

COVID-19 Impact

AIM

To investigate COVID-19-related perceptions and practices, and test the feasibility and effectiveness of diagnostic and treatment interventions

	STUDIES	EVIDENCE	IMPACT
Perceptions and preparedness of healthcare workers and the public	Exploring psychological issues faced by primary health care teams in Malaysia	Stressors, emotional changes and psychological modifiers were found. Calls for a professional psychological support group for health care workers	<ul style="list-style-type: none"> ✔ Influenced early psychosocial support given to healthcare workers during COVID-19 ✔ Informing future pandemic preparedness
	Preparedness and protective measures of frontline health workers in Bangladesh	Pandemic increased ongoing challenging working situation. Personal coping mechanisms and family support reduced stress levels	<ul style="list-style-type: none"> ✔ Influencing policies to better protect frontline healthcare workers ✔ Regular awareness campaigns and multipurpose trainings
	Community perceptions to adherence to public health measures in Pakistan	Causes, symptoms, transmission and prevention of COVID-19 understood. Adoption of preventative measures moderate	<ul style="list-style-type: none"> ✔ Enabled authorities to develop robust evidence-based policies and programmes ✔ Findings discussed with the parliamentary secretary at the Ministry of Health
Detection and diagnostics	Sero surveillance in western India	Positivity rate of 45% in rural areas compared to 51% in urban areas	<ul style="list-style-type: none"> ✔ Influencing future state-level COVID-19 response ✔ Further study to understand waning COVID-19 antibodies
	COVID-19 detection from x-rays in Pakistan	Deep learning AI model highly effective in detecting potential COVID-19 cases from an x-ray image	<ul style="list-style-type: none"> ✔ Future studies include increasing the accuracy of the AI model through a database of radiologist-annotated images
	ELISA (a form of serological testing) in Pakistan	First example of virus antigen detection in nasal swabs by amplification. Low cost and easy to perform	<ul style="list-style-type: none"> ✔ Future work involves standardisation and international certification ✔ Potential large-scale production of low cost tool
Treatment	Saline nasal irrigation and gargling in Pakistan	Simple and effective home-based method of reducing duration of COVID-19	<ul style="list-style-type: none"> ✔ Potential to be applied globally
	Bubble CPAP in Bangladesh	Feasible as treatment of severe pneumonia and COVID-19. Acceptable to patients and healthcare workers	<ul style="list-style-type: none"> ✔ Reduction in mechanical ventilation and in turn intensive care requirements and costs
Digital health hub	Digital Health Knowledge Management Hub	Enables participants to determine appropriate solutions depending on situation	<ul style="list-style-type: none"> ✔ Will help users examine strategy for piloting and scaling up of digital health solutions

RESPIRE studies found:

- ✔ COVID-19-related perceptions and practices that will facilitate improved pandemic response
- ✔ Reasons, facilitators and barriers to non-adherence to COVID-19 preventative measures
- ✔ Strategies to support mental health and wellbeing of healthcare workers during and after a pandemic
- ✔ Highly sensitive diagnostics for COVID-19
- ✔ Cost-effective treatments for patients with COVID-19
- ✔ Ways to improve access to digital health innovations for COVID-19