

April 2020

## Highlights

- The Weekly explores the Chinese response to COVID-19 at their Shanghai airports, detailing procedures introduced to screen International arriving passengers and illustrating the impact on terminal flows.
- Applying this experience along with his expertise in Terminal operations and design, Jordan Roos, L&B Managing Consultant, proposes how airports in the United States and around the world might rethink their international passenger arrival flows.

## Planning for the Recovery: Screening the Health of Arriving International Passengers



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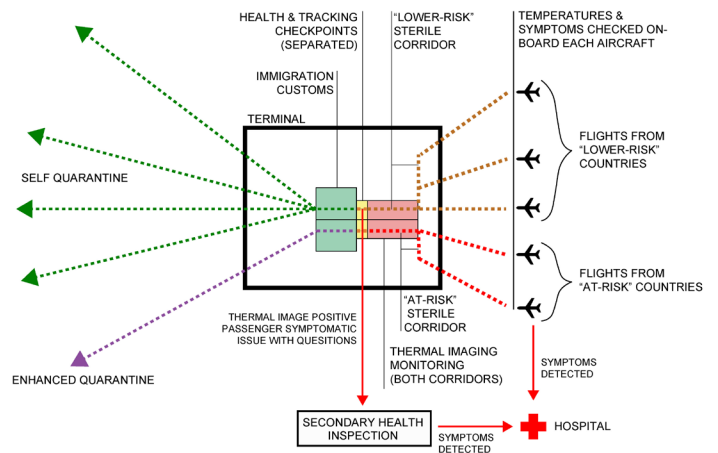
How and where should airports screen for symptoms of diseases like COVID 19? This is a question that many airports and governments around the world will need to answer. Health screenings along with quarantine spaces for international passengers already exist at many airports across Asia. While new developments in biometrics and advanced screening technologies might be how airports ultimately handle health screenings in the long-term, there are solutions if that enacted today can help to ensure the safety of the traveling public and airport staff.

### Shanghai Case Study, March 2020

Quarantine and health screening procedures for international arrivals are standard during normal operating conditions at all airports in China. In response to COVID-19, many local/regional governments have introduced additional advanced screening procedures. The diagram illustrates the procedures implemented at both Shanghai Hongqiao International Airport (SHA) and Shanghai Pudong International Airport (PVG) for arriving international passengers. First, passengers undergo basic screening on the aircraft before deplaning. This involves a temperature check as well as a basic questionnaire conducted by a public health official. Symptomatic passengers are taken to a designated hospital via an ambulance standing by on the tarmac. Passengers arriving from at-risk countries take a segregated sterile corridor to a dedicated space in the Customs and Immigration hall. From there, passengers are escorted to a pick-up area and transported to designated quarantine locations. If a passenger exhibits any symptoms while in the terminal area, they can be referred to a secondary health inspection within the airport or a local hospital. While this approach is very thorough it requires substantial resources, which raises the question of whether the process is feasible on a global scale.

### Shanghai Airport Model

\* The exhibit below depicts Shanghai's international passenger flows for health screening locations



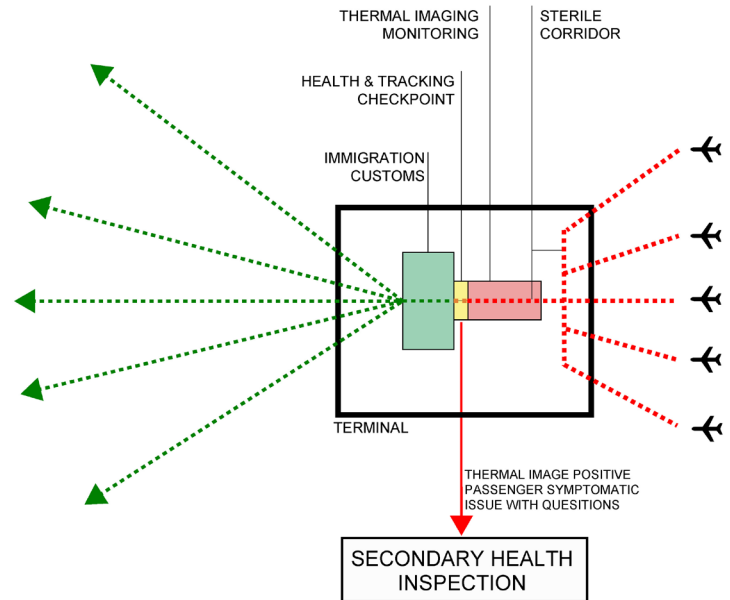
## Consider: Instituting New Procedures for International Arrivals

As shown in Asia, using technologies available today it is possible to implement health screening and quarantine procedures. It is also important that airports consider prioritizing these screening procedures for arriving international passengers with increased attention given to “at risk” countries to limit the spread of infectious disease. How might airports implement these measures within the constraints of their existing facilities? To answer this question, L&B Terminal experts developed a diagram that offers one possible terminal flow reconfiguration for arriving international passengers.

A sterile corridor would provide the optimal opportunity for health screening as all inbound passengers pass through it. The ideal location in this corridor would be upstream of where passengers enter queueing and congregate at Customs and Immigration, as shown in the diagram. Several available technologies, including thermal imaging, can help determine if a passenger is symptomatic. In this application, a series of thermal cameras would scan each passenger as they walk-by. A higher than normal temperature would flag the passenger to a health screener. The passenger could then be asked to fill out a questionnaire to help the health screening personnel determine if the traveler can proceed or be diverted from the inbound border control to a secondary health inspection. Secondary Screening areas within Customs and Immigration may provide temporary opportunities to accommodate health screening and quarantine needs. As airports evolve in response to future health crises, opportunities exist to create new programmatic spaces to address health-screening procedures. This planning process will raise new questions that require answers, such as how will symptomatic passengers be escorted out of the facility to reduce the transmission of infectious pathogens and where will existing facilities accommodate future programmatic requirements such as health screening?

### International Arrivals Passenger Flow

\* The exhibit below demonstrates the international passenger flow proposed health screening locations.



## What is the L&B LAB?

The LAB is Landrum & Brown’s research and development unit. Our mission is to harness decades worth of industry knowledge and expertise to develop innovative solutions that support our clients along with promoting industry thought leadership. This issue is just the first of regular releases over the coming weeks that will focus on the impacts of the current crisis and solutions to restore the flying public’s confidence in our aviation system.