



LESSONS LEARNED IN THE  
ARGENTINE TRANSPORT SYSTEM

# RESEARCH ON CRISIS MANAGEMENT AND RISKS ASSOCIATED WITH THE 2020 CORONAVIRUS PANDEMIC

## LIST OF ABBREVIATIONS AND ACRONYMS

**AMBA:** Metropolitan Area of Buenos Aires

**ASPO:** Social, Preventive and Compulsory Isolation

**DSB:** Dutch Safety Board

**JST:** Transport Safety Board of Argentina

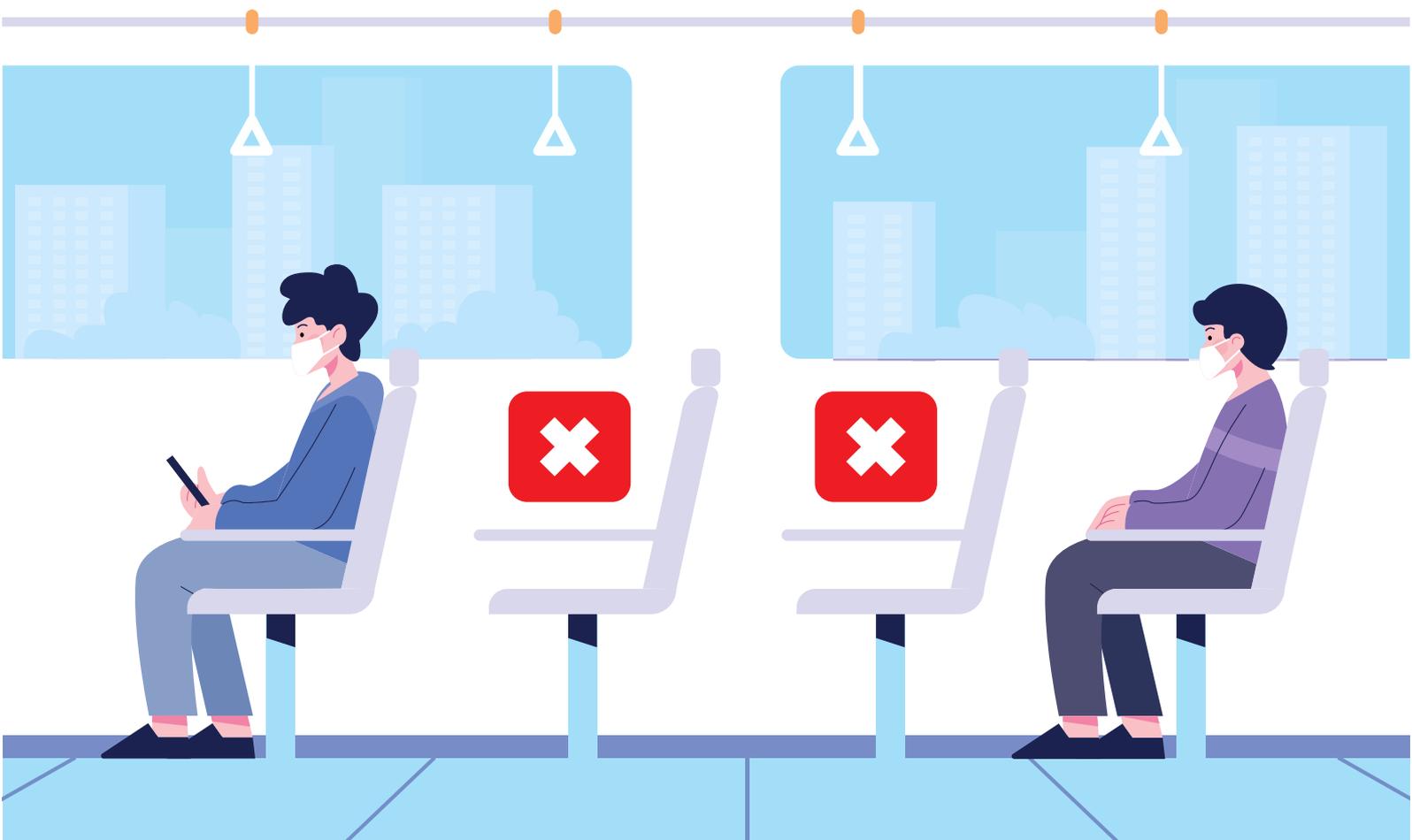
**WHO:** World Health Organization

**OSFE:** Rail Health Insurance

**PEN:** National Executive Branch

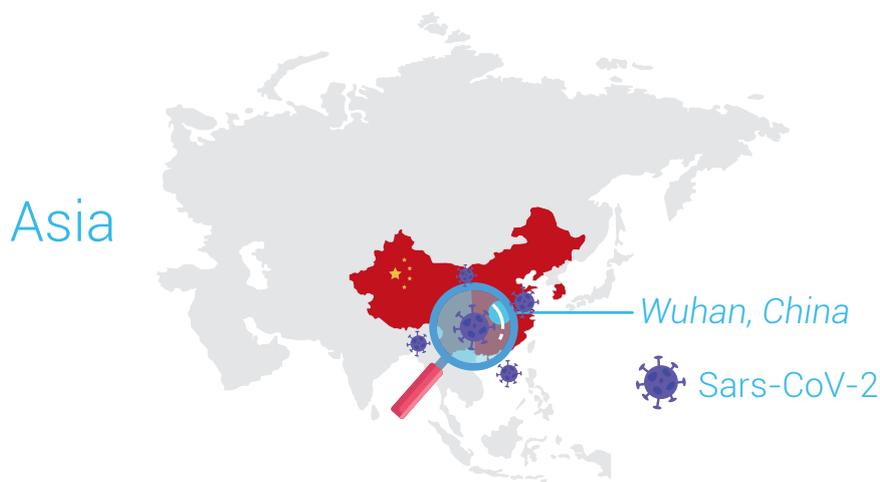
**SP:** Service Providers

**SIAF:** Safety Investigation Authority of Finland

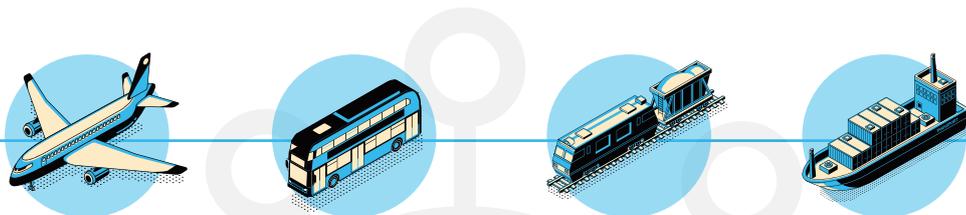


## PROVISIONAL REPORT

On 31 December, 2019, an unusual strain of pneumonia was identified in the city of Wuhan (capital of the Hubei province, China). A new variant of the coronavirus, the Sars-CoV-2 virus, was identified as the cause of this disease, and it was established that the virus had been transmitted from animals to humans as one of the most plausible hypotheses. The virus initially circulated within the People's Republic of China, spreading to Europe in January 2020 and later to the Americas. On 3 March, 2020, Argentina's first COVID-19 case was detected in a passenger arriving on a flight from Italy – until then, the European country with the most registered cases of coronavirus. **On 11 March 2020, the World Health Organization (WHO) declared a pandemic.**

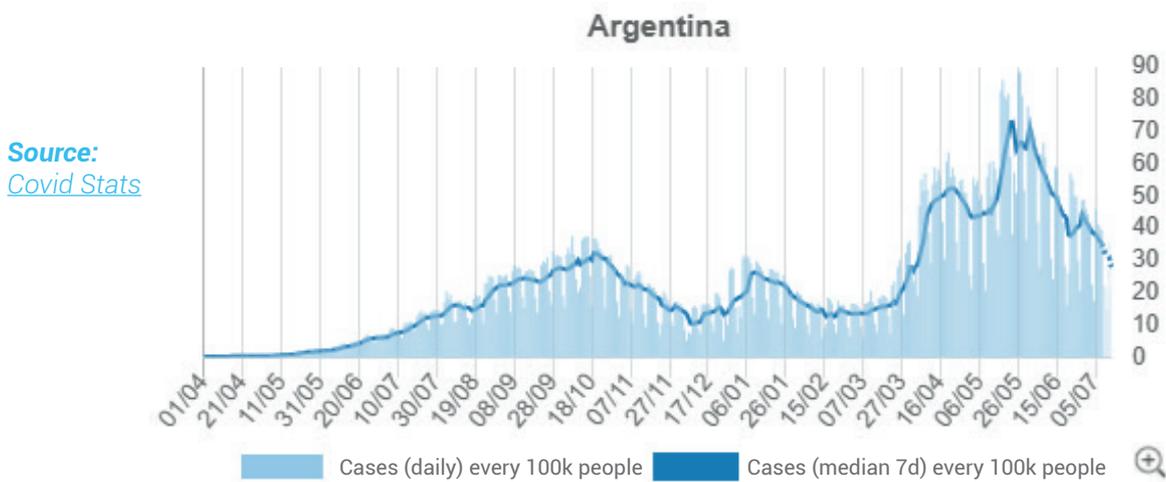


In this context, the Argentine State adopted exceptional and emergency measures to face the pandemic. On 12 March, 2020, the National Executive Branch (PEN), in use of its powers granted by the National Constitution, issued **Decree 260/2020** declaring a sanitary emergency. This decree called for the adoption of measures to contain the spread of the new coronavirus in the country, which implied the suspension of various functions and activities: **it interrupted transport continuity or drastically reduced its frequency; most jobs and educational activities shifted to teleworking; public areas were closed and mass events were suspended; social gatherings were prohibited; and the mandatory isolation of persons susceptible to having contracted the disease was established.**



The Ministry of Health was designated as the authority responsible for the implementation of the health emergency. These provisions were included in the measures of Social, Preventive and Compulsory Isolation (ASPO) established by the PEN on 20 March, 2020, by **Decree 297/2020**, extended on subsequent occasions.

During **April 2020**, the epidemiological curve in the country remained under control, with a **rate of infection below 0.31 infected persons per 100 thousand inhabitants**, with particular incidence in the Metropolitan Area of Buenos Aires (AMBA), where most international flights arrived, which at that point operated as the main vector for the movement of the virus, as there was still little or no community circulation. Since then, the curve continued to rise until October, when Argentina reached the highest peak of infections in 2020.



In the context of the health crisis currently faced by the international community, **the Transport Safety Board (JST) identified the need to carry out an investigation that extends its scope to exceptional events, in line with the activities developed by the safety boards of countries such as Finland (Safety Investigation Authority of Finland, SIAF) and the Netherlands (Dutch Safety Board, DSB).** An **exceptional event** refers to an event of unusual severity (which may or may not be an accident) whose consequences impact on the basic functions of society, such as operational continuity and the provision of essential services, operational and health safety, the environment, etc. In the face of such events, governments may define exceptions, which entail measures restricting freedom of movement, right of gatherings, movement of people and transport, among others.



Finnish Safety Investigation Authority-SIAF



Dutch Safety Board-DSB

The JST is a decentralized agency within the orbit of the National Ministry of Transport that aims at **contributing to transport safety** in all modes of transport, through:

- 1) **the technical investigation of transport accidents and incidents**
- 2) **the development and issuance of effective safety recommendations** (based on the results of such investigations) and action plans for their implementation (Act 27.514/2019).

To carry out the investigation activities and the issuance of the corresponding safety recommendations, **the JST implements its own work methodology based on the systemic model of accident investigation**. This model allows for the understanding of the concept of "accident" as an event resulting from the unanticipated interaction of multiple failures in a complex system, where the complexity is given by the interrelation of components -subsystems- of social, technological and even biological nature

Finally, **the JST is also legally empowered to carry out specific studies**, investigations, and special reports on transport safety, independently of the investigations carried out on the basis of transport events (see conceptual framework).



6 August, 2020 marked the beginning of the JST study entitled "**Lessons Learned in the Argentine Transport System. Research on Crisis Management and Risks Associated with the 2020 Coronavirus Pandemic**". The scope of the study was defined by the question that gave rise to the research: **What were the crisis management strategies and practices in the face of the COVID-19** pandemic implemented by the organizations in multimodal transport **to maintain operating continuity, safety and worker health safety** in Argentine public transport during the pandemic period, from 3 March, 2020 (patient zero in Argentina) to 31 August, 2020?



The [research project](#), published in September 2020, established **the objective of identifying and systematizing the crisis management, safety management and health management strategies and practices implemented by the organizations in the Argentine transport system in the context of the SARS-CoV-2 pandemic, between March and August 2020**. As this was the first wide-scope investigation carried out by the JST, as well as the first exceptional event investigated, a descriptive design was adopted.

The research team put together by the JST included researchers from all the areas that make up the agency and was headed by the National Department of Accident Assessment and Monitoring. It also received the collaboration of specialized external advisors: Dr. Nayme Gaggioli, Dr. Humberto Reynoso, and Dr. Marcelo Muro.

Within the research framework, a **corpus of studies** related to the subject under investigation, developed by specialists from different countries, was systematized. This repository is organized according to the mode of transport and is currently published on the JST website.

The conceptual framework of the project was developed on the basis of the notion of "**normal accident**" as a structuring axis. The normal or systemic accident is characterized by its unpredictability and inevitability. It is typical of complex systems where unexpected couplings and interactions occur (Perrow, 1984).

In order to promote a culture of open data, the work includes the participation of a **collaborative network composed of national transport entities, including policy-making, regulatory and oversight bodies, public and private service providers, transport chambers, and unions.** These entities were invited to participate in the research through invitation letters sent by 15 October, 2020. Meetings were also held with the DSB and SIAF.

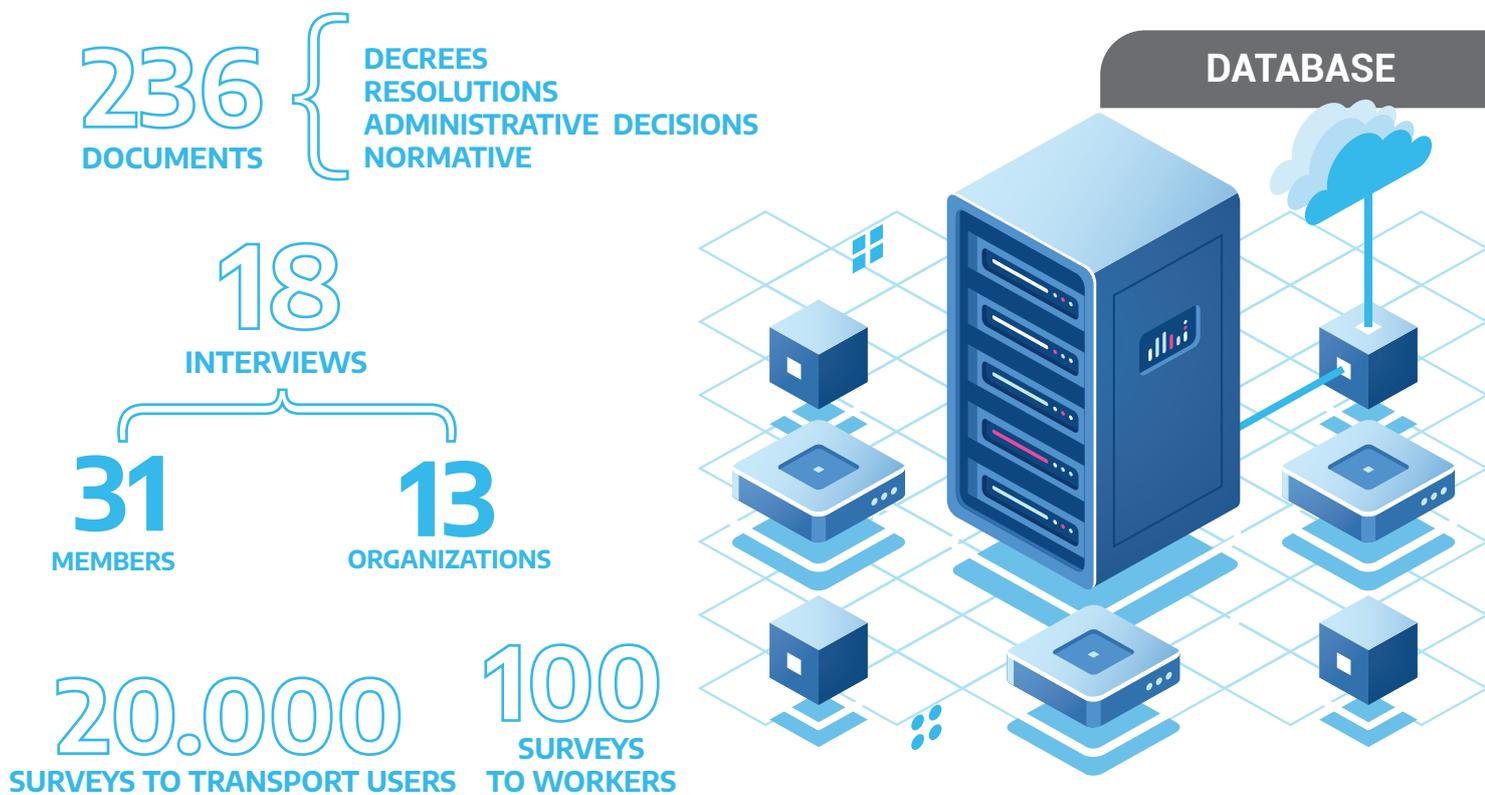
### Colaborative network



As a first step, in order to meet the research objectives, **236 documents** (decrees, resolutions, administrative decisions, etc.) issued by the Argentine State in the framework of the management of the pandemic crisis (with impact on the transport system), were collected and systematized. Subsequently, a **report analyzing the regulations collected** was prepared.

Secondly, the research team conducted **18 semi-structured interviews with a total of 31 participants, members of 13 transport organizations** belonging to the collaborative network. In most of the meetings, between 2 and 3 people from different areas of the organizations were interviewed, which explains why the number of interviewees was higher than the number of interviews carried out.

The interviews were carried out with the objective of investigating the strategies developed by key organizations in the transport system, identifying critical factors and formulating the lessons learned. In line with the research objectives, the interview guides focused on three dimensions: safety risk management, crisis management, and health risk management. The **interviews are currently being processed in an auxiliary software for qualitative data analysis**. For this purpose, it was necessary to create a coding manual, a tool that enables the processing and classification of the large amount of information by thematic areas, with the goal of writing a final report.



Likewise, during the month of October 2020, **20,000 surveys were conducted among public transport users** in all provinces of the country and **100 surveys were carried out among workers and senior personnel** of aviation, rail, cargo and passenger road, and marine and inland waters transport. The former inquired about transformations in the users' practices, uses, and impressions in relation to transport during the pandemic, while the latter focused on the perception of transport personnel regarding the impact of the pandemic on workplaces and the health measures taken by the government and providers.

These quantitative studies are complementary to the surveys conducted by the Rail Health Insurance (OSFE) in August 2020 and March 2021, with the aim of portraying the beliefs and practices of railway workers in Argentina in relation to their occupational health in the face of the pandemic, as well as their perception of the institutional health care response by their employers.

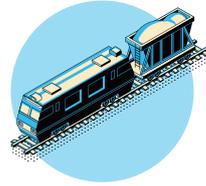
Finally, the JST designed a **system for the collection and dissemination of the lessons learned in Argentine transport**, whose the work methodology was set forth in the document "**Literature Review on Lessons Learned**". The lessons learned refer to improvements in crisis and risk management in the event of exceptional occurrences. In order to gather this information, meetings are being held to document lessons learned with the various member organizations of the collaborative network.

### *Documentation Process of Lessons Learned*



So far, the lessons learned for the road transport have been surveyed (to be published in the coming months) and **12 lessons learned for the rail transport** have been consolidated and presented below:

**12** LESSONS  
LEARNED  
(rail transport)



- It is necessary to have **seamless communication channels and permanently available counterparts**, to whom the SPs can reach in case of difficulties or concerns within the framework of a crisis.
- The **more specific** the provisions are, the easier it is to comply with and implement **government measures**.
- The establishment of continuous instances of public-private articulations – with the participation of SPs and representatives of government institutions – is essential to enable SPs to adjust to the regulations issued in crisis contexts. These instances could be materialized through the creation of a **working group with the participation of public and private SPs, government actors from different jurisdictional levels and representatives of the ministries and agencies involved** in the definition of the provisions. This working group should operate on a permanent basis and serve to share experiences and difficulties, channel consultations and analyze the results obtained.
- It is necessary to have a **risk management system** in line with the rules or regulations in order **to identify residual problems or dangers**, to achieve effective and safe compliance of the restrictions established, considering the distinctive features of the times and territories where the different SPs operate.
- **To coordinate the federal security forces' presence in key times, stations, and formations is considered essential** to organize concurrence, control circulation permits and enforce compliance with social distancing recommendations.
- **The decentralization of the CCOs**, through their distribution in different areas, is essential to guarantee their operational continuity in the event of possible border closures (provincial or municipal), as well as the access of workers and the care of their health and safety in case of focused emergencies (health or otherwise).

- The organization of **"bubbles" among the personnel working in the COOs, the provision of means of transport for the SPs' commute**, the readjustment of the schedules for entry and exit so that they do not coincide with the times of highest movement of people and the implementation of tests and isolation in the event of suspected cases are key actions to minimize the possibilities of circulation of COVID-19 and to sustain the operational continuity of the service providers.



- **The instruction of workers** regarding the decision to comply with the requirements of the protocols and jurisdictional authorities at each destination **by the SPs** is a key factor for avoiding conflicts and **reducing the uncertainty of the personnel**. In this way, a frame of reference is provided to guide the behavior of workers.
- Coordination between SPs, provincial and municipal governments, and the National Ministry of Security is necessary to define the **criteria for the stay, access to services, overnight stays and movement of essential workers**.
- The development of **protocols to guide the actions of workers** in situations such as the one described above helps avoid and/or resolve the conflict without exposing the personnel.

- **Psychological offices** within the organizations become of central importance to address problems related to mental health in crisis contexts.
- The inter-institutional articulation between providers, social security, ART, unions, and governments is an unavoidable requirement **to be able to set up care and containment devices that are transversal to all workers in the sector.**

As a process of documenting knowledge derived from experience, the **identification of lessons learned** does not imply, per se, the concurrence of organizational learning processes. However, the conversion of tacit knowledge into explicit documented knowledge (through discussion, recording and sharing in the collaborative workshops) **lays the foundation for learning processes within the organizations.**

In order to conclude, although this provisional report does not include conclusions, it exhibits the work performed and the factual information collected during the research until the time of its development. It includes the defined conceptual framework and the methodological strategy, the documents sent by the companies and agencies through formal request by the JST, the presentation of interviews conducted, the documents, reports and statistics (of different nature); the collaborative network, and the lessons learned for rail transport; among others. It is worth mentioning that the research design and, accordingly, the proposal of information collection and processing are delimited in the systemic model and intend to prepare a process of analysis and development of conclusions in a final report.

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