Brief Report

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Corresponding author:

Nicolás Gemelli,
Email: gemellinicolos@gmail.com.

Management of COVID-19 Outbreak in Argentina: Stage 2

Julian Cereghini¹ and Nicolás Gemelli MD²

¹Department of Urology, Hospital Italiano de Buenos Aires, Buenos Aires, Argentina and ²Intensive Care Department, Hospital Italiano de Buenos Aires, Buenos Aires, Argentina

Abstract

Objective: With the intention to try to contain the spread of the viral disease, several measures were taken in Argentina for long periods of time.

Methods: The lack of labor activity, social constraints, and a strong sense of helplessness, combined with a complex economic scenario with recession, inflation, and devaluation, led to the emergence of a dense climate of discontent.

Results: After a second wave hit the country, several measures were reinstalled. The Argentine society, polarized in many aspects, was further divided between those who supported the re-establishment of strict measures to help prevent further infections and those who desperately claimed for the urgent need to return to work to sustain their livings.

Conclusions: The preexisting problems to which developing countries are usually exposed have been sharpened over the last year, determining a very complex scenario where every decision is important for the country's future. An updated report of the current situation and its management in different countries is of vital importance regarding global health issues and may serve for feedback and decision-making.

The onset of this pandemic was characterized by the spread of a virus as virulent as underestimated. To try to contain the situation, extreme measures were taken all around the world, such as complete lockdown and sealing of the borders.

Argentina, an upper middle income Latin American country with a total population of 45,808,747 people, gross national income (GNI) per capita of 11,130 US dollars and with a total expenditure on health of 4.79% of gross domestic product (GDP), took preventive measures before the virus was detected in the country and hardened them even more when the first cases began to appear.¹ Those measures, which included national lockdown, sealing of the borders, cancelation of flights and most transport facilities, and use of facemasks, helped to mitigate and postpone the effects of the first wave, showing a peak in the number of deaths that did not appear until October 2020 (Figure 1).

The lack of labor activity, social constraints, and a strong sense of helplessness, overimposed on a complex economic scenario with recession, the ever-present inflation and a forced-contained devaluation, led to the emergence of a dense climate of discontent. Social support programs were launched at initial stages of the pandemic, triggering debate on the capacity of this last measure to contain the dramatic economic situation and its possibility to worsen the financial crisis.

The fight for survival showed 2 faces and turned the discussions into whether to continue with strict protocols and lockdown to prevent contagion or to slowly return to the normal activity to avoid a deepening of socioeconomic^a problems. The rise of Argentina's poverty level to almost 42% and the consequences of 8 mo of economic inactivity helped drive the arguments in favor of the second position. Based on the steady number of daily new cases, a nonsaturated health-care system and the persistent isolation, the population started to claim for the cessation of restrictions and a gradual return to the exercise of the usual activities, a process that started on November 6, 2020, after the announcement of the lockdown's end. Most working and leisure activities were allowed, people took vacations, and social gatherings began to appear together with transgressions, clandestine parties, and clear protocol violations.

The effects would soon show up: a first peak in the number of cases from mid-December to mid-January, although this had no impact on the activities that were allowed at that moment. This first increase could have been associated with the summer holiday season and Christmas celebration. However, schools were allowed to dictate classes face-to-face on March 1, after a

^aHoused in the Johns Hopkins University (JHU) Center for Systems Science and Engineering (CSSE), which takes a multi-disciplinary approach to modeling, understanding, and optimizing systems of local, national, and global importance. CSSE uses the expertise of researchers from the schools of Medicine, Public Health, Nursing, Arts and Sciences, Business, and Education; and from JHU's Applied Physics Laboratory, already one of the nation's leading centers of systems engineering. They have been tracking the COVID-19 spread in real-time on their interactive dashboard with data available for download.

Figure 1. Total number of deaths over time in Argentina. Source: JHU CSSE COVID-19 Data¹.

Figure 2. A, Absolute number of cases over time in Argentina. B, Absolute number of COVID-19 tests in Argentina. C, Absolute number of people vaccinated over time in Argentina. With blue line, those with both doses, in white line those with 1 dose. Source: JHU CSSE COVID-19 Data.

year of suspended activities. It was a very tough decision with divided opinions among members of the government.

In April, after 2 mo of relative stability, a second peak hit the country in concordance to the untimely appearance of new variants of the virus^{2,3} and the Easter holiday celebration. This peak could also be attributed to an increase in testing, which paralleled the rise in the number of coronavirus disease 2019 (COVID-19) cases and deaths, with more than 22,000 new cases each day (Figure 2A and B). By that time, Argentina ranked 13 with the highest number of cases per day, despite the fact of being the 1 with the lowest population (after Poland). By that same time, only 5,201,468 people had been vaccinated (1.6% of the total population), placing Argentina 22nd in the global ranking, after Bangladesh (with 5,821,476 people vaccinated) (Figure 2C). In the midst of one of the most critical situations since the beginning of the outbreak and with the winter season ahead, the shortage of vaccines and the lack of future contingency plans did not make things easier. The decision to only apply the first dose and delaying the second one for a period 4 times longer than recommended

(from 3 to 12 wk), would allow local authorities to gain some time. Since this marked rise in the number of covid confirmed cases, the occupancy of intensive care unit (ICU) beds rapidly reached 100% in most public and private hospitals. The announcement of a complete 15-d lockdown was made on April 14, following the expert committee recommendations.

This last measure included closing schools again, offering public transport service for essential workers only and restricting recreational and leisure areas until 7 PM and forbidding circulation from 8 PM to 6 AM.

Discussion

When analyzing the scenario from a global perspective, we can clearly see the reasons for this second wave and its severe consequences. The emergence of new virus's variants, some of them in neighboring countries such as Brazil, together with the refloat in the number of cases in other territories, a poor immunization

Figure 3. Changes in the mobility and permanence of the citizens of Argentina. A, In shops. B, In workplaces. C, In homes. Source: JHU CSSE COVID-19 Data.

Figure 4. Number of cases after openings of schools. Source: JHU CSSE COVID-19 Data.

rate, and people's behavior could have served as predictors of what the Argentine society is now trying to overcome with major efforts and extreme measures.

At the beginning of the pandemic, lockdown marked a new pattern of people's mobilization with a clear decrease in the flow of people going to shops and working areas and a marked increase of the circulation of citizens in open spaces, transport stations, entertainment facilities, and working areas would be detrimental to their mobility in residential areas (Figure 3), showing a gradual transition toward previous normality.

In an already economically, socially, and ideologically polarized society, the announcement of the new lockdown and the closing of schools, made this gap even more profound. The former governor for the city of Buenos Aires opposed the presidential decree and took the case to court. Many people took to the streets to argue against the presidential decision as well, arguing that education

was a priority and that under strict protocols, schools would not be a place of major viral transmission.

Regarding the impact of school opening, we see that the number of cases did not significantly increase during the first month but it did in the following months (Figure 4). However, due to the multifactorial characteristics of the viral spread, it would be difficult to link this increase only to school openings.

After the implementation of measures announced on April 14, the number of cases did not decrease significantly even though they might show a slight decrease by mid-June.

Conclusions

The preexisting problems to which developing countries are usually exposed have been sharpened over the past year, determining a very complex scenario where every decision is important for the country's future.

The Argentine society, polarized in many aspects, was further divided between those who supported the re-establishment of strict measures to help prevent further infections and those who desperately claimed for the urgent need to return to work to sustain their livings. Basic cohabitation agreements pose a challenge that requires consensus against this critical situation.

The second challenge emerges from the need to capitalize what was learned during the first year of the pandemic. In this way, our efforts would work to face the present situation with greater knowledge and better preparedness, thus minimizing the impact in the different areas.

An updated report of the current situation and its management in different countries is of vital importance regarding global health issues and may serve for feedback and decision-making.

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