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Hot News

COVID-19 in Madrid: Leading Pandemic Control after being the Spanish Epicenter

The arrival of coronavirus disease (COVID-19) in Europe exploded initially in North Italy and soon thereafter at several other major European cities, including Madrid. Indeed, Madrid was the epicenter of SARS-CoV-2 infection in Spain, with a dramatic surge of cases since mid-March 2020. Collapse in hospitals (Moreno-Torres et al. Medicine [Balt] 2021) forced lockdown and home confinement for nearly 2 months.

The first wave of COVID-19 was associated with high mortality, particularly among older people living in nursing homes (Bouza et al. J Infect. 2020), and health-care professionals, often challenged by a lack of enough protective equipment (Soriano and Barreiro. TAID. 2020). Despite the unprecedented socioeconomic and health impact, no more than 12% of the 6.8 million population in the Madrid region had been infected at the end of the first wave, as supported by antibody studies (Pollán et al. Lancet. 2020; Soriano et al. Clin Infect Dis. 2021).

Following relaxing measures during the summer 2020, the return to schools and jobs in September was accompanied by a second wave of COVID-19. By then, restrictions were less unspecific and mostly centered in social distancing and universal face masking, allowing to keep alive jobs as much as possible. Then, nursing homes were protected, hospitals more prepared, and SARS-CoV-2 infection and disease better managed. A large proportion of new cases were diagnosed in young people. At the end of this second wave, up to 20% of the Madrid's population had been infected (Soriano et al. Int J Infect Dis. 2021).

A third wave of COVID-19 occurred in Madrid in January 2021, largely driven by frequent familiar indoor gatherings during Christmas (Fig. 1). Moreover, the arrival of the more transmissible UK B.1.1.7 variant most likely contributed to rapid spreading of the coronavirus. However, antigen rapid tests played an important role in early diagnosis and rapid isolation of infected persons. By Easter, antibody surveys showed that roughly 25% of the Madrid's population had been infected with SARS-CoV-2 (Soriano et al. Int J Infect Dis, 2021).

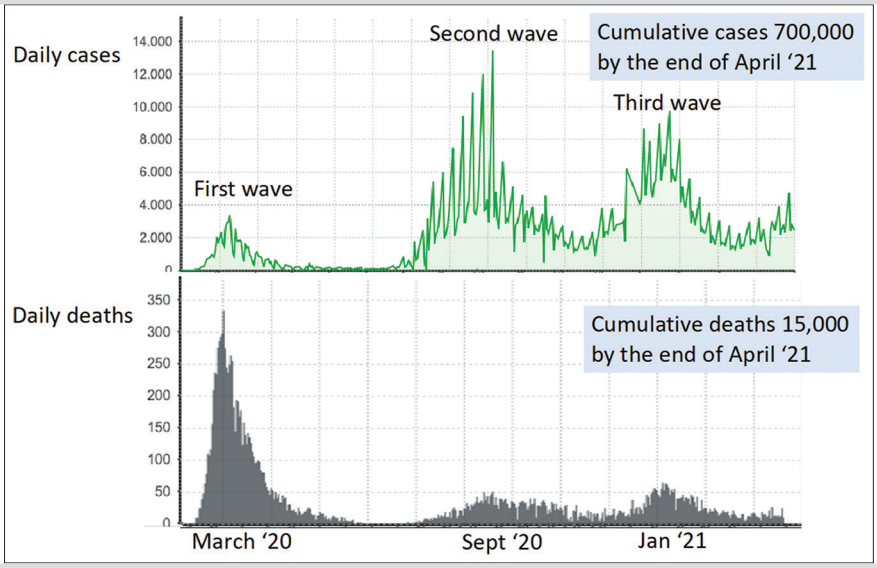

Figure 1. *COVID-19 in Madrid.*

The advent of vaccines and accelerated immunization programs has contributed to preclude new surges of COVID-19. By the end of April 2021, up to 2 million people (30% of the population) had received at least one vaccine dose in the Madrid region. Importantly, immunization of the most vulnerable groups, including the elderly, chronic patients, and health care workers had been completed.

Besides being immunity reached by half of the population as result of either natural infections or vaccines, a third factor has contributed to ameliorate the impact of COVID-19 in Madrid. It is the opening of a large temporary hospital exclusively devoted to COVID-19 patients. With more than 1000 beds, this facility has significantly released pressure from regular hospitals (Candel et al. Rev Esp Quimioter 2021), allowing to continue regular surgery and medical care for other illnesses.

In summary, COVID-19 has been an unprecedented health crisis in Madrid. Fortunately, a light seems to be viewed at the end of the corridor nowadays, and activities slowly return to normality. The price, however, has been very high, with more than 15,000 deaths.

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