

Five +1 Tweets Showing that in Europe COVID19 is Very Similar to 2017/18 European Flu Epidemic Both in Total Number of Excess Deaths and Age Range of These Deaths

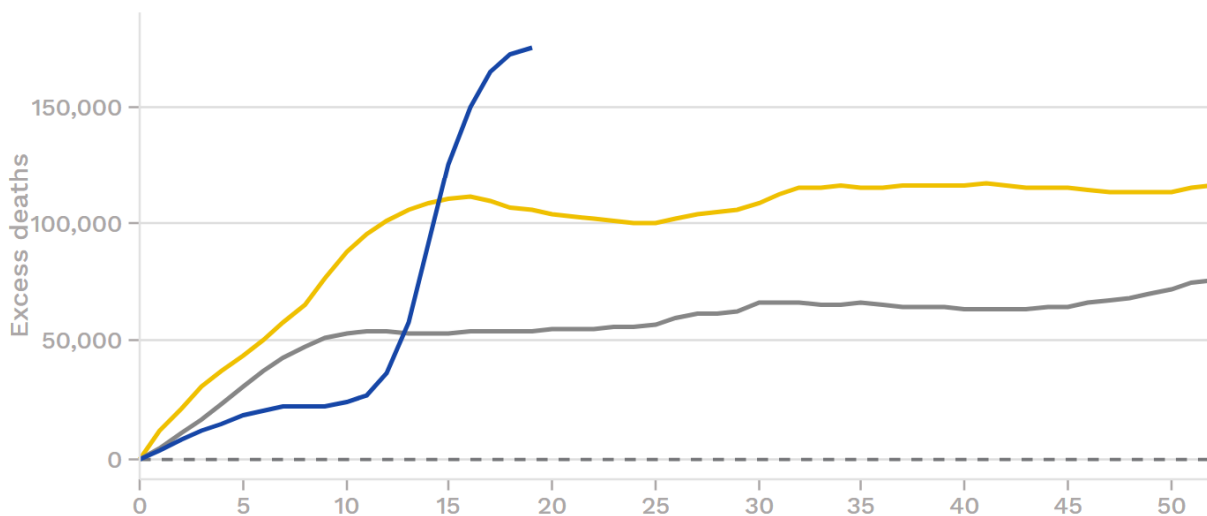
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**TWEET 1**

COVID19 Excess Deaths plateau at 153,006, 15% more than 17/18 Flu with same age range counts. Details follow

----- Baseline    2018    2019    2020

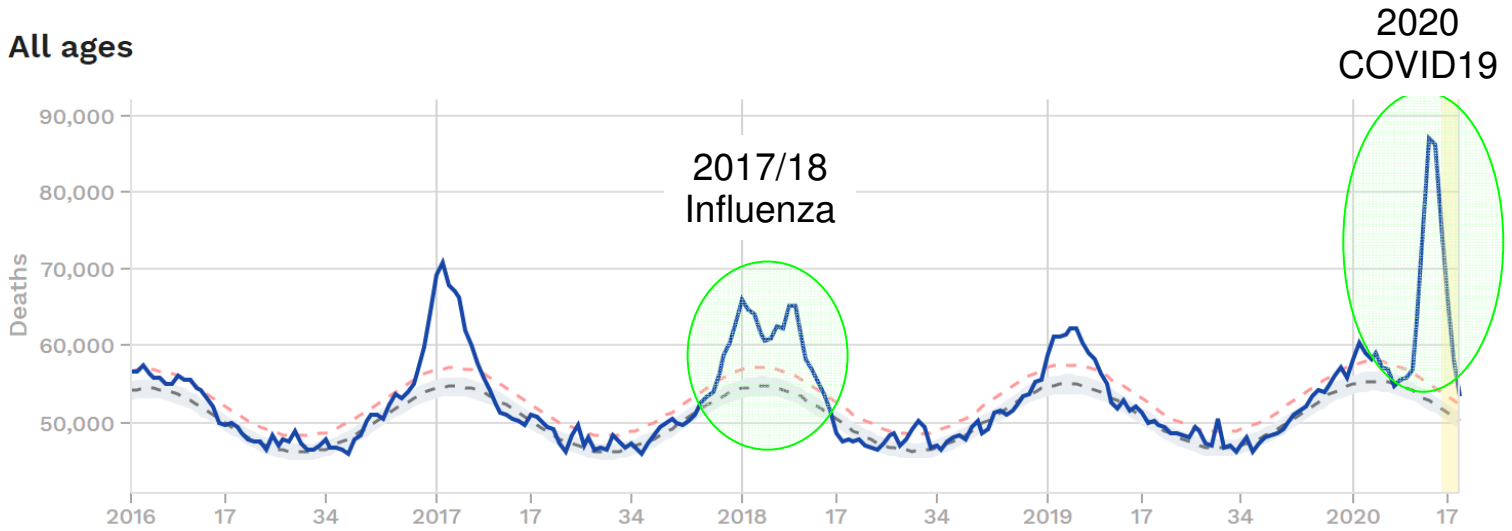
All ages



**FIGURE 1.** This is EuroMOMO excess death counts for calendar years 2018, 2019 & 2020. The excess death for COVID19 is easily read as the difference between Week19 (12May20) and Week08 (27Feb20). Same is true of the 2018 part of 2107/18 flu season. Getting the 2017 part is harder. These yellow notes are added to aid those interested in following the calculation and hopefully pointing out errors.

— Pooled deaths  
  Normal range  
 - - - Baseline  
 - - - Substantial increase  
 Corrected for delay in registration

All ages



**FIGURE 2.** This is EuroMOMO’s Total (solid blue line), Baseline (dashed grey line) and ‘Substantial increase’ (dashed red line) for years 2016 to present. Green circles mark 2017/18 Flu and COVID 19. The difference between Total Deaths and Baseline Deaths is Excess Deaths.

Michael Levitt 18 May 2020 Comparing COVID19 in 2020 to Influenza in 2017/18

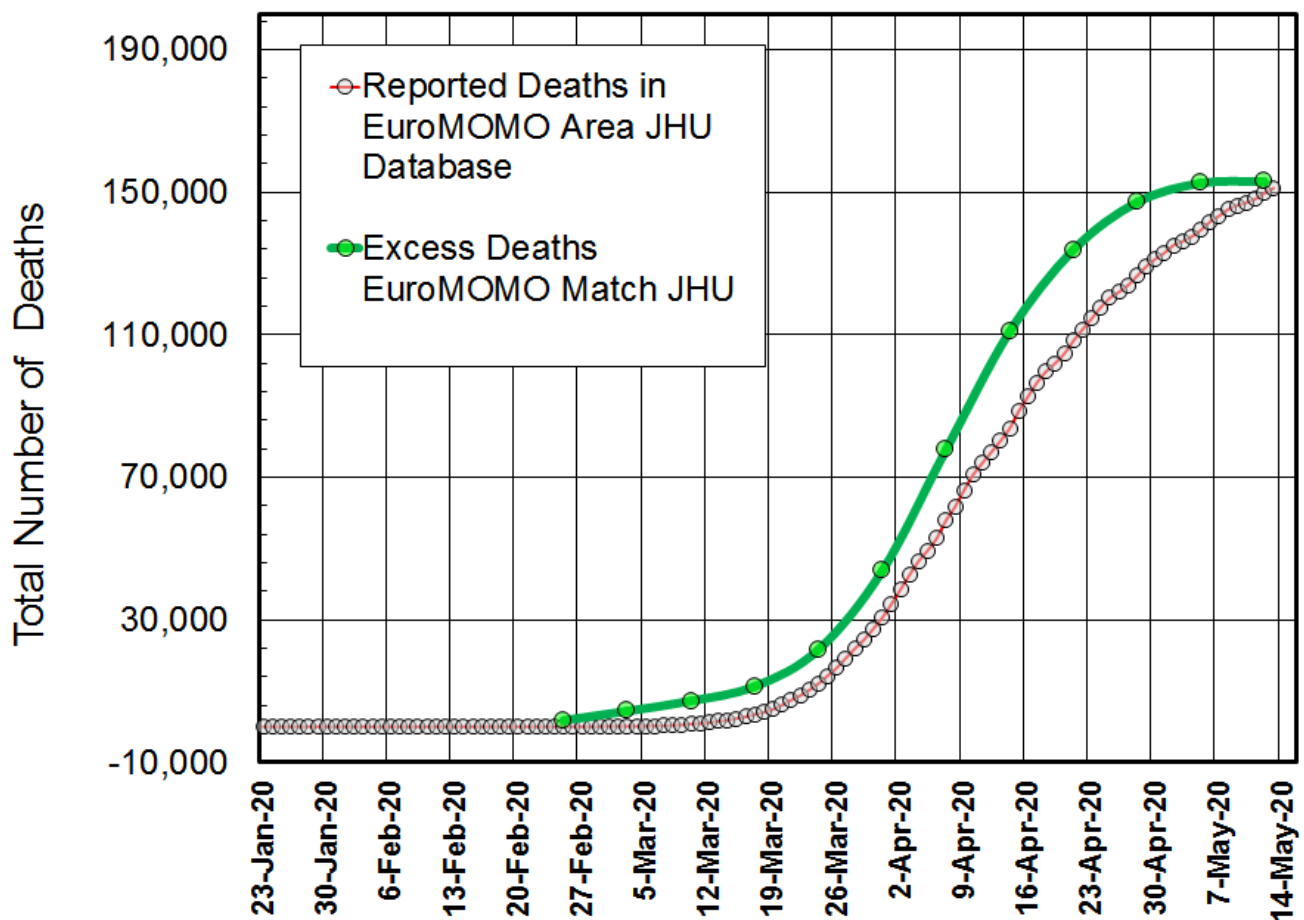
Year	Comment	Total Deaths	Age Ranges			
			<65	65-74	75-84	85+
2020	Week 08 -19 COVID19	153,006	7.9%	12.8%	31.5%	47.9%
2017	Wk. 49 - Wk. 52 Influenza	21,972	NA	NA	NA	NA
2018	Wk. 01 - Wk. 16 Influenza	111,226	8.1%	12.3%	24.7%	54.9%
2017/18	17,Wk.49-18,Wk.16 Influenza	133,198	8.1%	12.3%	24.7%	54.9%

In the EuroMOMO region, COVID19 in 2020 has led to 19,808 (153,006–133,198) more Excess Deaths than Influenza caused in the 2017/18 Flu Season (15%). This is for a population of 250,000,000.

**Table 3.** Summary for 2020 COVID19 Season and 2017/18 Influenza Season. Due to Baseline issues, we cannot estimate Age Range Mortality for the 2017 part of the flu season so we base our analysis on the 2018 part where data is available from EuroMOMO.

## TWEET 2

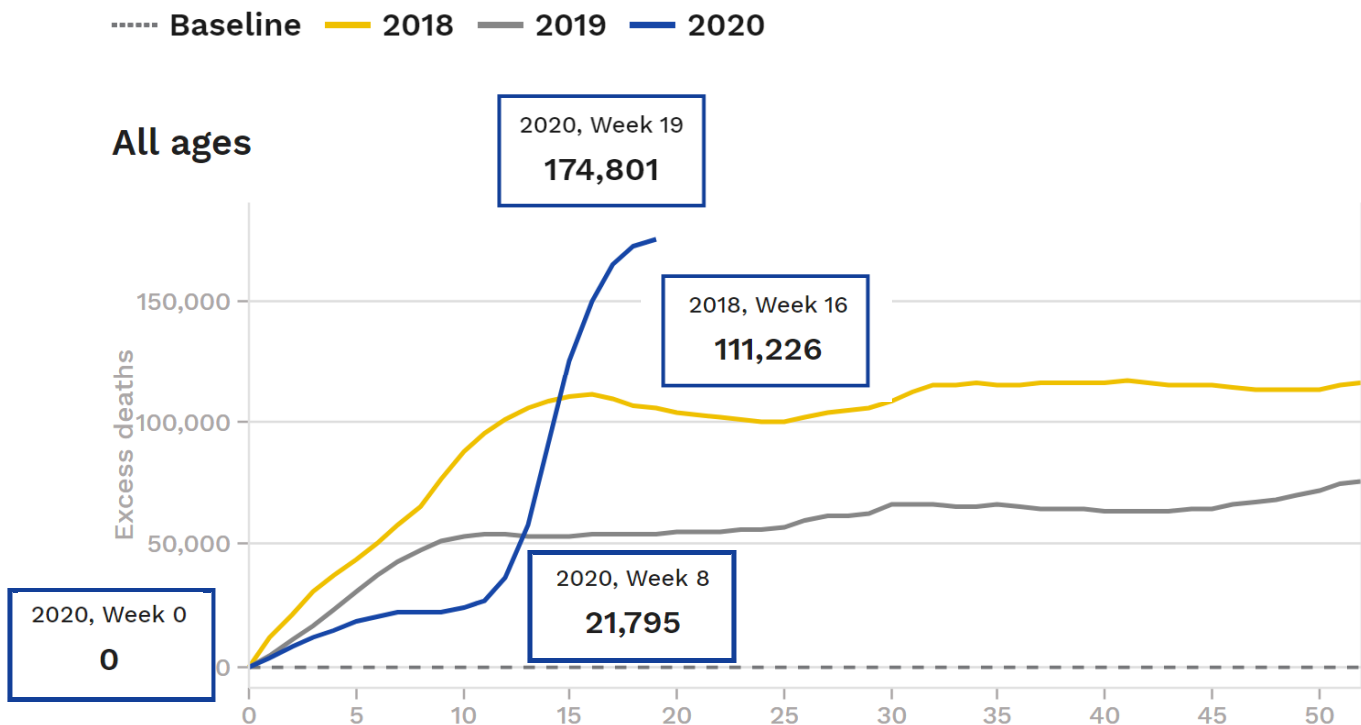
EuroMOMO <https://www.euromomo.eu/graphs-and-maps>  
Excess Deaths from 2020 Week 8 now match reported  
COVID Deaths @JHUSystems perfectly (better than 2%). In  
earlier weeks the reported deaths were lower. Not sure why?  
It allows me to do this in depth analysis & comparison with  
EuroMOMO influenza.



**FIGURE 4.** The weekly EuroMOMO Excess Deaths are read off their graphs by mouse-over. The Weekly reported COVID19 deaths are taken from the JHU Github repository. The good agreement is an encouraging sigh of reliable data but there is a unexplained delay in EuroMOMO numbers.

## TWEET 3

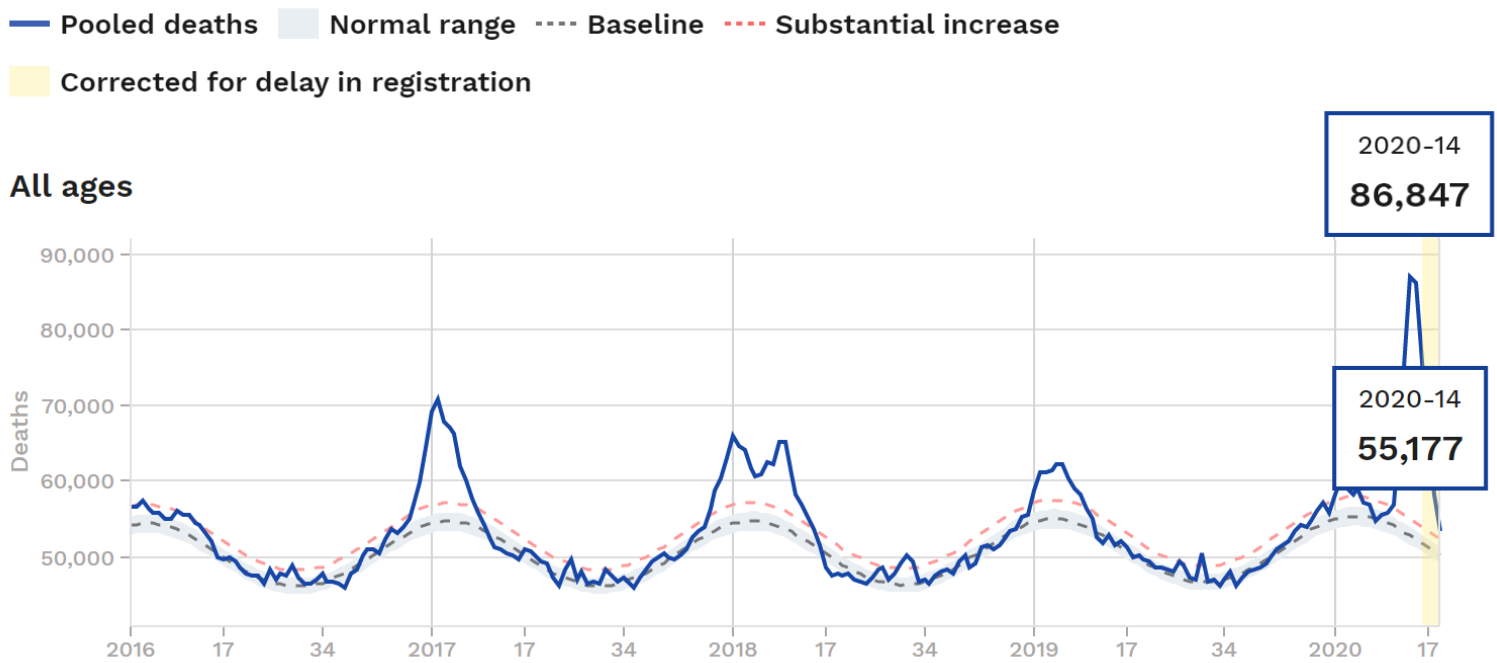
Analysis of Europe's Excess Deaths is hard: EuroMOMO provides beautiful plots; data requires hand-recorded mouse-overs. COVID19 2020, Weeks 08-19 & flu 2018, Weeks 01-16 is relatively easy for all age ranges (totals 153,006 & 111,226). Getting Dec. 2017 flu peak is very tricky.



**FIGURE 5.** The Excess deaths for COVID19 in 2020 and for Influenza in 2018 are easily read off the EuroMOMO graphs by hand recording four mouse-overs. The same is done for all different age ranges allowing accurate determination of the age range mortalities. For COVID19,  $174,801 - 21,795 = 153,006$  Excess Deaths. For Influenza, the difference is  $111,226 - 0 = 111,226$  Excess Deaths.

## TWEET 4

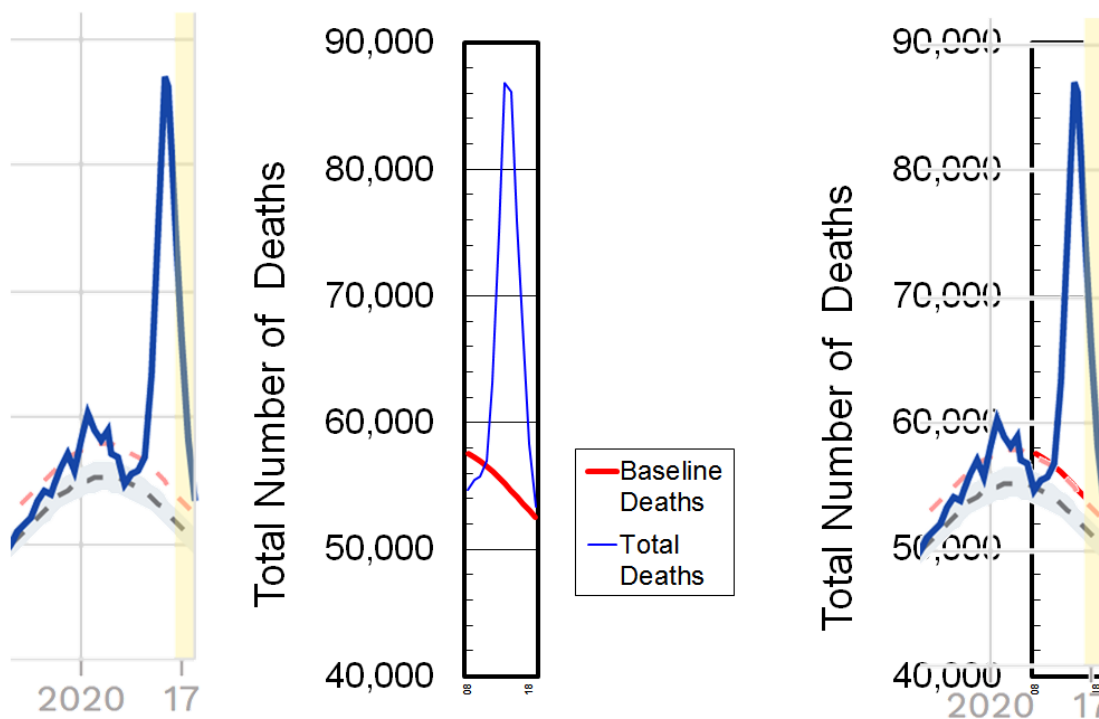
Should be easy as mouse over gives two values a week:  
Actual death count & Baseline value. Tests on COVID19  
peak gave total of 127,062 deaths & not 153,006. Plotting  
table & superimposing real plot showed why. Wrong  
Baseline values are actually 'Substantial increase' values!!



**FIGURE 6.** Excess Deaths can also be determined from the plots of Total and Baseline Deaths with week number. Many more numbers need to be recorded but the result would be the same.

Week	Total All Ages	Base Line	Excess	Running Total
08	54,697	57,555	-2,858	-2,858
09	55,499	57,287	-1,788	-4,646
10	55,752	56,957	-1,205	-5,851
11	56,974	56,573	401	-5,450
12	63,209	56,143	7,534	2,084
13	75,026	55,675	19,849	21,933
14	86,847	55,177	32,188	54,121
15	86,075	54,659	31,947	86,068
16	75,885	54,128	22,291	108,359
17	66,241	53,594	12,647	121,006
18	58,287	53,064	5,223	126,229
19	53,379	52,546	833	127,062

**TABLE 7.** The pairs of numbers recorded from EuroMOMO between weeks 08 and 19 of 2020 allow the Excess Death to be determined in a different way than from FIG. 5. The total Excess Death (127,062) should be the same as before (153,006) but it is not. Why?



**FIGURE 8.** The lower number in TABLE 7 is in fact not the Baseline Death value (grey dashed line) but the 'Substantial increase' value (red dashed line). Thus the numbers in the table are not Excess Deaths (Total minus Baseline level) but Total minus 'Substantial increase' level. The difference is found by adding  $12 \times 1981$  to 127,062 to get 153,006. This means that the baseline is about 2000 deaths a week below the red line. This cannot be intended and is a serious error in EuroMOMO. Can someone please help me contact them?

## TWEET 5

Requiring two COVID19 death counts to match means reducing Baseline value by  $23,774/12=1,981$ . Mouse-over 2017 weeks 46 to 52 gave table below. Negative excess death meant 2017 flu began Week 49 not 46. We tried to get Age Range data for 2017 but table just use 2018 flu data.

Year	Week	Total									
		ALL		65-74		75-84		85+		<65	
		Total	Excess	Total	Excess	Total	Excess	Total	Excess	Total	Excess
2017	46	52,747	-1,340	8,521	-344	14,280	-762	22,381	-819	7,565	585
	47	53,567	-1,036	8,606	-309	14,804	-374	22,723	-808	7,434	455
	48	53,918	-1,177	8,618	-344	14,993	-315	22,828	-1,023	7,479	505
	49	56,398	842	9,006	13	15,429	-1	24,154	0	7,809	830
	50	58,726	2,748	9,184	138	16,169	631	25,363	928	8,010	1,051
	51	60,311	3,960	9,382	301	16,609	975	26,327	1,638	7,993	1,046
	52	63,167	6,497	9,778	668	17,163	1,450	27,750	2,839	8,476	1,540
		10,494		123		1,604		2,755		6,012	
		14,047		1,120		3,055		5,405		4,467	

Year	Week	Base Line									
		ALL		65-74		65-74		85+		<65	
		Total	T(t)-T(t-1)	Total	T(t)-T(t-1)	Total	T(t)-T(t-1)	Total	T(t)-T(t-1)	Total	T(t)-T(t-1)
2017	46	54,087		8,865		15,042		23,200		6,980	
	47	54,603	516	8,915	50	15,178	136	23,531	331	6,979	-1
	48	55,095	492	8,962	47	15,308	130	23,851	320	6,974	-5
	49	55,556	461	8,993	31	15,430	122	24,154	303	6,979	5
	50	55,978	422	9,046	53	15,538	108	24,435	281	6,959	-20
	51	56,351	373	9,081	35	15,634	96	24,689	254	6,947	-12
	52	56,670	319	9,110	29	15,713	79	24,911	222	6,936	-11

**TABLE 9.** We try to estimate the Excess Deaths for the 2017 part of the 2017/18 influenza season by recording pairs of mouse-overs for seven weeks (46 to 52) and four age ranges. Because the Total Death is not always higher than the 'Substantial increase. base level, we use differences as a sanity. The red number for weeks 46 to 48 show that the Excess Death is negative and that the Influenza season did not start till week 49 of 2017.

Year	Comment	All	65-74	75-84	85+	<65
2018	Week Excess 16	111,226	13,710	27,439	61,013	9,064
Flu	Week Excess 01	0	0	0	0	0
	Week 16 - Week 01	111,226	13,710	27,439	61,013	9,064
2017	Week 49 to Week 52	14,047	1,120	3,055	5,405	4,467
Flu	4 days Baseline Correction	7,925	1,254	1,254	2,175	1,088
	Week 49 to Week 52	21,972	2,374	4,309	7,580	5,555
	Total 2017 Week 49 to 2018 Week	133,198	16,084	31,748	68,593	14,619
	Percent 2017 Week 49 to 52	100.0%	10.8%	19.6%	34.5%	25.3%
	Percent 2018 to Week 01 to 16	100.0%	12.3%	24.7%	54.9%	8.1%

**TABLE 10.** We try to combine the two parts of the 2017/18 flu season. The values for 2018 are straight forward as they are determined as shown in Fig. 5. For the 2017, we need to use the values in Table 9 and add the baseline correction because EuroMOMO mouse-overs are wrong, giving as they do the 'Substantial increase' value instead of the 'Baseline' value. We can use the same correction of 1981 deaths per week as determined for All COVID19 data but we do not know what the correction is for other age ranges. An attempt to assume that the correction is proportional to the 2017 number of deaths in each age range gives strange age range mortalities. Thus, we choose to use the total for 2017 (21,972) but give the age range mortalities just from the deaths in 2018.



## TWEET 6

COVID19 is similar to flu only in total and age range excess mortality. Flu is a different virus, has a safe vaccine & is much less a threat to heroic medical professionals.