

LEADING ARTICLE

COVID-19 in Iraq: What is behind uncontrolled infection pattern.

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Coronavirus infections is not a new viral disease [1] and form the second common aetiology of common cold following Rhinoviruses [2]. The infection is zoonotic viral disease [3,4]. Previously SARS-CoV-2 infected human, but COVID-19 is the first pandemic caused by coronavirus in a trend that differ from the previously reported global pandemics [2, 5-7]. At 19th April 2021, in Iraq, the cumulative cases number is 984,950, which form the top number in Arab countries and 25th rank for number of confirmed cases globally. The time line of daily cases are shown in Fig.1. on monthly bases. After the detection of first confirmed case at 24th February 2020, there is a gradual increase in cases incidence. The first peak of cases incidence is in 1st July 2020 and then declined in 1st of August, however, it is followed by an increase in cases number to form the 2nd peak in 1st October 2020. Then subsequent decline in cases occurred to reach (902 cases) in 1st January 2021, however, a sharp increase in cases number in the next 3 months.

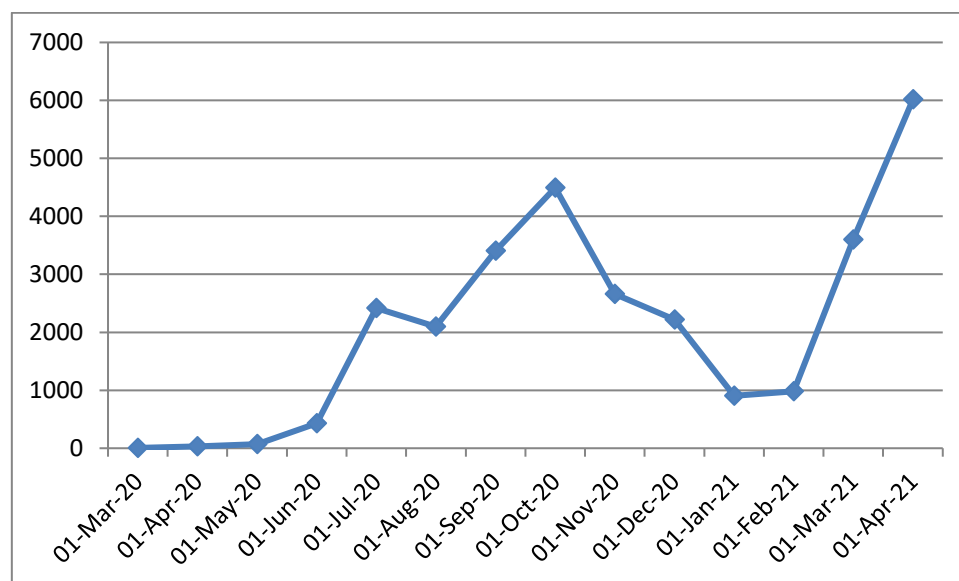


Fig.1,. Daily cases in Iraq

The Government responses started on 13 March 2020 which include curfews, closing of education institutions, restriction of travel between Governorate, and closing borders [8]. Thus following the governmental responses the disease incidence rate reduced and R0 declined from 2 in the second week into 1.18 in the 9th week. However, the curfew partial lifting on 18 April 2020 associated with increased incidence and R0 ranged between 1.11 to 1.21 during the next 7 weeks.

Although, the applied preventive measures of social distance, mask using and personal hygiene's reflected on the disease incidence, however, two peaks of confirmed COVID-19 cases on October and April occurred. This peak attributed to:

1. Population none compliance to Ministry of Health Guidelines for COVID-19 prevention and control.
2. Economical status of large number of Iraqi families. These families are unable to offer the mask, detergents, and sound food. In Iraqi population 31.7% are under the poverty line [9].
3. Religious tourism.
4. Increase in the MOH community based screening, on 27 April 2021, a total number of 9 244 746 samples were tested to confirm SARS-CoV-2 infection.
5. Low rate of receiving the vaccine. On 27 April 2021, only 333050 (0.829%) individuals were vaccinated.
6. Increase in genetic mutation rate which may contributed to more transmission of the virus among families and local communities.
7. Genetic susceptibilities and the evidence for this is the high mortality in a cluster of families.
8. Misbelieve of some community groups with none avoidance of crowded festivals.
9. Open borders between Iraq, Iran and Turkey.

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