

Communication of Epidemiological Data on Covid-19 In the State of Bahia, Brazil: An Experience Report of The State Epidemiological Surveillance Team

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Abstract

In view of the Covid-19 pandemic scenario, the dissemination of safe and correct information about the disease is essential to raise the population's awareness about preventive measures and to direct public policies to deal with the state of emergency in public health. The objective of this paper is to describe the process of improvement and qualification of communication in the elaboration of Covid-19 epidemiological data in the state of Bahia. Divulcation of the epidemiological data contributed to the dissemination of information thru communication channels in the state of Bahia, and Brazil. Due the evolution of the disease, the need to present data in a more accessible way to the population has become urgent, requiring the team to institute measures to improve their work process to disseminate epidemiological data in a faster and more transparent manner. In contrast to this complex scenario, the permanent effort and dedication to make data consistent comparing to local reality, reliable and accessible, supporting the actions and strategies to fight the pandemic, can guarantee transparency to the population, the commitment of the information made available and the institution of social measures to control the pandemic.

Keywords: Access to information; Communication in Health; Epidemiological monitoring; Public health surveillance.

1. Introduction

The World Health Organization (WHO), in December 2019, was notified of an outbreak of pneumonia in Wuhan City, Hubei Province, China, and on January 7, 2020, Chinese authorities confirmed the identification of a new Coronavirus, the Sars-CoV-2, the causative agent of the pathology. After that, on January 30, the outbreak was declared an international Public Health emergency (CRODA, 2020).

The WHO recognized the worldwide spread of the virus in March of that same year, declaring the COVID-19 pandemic status, the name adopted for the disease caused by SARS-COV-2 (CRODA, 2020). Pandemics are characterized by the geographic spread of a certain infectious disease with its simultaneous occurrence in several people around the world (WHO, 2020).

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The COVID-19 pandemic context has shown that communication can be a key element in achieving success or failure in dealing with the state of emergency in public health (COELHO, 2020). The information becomes of strategic importance, in the sense of being able to contribute to the strengthening of the population's commitment to adhering to measures to contain the virus, such as maintaining social distance, wearing mask and adherence to hygiene practices (CRUZ, 2020).

The scenario of little knowledge and scarcity of certainties, regarding the epidemiology of the new coronavirus, as well as its therapy and form of prevention, makes it difficult to face this pandemic. There is evidence that policies instituted by government systems that suppress transmission of the virus can prevent saturation of Health Systems and have the power to reduce mortality. However, such practices depend directly on the collective contribution to contain transmission (MELO, 2020; VASCONCELOS-SILVA, 2020).

In this way, it is shared the thought that “fragmented information can affect people's perceptions and behaviors [...], potentially undermining their collaborative efforts to prevent the spread of the disease”. Researchers show that the individual movement of people process by itself, a large amount of fragmented and incomplete information from diverse and possibly unreliable sources, can reach to incoherent conclusions about the facts, a situation that can reduce the reproduction of official health recommendations (MELO, 2020).

It is in this context, that the information on the course of the pandemic and on the actions taken to guarantee the protection of people being presented by the State, based on the performance of its technical-scientific teams, becomes a fundamental component in the strategy to combat the disease pandemic (CRUZ, 2020). Under ideal conditions of public communication, throughout a major health emergency such as the one currently faced, “authorities must align themselves with a regime of total transparency with abundant information and easy understanding to generate credibility, trust and partnership with the media” (VASCONCELOS-SILVA, 2020).

In the context of public health response, those responsible for public biosecurity must use transparency and make available as much information as they have, in order to promote credible official communication, which proposes a successful bilateral flow in the quality of communicative action (MELO, 2020; VASCONCELOS-SILVA, 2020).

To public cooperation be successful, research indicates that a well-designed communication strategy needs to be present, with a permanent process of improvement in view of the results obtained and desired objectives⁵. In this sense, the present work aims to describe the process of improving and qualifying the communication of epidemiological data on COVID-19 in the state of Bahia in the years 2020 to 2022.

2 Methodology

This is a descriptive exploratory study, in the form of an experience report, developed by a multidisciplinary team working in the epidemiological surveillance sector, responsible for consolidating Covid-19 notifications in the state of Bahia and carrying out epidemiological analyzes on the disease; and the area responsible for communication advice, located at the Bahia State Health Department (Sesab), from May 2020 to July 2022.

The state of Bahia has a population of 14,873,064 inhabitants, a territory of 564,760,427 km² (IBGE,

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2022), subdivided into 9 health macro-regions and 28 health regions. Such territorial dimension and population size demand that health information be disseminated covering all locations in a transparent, equitable, comprehensive, and reliable manner.

For that, information on the disease is collected through notifications from the Official Information System of the Ministry of Health, such as Sivep-Gripe, e-SUS Notifica, in addition to test results from GAL/LACEN, and previously notifications from the Ministry of Health. RedCap platform, emails and telephone contacts informed of cases of the disease. The final convergence of all this data is the state's Covid-19 database.

Transmitting information about an emerging disease that still presents with unknown points of its pathophysiology, requires the construction of strategies that effectively demonstrate the information correctly to sensitize the population to disease control and prevention practices, as well as subsidize the public policy management to decision making. In this sense, actions to promote the communication of such epidemiological data were based on joint activities of epidemiological surveillance and communication advice.

Several intra and intersectoral articulations were carried out for the construction of these tools. The technological development team worked permanently in support of the state's epidemiological surveillance team and provided the necessary support in the various demands that appeared during the development of activities that would result in the publication of information through the communication team.

The tools adopted for the dissemination of information began with technical notes, guidelines, and educational materials and, later, were completed with the daily publication of epidemiological bulletins and online panels for immediate access. The epidemiological bulletin is the result of the analysis of the database of all reported cases of the disease in the state of the Official Systems. It is an accessible, simplified, and systematized reading to disseminate essential data for the dissemination of knowledge on the epidemiology of the disease.

In this way, in this work, the dissemination process, implementation and strategies for improving the dissemination of epidemiological data on Covid-19 in the state of Bahia, Brazil will be described.

3. Results

Introducing new habits, such as the use of mask, social distancing, and a respiratory etiquette, were the main challenges mapped to minimize the risks of infection and, thus, avoid a collapse of the care network. However, the speed at which the disease spread abroad and in Brazil demonstrated the need for everyone's collaboration to avoid the most catastrophic scenario.

In this sense, three fronts were started simultaneously: preparation of technical reports by the Bahia State Health Department (Sesab) team, which would be the priority source of information, meetings with the directors of the main communication vehicles in the state to engage the communicators and build an advertising campaign in order to guide the population.

The information released by the state of Bahia about the new coronavirus (Sars-Cov-2) began from the moment of the identification of the public health emergency, in which alerts, technical notes, guidelines and educational materials on prevention and protection were issued in due course. the health of the population to

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the identified virus.

However, in March 2020, with the intensification of the increase in the number of cases of Covid-19 in the country, as well as the understanding of the need to disclose data in a timely manner, the official communication of bulletins on confirmed and discarded cases, and, also, suspects of Covid-19 began, in the state of Bahia. From this period, until the time of writing this work, the publication takes place on a daily basis.

Epidemiological bulletins are documents produced and published with the aim of providing relevant technical-scientific information for health professionals and managers, through data analysis, aiming to put into practice the prevention and control of these diseases and conditions (BRASIL, 2009). From the bulletin, it is possible to view the profile of the disease according to age, sex, race and color, the incidence coefficient, and its behavior according to the date of onset of symptoms. It also has analysis and distribution of confirmed cases, confirmed by categories of health professionals, proportion and incidence coefficient by municipality of residence in Bahia, hospital beds occupation and laboratory data.

In the initial scenario, Bahia had 123 confirmed cases, 1,240 discarded cases and 2,702 cases under investigation. The bulletin had a compact character of 2 pages, bringing a brief history of the beginning of the pandemic in the world, entry of the virus and beginning of its spread in the state; discussed the etiology of the virus and its symptoms and ways of prevention. In addition, it provided graphical analysis of the distribution of reported cases of Covid-19 by date of onset of symptoms; distribution of the number of confirmed cases, percentage and coefficient of incidence of Covid-19 by age group; and spatial distribution of confirmed cases of Covid-19 in the state of Bahia.

In the period of the first publication, confirmed cases were distributed in only 19 municipalities of Bahia, with the highest proportion in Salvador (63.41%), the state capital. After the decrease in the proportion of infected people in the capital and the progressive emergence of municipalities in the interior with confirmed cases, from the month of May onwards, a table that presents the number of confirmed cases, proportion and coefficient of incidence of Covid-19 was introduced, distributed by municipality of residence. An important resource for providing more information to the population about their local reality and an instrument used by the Municipal Health Departments for monitoring and exchanging information with the state level.

The bulletin was prepared in an Office Package program that after a while of use no longer met the team's needs. In articulation and support of the technology sectors, a System of Bases of Indicators was elaborated, whose objective was to store in a single base the data of the different areas that make up the Base of Indicators panels of the Secretary of Health of the State of Bahia. By feeding this system with data, bulletins and panel information are generated, which are available for the entire population to access online.

In addition, the epidemiological panel is a visual and interactive tool that demonstrates the number of confirmed cases, active cases, recovered cases, deaths and the occupancy of hospital beds. Its navigation is divided into the daily monitoring of new cases, confirmed cases, confirmed cases by type, confirmed cases by municipalities, cases under investigation, deaths, combat units and Covid-19 beds.

With the evolution of the disease, the need to disseminate data more accessible to the population became urgent, requiring the team to institute measures to improve their work process in order to disseminate epidemiological data more quickly and transparently. In mid-June 2020, the infographic bulletin was adopted in a

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complementary way, and in this information began to be transmitted using images, drawings and other graphic visual elements.

It was at this moment that, to meet the demand of the scientific community, the publication of a non-nominal database containing several variables that were not included in the bulletin due to the size of the information was also started. The publication of all the content produced is carried out through the website of the Secretary of Health of Bahia daily at 17:00 hours on the home page with a release and link to access a page that contains the main information of the bulletin and access links to the bulletins complete, epidemiological panel and complete database.

On July 29, 2022, the Sesab portal already had 857 published epidemiological bulletins, more than 577 infographics and 7 presentations of analysis of cases and deaths by health regions, produced by the referenced team. The total number of confirmed cases stood at 1,658,889, with 1,621,779 recovered cases, 30,349 Covid-19 deaths and 6,716 currently active cases.

The scenario also called for the use of technical spokespersons, to intensify the credibility of the information given in the communication vehicles. In this sense, the director of state epidemiological surveillance, as well as the secretary and undersecretary of Health were chosen in this first phase. Daily interviews were scheduled, and a common briefing was shared between sources to standardize what was said.

An orientation advertising campaign, whose mantras were "Prevention is in our hands" and "Prevent yourself and let's do our part together", set the initial tone. Spots, card-type vignettes, cards for social networks and posters were produced to be distributed in schools and health units throughout Bahia. The feeling that we would protect ourselves together was quickly captured by the press, which even expanded the space of newscasts on the television schedule, due to the need to inform more and more.

In the technical sphere, meetings with municipal health secretaries, as well as surveillance and primary care teams, were intensified, with the fundamental support of the Telehealth Platform, which was a pulverized environment and already established in communication with health professionals. To ensure the correct management of patients and use of PPE (Personal Protective Equipment), the Government of Bahia produced videos aimed at health professionals, in addition to a FAQ (Frequently Asked Questions) (SESAB, 2022).

With the advance of the pandemic and the restrictions imposed by the public authorities, such as the closing of bars, restaurants, cinemas, theaters, schools, malls and, initially, the ban on intercity travel, issues such as depression and the need to encourage physical exercise at home proved necessary. Specific content was produced for the public and broadcast in the press and on the Bahia Government's digital platforms, always with the aim of guiding and preventing citizens' lack of assistance. Official apps such as Monitora Covid-19 and the Telecoronavirus call center were complementary channels to fight fake news and properly guide the population.

The lethality and mortality numbers related to the coronavirus (Covid-19) in Bahia are among the lowest in Brazil. In addition to the learning curve of the disease, one of the reasons was the communication strategy used by the State Government to mobilize and sensitize the press, entrepreneurs, and society in general, so that we did not have a demand for care that exceeded the installed capacity.

4. Discussion

The literature indicates that in an ideal conjuncture, those responsible for public biosecurity uses transparency and offer as much information as available to reaffirm, before the media and society, the conduct of a moment of crisis through reason and communicative action (MELO, 2020; VASCONCELOS-SILVA, 2020). In this sense, the increase in cases and deaths in the short period demonstrate the severity of the disease and its consequences for the health of the population and community, making information a key piece in raising awareness of the adoption of prevention practices.

And this necessity of mediate the mainstream media was indeed present: after the emergence of cases in Brazil and the first death, the main communication vehicles decided to expand the hours dedicated to tele journalism that brought information about the evolution of the disease in the territory, and possible preventive measures, at a time when programs that caused greater agglomeration of people for their production, such as auditorium programs and soap operas, were suspended (RONCALLI, 2020).

In the meantime, to fulfill this social responsibility, there were several challenges and obstacles posed to the continuity of data dissemination: there were instabilities in the information systems that made it difficult to consolidate data, and likewise the content to be published. The Ministry of Health itself presented periods of uncertainty about the epidemiological data it published, which encouraged the construction of a consortium of press vehicles to monitor data in the country (ESTADO DE SÃO PAULO, 2020). In this contrast of narratives, the state health departments provided data for both narratives: the media consortium and the federal government (RONCALLI, 2020).

It is noteworthy that despite all the technological tools implemented to assist in the preparation of information instruments, there was still a permanent need for daily review of all data disclosed. That is, in the consolidation of the bank, feeding into the indicator system and exporting the non-nominal base, each step was reviewed by the team to avoid the risk of errors in some information.

The data elaboration team, on the other hand, went through adversities that range from media pressure, which demand results and information immediately, to the biopsychosocial issues specific to each individual who fought and worked to face this disease.

Researchers in the field of journalism suggest that, whether in the field of communication or health, the role of science is also to produce knowledge and valid questions for the interface between Journalism and the fields of Epidemiology and Collective Health from the understanding of the flow of epidemiological surveillance information (RONCALLI, 2020). Sometimes, the natural time of this flow needed to be enhanced and reduced, in order to account for the immediacy of the events of the facts.

In contrast to this complexity and speed of news related to Covid-19, there was a permanent effort and dedication so that the data were consistent with the local reality, reliable and accessible, subsidizing the actions and strategies to face the pandemic. In this sense, health information instruments have the capacity for change strengthened when contextualized with a management that promotes actions based on a grounded understanding of the analysis of the health situation.

5. Conclusion

In the state of Bahia, the communication experiences showed that the data made available by Sesab guided the mainstream media and the population so that it could guarantee the transparency and commitment of the information made available. The communication of epidemiological data on Covid-19 contributed to the dissemination of information to the communication vehicles in Bahia and Brazil.

The quality of communication and data is directly related to greater awareness of risks, providing recommendations for the adoption of measures to prevent and control this disease, resulting in motivation for changes in population behavior that are still hygiene measures.

6. Acknowledgement

This work was supported by: The Foundation for Research Support of the State of Bahia - FAPESB grant number: 4370/2020 TO SUS0013/2021, the National Council for Scientific and Technological Development – CNPq grant number: 306306/2021-2 and the PROFNIT IFBA program.

7. References

1. Croda, JHR, & Garcia, LP. (2020). Resposta imediata da Vigilância em Saúde à epidemia da COVID-19. *Epidemiologia e Serviços de Saúde*, 29(1), 1-3.
<https://doi.org/10.5123/S1679-49742020000100021>.
2. World Health Organization (WHO). (2020). Preparing for large-scale community transmission of COVID-19. *Guidance for countries and areas in the WHO Western Pacific Region*.
<https://www.who.int/publications/i/item/preparing-for-large-scale-community-transmission-of-covid-19>.
3. Coelho, FS et al. (2020). A Casa de Máquinas da administração pública no enfrentamento à COVID-19. *Rev. Adm. Pública*.
<http://dx.doi.org/10.1590/0034-761220200382>.
4. Cruz DN, Rossi TRA, Paim MC, Barros SG. A comunicação de casos e óbitos de COVID-19 e as mudanças no Ministério da Saúde. (2020) *Instituto de Saúde Coletiva - Universidade Federal da Bahia*.
<http://www.isc.ufba.br/a-comunicacao-de-casos-e-obitos-de-covid-19-e-as-mudancas-no-ministerio-da-saude/>.
5. Melo, C, & Cabral, S. (2020). Pandemias e comunicação: uma avaliação experimental. *Rev. Adm. Pública*, 54(4), 735-757
<http://dx.doi.org/10.1590/0034-761220200137x>.
6. Vasconcellos SPR, & Castiel, LD. (2020). COVID-19, as fake news e o sono da razão comunicativa gerando monstros: a narrativa dos riscos e os riscos das narrativas. *Cad. Saúde Pública*, 36(7).
<https://doi.org/10.1590/0102-311x00101920>.
7. IBGE. Cidades e Estados. (2022). [online].
<https://www.ibge.gov.br/cidades-e-estados/ba.html>.

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8. Brasil. Ministério da Saúde. (2009). Secretaria de Vigilância em Saúde. Departamento de Vigilância Epidemiológica. *Guia de vigilância epidemiológica / Ministério da Saúde, Secretaria de Vigilância em Saúde, Departamento de Vigilância Epidemiológica. – 7. ed. – Brasília: Ministério da Saúde.*
9. Sesab, Secretaria de Saúde do Estado da Bahia. Diretoria de Vigilância Epidemiológica. (2022). *Boletins Covid-19.*
<http://www.saude.ba.gov.br/temasdesaude/coronavirus/boletins-diarios-covid-19/>.
10. Estado de S. Paulo. (2020). Veículos de comunicação formam parceria para dar transparência a dados de Covid-19. *O Estado de S. Paulo [Internet].*
<https://saude.estadao.com.br/noticias/geral,veiculos-de-comunicacao-formamparceria-para-dar-transparencia-a-dados-de-Covid-19,70003328031>.
11. Roncalli GA, & Lacerda SJ. (2020). Jornalismo e conhecimento: a divergência dos dados da covid-19 divulgados via imprensa nacional e SESAP-RN. *Scielo Preprints [Internet].*
<https://doi.org/10.1590/SciELOPreprints.1141>.