Assume average age of death is 75. Calculated age-adjusted death rate:

1. Drug overdoses

The data is a 12 month trailing period, so October 2020 = (Drug overdoses from Oct 2019 to Oct 2020). This is very important. That means Every time you move to the next month, you chop off the oldest month's deaths and add the newest month's death.

https://www.kff.org/other/state-indicator/opioid-overdose-deaths-by-age-group/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D

average age of drug overdose:

Location	0-24	25-34	35-44	45-54	55+	Total
United States	3,683	13,309	12,425	10,015	9,290	49,860

(opioids only, in calculations below I extrapolate to all drug overdoses)

Jurisdiction	Month and Year	Reported Value	Predicted Value
United States	October 2020	88990	91862
United States	September 2020	87980	90517
United States	August 2020	86561	88652
United States	July 2020	84643	86377
United States	June 2020	82475	83993
United States	May 2020	80273	81737
United States	April 2020	76815	78069
United States	March 2020	74547	75714
United States	February 2020	73256	74440
United States	January 2020	72087	73634

Jurisdiction	Month and Year	Reported Value	Predicted Value
United States	December 2019	71130	72478
United States	November 2019	70357	71672
United States	October 2019	69371	70669
United States	September 2019	68757	70036
United States	August 2019	68371	69640
United States	July 2019	68023	69266
United States	June 2019	67787	69023
United States	May 2019	67795	69021
United States	April 2019	67736	68959
United States	March 2019	67727	68934

Deaths from all different kinds of drug overdoses^

Calculating rough average age of death from drug overdose:

Assuming that the 55+ category in opioid deaths is roughly an average age of 65, I think that's quite generous.

((3,683/49,860)*(24+0/2))+((13,309/49,860)*(34+25/2))+((12,425/49,860)*(44+35/2))+((10,015/49,860)*(54+45/2))+((9,290/49,860)*(65))

0.8864019+7.874358+9.84331127+9.9426895+12.1109= **40.65 average age of death.**

Calculating rough amount of excess drug overdoses from 2019 to 2020:

From the monthly data above, if we are conservative and assume monthly deaths do not rise from October 2020 to March 2021, then this means March 2021 would be same as October 2020, which is 88,990 deaths. Then we subtract this (Extrapolated March 2021 12 month trailing number) from (March 2020 12 month trailing number) to get the 1 year change, we would have 88,990 - 74,547 = **14,443 more drug overdoses from March 2020-2021 then March 2019-2020.**

Assume avg age of drug overdose death is 40. And avg age of death 75. This is -35 years for 14,443 people, which is 35*14,443 = **+505,505 more life years lost from (March 2020-2021) then (March 2019-2020).**

This is only looking at *excess* drug overdose deaths from these two time periods.

Assuming the October 2020, 12 month trailing figure stayed the same at 88,990 through March 2021 (which is a likely a conservative assumption.)

35*88,990 = **+3,114,650 life years lost from all drug overdoses from March 2020 to March 2021.**

https://www.cdc.gov/nchs/nvss/vsrr/drug-overdose-data.htm

2. Covid deaths

Characteristic	No. (rate)†	
	Total deaths	COVID-19 deaths§
Total	3,358,814 (828.7)	377,883 (91.5)
Age group, yrs		
<1	19,146 (506.0)	43 (1.1)
1–4	3,469 (22.2)	24 (0.2)
5–14	5,556 (13.6)	67 (0.2)
15–24	35,470 (83.2)	587 (1.4)
25–34	72,678 (157.9)	2,527 (5.5)
35–44	103,389 (246.2)	6,617 (15.8)
45–54	189,397 (467.8)	17,905 (44.2)
55–64	436,886 (1,028.5)	44,631 (105.1)
65–74	669,316 (2,068.8)	80,617 (249.2)
75–84	816,307 (4,980.2)	104,212 (635.8)
≥85	1,007,114 (15,007.4)	120,648 (1,797.8)
Unknown	86 (—)	5 (—)

https://www.cdc.gov/mmwr/volumes/70/wr/mm7014e1.htm

Calculating rough number of life years lost from covid-19:

People below the average age of death. Taking average of each age in each category: (75-1*43)+(75-2.5*24)+(75-9.5*67)+(75-19.5*587)+(75-29.5*2,527)+(75-39.5*6,617)+(75-49.5*17,905)+(75-59.5*44,631)+(75-69.5*80,617) = **+1,983,522 life years lost.**

People above the average age of death. Taking average of each age in each category: (75-79.5*104,212)+(75-87*120,648) = **-1,916,730 life years 'gained'.**

The 75+ year old deaths aren't exactly 'gained' or negative life years since a person who is over the average age of death who dies from covid-19 is logically still a premature death. But technically speaking, when someone above the average age of death dies, it counts as a negative number when calculating the running population age-adjusted death count in life years.

Should the 1,916,730 life years gained from age 75+ dying be ignored as zero, since these people were already over the hump? Do you say anyone over the age of 75 (average age of death) is just extra free gravy and shouldn't be considered as adding to the life years lost?

Well, it doesn't make sense to add the negative number when trying to determine "premature" deaths. And it doesn't make sense to ignore it and let it equal zero. Let me give the most generous assumption I can to calculate the life years lost for people aged 75+. ***Imagine every single person over the age of 75 that died from covid-19 would have lived 3 more years. I think that's quite generous.***

(3*104,212)+(3*120,648) **= +674,580 life years lost for people 75+ from covid-19.**

1,983,522 + 674,580 = **+2,658,102 life years lost, worst case scenario. (If it's assumed that covid-19 shorted the lifespan of people age 75+ by 3 years.**

3. Comparisons and Conclusion

14.4k excess drug OD deaths = 500k life years lost.

350k covid-19 deaths = 2.65M life years lost.

In terms of life years lost: Excess drug overdose deaths in 2020 were a little less than 20% of the life years lost from covid-19.

Logically extrapolating and likely underestimating: All drug overdose deaths in 2020 accounted for ~3.1M life years lost.

Likely overestimating (generous assumption): There were 2.65M life years lost in 2020 from covid-19.

There were more life years lost from drug overdoses than covid-19 in 2020. (Approximately 20% more life years lost from drug overdoses than covid-19) (USA)

Metaphor for covid:

“There's a group of 8,000 kids all in different time zones. These 8,000 kids all have a cumulative average bedtime. Their average bedtime is 7:30pm. Assume going to bed later is better. 2 of the 8,000 kids who are still up at 8:00pm (past the average bedtime) get forced to go to bed at exactly 8:00pm rather than continuing to staying up even later. The parents tell the other 7,998 kids that they have to go sit in the corner in time-out for 2 minutes (which ends up being over an hour), drink experimental cool aid, and wear a dunce cap, otherwise a possible 3rd child of the 8,000 who is still up at 8:00pm will be forced to go to bed at 8:00pm.”