Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.
6.2

Containment measures in relation to the trend of infection in Italy

Fulvio Adobati, Emanuele Comi, and Alessandra Ghisalberti*

6.2.1 Introduction

The range and number of measures issued to deal with the Covid-19 health emergency has given rise to an intricate scenario, which makes it hard to clearly isolate general, rational grounds underlying the guidelines set out in individual provisions (Camera dei Deputati-Servizio Studi, 2020). Analysis of data related to the results of public containment measures highlights such difficulty, as focus needs to alternate between an overview of swab-tests which returned positive outcomes to an assessment of the sanctions issued against citizens. Such hindrance has partly to do with Italy’s institutional framework, namely the two levels of regulatory measures and administrative Acts of the national State and the Regions (Capano, 2020).

Specifically, the definition of “red zones,” or areas subject to heavy restrictions (especially on people’s mobility) was taken up in many provisions (see Fig. 6.5), issued in fairly rapid succession at specific epidemic stages (Danzi et al., 2020). After an “experimental” application of measures by the national government in the first days of the epidemic, the establishment of red zones was taken up in regional provisions that applied them a varied range of differently sized local areas. As result, while some regions repeatedly established “red zones,” other regions saw no intervention in that respect (a policy found, in fact, to be quite unrelated to the incidence of infection). Along these lines, intervention on the handling of public transport occurred solely in the Lazio Region, which set its own maximum public transport limit to 50% of usual commute rates, in the form of an extension to restrictions on public transport use based on previously existing social distancing rules.

*The chapter is the result of joint research carried out by the three authors. More specifically, Fulvio Adobati compiled Sections 6.2.1 and 6.2.5; Emanuele Comi Sections 6.2.2 and 6.2.6; Alessandra Ghisalberti Sections 6.2.3 and 6.2.4.
Ultimately, an analysis of the measures affecting two key sectors of regional action, health protection and public transport services, brings out a complex chart of the provisions that were set in place. This in turn yields valuable evidence for assessing the shortcomings in the current framework of competences and in coordinated action at different territorial levels.

### 6.2.2 Main public measures for infection containment in Italy

As mentioned in the final section of Chapter 6.1, during the first wave of the Covid-19 epidemic that is the subject of our study, the Italian legal system intervened in timely and articulate fashion, providing for a series of unprecedented restrictions on individual freedoms.

While initial measures came under the wider government purview of Civil Protection, legislators endeavored from the start to produce an extraordinary legislation corpus—consisting of decree laws adopted pursuant to art. 77, paragraph 2 of the Constitution—which set the framework whereby formally administrative Acts (i.e., the Decrees of the Presidency of the Council of Ministers or DPCM) laid down thorough rules on restrictions to individual freedoms. In other words, in order to safeguard the reserve of law guaranteed by the Constitution with regard to limitations on freedoms—decree laws would set out all the possible limitations which DPCMs could provide for as well as the legal limits of sanctions that could be imposed.

The first Decree of the Presidency of the Council of Ministers (DPCM) adopted on the basis of emergency legislation was dated 23 February 2020. It laid out the so-called “red zones” in the municipality of Vo’ Euganeo in the region of Veneto and in the Codogno area in the region of Lombardy. As mentioned earlier (Chapter 6.1) such Act imposed stringent restrictions on activities and movement, albeit exclusively for the red zones outlined at the time.

As of 1 March the area affected by restrictive prescriptions was extended to Northern Italy with bans on activities that could lead to crowding, such as conferences, meetings or sports competitions open to the public. As of 4 March schools were closed. Finally, as of 8 and 9 March, with two DPCMs, travel was restricted unless justified by necessity or work reasons.

As of 11 March, all nonfood businesses or markets, even outdoors, which did not provide basic necessities were closed. As of the same date, bars and restaurant businesses were also shut down, with the exception of home delivery. Hairdressers and beauty parlors were also suspended. All previous restrictions were equally extended to all of Italy.

---

*a The Council of Ministers resolution of January 31, 2020 declaring a state of emergency was adopted on the basis of Legislative Decree no. 1, just as the reiterated declaration of a state of emergency was issued in order to ensure continued observance of Civil Protection rules.

*b The municipalities included (a) Bertonico; (b) Casalpusterlengo; (c) Castelgerundo; (d) Castiglione D’Adda; (e) Codogno; (f) Fombio; (g) Maleo; (h) San Fiorano; (i) Somaglia; (j) Terranova dei Passerini.

*c Namely: the regions of Emilia-Romagna, Lombardy and Veneto, as well as the provinces of Pesaro-Urbino and Savona.

*d DPCM 11 March 2020, art. 1, no. 1.

*e DPCM 11 March 2020, art. 1, no. 2.

*f DPCM 11 March 2020, art. 1, no. 3.
A noticeable clampdown on movements occurred as of 22 March, as citizens were forbidden to leave the municipality of residence—except for proven work reasons or urgent needs. Also, as of 23 March, a general closure of production activities deemed nonessential was mandated.

Restrictive measures on productive activities and the prohibition to leave one’s municipality ceased to be enforced as of May 4, 2020, while free mobility between regions was allowed to resume only June 3.

6.2.3 Results of containment measures on infection progress

The outcome of containment policies against the trend of positive Covid-19 cases may be assessed by monitoring the quantitative evolution of recorded infections, based on swab-testing. This is done by plotting the contagion index evolution based on the number of positive cases recorded in relation to swabs administered between 23 February and 30 June 2020 in Italy for every 1000 swabs, as shown in Fig. 6.3. Within this timeframe, we can zero in on changes in the positive case index 15 days after the four main DPCMs outlined above were issued: DPCMs 23 February and 22 March 2020 during the “epidemic” phase; and DPCMs 4 May and 3 June during the “endemic” phase.

More precisely, if we focus on the “epidemic” phase—that is, the one in which the SARS-CoV-2 epidemic grew exponentially—the two main measures aimed at countering the spread of infection through unprecedented restrictions were DPCM of 23 February and DPCM 22 March 2020. As mentioned, in order to contain the health emergency, for the first time in Italy, the former imposed restrictions on individual freedom of movement and established the so-called “red zone” in the municipality of Vo’ Euganeo in the Veneto region and in the Codogno area in Lombardy; the latter mandated a shutdown of all production-industrial activities considered nonessential on the entire national territory.

Fifteen days after the first DPCM was issued, namely as of March 9, the contagion index curve was still clearly on the surge: positive cases increased 150 on March 9 to 180 on March 22, for every 1000 swabs. This figure is well above the national average recorded during the entire period under study, equal to approximately 68 positive cases per 1000 swabs, which shows that containment policies implemented up to that date were falling short of desired positive outcomes.

8 Ordinance of the Ministry of Health of 22 March 2020.

9 Via a DPCM issued on the same date.

1 For an analysis of the vulnerability of the Italian healthcare system, exposed during the SARS-CoV-2 epidemic in spring 2020 and, in particular, for a discussion of the fragmentation in regional policies or agencies that affected swab-testing, see Chapter 5.3 in this volume.

1 This study adopts the timeframe model of SARS-CoV-2 infection, broken down by Emanuela Casti into the three stages or phases: “Onset phase,” when initial cases are recorded; “Epidemic phase,” when the virus spreads to the entire community; “Endemic phase,” when the number of infections decreases quantitatively. See: Casti (2020), pp. 65–66.
Conversely, it may be noted that the index of positive cases on swab-tests carried out that far marked a downward trend 15 days after the second aforementioned epidemic phase DPCM was issued, as of April 6 to be exact. On that date, the index of positive cases reached levels below the national average and, at the end of April it reached a relatively contained level, equal to about 55 positive people for every 1000 swab-tests. We may thus conclude that the drop in positive cases as of that date could be ascribed to containment policies.

Once we turn to consider the “endemic” phase, when Covid-19 infection seems under control even though still present, the two main decrees that made it possible to relax restrictions and favor a return to normality in the people’s movement, first between municipalities and then between Italian regions, were DPCM May 4 and DPCM June 3, 2020. As noted above, the former ordered a partial reopening of production and commercial activities, while the latter reestablished free circulation across the Italian territory. In this case, the evolution of the positive case index 15 days after both the first and the second DPCM—that is as of May 19 and June 18, 2020—follows a steady downward trend, down to a count of only 10 positive cases for every 1000 swab-tests (Fig. 6.3).

Overall, the evolution of the positive case index on swab-tests yields only a few useful criteria for evaluating the effectiveness of legal measures issued in Italy. In fact, numerical analysis for April 2020 records a downward trend of the curve for positive cases against administered swab-tests, due to the shutdown of all productive activity. The downward trend in infections is evident in the months of May and June 2020, which suggests that the Covid-19

---

**FIG. 6.3** Number of positive cases on swabs carried out in Italy, between 23 February and 30 June 2020.

Data processing: CST-Diastislab, University of Bergamo
Source: President of the Council of Ministers - Department of Civil Protection
epidemic across the Italian territory was under control. This favorable outcome may be ascribed to multiple concurrent factors, among which a persistence of lockdown measures and of containment policies adopted at national level.

### 6.2.4 Outcomes of containment measures on citizens fined by the police

An additional dataset which may help us monitor the outcomes of containment measures promoted in Italy concerns the quantitative evolution of the penalties or daily reports filed by the police, based on people checked across the national territory (Fig. 6.4). Such data attests to the level of citizens’ compliance with containment measures adopted by the Government. It also records variations in inhabitant behavior based on the type of penalties which, in the Italian case, were turned from penal sanctions to administrative fines via legislative decree no. 19 of 25 March 2020. This second type involves an immediately enforceable monetary fine that citizens seemingly consider both more timely and more practical.

Trend analysis on the index of fined/reported individuals during checks presents fluctuations in the “epidemic” phase of the SARS-CoV-2 infection, i.e., starting from 11 March.\(^k\)

\[\text{FIG. 6.4} \quad \text{Number of fined or reported individuals over 1000 checks in Italy (11 March–30 June 2020).}\]

\(^k\)Daily data on the monitoring of police activities for epidemic containment were published by the Ministry of the Interior starting from 11 March 2020 and are available at: https://www.interno.gov.it/it/coronavirus-italia-dati-dei-servizi-controllo.
and up to DPCM 4 May 2020 which ordered a partial reopening of activities and mobility. An initial period may be noted, starting from the beginning of March 2020, as legislative decree 6 of 23 February 2020 came into effect, providing for criminal sanctions in the event of failures to comply with containment measures. A high number of fined/reported individuals was in fact recorded during checks. This period lasted until the end of March 2020. Successively, legislative decree 19 of 25 March 2020, which turned fines from criminal to administrative, marked a decreasing trend in the index of fined/reported individuals during checks. Despite fluctuations, this trend may be said to have lasted approximately until the end of April. Such favorable evolution is presumably ascribable to the pervasiveness of the administrative-pecuniary fines, which citizens seemingly regard as more immediate and more effective.

Finally, as the “endemic” phase of contagion was reached, and most notably following the DPCM May 4, 2020, which set out the progressive lifting of restrictions, data tend to settle and record a progressive decline in citizens’ infractions. Actually, in May and June sanctions/complaints against the number of checks decreased until they reached nearly-zero levels. Obviously, these were the months which followed a relaxation of containment policies and also marked a return to normality in production activities and in the circulation of individuals. Progressively less restrictive policies were introduced, which consequently resulted in fewer violations of containment measures on the part of inhabitants and further lifting of restrictions.

Overall, the index of fines/reports during checks carried out by the police provides further, useful data for monitoring the outcomes of containment measures in Italy, and for recording variations in instances of irregular behavior on the part of citizens. While overall infractions were high in March and April 2020, they decreased significantly from May and reached minimum levels by June.

6.2.5 A difficult balance between Regions and the State: healthcare and transport

Albeit relatively recent,\(^1\) Italian regionalism has undergone acceleration after the 2001 constitutional reform.\(^m\)

As we turn to examine public policies of infection containment and look for hypotheses which, if backed by scientific data, may explain different contagion trends in neighboring areas, we may home in on two aspects whose organization depends on the Regions and which may have had an impact on the containment or the spread of the virus: healthcare organization and local public transport (Carullo and Provenzano, 2020a,b).

6.2.5.1 The health service

Ever since the historical, initial institution of regional administrations, tasks related to healthcare organization were transferred to the Regions.\(^n\) Following the legal establishment

\(^1\)Although already outlined by the Constitution, the Regions with ordinary statute began to exercise their autonomy only from 1970, having been established by Law 16 May 1970, no. 281.

\(^m\)Enshrined in Constitutional Law no. 3/2001 which reformed Title V of the Constitution.

\(^n\)Presidential Decree (DPR) no. 4/1972 and Presidential Decree (DPR) 9/1972.
of the national health service,\(^{o}\) it was decided that such autonomy should be maintained, and key tasks in the provision of services were assigned to municipal administrations.\(^{p}\) The State, or more precisely, the Ministry of Health was still charged with planning, supervision and coordination, as well as with tasks that called for unified enforcement throughout the national territory.\(^{q}\)

Due to public finance demands and against the proven inefficiency of a centralist system of organization and management, a set of sweeping reforms was passed by Legislative Decree 502/1992 and Legislative Decree no. 517/1993. These introduced a management model based on corporatization and marked regionalization, which deprived both State and Municipalities of previous competences. In the ensuing overhaul, multiple functions were diverted onto Regions, for what concerned both the planning and coordination of facilities and the provision of healthcare services. The State was left with the sole tasks of financing what was by then a regionalized healthcare system and of defining essential healthcare levels in concert with Regions.

Regions were thereby granted considerable latitude in healthcare management, against possible conflicting competences from either State or Municipalities.\(^{r}\)

As highlighted in the previous chapter,\(^{s}\) regional choices were varied and distinct. In our assessment of data on contagion curve trends—especially in the ex-ante absence of healthcare or medical practices shared by the scientific community—different management choices made by the regions most involved in development may be taken as measures of the impact management policies had on contagion trends.

### 6.2.5.2 Local public transport

Local public transport is also managed by the Regions, even though, unlike healthcare competences, competences in the field of transport were only relatively recently assigned to Regions. In particular, starting with the Law of 15 March 1997, no. 59 (otherwise called as Bassanini Law)\(^{t}\) a series of tasks and functions were entrusted to local administrations, among which were also tasks related to local public transport.\(^{u}\)

The functions and tasks attributed to the Regions are quite extensive, and the State only holds prerogatives linked to international transport, road safety and pollution.\(^{v}\)

Due to the emergency nature of legislation on Covid-19 containment, which was addressed in the opening chapters of this book, annex 15 of DPCM May 17, 2020 only mandated a set of

---

\(^{o}\) Law 23 December 1978, no. 833.

\(^{p}\) Art. 13 Law Number 833/1978.

\(^{q}\) Art. 6 Law Number 833/1978.

\(^{r}\) The Ministry does retain a monitoring prerogative, and competence in determining minimum healthcare still rests with the State and Regions Conference.

\(^{s}\) See Chapter 5.3 in this volume, where the author discusses among other things data related to regional healthcare.

\(^{t}\) Art. 4, paragraph 4 of Law 15 March 1997, no. 59.

\(^{u}\) Legislative Decree 19 November 1997, no. 422.

\(^{v}\) Art. 4 Legislative Decree no. 422/1997.
6.2. Containment measures in relation to infection

minimum prescriptions around contagion prevention: namely, the need to ensure a safe social distance of at least 1 m; the use of PPE (Personal Protective Equipment); and vehicle sanitization.

On May 22, 2020, the State and Regions Conference adopted guidelines which acknowledged DPCM recommendations, thus imposing a safe social distance of at least 1 m; the obligation to wear protective equipment on public transport; and the obligation to carry out periodic vehicle sanitization. Individual regions were left to independently determine safe capacity limits for mass transport.

Following the insurgence of coordination issues for local public transport and an increase in passenger traffic, the national government intervened by dictating uniform rules for all regions via DPCM 7 August 2020, whereby the need to ensure a 1-m social distance was waived to ensure a 60% maximum capacity for public transport vehicles.

Finally, as the school year approached, in order to unify regional provisions and to address the issue of school transport, on 31 August 2020 the State and Regions Conference decided to extend maximum transport capacity to 80% of ordinary capacity.

Regional rules were partly required by the restart of activities once the restrictions were lifted and the school year resumed. By then the prospect of an increase in available means of transport had faded, even though derogations of ordinary rules had been granted.

6.2.5.3 Administrative functions and the clash of competences: Regional measures on “red zones” and transport management

The peculiar allocation of competences between State and Regions, typifying Italy’s constitutional setup after the 2001 reform, has been considered by some as a significant factor for analyzing contagion trends and assessing the effectiveness of SARS-CoV-2 containment strategies.

We would, however, be inclined to agree with what other observers have noted, also in view of what has emerged in the pages above: in the matter of healthcare organization and local public transport, the ordinary setup of administrative competences does recognize a regional authority. Nonetheless, there also exist, in situations of emergency, extraordinary, “monochrome” powers (in broad terms of health and safety) which pertain to both state and local authorities, equally competent to face the emergency.

Since ancient times, provisions for simplified and expedited procedures in emergency situations have been a common legal feature, bound to coexist—however—with ordinary competences to be exercised in ordinary situations. Such overlaps, while not invariably free from conflict, make it possible to ensure prompt intervention by the administrative authority, whatever it is. In such cases, necessity was deemed a legitimate source of power, overriding ordinary principles of autonomy, differentiation or adequacy.

wAnnex 15, paragraph devoted to “the sector of local public transport either by car, or on lakes, lagoons, along coasts or railways not interconnected to the national network.”

xAlthough, in some cases, even highway code exceptions had been provided for, in terms of vehicles deemed suitable for local public transport (for example, Article 200 of Legislative Decree no. 34 of 19 May 2020 provided that “notwithstanding Art. 87, paragraph 2, of the highway code, even cars for use by third parties referred to in article 82, paragraph 5, letter b, of the same code could be used on line services for the transport of persons”) and art. 1 Legislative Decree July 16, 2020, no. 76 permitted simplified procedures for awarding local public transport services.
In the case of the Covid-19 epidemic, however, this dual level of competences (both for the ordinary administration and for the extraordinary powers of necessity and urgency) has revealed stretch marks in the legal fabric of Italian institutions. In particular, the legal system seems to have entered a critical period for many reasons, not all of which, in the subdued opinion of the present writer, are due to mere technicalities.

In the first place, given the absence of shared medical/scientific protocols, administrations were faced with a wide range of possible interventions whose effectiveness remains doubtful (think, for instance, of the prescription to wear masks or the policy of separating infected subjects from noninfected ones). Lack of technical knowledge amplified the scope of administrative discretion, calling upon administrations to make choices largely devoid of objective criteria or, in any case, of criteria shared by the medical community. The choices were, as a result, quintessentially political. Each decision-making level, therefore, acted as it saw fit. By way of example, if—on the contrary—we had been called to face a flood or an earthquake, intervention choices and methods would probably have been identical at any administrative level: aid would have been summoned, accommodation provided for displaced people and field hospitals set up to treat the wounded.

Also, the emergencies that the Public Administration was used to dealing with in the past were of a contingent and temporally limited nature: always think of the flood or the earthquake. Emergency situations that require the adoption of emergency administrative measures tend to be very limited in time and is aimed at regulating the first phases of emergency. Once the situation has stabilized, and even though administrative incompetence may still occur during the reconstruction phase (think of the “recent” earthquakes), competences tend to fall back into more sedimted patterns. In the case in question, the situation never quite stabilized, not even in terms of regulatory stability.

It should also be noted that measures for enhancing public services require operations which, in normal situations, require a long time to be implemented. Consider, for example, the purchase of goods and services which entails carrying out publicly accountable procedures. Although exceptions to such procedures were granted in order to speed up the purchase process, local administration offices—notoriously understaffed and little used to managing complex procedures—were ultimately unable to carry out the envisaged enhancement measures.

The response was therefore disjointed and fragmented, with local provisions at variance with national measures, delays in the implementation of policies and in the attainment of projects. In all likelihood, administrative uncertainty made it more difficult to cope with the emergency.

Specifically, as shown in Fig. 6.5, a response broken down in specific regional ordinances took place in spring 2020 for the establishment of “red zones,” as well as for the management of public transport. The former is color-coded in red and refers to municipalities, within the Regions that established them, color-coded in pink; the second is marked by a green outline of the region which put in place specific management policies for public transport.

With regard to “red zones,” we are presented with multiple regional ordinances which cordoned off as “red zones” two entire provinces of Emilia-Romagna—those of Piacenza and Rimini—as well as about 90 municipalities distributed in 12 different Italian regions.¹

¹Data on single regional ordinances, including their duration and the issuing body were collected by the Presidency of the Council of Ministers-Department of Civil Protection and are available at: https://github.com/pcm-dpc/COVID-19/tree/master/aree.
Such ordinances account for the wide fragmentation of the most restrictive measures across the national territory, attempts to integrate national policies which were slow to take action or proved far too limited, and thus inadequate to face the health emergency. These betray a lack of health protection policies on a national scale, albeit in an extreme emergency situation, as well as a discrepancy between the levels of regional and state competence. This is a political fragility that may have negatively affected the management of the Covid-19 epidemic.

As regards the management of public transport, the Regions operated within the framework of the aforementioned national provisions and the Guidelines on public transport approved on May 22, 2020 by the Conference of Regions and Autonomous Provinces. Without prejudice to the provisions regarding the mandatory use of masks on board for all passengers and the application (with obvious limitations to control) of general health provisions (maximum body temperature of 37.5°, hand sanitation), the key issue revolved here around the progressive redefinition of maximum vehicle capacity. Maintaining a safe interpersonal distance of 1 m entailed a significant reduction in vehicle capacity, estimated at around 25%–30%, depending on the types of vehicles.

*These “red zones” were added to those established at national level by Decree of the Presidency of the Council of Ministers (DCPM) 23 February 2020 in the municipalities of Vo’ Euganeo in the Veneto and the Codogno area in Lombardy; of 8 March 2020 for some regions of Northern Italy; and March 9 for the entire national territory, as discussed in Chapter 6.1 of the present volume.*
In this sector, regional action saw interventions aimed at combining health safety conditions with transport needs tied to a projected demand for public transport upon reopenings scheduled for May 3, 2020. Along with policies to keep demand in check (especially, the widespread adoption of smart working), and to enhance supply by increasing public transport frequency, regional administrations issued specific provisions. In fact, via its own Ordinance dated 30 April 2020, only the Lazio Region—marked in Fig. 6.5 with the green outline—set a maximum capacity limit of 50%, aa which in fact was an extension to the previous public transport use limit which required safe social distancing. With respect to the public transport sector, therefore, the discrepancy between regional and state levels of competence would seem less evident, even though decision making in most Italian region was somewhat held back by a sense of “immobility.”

6.2.6 Conclusions

In the form of cross-section of the many measures taken by the national government and regional administrations to combat contagion, our analysis marks an opportunity for reflection on a possible rearrangement of the competences involved in dealing with situations of emergency. The shortcomings outlined above call for an urgent assessment of what did work and of “areas of uncertainty” which paved the way to uncoordinated action and often led to controversial outcomes (Sanfelici, 2020).

The debate that has been raging for quite some time in Italy about a territorial overhaul and a review of national, regional and local competences, will be refueled by the shortcomings that the health emergency has highlighted. Proper attention will have to be paid to planning resilient models for territories exposed to emergencies of various kinds: the health emergency discussed above, but also, more generally, possible seismic or meteorological emergencies linked to climate change.

aa “Taking into account the obligation to use the masks, if it is not possible to continuously guarantee safe social distance within vehicles, pursuant to art. 3, paragraph 2, of the Decree of the President of the Council of Ministers of 26 April 2020, the service must in any case keep a maximum load not exceeding 50% of the transport capacity of the vehicle, as inferable from the vehicle registration certificate” (Ordinance of the President of the Lazio Region 30 April 2020, no. Z00037).

References

Camera dei Deputati-Servizio Studi, 2020. Misure sull’emergenza coronavirus (Covid-19)–Quadro generale.
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. 250, 1–8.
Carullo, G., Provenzano, P. (Eds.), 2020a. Le Regioni alla prova della pandemia da Covid-19, Dalla Fase 1 alla Fase 3. vol. I. Editoriale Scientifica, Milano (Abruzzo, Basilicata, Calabria, Campania, Emilia-Romagna, Friuli-Venezia Giulia, Lazio, Liguria, Lombardia, Marche).
Carullo, G., Provenzano, P. (Eds.), 2020b. Le Regioni alla prova della pandemia da Covid-19, Dalla Fase 1 alla Fase 3. vol. II. Editoriale Scientifica, Milan (Molise Piemonte Province Autonome di Trento e di Bolzano Puglia Sardegna Sicilia Toscana Umbria Valle d’Aosta Veneto).
6.2. Containment measures in relation to infection

Casti, E., 2020. Geografia a ‘vele spiegate’: analisi territoriale e mapping riflessivo sul Covid-19 in Italia. Documenti Geografici. 1, 61–83.

Danzi, V., Pinotti, G., Pisani, G., 2020. Provvedimenti regionali e emergenza Covid-19: un quadro generale. In: Carullo, G., Provenzano, P. (Eds.), Le regioni alla prova della pandemia da Covid-19. Dalla fase 1 alla fase 3. 2. Editoriale scientifica, Naples, pp. 739–757.

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.

Further reading

Bertuzzo, E., et al., 2020. The geography of Covid-19 spread in Italy and implications for the relaxation of confinement measures. Nat. Commun. 11, 4264.

Casti, E., 2000. Reality as Representation: The Semiotics of Cartography and the Generation of Meaning. Bergamo University Press, Bergamo.

Casti, E., 2015. Reflexive Cartography: A New Perspective on Mapping. Elsevier, Amsterdam-Waltham.

Della Rossa, F., et al., 2020. A network model of Italy shows that intermittent regional strategies can alleviate the Covid-19 epidemic. Nat. Commun. 11, 5106.

Gentilini, U., Almenfi, M., Ian Orton, I., 2020. Social Protection and Jobs Responses to Covid-19: A Real-Time Review of Country Measures—A ‘Living Paper’. Link https://www.undp.org/content/dam/south_africa/docs/Publications/global-review-of-social-protection-responses-to-COVID-19-2.pdf.

Migone, A.R., 2020. The influence of national policy characteristics on Covid-19 containment policies: a comparative analysis. Policy Des. Pract. 3 (3), 259–276.

Torri, E., et al., 2020. Italian public health response to the Covid-19 pandemic: case report from the field, insights and challenges for the department of prevention. Int. J. Environ. Res. Public Health 17 (10).

Weible, C.H., et al., 2020. Covid-19 and the policy sciences: initial reactions and perspectives. Policy Sci. 53, 225–241.