

RESEARCH ARTICLE

Open Access



Planning and meta-planning to cope with disruptive events: what can be learnt from the institutional response to the Covid-19 pandemic in Italy

Stefano Moroni^{1*} , Anita De Franco¹, Carolina Pacchi¹, Daniele Chiffi¹ and Francesco Curci¹

Abstract

The Covid-19 pandemic has been analysed and discussed from many disciplinary perspectives. An aspect that still needs critical exploration is the role—that is, the modes and forms—of regulatory interventions during the pandemic. It is interesting to note in this regard that, in many studies, regulatory measures are labelled “non-pharmaceutical interventions”, as if they do not have any specificity on their own and only represent a theoretically residual category. The main aim of this article is instead to focus on the distinctive features of normative measures as such. As regards the article’s focus, it centres on the normative interventions in the first period of the pandemic—that is, 2020—with particular reference to Italy. We have chosen to focus on this period because the most extensive and severe restrictions introduced to combat Covid-19 were established at that time. And we have chosen to consider Italy because it was the first country, after China, to be hard hit by the virus and to react in a draconian manner. As regards the methodology, the article is based, in general and primarily, on an extensive interdisciplinary literature review. With reference to the Italian case, the study is additionally based on: first-hand data collection and analysis (especially concerning Italian normative measures mainly issued at the national level: their type, frequency, target, hierarchical relationships); second-hand data and analysis (for instance as regards the effectiveness of Italy’s and other countries’ regulatory measures). In discussing the Italian response to the Covid-19 pandemic, certain weaknesses have been identified; and possible lessons have been highlighted, in terms of both “planning” (i.e. the necessity to better pre-define concrete and circumscribed sets of actions) and of “meta-planning” (i.e. the necessity of better planning the way in which public authorities could and should plan and act). Although this article is mainly based on the Italian situation, what we can learn from this case is largely generalizable.

Keywords Covid-19, Lockdown, Planning, Meta-planning, Preparedness

Introduction: aim, focus, structure

The Covid-19 pandemic has been analysed and discussed from many disciplinary perspectives. An aspect that still needs critical exploration is the role—that is, the *modes*

and *forms*—of regulatory interventions during the pandemic (Di Mascio et al. 2020; Beresniak et al. 2023). It is interesting to note in this regard that, in many studies, regulatory measures are labelled “non-pharmaceutical interventions”, as if they do not have any specificity on their own and only represent a theoretically residual category. The main aim of this article is instead to focus on the distinctive features of normative measures as such. From this perspective (and to address a gap in the literature), two issues in particular seem to require further

*Correspondence:

Stefano Moroni
stefano.moroni@polimi.it

¹ Department of Architecture and Urban Studies, Polytechnic University of Milan, Milan, Italy



© The Author(s) 2023. **Open Access** This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article’s Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article’s Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>.

critical analysis. On the one hand, the term “lockdown” is often used as if it denotes the same set of restrictive measures everywhere; by contrast, there were significant procedural and substantive differences among the countries usually considered to have adopted a lockdown (Rozanova et al. 2020; John and Curran 2022; Pavani et al. 2022). On the other hand, when the necessity to revisit the very idea of “planning” is invoked with regard to disruptive events like a pandemic (as appropriately deemed necessary by, e.g., Grant 2020; Jon 2020; Ibert et al. 2022), different *levels* of public intervention are not usually distinguished. However, a clear demarcation between what can be more properly called “planning” and what we propose to call “meta-planning” seems indispensable in this regard.

As regards this article’s focus, it centres on the normative interventions in the first period of the pandemic—that is, 2020—with particular reference to Italy. We have chosen to focus on this period because the most extensive and severe restrictions introduced to combat Covid-19 were established at that time. And we have chosen to consider Italy because it was the first country, after China, to be hard hit by the virus and to react in a draconian manner (Berardi et al. 2020; Ortenzi et al. 2020; Giovannini and Mosca 2021; Vicentini and Galanti 2021; Zia and Kalim 2021).

As regards the article’s structure, it is organised as follows. After a section devoted to some preliminary methodological clarifications, the following one provides an overview of the Italian situation, both in terms of the spread of the virus and in terms of institutional responses in the period considered. The subsequent section critically examines the regulations introduced (as well as the assumptions underlying them) and considers the lessons that can be learnt for the future, with particular attention to the distinction between planning and meta-planning. The final section concludes by highlighting the main findings and suggesting further possible directions for research.

Preliminary methodological clarifications

As regards the methodology, the article is based, in general and primarily, on an extensive interdisciplinary literature review (with a particular focus on regulatory responses to the pandemic and the issue of planning for disruptive events). With reference to the Italian case, the study is additionally based on: (i) first-hand data collection and analysis (especially concerning Italian normative measures mainly issued at the national level: their type, frequency, target, hierarchical relationships)¹; (ii)

second-hand data and analysis (for instance as regards the effectiveness of Italy’s and other countries’ regulatory measures).

However, it is important to stress from the outset that the article claims no particular originality in terms of empirical data/research because its main contribution is of a critical and theoretical nature.

The Italian case: the spread of Covid-19 and the institutional response

In this section we consider the Italian institutional response in 2020 to the Covid-19 pandemic. The government in office at that time was headed by Giuseppe Conte, in his second mandate (which started in September 2019 and terminated in mid-February 2021). In what follows, whenever we refer to the “government” without any qualification we mean this government.

In 2020, Italy and some regions and urban areas in particular—for example, Lombardy and the cities of Bergamo and Milan—had been heavily affected by the Covid-19 pandemic. Especially during the first wave (from February to May 2020) and the second wave (from October to December 2020), fatality rates were particularly high in Italy. In 2020 there were about 77,000 cases of deaths associated with Covid-19 infection (ISTAT 2022)² Note that, in 2020, the total number of deaths from various causes was 746,146 (the highest number ever registered since the post-war period): 100,526 more deaths than the 2015–2019 average (i.e. 15.6% in excess) (ISTAT 2021, 2022, 2023).

Minimisation of the problem in the early phase

During the very early stage of the pandemic, Italian politicians had tended to disregard or, at most, minimise the problem. This is often one of the first mechanisms for responding to situations of uncertainty (Romiti and Talerico 2021). As Colombo (2021, p. 572) notes, “until mid-February 2020, in Italy, the coronavirus seemed like an exotic matter”. The same point is stressed by De Blasio and Selva (2021, p. 4): “The overall message was to try to carry on business as usual, dismissing the pandemic as a sort of ‘enhanced’ seasonal flu”.

Four days after the introduction of a severe lockdown in Wuhan, the Italian Ministry of Health closed Italian

Footnote 1 (continued)

atti-emergenza-epidemiologica (accessed October 2021). We also considered the repository at <https://www.openpolis.it/coronavirus-lelenco-completo-degli-atti/> (accessed October 2021).

² See also ISS (2021) and <https://www.who.int/data/sets/global-excess-deaths-associated-with-covid-19-modelled-estimates> (accessed September 2023). In 2021, deaths associated with Covid-19 infection in Italy were around 59,000 (ISTAT 2022).

¹ For the administrative and regulatory documents (regarding Covid-19) of the government and other central Italian agencies, we considered www.gazzettaufficiale.it/dettaglioArea/12; www.agenziacoese.gov.it/covid19-

airports to flights arriving from China (Ordinance of 30 January 2020). “Suspicious cases” to be flagged were those identified with symptomatic individuals who had had contact with China. A state of emergency was declared with a resolution of the Council of Ministers (of 31 January 2020). The state of emergency allowed the government to act differently from ordinary legislation, and enabled the *Protezione Civile* (Civil Protection Department), Ministry of Health, regional governments and even municipalities to take extraordinary measures. As highlighted by Griglio (2020, p. 10), the central Italian government declared a state of emergency “without any significant form of parliamentary involvement”. In the first three weeks after the declaration of emergency, however, only some minimal administrative actions were considered.

On February 20, the first domestic case of Covid—a person who did not have relations with abroad—was diagnosed in Codogno, a small town in the Lombardy Region, by a doctor who decided not to follow the protocol established by the Ministry of Health and tested a patient even if he had not had any contact with China. As this doctor said in an interview (Chiffi 2021, pp. 161–162), as of February 20 “according to the protocol a patient was to be considered at risk of coronavirus infection only if he/she came from China or came into contact with people affected by coronavirus. The protocol in force on that date, in fact, did not prevent me from carrying out the examination in question: however, it would have justified a non-execution of the same examination since it was not deemed mandatory for the specific case”.

Severe restrictions introduced

With the increase in cases in some areas of Lombardy and Veneto, a Prime Ministerial Decree (DPCM) of 23 February 2020 established in these regions a total of 11 local “red zones”—that is, zones with special restrictions—concerning small municipalities. At the beginning of March, when the spread of the virus became wider and deaths increased significantly, the government decided to act more peremptorily. The response consisted mainly of restrictive regulatory measures.

All this occurred in a situation in which there was a shortage of medical doctors and nurses (Table 1) and a significant scarcity of protective equipment for health-care staff. As Kuhlmann et al. (2023, p. 3) note, even some “high-income OECD countries, including [...] Italy, have long ignored health workforce policy”. Furthermore, the number of intensive care unit beds was quite low in Italy at that time: 5139 (Ministero della Salute 2019). In terms of intensive care units per 100,000 inhabitants (Table 2), Italy was one of the worst countries in Europe at the beginning of the pandemic. (On this issue in comparative

Table 1 Number of medical doctors and nurses per 1000 inhabitants; selection of European countries, 2020 or latest available year (source: www.oecd.org/coronavirus; accessed Oct 2021)

Country	Doctors	Nurses
Norway	5.10	18.05
Switzerland	4.41	17.96
Germany	4.47	13.95
Ireland	3.47	12.88
Austria	5.36	10.37
Sweden	4.32	10.85
Luxembourg	2.98	11.72
France	3.36	11.07
Denmark	4.19	10.10
Belgium	3.16	11.07
Slovenia	3.26	10.28
Czech Republic	4.07	8.56
Lithuania	4.57	7.74
United Kingdom	3.03	8.45
Italy	4.00	6.68
Spain	4.40	5.89
Hungary	3.49	6.62
Estonia	3.47	6.24
Slovakia	3.57	5.74
Poland	2.38	5.10

Table 2 Intensive care beds capacity; selection of European countries, 2020 or latest available year (source: www.oecd.org/coronavirus; accessed October 2021)

Country	Intensive care beds capacity (per 100,000 population)
Germany	33.9
Austria	28.9
Belgium	17.4
France	16.3
Switzerland	11.8
Hungary	11.2
England	10.5
Poland	10.1
Spain	9.7
Italy	8.6
Norway	8.5
Denmark	7.8
The Netherlands	6.7

terms, see for instance Islam et al. 2020. On the evolution—and problems—of the Italian national health service, see Ricciardi and Tarricone 2021).

Table 3 Central normative and administrative acts concerning Covid-19 during the Conte II government (our elaboration)

Issued by	Type of Act	Number of normative and administrative acts
Parliament	Laws	14
Government	Decree-Laws	34
Prime Minister	DPCMs	28
Various (Ministries of Health and of Interior, Civil Protection Department...)	Other acts (ordinance, resolutions, etc.)	441

The regulatory reaction of the Italian government (starting from the DPCMs of 8, 9 and 11 March 2020)³ was: (i) highly centralised and mainly entrusted to the executive branch; (ii) primarily based on Decree-Laws and DPCMs⁴ issued in large quantities; (iii) prevalently focused on detail restrictions. As Nicola and Scaccia (2021, p. 68) observe, the regulatory measures introduced by the Italian government were pervasive and very specific: “Rather than releasing a general preventative framework relying on the citizens’ self-preservation, the regulations were hyper-detailed and enforced with high penalties”.

During the Conte II government more than 500 normative and administrative Covid-19 acts were issued by over 30 central public institutions and agencies, including: the Presidency of the Council of Ministers; various Ministries (e.g. the Ministries of Health, Interior, Transport, Education, Economy); the Civil Protection Department (Table 3). Parliament directly issued less than 4% of these acts.⁵ As Canestrini (2020, p. 118) comments: “More and more restrictions were applied on a day-by-day basis: the roll-out of the new restrictions has been chaotic”. Algostino (2021, p. 5) speaks of a “normative patchwork”, in relation to which Parliament is conspicuous by “its absence”. Nicola and Scaccia (2021, p. 68) similarly observe that the overregulation of the lockdown resulted in a bundle “of ambiguous, sometimes contradictory rules [...] impossible for civil servants [...] and professionals to grasp, let alone citizens who were at a loss in this legislative jungle”.

Constraints introduced during the most severe restriction phases can be divided into two main kinds. First, there were *constraints on individual behaviour*: for instance, prohibition of leaving home and crossing municipal boundaries (except for unavoidable necessities); obligation to maintain social distancing everywhere and to wear a mask both indoors and outdoors. Second, there were *constraints on activities*: for example, industrial and commercial businesses (e.g. closure of production and commercial activities, excluding those deemed indispensable), cultural facilities (e.g. closure of museums and theatres), educational institutions (e.g. closure of schools and universities).

In the first period (March–May 2020, for a total of 69 days), these restrictions uniformly affected the whole of Italy. Police forces conducted intense patrols to ensure compliance with the regulations (Scalia 2021). Subsequently, and in particular after the relaxation of restrictions during summer, lockdown measures affected (from November 2020) only the Italian regions exceeding specific epidemiological thresholds. On the basis of certain parameters, regions were classified into *red*, *orange* or *yellow* zones corresponding to decreasing degrees of restriction (DPCM of 3 November 2020). Lombardy was one of the regions that remained in the “red zone” (i.e. the zone with the most severe restrictions) for the longest time, together with Campania.

The highly centralised approach that characterised the regulatory response was also adopted in the management field, with the appointment of national commissioners to, for example, organise the production and distribution of medical devices (e.g. masks). The first commissioner was appointed by DPCM on 18 March 2020 and remained in charge for 11 months. As Di Mascio et al. (2020, p. 623) commented, in this case “general norms have been waived, and large powers have been entrusted to the commissioner that bypassed the tight enforcement

³ Note that some different (non-regulatory) measures were also approved in 2020 in an attempt to provide compensation for citizens and businesses (e.g. temporary suspension of tax obligations, subsidies for tenants, relief for commercial activities). However, it is not the aim of this article to consider these measures as well. For a critical discussion see e.g. Bizzioli and Beretta (2020); Pianta et al. (2021).

⁴ Decree-laws must be converted into law within 60 days. If this does not happen, they lapse (art. 77, Italian Constitution). DPCMs are issued only by the Prime Minister and must not be converted into law by Parliament. There is no supervision by the President of the Republic.

⁵ See www.openpolis.it (accessed October 2021).

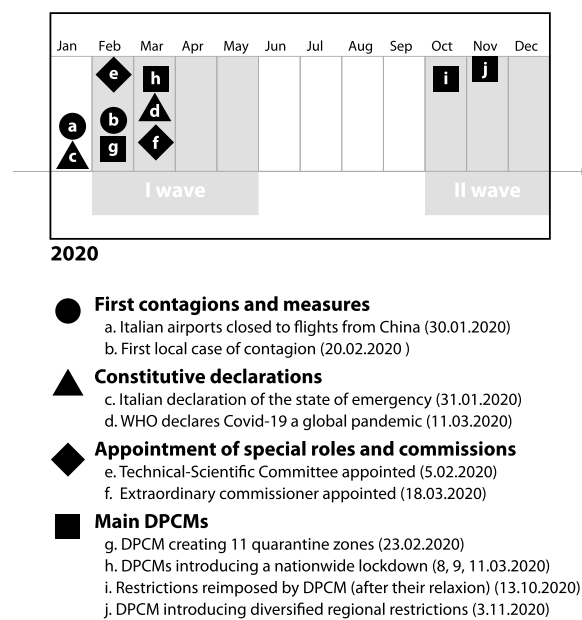


Fig. 1 Chronology of main events in 2020

system of the ordinary framework”⁶ Note that the commissioner obtained a special “*scudo legale* [legal shield]”, which relieved him of certain ordinary responsibilities (Decree-Law no. 18 of 17 March 2020, art. 122).

It is interesting to note that the Italian government also appointed various technical committees (e.g. the *Technical-Scientific Committee*, set up on 5 February 2020) and task forces. This proliferation of advisory committees and task forces is indicative of the decision-makers’ uncertainty and low confidence (Capano 2020, p. 339).

In conclusion and to summarize, the main events considered are shown in Fig. 1.

Discussion

Two main problems with the Italian institutional response to Covid-19

During 2020, the Italian institutional response to Covid-19 was affected by two main problems: (i) problems of procedural legitimacy; (ii) problems with assumptions.

Regarding the *first set of problems*, namely issues with *procedural legitimacy*, the following three points in particular seem questionable.

First, and in line with the declaration of emergency, was the continuous use of decrees and, in parallel, the marginalization of the role of parliament (Bruno et al. 2021; Corradetti and Pollicino 2021; Pedersen and Borghetto

2021; Piccirilli 2021; Vedaschi 2022). The excessive and recurrent use of DPCMs is a problem in itself because DPCMs are issued only by the Prime Minister and are immediately effective. They are therefore subject to control neither by Parliament nor by the President of the Republic. In thus expanding the use of DPCMs, “the Italian prime minister has brought about significant changes in the process of government decision making by showing an increasingly centralised control over policy making” (Rullo 2021, p. 68 see also Fittipaldi 2021). According to some, it is doubtful that DPCMs are perfectly constitutional in the way they were employed. As Nicola and Scaccia (2021, p. 70) write: “DPCMs are administrative provisions and are not the correct legislative instrument envisaged by the Constitution to restrain fundamental rights” (see also Omizzolo and Sodano 2020)⁷ Nevertheless, in general, also generic decree-laws can be criticised if used too frequently and in certain ways. In this regard, various actions implemented during the pandemic minimised the role of Parliament. For instance, some rules contained in the lapsed decrees (i.e. decrees not approved by the Parliament within the requisite time limit) were recovered and inserted into subsequent ones. Certain aspects concerning the use of decrees during the pandemic period were criticised by the *Comitato per la legislazione della Camera* (Legislation Committee).⁸ The President of the Republic, Sergio Mattarella, also criticised the excessive and, in some cases, improper use of decrees in two letters sent to Parliament on 11 September and 23 July 2021⁹ Note, moreover, that the mechanism of the “*fiducia*” (i.e. a vote of confidence) has been frequently used to secure government measures—which is a way not only to speed up the process but also to prevent the chambers from modifying the provisions defined by the executive. During the Conte II government, a total of 39 *fiducia* motions were tabled in the Chamber and Senate, at an average of 2.4 per month¹⁰.

Secondly, also criticisable is the frequent and continuous (production and) revision of administrative and regulatory acts, which created a constant and deep “normative uncertainty”. Also some legally obligatory “certificates” connected to these administrative and regulative acts changed several times, thus increasing

⁷ Note that the Italian Constitutional Court has “saved” the use of DPCMs at least in some cases (resolution no. 198 of 22 October 2021).

⁸ See e.g. the Report of 11 May 2021 (www.camera.it; accessed October 2021). The committee (a body belonging to the Chamber of Deputies) is called upon to express an opinion on decree-laws presented by the government to the parliament.

⁹ See especially Sergio Mattarella’s “Lettera ai Presidenti Casellati, Fico e Draghi in materia di decreti legge” (www.quirinale.it/elementi/59260; see also www.quirinale.it/elementi/50180; accessed October 2021).

¹⁰ See www.openpolis.it (accessed October 2021).

⁶ The special commissioner’s numerous ordinances are available at www.governo.it/dipartimenti/commissario-straordinario-lemergenza-covid-19/cscovid19-ordinanze/14421 (accessed September 2022).

confusion and uncertainty among the general public; this is, for instance, the case of the so-called “*auto-certificazioni* (self-certifications)” required to justify specific movements during the lockdown. Note that the difficulty in interpreting so many administrative and regulatory acts is also questionable, so much so that the FAQs on the ministries’ website were often taken as the main referents (Velo Dalbrenta 2020). An example is provided by the interpretative doubts created by the term “*congiunti*”: a term akin to “relatives”. According to the DPCM (of 26 April 2020, art. 1), movements to reach *congiunti* were acceptable. However, no definition of *congiunti* appears in the Italian Civil Code. Therefore, it was unclear whether this label included not only legally married couples but also cohabitants or same-sex partners. After some debate, the government declared that *congiunti* included “stable relationships”: a clarification that created even more confusion (Nicola and Scaccia 2021, p. 69; on this issue, see also Monaco 2022).

Thirdly, the strong centralisation of regulatory decisions in the hands of the central state is also criticisable. This aspect generated a continuous and infertile inter-institutional friction between, for example, the state and the regions (Ren 2020; Giovannini and Mosca 2021; Salvati 2022; Vese 2023) and, in some circumstances, also between the central state and large cities. In some cases, a direct institutional clash between the central government and regional governments occurred. Apart from various generic frictions, there were also legal disputes. An ordinance of the President of Calabria (no. 37 of 29 April 2020), for instance, was challenged by the central government and subsequently declared void by the Administrative Regional Tribunal (Tar Calabria, resolution no. 457 of 9 May 2020). Similarly, an ordinance of the President of Marche (no. 1 of 25 February 2020) was suspended by another Administrative Regional Tribunal (Tar Marche, resolution no. 56 of 27 February 2020). In short, the pandemic demonstrated the limits of the Italian model of distribution of competencies among the different institutional levels (Nicola and Scaccia 2021; Alber et al. 2022).

A second set of problems with the Italian institutional response—to resume our general discourse—concerns *assumptions*. Italian regulatory action appears to have assumed a reductive view of the recipients of the regulations and an antiquated and static vision of contemporary (urban) societies.

As regards *people*, the image underlying the regulatory interventions seems to have been that of selfish and short-sighted individuals; that is, individuals completely unable to assume any responsibility unless required to do so by the state—even individuals who had to be

deliberately “terrified” to comply with the rules (this issue is discussed in general terms by Dodsworth 2021).

As regards *society*, the image underlying the regulatory interventions seems to have been an “outdated” one in various respects concerning, for instance, relationships between people (consider the above-mentioned issue of *congiunti*). It was, so to speak, also a “static” image. Consider for example the four following points. First, the idea of preventing travel outside the municipality of residence regardless of the size of the municipality itself; as a consequence, both in small and rural municipalities and in large urban areas, people were subject to the same restriction of not being allowed to cross the municipal administrative boundaries. Second, the underestimation of the importance of flows—of people and goods—across contemporary urban societies; the point here being that contemporary cities cannot survive without these flows (as a consequence, it is—and it effectively was—simply impossible to reduce them to less than a certain amount). Third, the fact that the government may order when commercial activities must close and may re-open, without a minimum of notice; the crux of the matter is that all commercial (and productive) activities are somehow linked to other ones which supply them with goods and services: notably, the chain-connected nature of urban activities was significantly underestimated. Fourth, the closure of economic activities based on obsolete classifications (Lupatelli 2021); that is, the ATECO codes (usually employed by the Italian National Statistical Institute to identify industry and service sectors and introduced in its current version in 2007). As Tiraboschi (2020, pp. 46–47) notes, when discussing Italian Covid-19 measures: “The ATECO codes provide a rather abstract and unreliable picture of Italian economic and production activities. One reason for this is that these codes draw on an old-fashioned ‘geography of work’”.

The issue of (regulatory) effectiveness

The effectiveness of the regulatory measures adopted in Italy to fight Covid-19 (i.e. their capacity to flatten the curve and reduce mortality) has been disputed—particularly in comparison with the less restrictive measures adopted in other countries. What matters here is not so much whether the restrictive policies applied in a *single* country have had, *cumulatively*, an effect on the containment of the pandemic, something on which some studies focus. In this case, in fact, it is not possible to distinguish *which* of the various restrictive measures have had positive effects and which have not.

Studies comparing different sets of measures in various countries are more relevant in this regard. Actually, restrictive policies in various countries have not been as homogeneous as the media and politicians have often

suggested. As John and Curran (2022, p. 643) write: “There is no such thing as ‘lockdown’ per se; rather, there are lockdown policies which vary along two dimensions. First, in terms of their generality [...]. Second, in terms of their restrictiveness”. Along the same lines, Pavani et al. (2022, p. 6) note: “The term ‘lockdown’ is not well defined. Indeed, there are different adjectives used for the term, such as ‘total’, ‘full’, ‘hard’, ‘partial’, and/or ‘soft’ lockdown suggesting also different degrees of restrictions”.

Some comparative studies (Boretti 2020; Meunier 2020; Bendavid et al. 2021; Fuss et al. 2021) have shown that the particularly severe restrictions adopted in Italy, and in other countries that enacted similar policies, did not have effects markedly different from those of the less severe ones adopted in others, both in Europe (e.g. in Sweden, on which see: Yan et al. 2020; Bylund and Packard 2021; Kuhlmann et al. 2021) and in other continents (e.g. in South Korea: Jeong et al. 2020; You 2020).¹¹

As Bendavid et al. (2021, p. 4) note, after comparing eight countries that implemented more restrictive policies (i.e. England, France, Germany, Iran, Italy, the Netherlands, Spain and the United States) with two countries that implemented less restrictive ones (i.e. Sweden, South Korea), “There is no evidence that more restrictive nonpharmaceutical interventions [...] contributed substantially to bending the curve of new cases in England, France, Germany, Iran, Italy, the Netherlands, Spain or the United States in early 2020”. And they specify: “By comparing the effectiveness of NPIs [nonpharmaceutical interventions] on case growth rates in countries that implemented more restrictive measures with those that implemented less-restrictive measures, the evidence points away from indicating that mNPIs [more restrictive nonpharmaceutical interventions] provided additional meaningful benefit above and beyond lNPIs [less restrictive nonpharmaceutical interventions]” (Bendavid et al. 2021, p. 4). Compare the conclusion of the study by Koh et al. (2020, pp. 48–49) considering 142 countries: “We found that less stringent lockdown-type measures [...] were as effective as complete lockdowns in reducing transmission”. And see what Fuss et al. (2021, p. 43) stress after analysing the epidemiological data in 92 countries, states and provinces: “Comparing the effectiveness data of countries with and without lockdowns revealed that there was no statistically significant difference in the effectiveness between lockdown and ‘relaxed’ measures”.

Consider finally the results of the analysis by Haug et al. (2020, p. 1303): “Less disruptive and costly NPIs [non-pharmaceutical interventions] can be as effective as more intrusive, drastic, ones” (on this issue, see moreover Homburg 2020; Allen 2022; Mader and Rüttenauer 2022; Spiliopoulos 2022; Yanovskiy and Socol 2022).

Considering the features shared by the sets of measures adopted in several countries, this suggests that there is no doubt that, besides frequent handwashing, the mandatory use of masks in indoor places, obligation of social distancing in specific situations, and the prohibition of gatherings have been helpful—in Italy and elsewhere (Haj Bloukh et al. 2020; Juneau et al. 2022). Many more doubts concern other measures, adopted only in some countries; just to provide some examples concerning Italy: the prohibition (introduced nationally during the first wave) of any outdoor physical activity, such as walking or running, *even if performed alone* (Michellini et al. 2021); the obligation (during the first and subsequent waves) to always wear a mask outdoors (Boretti 2021; Alfano et al. 2023); the prolonged closure of shops (nationally during the first wave, and in certain regions also during subsequent waves) where both shopkeepers and users could always wear a mask and where it was easy to restrict entries to a few people at a time.

Considering the use of masks outdoors, a recent empirical study on Italy found that “the use of masks outdoors does not reduce the number of Covid-19 cases continuously in a statistically significant way” (Alfano et al. 2023, pp. 9–10). Likewise, a study by Boretti (2021, p. 2) evidences the following: “Although wearing face masks indoors may have benefits, especially face mask-wearing outdoors in uncrowded areas is senseless. There is no evidence of a super-spreader event outdoors”.

In summary, not *each* and *every* restrictive measure is effective in itself (Hong et al. 2021). To quote the famous epidemiologist John P.A. Ioannidis: “Lockdowns have multiple components. Some, such as avoiding mass gatherings, may work while others may not” (see Ioannidis’ section in Melnick and Ioannidis 2020, p. 2; compare with Ioannidis 2020). See also Bo et al. (2021, p. 249), who, after considering nearly 2,000,000 confirmed Covid-19 cases in 190 countries, found that regulations “involving distancing were associated with a greater decrease in the Rt of Covid-19 than those not involving distancing”. Compare, furthermore, with Hunter et al. (2021, p. 8) who, after weighing up restrictions imposed in 30 countries, observe that “banning mass gatherings and early closure of some but not necessarily all commercial businesses were all associated with reduction of the spread of infection. Widespread closure of all non-essential

¹¹ Compare for instance the mortality rates in Italy, Sweden and South Korea during the pandemic at <https://www.oecd.org/coronavirus/en/data-insights/excess-mortality-since-january-2020> (excess deaths per million population, from January 2020 to mid-2021) and at <https://coronavirus.jhu.edu/data/mortality> (number of deaths due to Covid-19 per 100,000 population); accessed September 2023. See also OECD (2021: 33) See, finally, Karlinsky and Kobak (2021).

businesses and stay at home orders seem not to have had much additional value¹².

General lessons learnt and prospective questions: Planning and meta-planning

Italy was not well prepared to cope with the Covid-19 pandemic. Considering the “preparedness and prevention index” introduced by Coccia (2022), Italy is among the worst performers. It should be noted that a pandemic plan existed in Italy, but it had not been updated since 2006. What is interesting to highlight is that certain traditional weaknesses of the Italian institutional and administrative system reappeared (Capano 2020; Capano et al. 2020; Di Mascio et al. 2020; Falkenbach and Caiani 2021; Giovannini and Mosca 2021; Nicola and Scaccia 2021; Vicentini and Galanti 2021). This obviously does not mean that there were no positive aspects in the Italian reaction to the pandemic. Starting from March 2020, for instance, new hospitals were built, and some of the existing ones were converted into Covid-19 hospitals; many local interventions by the Civil Protection Department were crucial; helpful subsidies were introduced to support certain categories (e.g. tenants). This notwithstanding, the regulatory response to Covid-19 evidenced traditional problems of the Italian institutional system, including: (i) overlaps among central, regional, and municipal normative competencies; (ii) overregulation; (iii) and excessive bureaucratisation. As Capano (2020, p. 341) notes, the Italian case is “emblematic of a low-capacity response, showing that a robust response to an outbreak is not possible without careful preparedness and experienced policy-makers and advisors [...]. Failing to anticipate future problems [...] leaves decision-makers without plans and in a state of cognitive uncertainty (with respect to the problem and its solutions) when a crisis occurs. In such situations, decision-makers are at the mercy of the structural and contingent characteristics of policy making and are subject to path dependence and political gaming”.

Paradoxically, only when public institutions and agencies are required to deal with extraordinary situations (e.g. crises and disasters) do they become fully aware of the limitations of their ordinary functioning, so that the extraordinary situation itself becomes the trigger to reveal difficulties and mismatches in day-to-day institutional actions.

Indeed, the question is this: How can better preventive measures be conceived to address any new critical situation more effectively in the future?

For the future, surely and primarily needed is a more effective (and progressively updated) pandemic plan for possible new emergencies that focuses on necessary actions and operations; for example, a plan for how to implement a timely reorganisation of the health system in the event of a pandemic (for interesting insights in this regard, see e.g. Fanelli et al. 2020; Salvador-Carulla et al. 2020; Gitto et al. 2021; Ricciardi and Tarricone 2021; Ritter et al. 2021; Garcia-Vicuña et al. 2022; Marmo et al. 2022; Brambilla et al. 2023; Johnson et al. 2023). It should be a plan that also more clearly establishes in advance whether to use administrative boundaries or other kinds of spatial partitioning to introduce behaviour restrictions and what will be considered essential or non-essential activities to be differently regulated.¹³ Along the same lines, also important will be new regional and urban planning that takes into advance consideration the eventuality of certain emergencies (provided that especial attention is given to the more critical achievements in urban research focused on the pandemic, e.g. Venerandi et al. 2023).

However, the crucial point is that *also* needed, in more general terms, are the following.

First needed is a different idea of urban societies (as pluralistic and dynamic complex systems, chain-connected and depending on continuous flows of people and goods: Moroni 2015; Moroni et al. 2020) and of individuals themselves (as responsible agents capable of trust in the case of trustworthy institutions). In the latter case, the point is that governments have to treat individuals always as “clients” (and partners) in health issues, and never as “enemies” of the public health (Annas 2018).

Second, it is necessary to maintain a significant role also for parliament with a parallel downsizing of the role of the executive; and, from this perspective, avoid—or at least reduce to very short periods—any state of emergency declaration (note that the state of emergency is not even considered in the Italian Constitution except in the case of war: art. 78). In discussing how democracy can cope with problems like pandemics, Stasavage (2020) observes that one crucial point is to acknowledge the importance of central state action, but only once a “state capacity” that can be employed for prevention without any recourse to emergency powers has been created. “The democracies that have been most successful in combating Covid-19 have tended to take precisely

¹² Obviously, all the studies mentioned in this sub-section were carried out a posteriori. However, the results do not come as a total surprise, and they confirm, at least in some cases, aspects already known from previous health emergencies (Saunders-Hastings et al. 2017; Yanovskiy and Socol 2022).

¹³ In this regard, an interesting concept is that of “Strategic Urban Structure (*Struttura Urbana Minima*)” introduced in Italy in the field of seismic risk mitigation (Pizzo et al. 2013).

this route” (Stasavage 2020, p. 12). See also Grogan (2022, p. 350): “The domination of the executive in decision-making during an emergency is neither surprising nor inherently a concern where they are subject to effective safeguards and democratic controls”. On systematically comparing declarations of emergencies in various countries during the first wave of Covid-19, Bjørnskov and Voigt (2022a) found that the discretionary power which governments gained in this manner was more connected with a logic internal to institutions than to the severity of the epidemic in itself: governments behaved first of all as “power-maximizers” driven by the “political attractiveness” of declaring a state of emergency to absorb the shock. Moreover, Bjørnskov and Voigt (2022a) found that granting additional powers to the executives was not more effective in itself and often had unintended consequences (see also Bjørnskov and Voigt 2022b). To conclude, preserving constitutional democratic frameworks and the rule of law also in cases of pandemic events is not only necessary (Canestrini 2020; Cormacain and Bar-Siman-Tov 2020; Grogan 2022) but, in certain respects, even more effective.

Third, a clearer division of responsibilities between central, regional and local governments is needed (Aristei et al. 2022). In discussing the Italian situation, Giovannini and Mosca (2021, p. 11) observe that one of the most critical aspects in dealing with the Covid-19 pandemic regarded “the shortcomings of the arrangements for managing central and regional governments’ relations, and especially the effectiveness of the asymmetric form of regionalism that has emerged since the 2001 reform of Section V of the Constitution”. In brief, “the incremental and ‘unfinished’ nature of the Italian process of regionalisation remains one of the most pressing unresolved problems of multi-level governance in Italy” (Giovannini and Mosca 2021, p. 11).

Fourth, more targeted and credible use of restrictions is required: for instance, more targeted spatial distancing measures instead of generic horizontal lockdowns; and more targeted, rather than generalized, use of masks (Boretti 2021).

Fifth, a broader range of enabling policies and of other non-restrictive measures should be introduced.

In other words, and coming to our central point, to be prepared in advance, not only anticipatory pandemic *planning* is needed (i.e. producing appropriate plans in the strict sense that envisage sets of necessary concrete actions), but also a more general rethinking and revision of institutional background conditions; that is, what might be called *meta-planning* (i.e. planning the way in which public authorities could and should plan and act).

The distinction between planning and meta-planning implies, from a logical point of view, demarcation

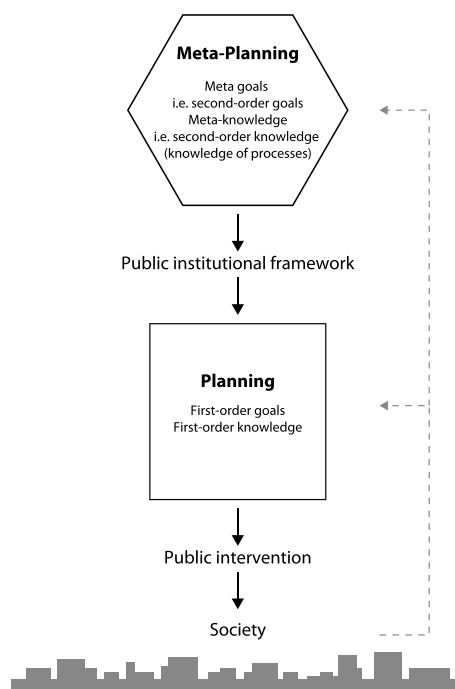


Fig. 2 Planning and meta-planning

between two different levels at which problems of a different kind emerge (Emshoff 1978; Hibbard 1981; Wilensky 1981; De Bettencourt et al. 1982; Campagna 2016). In our version, and from a substantive point of view, it centres on the distinction between what concerns public intervention (i.e. a planning issue) and what concerns the institutional framework within which this takes place (i.e. a meta-planning issue). The theme of institutional design becomes fundamental here (the crucial role that institutional design should play in planning theory has been emphasised by e.g. Alexander 2005, 2006; Moroni 2018, 2019, 2023). Note that while *planning* has certain kinds of goals (e.g. increasing the physical adaptability of hospital buildings) and requires a certain kind of knowledge (e.g. empirical information about how healthcare facilities are arranged), *meta-planning* instead has meta-goals (e.g. maintaining appropriate checks and balances among different sectors of the State) and requires a sort of meta-knowledge (e.g. knowledge about how processes of decision-taking and decision-making occur). Indeed, conflating the two levels can lead to epistemological and normative ambiguities and inconsistencies.

Figure 2 illustrates all of the above. The solid black arrows indicate the effect of the “public system”—and of its background presumptions—at various levels on society, while the dashed arrows indicate the influence that society can indirectly have, in the long term, on the “public system” itself—and on its background presumptions.

(In this article we have focused mainly on the former aspect, but the latter one warrants further investigation: Moroni and Cozzolino 2020).

In short, it is necessary to avoid ad hoc responses – as happened during the Covid-19 pandemic – and instead include risk and crisis management as ordinary elements of public governance (Sanfelici 2020). As MacKenzie (2021) interestingly observes while questioning the usual demarcation between *short term* issues and *long-term* ones, even if these distinctions could be made, they are not useful, and may be counterproductive, in public affairs and institutional design: “Instead of adopting special institutions to deal with long-term issues, we need general-purpose institutions that are capable of dealing with the temporal-complexities inherent in all public issues” (MacKenzie 2021, p. 1).

In conclusion, although detailed forecasts are certainly impracticable in conditions of uncertainty, it is still possible to hypothesise possible scenarios (Moroni and Chiffi 2021) and take preventive measures in advance. Note that Nicholas Taleb, inventor of the “black swan” metaphor (Taleb 2007), has pointed out – contrary to many commentators who have recently abused this metaphor – that the Covid-19 pandemic *was by no means a black swan*.¹⁴ Indeed, the possibility of an influenza pandemic had been foreshadowed several times (see e.g. Khanna et al. 2008; Smith and Fischbacher 2009). Rather than a “black swan” the pandemic is more a “black elephant”; that is, an event anticipated by experts, but that many attempted to dress up as a black swan when it finally occurred (Sardar and Sweeney 2016). Fiorini and La Gioia (2021) provocatively suggest that the real black swan was not the pandemic but rather *how it was handled* in many countries.

Conclusions

In discussing the Italian response to the Covid-19 pandemic, certain weaknesses have been identified (i.e. the excessive role assumed by the executive branch, along with frictions among different institutional levels, over-regulation and excessive bureaucratisation); and possible lessons have been highlighted, in terms of both *planning* (i.e. the necessity to better pre-define concrete and circumscribed sets of actions) and of *meta-planning* (i.e. the necessity to change certain ideas of individuals and of urban societies, maintain a significant role also for parliament, downsize the role of the executive, and define

a clearer division of responsibilities between central, regional and local governments).

Although this article is mainly based on the Italian situation, what we can learn from this case is largely generalizable,¹⁵ especially as regards the necessity to distinguish between *planning* and *meta-planning* issues and recognize their respective specificity. If we take this distinction between planning and meta-planning seriously, we can recognize—differently from what usually happens—that also the issue of “preparedness” arises at two different levels: at the level of planning, what is needed is a form of “operative preparedness”, whilst at the meta-planning level, what is needed is a form of “systemic preparedness”. Recognizing this distinction opens up new lines of enquiry for studies in this field. It will be for instance interesting to “operationalise” the notions of *operative* and *systemic* preparedness (through parameters and indicators: Lami et al. 2023) in order to compare the situation in different countries: for example, by further developing (according to our two-layered schema) the interesting approaches of Coccia (2022) and Ezzahid et al. (2022). In short, certain aspects that have been discussed here mainly in qualitative terms could be further explored also in more quantitative ones.

Moreover, in this article we have examined the Italian response to Covid-19 with particular reference to the period of the Conte II government. The subsequent government headed by Mario Draghi (in office from February 2021 to October 2022 and that dealt with further waves of the pandemic) also warrants examination and discussion, which we hope to conduct in further works.¹⁶

Acknowledgements

Not applicable

Author contributions

Conceptualisation: SM; Project Management and supervision: CP; Empirical analysis and data collection: ADF; Writing: Original draft preparation, review and editing: SM, ADF, DC, FC.

Funding

This work is supported by the RIBA project “Norms, Uncertainty and Space (NOUS)”, Department of Architecture and Urban Studies, Polytechnic University of Milan (Italy).

¹⁴ See his interview at www.youtube.com/watch?v=BVHBszRrkg; see also www.newyorker.com/news/daily-comment/the-pandemic-isnt-a-black-swan-but-a-portent-of-a-more-fragile-global-system (accessed October 2021). On this, see Deakin and Meng (2020); Phan and Wood (2020); Murphy et al. (2020).

¹⁵ Also because many other countries experienced a similar huge, and unusual, expansion of the role of executive branches during the pandemic (Griglio 2020; Petrov 2020; Bolleyer and Salát 2021; Engler et al. 2021; Grogan 2022). As Grogan (2022: 350) writes: “In a concerning number of states, executives dominated decision-making over pandemic response to the extent that they appeared to ‘rule-by-decree’, operating with such a latitude of discretion as to act ‘above the law’”.

¹⁶ Interestingly, the Draghi government reduced the use of DPCMs but a wide array of Decree-laws, resolutions, instructions, etc. were still introduced and frequently changed. Moreover, this government further extended the state of emergency. It should also be noted that the Draghi government has retained the same health minister as the previous one.

Availability of data and materials

All data reported are publicly available (as indicated).

Declarations**Competing interests**

The authors declare that they have no competing interest.

Received: 23 January 2023 Accepted: 18 October 2023

Published online: 25 October 2023

References

- Alber E, Arban E, Colasante P, Dirri A, Palermo F (2022) Facing the Pandemic. Italy's functional 'health federalism' and dysfunctional cooperation. In: Steytler N (ed) *Comparative federalism and Covid-19*. Routledge, London, pp 15–32
- Alexander ER (2005) Institutional transformation and planning. *Plan Theory* 4(3):209–223
- Alexander ER (2006) Institutional design for sustainable development. *Town Planning Rev* 77(1):1–27
- Alfano V, Cicatiello L, Ercolano S (2023) Assessing the effectiveness of mandatory outdoor mask policy: the natural experiment of Campania. *Econ Hum Biol* 50:1–12
- Algotino A (2021) Costituzionalismo e distopia nella pandemia di Covid-19 tra fonti dell'emergenza e (s) bilanciamento dei diritti. *Costituzionalismo it* 1:1–80
- Allen DW (2022) Covid-19 lockdown cost/benefits: a critical assessment of the literature. *Int J Econ Bus* 29(1):1–32
- Annas GJ (2018) Blinded by bioterrorism: public health and liberty in the 21st century. *Health Matrix* 13:33–70
- Aristei L, D'Ambrosio F, Villani L, Rossi MF, Daniele A, Amantea C, Damiani G, Laurenti P, Ricciardi W, Gualano MR, Moscato U (2022) Public health regulations and policies dealing with preparedness and emergency management: the experience of the Covid-19 pandemic in Italy. *Int J Environ Res Public Health* 19(3):1–10
- Bendavid E, Oh C, Bhattacharya J, Ioannidis JP (2021) Assessing mandatory stay-at-home and business closure effects on the spread of Covid-19. *Eur J Clin Invest* 51(4):1–9
- Berardi C, Antonini M, Genie MG, Cotugno G, Lanteri A, Melia A, Paolucci F (2020) The Covid-19 pandemic in Italy: Policy and technology impact on health and non-health outcomes. *Health Policy Technol* 9(4):454–487
- Beresniak A, Napoli C, Oxford J, Daruich A, Niddam L, Duru G, Tozzi Ciofi AE, DegliAtti M, Dupont M, Rizzo C, Bremond-Gignac D (2023) The FLURESP European commission project: cost-effectiveness assessment of ten public health measures against influenza in Italy: is there an interest in Covid-19 pandemic? *Cost Effectiveness Resour Alloc* 21(1):1–12
- Bizioli G, Beretta G (2020) Covid-19 and fiscal policies. *Intertax* 48(8/9):761–768
- Bjørnskov C, Voigt S (2022a) This time is different? On the use of emergency measures during the corona pandemic. *Eur J Law Econ* 54(1):63–81
- Bjørnskov C, Voigt S (2022b) Emergencies: on the misuse of government powers. *Public Choice* 190(1):1–32
- Bo Y, Guo C, Lin C, Zeng Y, Li HB, Zhang Y, Li HB, Zhang Y, Hossain S, Chian JWM, Yeung DW, Kwok KO, Wong SYS, Lao AKH, Lao XQ (2021) Effectiveness of non-pharmaceutical interventions on covid-19 transmission in 190 countries from 23 January to 13 April 2020. *Int J Infect Dis* 102:247–253
- Bolleyer N, Salát O (2021) Parliaments in times of crisis: Covid-19, populism and executive dominance. *West Eur Polit* 44(5–6):1103–1128
- Boretti A (2020) After less than 2 months, the simulations that drove the world to strict lockdown appear to be wrong, the same of the policies they generated. *Health Services Res Manag Epidemiol* 7:1–11
- Boretti A (2021) Efficacy of generalized face masking mandates. *Health Services Res Manag Epidemiol* 8:1–7
- Brambilla A, Brusamolin E, Johnson AA, Scullica F, Capolongo S (2023) Lessons from the first wave of Covid-19 in Italy: a collection of design strategies to face pandemic situations in healthcare facilities. *J Emerg Manage* 21(7):167–184
- Bruno VA, Ianni P, Pezzano G (2021) The Italian emergency regime at the Covid-19 "stress test": decline of political responsiveness, output legitimization and politicisation of expertise. *Interdis Political Stud* 7(1):35–60
- Bylund PL, Packard MD (2021) Separation of power and expertise: evidence of the tyranny of experts in Sweden's COVID-19 responses. *South Econ J* 87(4):1300–1319
- Campagna M (2016) Metaplanning: about designing the geodesign process. *Landscape Urban Plan* 156:118–128
- Canestrini N (2020) Covid-19 Italian emergency legislation and infection of the rule of law. *New J Eur Crim Law* 11(2):116–122
- Capano G (2020) Policy design and state capacity in the Covid-19 emergency in Italy: if you are not prepared for the (un) expected, you can be only what you already are. *Policy Soc* 39(3):326–344
- Capano G, Howlett M, Jarvis DS, Ramesh M, Goyal N (2020) Mobilising policy (in) capacity to fight Covid-19: Understanding variations in state responses. *Policy Soc* 39(3):285–308
- Chiffi D (2021) clinical reasoning knowledge, uncertainty, and values in health care. Springer, Cham
- Coccia M (2022) Preparedness of countries to face covid-19 pandemic crisis. *Environ Res* 203:1–9
- Colombo E (2021) Human rights-inspired governmentality: Covid-19 through a human dignity perspective. *Crit Soc* 47(4/5):571–581
- Cormacain R, Bar-Siman-Tov I (2020) Legislatures in the time of Covid-19. *Theory Pract Legis* 8(1–2):3–9
- Corradetti C, Pollicino O (2021) The "war" against Covid-19: State of exception, state of siege, or (constitutional) emergency powers? The Italian case in comparative perspective. *German Law J* 22(6):1060–1071
- De Blasio E, Selva D (2021) Covid-19 in Italy: performing power and emotions. *Front Polit Sci* 3:1–12
- De Bettencourt JS, Mandell MB, Polzin SE, Sauter VL, Schofer JL (1982) Making planning more responsive to its users: the concept of metaplanning. *Environ Plan A* 14(3):311–322
- Deakin S, Meng G (2020) The governance of Covid-19: anthropogenic risk, evolutionary learning, and the future of the social state. *Ind Law J* 49(4):539–594
- Di Mascio FD, Natalini A, Cacciatore F (2020) Public administration and creeping crises: insights from Covid-19 pandemic in Italy. *Am Rev Publ Administr* 50(6–7):621–627
- Dodsworth L (2021) A state of fear. Pinter Martin, London
- Emshoff JR (1978) Planning the process of improving the planning process: a case study in meta-planning. *Manage Sci* 24(11):1095–1108
- 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 Eur Polit* 44(5–6):1077–1102
- Ezzahid E, Firano Z, Ennouhi J, Laaroussi A, Anbari AS (2022) Countries' readiness to deal with large-scale crises: analysis, measure, and World classification. *Policy Sci* 55(3):555–572
- Falkenbach M, Caiani M (2021) Italy's response to covid-19. In: Greer SL, King EJ, Massard da Fonseca E, Peralta-Santos A (eds) *Coronavirus Politics*. University of Michigan Press, Ann Arbor, pp 320–338
- Fanelli S, Lanza G, Francesconi A, Zangrandi A (2020) Facing the pandemic: the Italian experience from health management experts' perspective. *Am Rev Publ Administr* 50(6/7):753–761
- Fiorini M, La Gioia A (2021) Covid-19: black swan or clumsy use? *J Prev Med Hyg* 62(1):1–3
- Fittipaldi R (2021) The rise and struggle of presidents during the coronavirus emergency: national and sub-national evidence in Italy and Spain. *Partecipazione e Confl* 14(1):132–151
- Fuss FK, Weizman Y, Tan AM (2021) Covid-19 pandemic: How effective are preventive control measures and is a complete lockdown justified? A comparison of countries and states. *Covid* 2(1):18–46
- García-Vicuña D, Esparza L, Mallor F (2022) Hospital preparedness during epidemics using simulation: the case of Covid-19. *CEJOR* 30(1):213–249
- Giovannini A, Mosca L (2021) The year of covid-19 Italy at a crossroads. *Contemporary Italian Polit* 13(2):130–148
- Gitto S, Di Mauro C, Ancarani A, Mancuso P (2021) Forecasting national and regional level intensive care unit bed demand during COVID-19: the case of Italy. *PlosOne* 16(2):1–16

- Grant JL (2020) Pandemic challenges to planning prescriptions: how covid-19 is changing the ways we think about planning. *Plan Theory Pract* 21(5):659–667
- Griglio E (2020) Parliamentary oversight under the Covid-19 emergency: striving against executive dominance. *Theory Pract Legisl* 8(1/2):49–70
- Grogan J (2022) Covid-19, the rule of law and democracy. analysis of legal responses to a global health crisis. *Hague J Rule Law* 14:349–369
- Haj Bloukh S, Edis Z, Shaikh AA, Pathan AM (2020) A look behind the scenes at Covid-19: national strategies of infection control and their impact on mortality. *Int J Environ Res Public Health* 17(15):1–12
- Haug N, Geyrhofer L, Londei A, Dervic E, Desvars-Larrive A, Loreto V, Pinior B, Thurner S, Klimek P (2020) Ranking the effectiveness of worldwide Covid-19 government interventions. *Nat Hum Behav* 4(12):1303–1312
- Hibbard M (1981) The crisis in social policy planning. *Soc Service Rev* 55(4):557–567
- Homburg S (2020) Effectiveness of corona lockdowns: Evidence for a number of countries. *Econom Voice* 17(1):1–6
- Hong SH, Hwang H, Park MH (2021) Effect of Covid-19 non-pharmaceutical interventions and the implications for human rights. *Int J Environ Res Public Health* 18(1):1–12
- Hunter PR, Colón-González FJ, Brainard J, Rushton S (2021) Impact of non-pharmaceutical interventions against Covid-19 in Europe in 2020: a quasi-experimental non-equivalent group and time series design study. *Eurosurveillance* 26(28):1–16
- Ibert O, Baumgart S, Siedentop S, Weith T (2022) Planning in the face of extraordinary uncertainty: lessons from the covid-19 pandemic. *Plan Pract Res* 37(1):1–12
- Ioannidis JP (2020) Coronavirus disease 2019: the harms of exaggerated information and non-evidence-based measures. *Eur J Clin Invest* 50(4):1–5
- Islam MT, Talukder AK, Badruzzaman M, Khan MAHNA (2020) Health service facilities are positively linked with outcome of COVID-19 patients in majority of the countries: the global situation. *J Adv Biotechnol Experim Ther* 3(4):36–41
- ISS (Istituto Superiore di Sanità) (2021). Report sulle caratteristiche dei pazienti deceduti positivi a SARS-CoV-2 in Italia. <https://www.iss.it> (Accessed Oct 2021).
- ISTAT (2021). Impatto dell'epidemia Covid-19 sulla mortalità totale della popolazione residente. <https://www.istat.it> (Accessed Oct 2021).
- ISTAT (2022). Impatto dell'epidemia covid-19 sulla mortalità totale della popolazione residente. Anni 2020–2021 e gennaio 2022. <https://www.istat.it>. (Accessed Sep 2023).
- ISTAT (2023). L'Italia e il contesto europeo nei due anni di pandemia. <https://www.istat.it> (Accessed Sep 2023).
- Jeong E, Hagose M, Jung H, Ki M, Flahault A (2020) Understanding South Korea's response to the Covid-19 outbreak. *Int J Environ Res Public Health* 17(24):1–18
- John SD, Curran EJ (2022) Costa, cancer and coronavirus: contractualism as a guide to the ethics of lockdown. *J Med Ethics* 48(9):643–650
- Johnson MR, Naik H, Chan WS, Greiner J, Michaleski M, Liu D, Silvestre B, McCarthy IP (2023) Forecasting ward-level bed requirements to aid pandemic resource planning: lessons learned and future directions. *Health Care Manage Sci*. <https://doi.org/10.1007/s10729-023-09639-2>
- Jon I (2020) A manifesto for planning after the coronavirus: towards planning of care. *Plan Theory* 19(3):329–345
- Juneau CE, Pueyo T, Bell M, Gee G, Collazzo P, Potvin L (2022) Lessons from past pandemics: a systematic review of evidence-based, cost-effective interventions to suppress Covid-19. *Syst Rev* 11(1):1–17
- Karlinsky A, Kobak D (2021) Tracking excess mortality across countries during the COVID-19 pandemic with the world mortality dataset. *Elife* 10:1–21
- Khanna M, Kumar P, Choudhary K, Kumar B, Vijayan VK (2008) Emerging influenza virus: a global threat. *J Biosci* 33(4):475–482
- Koh WC, Naing L, Wong J (2020) Estimating the impact of physical distancing measures in containing Covid-19. *Int J Infect Dis* 100:42–49
- Kuhlmann S, Hellström M, Ramberg U, Reiter R (2021) Tracing divergence in crisis governance: responses to the Covid-19 pandemic in France, Germany and Sweden compared. *Int Rev Adm Sci* 87(3):556–575
- Kuhlmann E, Denis JL, Côté N, Lotta G, Neri S (2023) Comparing health workforce policy during a major global health crisis: a critical conceptual debate and international empirical investigation. *Int J Environ Res Public Health* 20(6):1–17
- Lami IM, De Franco A, Moroni S (2023) Values, indicators and policies. a reflection starting from sustainability issues and the covid-19 pandemic. *Valori e Valutazioni* 32:5–16
- Lupatelli, G. (2021). *Fragili e anti-fragili. Territori, economie e istituzioni al tempo del coronavirus*. Soveria Mannelli: Rubettino.
- MacKenzie MK (2021) There is no such thing as a short-term issue. *Futures* 125:1–9
- Mader S, Rüttenauer T (2022) The effects of non-pharmaceutical interventions on Covid-19 mortality: a generalized synthetic control approach across 169 countries. *Front Public Health* 10:1–8
- Marmo R, Pascale F, Diana L, Sicignano E, Polverino F (2022) Lessons learnt for enhancing hospital resilience to pandemics: a qualitative analysis from Italy. *Int J Disaster Risk Reduction* 81:1–16
- Melnick ER, Ioannidis JP (2020) Should governments continue lockdown to slow the spread of covid-19? *BMJ* 369:1–3
- Meunier TAJ (2020) Full lockdown policies in Western Europe countries have no evident impacts on the Covid-19 epidemic. *MedRxiv* 6:1
- Michellini E, Bortoletto N, Porrovecchio A (2021) Outdoor physical activity during the first wave of the COVID-19 pandemic. a comparative analysis of government restrictions in Italy, France, and Germany. *Front Publ Health* 9:1–7
- Ministero della Salute (2019). *Annuario Statistico del Servizio Sanitario Nazionale*. <https://www.salute.gov.it>.
- Monaco S (2022) Italian same-sex parenting in times of COVID-19: constructing parenthood on insecure grounds. *Fam Relat* 71(2):463–474
- Moroni S (2015) Complexity and the inherent limits of explanation and prediction. *Plan Theory* 14(3):248–267
- Moroni S (2018) Constitutions, laws and practices. In: Salet W (ed) *The routledge handbook of institutions and planning in action*. Routledge, London, pp 185–195
- Moroni S (2019) Constitutional and post-constitutional problems. *Plan Theory* 18(1):5–23
- Moroni S, Chiffi D (2021) Complexity and uncertainty: implications for urban planning. In: Portugali J (ed) *Handbook on cities and complexity*. Elgar, Cheltenham, pp 319–330
- Moroni S, Cozzolino S (2020) Conditions of actions in complex social-spatial systems. In: De Roo G, Yamu C, Zuidema C (eds) *Handbook on Planning and Complexity*. Edward Elgar, Cheltenham, pp 186–202
- Moroni S, Rauws W, Cozzolino S (2020) Forms of self-organization: Urban complexity and planning implications. *Environ Plan B* 47(2):220–234
- Moroni, S. (2023). What can urban policies and planning really learn from John Rawls? A multi-strata view of institutional action and a canvas conception of the just city. *Planning Theory*.
- Murphy JF, Jones J, Conner J (2020) The Covid-19 pandemic: Is it a "Black Swan"? *Process Saf Prog* 39(2):1–3
- Nicola F, Scaccia G (2021) The Italian model to fight Covid-19: regional cooperation, regulatory inflation, and the cost of one-size-fits-all lockdown measures. *Administr Law Rev* 73(1):53–58
- OECD (2021). *Health at a Glance*. Paris: OECD publishing. <https://www.oecd-ilibrary.org/>
- Omizzolo M, Sodano P (2020) The Covid-19 between state of emergency and exception in Italy and its consequences on human rights. *Eur J Soc Sci* 3(2):139–151
- Ortenzi F, Albanese E, Fadda M (2020) A transdisciplinary analysis of Covid-19 in Italy: the most affected country in Europe. *Int J Environ Res Public Health* 17(24):1–12
- Pavani J, Cerda J, Gutiérrez L, Varas I, Gutiérrez J, Iofré L, Ortiz O, Arriagada G (2022) Factors associated to the duration of COVID-19 lockdowns in Chile. *Sci Rep* 12(1):1–6
- Pedersen HH, Borghetto E (2021) Fighting Covid-19 on democratic terms parliamentary functioning in Italy and Denmark during the pandemic. *Representation* 57(4):401–418
- Petrov J (2020) The COVID-19 emergency in the age of executive aggrandizement: what role for legislative and judicial checks? *Theory Pract Legisl* 8(1–2):71–92
- Phan PH, Wood G (2020) Doomsday scenarios (or the black swan excuse for unpreparedness). *Acad Manag Perspect* 34(4):425–433
- Pianta M, Lucchese M, Nascia L (2021) The Italian government's economic-policy response to the Coronavirus crisis. *Contemporary Italian Politics* 13(2):210–225

- Piccirilli G (2021) Governmental predominance in Italian law-making: undemocratic or illiberal? *TheoryPract Legis* 9(3):363–385
- Pizzo B, di Salvo G, Giuffrè M, Pellegrino P (2013) Earthquakes, public spaces and (the social construction of) environmental disasters. *Italian J Plan Pract* 3(1):4–41
- Ren X (2020) Pandemic and lockdown: a territorial approach to Covid-19 in China, Italy and the United States. *Eurasian Geogr Econ* 61(4/5):423–434
- Ricciardi W, Tarricone R (2021) The evolution of the Italian national health service. *Lancet* 398:2193–2206
- Ritter M, Ott DV, Paul F, Haynes JD, Ritter K (2021) COVID-19: a simple statistical model for predicting intensive care unit load in exponential phases of the disease. *Sci Rep* 11(1):1–12
- Romiti GF, Talerico G (2021) Embracing the uncertainty: an important lesson from COVID-19. *J Gen Intern Med* 36(11):3562–3564
- Rožanova L, Temerev A, Flahault A (2020) Comparing the scope and efficacy of Covid-19 response strategies in 16 countries. *Int J Environ Res Public Health* 17(24):1–17
- Rullo L (2021) The Covid-19 pandemic crisis and the personalisation of the government in Italy. *Int J Publ Leader* 17(2):196–207
- Salvador-Carulla L, Rosenberg S, Mendoza J, Tabatabaei-Jafari H, Network PMHI (2020) Rapid response to crisis: Health system lessons from the active period of COVID-19. *Health Policy Technol* 9(4):578–586
- Salvati, E. (2022). Fragmentation and intergovernmental conflict during the Covid-19 crisis. The complex relationship between national and regional governments in Italy. *Regional Federal Studies* (online ahead of print).
- Sanfelici M (2020) The Italian response to the Covid-19 crisis: Lessons learned and future direction in social development. *Int J Commun Soc Develop* 2(2):191–210
- Sardar Z, Sweeney JA (2016) The three tomorrows of postnormal times. *Futures* 75:1–13
- Saunders-Hastings P, Crispo JA, Sikora L, Krewski D (2017) Effectiveness of personal protective measures in reducing pandemic influenza transmission: a systematic review and meta-analysis. *Epidemics* 20:1–20
- Scalia V (2021) 'Stay home you murder!': populist policing of Covid-19 in Italy. *Int J Police Sci Manag* 23(3):242–252
- Smith D, Fischbacher M (2009) The changing nature of risk and risk management: the challenge of borders, uncertainty and resilience. *Risk Manage* 11(1):1–12
- Spiliopoulos L (2022) On the effectiveness of Covid-19 restrictions and lockdowns: Pan metron ariston. *BMC Public Health* 22(1):1–15
- Stasavage D (2020) Democracy, autocracy, and emergency threats: lessons for Covid-19 from the last thousand years. *Int Organ* 74:1–17
- Taleb NN (2007) *The black swan*. Random House, New York
- Tiraboschi, M. (2020). The emergency from an industrial relations law perspective. *Case. Journal of International and Comparative Labour Studies* 9(3): 37–54.
- Vedaschi A (2022) The marginalisation of Parliament in facing the coronavirus emergency: What about democracy in Italy? In: Kettemann MC, Lachmayer K (eds) *Pandemocracy in Europe*. Hart, Oxford, pp 116–135
- Velo Dalbrenta, D. (2020). In C. Lottieri (ed.). *Leviatano sanitario e crisi del diritto*. Macerata: Giometti & Antonello.
- Venerandi A, Aiello LM, Porta S (2023) Urban form and COVID-19 cases and deaths in Greater London: an urban morphometric approach. *Environ Plan B* 50(5):1228–1243
- Vese D (2023) Managing the pandemic: The Italian strategy for fighting Covid-19 and the challenge of sharing administrative powers. *Eur J Risk Regul* 14(1):113–140
- Vicentini G, Galanti MT (2021) Italy, the sick man of Europe: policy response, experts and public opinion in the first phase of Covid-19. *South Eur Soc Polit*. <https://doi.org/10.1080/13608746.2021.1940582>
- Wilensky R (1981) Meta-planning: Representing and using knowledge about planning in problem solving and natural language understanding. *Cogn Sci* 5(3):197–233
- 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. *Am Rev Publ Administr* 50(6/7):762–769
- Yanovskiy M, Socol Y (2022) Are lockdowns effective in managing pandemics? *Int J Environ Res Public Health* 19(15):1–12
- You J (2020) Lessons from South Korea's Covid-19 policy response. *Am Rev Publ Administr* 50(6/7):801–808
- Zia MM, Kalim I (2021) Covid-19 and its socio-economic and psychological impacts on Italy. *J Eur Stud* 37(1):92–108

Publisher's Note

Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Submit your manuscript to a SpringerOpen® journal and benefit from:

- Convenient online submission
- Rigorous peer review
- Open access: articles freely available online
- High visibility within the field
- Retaining the copyright to your article

Submit your next manuscript at ► [springeropen.com](https://www.springeropen.com)