## Profile of long COVID symptoms needing rehabilitation: a cross-sectional household survey of 12,925 SARS-CoV-2 cases between July and December 2021 in Bangladesh

## ABSTRACT

Background and aims : It is important to determine the profile of long COVID (LC) symptoms within the scope of rehabilitation in Bangladesh. This study's objective was to estimate the newly experienced long COVID symptoms needing rehabilitation by determining the prevalence and spectrum of impairments due to LC in Bangladesh. Methods A Cross-sectional household survey of 12,925 COVID-19 patients confirmed by RT-PCR from 24 testing facilities in Bangladesh. LC was diagnosed according to WHO working group definition. COVID-19 Yorkshire Rehabilitation Scale (C19-YRS) was used to determine the symptom responses, symptom severity, new long COVID symptoms, and scope of rehabilitation. Results The population proportion of LC symptoms requiring rehabilitation interventions are 0.22 [95% CI, 0.20-0.24] in Bangladeshi people diagnosed with SARS-CoV-2. Among them, 0.08 [95% CI, 0.07-0.09] had mild, 0.07 [95% CI, 0.06-0.09] had moderate, and 0.05 [95% CI, 0.04-0.06] had severe long COVID symptoms (LCS). There was a significant positive correlation between LCS and functional disabilities (r=0.889, p < 0.001), while a negative correlation was observed between the severity of symptoms and overall health (r=-0.658, p<0.001). In comparison to the pre-COVID status, 17 new LCS were observed and the increase in the scope of rehabilitation intervention among LCS ranged between 0.01 [95% CI, 0.001-0.01] and 0.21 [95% CI, 0.19-0.22]. In Bangladesh, 59% (n=334) of the LC cases are out of reach for any rehabilitation interventions. Conclusion Nearly one-fourth of Bangladeshi Post-COVID-19 have long COVID (LC). Seventeen symptoms (LCS) were observed and more than half of the populations having long COVID are out of reach of any rehabilitation facilities.