

## A Review on Management of Covid-19

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### ABSTRACT:

Severe acute respiratory syndrome corona virus (SARS- CoV- 2), a novel corona virus from the same family as SARS and Middle East respiratory syndrome corona virus, has spread worldwide leading the World Health Organization to declare a pandemic. The disease caused by SARS- CoV- 2, corona virus disease 2019 (COVID- 19), presents flu- like symptoms which can become serious in high- risk individuals. Here, we provide an overview of the known clinical features and treatment options for COVID- 19. We carried out a systematic literature search using the main online databases with the following keywords: 'COVID- 19', '2019- nCoV', 'corona virus' and 'SARS- CoV- 2'. We included publications from 1 January 2019 to 3 April 2020 which focused on clinical features and treatments. We found that infection is transmitted from human to human and through contact with contaminated environmental surfaces. Hand hygiene is fundamental to prevent contamination. Wearing personal protective equipment is recommended in specific environments. The main symptoms of COVID- 19 are fever, cough, fatigue, slight dyspnoea, sore throat, headache, conjunctivitis and gastrointestinal issues. Real- time PCR is used as a diagnostic tool using nasal swab, tracheal aspirate or bronchoalveolarlavage samples. Computed tomography findings are important for both diagnosis and follow- up. To date, there is no evidence of any effective treatment for COVID- 19. The main therapies being used to treat the disease are antiviral drugs, chloroquine /hydroxyl chloroquine and respiratory therapy. In conclusion, although many therapies have been proposed, quarantine is the only intervention that appears to be effective in decreasing the contagion rate.

**Keywords:** COVID- 19, COVID- 19 diagnosis, COVID- 19 management, COVID- 19 treatment, novel corona virus, SARS- CoV- 2

### I. INTRODUCTION:

The COVID- 19 pandemic has created a crisis unprecedented in terms of scale and social, economic, and environmental implications. The consequences of this crisis in the most affected countries are manifold and of unprecedented severity for most organizations. In addition to its human impacts, particularly for victims with severe symptoms and for overburdened health services, restriction policies and the halting of economic activities in most industrialized countries have led to an economic crisis whose severity is often compared to that of 1929. Furthermore, the pandemic has created an endemic situation of uncertainty and confusion about risks to employees, measures and best practices that organizations should adopt, stakeholder pressures, government shutdown and recovery plans (including assistance to the most affected companies), the potential for new waves of contamination, and lasting changes forecasted for consumer habits. For organizations, these uncertainties are all the more difficult to manage because there are few in- depth studies on the subject and the information available is scarce, partial, and contradictory. In this context, business articles published in newspapers and magazines describing concrete and practical initiatives implemented in organizations appear to be one of the main sources of information for corporate leaders and other stake holders alike.<sup>1</sup>

The scoping review method appears to be a very relevant approach for synthesizing the most significant information on a little- studied subject by limiting the biases associated with the use of a single study or specific type of data. This method can be defined as "a form of knowledge synthesis that addresses an exploratory research question aimed at mapping key concepts, types of evidence, and gaps in research related to a defined area or field by systematically searching, selecting, and synthesizing existing knowledge". The objective of this study was to analyze the early COVID- 19 crisis management practices implemented in organizations based on a scoping review of relevant

business articles published on this issue in newspapers and magazines between March and May 2020.<sup>2</sup>

This study is relevant for three main reasons. First, while the current crisis has placed the emphasis on the vulnerabilities of our societies and on the preventive measures to be adopted at the individual level, organizations and the workplace in general represent one of the main vectors for the transmission of diseases such as COVID-19, including during periods of reopening. According to the International Labour Organization (ILO), more than half of the world's enterprises, or about 436 million organizations, operate in sectors (e.g., retail sale, vehicle repair, manufacturing, food services, entertainment, transport) that can be considered high-risk in terms of disease transmission and that may require temporary or prolonged halting of their activities. The practices put in place by organizations during the pandemic are therefore essential to limiting the risk of COVID-19 transmission from economic activities. Second, most organizations appear to have been very poorly prepared for the current crisis or to have demonstrated a low level of resilience to its impacts. This article's focus on examples of practices that have been put in place can help corporate leaders to improve this resilience and to better manage the current crisis or future pandemic episodes. Third, in the face of the significant risks associated with the pandemic and its socio-economic implications, organizations have a moral duty to put in place appropriate measures to ensure their legitimacy, respond to institutional pressures, and protect the health of their stakeholders, including employees and clients. However, whether their behaviour is, in fact, effective in terms of social responsibility remains, at best, uncertain. This article therefore sheds new light on the practices organizations have concretely put in place, and on the behaviours considered responsible for organizational leaders as well as those to be avoided.<sup>3</sup>

## II. MATERIALS AND METHODS

The aim of this study was to better understand how organizations reacted at the beginning of the COVID-19 pandemic and to identify best management practices. It answers the following research question: What are the impacts of the COVID-19 pandemic on organizations and what are the best practices used by organizations for the early response to the pandemic.<sup>4</sup>

The objective of this study was to analyze the early COVID-19 crisis management practices implemented in organizations based on a scoping review of relevant business articles published on this issue in newspapers and magazines between March and May 2020. In contrast to the systematic review approach, a scoping review is deemed more appropriate to rapidly address broader topics from articles with diverse study designs, without assessing the quality of the included studies. This approach is also particularly well suited to studying new phenomena and informing emerging practices.<sup>5</sup>

### Identifying Relevant Articles

Two complementary search strategies were used to identify relevant newspaper and magazine articles. First, a search using the Eureka database, specialized in print media, was performed in English and in French using the main following keywords: "covid OR corona virus" and "management (management OR gestation in French) OR business OR SME\* (PME in French) OR leadership OR manager\* (dirigeant\* OR gestionnaire\* OR directeur\* in French) OR CEO\* (PDG in French) OR employee\* (employé\* in French)". Second, a search using the same keywords was also performed using Google News in order to identify further relevant articles. Relevant articles were restricted to the period from March (when the WHO declared the COVID-19 pandemic) to May 2020. The first search results on Eureka yielded 2535 potentially relevant articles. A complementary search using Google News added 172 potentially relevant articles.<sup>6</sup>

### Selecting Relevant Articles

Inclusion and exclusion criteria were devised in order to help eliminate articles that were not relevant to our central research question, which was to analyze the best practices implemented in organizations to manage the COVID-19 crisis. Articles describing corporate practices implemented specifically to address the COVID-19 crisis, mainly in North American or European Union countries, but also in a global context, were included in the study. Furthermore, to be included in the study, the article had to present at least one concrete example of an action taken by a particular company and the name of that company had to be cited. In contrast, articles discussing only general economic, social, or political considerations, or exploring management opinions on issues related to COVID-19, were excluded. At the end of the selection process conducted by a

member of the research team, 246 relevant articles were included in the study, which represented about

9% of the potentially relevant articles identified in the previous step.<sup>7</sup>

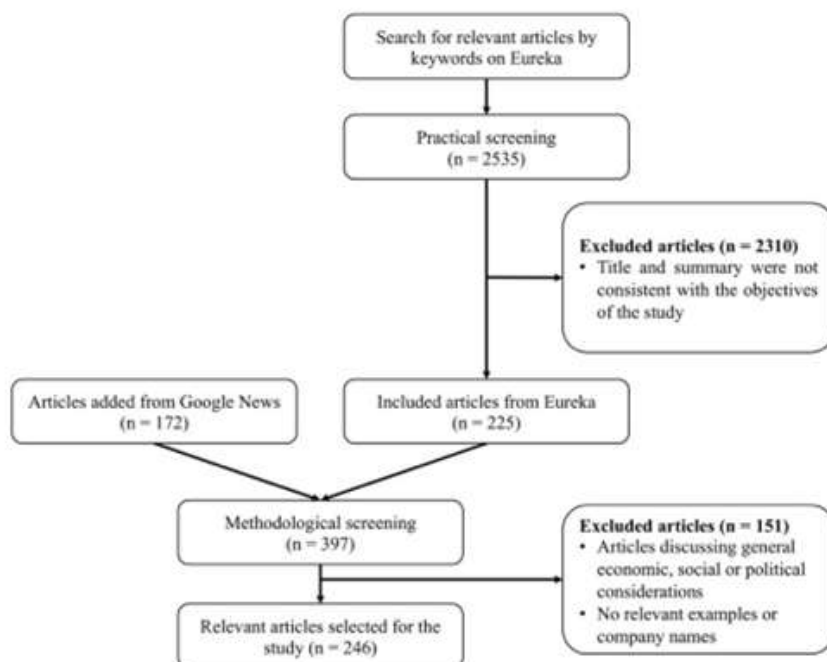


Figure 1. Selection process.

### Charting the Data

The research team created a data extraction grid using Microsoft Excel. The sheet was divided into six main themes: design and general characteristics; positive impacts of the crisis; negative impacts of the crisis; organizational practices for managing the crisis; most valued leadership practices; and unethical behaviours. Researchers involved in the study read multiple articles in order to produce the first draft of the list of categories used in each theme. Afterwards, two coders manually coded 25 articles independently using this version of the grid (around 10% of the articles gathered). Multiple discussions occurred between the coders during this process, which helped them refine the extraction grid. At the end of this process, the first coder categorized 123 passages for the 25 articles included in the inter-coder agreement calculation. The second coder agreed on 98 of these passages, which represents an inter-coder agreement of about 80%, and the categorization process was therefore deemed reliable. Inconsistencies were then reconciled and all the articles were categorized manually by one of the coders.<sup>8</sup>

### Collating, Summarizing, and Reporting the Results

Data collected from the six main themes mentioned previously were analyzed and the categories created for each theme were grouped strategically for presentation purposes. Multiple figures and tables were generated to present the main findings of the study in the next sections. The items deriving from a particular theme are not mutually exclusive and some articles could have been categorized under multiple items, meaning that percentages expressed in the tables are expected to add up to more than 100%.<sup>9</sup>

### III. RESULTS

- Mapping of the Business Articles on the COVID- 19 Management The mapping of the selected articles provides an overview of the publications on the subject, in particular regarding the sectors and regions covered, the objectives of the articles, and the focus on certain themes, in particular corporate sustainability. Activity sectors were derived by combining multiple governmental lists from North America and Europe to obtain a comprehensive list of 26 activity sectors,

which were further combined into nine main activity sectors for presentation purposes. The analysis of the sectors covered by the articles shows the great diversity of activities and companies that have been involved in managing the COVID-19 crisis (see Table 1). Some articles mentioned multiple companies in more than one sector. The analysis also illustrates the scale of this crisis, which has an impact on all sectors of activity. However,

some of the sectors most affected by the pandemic were mentioned more frequently. This is particularly the case for individual and business services (43% of articles), transportation (24%), communication (22%), and agriculture and food (21%), which has been particularly affected by shutdown measures and has had to adapt quickly, in particular by setting up telework, online sales, and delivery services.

Activity Sectors	Number of Articles	Percentage of Total Articles (%)
Individual and business services	105	43
Transportation	60	24
Communication	53	22
Agriculture and food	51	21
Resource extraction and materials processing	36	15
Textile and clothing	30	12
Leisure activities	19	8
Medical and pharmaceutical industry	10	4
Construction	6	2

The regions covered by the articles (see Figure 2) were mainly North America (38%) and Europe (28%). This concentration of coverage on certain regions was mainly due to the inclusion and exclusion criteria for the articles, particularly with

regard to the languages (i.e., English and French). However, about one-third of the articles had an international perspective and focused on measures implemented in various countries or at the global level by large companies.<sup>10</sup>

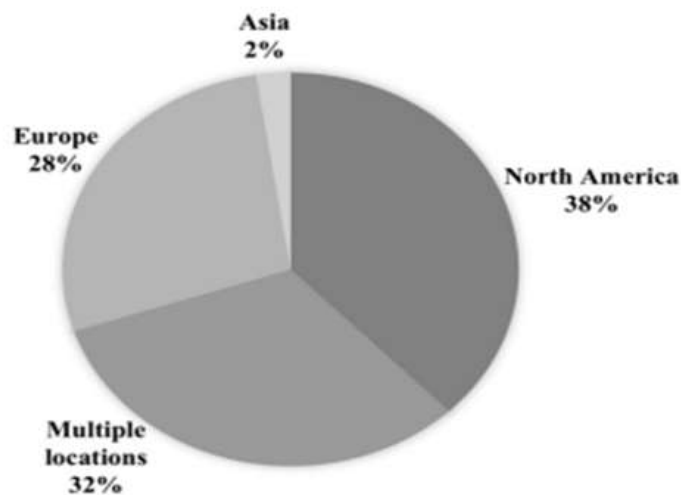


Figure 2. Geographical distribution of the companies cited in the articles.

The analysis of the main objectives of the articles studied highlights their foci and also some issues closely related to the management of the pandemic (see Figure 3). The implications of the crisis in terms of corporate social responsibility and

sustainability management were the most frequently mentioned and represented the main objective of 29% of the articles. More specifically, about two-thirds of the articles directly analyzed, or indirectly mentioned, the implications of the

pandemic in terms of corporate social responsibility (CSR) or corporate sustainability (e.g., the need to strengthen the social responsibility of organizations, to review sustainable development policies, to be more responsive to stakeholders, to prioritize employee health over short-term economic objectives, etc.), even if these implications were not necessarily the main objective of the documents. While all the articles mentioned one or more example of how organizations are dealing with the pandemic, the main objective of almost a quarter of the articles

was to identify and share good practices. These good practices are detailed below and cover many dimensions, including good governance, compensation, work reorganization, and various measures to help businesses managing COVID-19. About 23% of the articles focused on the difficulties encountered by companies in managing the crisis. The rest of the articles were essentially focused on the economic challenges of the pandemic, including exploiting the opportunities related to the crisis and preparing for or managing business resumption.<sup>11</sup>

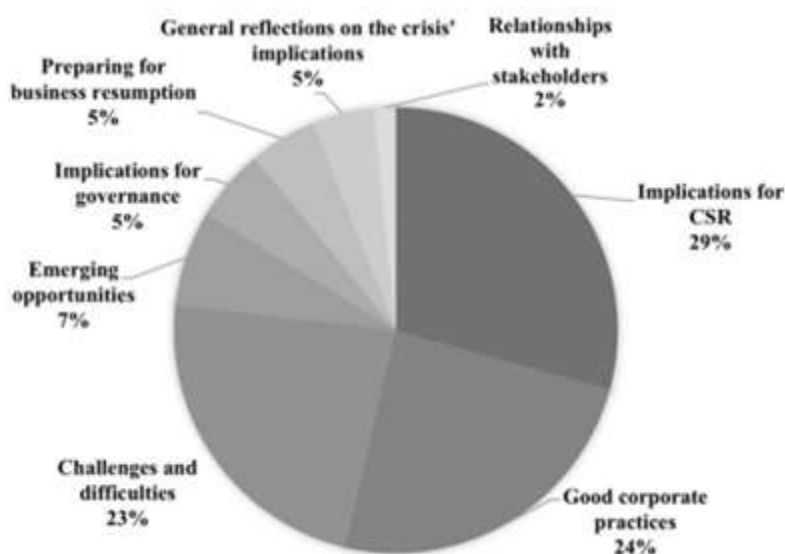


Figure 3. Main objectives of the articles.

- Opportunities and Threats of the Pandemic management practices are often contextualized in relation to the opportunities and threats arising from the crisis. While the negative economic impacts of the pandemic have been widely covered in the news, the crisis has also resulted in some positive effects for many organizations. Approximately 31% of all articles (76 out of 246) analyzed highlighted these positive effects and provided various examples of how companies can benefit from them (see Table 2). Unsurprisingly, the economic opportunities arising from the crisis were mentioned in 56 articles. The emergence of new markets and the need for companies to be responsive to changes in consumer needs and habits were illustrated by various examples, such as the development of e-commerce, increased demand for organic and local products, and the growth of delivery services, among others. The importance of businesses' ability to turn a threat into an opportunity was often stressed. This

capacity was illustrated by various examples, such as that of certain fitness companies that have managed to significantly increase their revenue by developing app-based and online classes in order to take advantage of the restrictions affecting a large part of the population. Similarly, 18 articles underlined job creation and other positive effects (e.g., increased profits, improved productivity of organizations) that result in particular from the growth of certain markets during shutdown episodes. For example, companies involved in the home delivery of meals were frequently mentioned, including recruitment announcements for 30,000 jobs at Pizza Hut, 20,000 jobs at Papa John's, 10,000 jobs at Chipotle Mexican Grill, and so forth. Security services, such as Securitas, have also announced the creation of thousands of jobs to respond to the safety concerns of many Americans in times of economic and social instability. Job creation announcements by some major essential retail chains, such as Walmart (150,000 hires), CVS



(50,000), and Dollar General (50,000), show that some companies have been less affected than others by the crisis, even if the jobs announced are most often precarious and poorly paid. Some articles highlighting positive effects mentioned issues related to sustainable development, in particular many corporate leaders' awareness of the importance of paying more attention to their employees' physical health and mental well-being (mentioned in eight articles) and the reduction of air pollution (two articles). According to seven

articles, the pandemic has significantly increased corporate ESG commitment. Among other things, socially responsible investments (SRIs) were reported to have been more resilient than others in times of crisis, and a growing number of investors are taking into account sustainable development issues, particularly social issues (e.g., health, stakeholder expectations, community commitments), which tends to favour organizations that have made substantial commitments in this area.<sup>12</sup>

**Table 2 Positive impacts of the crisis for companies**

Positive Impacts of the Crisis	Number of Articles for This Theme	Percentage of the Articles for This Theme (%)
Crisis always presents opportunities	56	74
Increased opportunities for growth and recruitment	18	24
Health is becoming a priority	8	11
Increased commitment to ESG issues	7	9
Reduction of air pollution	2	3
<b>Total number of articles for this theme</b>	<b>76</b>	<b>100</b>

The threats and negative impacts of the pandemic were mentioned in proportions quite similar to those of the positive impacts (22% of the articles analyzed; 54 out of 246). The description of these negative impacts (see Table 3) is useful for putting into context the practices implemented by businesses to try to cope with them. Not surprisingly, the most frequently mentioned negative impacts included layoffs (temporary or permanent) and voluntary departures that were made during the pandemic. Layoffs, mentioned in 30 articles, concern most business sectors, particularly those where social distancing is more difficult to apply, such as non-essential retail (layoffs of 85,000 employees at Kohl's, the majority of the 125,000 employees at Macy's, and 14,000 employees at Urban Outfitters), transportation (layoffs of 20,000 employees at Air Canada and 2600 employees at GE Aviation), and entertainment (layoffs of 26,000 employees at AMC Theatres and 2600 employees at Cirque du Soleil). Logistical problems, particularly supply chain disruption and product wastage, were mentioned in 16 articles. Most sectors seem to be concerned by the shutdown of suppliers or the

sudden imbalance between supply and demand for certain products. This imbalance has led to a significant waste of certain commodities. For example, during the shutdown, Dairy Farmers of America, one of the main American dairy cooperatives, destroyed almost 14 million liters of milk per day due to the closure of canteens and restaurants which accounted for a significant part of its sales. Nine articles also mentioned wage reduction measures that had to be put in place to respond to the economic pressures caused by the crisis. Labour shortages due to rapidly increasing absenteeism or sales growth in certain sectors were mentioned in seven articles. Absenteeism at Amazon's warehouses was reported to have reached nearly 30%, even though the company was experiencing a very rapid increase in orders. Border closures also caused a shortage of seasonal workers, especially in the agricultural sector. Four articles also mentioned voluntary employee departures. Lastly, three articles mentioned the saturation of online communication networks and its negative consequences, including the speed of data transmission.

**Table 3 Negative impacts of the crisis for companies**

Negative Impacts of the Crisis	Number of Arti-	Percentage of the
	cles for This Theme	Articles for This Theme (%)
Layoffs	30	56
Supply chain disruption and wastage	16	30
Wage reductions	9	17
Labor shortages and absenteeism	7	13
Voluntary departures	4	7
Communication network saturation	3	6
<b>Total number of articles for this theme</b>	<b>54</b>	<b>100</b>

Organizational Practices for Managing the COVID- 19 Crisis The diversity of organizational practices put in place to manage the pandemic shows the global and multifaceted nature of this crisis, which affects all organizational activities. Overall, 86% of the articles studied (211 out of 246) mentioned at least one organizational practice put in place to manage the COVID- 19 pandemic.

The most frequently mentioned measures can be grouped into five main themes (see Table 4): HRM, organizations’ social and environmental responsibility, the reorganization of operations, the management of health aspects, and specific crisis management measures. These themes are not mutually exclusive but rather complementary and interlinked.

**Table 4 Organizational practices for managing the COVID- 19**

Organizational Practices for Managing the Crisis	Number of Articles for This Theme	Percentage of the Articles for This Theme (%)
HRM	105	50
Corporate social and environmental responsibility	85	40
Reorganizing operations	82	39
Managing health aspects	63	30
Specific crisis management measures	60	28
<b>Total number of articles for this theme</b>	<b>211</b>	<b>100</b>

Exemplifying Responsible Leadership and Preventing Unethical Behaviours .The examples mentioned in the articles studied were not limited to good practices. They also covered the discretionary adoption of behaviours or approaches considered responsible or ethical on the part of leaders who tended to be presented as models to be emulated. These were mentioned in 24% of the articles. Conversely, 18% of the articles studied mentioned behaviours that were considered unethical and should be avoided. At attitudes and behaviours considered responsible revolved around four interrelated themes. One of the most often mentioned virtuous approaches concerned the demonstration of personal behaviour considered exemplary on the part of the corporate leader, particularly in terms of their remuneration. Most of the articles in this category mentioned the need for executives to demonstrate solidarity, especially

towards those who are most at risk and who are most often paid much less than their superiors. Examples of commitments by executives to forego all or part of their salary were mentioned in this category: reducing the salaries of So dexo executives in order to finance a \$30 million fund for laid- off employees, reducing the Disney CEO’s salary by 50%, cancelling the salary of the Marriott Hotels CEO and reducing the salary of the company’s top executives by half, cancelling the salary of Boeing’s CEO, limiting the salary of Columbia Sportswear’s CEO to \$10,000, and so on. Another frequently mentioned approach (21 articles) concerned listening to stakeholders, especially employees, and encouraging them to express themselves internally about the crisis. For example, the CEO of the pharmaceutical group Unit her stated that he spends most of his days on the phone speaking with various stakeholders about

the crisis and its implications. This listening approach is often associated with a benevolent and empathetic attitude on the part of management with regard to the impacts of the pandemic. Some articles mentioned the need to recognize employees' efforts, to demonstrate that their health is a priority issue for the company, and to return to more essential human values. In addition to its ethical aspects, such an approach appears to be important for retaining and motivating employees in the longer term. The importance of delegating, taking a step back, and not overreacting to the crisis

was also mentioned. As the CEO of Accenture sums up: "My job as a leader is not to put more stress into a system that is already stressed". Lastly, two articles mentioned the need for long-term focus, emotional maturity, and reassuring of employees by avoiding overly pessimistic or optimistic comments about the pandemic. According to a consultant specializing in leadership skills, "it takes a great deal of consciousness from leaders in the midst of crisis and upheaval to maintain a balance that is neither too negative nor overly optimistic"<sup>13</sup>

**Table 5 Responsible leadership in the midst of the crisis**

Responsible Leadership Measures	Number of Articles for This Theme	Percentage of the Articles for This Theme (%)
Leaders' exemplary personal behavior	41	69
Communication with stakeholders	21	36
Behavioral measures	2	3
<b>Total number of articles for this theme</b>	<b>59</b>	<b>100</b>

#### IV. DISCUSSION

The COVID-19 pandemic affected humanity in multiple ways, and its consequences will surely be remembered for a long time. On the other hand, preventive measures regarding limiting commercial and labour activity of the population in order to reduce the movement of people and interpersonal contact have caused serious socioeconomic consequences among the inhabitants of the countries affected by pandemic situation. These consequences have been mitigated with social aid measures from the state public decisions performed by the different governments. Argentina has been one of the countries with quick reflexes to propose tools that would allow families to tolerate the prolonged isolation imposed by the national authorities. State aids represented by various programmes were created or increased because of pandemic. However, the mere existence and availability of these potential benefits should not be considered as synonymous of direct access of the population to those assets, since this process must be finished when it is ensured that these goods reached all beneficiaries. Although public policies can be easily executable in most sectors of the population; it exists areas, usually settlements

and marginalised neighbourhoods of cities that have certain characteristics like poor urban design, inhabitants with particular culture and interpersonal relationships; that can complicate the correct distribution of goods and services. Therefore, these situations must be taken into account in order to achieve the desired institutional objectives. Puente the Fierro is one of these thousand neighbourhoods on Argentina that has particular attributes that complicates the arrival of public programmes. The experience of Puente de Fierro demonstrated how in special and complex situations such as the COVID-19 pandemic or its prevention measures; the offer provided by the public government becomes useless and dependent on the ability and willingness of own community members to reach the target population. The food cards, the administrative management of requesting or renewing identity documents, the complaint of violence suffered against the person, the initiation of job retirement procedures, the access to shops that accepts subsidy cards are all situations that require the transfer of people living in suburbs to urban areas where the devices to achieve access are located; and in times of pandemic, where free circulation the individuals with non-essential jobs



is restricted, such access is impossible. This study aimed to demonstrate how an intervention model created by a university volunteer together with the own members community beneficiary of the project, was able accomplished with quarantine and preventive isolation measures ordered by the country's authorities; through the development of actions addressed to improved access to the goods provided by the State (economic aid, food, medical care) without living the neighbourhood and homes. With these measures, inhabitants from Puente de Fierro were able to duplicate the unnecessary movements and to comply with government regulations. The positive externality of these actions was the reduction of COVID-19 infections by 36.2% and deaths by 22.3% among this population when compared with the control group (population from the neighbouring town). In this sense, it is demonstrated by the results obtained that 'healthcare' is a good barometer to measure the way of whom public policies are accomplishing with its commitments. 'Health is a historical social process that includes diseases and illnesses, their social ways of caring for them, as well as the complex network of care that a society possesses. Health is relational care processes and their ways of managing them'. It is also known 'as the ability to face and overcome the conflicts and adversities that the environment presents us'. Unfortunately, people often internalised their unfavourable situations that they have had in life since their birth, associating them with 'normality', aspect that avoid to develop capacities of perceiving risks and to promptly identify conflict situations that must be faced and solved. COVID-19 pandemic has exposed the unfair situation that socially vulnerable people had to face. Because of the quarantine, the normal activity of the society was interrupted; hence, government's policies were aimed at reducing the negative impact by increasing budget items towards economic and social aid for those who have the least in society. However, the benefits provided by official programmes do not contemplate the particular locations in which the beneficiaries live. It is useless to have a stagnant supply of goods and services, when they are not appropriate distributed among those who need them. As seen in this study, suburban neighbourhoods such as Puente de Fierro have particular characteristics that must be taken into account when executing public policies. In the case of COVID-19, the main government slogans to avoid contagion were to limit the movement and transfer of people on the streets. These measures were well accepted in homes that have basic services, internet and the possibility of requesting

food and other goods by delivery at home. However, in precarious housing, where the walls are made of cardboard and there is no floor, with lack of basic services, and in whom aid programmes are not reaching, it is difficult to comply with isolation measures, thus putting contagion control at risk. The presented project applied a new management model to perform public programmes in socially vulnerable neighbourhoods in order to mitigate COVID-19 pandemic consequences. In addition, this model also helped for strengthening and consolidating community neighbourhood networks that function as liaison structures with the state system and with other public institutions and organisations outside the neighbourhood.

## V. CONCLUSION:

This article provides an insight into the COVID-19 present situation and represents a picture of the current state of art in terms of public Health impact, disease, symptoms, transmission, diagnosis, prevention and management. There are rapid clinical trials are going on the COVID-19 vaccine and hopefully, it will help in finding an effective stop for the virus spread, prevention and management. Once this pandemic end, everyone will be able to evaluate their health, socializing with other people and economic impacts of this global disaster and we should be able to learn from our experiences, especially in terms of public and global health for future pandemics.

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