

## **Mental Health, Wellbeing and Preventive Behaviors in 10 Western Pacific Countries during COVID-19**

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### **Background:**

COVID-19 has shown varying impacts on different populations. In the Western Pacific (WP) Region with a relatively low COVID-19 burden, the variabilities of its impact on mental health, wellbeing and preventive behaviors across countries are unclear.

### **Methods:**

We analyzed repeated national-representative, cross-sectional data of 87,787 adults collected via the Imperial College London YouGov COVID-19 behavior tracker in ten WP countries-Australia, China, Singapore, Japan, South Korea, Vietnam, Taiwan, the Philippines, Malaysia and Hong Kong during the pandemic (April-September 2020). Main outcomes were severe depression/anxiety (Patient Health Questionnaire-4 score $\geq$ 9), wellbeing (Cantril Ladder Scale 0-10), worries of contracting COVID-19 and prevalence of preventive behaviors. Monthly temporal trends were examined.

### **Results:**

Percentages of severe depression/anxiety were higher in Australia (12.9%), Hong Kong (11.8%) and lowest in Vietnam (6.8%); increasing trends were noted in the Philippines (5.9% to 12.3%,  $p < 0.0001$ ) and Malaysia (8.2% to 10.7%,  $p = 0.019$ ). South Korea, China and Taiwan had the lowest levels of wellbeing (5.0-5.5) compared with their highest counterparts in the Philippines, Australia and Vietnam (6.2-6.5). Worries of COVID-19 remained high in Asia countries (Japan, South Korea, Malaysia, Vietnam and the Philippines: 79.2%-81.6%), compared to that in Australia (41%). 83.5%-

97.2% of the Asian respondents persistently wore face masks outside home, while the mean percentages were low in Australia (32.2%) despite the increasing trend observed (24.1% to 48.6%,  $p < 0.000$ ). Over half of the WP countries have significant decreasing trends ( $p < 0.000$ ) for avoid going out; Taiwan showed the lowest prevalence (45.7%).

**Conclusions:**

Psychological and behavioral responses to COVID-19 in the WP region varied widely. COVID-19-related negative impact on mental health and wellbeing was universal. A Global effort to tackle the aftermath of the pandemic is crucial.

**Key messages:**

- The psychological and behavioral responses to COVID-19 in Western Pacific countries varied widely.
- Severe depression/anxiety and low levels of wellbeing were prevalent in Western Pacific Region.