ASSUMED COVID-19 MORTALITY IS STRONGLY OVERESTIMATED

The math-logic method to measure the real number of Covid-19 lethal victims

The guideline analysis including the study of the weights of age-subgroups, the U.S. in 2020

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Abstract

BACKGROUND: What do the data presented in the CDC tables „Deaths involving coronavirus” mean? The one objective information is: „xxx thousands of people have died and being infected probably with Covid-19”. But how many of these people would for sure still live if not Covid-19 infection? The aim of this paper is to show how to use the math-logic method to reveal the real Covid-19 number of lethal victims in the US.

METHODS: The ideas for solutions are fully original, mathematical - logical, including the real number of Covid-19 lethal victims discovering. The calculated data are usually slightly rounded, because the method presentation is the main aim of the article. FINDINGS: Only up to about 10% of those reported as Covid-19 lethal victims in the US in 2020 died from Covid-19 complicity, and all the rest would have died in the same time anyway, also without Covid-19, because their deaths resulted only from the normal age structure of deaths in the United States, creating the average age of death in the given year. INTERPRETATION: The official numbers of Covid-19 lethal victims are in a vast majority “the double counting” of those who would die whatsoever in the same time even without Covid-19. The ‘ex post’ analysis is necessary to discover the real number of cases with synergy causing earlier deaths. FUNDING: None

Introduction

In my opinion there is no correct essay analyzing the real Covid-19 mortality to find. What do the data presented in the CDC tables „Deaths involving coronavirus” mean? The one objective information is: „xxx thousands of people have died and being infected probably with Covid-19”. But how many of these people would for sure still live if not Covid-19 infection? The main summary reason of deaths is “aging” =advancing age and all diseases (conditions) the frequency and deadly effects of which are very strongly correlated with it (what means, with the overall weakness of the organism); those conditions sources are in the body itself or a condition progress needs much time and advancing age. Next, there are deaths caused by fully external causes like different injuries. Infections have only burdening actions (deadly effects are strongly correlated with the overall weakness of the organism /age) with a very small number of exceptions. Infant mortality is another quite important group of causes of death. The key point to remember is that life expectancy and the number of chronic conditions are strongly correlated too. The aim of this paper is to show how to calculate the real number of Covid-19 lethal victims.
Methods

The ideas for solutions are fully original, including the real number of Covid-19 lethal victims calculating. At first I calculated what the average age of death in a close to identical group (like the one assumed to be killed by Covid-19) should be if nobody was infected. Then I calculated the average further life expectancy for the people from the whole “deaths involving Covid-19” group if they were alive. The calculations widely used the CDC, NSC and other institutions databases, Life Table. I used constructed by me estimators. To understand the procedures of calculations and what the consequences are a reader must follow the resolving and explanations given below. The obtained data are further slightly rounded, but when more precision is needed then calculated even with an accuracy of 0.01 year. In general, the method is in some places delicately simplified to chase calculations, because the idea presentation is the main goal of this article.

Detailed Procedure & Results

The average age of those who officially died from Covid-19

I do not see the data anywhere, apart from the median age of 78 [1]. Could we use the known age ranges and then plot it on a life table? Let’s check it with the average (in a year) age of death in the society. The growing population (immigration of mobile people) and also demographic waves made it surprising much lower than life expectancy (78.5, the World Bank 2018). A number of deaths “speeds up” in an age range, so if we use the age ranges [2-p.25] and calculate, based on number of deaths [3], median* ages of the age ranges and then multiply each median by a subgroup’s volume [2] (when there are differences then I continue calculations separately for men and women) then we receive the following result:

Medians* for the age ranges: <1, 1-4, 5-14, 15-24, 25-34, 35-44, 45-54, 55-64, 65-74, 75-84, 85+:  
M: 0.5, 2.4, 11.4, 21.3, 30.40, 40.50, 51, 60.75, 70.65, 80.55, 91  
W: 0.5, 2.5, 10.5, 21.2, 30.85, 40.65, 51, 60.80, 70.85, 80.85, 92,05

\[10.46 + (4.9 + 4.09) + (36.32 + 24.27) + (463.23 + 170.09) + (1257.07 + 549.96) + (2164.16 + 1201.21) + (5041.2 + 3138.85) + (13846.44 + 8938.33) + (22625.45 + 16671.86) + (28603.31 + 26917.15) + (30773.01 + 49300.23)] / 2854.838 (total number of deaths, in th.) = 74.17 (years)

But I have found the data (wonder.cdc.gov – Underlying Cause of Death) saying it to be 73.79. We can get there data grouped by single-year ages and calculate it. But 73.79 is not 74.17 (for 2019), so single-year weights are a bit different at present. … For the purpose of this analysis I take the average theoretical (assuming Covid-19 absence) age of death, in the society in the year 2020, to be 74.0 (it strongly increased, from 2018 to 2019, by 0.5 year, so a next increase should slow down, at least, and make up to about 74.0 years) [4]. I advice to get the most precise estimation/anticipation by a detailed demographic with death rates study.

The average age of those forming the “deaths involving Covid-19” group I estimated in the same way like the average age of death in the society (shares of age ranges plus a life table), basing on the CDC data,
to receive 76.6 years (January 2021). But the shares of the oldest subgroup (85+) look as follows: 31.1% ("deaths involving Covid-19" group – January 2021) vs. 31.65% (the normal one, in 2019, after deducting deaths due to injuries) [2]. From the comparisons we can see that shares of all subgroups in the 0-64 age range are lower in the “deaths involving Covid-19” group, and are higher in the 65-84 age range. But those percents that are “missing” in the lower age subgroups are not proportionally distributed in the older subgroups; the oldest subgroup (85+) has not increased but a bit decreased share(!) = the oldest/biggest subgroup has very probably a decreased its average age. I would deduct, because of it, only 0.2 year, but it is possible there are also hidden “disturbances” of intra-subgroup weights in other subgroups. So to be careful I subjectively deduct 0.4 to receive 76.2 years. In the end I multiply the received 76.2 by (73.79 / 74.17) to receive the final 75.8 year for the further analysis. …However it would be a great help if the needed data was just officially given.

**How many of the US “died from Covid-19” had in real their date of death accelerated**

a) At the beginning we must calculate what the average age of death should be in a close to identical group (like the one assumed to be killed by Covid-19) if nobody was infected. The already taken, assuming Covid-19 absence, average age of death in the US in the year 2020 (AD) is 74.0 years. But this value needs to be revised upwards due to some factors. Deadly injuries shorten a person’s life and their impact is unique because are not derivatives of already ‘not far from deadly’ health status! Any death due to, for example, a mechanical accident excludes the possibility of assuming the Covid-19 causative participation, so the average age of death for our group must exclude the impact of injuries in their broad meaning. In the CDC.gov data named "Leading Causes of Deaths" and see there are some groups of causes not directly dependent on aging of the organism.

- Accidents (unintentional injuries): 167127 cases in 2018 (/data for 2019 not available then yet)
- Intentional self-harm (suicides): 48344
- Assaults: 18830

Going deeper into it (data for 2018, imported in January 2021 from the website: https://injuryfacts.nsc.org), we can see there are some sub-categories concerning ‘Accidents’, with different age structures of their victims.

- ‘Poisoning’ 19.9 per 100,000  (deaths per 100,000 population)
- ‘Motor-vehicle crashes’ 12.4 per 100,000
- ‘Falls’ 11.2 per 100,000  (before the site revised it to 12.0 in February 2021)
- ‘Choking’ 1.6 per 100,000
- ‘Drowning’ 1.1 per 100,000
- ‘Fires/smoke’ 0.9 per 100,000
- ‘Mechanical suffocation’ 0.4 per 100,000

I calculate the negative contribution of ‘Poisoning’- (P) to the average age of death (AD) in the following way. The share of all ‘accidental’ deaths in the structure of US deaths is 0.0589 and the share of the ‘Poisoning’ category in ‘accidental’ deaths is 0.37 (0.0589 x 0.37 = 0.0218). I calculate using the following constructed by me estimator [43.5 = the average lethal poisoning age (estimate)]:
\[(1 - 0.0218) \times (AD + P) + 0.0218 \times 43.5 = AD\]
\[0.9782 \times 74 + 0.9782 \times P + 0.9483 = 74\]
\[72.3868 + 0.9782 \times P = 73.0517\]
\[P = 0.6649 / 0.9782 = 0.6797\]

The ‘Poisoning’ category by about 0.70 y. has its negative impact on the average age of death in the US. The estimates of the influence of the less important factors in the US: ‘Suicides’, ‘Moto-vehicle crashes’ and ‘Assaults’ give for our group: 0.45, 0.40 and 0.25 year respectively. ‘Drowning’, ‘Choking’, ‘Fires’/‘Smoke’ and ‘Mechanical suffocation’ are all trifles and add up together to the additional 0.10 year. There is one important category with the average age of a victim bigger than the average age of death in the society = ‘Falls’. I estimated (Injuryfacts.nsc.org or [2]) the average ‘Falls’ victim age to be 80.0 years. The share of all ‘accidental’ deaths in the structure of the US deaths is 0.0589 and the share of the ‘Falls’ category in all ‘accidental’ deaths is 0.22. So again: 0.0589 \times 0.22 = 0.013.

\[(1 - 0.013) \times (AD + F) + 0.013 \times 80.0 = AD\]
\[0.987 \times 74 + 0.987 \times F + 1.04 = 74\]
\[73.038 + 0.987 \times F = 72.96\]
\[F = -0.078 / 0.987 = -0.079\]

There are some more causes of ‘preventable injuries’ (Accidents) and their share is 9% in total (Injuryfacts). But their age structures are unknown to me, so I take upper 0.15 year as its influence on the average age of death. There are also deaths due to injury-like preventable medical errors (up to about 75 th. yearly = unofficially, so many times bigger value) like mistakes during operations, postoperative and drug events. But they do not let to make any meaningful revision of the average age of death for our group, because those deaths should not concern otherwise of a standard health status people but those who are mostly older and already in a bad state and seek for intensive care. I estimate the revision needed due to this factor as up to 0.25 year.

There are still factors that will noticeably revise upwards the average age of death for our group, but these factors are associated mainly with the lowest age ranges. We can look at the ‘actuarial life table’ [3] to see that the lowest age ranges factors are in a vast majority “consumed” in the 0-1 age range. The negative impact of infant mortality (birth defects, low birth weight, term birth complications and the rest of the causes) on life expectancy is 0.54 year (and 0.50 with subtracted classical injuries -mainly ‘mechanical suffocation’ cases - Injuryfacts). As it could be expected, the weight of this age sub-group in the “deaths involving Covid-19” group (CDC.gov) is close to none (about 75 times less than the 0-1 sub-group normal weight in all deaths in the society [2]).

\[(1 - 0.0073 \times 0.926) \times (AD + I) + 0.0073 \times 0.926 \times 0.5 = AD\]
\[0.9932 \times 74 + 0.9932 \times I + 0.0034 = 74\]
\[73.4968 + 0.9932 \times I = 73.9966\]
\[I = 0.4998 / 0.9932 = 0.5032; \ 0.5032 \times 74 / 75 = 0.4965\]
Any further upward adjusting of the average age of death is necessary if there is a deficit of a lower age subgroup weight in the “deaths involving Covid-19” group, when compared to the usual weight in all deaths after subtracting deaths due to ‘injuries’. -Those people, who die at age of a lower age range, create this age range negative impact on the average age of death in the year; that impact diminishes with diminishing % of people dying at age of this age range. ...I compared shares of age subgroups of the “deaths involving Covid-19” group (done later so based on data from second half of February, when its average age got noticeably higher) with the normal shares in all deaths in the society [2]. Then I corrected the second values by deducting all deaths due to ‘injuries’ (Injuryfacts and [2]). Finally, I calculated the values by which the average age of death should additionally be revised upwards. The final values are very small.

We can still see considerable weight deficits in the 01-14 and 15-24 subgroups, but next only delicate ones. There are still deaths due to congenital anomalies in the 1–19 age range (5% -share) and chronic conditions (mainly cancer and heart diseases) play a very small role [5]. So I calculate those revisions due to deficits of subgroups’ shares (within the 01-64 age range) in the following way (the example for the 35-44 subgroup):

\[
[1 - (0.0183 - 0.0168)] x (76.05 + S) + (0.0183 - 0.0168) x 40.55 = 76.05
\]

0.9985 x (76.05 + S) + 0.0608 =76.05

75.9359 + 0.9985 x S = 75.9892

S = 0.0533 /0.9985 = 0.0534

76.05 = the average age of death after deducting the negative impact of ‘injuries’; 40.55 = the theoretical average age of the subgroup/

The sum of all revisions due to deficits of shares is:

\[
0.1245 + 0.0714 + 0.0819 + 0.0534 + 0.0577 + 0.1919 = 0.5808 \text{ year}
\]

The above ‘cascade method’ is still delicately simplified, without two-step-adjusting of the average age in the “deaths involving Covid-19” group towards the value of 76.05, but both values are very similar one to the other.
Another, most precise way gives a very similar total result, initially gives delicately bigger revisions but in the end there are also slight negative revisions. [Available on request]/

…Thus, the total value of the upwards adjusting is:

\[ (0.70 + 0.45 + 0.40 + 0.25 + 0.10 - 0.10 + 0.15)* + 0.25** + 0.50 + 0.60 = 3.40 \text{ year} \]

/*this summary value is revised up by 0.1 because finally available data (for 2019) show a bit increased number of injury-deaths; **assessed conditionally*/

So: 74.0 + 3.40 = 77.40 years.

……

However, there is also one factor that in turn forces the average age of death to be adjusted downwards, for our group. This is the factor of the group state of health. …The CDC.gov has presented the tables (“Percent of U.S. Adults 55 and Over with Chronic Conditions”) with the estimates on how many older adults have conditions (of ‘named conditions’ but where ‘cardiovascular disease’ and ‘cancer’ each are, in fact, bigger groups of different conditions of the C. C. Warehouse predefined chronic condition indicators).

<table>
<thead>
<tr>
<th>Group</th>
<th>Estimate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>65+</td>
<td>85.6%</td>
</tr>
<tr>
<td>55-64</td>
<td>60.50%</td>
</tr>
</tbody>
</table>

For the group <55 = on the basis of a number of American and Canadian data, not always very similar (the sources mentioned in the text below), I take a guideline of 45% taking into account the dominance of the 45-54 age subgroup among those <55 y. old of “deaths involving Covid-19”. I calculate taking into account the weights of the groups (January 2021):

<table>
<thead>
<tr>
<th>Group</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>65+</td>
<td>0.7996</td>
</tr>
<tr>
<td>55-64</td>
<td>0.122</td>
</tr>
<tr>
<td>&lt;55</td>
<td>0.078</td>
</tr>
</tbody>
</table>

\[ 0.7996 \times 85.6 + 0.122 \times 60.5 + 0.078 \times 45, \text{ so: } 68.442 + 7.381 + 3.51 = 79.33 \% \]

Thus, with a similar age composition, only about 79% of the comparative group of the US citizens should have a chronic condition. /Those ‘named conditions’ gave 85.6% for the 65+ group, while the CCW conditions gave 88.1% for the 67+ group [6], when the % for the 67+ group must always be bigger than for the 65+ group./

The CCW conditions are: Alzheimer disease and dementia, acute myocardial infarction, atrial fibrillation, colorectal cancer, endometrial cancer, breast cancer, prostate cancer, lung cancer, cataract, chronic kidney disease, chronic obstructive pulmonary disorder, depression, diabetes, glaucoma, heart failure, hip and pelvic fracture, ischemic heart disease, osteoporosis, rheumatoid arthritis and osteoarthritis, and stroke and transient ischemic attack.

At present it is claimed that Covid-19 causes even acute strokes and acute myocardial infarctions himself [e.g. 7,8].

The share of people without a chronic condition drops to its minimum at age 75, and next, at age 85 this share is the same (not falling more), according to the Canadian data (CIHI.ca 2011). There are studies [9,10] according to which people who do not abuse alcohol +do not smoke +are physically active +eat healthy live on average
9-10 years longer than the US average is, being free, in a majority, of chronic conditions. A similar effect was signaled in other developed countries [11,12].

...The CDC suddenly revised (noted in very early April 2021) the average number of conditions to 4.0 for those 94% with conditions (the number of chronic conditions and life expectancy are strongly correlated -please read the Discussion part!). Basing on processed data from the work of DuGoff et al. [6] and on Life Table [3] the increased number of conditions (3.76 vs. 3.25) would require to deduct, from an average age of death, 1.1 year (but) for a statistical 67-year-old individual, if he then lived with the conditions for 17.9 years, and about 1.45 year for a statistical 59-year-old individual, if he then lived with the conditions for 23 years. We do not have such an information about the “deaths involving Covid-19” group. But we can use the British data guideline [13] to see that the crude %-increase in multimorbid patients is stable after age 55 and till about 80 years after what the %-increase quickly slows down. At the same time, in the US, the prevalence of 2+, 3+ and 4+ chronic conditions (not fully of CCW, but the key proportions are similar to the CCW ones) in the group of the average age 55 was already about: 77%, 62% and 47%, respectively, of that in the oldest group of age 65++ according to another guideline [14]. Let’s concentrate on 4+ conditioned, because the lower summary values are always much ahead and 3 is rather neutral, on the average age of a potential victim of Covid-19, and on the fact that actuarial life expectancy at age 65 is 19.4 years [3].

\[
0.47 + [4 / (84.4 - 55)] x (1 - 0.47) = 0.542 \ldots \text{so:} \\
0.542 x (16.8/23) x 1.45 + 0.53 x [(75.8 - 55) / 29.4] x 0.5 x [(10.4 / 8.8) x (8.8 / 17.9)] x 1.10 = \\
0.5740 + 0.1198 = 0.694 \text{ (year)}
\]

So I deduct 0.70 year to obtain 76.70 years as the final result.

Taking into account only the average number of chronic conditions in the whole “deaths involving Covid-19” group (3.76) and comparing it with the value of 3.25 (the estimate), which should have the U.S. comparative group with the same age structure, is not quite explaining the huge difference in the shares of condition-free ones; so the above 0.70 deduction can change.

b) Since people from the “deaths involving Covid-19” group were allegedly killed by Covid-19 (accelerated deaths), it means that without its ‘intervention’ these people should still live. Thus, I calculate the average further life expectancy for the people from the whole “deaths involving Covid-19” group if they were not killed by Covid-19. I plot their age-of-death structure plus shares of women and men on the ‘actuarial Life Table’ [3]. I calculate the average value for each age-subgroup (weighting ‘Exact ages’), and then, taking into account those age-subgroups weights, I finally calculate the average ‘further life expectancy for the whole group. The result of 12.25 year must be then corrected up because the average age of death for the “deaths involving Covid-19” group was corrected down (from 76.6 to 75.8) -what gives 12.80 year; and has also to be revised upwards because our group consists of those who could not die (if to be included into the group) because of fully external causes. For each mentioned category we must calculate the still existing, after the age at which the deceased formed the “deaths involving Covid-19” group, potential length of life diminishing effect (X). For example, there are still many people in that group at the age range 45-75 which could otherwise be important in number
victims of lethal ‘Poisoning’. The calculation is the sum of the partial ones (Xn) for different age ranges (including 75+ too).

\[ 1.0 \times [78.5 + X_n \times (S_n / S_N) / (C_n / C_N)] - 0.0218 \times (P_n / P_N) \times LE = 78.5 \]
\[ X_n \times (S_n / S_N) / (C_n / C_N) = 0.0218 \times (P_n / P_N) \times LE \]
\[ X_n = LE \times 0.0218 \times (P_n / P_N) \times (C_n / C_N) / (S_n / S_N) \]

Xn - the potential length of life diminishing effect for an ‘n’ age range in the “deaths involving Covid-19” (DIC) group
Pn - the number of Poisoning victims in an ‘n’ age range, PN - the number of all Poisoning victims (in the year)
Cn, SN - the same as above (C) but in the whole society
LE - life expectancy of a victim from an ‘n’ age range or at least life expectancy at the average age
78.5 - the life expectancy in the US according to the World Bank (2018)

/The imputed 0.0218 value in the above estimator assumes that the percent of people dying in the given year from the injury is similar to the percent of people dying, at all, from the injury. The potential difference would be very small and the results received below are so little so this assumption cannot influence the final result of the analysis in any meaningful way, whereas saves time./

We must repeat the same kind of calculations with all of the mentioned earlier categories. After that, the calculations results concerning different categories must be summed up all together. All needed data, concerning age ranges of victims of different types of injury, are in tables and charts of https://injuryfacts.nsc.org

The calculations gave me the following final values (the same order like in the A part) to sum up:

\[ 0.25 + 0.2 + 0.15 + 0.05 + 0.05 + 0.05 + 0.05 + 0.10 = 0.90 \]

Next I add the calculated 0.90, but at the same time I could subtract 0.70 (the worse state of health of our group; the same value like subtracted in the A part) to obtain 13.00 years, but to keep the proportions:

\[ 76.70 / 77.40 = 0.991 \]
\[ (75.8 + 12.80 + 0.90) \times 0.991 - 75.8 = 12.8945 \]

…I finally take the more diminished value of 12.90 years for the further analysis. But why, for example, for the age of 76 an alive person should live, on average, for over 11 more years (‘life table’)? Because some people die being (much) younger, and any person aged 76 is the one who is lucky to still live. Those who died being younger lower the average ‘length of life’ and the still living will increase it. The average ‘length of life’ and the average ‘expected at a given age total length of life’ are equal only at birth.

c) What are the conclusions so far and what next?
   - If 100% of people of our group died due to “aging”, that is, if Covid-19 would not kill any of them, the average age of death would be 76.7 years. The Covid-19 superimposing cannot increase but only lower this value, because Covid-19 is a life-shortening factor. The worst possible state of health (pre-deadly/deadly) at the present moment(year) is nothing like at age 85; the worst one is, on average, at age 76.7 and only
within the whole group (and within the society) some people have their worst health status even at age 90 or more while at the same time some people have their worst possible health status at age 60 or less. The average number of chronic conditions in the “deaths involving Covid-19” group is not meaningfully lowered, but is increased! (what is already taken into account for our group).

-At the same time, if Covid-19 killed all persons of the “deaths involving Covid-19” group then it means that without the virus ‘intervention’ all of them should be still alive, for the next 12.9 years on average! It also means that each individual genuine Covid-19 related death shortened its victim life, on average, by 12.9 years.

/It is nonsensical to believe that Covid-19 kills exclusively the strongest ones who would otherwise live to an average age of 88.7 years; besides, they can never be the strongest ones, judging by the average number of chronic conditions!/ 

-Persons from the ‘deaths involving Covid-19’ group died at an average age of about 75.8, not of 76.7, so there is the 0.9-year loophole caused probably by lethal effects of viruses. The average contribution of a single individual genuine Covid-19 related death to the size of this gap is as follows:

\[
(12.90 /N) \times (N - 1) /N = 12.90 \times (N - 1) /N^2
\]

/‘N’ is the size of the entire group = 363 th. ; ^-exponentiation).

The total Covid-19 contribution to the size of the gap cannot be more than the gap itself is. Let’s count exactly:

\[
C \times [12.90 \times (N - C)] /N^2 = 0.90
\]

/‘C’ is the number of real/genuine Covid-19 related deaths./

\[
C \times [12.90 \times N - 12.90 \times C] = 0.90 \times N^2
\]

\[
12.90 \times C^2 - 12.90 \times N \times C + 0.90 \times N^2 = 0
\]

\[
C = 27.3927 \quad \text{…So:}
\]

\[
C /N = 27.3927 /363 = 0.0755 \quad (= 07.55 \%)
\]

/C/N – the share of real Covid-19 related deaths in the “deaths involving Covid-19” group in the US./

So only up to about 10% of those from the official ‘deaths involving Covid-19’ group died from Covid-19 complicity and all the rest were already in their irrevocable terminal states and would have died in the same time anyway, also without the Covid-19 infection, because their deaths resulted only from the normal age structure of deaths in the United States and from causes/conditions already existing before Covid-19, creating the actual average age of death. [It is however possible, strictly conditionally, that some of the rest (of >90%) had their deaths earlier by some days, but with simultaneous decreasing influence on the basic 07.55% value, so with decreasing influence on the calculated number of deaths in the yearly statistics – can be explained on request]

/The “intrinsic loop”/

Some of patients with other diseases are not provided with immediate help because access to treatment for the diseases that most contribute to deaths (cardiology, oncology and lung diseases) has worsened with the pandemic in many countries. Some of hospital clinics have been closed due to revealed Covid-19 outbreaks. There are also people who are afraid of going to a specialist or to the hospital because of their
apprehension of becoming Covid-19 infected there (panic). Covering the face with a mask enables the creation of a dangerous concentration of microorganisms and a statistical mask user probably do not change it often enough to limit that problem; besides, masks decrease O2- and increase CO2- concentrations under it. Staying at home means limited physical activity what is negative for overall health. When a number of people die because of these reasons earlier that they otherwise would, they additionally reduce the average age of death. These factors role will be growing over time.

Influenza and Pneumonia

The flu reported numbers of cases, even up to 90-95%, diminished in the world in the year 2020. That fact was already visible in the very beginning of the Covid-19 appearance [15]. Maybe a number of the flu cases is also treated as Covid-19 this year due to the tests limited reliability, or maybe there is another explanation. Comparative joint counting of Covid-19, influenza and pneumonia-without-Covid-19 lethal cases is necessary because when looking at the CDC data: “Deaths involving coronavirus disease” we can see that virtually all cases of “Deaths involving Covid-19 and Pneumonia” are further claimed to be Covid-19 lethal victims. Also, according to one analysis, in the UK when influenza, pneumonia and Covid-19 were on a Medical Certificate Cause of Death (MCCD) together, without a postmortem, then almost 96% of these deaths were counted as Covid-19 deaths [16].

Discussion

In the US, over 62%, about 48%, 34%, 23% and 15% of persons aged 67+ have, respectively, 3+, 4+, 5+, 6+ and seven or more conditions, but only >2% had ten or more [6]. Some useful info adds the rand.org study: “Multiple Chronic Conditions in the United States” also [17]. But the prevalence of 2+, 3+ and 4+ chronic conditions is about: 2.4 times, five times and up to ten times, respectively, greater in the age group 65+ than in the age group 20-44 years; at the same time, when comparing to the age group 45-64, this prevalence is about 1.3, 1.6 and 2.1 times, respectively, greater in the age group 65+ [14]. So, the average of just under 3.8 conditions in the “deaths involving Covid-19” group is only a bit higher than the standard number for the U.S. society cluster with a similar age-structure, which should be 3.25 according to my estimate.

Life expectancy and the number of chronic conditions are very strongly correlated; the average number of chronic conditions would have to be ≥ 10.0 (!) to diminish life expectancy to 80 years for a still alive 75-year-old US woman, what means shortening the remaining life to five years; at the same time a 75-year-old woman with “only” 5.0 chronic conditions should live, on average, to the age of 87, what is by one year shorter than the average for a 75-year-old woman in the US [6]. The marginal decline in life expectancy increases with an additional chronic condition when numbers are low, but this decline starts with low values -first ones conditions sum up to the much less effect than the next conditions do [6]. At the same time, selected conditions give differences in life expectancy at age 67, but the differences considerably diminish with morbidity and/or with increasing age [6]. The clear relationship between the number of comorbidities and life expectancy has been discovered also by other authors [18].
So the average of just under 3.8 conditions in the “deaths involving Covid-19” group deny the theory that that group was of distinctly worse than standard health status. Additionally, further selective increase in the average number of chronic conditions would only diminish the share of real Covid-19 deaths in the officially announced ‘Covid-19 related deaths’, because the relation of the final values (in the C-part) would decrease!

Conclusions

a) The ‘ex post’ analysis is necessary to discover the real number of cases with synergy causing earlier deaths.

b) The ‘Covid-19 deaths’ official numbers are in a vast majority the double counting of those who would die whatsoever in the same time even without Covid-19; so in the US in the year 2020 there were not about 363,000 ‘deaths involving Covid-19’ but only up to about 30,000 of that.

c) The genuine Covid-19 mortality is very close to zero (if to be based on antibody tests).

d) Hardly any excessive deaths year-over-year are due to Covid-19. Main reasons of excessive deaths most likely are:
   - the worsened access to treatment for diseases other than Covid-19
   - some of patients’ fear of going to a specialist or to the hospital (panic)
   - ‘deaths of despair’.

e) It can be supposed that another reason of the official numbers of ‘Covid-19 deaths’ being hugely overestimated is including those who have had only a positive PCR test result (even 2 months prior to the death, like in the US or in the UK).

f) Comparative joint counting of Covid-19 + influenza + pneumonia-without-Covid-19 lethal cases is necessary.

g) The Covid-19 appearing in 2020 (taking into account the simultaneous disappearing of the flu) made no noticeable/meaningful increase in the number of yearly deaths due to respiratory viral infections (when compared to previous years).

Conflict Of Interest

There is no conflict of interest.

Note

The new CDC document appeared [19]. I do not use it because it does not look much credible. The number of “Covid-19 deaths” was revised up to 378 th. (compared to the data from very early January 2021 -363 th.), but the estimated average Covid-19 decedent age went up from about 75.8 to 76.3 years. It would be only possible if those added 15 th. died at age 90 on average. Also, the CDC gives a much increased number of deaths (2020 vs. 2019) and the decreased average age of death. If the data were real it would mean that the ‘intrinsic loop’ and ‘deaths of despair’ killed additional 450-500 th. of people, in 2020. But I think this preliminary data is by a big part the result of simple adding in an unwise way.
References

1) https://www.cdc.gov/mmwr/volumes/69/wr/mm6928e1.htm
2) https://www.cdc.gov/nchs/data/nvsr/nvsr70/nvsr70-08-508.pdf
4) https://www.census.gov/topics/population.html
7) https://wwwnc.cdc.gov/eid/article/26/9/20-1791_article
8) https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)00896-5/fulltext
18) https://www.cdc.gov/mmwr/volumes/70/wr/mm7014e1.htm

Some links to the detailed www addresses are not given in the references if concern major institutions, while adding in a browser the given in the essay key words should easily let to find the data.

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