

FEVER SCREENING HISTORY AND CAPACITY/REALITIES

Prepared by: Christopher Hurtado

An article from Gostic et al summarizes the results of several studies looking at the effectiveness of airport screening measures during past infectious disease outbreaks.¹ In 2009 H1N1, about 1.5 million people were screened in 3 countries with only 22 positive results. For SARS in 2003, more than 3 million people were screened, and no cases were identified. Likewise, for Ebola, more than 36,000 people were screened at airports and no cases were identified as a result.¹ These numbers suggest that airport screening is ineffective.

Gostic et al provide several reasons for why infected individuals may pass through fever screening undetected, including:

- Those recently infected might still be asymptomatic (viral incubation periods may vary considerably) but could be spreading the disease to those around them.
- Not all infected people may present with a fever.
- Passengers may be taking medication to suppress symptoms.

Furthermore, fever is a nonspecific symptom, which could lead to "high opportunity costs"—that is, wasting valuable public health resources and time for unnecessary detainment. For example, during the H1N1 pandemic, it was estimated that staffing airport clinics in New South Wales alone cost AUD\$50,000 per case detected.²

REFERENCES

- 1. Gostic KM, Kucharski AJ, Lloyd-Smith JO. Effectiveness of traveller screening for emerging pathogens is shaped by epidemiology and natural history of infection. *Elife* 2015;4.
- 2. Selvey LA, Antão C, Hall R. Entry screening for infectious diseases in humans. *Emerg Infect Dis* 2015;21(2):197-201.

Date: May 3, 2018