Early COVID-19 pandemic response in Italy: Pros and cons

Nicola Magnavita¹,²
Angelo Sacco¹,³
Francesco Chirico¹,⁴

¹ Post-graduate School of Occupational Health, Università Cattolica del Sacro Cuore, Rome, Italy
² Department of Woman, Child & Public Health, Fondazione Policlinico Gemelli, Rome, Italy
³ Local Sanitary Unit Roma 2, Rome, Italy
⁴ Health Service Department, Italian State Police, Milan, Italy

Address for correspondence: Professor Nicola Magnavita, Occupational Health, Department of Woman, Child & Public Health, Fondazione Policlinico Gemelli, Largo A. Gemelli 8, 00168 Rome, Italy. Email: nicolamagnavita@gmail.com

Conflict of interest: none

Authors declare no source of financial support and that the manuscript has not been published or accepted by other journals for publication.

Key words: COVID-19; Italy, health policy, pandemic, public health measures, policymakers

Abstract

Since the beginning of the COVID-19 pandemic, Italy was one of the worst-affected European countries. The rapid surge of cases and the limited capacity of intensive care unit departments have posed a serious threat to the Italian national health system. In this paper we describe the first response and the main measures carried by Italian policy makers, as coordinated by a governmental committee of public health experts, which have succeeded in preventing the pandemic from turning into a disaster. Early closure of the school, quarantine measures and lockdown were put in place and the response of the population has been good overall.

Despite the Italian health care system of universal coverage is considered the second-best in the world, during phase 1, the Italian decentralisation and fragmentation of health services probably restricted timely interventions and effectiveness. In northern Italy, Lombardy, Emilia Romagna, Piedmont, and Veneto, which reported most of the Italian cases, carried out different strategies against COVID-19, with great differences in testing, quarantine, and public health procedures.

The improvement of the epidemiological situation has allowed an easing of the restrictive measures, with a progressive restarting of work activities. The government and technical-scientific bodies have prepared health strategies to support a possible second epidemic wave in the autumn.
Introduction

Since the beginning of the COVID-19 pandemic, Italy was one of the worst-affected European countries. As of May 6, 2020, 214,457 persons had a confirmed infection by the SARS-CoV-2 coronavirus. Overall, 15,769 persons required hospitalization and 1,333 intensive care unit admission, resulting in 29,684 confirmed deaths. More than one in ten infected people (n = 21,880) were healthcare workers. To date, 154 physicians and 37 nurses have died [1]. The rapid surge of cases and the limited capacity of intensive care unit departments have posed a serious threat to the Italian national health system [2].

This Italian health care system of universal coverage is considered the second-best in the world [3]. However, in Lombardy, which has been the hardest hit Italian region, in March 2020 hospitals were overwhelmed and close to the breaking point [4]. The timely response of policymakers, as coordinated by a governmental committee of public health experts, has succeeded in preventing the pandemic from turning into a disaster. We believe the Italian experience may be useful for identifying keys in dealing with COVID-19 challenges. Errors made early in Italy benefit other healthcare services. In this short report, we describe the main measures carried out in the Italian response to COVID-19.

The first response and the regulatory framework

On 30 January 2020, when the World Health Organization (WHO) declared the coronavirus epidemic in China a “public health emergency of international concern”, two positive cases were reported among Chinese tourists in Rome. On the same day, a task force of experts was established by the Ministry of Health for the containment of epidemic outbreaks. On 31 January, the Government of Italy, imposed a ban on flights from China. The Italian Constitution declares that “The Republic shall safeguard health as a fundamental right of the individual and as a collective interest and shall ensure free medical care to the indigent. No-one may be obliged to undergo any health treatment except under the provisions of the law. The law may not under any circumstances violate the limits imposed by respect for the human person” (Art. 32) [5]. Therefore, some medical acts such as quarantine, contact tracing and others can be implemented only if the authorities have decreed a public health problem.

On February 3, the Civil Protection Department of the Italian Government released an emergency management plan. A third case of the disease was confirmed on 7 February, with the patient being an Italian man evacuated from Wuhan. On February 23, immediately after the first two main Italian clusters in Codogno and Vò Euganeo, respectively in the Lombardy and Veneto regions, eleven municipalities were identified and placed under quarantine by a Decree of the Council of Ministers. Despite this initial lockdown, in a few days the country was hit by an epidemic of unprecedented force, which has been defined by newspapers as Italy’s biggest crisis since World War II. In a short time, schools of all levels were closed across the country (March 5) and lockdown and quarantine measures were expanded to the entire country (9 March). The government decree established by Prime Minister Giuseppe Conte essentially prohibited all movements of people within the whole territory and the closure of all non-essential business activities.

In Italy the strong political response was carried out by a certain number of Decrees of the President of the Council of Ministers, who explained the content of each Decree with public appearances on TV, supported by a daily press conference held by the Department of Civil Protection to share data and trends on the epidemic. On one hand, there were serious consequences on the economy with the biggest Gross Domestic Product drop since the end of the Second World War. On the other hand, the emergency produced a concentration of power, unprecedented in the history of the Republic of Italy, in the hands of the President of the Council of Ministers, who needed to handle the emergency in a country with over 300 thousand national laws and tens of thousands of regional and local laws. Although penalties for lockdown offenders were only administrative fines, with penal sanctions only for individuals infringing quarantine, the response of the population has been good overall. From April 25 to May 4, penalties were imposed on 2.4% of the 1,793,042 people who were checked (n = 43,406); furthermore, only 1,122 sanctions were issued (0.2%) (Ministry of the Interior) on 648,459 businesses inspected. These figures are quite low, in consideration of the high frequency of penalties on Italian roads [5].

The Italian healthcare strategy

It is important to remember that Italy has a national health service that guarantees equal treatment and free access to medical treatment for everyone. Health services, however, are provided by the 20 Italian regions, each through its own regional health system. In practice, this produces differences not only in the available resources, but also in the organizational rules. The Ministry of Health only has direction and coordination functions. Since the outset of the epidemic, the Italian government has advocated control of health care activities (to be realized by the Regions) and has established close connections with the Department of Civil Protection, part of the National Institute of Health (Istituto Superiore di Sanità, ISS), which constituted a “Scientific Technical Committee” for the epidemic, and the National Insurance Institute of Work Injury and Occupational Diseases (INAIL). The unions also collaborated, creating a shared protocol with the government.

During phase 1, the Italian decentralisation and fragmentation of health services seems to have restricted timely interventions and effectiveness [7]. The Ministry of Health, which only performs functions of coordination, has created a scientific committee through the Department of Civil Protection, the ISS, and the National Insurance Institute of Occupational Injury and Diseases (INAIL) to drive the government’s decisions which ap-
supply to all regions. On 24 April, Government and Social Partners developed a protocol with measures for ensuring health and safety at work. Many scientific associations later produced their own documents on the subject [8]. Overall, the National Health System response to this emergency was effective. However, Italy’s healthcare service needs stronger national coordination and more partnerships between the private and public sectors [7]. Healthcare decentralisation has received a lot of criticism. In Northern Italy, Lombardy, Emilia Romagna, Piedmont, and Veneto, which reported most of the Italian cases, carried out different strategies in the battle against COVID-19, with great differences in testing, quarantine, and public health procedures. Lombardy focused its efforts on increasing intensive care unit beds, whereas Veneto, Emilia Romagna, and Tuscany invested more resources in territorial and community care. Thus, epidemiologists from different regions were at odds and inconsistencies have been claimed between national, regional, and local laws. Lack of personal protective equipment and training as well as hospital unpreparedness were major concerns for healthcare workers and hospital management. INAIL recognizes COVID-19 infection as an occupational injury in healthcare staff, front-office workers, and all those in direct contact with the public [9, 10]. Preliminary data by INAIL show that 72.8% of the COVID-19 infections recognized as occupational injury concern health and social care workers employed at hospitals and nursing and residential homes [11], as the hospitalized, the elderly, and the disabled are particularly vulnerable to COVID-19 [12].

In Italy, data about infection, hospitalization, and deaths related to COVID-19 have been collected from each Regional Health Service and transmitted to the Ministry of Health and the Department of Civil Protection to each Regional Health Service and transmitted to the Ministry of Health and the Department of Civil Protection to

\[ \text{5. Repubblica Italiana, La Costituzione della Repubblica Italiana, 2020, https://www.senato.it/application/xmanager/projects/leg18/file/repository/relazioni/libreria/novita/XVII/COST_INGLESE.pdf (accessed: 06.05.2020).} \]

\[ \text{6. Ministero dell’Interno: Monitoraggio dei servizi di controllo inerenti le misure urgenti per il contenimento della diffusione del virus COVID-19. REPORT: Controlli settimanali (25 aprile – 1 maggio 2020), 2020, https://www.interno.gov.it/sites/default/files/modulistica/report_controlli_settimanali_25_aprile_1_maggio.pdf (accessed: 06.05.2020).} \]

\[ \text{7. Armocida B., Formenti B., Ussai S., Palestra F., Missoni E., The Italian health system and the COVID-19 challenge, “Lancet Public Health” 2020, 25.03., pii:S2468-2667(20)30074-8; doi: 10.1016/S2468-2667(20)30074-8.} \]
8. Spinazzè A., Cattaneo A., Cavallo D.M., COVID-19 outbreak in Italy: protecting worker health and the response of the Italian Industrial Hygienists Association, “Annals of Work Exposure and Health” 2020, 16.04., pii: wxaa044; doi: 10.1093/annweh/wxaa044. [Epub ahead of print] PubMed PMID: 32298415.

9. Ministry of Health, Italy. INAIL, Covid-19, per i contagi sul lavoro garantite le stesse prestazioni degli infortuni, Circolare Inail n. 13 del 3.04.2020, https://www.inail.it/cs/internet/comunicazione/sala-stampa/comunicati-stampa/com-stampa-circolare-3-aprile-contagi-covid-19-2020.html (accessed: 25.04.20).

10. Chirico F., Magnavita N., COVID-19 infection in Italy: an occupational injury, “South African Medical Journal”. Published online May 2020, https://doi.org/10.7196/SAMJ.2020.v110i6.14855.

11. Istituto Nazionale per le Assicurazioni contro gli Infortuni sul Lavoro. INAIL, Scheda tecnica. I primi dati sulle denunce da Covid-19 (monitoraggio al 21.04.2020), 2020, https://www.inail.it/cs/internet/comunicazione/news-ed-eventi/news/news-denunce-contagi-covid-aprile-2020.html (accessed: 07.05.2020).

12. Istituto Superiore di Sanità, Epidemia COVID-19. Survey nazionale sul contagio COVID-19 nelle strutture residenziali e sociosanitarie. Secondo report; aggiornamento del 6.04.2020, ISS, 2020b, https://www.epicentro.iss.it/coronavirus/pdf/sars-cov-2-survey-rsa-rapporto-2.pdf (accessed: 07.05.2020).

13. Presidenza del Consiglio dei Ministri: “Fase 2” – Domande frequenti sulle misure adottate dal Governo, 2020, http://www.governo.it/it/faq-fasedue (accessed: 07.05.2020).

14. Ministero della Salute, Covid 19: situazione in Italia, 2020, http://www.salute.gov.it/portale/nuovocoronavirus/detttaglioContenutiNuovoCoronavirus.jsp?lingua=italiano&id=5351&area=nuovoCoronavirus&menu=vuoto (accessed: 07.05.2020).

15. Il Sole 24 Ore, Coronavirus. Available at: https://lab24.ilsole24ore.com/coronavirus/?utm_source=fasciahp (accessed: 07.05.2020).

16. Peto J., Alwan N.A., Godfrey K.M., Burgess R.A., Hunter D.J., Riboli E., Romer P., 27 signatories. Universal weekly testing as the UK COVID-19 lockdown exit strategy, “Lancet” 2020, 2.05.; 395 (10234): 1420–1421; doi: 10.1016/S0140-6736(20)30936-3.

17. Black J.R.M., Bailey C., Przewrocka J., Dijkstra K.K., Swanton C., COVID-19: the case for health-care worker screening to prevent hospital transmission, “Lancet” 2020, 2.05.; 395 (10234): 1418–1420; doi: 10.1016/S0140-6736(20)30917-X. Epub 2020 Apr 16.

18. Chirico F., Nucera G., Magnavita N., COVID-19: Protecting Healthcare Workers is a priority, Infection Control & Hospital Epidemiology 2020, 17.04.: 1; doi: 10.1017/ice.2020.148.

19. Klompas M., Coronavirus Disease 2019 (COVID-19): Protecting Hospitals From the Invisible, “Annals of Internal Medicine” 2020, 11.03.; doi: 10.7326/M20-0751.