

## POINT OF VIEW

## Pre- and postpandemic emergency services: similarities and differences

*Servicios de urgencias y de emergencias prepandemia y pospandemia: en qué se parecen y qué los diferencia*Xavier Jiménez-Fàbrega<sup>1</sup>, Javier Jacob<sup>1</sup>

The ignored catastrophe. This phrase is a headline usually used when talking about climate change. But what if we apply it to public healthcare in Spain? Indeed, it would not surprise us, and we could claim to agree. As we write these words, there are demonstrations all over Spain demanding greater investment in healthcare. The COVID-19 pandemic would be the big shake-up that would turn around Spain's ailing public health system. We emergency physicians even thought: at last, the specialty of Emergency Medicine (EM) would be approved, a specialty that has been demanded for more than 20 years and promised by all governments, without exception.<sup>1</sup> The pandemic has shown in EM that, although hospital urgency and prehospital emergency are a continuum of care, there are differentiating aspects between the two. Although they have the common objective of responding to those affected, they are experienced differently.

Following the pandemic's first waves, the emergency device activity trend has been increasing. Thus, throughout the year 2022, it has approached pre-pandemic levels. This past period is referred to as "normality."<sup>2</sup> However, let us not forget that in 2019 we had already seen a progressive increase in healthcare activity in all emergency departments. That year was the year of maximum activity. For example, Figure 1 shows the evolution of emergency departments with triage level III-IV in Catalonia. At the same time, in 2019, there were a total of 27 961 698 visits to hospital emergency departments (ED) in Spain, which is 4.2 million more visits than ten years earlier.<sup>3</sup>

Hospital emergency departments have been under constant pressure for decades. The flu epidemic is in the news every winter.<sup>4</sup> In recent years, the impact of heat waves has been added to this, which has also put EDs under considerable pressure at a time of year that is particularly complex due to the holiday period.<sup>5</sup> The list of causes that have led to this situation is varied. The high demand for urgent care by society is well known, characterized by flows that are not ordered according to the complexity of the health problem. Therefore, there needs to be more use of resources.<sup>6</sup> The aging of the population brings with it increasingly

complex health problems that lead to greater consumption of health care resources, including emergency devices. Furthermore, concerning this circumstance, more socio-healthcare support must be needed to facilitate the drainage and availability of acute beds in hospitals.<sup>7-9</sup> Scientific and technological advances in medicine have also reached the ED, making the care process more complex. Various emerging processes have had to be dealt with using the code formula (infarction code, stroke, suicide, polytrauma, sepsis.) to ensure proper coordination of out-of-hospital and hospital resources.<sup>10</sup> In more than a few cases, hospital management teams or managers turn their backs on the ED. Even the public financing system rewards programmed surgical activity with a financing system that favors this activity to the detriment of emergency medical activity. We must recognize that the lack of the specialty of EM causes a training deficit in emergency professionals that impacts the management of decision-making in the care process.<sup>2</sup> "Your safety, our specialty", one of the mottos of emergency physicians. All these causes disappeared during the pandemic, except for the lack of EM specialty. The EDs would face a situation where demand exceeded the supply of healthcare resources. However, the situation was a paradigm of the correct use of available resources. The population, first in confinement and then deconfined, adequately used the healthcare devices, avoiding going to the hospitals for minor processes. Fear also played a role in this circumstance, making it possible for human resources to concentrate on patients whose care needs were vital. We witnessed maximum efficiency in draining admitted patients from the ED to the inpatient or intensive care wards. Financial investments were made to increase structural resources. The recruitment of healthcare professionals at all levels was reinforced. The healthcare teams were reorganized to carry out a cross-cutting activity. All are working towards the same objective, and the EDs were emptied of patients in the corridors.<sup>2,11</sup>

In the case of out-of-hospital emergencies, a large part of Spain has emergency services linked to primary health care. One of these services is the primary care

**Author Affiliations:** <sup>1</sup>Plan Nacional de Urgencias de Cataluña (PLANUC), Barcelona, Spain.

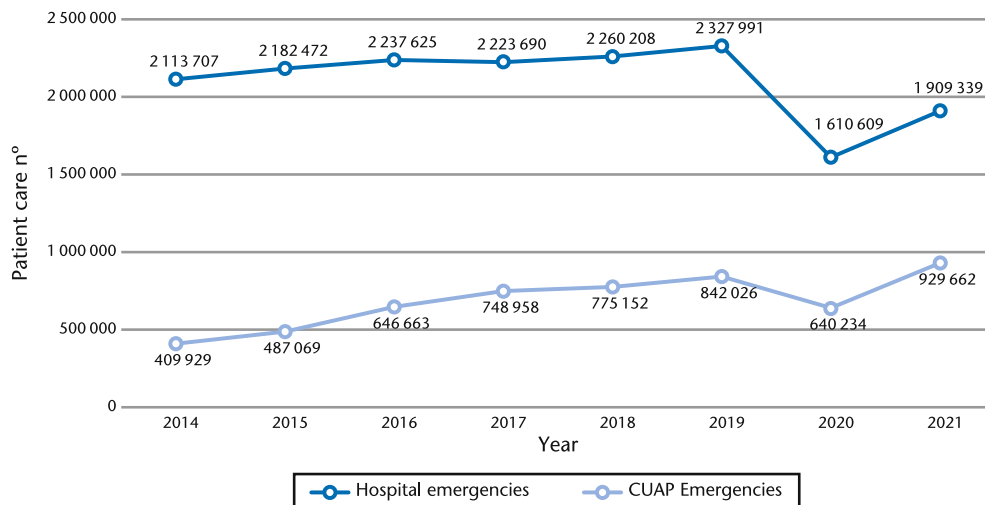
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**Corresponding Author:** Javier Jacob. Emergency Department. Hospital de Bellvitge. C/Feixa Larga s/n. L'Hospitalet de Llobregat. 08907 Barcelona, Spain.

**Email:** jjacob@bellvitgehospital.cat

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**Figure 1.** Activity in hospital emergency departments and primary care emergency centers (CUAP) in Catalonia: number of patient attendances with triage levels III-IV, between 2014 and 2021.

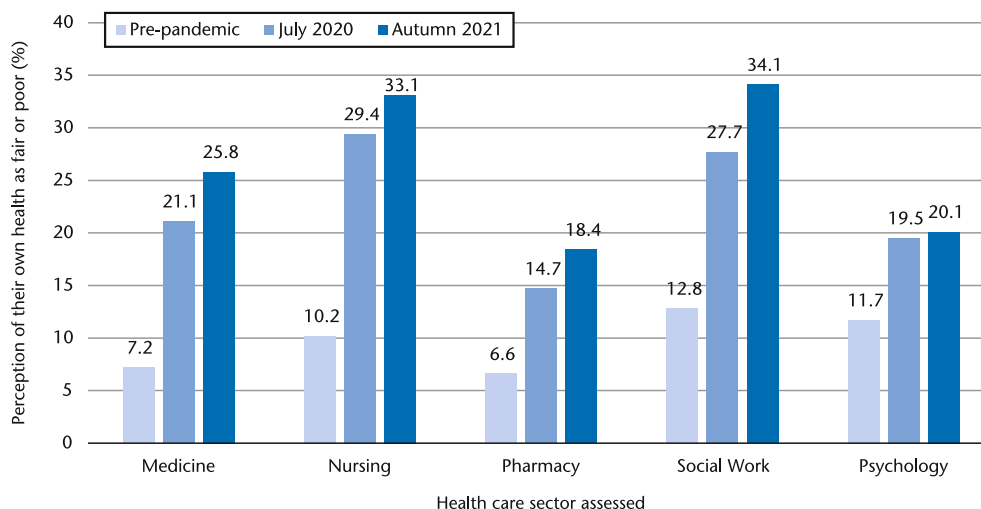
Source: Servei Català de la Salut information systems (Pla Nacional d'Urgències i Emergències de Catalunya-PLANUC). Data not published.

emergency center (CUAP). These facilities, integrated to a greater or lesser extent in the emergency care network, are designed to respond to urgent, low-complexity demands. The historical evolution in the appearance of these devices follows a reproducible pattern in the territories in which they have appeared. From a reality based on the urgent care provided in the ED, the increase in activity and the analysis of the profile of the patients attended, and the level of severity of the reasons for consultation, its creation is proposed as a space differentiated from the hospital. In this way, a differentiated proximity response can be given, as it does not require the same resources, to urgent consultations of lesser severity and a diagnostic complexity appropriate to the available resources. For many public health users, these devices have been a discovery, equipped with professionals and equipment to offer a high level of resolution to many non-complex urgent situations. In addition, these devices are attempting to transform, structure, and reorganize emergency care to make it more rational and efficient. The pandemic has provided interesting data on the population's behavior when choosing the center where they want to visit. Its activity has been progressively increasing since 2014, parallel with opening of new centers. Like the rest of the devices, as a result of the pandemic, in 2020 in Catalonia, the CUAPs suffered a decrease in activity that has recovered throughout 2021, where it already exceeds the activity of 2019, unlike the activity of the HEDs in 2021 had not yet reached pre-pandemic activity (Figure 1). Subsequent analyses will allow us to assess whether these trends continue and confirm the role of CUAP in the resolution of the activity of these centers.

As for out-of-hospital emergency services, they have suffered a differential impact because of the pandemic. On the one hand, the activity in the emergen-

cy coordinating centers (CCU) was multiplied to unimaginable levels, going from a baseline activity of fewer than 6000 calls per day to peaks of more than 60 000 during March and April 2020. A brutal, unexpected, abrupt impact arose from the population's reaction to ask for help and find support when they could not find it at other levels of care, together with the fear, as mentioned above, of turning to what had been the natural resource for decades, the ED. This situation posed a logistical, technological, and personnel management challenge that required a rapid response. Human resources were increased in the CCU, and circuits were created with primary care and the ED, virtual visit protocols, re-call in case of inability to attend the initial call, and centralized and territorial coordination of intensive care beds, among others.<sup>12</sup> It has been possible to observe confidence in devices and professionals that were there before the pandemic but were not used with such conviction. This behavior has been replicated in the different waves of the pandemic to different extents and with lower, although not negligible, peaks. On the other hand, in out-of-hospital care in the field, the activity level related to primary emergencies and emergencies tended to decrease, partly due to the mobility restriction. This decrease reached spectacular figures in time-dependent pathologies such as code ictus and code infarction, with decreases of up to 40% compared to the weeks prior to March 2020, or the virtual disappearance of polytrauma patients.<sup>13-15</sup>

On the other hand, the number of patients requiring critical care units has overwhelmed the system. When the need is tight, it is necessary to reinvent oneself. Prioritization scales were developed for critical patients to order the referral of those patients who could benefit most from the most complex services, and non-face-to-face support networks were established for



**Figure 2.** Health professionals with perception of their health as fair or poor. Source: Galatea Foundation.

the almost improvised semicritical teams in less complex hospitals.<sup>16</sup>

The field of research should be remembered. The pandemic created a knowledge gap in medicine in general and in EM, leading to the creation of working groups in the field of EM, such as the SIESTA network,<sup>17,18</sup> or the broadening of the research vision of other already consolidated groups, such as the OHSCAR group.<sup>12</sup>

Finally, consider the health status of professionals. In that case, it has suffered a severe impact because of the effort made during the pandemic, and emergency teams have not been an exception. The Galatea Foundation, linked to different professional associations, dedicates its efforts to caring for sick professionals. In addition, since the pandemic broke out, it has been monitoring health professionals' physical and mental health. According to the latest survey conducted in the fall of 2021, the perception of health status among professionals has remained the same. Before the pandemic, 8.3% of professionals perceived their health as fair or poor; today, that percentage is 25%. Even more than after the first wave, when it was 23%.

Nursing (33%), social workers (34%), and physicians (25.8%) are at the top of the most negative values (Figure 2).<sup>19</sup> We have not found references to the impact on emergency health technicians (EHTs). However, as members of the teams, we can suspect that they cannot have avoided its effects, especially when there are data on the professional burnout they have been suffering since long before the pandemic, even more so than other health professionals.<sup>20</sup>

After these three years, and with all that has been said, the only difference between pre-pandemic and post-pandemic emergency services is the health of the professionals. Beyond this, there are no other differences, especially regarding care activity. However, if there are significant differences, they are probably not tangible. What has been demonstrated is the EM's capacity to react to an extreme situation. We now know that, in

a situation similar to the one we have experienced, we will be able to respond to the challenge at all levels of care. We need policymakers to support us and provide us with the necessary resources.

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