

## Twitter Thread by Sai Sharma



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### Thread Alert

**[1] This morning I came across @AmyKazmin 's article and tweets. She said it's a "Mystery". We gotten off on the wrong foot where I came across as rude. Hence my attempt to make it right. I would like to begin with an apology to Amy. Let us now scientifically see**

[2] There is no mystery here if you look at the statistics with a uniform benchmark. This thread is not in the support of govt but in the support of frontline workers who risked everything for keeping rest of us safe. Since your article already has some inaccuracies hence

[2-1] I found it offensive and insulting to the frontline health workers of India.

[3] Lets look at the death rate of India for the past three years. It was 0.5% increase in 2019, 0.49% increase in 2020 & 0.48% increase in 2021. So, there is no huge surge of deaths in India. <https://t.co/WHS97TKIYv>

[4] Lets compare it with US where there are very high number of deaths due to COVID-19. If you observe US had a higher death rate & death growth rate compared to India even during the previous years. <https://t.co/19ABXKyH2c>

[4-1]

[5] Now lets look at WHO stats on COVID mortality rates.  $100 * (\text{Deaths} / \text{confirmed cases}) = 100 * (2182867 / 101053721) = 2.16\%$  for India.  $100 * (103126 / 3743378) = 2.7\%$ ;  $100 * (103126 / 3743378) = 2.7\%$ ; US=1.67%. However, in terms of absolute numbers COVID statistics US leads.

[6] So what is the testing rate of these countries? India : 190 Million tests=195081079. Us tested= 302,191,380. Confirmed cases and infection rates for India=5.4%. For US= 8.4%.

[7] Fact: 151113 people were killed in 480,652 road accidents across India in 2019. In 2020 due to lockdown this number was down by more than 40%.

[8] Cancer deaths in India would account for ~ 3,95,400 in 2020 as per WHO report. That's atleast ~2 times the COVID deaths. <https://t.co/3bM2BfJGw7>

Now we come to some real scientific terms We need to first decompose CFR in order to be able to compare CFR between India and any other country as per the article here <https://t.co/Sm47RWuLju> give by eqn below

[10] Lets look at the CFR of india based on various age groups. Notice how CFR is high for 60-69 than rest of the groups. While its so low for groups below the age of 40.

[11] Finally comparing CFR b/w India and others. Look at the differences value. South Korea, South Africa, Chile, Columbia, Argentina, Turkey & California have lower CFR than India. CFR[Case Fatality Rate]

[12] lets look at populations of these countries with negative CFR difference w.r.t India. Meaning lower mortality rates. 4741466 people fall under 60-69 age group.

[13] Notice how the death rate is so high compared to infections. See how the graph almost a symmetrical invert of CFR. Notice across age groups the CFR is same as India.

[13-1] Death rates

[14] Now lets look at South Korean Demographics. The population of South Korea is about 20 million. Therefore, even in comparison it shall have lower CFR than India. However, CFR is similar to India across age groups.

[15] South Africa. Total population ~60 million. See how CFR is same as India and elsewhere!

[16] The virus is not behaving mysteriously. It follows the gold standard Shapley procedure of the statistics and Game theory.

[17] Summary 1: The CFR= Case Fatality Rate across all nations is similar showing similar behaviour across the age groups. Therefore, there is no mystery here. So That begs for an important question, about the Indian scenario of Virus.

[18] Summary 2 Purely frm the age group and CFR POV we know that CFR is low for populations less than the age of 40. So population which remained under lockdown in India has been the working age population, which is the highest among all nations in both ratio and absolute nos.

[19] Breakdown of population, the high-risk working-class(HRWC) population 40-65 years is ~23.01%; Lower Working-class population 20-39 years is ~32%. That's more than 55% of the population. ~3% fall under senior citizens.

[20] The most deaths happened in HRWC, but that population&LRWC was locked inside the homes during the multi-phase extended lockdowns. The children have not returned to school yet and hence maximum of them have been kept away from exposure which accounts for 42% of the population

[21] Its safe to say based on above stats that 70% of the Indian population was kept inside homes. Even now a vast majority of the High-Risk working population has not returned to offices as they continue to work from home.

[22] In conclusion, the Lock down and due diligence of the Indian govt prevented the catastrophe which was waiting to explode. See states below