

LATEST OBSERVATIONS ON THE CORONA PANDEMIC

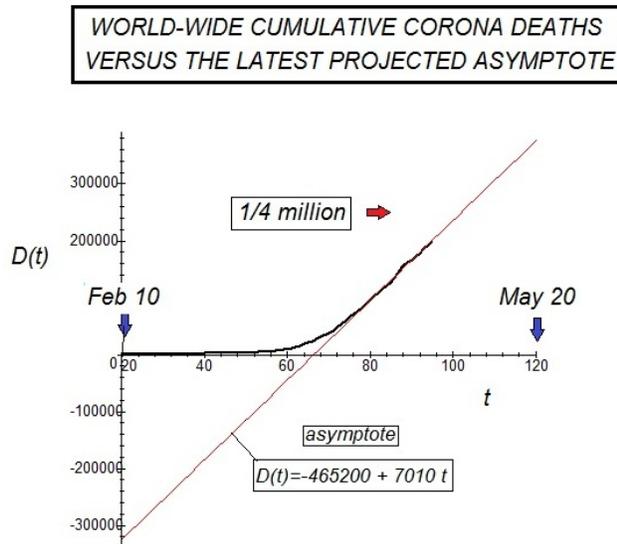
Today is the $t=95^{\text{th}}$ day of the Corona Virus Pandemic starting by our account on January 22, 2020. We have shown in an earlier article on this web page that the cumulative death rate $D(t)$ early on had an exponential form-

$$D(t)=250 \exp(0.062 t) \quad \text{provided } 1 < t < 60$$

We noticed however, by looking at daily deaths as reported by worldometers, that this trend has now changed into a form whose asymptote looks like this-

$$D(t)=-465,200+7010 t \quad \text{for } 70 < t < 95$$

A graph of this later form follows-



Note that the reported data for $D(t)$ up through today ($t=95$) is still rising despite of what some politicians including Trump and Quomo are saying. We will be watching this curve closely for a possible slowdown in the near future characterized by the data $D(t)$ falling significantly below the asymptote. Note that we are getting close to 250,000 world-wide deaths due to the Corona Virus regardless of the massive attempts at mitigation which have been made. The home confinement aspects of these efforts unfortunately are producing jobless rates not seen since the Great Depression of the 1930s.

Let me add just a few observations which have become clear to me since our earlier note of April 7th. Corona deaths are found to be disproportionately larger for residents of old-age homes and convalescent centers. The residents of these centers tend to be of advanced age with weakened immune systems subjected to day around exposure of

viruses from infected neighbors. The solution here is the quarantine of all patients and service staff in such facilities.

In addition, one is hearing of many Corona Virus infections occurring in numerous other situations where individuals are confined to close quarters over longer periods of time. These occur, for instance, on naval vessels, cruise ships, in meat packing plants, and high population centers in cities such as New York City, Philadelphia, Baltimore, Detroit and Chicago. The observed larger death rates for minorities in these larger cities undoubtedly stems from the higher population densities existing there.

The government mitigation efforts over the last several months has reduced the daily death rate and has thus allowed hospitals to handle the increasing incoming patient loads. It has probably not reduced the final count of deaths but has extended the duration of the pandemic until about a third of the population has been infected. The mandated home quarantine has probably done little health wise but has dealt a death blow to our economy. If people stay at home businesses can't thrive and unemployment skyrockets. Remember that 97% of all individuals infected by the Corona Virus survive.

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