

## Abstract

# Descriptive Analysis of Health Screening for COVID-19 at Points of Entry in Pakistan According to the Centers for Disease Control and Prevention Guidelines From February 2020 to March 2021

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## Abstract

**Background:** Points of entry (POE) in Pakistan serve as key conduits for international travel, transport, and trade. The Central Health Establishment is the key stakeholder in the implementation of the International Health Regulations (2005) core capacities at POE and National Action Plan 2020 for COVID-19. A comprehensive screening plan (involving more than 4 million passengers to date) was carried out effectively despite a few limitations.

**Objective:** This study aimed to evaluate the system attributes of health screening measures for COVID-19 at POE according to the Centers for Disease Control and Prevention (CDC) guidelines with the aim of identifying the strengths and weaknesses of the system and formulating recommendations to improve the system.

**Methods:** A descriptive study on the CDC guidelines for health screening at POE was conducted at the Directorate of Central Health Establishments from February 2020 to March 2021. The CDC guidelines are based on 11 attributes to be implemented for COVID-19 health screening at POE; these include legal and regulatory bodies to detain the traveler as suspect, isolation and coordination at POE, funds for screening, quarantine facilities equipped with basic necessities and communication channels for the quarantined travelers, referral health care facilities for POE, protocols for primary and secondary screening, capacity building, supply of personal protective equipment and screening tools, isolation areas, and provision of basic facilities at POE. Data were collected using both qualitative and quantitative methods. Web-based questionnaires and in-depth interviews for personnel in charge and quarantine assistants at POE were completed. Analysis of the Central Health Establishment's information system was performed to assess management of traveler surveillance.

**Results:** The 11 attributes for health screening according to the CDC guidelines were addressed and well implemented at POE by the Central Health Establishment under the flagship of the Ministry of National Health Services, Regulation, and Coordination. Primary health screening of 4,088,119 inbound travelers was conducted. Secondary health screening led to the referral of 415 suspected cases of COVID-19 to hospitals. A total of 74,833 polymerase chain reaction tests for COVID-19 were performed at airports for inbound travelers, with a positivity rate of 0.6%. A total of 19,130 international flights were screened during the study period.

**Conclusions:** Preparedness and response for COVID-19 at POE are in line with the National Action Plan of the Government of Pakistan and International Health Regulations (2005).

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**KEYWORDS**

points of entry; health screening; National Action Plan; isolation; quarantine

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