanent emergency. *Journal of European Integration*, 42(8), 1025–1040.
- Yan, B., Zhang, X., Wu, L., Zhu, H., & Chen, B. (2020). Why do countries respond differently to COVID-19? A comparative study of Sweden, China, France, and Japan. *The American Review of Public Administration*, 50(6–7), 762–769.
- Zahariadis, N., Petridou, E., Exadaktylos, T., & Sparf, J. (Eds.). (2022). *Policy styles and trust in the age of pandemics—Global threat, National Responses*. Routledge.