

Pandemic Data Disclosure à la Turca

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Abstract:

Turkish government responded to the COVID-19 pandemic with several non-pharmaceutical interventions after the first case in Turkey was confirmed on March 11, 2020. These policy measures decreased interpersonal contact in public places via social distancing, and the total number of confirmed cases exhibited a decreasing growth trend after the end of April 2020. Mobility restrictions were relaxed in June 2020 presumably because of severe economic costs of non-pharmaceutical interventions. From the first days of the pandemic to late July, Turkish government reported daily numbers of tests, cases and deaths along with recovered individuals in a now-famous turquoise table every night on TV screens. On July 29, 2020, however, a regime switch happened in terms of the metrics reported in this table: The government abandoned reporting asymptomatic or mildly symptomatic cases that tested positive for COVID-19 and started reporting metrics related to the so-called “patients” i.e., the cases with severe symptoms only. After that, an alarming increase in the number of deaths in excess of previous years’ averages has surfaced in data from different official sources, which contradicted the official COVID-19 death statistics and became the main propellant of the motivation for this paper. We present new estimates for the total number of confirmed cases and the total number of deceased individuals, and we compare our estimates with official statistics. We also investigate the effects of social distancing on total death counts using counterfactual experiments. We use a Susceptible-Exposed-Infected-Recovered-Deceased (SEIRD) model, official COVID-19 statistics, Google’s mobility data, and a quantitative algorithm to calibrate the country-specific parameters of the model in a rigorous manner. Our results show that actual cumulative death count may be as large as 27,765 deaths by December 10, 2020 for which the official cumulative death count is 15,571. We also estimate that, from the second week of June to the last week of November, the total number of confirmed cases remains considerably larger than the official figures. At its highest, the difference is around 1 million people. Our counterfactual analyses indicate that a later relaxation of mobility restrictions in the beginning of July would imply around 3,500 fewer deaths by December 10, 2020. Finally, we show that the total death count by this date would be as low as 10,772 if social distancing was sustained at its historical maximum observed in the last week of April.

Keywords: SEIRD model, COVID-19, excess deaths, Turkey

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