UIC COVID-19 TASK FORCE

MANAGEMENT OF COVID-19

Potential measures to restore confidence in rail travel following the Covid-19 pandemic

A series of potential measures published by the International Union of Railways
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1. INTRODUCTION

This document intends to provide a look into potential measures that combined could increase customer confidence in rail transport. In general, in order to reassure rail travelers, one must apply both concrete measures that limit the risk of infection and also communicate widely about said measures.

The UIC Covid-19 taskforce's main purpose is to provide a trusted space for its members and fellow transport associations to share information with one another regarding this crisis.

As a global association, the UIC taskforce is composed of railway stakeholders from Asia, Africa, Europe, the Middle East, Oceania and the Americas, and all are benefiting from each other's knowledge and experience.

With the aim to understand the measures task force members intend to implement in order to increase customer confidence following the Covid-19 pandemic, the UIC Covid-19 Task Force designed a questionnaire, which has been sent to members, and the results of the which will be published in a separate, upcoming guidance document. In order to aid the European Commission while the data collection process is happening, UIC has prepared this document of potential measures.

That said, UIC kindly reminders our readers that it is not our role to impose or recommend any given measure. As such, this document is intended to provide a list of potential measures. Its contents shall be neither considered as definitive nor as requirements. These potential measures are provided as examples and could evolve overtime, depending on changes to the risk level and on innovative measures which are not yet known. Measures provided here within are to be used by railway stakeholders as seen fit and on their own responsibility.

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2. CONCRETE MEASURES TO REDUCE THE RISK OF SPREADING INFECTION

In order to increase traveler confidence in rail, operators must be active in the fight against the spread of the Covid-19 disease. The illness is spread by respiratory droplets that can either pass directly from person-to-person, or from person-to-object (where the droplets have landed and then a person touches that object). Below, we propose measures for each different way that the illness may spread.

It is important to point out, as our task force member JR East (Japan East Railways) often does, that there is no such thing as a "perfect" measure and that the best protection comes from combining several measures.

Each measure which is described below has its own effect. The combination of several measures can contribute to a dramatic reduction of contamination risk. In regional and commuter transport, but also in long distance trains, in order to resume the traffic to an acceptable level, the only measure of social distancing (between 1 and 2 meters) is not enough to guarantee the traffic in peak hours. It has to be combined with other measures as wearing mask, using sanitation gel or checking temperature to mitigate risk.

These last measures will contribute to reduce the allowed distance between persons while keeping the same risk level of contamination risk. Of course, frequent disinfection will be essential to reduce the contamination risk.

2.1 PERSON-TO-PERSON

2.1.1 Temperature Checks

A common (but not universal) symptom of Covid-19 is a fever. Thus, screening staff before they start working, and the public either before entering stations or before entering a train, and then only allowing those persons with a normal body temperature to enter those spaces, could potentially reassure the public that sick persons are not travelling.

Temperature checks for passengers are currently implemented in China and South Korea, but also in other countries. However, this measure could be seen as invasive and may be time consuming with the risk of bottle neck situations specially in commuter services.

Temperature Screening (China)

2.1.2 Questionnaire to Passengers on their health condition

As having a high fever is not the only symptom of Covid-19, nor does Covid-19 always present with a fever, it could be pertinent to ask staff and passengers about the other symptoms, such as if they have lost their sense of taste or smell, if they have a dry cough, before allowing them to board trains or enter stations. This measure is currently implemented by in China. However, this measure, which could be seen as invasive and is time consuming, may be justified for non-stop longer High-Speed train or night train trips among others.

Check in by sweeping code and confirm health status (China)

2.1.3 Masks and other facial coverings

The recommended mask for general use to stop the spread of infection are surgical masks, including do-it-yourself masks. These masks do not stop one from contracting the illness but do reduce the risk of spreading the illness if one is already ill. Thus, in order for this measure to work, most people need to partake by wearing a mask. If everyone in a station or on a train is wearing a mask, then everybody keeps their germs to themselves and it becomes harder for the virus to spread. That said, in some countries, obtaining masks is a big issue and many governments are saving them for healthcare personnel. Thus, self-made masks from tissue could be a good solution, even if they are less effective than surgical masks. If one cannot make a mask, it could also be okay to use a scarf or other fabric to simply cover the mouth and nose.

Some countries have already implemented mandatory wearing of masks or other facial coverings in public transit, such as Austria, China, the Czech Republic, Japan, Slovakia, and South Korea. The Chinese, Japanese and South Korean members of the UIC Covid-19 task force have emphasized the importance of knowing how to wear a mask and the associated appropriate behaviours (e.g. don't touch the mask), without which the mask is no long effective. Communication campaigns to staff and passengers on how to wear masks are essential especially in countries were society is not used to them.

If it is required to wear masks, one must take into account the feasibility of such a measure and also who would be responsible for ensuring the measure is respected. As some masks are fragile, the requirement can include the passenger to carry a spare mask. This should not become the responsibility of the rail operator/infra manager. Thus, particular attention should be paid before recommending this measure.

Communication about masks (Japan)

2.1.4 Sanitation gel

Sanitary gel, wipes or other disinfectant stop the spread of Covid-19 by killing the virus. Having this type of product available and visible for public use, and perhaps even requiring the public to use it before entering stations or trains, could increase passenger confidence and decrease their fear of infection.

That said, sanitization products might not be readily available on the market, as is currently the case in many countries and may continue to be in the future. It is thus important to take into account the feasibility of such a measure before recommending it.

2.1.5 Social distancing

Social distancing refers to the practice of remaining at a distance of between 1 to 2 meters away from other individuals. The rationale is that the air droplets cannot travel that far, and thus if you remain spread out you won't catch the virus. As one can imagine, this could be a real challenge for rail travel.

Using other prevention measures in combination with social distancing, as wearing a mask, will modify the threshold of Social Distancing, and thus enable to increase the occupancy rate of the trains.

Although rail stakeholders may put into place measures to encourage the public to respect the social distance, it must be noted that the responsibility of respecting social distancing remains with the individual and it is not up to rail stakeholders to enforce it.

In stations

There are several possible measures to encourage the public to respect social distancing in train stations:

↗ Limit the number of persons in a station to ensure there is adequate room for the social distancing to be respected;

↗ Use nudges to aid passengers in recognizing the appropriate distance (e.g. stickers, markers on the floor, putting barriers/stickers in between seating, fences);

↗ Adjust the layout of waiting areas, lounges, ticket sales machines and ticket validation machines to accommodate social distancing;

↗ Adjust the boarding process on platform.

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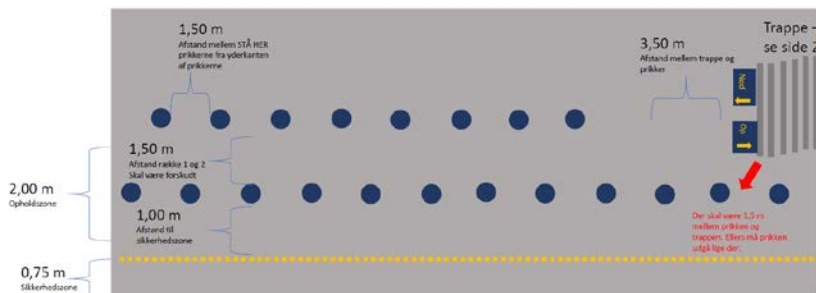
Stickers on platforms (Denmark)

Stickers on platforms (France)

Ways for passengers on platform (China)

On trains

There are several possible measures to encourage the public to respect social distancing on train:

↗ Limit the capacity of the train with a smart reservation system in long distance trains (currently, China, Italy, France and Romania have reservation systems that allows them to guarantee a safe minimum distance);

↗ Use nudges to aid passengers in recognizing the appropriate distance (e.g. markers on the platform, putting barriers/stickers in between seating);

↗ Manage passenger flows (e.g. having passengers enter with one train door and exit with another door: in China);

↗ Manage luggage placement (e.g. to prevent multiple people from handling the luggage);

↗ Reorganise the restaurant coach and in train serving.

Stickers on seats (Belgium)

As said previously, the limit of the capacity of the train introduced in a smart reservation system depends on combination of preventive measures, as wearing a mask, which could allow face to face passengers, and thus could enable to increase the occupancy rate of the trains.

Resumption phase - 22 April at Wuhan (Center of China)

Dealing with crowds

One way to ensure that social distancing is to reduce the number of travelers, especially on commuter and regional train services. During the Covid-19 crisis, we have seen that work from home and videoconferences work on a large scale for some categories of workers. It is up to authorities and companies to continue to promote such ways of working and technologies.

Another way to help reduce crowds is to promote scattered hours to avoid pick hours (meaning not everyone works at the same time, some start and end earlier, some start and end later e.g. 8-to-5, 10-to-7). This would again be up to the authorities and companies and is not under the sole control of the rail sector.

Line arrangement to reduce the speed at station entry (to avoid crowded stations at peak hours), where mask wearing is also checked (China)

Innovative digital solutions

Digitalisation may offer many ways to help dealing with social distancing and crowded place, for example:

↗ Customers could be informed on the occupancy of the train using mobile application;

↗ Smart CCTV could also be used to manage crowd;

↗ Big Data and/or Artificial Intelligence could also help in managing both station and train occupancy.

2.1.6 Ventilation

Putting into place relevant measures for ventilation systems has already been seen by some UIC Covid-19 task force members (e.g. Japan Rail East) as a way to reassure passengers. Measures to be considered are new or adapted air conditioning systems and increasing maintenance on existing systems, cleaning more regularly the filters. JR East has increased the air renewal cycle in their trains and Railways of Iran (RAI) are considering the use of UV lamps in the HVAC (heating, Ventilation and Air-Conditioning) devices.
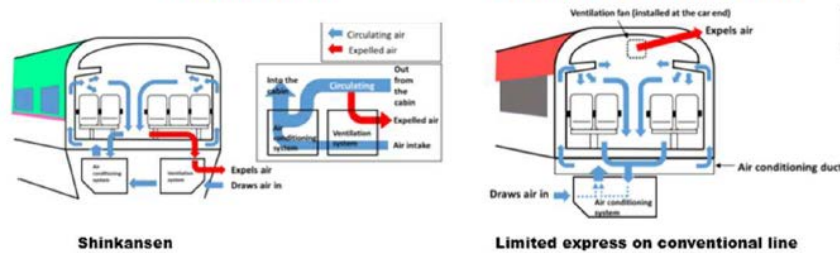
Air circulation system (Japan)

2.2 FROM OBJECTS TO PERSONS

2.2.1 Increased cleaning/disinfection

Currently employed practices demonstrate the importance in preventing the spread of the disease through increased cleaning and disinfecting of public spaces, especially those places that are frequently touched (e.g. door handles). Continuing to implement those cleaning measures following the Covid-19 pandemic should help create traveler confidence. However, increased cleaning measures (e.g. cleaning multiple times a day) may be harder to implement when services are returned to normal level, as they take more time than previous cleaning measures, so the feasibility of continuing such cleaning measures needs to be adequately considered. Further, the availability of cleaning agents needs to be taken into account, as these products might not be readily available on the market, as is currently the case in many countries and may continue to be in the future.

Cleaning procedures

Brug albuen

Pictograms to avoid touching the button onboard (Denmark)

2.2.2 Tickets

The use of physical paper tickets presents an object where Covid-19 droplets could accumulate. As such, promoting electronic ticket sales, e-tickets and contactless tickets are measures which limit the physical object. This also applies to paper money and coins, and as such rail operators could promote the use of contactless credit or debit cards in their stead.

2.2.3 Waste disposal

Currently, several rail stakeholders have put into place special waste management procedures to deal with waste that has been potential contaminated by Covid-19 virus (e.g. tissues). Continuing to implement these procedures following the Covid-19 pandemic would most likely reassure rail travelers.

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3. COMMUNICATION MEASURES TO REASSURE THE PUBLIC

Don't just do the measures, talk about them. Multiple studies of risk and crisis communication have demonstrated that sharing information about how one is responding to a crisis reduce anxiety among the public.

The recently published UIC document *Management of Covid-19 - Guidance for railway stakeholders*[1] has an entire chapter dedicated to crisis communication. The same communication principals that applied during the Covid-19 crisis should also be taken into account post-Covid-19.

Why communicate?

Reduce rail traveler anxiety.

What to communicate?

Types of information railway undertakings and infrastructure managers might be expected to provide to the public and passengers could include:

↗ Reassuring users of the railway of the various measures taken to reduce the risk of infection;

↗ Information on simple steps to behave and self-protect during the trip (according to health authorities);

↗ Explanation of Covid-19 symptoms;

↗ Stating what clients should do if symptoms appear during their travel;

↗ Providing information on who to contact for medical advice (e.g. the Japan railways call center specifically for foreign tourists).

Where to communicate?

In a crisis, people tend to use the same communication means that they use in their everyday life and thus information on Covid-19 should be readily available on all communication channels regularly used by the company (website, social media, apps, in station announcements, via press releases, etc.).

How to communicate?

At a general level, visual communication (infographics, videos and pictograms) are recommended. Visual communication helps to avoid language and other functional needs barriers. It is also recommended to use easy to understand language (use laypeople's language and not technical terms), be concise, and adapt communication to people with specific special needs (deaf, blind, etc.). Collaboration with national associations of people with reduced mobility and special needs is strongly recommended.

When to communicate?

During all stages of the crisis.

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1. Available at: https://uic.org/IMG/pdf/uic-management-of-covid-19-guidance-for-railway-stakeholders.pdf

4. FUTURE RESEARCH

Finding further and innovative ways to reassure rail travelers would require investments in research. Some proposed future areas of research include:

↗ Identify the impact of wearing masks on social distancing;

↗ Identify innovative solutions to analyse passenger feelings and perception as one of the key elements that will contribute to the competitiveness of rail transport in the future;

↗ Develop an evaluation framework to measure the passenger's security perception;

↗ Identify digital solutions to enhance the feeling of security.

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