

PAKISTAN HEALTHCARE INFRASTRUCTURE AND COVID-19: A CASE FOR ISOLATION AND QUARANTINE FACILITIES OPTIMIZATION IN THE CONTEXT OF PAKISTAN

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ABSTRACT

COVID-19 is one of the largest pandemic that hit the world at the end of 2019 and took the globe by a storm. With almost seven hundred fifty thousand affected and above thirty five thousand deaths at the time of writing this paper, it was declared by World Health Organization (WHO) a major global health crisis. Pakistan, a developing South Asian country having sixth largest population in the world having fragile and poor healthcare infrastructure also got hit badly with above one thousand six hundred affected and more than twenty deaths till the time of writing. With such a large health burden at stake and closing of all major socio-economic activities, with having very limited quarantine and isolation facilities, there was a dire need to explore the gap of existing healthcare infrastructure to cope with current circumstances.

In order to explore the current context with reference to the COVID-19 health burden, existing infrastructure and facilities were explored through literature review and documented against the criteria and outlined by WHO, with respect to quarantine and isolation facilities. Development of a basic concept about nature of COVID-19 was explored with respect to Pakistan and its spread in the country. Existing actions taken by the governing concerned bodies and future planning were also explored. It was concluded through comparative analysis and exploration of the current line of actions by the governing bodies, that existing infrastructure fails to fulfill the need of the current pandemic situation and transformation of existing healthcare facilities and other allied buildings, like hostels and educational institutions, would not help in development of quarantine and isolation facilities. Infact they will create higher level risks for contamination and management of the disaster at hand, since these do not fulfill the set criterion for isolation and quarantine facilities with functional and spatial aspects. A two stream approach is proposed to handle the current situation with focus on using existing facilities at one hand with limited usage for quarantine and isolation, while developing new functional facilities using fast construction systems of pre-fabricated construction this will enable quick delivery of such infrastructure to manage the COVID-19 in Pakistan with context and climatic sensitive designs. Proposed design interventions associated with quarantine and isolation units were further explored and using standardized cargo containers design solutions were proposed.