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Statistics and political management during the first year of the Covid-19 pandemic in Argentina

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Abstract

The Covid-19 pandemic triggered the generation as well as the ample circulation of health statistics. This article examines the role that Covid-19 statistics acquired in the management of the Argentine health emergency. Argentina adopted lockdown measures early and initially had a strict social confinement with subsequent relaxations that became a coordination challenge in a society in crisis. This research followed a qualitative methodological strategy supported by systematic analysis of regulations, government reports, press articles, and presidential press conferences. On the one hand, the article explores the institutional structure behind the elaboration of Covid-19 statistics, focusing on statistical classifications, and underlines the tensions to which it was exposed. On the other hand, it shows how statistics were used to bestow legitimacy to the decisions of the political authority, staged in true rituals of quantification, as they were a means through which that authority was exercised. In addition to attributing meaning to a shared experience, statistical indicators became a device for coordinating action at a distance and from the center, restricting the margins of discretionary action of the subnational authorities and operating as an external and impersonal mechanism of regulation in a society disrupted by an exceptional situation.

Keywords: statistics, Covid-19, Argentina, political management, sociology of quantification.

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Estatísticas e gestão política do primeiro ano da pandemia de Covid-19 na Argentina

Resumo

A pandemia de Covid-19 estimulou a geração e ampla circulação de estatísticas de saúde. Este artigo examina o papel assumido pelas estatísticas da Covid-19 na gestão política da emergência sanitária na Argentina, país que se caracterizou por adotar medidas precoces, um confinamento social estrito inicial e subseqüentes flexibilizações que significaram um desafio de coordenação em uma sociedade em crise. A pesquisa adotou uma estratégia metodológica qualitativa apoiada na análise sistemática de diversas fontes: regulamentos, relatórios governamentais, imprensa e registros em vídeo de coletivas de imprensa presidenciais. Por um lado, o artigo explora a trama institucional de elaboração dessas estatísticas, detendo-se em alguns pontos dessa cadeia como as classificações estatísticas, e destaca a série de tensões a que foi exposta. Por outro lado, mostra como as estatísticas foram usadas para conferir legitimidade às decisões da autoridade política, encenadas por meio de verdadeiros rituais de quantificação, ao mesmo tempo em que serviram de instrumento para o exercício dessa autoridade. Além de atribuir significado à experiência compartilhada, os indicadores estatísticos faziam parte de um dispositivo de coordenação da ação à distância e a partir do centro, que restringia as margens de ação discricionária das autoridades subnacionais e funcionava como um mecanismo externo e impessoal de regulação em uma sociedade convulsionada por uma situação tão excepcional quanto a pandemia.

Palavras-chave: estatística, Covid-19, Argentina, gestão pública, sociologia da quantificação.

Introduction¹

After registering around 4,000 deaths and more than 100,000 confirmed cases in several countries, on March 11, 2020, the World Health Organization (WHO) established that the expansion of the SARS-CoV-2 virus (hereinafter Covid-19 or coronavirus) was a pandemic. The existing statistics confirmed the spread of the new coronavirus to vast geographical areas, making the virus a global problem. In this scenario, epidemiological models, graphs, and data on the number of daily infections and deaths began to circulate. All over the world, national governments allocated resources to monitor the evolution of the pandemic in their country in “real” time. In parallel, initiatives arose to support this monitoring at a global level from various types of organizations, including the WHO as well as groups with a more academic profile such as Our World in Data from the University of Oxford. Global monitoring was made easier due to the technological tools available to collect, systematize, and process large amounts of data. The daily regularity that the publication of data on Covid-19 deaths acquired would be unthinkable outside the exceptional scenario of a pandemic.

The intensity of the population’s exposure to numbers is also unprecedented. Only in few, very specific circumstances have societies paid so much attention to public numbers (Daniel, 2013). When statistical indicators reach such centrality in the public sphere they act as one more agent of social life thanks to their power of synthesis and dramatization (Besson, 1995; De Santos, 2010). Some scholars used the term “infodemic” to characterize this scenario given the broad, scattered, and often contradictory set of information that circulated during the pandemic. In societies overpopulated with data, a fundamental question is to find its meaning.

¹ This article is based on research carried out within the framework of the PISAC COVID-19 No 40: “El sostén público a la supervivencia de los hogares y unidades económicas en la urgencia. Iniciativas, mediaciones y alcances de la asistencia en perspectiva comparada”, supported by Argentina’s Agencia I+D+i. The authors would like to acknowledge the comments of the anonymous referees and thank them for their useful contributions to improve an earlier version of this work.

From the perspective of the sociology of quantification, Emmanuel Didier (2020) proposed the notion of *quantonemics* – an epidemic of quantification – suggesting a common starting point to understand this process. Andrea Mennicken (2020) also referred to the expansion, acceleration, and intensification of quantification during Covid-19 times. Undoubtedly, the statistical discourse was a central protagonist in the attribution of meaning to the crisis generated by the pandemic. It contributed to establishing its rhythms, and even giving it a certain temporality, as suggested by Alexandre Camargo, Eugênia Motta, and Victor Mourão (2021). Statistics circulated widely to offer a “snapshot” of current events, while the calculations of the epidemiological models outlined possible future scenarios that the governments sought to avoid, modify, or mitigate.

This paper aims to identify the role that Covid-19 health statistics played in the political management of the health emergency in Argentina between March 2020 and March 2021. The methodological strategy consisted of selecting, systematizing, and analyzing various types of sources. First, the regulations associated with the management of the pandemic were examined, focusing on 27 government resolutions that referred to numbers, statistics, or indicators related to the pandemic. Second, the content of more than 300 daily reports on the epidemiological situation published by the National Ministry of Health was recorded. Thirdly, a database with press articles published by four national newspapers with mass circulation (Clarín, Infobae, La Nación, and Página/12) was built to identify the numbers behind the narratives, the purposes with which those numbers were mobilized, the representations and social classifications that they enabled, and the evaluative positioning that the numbers supported. This also allowed the monitoring of public controversies behind official numbers during the first year of the pandemic in Argentina. Finally, 19 press conferences in which the president announced the measures adopted to the entire population were examined.

The role of statistical language in the construction of a narrative about the socio-sanitary crisis is undeniable. Hence, an ample strategy of

reconstruction of the exceptionally intense circulation of these numbers was followed to pay attention to the variety of devices for their presentation and dissemination. According to Camargo, Motta, and Mourão (2021) the numerical paths of the pandemic are inseparable from the production of the pandemic as a collective experience, evidencing their role in the task of giving meaning to the extraordinary moment experienced. Therefore, it also seems reasonable to think that in this framework the numbers had effects on the collective experience, on the subjective perception of the risk to which everyone was exposed, and on the way of experiencing the uncertainty inherent to these situations that totally disrupt ordinary life. The subjective and micro-sociological dimension exceeds the present analysis. Without a doubt, the feedback processes between numbers and social agency are extremely interesting to analyze. However, this deserves a specific approach that accounts for the different appropriations of numbers and their effects on subjective perception and social behaviors, like the adherence or not to existing protocols, during the Covid-19 crisis.

Considering the evolution of the spread of Covid-19 in Argentina while focusing on the statistics that were taking center stage, we established a periodization that tries to capture the different trajectories that the socio-sanitary crisis acquired in the country. The first stage extends between March and April 2020 and is strongly influenced by the perplexity and uncertainty generated by the health emergency. On March 3 the first confirmed case was reported in Argentina, while on March 7 the first death was confirmed. On March 19, the president decreed the preventive and compulsory social isolation (*aislamiento social preventivo y obligatorio*, ASPO) for the whole country that almost completely suspended activities, except those considered essential. Unlike other Latin American countries (Azerrat et al., 2021), the ASPO meant that the Argentine state adopted a strategy of strict confinement to contain the spread of the virus with the aim of avoiding the collapse of the health system. During this stage, statistics that refer predominantly to the number of infections and deaths, the number of

Argentines stranded abroad, and comparative rankings between countries began to circulate publicly.

The second stage comprises a longer period between May and September 2020 in which the extraordinary situation reaches a certain stability with the implementation of protocols for a set of economic and social activities, without it being a period free of tensions and changes. A geographical segmentation is implemented to establish a “new normal” in places where there was less community transmission of the virus. During this stage, the numbers that circulate must be understood as part of a whole and refer to the number of cases, deaths, and people recovered, the reproduction rate or R_0 , the mortality rate, the positivity rate, the number of intensive care beds occupied, among others.

The third stage begins after the peak of cases was overcome in September 2020 and extends until March 2021 with the threat of the second wave of infections and includes the reception and initial distribution of vaccines. During the second and third stage, the socio-sanitary measures were rethought as health statistics thresholds were dramatically surpassed. The availability of vaccines substantially changed the context.

The following section highlights the relevance of sociology of quantification to understand the political role of numbers in contemporary societies in general, and in the experience of the Covid-19 pandemic in particular. Section three explores the infrastructure on which the production of official statistics on Covid-19 in Argentina was based, prioritizing the relationships between the actors involved, the institutional legacies, and certain links in the statistical chain of production, such as the operations of classification. The fourth section analyzes the use of statistical indicators in the management of the pandemic as government technologies. Finally, there is an examination of the meanings conveyed by numbers in the configuration of true quantification rituals promoted by the communication strategy of the National Executive Power (PEN). The article concludes with a balance of the findings and a reflection for future research.

The Covid-19 pandemic and the power of numbers in contemporary societies

The global scale of the Covid-19 pandemic does not imply that it constitutes a uniform or homogeneous event across all countries (Segata *et al.*, 2021). On the contrary, the pandemic has been homogenized by epidemiological risk metrics (Mennicken, 2020) of international use. Sociology of quantification denaturalizes this phenomenon, enabling a more restricted analysis at the national level. Despite not constituting a unified and fully established field of study (Diaz-Bone; Didier, 2016; Mennicken; Espeland, 2019; Camargo; Daniel, 2021), sociology of quantification has been expanding in recent decades, analyzing the ways of conceiving and apprehending the world through numbers. Sociology of quantification focuses on the process by which issues previously thought of in qualitative terms become objects of quantification, and the factors that influence and condition this process.

Nurtured by different social sciences, studies in this field cover not only or simply the processes of production, circulation, and appropriation of statistics, indicators, and graphic representations, but also and primarily analyze them in relation to the social and political phenomena that they unleash. A fundamental premise that governs these studies is that quantification – or any aspect of it – is *per se* a valid object of study. Within the various facets of this object, statistics are not a mere instrument of knowledge production since they not only reflect reality, but also contribute to defining it (Desrosières, 2004).

One of the most developed lines of research in this field is that of the studies that examine the link between the production of official statistics and state institutions and public action. These works focus both on the government of numbers and on government numbers in different fields or, as Nikolas Rose (1991, p. 675) points out, analyze “how the domain of numbers is politically composed and the domain of politics is made up numerically”.

Following Paul Starr (1987), national statistical systems came to be understood as historical, political, and social phenomena. In his opinion, these systems rest on two types of structures, one social and the other cognitive. The first involves the social, economic, and political relations of state agencies with other actors and institutions (private companies, non-governmental organizations, professional groups, international organizations, and other actors involved in the production of statistical information) that influence the configuration of statistical measurements. The cognitive structure of statistical systems encompasses the information structuring processes: decisions, practices, assumptions, meanings, and rules that operate in the classification and quantification of phenomena.

Furthermore, official statistics constitute cognitive commitments for society as a whole (Starr, 1987). The measurements used structure the perceptions of its members and become parameters that guide actions and decisions. For example, in the context of the Covid-19 pandemic, most citizens learned that if the R number (the rate at which coronavirus or any disease can spread) is less than 1 then cases will decrease over time (Miller, 2021). Also, during the pandemic many health policy decisions that directly influenced the daily behavior of billions of people were closely determined by the R number.

In this sense, following Nikolas Rose and Peter Miller (1992), statistics operate as technologies that allow “governing at a distance” because they enable action from a calculation center (such as a government office) on the desires, inclinations, and actions of others that are spatially distant and organizationally differentiated. So much so that they allow guiding, coordinating, even shaping, behaviors and practices, as well as influencing subjectivity. Numbers can be thought of as devices that allow communication between people despite social, geographic, and political distances that exist between them. According to Theodore Porter (1995), quantification offers a shared language and discipline that transcends differences that threaten collective or competing social projects. In situations of political conflict or dispute, divided expert opinions, or mistrust, numbers offer

a valuable form of authority that Porter characterizes as “mechanical objectivity”. Behind quantification, mechanical objectivity means following standardized rules based on the use of numbers, generating trust in them that supersedes trust in people.

Among its most recent contributions, sociology of quantification analyzed a set of instruments that have become central in contemporary neoliberal modes of government: benchmarking and rankings. These are numbers that are used to measure the performance of countries and institutions, evaluate development strategies, and guide public policies. As such, they have a notable impact on economic and political matters, as Lorenzo Fioramonti (2014) highlights, leading and driving both global and national governance. For Cris Shore and Susan Wright (2015), in recent decades the reduction of complex processes into simple numerical indicators and rankings, for the purposes of administration and control, was imported from the corporate world by neoliberal governments and applied to public management. Benchmarking is a technology through which the activities of various agents are subject to constant, comparative, and quantitative evaluation. This technology enables a way to govern the behavior of individuals without using coercive means, but through rewards and incentives. Within organizations, agents are in permanent competition with each other as previous mechanisms of cooperation are replaced by competitive spirit and results-based culture (Bruno; Didier, 2013).

To the extent that numerical benchmarks, ratings, and rankings are produced by international agencies, consultants, companies, auditors, and non-governmental organizations, the proliferation of these numbers has blurred the distinction between public and private authority in neoliberal governance (Fioramonti, 2014). In opposition to the increase in the power of numbers elaborated by experts and technocrats, Isabelle Bruno, Emmanuel Didier, and Julien Prévieux (2014) examine the emergence of “statactivism” by analyzing the experience of social movements that exert pressure on governments using numbers to denounce and strengthen their claims. By

doing so, they also displace the production of official numbers towards new groups and institutions that come to dispute the definition of “reality” generating new statistics.

Classifying and counting: the social and cognitive structure of the production of numbers in a pandemic

This section analyzes the institutional frameworks, information processing chains,² and, specifically, classifications of suspected cases and deaths from Covid-19 to show to what extent quantification is a collective enterprise of objectifying reality. It is essential to consider statistics as emerging from institutional structures, technical and social networks with multiple participants, whose decisions and actions are chained in such a way that they present a number as the end result, such as the number of daily infections and deaths from Covid-19. That is, these figures refer to the social organization of the structure that produces them, as much as they respond to a certain cognitive structure (Starr, 1987).

Regarding social organization, the division of statistical labor involves different bureaucracies and levels of government, the private and public sectors, and a variety of professional agents. From their interaction it is not possible to derive or assume their cooperation, since many times they are actors with conflicting interests or professional cultures in competition. International organizations play an important role in shaping statistics, although their actions are often crossed by debates and oppositions. In particular, the WHO permanently promoted guidelines to nation states for the construction of classifications that allowed for the

² In the development of the statistical process, that is, in the sequence of production activities – design, collection, processing – and dissemination of statistics, a set of social relationships are established. The potential effects of these relationships on the production of official statistics also deserve consideration. However, these interactions and internal dynamics, and the bureaucratic routines that involve so many diverse actors were complex to record and study given the restrictions on free movement that all citizens experienced during the ASPO. As social researchers, the ASPO prevented us from conducting more ethnographic research.

detection, registration, and monitoring of Covid-19 cases (OMS, 2020). The Argentine government followed these recommendations very closely, even at a time when the actions of the WHO were criticized and its credibility as an expert and an authority was questioned. Although they did not have strong international support, the criticisms made by the then president of the United States, Donald Trump, for example, updated old controversies around the mechanisms through which the global health agenda is established (Belardo; Herrero, 2020).

Despite this, in atypical and extraordinary contexts in which governments seek to reduce uncertainty in decision-making, such as a pandemic, following the guidelines of international authorities becomes a strategy to minimize criticism and increase public support for the measures. As Davis, Kingsbury and Merry (2012) suggest, the use of certain indicators can be advantageous due to their association with particularly prominent expert organizations. However, basing governance decisions only on criteria publicly disclosed by these international agencies excludes not only the possibility of considering data that only those responsible for decision-making know, but also the adaptation of the production of the indicators to national particularities.

In relation to the cognitive structure, this notion refers to the more or less permanent ways in which statistical instruments and data are structured. The classification schemes are part of this structure, which also involves the assumptions made by the statistical work, the measurement methods, and the rules of presentation and interpretation of information (Starr, 1987).

In Argentina, the production of official figures to account for the Covid-19 pandemic has been supported by the Argentine Integrated Health Information System (*Sistema Integrado de Información Sanitaria Argentino*), which has a specific module called National Health Surveillance System (*Sistema Nacional de Vigilancia de la Salud*, SNVS). The SNVS overlooks the upload, review, monitoring, analysis, and dissemination of information on health problems caused by the coronavirus.

In March 2020, the National Ministry of Health added Covid-19 to the legal regime of diseases with mandatory notification that has existed since 1960 (Law 15,465) in all its stages, from the suspicion of a case to the monitoring of its evolution. Likewise, it ordered its immediate and complete notification to the SNVS, which is the registration platform from which certain events are monitored to intervene in their prevention, assessment, control, and treatment. Taking the data recorded there, the Bureau of Epidemiology and Statistical Information (*Dirección de Epidemiología e Información Estadística*) prepares the daily reports published on the official website of the Ministry of Health. The loading of the data involves a diversity of actors: doctors who attend to patients in public or private health establishments, laboratory professionals who study samples, epidemiologists who carry out research tasks related to Covid-19, provincial and municipal health authorities as well as those in laboratories, and health establishments of public and private management. Likewise, the production of data articulates local, provincial, and national operators. The daily report of Covid-19 cases implied a challenge for the health information production circuit that rested on a pre-existing epidemiological surveillance system that was not modified but rather exposed to greater and increasing demands.

The conditions under which the Argentine population's disease and death registration system has been supported influenced the ability of the epidemiological surveillance system to provide accurate and timely information for managing the health crisis. Given the urgency of demand for data generated by both national authorities and the WHO, one of the challenges that arose was processing the "tension" between decentralization of registration and centralization of information.

The Argentine health system is complex even when compared to its Latin American counterparts (Maceira, 2020). It is made up of three independent subsectors (public, private, and social security) that, despite their coexistence, are weakly coordinated or articulated with each other, a situation that exacerbates problems of equity, accessibility, and

global efficiency of the system (Belardo, 2020; Cetrángolo; Goldschmit, 2018; Maceira, 2020). The mixed and fragmented structure of the Argentine health system – a fragmentation that specialists observe from an organizational and territorial as well as a financial point of view – imposed challenges on the statistical production chain. It forced to settle the institutional and geographical distance between places where data was registered and the data consolidation center, while imposing common registration standards before a variety of healthcare providers that entailed historical problems of governance or management for the central authority.

Other demands imposed on the epidemiological surveillance system related to the speed in updating statistical data and to how well these data represented or not the dynamics of spread of the virus in the country. In technical terms, this had to do with the possibilities of underreporting and the accuracy of the data reported daily. On different occasions, the local press denounced that the official coronavirus figures “reflected” “past” scenarios due to delays in loading the data (Costa, 2020; Fitz Patrick; Crucianelli, 2020).

The delays in preparing the information did not seem to correspond to the urgency that was being experienced. They also diluted the rationality of health management decisions justified by numbers that depicted the situation of previous weeks. When considering delays, it is worth noting that behind each number, thousands of data entry clerks – not always trained in this task – synchronously “meet” in a system that began to manage millions of data points in a short period of time, generating an overload, which often exceeded its response capacity.

Delays and other complications in registration are usually directly proportional to the increase in the level of stress to which the health system is exposed throughout the evolution of a pandemic. The responsibility for the burden falls on the health providers at times overflowed. From the point of view of some experts, delays and certain underreporting were at

some point unavoidable in a pandemic (Hartmann, 2020). In their opinion, the delays had more to do with the level of entrenchment – weaker in private institutions than in public hospitals – of the “culture of notifying” among actors of the Argentine health system, than with an intention of the government to underreport or hide cases or deaths linked to Covid-19.

Along with systemic tensions, another potentially controversial issue appears in relation to the cognitive structure of the information system, which relates to statistical classifications. How are Covid-19 deaths counted? The registry of deaths related to Covid-19 assumes a convention of equivalence that implies, among other aspects, the homogenization of criteria when establishing a classification. Classifications are fundamental scaffolding frameworks of the statistical information infrastructure. Its elaboration implies a way of organizing and giving meaning to reality. As part of statistical operations, classifications involve processes of simplification of reality. When talking about “deceased people”, for example, innumerable details are reduced to allow accessible descriptions and quick comparisons (Desrosières, 2004; Starr, 1987).

In Argentina, a Covid-19 death results from a disease clinically compatible with Covid-19 in a person in whom the disease is suspected or confirmed, regardless of their previous health status. Therefore, the classification is closely linked to the definitions (also intersubjectively agreed upon) of “suspected case” and “confirmed case”.³ But, the country shows difficulties in detecting cases, linked to the national government’s budget limitations that in turn influence the numbers. Basically, the reports depend, to a large extent, on the ability to carry out tracking and testing. In addition, these “cases” are defined by epidemiological criteria that have changed over the course of the pandemic.

The expansion of the definition of “suspected case” was closely linked to the increase in confirmed cases and deaths. There were two main moments

³ The way Argentina classified a Covid-19 death differs, for example, from that of England (Lanata-Briones; Daniel; Romero Marchesini, forthcoming).

in the classification process. The first focused on defining in advance a positive or confirmed case. The second referred to the idea of constantly considering new epidemiological criteria to achieve greater precision in this definition. This distinction – which alternates between criteria established a priori and others developed as the pandemic evolved – provided certain dynamism to the classification process.

At the start of the confinement, a case was classified as suspicious if the person had recently traveled abroad or had recently been in close contact with a person who had traveled. It was then considered if the person had any of the symptoms of Covid-19, such as fever, cough, sore throat, shortness of breath, or altered taste and smell. Later, if the person had any of these symptoms and was in a conglomerate where the virus was circulating, they were considered a suspected case. In addition, another added criterion examined if a person had one or more of the Covid-19 symptoms and was either a health or essential worker, such as belonging to the security forces, or if they belonged to closed communities, such as nursing homes or prisons. It was also established that a suspected case existed when a person had close contact with someone confirmed to have coronavirus or with symptoms of coronavirus.

The organizing component of statistics – understood as a taxonomic activity and creator of a common language – is as characteristic as its quantifying component and has important political effects. The complexity involved in defining “suspicious cases” generated, for example, tensions between different political authorities. These agents challenged the inclusion of some criteria given that, as previously pointed out, there were problems linked to state capacities regarding tracking, isolating, and monitoring cases, which were not always shared and managed in a uniform manner by the whole political spectrum (Daniel; Romero Marchesini, forthcoming).

Finally, the classifications used in official statistics are powerful cognitive commitments. Once the government decides to use a certain

classification to count, those expressions enter the language of the public administration, and spill over into everyday conversations, permeating through private and government decisions. Thus, the conventions of equivalence on which statistics are based are reusable for action, as the next section shows.

Government and quantification during a health crisis

From mid-March 2020, the PEN issued a series of decrees of necessity and urgency as exceptional forms of intervention in the face of the health emergency. In parallel and with magnitudes continually exceeded, the number of cases and deaths from Covid-19, indicators such as the doubling time of cases, and incidence and lethality rates were displayed in regulations as part of the legal justifications for the measures that were being taken. The purpose of many of these decrees was to establish a set of rules to regulate and curtail society's economic, social, sport, artistic, religious and/or cultural activities. Over time, these rules transformed into a general regulation or "protocolization" of everyday life.

Although the decrees of necessity and urgency are a constitutional resource, what was new about them was that decisions were supported by statistical indicators. These statistics also had the ability to regulate the mode of intervention of the government at different levels or political jurisdictions. Faced with the risk of a wide variety of health strategies, the PEN aimed to homogenize criteria from the center (the national level) for managing the crisis, intending not to fragment the management of the pandemic (taking as a mirror what happened in Brazil). During one of his conferences, President Alberto Fernández pointed out the importance of "having a common national regulatory framework that allows us to cope with the pandemic, minimize the number of infections, and guarantee hospital care" (Casa Rosada, 2021, our translation).

The ASPO decreed by the president established that people had to stay at home and only make minimal and essential trips to satisfy basic needs (Decree No. 297/20), affecting the exercise of fundamental rights.⁴ After a few weeks and given the federal characteristics of the country, the governors of the provinces were empowered to decide upon exceptions to compliance (Decree No. 408/20).

These relaxations of strict confinement had to be governed by the criteria established by the national authority and were subject to the results produced by statistical indicators in the territorial unit. They considered the doubling time of confirmed cases of Covid-19 (which should not be less than 15 days). They also scrutinized the capacities of health facilities to respond to the potential upsurge on health demand (based on the number of occupied intensive care beds and occupied ventilators). Lastly, they considered that the territorial unit should not be classified by the national health authority as a space for sustained “community transmission” of the virus. This last aspect involved, in addition to putting classifications into play, carrying out a registry of infections and their quantification, as well as tracking their “close contacts”, according to the population density of each jurisdiction. Hence, a large part of the statistical indicators prepared to make the pandemic legible became, at the same time, ordering parameters of crisis management.

⁴ The Inter-American Court of Human Rights, as cited in the decree 641/2020, established that “measures that may affect or restrict the enjoyment and exercise of rights must be temporarily limited, legal, adjusted to the objectives defined in accordance with scientific criteria, reasonable, strictly necessary, and proportional, and in accordance with the other requirements developed in inter-American human rights law” (CIDH, 2020). Statistics took the place of the required scientific criteria. The pandemic also enabled the creation of ad hoc institutional spaces (over and above the existing ones that were already dealing with public health issues) such as the council of experts that advised the Argentine president from the beginning. Initially, this council was made up of infectious disease specialists and epidemiologists, with the absence of other professional profiles that were not doctors, such as those with anthropological, sociological, economical, or legal knowledge. This council composition influenced its approach and almost exclusive focus on the problems of the healthcare sector.

From the point of view of the national government, and to the extent that political decisions to prevent or enable activities that were part of day-to-day social life affected the interests of different social groups, turning to statistical indicators meant resorting to external and impersonal justifications. So much so that it was an appropriate strategy to avoid potential interjurisdictional conflicts, either with the subnational governments of the governing alliance itself or with those governed by the opposition, and even avoid open confrontations with social groups directly affected by the restrictive measures. Employing these statistical indicators also revealed confidence of the PEN in the capacity of these numbers as transmitters and “impersonal” operators of the execution of certain orders.

With the aim of centralizing and harmonizing the management of the health emergency throughout the territory, the national political authorities defined epidemiological parameters, which implied transferring to authorities of different levels of government a non-imperative request for quantification in their jurisdictions. Decree No. 677/20 required local health authorities to submit to the national health authority a weekly “Covid-19 Epidemiological and Sanitary Monitoring Report” (*Informe de Seguimiento Epidemiológico y Sanitario Covid-19*) that contained all the information that the national authority required to evaluate the trajectory of the disease in its jurisdiction as well as the capacity of the health system to care for the population. If local authorities detected an epidemiological or health warning sign, they had to immediately report it to the national health authority.

Each jurisdiction, although with fixed limits, was free to adapt decisions to its institutional particularities, but its actions were guided by certain indicators that thus became action criteria and, later, action evaluation. The numbers displayed throughout the country involved tools created by the central political authority to monitor certain situations, forecast trends, and weigh the goals set in each area of action. Although statistical tools were considered essential to have relevant data for decision-making and

accountability in the exercise of government, they represented a resource for politics beyond being mere providers of information. They also served to limit the levels of discretion in political decisions. Choices should be guided rather by parameters considered objective than by the political discretion of existing authorities.⁵

Each level or jurisdiction of government (from national to municipal) thus became a “calculation center” (Latour, 1987; Senra, 2005). With singular force, the pandemic introduced metrics for local management by municipalities. This trend had been promoted by the previous national government of the *Cambiamos* alliance between 2015 and 2019, though, at the time, adherence strongly depended on the political inclination of the municipality. However, the scenario of the Covid-19 pandemic returned the use of transversal quantification to the different local administrations. Towards the next jurisdictional level (provincial), the circulation of metrics also promoted that authorities share a similar cognitive orientation, regardless of their political party, and made it easier for the programmatic agreements around the management of the health crisis to be based on a cognitive consensus.

The parameters for action established by the PEN were translated into the popular – or less technical – notion of “epidemiological traffic light” (*semáforo epidemiológico*).⁶ The traffic light was a mechanism for coordinating action from a distance and from the center, which distributed, at the same time, responsibilities between the parties (that is, the political authorities at each jurisdictional level), especially when sharing the political cost of a potential adverse result for the strategy deployed to contain the spread of the virus.

⁵ Starr (1987) highlights that statistics are often adopted in different contexts to routinize decisions and turn them into “automatic pilots”. As this author explains, statistics can be used to limit the levels of discretion in political decisions. A statistical rule is also a device to make decisions seem impersonal.

⁶ In official name was the “Monitoring of Indicators of Epidemiological and Sanitary Risk by Covid-19” (*Monitoreo de Indicadores de Riesgo Epidemiológico y Sanitario por Covid-19*) (Mires-Covid-19).

Through the “epidemiological traffic light” tool, virus transmission scenarios were characterized based on the analysis of variables such as the ratio of cases – defined as the proportion between the number of confirmed cases accumulated in the last 14 days and the number of confirmed cases accumulated in the previous 14 days – and the incidence of cases – defined as the number of confirmed cases accumulated in the last 14 days per 100,000 inhabitants. If both variables were above the pre-established limits, the traffic light turned red, which required immediate restrictive measures to be taken given the magnitude of the risk. If one of these variables – the ratio of cases or the incidence rate – was above the established limits, the traffic light turned yellow, and strategies had to be considered to mitigate the circulation of the virus. If both indicators were below the established limits, the traffic light changed to green and it was not necessary to impose mobility restrictions (Argentina, 2021). Each level of risk had one measure and only that measure and, in this sense, the actions to be followed were restricted. Statistical indicators were involved as instruments for the exercise of control, at least, of individuals’ margins of action, while they indirectly sought to promote certain behaviors amongst citizens.

Regulations based on indicators that defined the level of epidemiological and health risk were presented by the PEN as a strategy to order and provide predictability to political authorities (Casa Rosada, 2021), since the course of action was pre-established. By defining the actions to be taken by local authorities in the face of growing risk, the PEN restricted the options for local management of the pandemic. In addition, the device sought to provide predictability for citizens who thus had an external guide, since these indicators would allow them to recognize the level of epidemiological risk where they lived and adjust to the enabled activities, so it was a way of knowing in advance the restrictions to be imposed at all times. Likewise, from the point of view of citizens, this proliferation of indicators enabled assessments regarding the capacity of local authorities to contain, administer, and manage the health emergency.

Ritual uses of quantification

During the management of the health crisis generated by Covid-19, the government engaged in assiduous and regular communication with citizens regarding the measures it was adopting, its implementation, and the sanctions provided in case of transgression. Although these political decisions were embodied in government decrees and provisions, their communication to the population was essential for their involvement and commitment. The PEN adopted a communication strategy through presidential press conferences. This section examines the role of statistical language in those instances that had society as an interlocutor, considering that in those events statistics became powerful tools in giving meaning to reality.

During the first year of the pandemic, President Alberto Fernández gave 19 press conferences, which were held at the presidential residence in Olivos.⁷ Only in three of them did he refrain from making references to figures or statistical graphs. Starting with the conference on April 10, 2020, the president inaugurated a ritual use of the presentation of statistics. The subsequent conferences reiterated formats and information presentation devices with up-to-date data. Using graphic representations, Fernández explained to society the evolution of the different health variables. Even though the presidential press conferences did not have a specific regularity, they repeated themselves as a ritual ceremony, and they maintained a similar rhetoric and aesthetics, while resorting to the same repertoire of statistical resources.

The fixed or ritual aspects include the format of graphic representations and the pedagogical intention of the device used to communicate to the population the situation in relation to the spread of the virus. Although the notion of statistical ritual seems appropriate to characterize the political

⁷ During this period there were, as well, daily press conferences led by the authorities and high-ranking officials of the Ministry of Health in which health statistics were disclosed. This paper does not analyze them, because it focuses on retrieving the presidential speech and the use of statistics by the president as a resource when addressing society.

event analyzed, the reference to figures was versatile. Although the numbers used in the presidential speech attributed meaning to the reality of the pandemic, and thus contributed to shaping the collective experience, they conveyed different meanings.

In the first speeches analyzed, numbers appeared as a way of giving a certain magnitude, while at the same time attributing relevance to the problem – very much still unknown – that the Argentine society and government were beginning to face. To objectify through numbers the spread of the virus in the world meant showing it as a global phenomenon, sizing up the challenge that this “invisible enemy” posed to nations. The magnitudes were used as a resource to install a new concern in Argentine society. The figures sought to mark the event with seriousness, regardless of the scope of the number of cases at the local level that initially was still very small. In this context, President Fernández also established the collective purpose in terms of numerical language. He suggested that Argentine society join efforts to “flatten the curve”. This meant reducing the rate of Covid-19 infections to exert less pressure on the health system and prevent its collapse. In one of his press conferences, Fernández recalled the proposed goal in the following way: “the objective we set for ourselves is that no Argentine should lack medical attention” (Casa Rosada, 2020e, our translation). When this goal was proving more challenging, the notion of the number as a collective guidance was reinforced as an expression of the common goal: “I ask you not to forget this number because here is the bottleneck [referring to the number of occupied beds in intensive care]” (Casa Rosada, 2020e, our translation). The political authority aimed to influence those future scenarios warned by epidemiologists through their epidemiological models (Camargo *et al.*, 2021). The ability to generate a common direction for society and to involve it in this struggle relied upon building a common cognitive orientation. Statistics were installed as those common cognitive principles of understanding and evaluation of reality. In this sense, they contributed to building the collective experience of the pandemic (Segata *et al.*, 2021).

In addition, in some of his speeches, President Fernández supported the idea that, in parallel to the fight against the virus, there was another fight “against psychosis” and misinformation (Casa Rosada, 2020a). The situation of exception and confusion could only be organized based on certain metrics. Precise statistical information – that was also reliable, useful, and timely – was offered as a valuable resource not only for the head of state, but also for citizens, with the aim to dismiss the deep uncertainty so typical of these scenarios of total disruption of ordinary life. Hence, in presidential speeches the use of numbers had an explicit purpose, not only to raise awareness, but also to order and organize what was (experienced as) chaotic and communicate certainties to citizens. The most important aim, however, was the one that he sought to operate on emotions.

As Federico Neiburg suggests, “the diffuse proximity of death in the form of a virus, whose precise behavior is unknown, accentuates the uncertainties that shape individual and collective behavior” (Neiburg, 2020, s/p, our translation). At the collective level, while trying to build confidence, quantification was a means to alert the population about the danger they faced. At the individual level, it sought to affect the subjective perception of the risk of contagion. The feeling of calm or danger became, in part, forged through those numbers. In this sense, speaking to Argentine society, the president showed – during the conference on July 31, 2020 – figures related to confirmed cases of Covid-19 “so that they realize how the virus is circulating [...] they understand how risky it is to not stay at home today [...] [which] is data for all of us to comprehend” (Casa Rosada, 2020d, our translation). The experience of risk and care began to be adjusted through this quantification instrument. As the pandemic evolved, the figures continued to appear as a wake-up call to society: “these data do not allow us to relax” said the president (Casa Rosada, 2020f, our translation) just before the peak of the first wave of infections.

Since the start of the pandemic in Argentina, statistics helped outline a scenario that called for the intervention of political power: “we cannot let

that number grow without us doing something”, the president continued to argue around June 2020 (Casa Rosada, 2020c, our translation). But in March, with just a few cases of Covid-19, when state intervention was considered necessary for the first time and the scope of the ASPO was made known to the population, that intervention required certain characteristics. It needed to distance itself from appearing to be a spur-of-the-moment or impulsive decision by the president, as well as from being perceived by society as improvised (Casa Rosada, 2020a). Statistics helped to take care of these characteristics and went both ways to justify political decision-making.

One of the most relevant purposes that statistics fulfilled in the presidential press conferences of May, June, and July 2020 was to give meaning to the political decision of further extending confinement to fight against the spread of Covid-19. There was an effort to convince citizens to cooperate and comply with the restrictions on movement and their activities. In the quest to manage the health crisis, and to rally people’s will, it became extremely important that the collective effort proposed by the national political and health authorities were not to be considered useless by the population. As time passed, however, the meaning of that effort was increasingly in dispute and collided with the president’s aspiration for legitimacy and broad acceptance of his decisions.

In the search to achieve social adherence to the restrictive measures, statistics became resources to convince society about the “virtues” of the chosen strategy of mandatory social isolation or, in more instrumental terms, they were presented as demonstrations of the effectiveness of the course of action followed. It was a decision made by the president in a context of open uncertainty, with no guarantees of success, based on a certain evaluative position that was not apparent from the numbers, but that needed to be presented as if it were. It was intended to be taken by the general public as an answer “objectively” derived from and confirmed by the numbers.

In contemporary democracies, given the difficulty of making controversial decisions, it is quite common for political authorities to

resort to certainty models or quantification narratives (Saltelli *et al.*, 2020). So much so that the justification provided by statistics has become a highly valued political product. Besieged by the crisis, the main concern of decision-makers in the pandemic was how to legitimize their decisions in such a way as to make them valid in the eyes of society as a whole. Even if such justifications turned out to be wrong, the appearance of rigor, precision, and confidence in those numbers could – at least temporarily – help support the measures taken.

The ritual use of quantification became evident as President Fernández fortnightly turned to numbers to validate and revalidate the strategy chosen to confront the coronavirus. As the pandemic evolved, the political challenge of maintaining that decision in the face of adversity and criticism became increasingly relevant.⁸ After the first weeks of support and consensus, the confinement orders established by the PEN began to be threatened by the rejection of the political opposition, the non-compliance of citizens, and the instability of the health situation. During May and June, public expressions of rejection of the quarantine measures began to emerge. A group of intellectuals, journalists, and political leaders of the opposition denounced the national government for imposing what they called an “*infectadura*”, a new term formed by the conjunction between the words infection (*infección*) and dictatorship (*dictadura*). This term sought to synthesize the complaints about the restriction of freedom of movement, the discontent over the social and economic consequences of that decision, and the disagreement with the principles that guided the small group of specialists that formed the advisory committee of the

⁸ The political climate was being stressed by different sectors. For example, certain economic groups exerted pressure to maintain the opening of the economy. Their position was synthesized in the phrase “There is no health without the economy” that gathered the support of politicians from the opposition, economists, and journalists. The conflict environment was evident in the growing number of demonstrations. According to Natalucci *et al.* (2020), between March 20 and June 7, 2020, 471 demonstrations were registered throughout the country.

president for the management of the pandemic. Later, they came to accuse the government of “sanitary terrorism”.

It is in this scenario of tensions with different social and economic sectors and political groups that the official acknowledgement that statistical data operated in the context of a political dispute over the path to follow was placed. Thus, Alberto Fernández claimed “I have provided all these numbers to end this discussion. No one is going to twist my arm” (Casa Rosada, 2020b, our translation). In that dispute, statistics were presented as the “hard” data as opposed to the “soft” nature of the challengers’ opinion (opposition complains and criticisms of confinement extension considered by them to be unjustified). The presidential argument was based on the belief that the data, conceived as direct reflections of reality, were “above any unsubstantiated speech” (Casa Rosada, 2020e, our translation).

The necessary authority to settle such a dispute was attributed to numbers, while placing trust in their ability to persuade society of a certain collective behavior. But how many deaths justify a prolonged lockdown? What would be the acceptable threshold of the number of tolerated deaths? Numbers can eliminate the moral and ideological character of the addressed problems, and thus, from such point of view, depoliticize them. While the government relied on the ability of these numbers to “demonstrate” the rationality of its decision, it is very likely that both the value frames of the citizens as well as their subjective perception of risk influenced how they evaluated the strategy adopted by the national government to deal with the pandemic.

Finally, it is worth noting that in the press conferences the president was accompanied by some governors, both from the ruling party and from the opposition. The predominant attendance of authorities of the jurisdictions that make up the Metropolitan Area of Buenos Aires, between May and August, should not overshadow the role of governors of the other provinces of the country, who were present in March, July, and October.

Argentine federalism posed challenges to the daily management of the pandemic and established the need to reach laborious interjurisdictional agreements. In this sense, the presence of governors was intended to convey their political support to the presidential decisions. While the statistics of cases, deaths, or occupied beds in intensive care units operated as common cognitive principles, the presence of different governors also evidenced a cognitive agreement. Such agreement was underscored in the public thanks expressed by the president midway through the conference on August 14, 2020: "I thank each governor... I feel that we are speaking the same language... we have exactly the same concern... We are seeing reality in the same way..." (Casa Rosada, 2020e, our translation).

Statistics was the common language in which the pandemic could be spoken about and understood. The agreements reached were not only programmatic. They also constituted a cognitive consensus. The authorities present in the conferences, regardless of their political inclination, shared a similar cognitive orientation.

Final thoughts

As it occurred during other pandemics, that of Covid-19 has stimulated the construction of statistics. The singular thing to underline, however, is the great breadth and speed of the circulation of these numbers. Globally both civil society and government began to be aware of a list of statistical indicators published daily, which were entrusted with the ability to monitor the pandemic in "real" time. The evolution of the pandemic was accompanied by a statistical narrative to express it, measure it, and act on it.

This paper begins to uncover the complexity of the plot of data production on the evolution of Covid-19 in Argentina, which, as in other cases, is often obscured. The stability of any statistical information generation

chain largely depends on this opacity. From the analysis of the decrees and the press conferences of President Fernández, this paper examined how statistics constitute a mechanism that confers legitimacy to political authority as well as a means through which authority is exercised.

Statistical indicators took on the double role of making the pandemic legible and conducting emergency management impersonally and “at a distance” from the center. In this sense, statistics represent a resource for politics as providers of information, as a source of legitimacy for policy decisions, and as a mechanism for subordinating other actors to impersonal rules. With the establishment of the “epidemiological traffic light”, for example, statistics became instruments to exercise control, while they sought to guide the actions of local governments and the behavior of society.

The presidential press conferences resembled true statistical rituals. In them, statistics became powerful tools to provide meaning of and to reality. On the one hand, quantification was a means of alerting the population of the danger they faced, while attempting to provide some certainty. On the other hand, statistics were used as resources to convince society of the “virtues” of lockdown while presenting themselves as demonstrations of the effectiveness of the course of action adopted.

This work is a first approach to the role played by statistics during the Covid-19 pandemic in Argentina. Following sociology of quantification there are still multiple dimensions to be examined. During the first year of the pandemic, official production of statistics did not quantify the socio-economic characteristics of people who contracted the disease or died from Covid-19 to allow the debate around the issue of social and territorial inequities that are at the base of the spread of the virus in Argentina. A study of the implications of (un)reported information, for example, is pending. In the same way, it would be worthwhile to examine how statistics were presented daily by the ministerial authorities. The proliferation of vaccines altered the dynamics of the pandemic. The relationship between statistics

and governance after this radical change has not yet been explored for the Argentine case.

Little is still known about how different countries managed the pandemic. Apart from the statistics of cases, deaths, hospitalizations, what other statistics did nation states in the region and in the world begin to produce? What role did statistics play in the design of health policies? How did that role change throughout the different stages of the pandemic? How did society's confidence in Covid-19 statistics evolve? Were there any controversies surrounding those numbers? International comparisons that answer these questions would account for similarities and differences in the strategies of the government of numbers and of government numbers. Cumulative research to answer these questions would help to consolidate the notion that the generation of statistics, in principle intended to simplify the world and make it legible, at the same time modify it and turn it into another world because realistic statistics can always contribute to engendering what is real.

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