





Review

# The Impact of the COVID-19 Pandemic on Social, Health, and Economy

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**Abstract:** In late December 2019, a series of acute atypical respiratory disease occurred in Wuhan, China, which rapidly spread to other areas worldwide. It was soon discovered that a novel coronavirus was responsible, named the severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2, 2019-nCoV). The impact of the COVID-19 pandemic on the population's health is unprecedented in recent years and the impact on a social level even more so. The COVID-19 pandemic is the most large-scale pandemic on earth this century, and the impact in all life sectors is devastating and directly affected human activity in the first wave. The impact on the economy, social care systems, and human relationships is causing an unprecedented global crisis. SARS-CoV-2 has a strong direct acute impact on population health, not only at the physiological level but also at the psychological level for those who suffer it, those close to them, and the general population, who suffer from the social consequences of the pandemic. In this line, the economic recession increased, even more, the social imbalance and inequity, hitting the most vulnerable families, and creating a difficult context for public institutions to address. We are facing one of the greatest challenges of social intervention, which requires fast, effective, and well-coordinated responses from public institutions, the private sector, and non-governmental organizations to serve an increasingly hopeless population with increasingly urgent needs. Long-term legislation is necessary to reduce the vulnerability of the less fortunate, as well as to analyze the societal response to improve the social organization management of available resources. Therefore, in this scoping review, a consensus and critical review were performed using both primary sources, such as scientific articles, and secondary ones, such as bibliographic indexes, web pages, and databases. The main search engines were PubMed, SciELO, and Google Scholar. The method was a narrative literature review of the available literature. The aim was to assess the effects of the COVID-19 pandemic on population health, where the possible interventions at the health level are discussed, the impact in economic and social areas, and the government and health systems interventions in the pandemic, and finally, possible economic models for the recovery of the crisis are proposed.

**Keywords:** COVID-19; social care; community management; recovery; vaccines; health

## 1. Background

In late December 2019, a series of atypical acute respiratory events occurred in Wuhan, China, which rapidly spread to other areas worldwide. It was soon discovered that a novel coronavirus was responsible, named the severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2, 2019-nCoV) due to its high homology (~80%) to SARS-CoV, which caused acute respiratory distress syndrome (ARDS) and high mortality during 2002–2003 [1]. Further on, it was designated as COVID-19, and considered as a pandemic by the World Health Organization (WHO) in mid-March 2020 [2]. To date, there have been 163 million cases, with 3.39 million deaths reported worldwide [2,3]. We conducted the present review with the aim to analyze the effect of the COVID-19 pandemic on population health, and the possible interventions at the health level are discussed, the impact in economic and social areas, and the government and health systems interventions in the pandemic, and finally, possible economic models for the recovery of the crisis are proposed.

### *Methodology*

To reach the study objective, a consensus and critical review were performed using both primary sources, such as scientific articles, and secondary ones, such as bibliographic indexes, web pages, and databases. The main search engines were PubMed, SciELO, and Google Scholar. The method was a narrative literature review of the available literature. The narrative review is a comprehensive, critical, and objective analysis of the current knowledge on the present topic. It is an essential part of the research process and helps to establish a theoretical framework and focus or context for future research and interventions. The following exclusion criteria were used: (i) studies with old data (out of the COVID-19 timeframe), (ii) present inappropriate topics, being not pertinent to the main focus of the review, and (iii) PhD dissertations, conference proceedings, abstracts, and unpublished studies. We included all the articles that met the scientific methodological standards and had implications within any of the subsections in which this article is distributed.

## 2. Impact of COVID-19 on Health

The main concern of SARS-CoV-2 is not its mortality, but the rapid and easy transmission, which is via droplets (generally 5–10  $\mu\text{m}$ ) that have a short lifetime in the air and infect the upper respiratory tract, or finer aerosols, which may remain in the air for hours [4]. Therefore, the first line of affection and contention is the upper respiratory tract, and the advance of the virus will first lead to respiratory system affection [5]. However, SARS-CoV-2 virus affection occurs in different systems and tissues of the body, not only in the lung. As so, the heart, liver, kidneys, gastrointestinal tract, spleen, lymph nodes, skin, and placenta have also been affected by this virus [6]. Evidence of microvascular damage such as thrombi, endothelium, and complement activation was not limited to the lungs, being also found in the heart, liver, kidneys, gastrointestinal tract, skin, adrenal gland, and prostate, possibly reflecting systemic hyper-inflammation in these cases [7].

This holistic organic condition will depend greatly on which stage or phase of viral affection the patient is in. In this sense, 3 stages of increasing severity are well-differentiated [6]. The first stage is eminently characterized by the SARS-CoV-2 infection phase, where the patient may develop flu-like symptoms, mainly due to the viral infection itself. During this phase, if the viral process is not contained by the immune system itself, patients may start to develop viral pneumonia, requiring hospitalization, or even mechanical ventilation. In the uncontrolled advance of the viral affection, we would arrive at a second stage in which pulmonary inflammation and coagulopathy can be developed consecutively but often overlap. Likewise, it is during this stage that the famous “cytokine storm” occurs, in which the inflammatory biomarkers such as C-reactive protein, ferritin, Interleukins I and 6, and D-dimer tend to exponentially and uncontrollably rise, increasing the risk of acute respiratory distress syndrome and unfavorable clinical course [8]. Finally, the most critical is the third phase, in which the patient’s life is in danger when fibrosis appears [9].

Regardless of the pattern of viral SARS-CoV-2 infection progression, as with any viral affection, the symptoms can vary greatly from one subject to another. In the first instance, the WHO affirms that worldwide, the bulk of the infected population (approximately 80%) is asymptomatic. They enter phase one experiencing slight symptoms, such as a flu-like virus, or no symptoms [10]. The other 20% report signs of fever, dry cough, dyspnea, arthralgia, and myalgia [11]. Other symptoms may include the loss of taste and loss of smell as markers of mild to moderate infection [12]. Less common symptoms include headache, hemoptysis, rhinorrhea, and gastrointestinal symptoms such as abdominal pain, diarrhea, and nausea. In more severe cases (phase 2), lymphopenia [13] arrhythmias, acute kidney injury, as well as the production of blood clots can occur, ultimately causing a pulmonary embolism and thrombosis [14]. The magnitude of symptoms and the advance from one stage to another is related to the health status before infection. As such, elderly men and people with underlying cardiovascular, respiratory disease, and cancer [15], obese individuals [16], and those with diabetes mellitus [17] are more susceptible to infection. Nevertheless, the relative importance of these health conditions is yet unknown.

The acute effects of the virus are well-documented by researchers, but chronic effects are still pending to be discovered and discussed. In this line, it was found that patients that successfully passed the viral infection could present symptoms of fatigue, persisted cough, shortness of breath, headache, and joint pain [18]. Additionally, an imaging test after several months from SARS-CoV-2 recovery suggests lasting damage to the heart muscle, even in people who experienced only mild COVID-19 symptoms, which may increase the risk of heart failure or other heart complications in the future [19]. The lungs are also affected depending on the type of pneumonia suffered, which could cause long-standing damage to the alveoli, which may lead to scar tissue and long-term breathing problems [20]. Additionally, the authors are discussing neurological and brain-related pathologies, since the viral affection could cause strokes, seizures, and Guillain-Barre syndrome, increasing the risk of developing Parkinson's and Alzheimer's diseases [21,22].

Another field to be explored and discussed is the psychological consequences of COVID-19, which authors predict is going to be the next so-called pandemic [23]. A large perception of fear, despair, and death has been spread worldwide. The unknown consequences, symptoms, and condition of the virus, the lack of a vaccine, and the collapse of the economic system, which is leading to a worldwide recession, are causing fear among society since we are facing the most serious pandemic of the last hundred years [24]. The dramatic and exponential increase in infections, which could only be approached by drastic decisions such as confinement and quarantine of the entire population, have forced a radical change in citizen lifestyle. Now, the so-called "second wave" is yet to come, thus creating a never-ending nightmare, which irremediably will cause issues at a psychological level of millions of citizens.

### 3. Herd Immunity or Vaccine as a Solution

The concept of herd immunity refers to the immune ratio between individuals in a population. Applied to a naive community, a certain pathogen will propagate among hosts in an unchecked manner following effective exposure of susceptible hosts to infected individuals. However, if a part of that community has immunity to that exact pathogen, the likelihood of effective contact between infected and susceptible hosts is reduced, since many hosts are immune and, therefore, cannot transmit the pathogen [25]. Therefore, if the fraction of susceptible subjects in that community is too low, the pathogen cannot spread, which will lead to slow-down its prevalence and its incidence curve. Here is where the concept of herd immunity threshold takes place, employing the specific point in which the portion of susceptible individuals falls below it. Above it, the herd immunity will take effect, protecting those susceptible individuals from infection [26]. This concept has marked and consolidated the bases for vaccines and their applications, vaccination programs cost analysis, and the eradication of diseases such as smallpox and infectious diseases such as polio and diphtheria [27].

However, it is essential to contextualize and address from an epidemiological perspective the characteristics of reproduction and expansion of the actual virus. Recent studies have estimated its reproduction range ( $R_0$ ) from 2.2 to 4.71 [28]. These values may vary according to governmental public health measures taken among the different phases of the pandemic, as well as the different methods used to calculate it (e.g., the pandemic growth rate of the curve, serial interval) and the validity of the underlying assumptions, different scenarios, and levels of zoonotic exposure [26]. Based on the dynamics of the relationships established, in the absence of a vaccine, in the protective measures and treatment alternatives, it is logical to assume that at the beginning of the SARS-CoV-2 spread in a native community with random contacts and 0 people recovered nor immune, there will be a rapid growth in infected cases, explaining the high reproduction range number.

Actual Susceptible–Exposed–Infectious–Removed (SEIR) models show that the characteristics of the present pandemic now represent some major challenges to public health, institutions, and governments, related not only to the dynamics of propagation and contagion but also to the great impact on the population (morbidity and lethality). The exponential rise in the number of infected persons demands a volume of health services that exceeds the capacity of health systems, as it has been seen in France, Italy, Spain, the United Kingdom, the United States, and Ecuador, among others [29]. Therefore, it is necessary to design and implement innovative and integrative interventions that without neglecting the study of the immune dynamics, generate the population immunity [26]. Otherwise, if counter measurements are not taken in a non-immune scenario, it would lead to over 7.0 billion infections and 40 million deaths globally for the year 2020 [30]. In this line, another important measure to evaluate the impact of SARS-CoV-2 spread is the overall case fatality rate (CFR). The CFR is the proportion of deaths attributed to a certain disease among all individuals diagnosed with it in a specific period. Regarding the COVID-19 pandemic, its CFR can be between 0.25% and 3.0% of a country's population, numbers difficult to accept [31].

Current mathematical and epidemiological analysis affirms that herd immunity is not the answer to stop the novel SARS-CoV-2 and the COVID-19 pandemic. Although it is the simplest and fastest solution in the absence of a vaccine, and understanding the long process until one is available, the ethical and moral weight is too high to pay. Therefore, pandemic suppression measures are the only viable and safe strategies at the current stage of the COVID-19 pandemic until a vaccine is available. Some major successful examples of mitigation measures are from China and South Korea [32,33], which were able to implement extremely intensive measures, some of them questioning the human and civil rights of their citizens. Among these measures were mandatory and strictly enforced quarantine, huge amounts of resources devoted to contact tracing, electronic surveillance of citizens' movements, etc. Yet, the cultural and interpopulation differences are too great for these measures could be implemented in the western territory. However, to date, the city of Wuhan, the SARS-CoV-2 birthplace, is now one of the safest places on earth and is declared "COVID-19-free" [34].

In between all the chaos and uncertainty, in mid-November, both Pfizer and Moderna [35] laboratories announced that they had the candidates for the virus vaccine. Opening so, a new window of hope, but full of uncertainty and concerns, as follows.

Will it be enough for everybody?—Countries have already purchased the maximum number of doses possible, as so, they are preparing for distribution to the right population target. Under the WHO ACT-Accelerator framework, worldwide, countries will be receiving doses for 3%, then 20% of the population, ultimately scaling up to full coverage [36].

Why am I not getting the vaccine first?—Governments are the ones that decide which are the priority population and risk groups to receive the vaccine. Risk groups will be the main ones to receive it. What we have learned from the SARS-CoV-2 first wave, during the mandatory confinement stage, is that the lack of information and transparency from governments generates tension, discomfort, emotional and psychological instability, and

irritability [37]. Thus, governments need to be strictly clear in their transparency portal, so citizens understand from the very first moment who will receive it and who will not.

Will there be equity among countries?—The COVAX facility is specifically designed to ensure that there is equitable access to vaccines globally [38]. However, for the SARS-CoV-2 vaccine, the demand is huge. Added to that, the normal schedules for vaccination worldwide and its distribution still need to run on time, plus the cold chain necessary to be maintained to preserve the SARS-CoV-2 vaccine may complicate its global distribution.

What are the risks?—Thief, corruption, weaponizing the vaccine, and black-market. Some countries are well-known for their lack of transparency and lacking well-functioning regulatory systems, which can lead to the apparition of falsified vaccines on the black-market, led by a lack of stocks of a certain product as well as the despair of governments. A clear example would be the dubious management of the government of Spain, when they bought three times above the market price Chinese rapid tests, which were fake [39]. This would be devastating for the vaccine, fueling skepticism and disruption, worsening the pandemic, and ultimately costing lives. As so, there is a powerful risk that vaccines may become a weapon with which powerful states attempt to wield geopolitical influence. A clear example would be the Russian Sputnik V vaccine, where the motivation was nationalism and not science since this vaccine was realized before phase 3 vaccine trials.

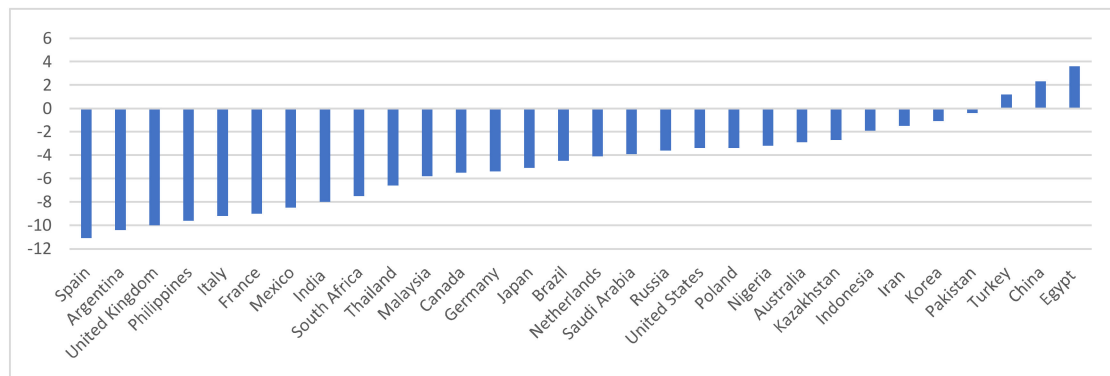
Any health-related risks? I am not getting vaccinated—Recent studies trying to assess the ratio of vaccination intention among the general population have revealed that there are some major concerns [40]. However, current literature extensively covers vaccine efficacy and safety [41,42]. These concerns could hamper the achievements of the scientific community and its attempts to disseminate the vaccine. Thus, there must be a strong act of education, information, and intervention to increase COVID-19 vaccine compliance rates in the entire population. However, personal autonomy and decision-making are some of the fundamental principles that doctors swear by in their code of ethics. Likewise, it would be an attack against fundamental human rights to force vaccination [43]. Thus, the personal decision should always be prioritized. Even so, it remains to be seen the decision of countries and governments, since, for example, to belong to the army corps of the United States of America, it is mandatory to be vaccinated against some infectious diseases [44]. The same could happen for the general population.

#### 4. Economic Impact of COVID-19

The COVID-19 pandemic outbreak has brought an unprecedented crisis, evolving from a health and social shock to the deepest global economic recession in nearly a century, causing more than double the impact of the 2008 financial crisis [45,46]. The quarantine and self-isolation policies imposed by many countries around the world to contain the spread of cases [47] has led to a halt for many businesses, reducing employment and economic activity worldwide [48,49]. As a result, regions have been affected by significant negative gross domestic product (GDP) growth rates and higher inequality and poverty rates [50] (Figure 1). The International Monetary Fund (IMF) [50] for 2020 forecasts a negative global growth of  $-3.5\%$ , with a higher drop in real GDP in advanced economies ( $-4.9\%$ ) than in emerging markets and developing economies ( $-2.4\%$ ). Asia will have the first regional recession in almost 60 years. The economies of the United States, the United Kingdom, and Japan are projected to contract  $-3.4\%$ ,  $-10.0\%$ , and  $-5.1\%$ , respectively. Likewise, the IMF estimates a  $-7.2\%$  economic recession in the eurozone, with Spain experiencing the greatest decrease in its real GDP ( $-11.1\%$ ) in the area, followed by Italy ( $-9.2\%$ ) and France ( $-9.0\%$ ). The economic growth of  $-7.4\%$  is expected in Latin America and the Caribbean. Figure 1 shows the growth rates of real GDP in 2020 for 30 selected economies that account for approximately 83% of the world output, according to IMF estimates.

According to the last World Economic Outlook [51,52], the global economy is showing unprecedented figures in recent history, shrinking by  $-4.4\%$  this year. The economies of the United States and Europe are projected to contract between  $-18\%$  and  $-13\%$ , and the European Commission predicts a  $-7.8\%$  recession in the eurozone, with Spain experiencing

the greatest decrease in its real GDP (−12.4%) in the area, followed by Italy (−9.9%) and France (−9.4%). The drop in Latin America and the Arab States is estimated at −11.4% and −10.6%, respectively [53].



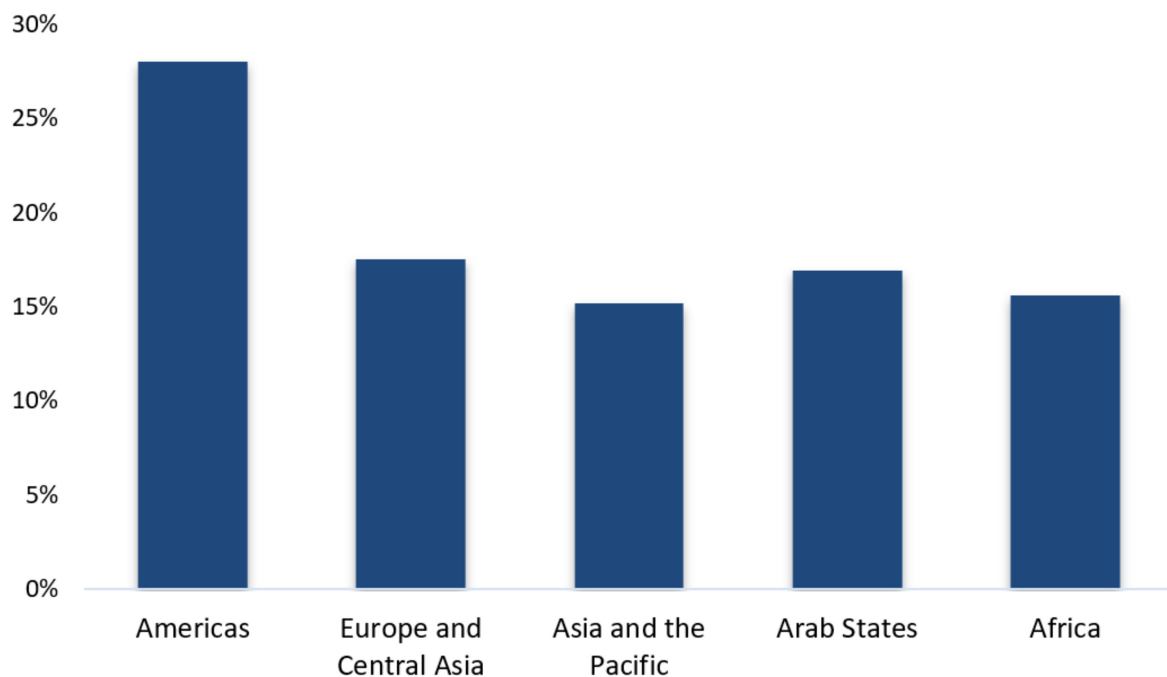
**Figure 1.** Real GDP growth in selected economies (%). 2020. Source: International Monetary Fund, World Economic Outlook, January 2021 Update.

Additionally, the aid programs allocated during the pandemic by governments to health systems and the most vulnerable economic sectors have caused an increase in public spending and, consequently, a rise in the budget deficit, despite the counter-cyclical effects that in a period of crisis the automatic stabilizers could have on the deficit. This larger budget deficit will entail an increase in public debt that will prove difficult to sustain in the long run, if the level is currently too high. According to the IMF [54] assessments for 2020, gross public debt as a percentage of GDP will reach 101.1% in the eurozone, 108.0% in the United Kingdom, 131.2% in the United States, and 266.2% in Japan. However, the fiscal stimulus should not always be understood as a negative phenomenon for the economy, since according to Keynesian theory, higher public spending increases aggregate demand and, consequently, economic growth.

Worldwide, the economic contraction has led to a catastrophic hit to the global labor market. Millions of people are losing their jobs or facing reductions in their working hours. As many countries adopt strict quarantine policies, most companies have implemented an indefinite hiring freeze and many businesses have been forced to close [53]. The global job losses are estimated to be 495 million in the second quarter of 2020, a considerably larger decline than the 195 million estimated in April for the same quarter [55], reflecting the worsening situation in many parts of the world. According to the last ILO Monitor (2020), 94% of the world's workers are currently facing a workplace closure measure in their countries or a decrease in their working hours (Figure 2). The sectors that have seen the largest increase in unemployment are those that require physical presence at the workplace, like the service sector, where these employees tend to be younger and female [56]. Therefore, the pandemic is also compounding existing inequalities, disproportionately hitting women and the most vulnerable population groups [52].

Global impacts on the economy and job losses disproportionately affect low-skill workers and those already living in disadvantaged conditions, pushing an additional 71 to 100 million people into extreme poverty, reaching 684 million globally [57]. Under a lockdown, people in low-income groups have less ability to work from home, having a higher probability of unemployment and exposure to COVID-19 [51]. This crisis has accelerated the need for using technologies to get essential supplies and receive essential services [48]. For many companies, adopting different forms of e-commerce will be the only option to survive, but the unequal access to technologies will affect communities' ability to deal with the crisis [58]. The education system worldwide is also experiencing the most severe shock in history. In at least 147 countries, schools and universities have moved to learning online. This has affected at least 463 million learners around the globe,

mainly due to a lack of access to the technology needed for learning at home, increasing learning losses and dropouts [59].



**Figure 2.** Reduction of working hours, second quarter 2020, by region. Source: Data from ILO Monitor Sixth edition.

In most vulnerable households, income often depends on one person, increasing the risk of the whole household falling into poverty. As for the situation for single parents, 78.4% of whom are women, it is especially difficult if they struggle with work and caring for children when schools are closed [52]. The devastating consequences warranted Human Development to decline worldwide for the first time since 1990, reversing the progress made in reducing global poverty and increasing inequality [60]. In this context, women are facing the crisis' frontline, threatening fragile gains on human rights and gender equality [61]. Globally, women on average do three times as much unpaid care and domestic work as men, a situation that intensifies with school closures [52]. Furthermore, lockdown measures and restrictions affect women's vulnerability since violence and sexual assault have doubled since the outbreak, resulting in a shadow pandemic [48].

### 5. Social Impact of COVID-19

The global disruption of the COVID-19 pandemic has altered the social, health, and economic life of more than 170 countries, leaving hundreds of millions infected and three million deaths. To scientific knowledge, there are no effective treatments to adequately combat the disease, only the vaccines developed, and a scientific effort unknown as of today could bring us closer to the desired herd immunity [26]. SARS-CoV-2 has revealed many shortcomings promoted by globalization, suggesting the need to review production systems (e.g., deforestation, intensive agriculture and livestock, progressive global warming) that reduce the distance between species, increasing the probability of zoonoses [62]. Hence, massive communities of people [63], social inequalities and economic vulnerability of a very important part of the population, and massive holiday and business trips increase the probability of the rapid spread of new viruses. It does not seem that investment in public health in the most industrialized countries and economic aid to developing countries is sufficient for effective control, and much more rigorous strategies are necessary to achieve joint and effective responses [64]. It is important to program ethical and equitable strategies, and social policies developing care interventions based on high-quality scientific data to minimize their social impact on the most disadvantaged groups.

The total cost of the SARS-CoV-2 pandemic has not been determined yet. Some mathematical models have suggested figures close to 16 trillion dollars destined mainly for health spending, infrastructure, and economic aid for the most vulnerable people [65,66]. Therefore, it should not be tackled solely from microbiology, virology, or public health perspectives. It is also necessary to know how economic markets behave and how society responds if we want to keep future viruses with pandemic potential under control [67]. Some studies have analyzed the reduction of respiratory infections related to the frequent use of masks [68,69], especially in the face of a pathogen with high percentages of asymptomatic or pre-symptomatic patients who retain a remarkable transmission capacity [70,71]. Other studies have focused on the risk of transmission on domestic and international flights and other confined spaces [72,73]. However, if you want to respond adequately, it could be very important to know what aspects of human behavior, such as resistance to comply with public health recommendations, relaxation after confinement, or lack of support for population sectors most vulnerable, are determinants of a pandemic evolution [74,75].

Social distancing in medical care and ageing residences has shown efficacy in controlling transmission [76,77]; however, we know very little about the impact that social isolation, during the different confinements in the most pronounced peaks of local infection by COVID-19, had on the segments of the population of more advanced age [78]. The impact that a sedentary lifestyle and lack of regular moderate–vigorous physical activity will have on the general population, mainly in the middle-aged population, has not been analyzed enough [79]. The lack of this information keeps society in the 21st century away from multifactorial designs that make it possible to face future zoonoses or potential viral mutations with greater effectiveness and solvency. It is necessary to understand that we are facing a scenario on which to build future social intervention strategies because it does not seem that this will be the last virus with pandemic potential that we will have to face in the coming decades [80]. It is necessary to know more to be able to implement effective social intervention programs, for this requires an exhaustive collection of data that allows to recognize and reject the mistakes made and register the most effective actions implemented, especially focusing on three related factors with the spread of the virus during the SARS-CoV-2 pandemic: minority ethnic groups, socio-educational level, and domestic violence.

Some studies have indicated that there is an increased risk of virus transmission and a greater probability of severe and critical symptoms based on ethnicity [81–84]. Even among healthcare personnel, black or Asian doctors and nurses had a higher probability of infection and severe symptoms [85,86]. Hence, it does not seem that economic inequalities and low scientific knowledge in healthcare can explain why some ethnic groups were more affected [74,87], instead it seems that they are characteristics that can be extended to the entire population. Therefore, low educational level, extreme overcrowding at home, low socioeconomic level, and economic inequalities would not explain why some ethnic groups suffered more severe symptomatology of COVID-19 [87–90]. However, social networks have spread hate speech, false or doubtful information, humiliation, and language of social rejection on minority racial groups [91], sometimes based on real social conflicts (e.g., “Black Lives Matter” movements) and other times encouraged through false profiles with the sole objective of generating greater inequalities and promoting xenophobia [92]. Coping with strategies to control racist discourse through the Internet whilst respecting the right to freedom of speech is necessary, being the responsibility of the entire society to act against any type of intentional stigmatization. It is important to point out that the most socioeconomically vulnerable people do not have sufficient political representation in public institutions. Their needs and opinions may not be properly addressed and defended. Unemployment, industries shutdowns, and severe economic difficulties in some families, unprecedented since the Great Depression, represent an insurmountable obstacle if hate speech targets these groups. It could be necessary to find direct support and specialized monitoring by social services and better legislative action to avoid it [92,93].



Social isolation is not only a problem of public health aggravated during preventive confinement. In uncertain situations or social crises, interpersonal violence increases [94]. The fight against the virus has had negative social consequences that have been linked to violence in the domestic environment [95]. Economic insecurity and lack of resources is an inherent stressor in many of the reactive and disruptive behaviors [96]. The burdens of household work (e.g., education and childcare) and other unpaid chores have mainly been an added effort to the working hours of the female gender. In addition, the loss of jobs during the pandemic have increased tension and stress within the family environment [97], increasing the risk of gender violence and child abuse. Recent studies have suggested an increase in hospital admissions for head trauma due to physical abuse in minors [98] and worse mental health in adolescents [99]. We must not forget that negative experiences lived during childhood and adolescence have an impact on mental health, especially in young people with low economic resources [100]. As has been suggested, fear and uncertainty increase the polarization of different types of domestic violence, including a higher incidence of suicides [48].

We are facing one of the greatest challenges of social intervention, which requires fast, effective, and well-coordinated responses from public institutions, the private sector, and non-governmental organizations, to serve a population increasingly hopeless and with increasingly urgent needs [101]. Long-term legislation is necessary to help reduce the vulnerability of the less fortunate, such as intervention programs that mitigate the difficulty of access to housing [102,103]. The lower socioeconomic level is susceptible to a higher risk of infection, serious illness, and mortality from COVID-19. They are the most sensitive group and, therefore, this group should also be the ones that receive more precise intervention policies. Financial aid programs could reduce the economic recovery timing of the most vulnerable families from 11.8 to 6.7 months [101]. The study of the impact of the SARS-CoV-2 pandemic should not be limited to the biomedical field. Knowing how society responds, how social organizations manage available resources, and the socioeconomic costs of social distancing could be essential to improve intervention plans before the appearance of new viruses with pandemic potential appear. An in-depth analysis, leaving aside political rivalries, could detect the structural problems that have exacerbated social needs and hampered economic recovery. There are many gaps in the data transmitted by some countries regarding care and social intervention, suggesting the need for greater institutional and political transparency if we want to find effective programs to minimize social and economic costs to future viral challenges.

## 6. Public Health Institutions Interventions

The COVID-19 pandemic has put health systems around the world to the test as never seen before in the history of mankind [103]. The infection has forced institutions to make decisions based on public health, analyzing the relationship between diseases at an individual level and how to reinforce the concept for collective protection with quarantine, which is a notably individual measure.

In addition to the implications for health and loss of millions of lives, the educational system has been disrupted, causing millions of people—mainly scholars and university students—to cease their education. It has changed social life with closures, curfews, and other strict measures, aiming to contain the virus globally. Additionally, this novel situation is happening in the context of the implementation of the Agenda 2030 for Sustainable Development [104], where public health employees are shown to be critical [4].

The pandemic has brought a lot of questions about the forms of social and economic organization that many countries have adopted in the last 40 years. This affects all operation levels in every state, from the health systems' structure to the individual freedom in each country. The largest and most disabling pandemic in the last 500 years (since the bubonic plague, not even the Spanish flu) has put self-care, hospital capabilities, and governments' reactions to the test. Public health is now at the top of their priorities, now including epidemiology as a high-need discipline.

Among the working lines which can contribute to countries' decision-making about the COVID-19 pandemic, as well as new diseases, including epidemic viral-like coronavirus, literature highlighted the following.

- The adoption of a public health surveillance system for early detection and rapid response. Using an infectious disease model, the prevention of infection involves identifying the individual carrier of the virus to prevent others from getting infected, thus breaking the infection chain. In the case of coronavirus, since there is no treatment or vaccine available yet, the previous premise is crucial [26]. This strategy requires a strong surveillance capacity to be able to detect early cases and to be able to implement preventive measures. However, in most developing countries, epidemiological and laboratory capacity remain weak and need to be urgently strengthened. In Latin American countries, such as Colombia, there is a general shortage of trained human resources who can track the infection, and most of them depend on unstable job contracts or they are owed weeks and even months of wages [105]. This situation needs to change urgently, and the role of public health workers must be recognized [103].
- Risk communication and community participation. The role of the media is essential to ensure that public health measures are implemented effectively, and that people follow the advice provided by the government. This includes regular communication to the public of credible and evidence-based information through daily press conferences about the latest situation updates, associated risks, and actions taken. Risk communication is a key aspect for shaping the course of a pandemic and empowering people to make the right decisions. To encourage protective behavior, individuals need information that is appropriate, accurate, and easy to understand. This can help to limit the spread of misinformation causing panic or hysteria. It is essential to have a comprehensive risk communication strategy that is ethical and useful in the local context [106]. This strategy should be developed in collaboration with social scientists and experts in risk communication. The psychological impact of the pandemic has also been studied [107]. An effective strategy must also address this problem. Both local and national rulers should be responsible and be aware that their opinions outside scientific knowledge can lead to misinformation for the citizens [107,108].
- Protecting vulnerable groups in society. There is currently evidence that the disease affects all age groups but is disproportionately severe among older people and those with underlying conditions, such as hypertension, cardiovascular diseases, and diabetes. Therefore, there is a clear message that the elderly and people with underlying comorbidities must be protected in society and the family environment, so they are not exposed. Geriatric centers must be actively tracked for both the elderly and workers, and medical treatment must be guaranteed if needed.
- Implementation of incentives for research, technological innovation, and development of appropriate health technologies for COVID-19 (medical equipment, respirators, reagents, protective equipment, etc.), promoting cooperation between countries.
- Search information for the diagnosis, surveillance, and prevention of COVID-19. Identifying those that are based on scientific evidence, which can support and feed the processes of policymaking and decision making, and dismissing false information for the general population.
- Mobilization of public health institutions networks for the organization of shared research, human resources training, and technical assistance-cooperation appropriate for the situation.
- Professionalization of health professionals and epidemiologists under direct contracting schemes with official public health entities and not through outsourcing with hospitals and contact tracing centers.
- Strengthen laboratory testing capacity, biosafety protection awareness, and technical training, and carry out health education and publicity, as well as communication of risks to citizens [109].

## 7. Economic-Financial and Labor Outlook after COVID-19

The efforts to contain the coronavirus outbreak are essential not only to protect lives but to prevent a possible collapse of health services. While strictly necessary, these measures have caused production interruptions and plummeting demand for many goods and services, forcing companies around the world to suspend or reduce their operations, with huge impacts on workers and the economy. According to the International Labor Organization (ILO), the total or partial closure measures of businesses have affected almost 2.7 billion workers, representing around 80% of the world's workforce [110]. In countries with high employment precariousness (mainly Asia and Latin America), informal workers, excluded from social protection services, were forced to make a tough and tragic decision: disobey the rules of the legal imposition of quarantine and social restrictions to be able to work and earn a salary, exposing themselves and others to the virus, or obey the measures of suppression, remaining in social isolation, and starve [111].

In general, 6% of working hours have been decreased on average for the second half of 2020, which is equivalent to 195 million hours of full-time workers [112]. In this line, businesses related to tourism, hospitality, food service, retail, and manufacturing sectors have been hit especially hard, and a large portion of their workforce is still vulnerable to layoffs regardless of the level of closure at their jobs. The domino effect of rising unemployment is exacerbating the strain on country economies and is expected to lead to a global recession [113]. Authors believe that the recession will have an impact on the GDP, ranging from 3% to 6% depending on the country, with a median decline in 2020 of −2.8%, and in certain scenarios, a fall of more than 10–15% [114].

Therefore, labor policies and programs have been of vital importance at the time of sustaining the great fall of the financial, economic, and labor markets. Labor market policies and programs, often delivered through public employment services, have been instrumental in reducing layoffs, preserving jobs, facilitating employment in essential products and services, and maintaining people connected to the labor market, including disadvantaged workers in the informal sector [115]. However, regardless of these short-term measures, a long-lasting impact in the job market is expected, making it greatly difficult for employers and workers to navigate the labor market in the ensuing recession, particularly in the economies with large informal labor markets [111]. A closer connection between public policy measures to ensure business continuity, active labor market support, and social protection systems can help governments prevent more people from falling into poverty and unemployment. While the emphasis should be on job creation measures, support to businesses of all sizes should be linked to productivity goals, preservation of employment and income, as well as to the reallocation of labor during the recovery [116]. Likewise, there are collectives and risk groups which are faced with a special unfavorable position concerning the labor market in the current pandemic context—women, youth, migrant workers, and older workers. Thus, specific interventions in the labor market and broader access to public employment services are essential to maintain the employability and job readiness of these groups. Thus, inclusive and gender-sensitive approaches can accelerate recovery and foster labor market participation.

Many constraints hinder economic recovery and job creation. Unemployment is one of the most important factors due to its impact on the physical and psychological health of the citizens of a country. Some strategies have been proposed that could mitigate the costs derived from the economic impact of the COVID-19 pandemic. Hensher [117] suggested two options for economic recovery. First, state employment programs are funded through contracting for public works and promoting economic development. Second, a universal basic income that reduces the economic, social, and psychological trauma, with social assistance that allows the most vulnerable families or those at risk of social exclusion to face the expenses necessary to survive. Finland promoted a basic income on 2000 people with good results, and in 2020, Spain approved a basic vital income from which, to date, some 850,000 families have benefited.

The pandemic has left a deep wound in the health of populations and highlighted a series of questions regarding the formal social and economic structure that many countries in the world have adopted for the last 40 years, which has had an influence at all levels, from the structure of health systems to individual freedoms in each of the countries. To date, a series of conclusions can be drawn, highlighting some lines of work, so that in the case of future waves of the virus, or in the extraordinary event of another pandemic, the response and efficiency of the governments stay at their best.

- Adoption of a public health surveillance system for early detection and rapid response.

This strategy requires a strong surveillance capacity to be able to detect all cases early and take preventive measures. However, in most developing countries, epidemiological and laboratory capacity remains weak and needs to be urgently strengthened. In low- and middle-income countries, there is a general shortage of first-line clinical personnel to treat suspected cases of covid19 (doctors, nurses and assistants) and their working conditions are often unstable, they lack basic biosafety equipment (in some countries such as Venezuela has documented the reuse of gloves and face masks among medical personnel) and in some cases they are owed up to months and years of salary (for example in Colombia). [105].

- Risk communication and community participation.

The role of the media is essential to ensure that these public health measures are implemented effectively, and that people follow the advice given by the government. This includes regular communication to the public of credible and evidence-based information through daily press conferences on the latest situation update, trends, associated risks, and actions being taken. Risk communication is a key aspect of shaping the course of a pandemic and empowering people to make the right decisions. To encourage protective behavior, individuals need information that is timely, accurate, and easy to understand. This can help limit the spread of misinformation that would otherwise cause panic or hysteria. It is essential to have a comprehensive risk communication strategy that is ethical and useful in the local context [106]. This strategy should be developed in collaboration with social scientists and experts in risk communication. The psychological impact of pandemic has also been documented [107]. An effective strategy must also address this problem. Both local and national rulers must be responsible and be aware that their opinions outside of scientific knowledge can lead to misinformation of their governed [108].

- Protecting the vulnerable in society.

There is now a consensus that the disease affects all age and condition groups but is disproportionately severe among older people and those with underlying conditions, such as hypertension, cardiovascular disease, and diabetes [26]. Therefore, there is a clear message that the elderly and people with underlying comorbidities must be protected in society and a family environment and not unduly exposed. Geriatric centers must be actively tracked by both the elderly and workers, and the taking of samples, timely delivery of results, and medical treatment must be guaranteed.

- Strengthening of scientific and medical institutions

Adoption of incentives for research, technological innovation, and production of appropriate health technologies for COVID-19 (medical equipment, respirators, reagents, protective equipment, etc.), promoting cooperation between countries, is needed. Regarding human resources, the professionalization of health professionals and epidemiologists under direct contracting schemes with official public health entities and not through outsourcing or indirect contracting schemes with hospitals and contact tracing centers is required to find suspected cases of COVID-19. It is necessary to mobilize the structuring networks of public health institutions for the organization of shared research, training of human resources, and technical assistance-cooperation appropriate to the situation. Additionally, it is important to strengthen laboratory testing capacity, biosafety protection awareness, and technical training, carry out health education and publicity, and communication of risks to citizens.

In a review of the measures and governmental strategies implemented by Europe and Latin America, we can find how in Latin America, before the pandemic, the International Monetary Fund (IMF) had forecast a growth of 1.6% in Latin America. On March 18, when the health emergency had been declared in the Americas, Credit Suisse forecast a 1.5% contraction of gross domestic product for Latin America in 2020, the largest since 2009, when the region contracted by 2%. By the end of 2020, ECLAC estimates a regional recession of  $-1.8\%$  with various risks of losses and a fall in regional exports of  $-10.7\%$  [118]. Latin America is the region of the world most economically affected by the COVID-19 outbreak, and before the health crisis it was already experiencing the lowest economic growth in decades, thus a special focus is placed on the economic impact and policies adopted [119]. To face this situation, the countries have adopted different measures to alleviate the economic crisis and job losses in the region: Renegotiation of external debt with international creditors, borrowing with multilateral organizations (such as the World Bank), postponement or reduction of the social security payments by the employer, reduction of personal and business taxes, financing of low interest to companies in productive sectors such as food, medical supplies, personal hygiene products, and essentials, for working capital and/investments and remote work, freezing of basic items in the family basket (for example, food and personal hygiene), subsidies for the unemployed in small and medium-sized companies (SMEs), among others (Table 1).

In Europe, according to the ILO, the percentage of work hours lost during 2020 was 4.1% in the first quarter, 18.1% in the second quarter, and 11.4% in the third trimester. It has been the second most affected region in the world in the first three quarters of 2020, only surpassed by Latin America. The measures taken to face the health and job loss crisis have been consistent in most European countries. On 2 April 2020, the European Commission established the European Instrument for Temporary Support to Mitigate the Risks of Unemployment in an Emergency (SURE), aimed at helping workers maintain their income and companies to support themselves, adapted the European Aid Fund for the Most Disadvantaged to ensure that food supplies can continue to arrive where they are most needed, specific aid to agricultural and fishing workers, and specific aid to management of the public health worth 3 billion euros [120]. So far, the combined response of the European Union (EU) countries has been 3.7 trillion euros distributed in joint measures by the countries, their central banks, and private banks [121]. Table 2 summarizes the measures adopted by countries of the European Union belonging to the OECD. Countries such as Japan have also been included.

Table 1. Detail by country of the economic impact and main policy measures adopted.

Country	Renegotiation of External Debt	Take International Loans with Multilateral Banks	Take Loans to Face Health Situation	Postponement of Social Security Payment by Employers	Financing Essential Sectors of the Economy	Working Capital Loans to SMEs	Refinancing of Mortgage and Consumer Debts to Individuals for Variable Terms	Tax Relief for the Hotel Sector	Approval of Disbursement to Banks by the Central Bank to Finance Personal and Business Loans	Temporary Unemployment Benefit
Brazil	x	x		x	X	x			x	x
Colombia	x	x		x The social security system guarantees the payment of a work disability to the worker infected by COVID-19 and empowers the general population to telework	X	x	x		x	x
Costa Rica			x	x		x			x	x
Dominican Republic						x	x	x	x	x
Ecuador	x	x		x				x	x	
El Salvador							x Refinancing payments for up to 2 years in public services.			
Guatemala		x	x					x	x	
Honduras	x	x	x	x	x	x	x			
México				x	x at 0% interest	x			x	
Panamá							x			x.
Perú				x	x	x				x
Uruguay				x	x	x			x	

Source: OECD Key Policy Actions in the Face of the Coronavirus (COVID-19) in Latin America and the Caribbean: Socio-economic Consequences and Policy Priorities. OECD [54].

**Table 2.** Summary of social and employment policy measures taken by countries to help workers and companies face the effects of COVID-19.

Country	Confinement Measures	Reducing Worker Exposure to COVID-19 in the Workplace	Financial Aid to Sick Workers and Their Families	Income Support for Quarantined Workers Unable to Work from Home	Income Assistance for People Who Lose Their Jobs or Self-Employment Income	Helps Companies Adjust Working Time to Retain Jobs	Financial Support to Companies Affected by the Drop in Consumer Demand	Changes in the Regulation of Dismissals	Helps Economically Insecure Workers Stay Home
Austria	x	x	x	x	x	x	x		x
Belgium	x	x	x	x	x	x	x		x
Czech Republic	x	x	x	x	x	x	x		x
Denmark	x	x	x	x	x	x	x		x
Estonia	x	x	x	x	x	x	x		x
Finland	x	x	x	x	x	x	x	x	
France	x	x	x	x	x	x	x	x	
Germany	x	x	x	x	x	x	x		x
Greece	x	x			x	x	x	x	x
Hungary	x	x		x	x	x	x		x
Iceland	x		x	x	x	x	x		x
Ireland	x	x	x	x	x	x	x		x
Italy	x	x	x	x	x	x	x	x	x
Japan	x	x	x	x	x	x	x		x
South Korea	x	x	x	x	x	x	x		x
Latvia	x	x	x	x	x	x	x		x
Holland	x	x		x	x	x	x		x
Norway	x		x	x	x	x	x		x
Poland	x	x	x	x	x	x	x		x
Portugal	x		x	x	x	x	x		x
Slovakia	x		x	x	x	x	x	x	x
Spain	x	x	x	x	x	x	x	x	x
Sweden	x	x	x	x	x	x	x		x
United Kingdom	x	x	x	x	x	x	x		x

Source: Policy responses to the COVID-19 crisis. OECD [54].

## 8. What Can History Teach Us?

Alessandro Manzoni, in his famous book *The Betrothed* (Italian origin: *I promessi sposi*) [122] written in 1827, tells in one of his chapters how the protagonist Renzo arrived in Milan at the height of the plague epidemic in 1630. Walking through the streets of an uninhabited and inhospitable city heavily hit by the disease, he finally sees a passer-by whom he approaches to ask him about a street, taking off his hat as a sign of courtesy, while the stranger, frightened because he thought he was an “untore” (those people who according to ancient tradition were believed to transmit this deadly disease), takes out a cane with a sharp iron tip and cries out desperately for the protagonist to leave [123]. Through Manzoni’s [123] brilliant description we can understand how the plague and the fear of its spread radically transformed the way people related to each other in the seventeenth century, provoking fear, mistrust, and generally limiting their contacts among a population that was afraid of their peers. Unfortunately, the effects of COVID-19 that have hit our cities has made us live again in a situation very similar to those narrated by the Italian writer.

There is no doubt that infectious diseases have played a fundamental role in shaping our societies throughout history. Diseases and epidemics such as the Black Death, Spanish flu, Cholera, Smallpox, Malaria, Ebola, Human Immunodeficiency Virus infection and Acquired Immune Deficiency Syndrome (HIV/AIDS), SARS, avian flu, and recently COVID-19 have impacted our societies, showing how vulnerable they can be to such threats. Through the study of epidemics, we can analyze how they have affected not only individuals but also have had a direct effect on demographic transformations, economic crises, religions, wars, revolutions, or on the very development of the public health system [123].

To answer the question of what historical analysis of epidemics over the last four centuries can teach us and, consequently, to be able to try to understand and anticipate the possible effects that our society may suffer from the impact of COVID-19, it is first necessary to understand the lessons that the great pandemics that have devastated humanity have taught previous generations. Populations have repeatedly responded to the multiple pandemics of plague by fleeing from cities, abandoning bodies unburied, causing chaos and unrest, or seeking solutions in religion and the help of the deities. However, at the same time, the authorities were also able to implement in some of these cities highly effective measures such as the appointment of powerful public health officials, who developed actions such as periods of confinement (quarantine), and created lazarettos and sanitary cordons.

It has been estimated that the Spanish influenza epidemic (so-called because Spain was the only country not to censor reports of the spreading epidemic) broke out in the summer of 1918 and killed 50 million people worldwide. Unfortunately, most doctors assumed that it would behave similarly to previous flu epidemics and dismissed it as a nuisance. It took a few years for scientists to understand that the flu was not a bacterium but a viral infection [124]. The uninterrupted movement of military personnel during World War One was one of the causes of the rapid spread of the contagion. In contrast, the other great twentieth-century epidemic, HIV/AIDS, has sickened 1,018,428 and killed nearly 583,300 Americans since the 1980s [125].

AIDS is believed to have originated in Africa where monkeys and apes harbored the simian immunodeficiency virus, which could be transmitted to humans, since the 1950s. In the 1980s, the HIV/AIDS epidemic had a devastating impact on the United States because of globalization, invasive modern medical technology (hypodermic needles, blood Banks, and invasive surgical techniques), the effects of homophobia (identification of HIV as a “gay plague”), and because of a prolonged period during which the country’s political leaders refused to address the growing public health emergency [126].

The 2002–2003 SARS pandemic became the first major health threat of the twenty-first century. Emerging in China’s Guangdong province in November 2002, SARS jumped as a global threat in March 2004 when the World Health Organization (WHO) declared a global travel alert. By July, the disease had been contained, affecting 8098 people, and causing



the death of 774. However, SARS demonstrated the vulnerability of the global system to a respiratory disease capable of spreading from person to person without a vector, it spread easily by air travel, and it had symptoms that closely resemble those of other diseases.

From 1976 to 2014, Ebola appeared in several areas of West and Central Africa, but the impact of the epidemic in the summer of 2014 was particularly devastating, as it moved from the remote forest regions of Central Africa to trigger an epidemic in Sierra Leone and eventually crossed the Atlantic to threaten citizens in Europe or the United States. It is important to note that the economic consequences of this pandemic were profound, hitting the public health systems hard and devastating sectors of great importance to the economy of these African countries, such as tourism, causing high levels of unemployment and poverty, similar effects to those already being suffered in many areas of the planet because of the impact of COVID-19 [127].

The study of these epidemics and pandemics shows how quickly medical knowledge can be nullified by the appearance of new pathogens and how, in the absence of laboratory knowledge and effective vaccines and treatment drugs, such epidemics have an unusual power to cause panic, hysteria, and fear.

Historical analysis of the impact of these diseases has taught us lessons that we have not always been able to remember and keep present in our societies. In a global world such as ours, epidemics are and will become global. Microbes understand no borders and responses to their devastating effects must therefore be global. There is nothing to suggest that new pandemics will not strike in the future. The process of climate change and population growth, together with the increase in social inequalities and the multiplication of the mobility of large masses of the population, are factors that will most probably be at the origin of the next pandemics we will have to face.

History shows us that maintaining a strong public health system makes it possible to reduce the impact of these diseases on our societies. As McMillen has mentioned, if we keep health systems woefully overburdened, the effects of pandemics will be much worse because of the limited possibilities that governments will have to respond adequately [127].

The late-nineteenth century laboratory revolution paved the way for the new era of modern medicine in which we are currently living. Major discoveries in biomedicine, such as those of German bacteriologist Robert Koch and his French counterpart, Louis Pasteur, who in the 1880s proved that tuberculosis was a bacterial infection, have enabled us to develop effective therapies and understand how to prevent infections. For this reason, it is important to strengthen research activities to improve diagnostics, treatment, and prevention, and to improve the understanding of the biology of infectious disease agents. However, it would also be a mistake to think that simply knowing the identity of a pathogen and the etiology of a disease is enough to control an epidemic.

However, at the same time as we are attacking the germs, we also need to improve social conditions, reduce the enormous inequalities that exist on our planet, and fight poverty with the same energy. History has also taught us for centuries that the worse the social conditions, the more devastating the effects of epidemics and pandemics are on these populations.

## 9. Possible Models of Economic Recovery

The current coronavirus crisis has led to a strong contraction of economies worldwide (explained in Section 3), a crisis derived not only from the public policies of lockdown but also from other protectionist measures designed to mitigate the effects of COVID-19 on health systems that were not prepared for this unexpected situation. This measure resulted in a sudden reduction in sales for businesses, leading to the destruction of jobs, as well as increased inequality and poverty.

Along with fiscal policy measures approved by governments to reduce the negative impact of the coronavirus pandemic on economic activity, central banks in advanced economies have responded quickly to the crisis, injecting liquidity into money markets and buying bonds to preserve both financial stability and effective transmission of monetary

policy [54,127–136]. For example, the European Central Bank [137] decided to temporarily launch the Pandemic Emergency Purchase Program (PEPP).

In the Euro Area (EA), the effects of the economic shocks derived from the crisis have not been symmetrical for all Member States, with Spain, Italy, and France being the most affected. The position of these countries at the beginning of the pandemic was quite weak, with very high public debt and with clear signs of not having fully recovered from the previous EA sovereign debt crisis. To recover, they should redesign their economic growth model, focusing on sustainability and digitization, in line with the trading model proposed by the European Commission [138]. This new sustainable economic model could boost growth, within a new international economic order.

As a result of the massive administration of effective vaccines against COVID-19, once the population is immunized, lockdowns and restrictions will be reduced, and stability and return to normality will be back. Thus, companies will regain confidence in their long-term business projects, laying the foundations for increased dynamics of economic growth, an economic order which will be based on the reopening of economies, the reactivation of international trade, and the deceleration of the process of deglobalization, that has already begun.

However, there is great uncertainty about the true nature of the change that will take place until that new international order is reached. Gruszczynski [129] argues that, once the pandemic is over, there could be a structural change in the process of economic globalization, whereas Altig et al. [130] highlight that, owing to the great uncertainty generated by the crisis, rapid economic recovery cannot be expected.

On the other hand, the COVID-19 crisis could act as a catalyst for changes in policies, both in the short and long term [131], as it has made governments and institutions react and become aware of the need for a structural change in their growth models along various dimensions: economic, social, and environmental. At the Online Ministerial Meeting that took place on 3 September 2020, between some of the ministers and high-level officials of the signatory Parties to the United Nations Framework Convention on Climate Change (UNFCCC) and the European Commission on behalf of the European Union (EU), an agreement was reached to implement a recovery plan based on various measures: short-term emergency measures to face the most immediate shocks of the pandemic, medium-term socio-economic measures to focus on the environment, and long-term measures to redesign a more sustainable and more resilient economic system. In this line, Japan plans to promote the use of renewable energies and digital governance in greenhouse gas emissions management, whereas the United Kingdom aims to strengthen both its industry while respecting the environment, and the construction sector through technological innovation, taking into consideration digitization, as well as energy transition measures [139].

In the United States, after the November 2020 elections, the president-elect has announced an economic recovery plan based on investments in research and development, technological innovation, renewable energy, and electric vehicles, amongst other investments. In the EU, the Recovery Plan for Europe, adopted in July 2020 by the European Council [140], is based on the measures presented by the European Commission a month before, and its financing will be articulated through the “2021–2027 Multiannual Financial Framework” and the “Next Generation EU”, an instrument which will be linked to the European Semester. This recovery instrument will be financed with funds (750 billion euros in 2018 prices) raised on the capital markets through bonds issued by the Commission on behalf of the Union.

These funds will be allocated to Member States (390 billion euros in grants and 360 billion euros in loans, in 2018 prices) to finance: the necessary investments and reforms to deal with the crisis (672.5 billion euros managed through the “Recovery and Resilience Facility”), the relaunch of the economy through incentives for private investment, and the creation of a new EU4Health prevention program based on the lessons of the crisis. The requirement for the Member States to be able to access this funding is that they present a national recovery plan. Furthermore, the European Commission [138] has identified the

priority of investing in job creation and protection, as well as in sustainability to achieve a fairer, greener, and more digital Europe. Digitization should be promoted in all areas of the economy and society to ensure that in the coming years, recovery is fairer and more socially inclusive. As a growth strategy, the Commission highlights the “European Green Deal”, which aims to make the economy of the EU Member States sustainable through measures that turn climate and environmental challenges into opportunities [141].

This more sustainable model could be developed within the framework of the circular economy, introduced by the EU some years ago. Going one step further, the European Commission [138] has recently proposed a new action plan for the circular economy, that aims to promote an even more sustainable economic growth model in the EU. The transition towards a circular economy involves a paradigm shift, insofar as it allows more efficient use of resources, besides respecting and caring for the environment to a greater extent than in the traditional linear economy. The objective of this new plan is to achieve sustainable development in its three dimensions, economic, social, and environmental, in line with the concept of sustainability of Korhonen, Honkasalo, and Seppälä [133]. Finally, it should be noted that some recent studies have analyzed possible models for economic recovery. Thus, using the “computable general equilibrium model”, Lahcen et al. [134] argue that a good strategy for economic recovery could be based on energy efficiency measures in the construction sector through public subsidies. However, this model has its limitations, since the study was developed for a small open economy, as it is in the case of Belgium.

## 10. Conclusions

SARS-CoV-2 has a strong direct acute impact on population health, not only at the physiological level but also at the psychological level for those who suffer it, those close to them, and the general population, who suffer the social consequences of the pandemic. In this line, the economic recession increased, even more so, the social pressure. At the social level, the economic impact hit the most vulnerable families, creating a difficult context for public institutions to address. We are facing one of the greatest challenges of social intervention, which requires fast, effective, and well-coordinated responses from public institutions, the private sector, and non-governmental organizations to serve an increasingly hopeless population with increasingly urgent needs. Long-term legislation is necessary to reduce the vulnerability of the less fortunate, as well as to analyze the societal response to improve the social organization management of available resources.

A possible line of future research in relation to the economic recovery model proposed by the European Union during the pandemic could consist of a comparative analysis of the results obtained by the Member States. This analysis of results could be statistically contrasted, through a panel data model, according to the degree of compliance with the recovery plans submitted by the Member States and the funding received from the European Union. In addition, the impact of COVID-19 pandemic on mental health population must be considered since it would also affect the social, health and economy worldwide [142–144].

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