

How to make graphs on Excel

October 8, 2020

Download Excel files from the Life Sciences Outreach Program website at:

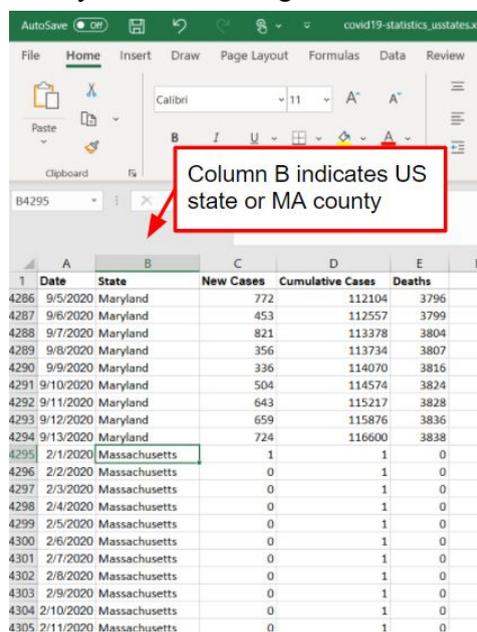
<https://lifesciencesoutreach.fas.harvard.edu/lecture-1-100820>

There are six files:

covid19-statistics_MAcountries.xlsx	Massachusetts counties ¹
covid19-statistics_USstates.xlsx	US states and territories ¹
covid19-statistics_USA.xlsx	US as a whole ¹
covid19-statistics_China.xlsx	China ²
covid19-statistics_Italy.xlsx	Italy ²
covid19-statistics_Southkorea.xlsx	South Korea ²

These contain the daily cases, cumulative cases, and cumulative deaths for the geographic region(s) indicated in the file title.

1. After downloading the file from the LSO website, open it in Excel.
2. In the case of the MAcountries and USstates files, there are multiple geographic regions within one file. You will be able to tell the region of the data you are looking at from the label in column B.



	A	B	C	D	E	F
1	Date	State	New Cases	Cumulative Cases	Deaths	
4286	9/5/2020	Maryland	772	112104	3796	
4287	9/6/2020	Maryland	453	112557	3799	
4288	9/7/2020	Maryland	821	113378	3804	
4289	9/8/2020	Maryland	356	113734	3807	
4290	9/9/2020	Maryland	336	114070	3816	
4291	9/10/2020	Maryland	504	114574	3824	
4292	9/11/2020	Maryland	643	115217	3828	
4293	9/12/2020	Maryland	659	115876	3836	
4294	9/13/2020	Maryland	724	116600	3838	
4295	2/1/2020	Massachusetts	1	1	0	
4296	2/2/2020	Massachusetts	0	1	0	
4297	2/3/2020	Massachusetts	0	1	0	
4298	2/4/2020	Massachusetts	0	1	0	
4299	2/5/2020	Massachusetts	0	1	0	
4300	2/6/2020	Massachusetts	0	1	0	
4301	2/7/2020	Massachusetts	0	1	0	
4302	2/8/2020	Massachusetts	0	1	0	
4303	2/9/2020	Massachusetts	0	1	0	
4304	2/10/2020	Massachusetts	0	1	0	
4305	2/11/2020	Massachusetts	0	1	0	

¹ downloaded from <https://github.com/nytimes/covid-19-data>

² downloaded from ECDC

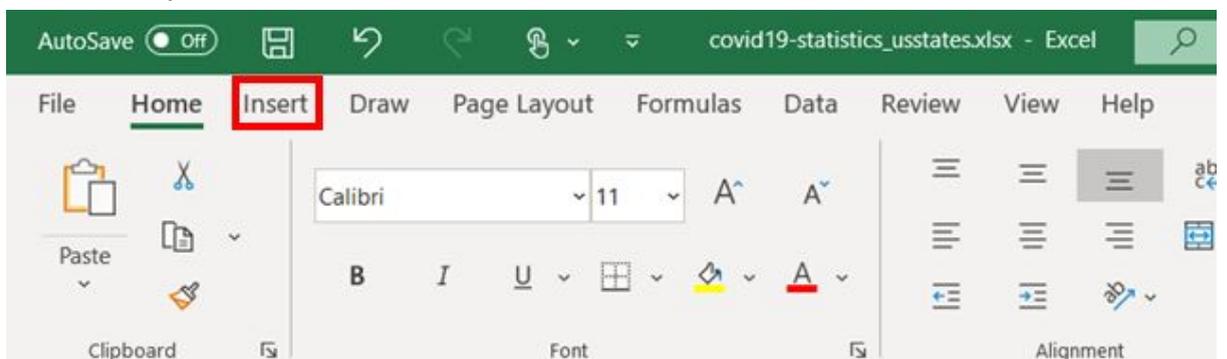
<https://www.ecdc.europa.eu/en/publications-data/download-todays-data-geographic-distribution-covid-19-cases-worldwide>



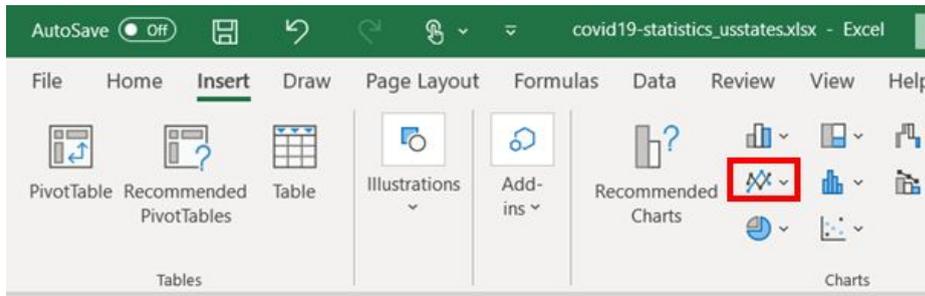
- Find the geographic region you are looking for. For this tutorial, we will use the “covid19-statistics_USstates.xlsx” file and graph Massachusetts cumulative cases.
- Highlight the “Cumulative cases” in column D for all of the rows labeled “Massachusetts” in column B.

	A	B	C	D	E
1	Date	State	New Cases	Cumulative Cases	Deaths
4287	9/6/2020	Maryland	453	112557	3799
4288	9/7/2020	Maryland	821	113378	3804
4289	9/8/2020	Maryland	356	113734	3807
4290	9/9/2020	Maryland	336	114070	3816
4291	9/10/2020	Maryland	504	114574	3824
4292	9/11/2020	Maryland	643	115217	3828
4293	9/12/2020	Maryland	659	115876	3836
4294	9/13/2020	Maryland	724	116600	3838
4295	2/1/2020	Massachusetts	1	1	0
4296	2/2/2020	Massachusetts	0	1	0
4297	2/3/2020	Massachusetts	0	1	0
4298	2/4/2020	Massachusetts	0	1	0
4299	2/5/2020	Massachusetts	0	1	0
4300	2/6/2020	Massachusetts	0	1	0
4301	2/7/2020	Massachusetts	0	1	0
4302	2/8/2020	Massachusetts	0	1	0
4303	2/9/2020	Massachusetts	0	1	0
4304	2/10/2020	Massachusetts	0	1	0
4305	2/11/2020	Massachusetts	0	1	0
4306	2/12/2020	Massachusetts	0	1	0
4307	2/13/2020	Massachusetts	0	1	0

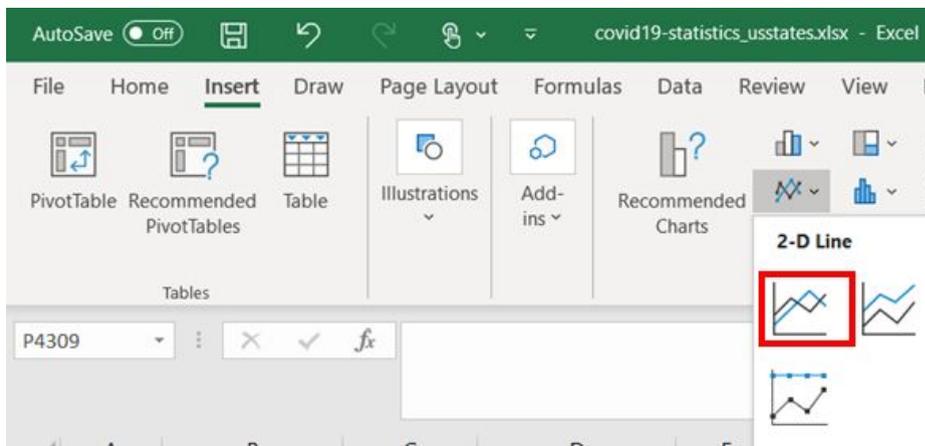
- From the top menu bar, select “Insert”



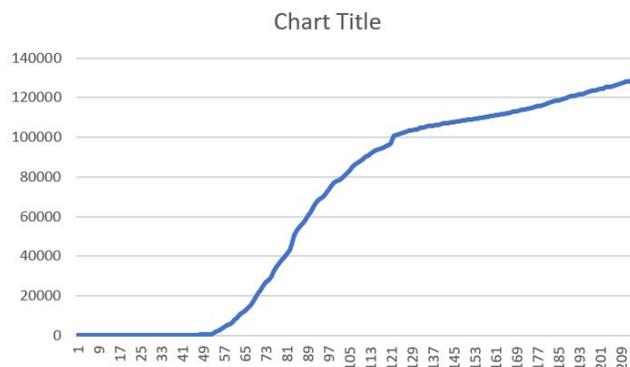
6. And select the line graph option



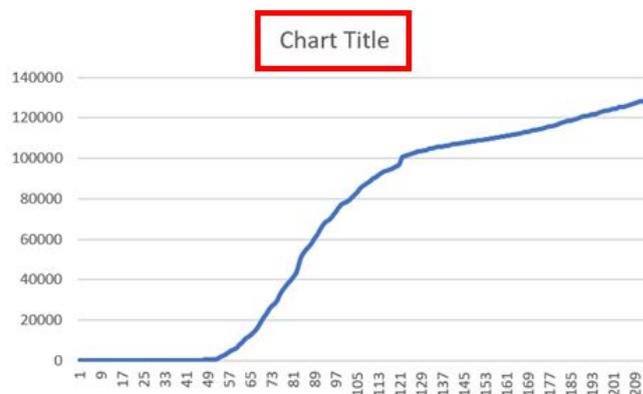
7. Select the first option listed under “2-D Line”



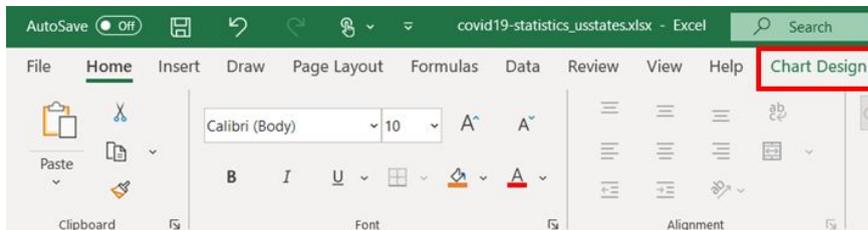
8. This will auto-generate a graph without proper labels



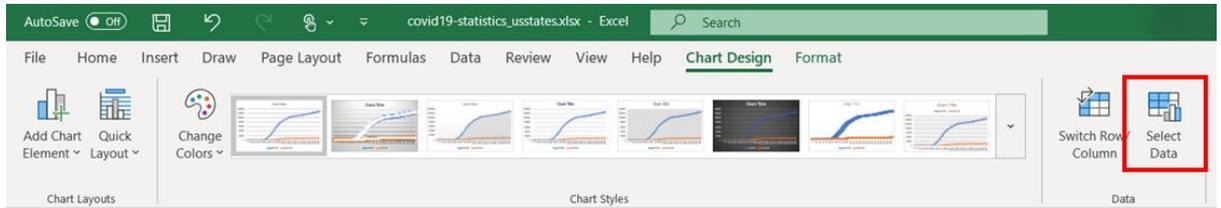
9. To change the graph title, double click on “Chart Title” and it will become editable



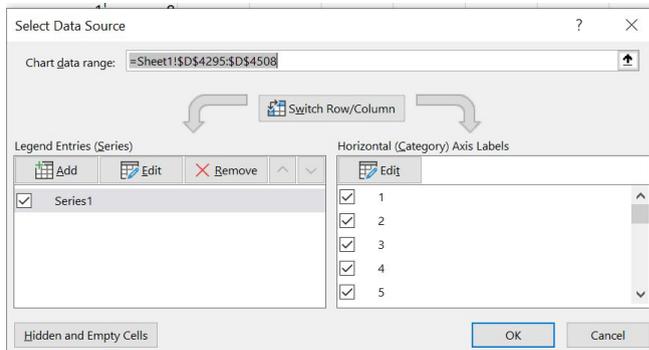
10. To change the legend so that the curves are properly labeled, click on the graph and then go to the top menu and click on “Chart Design”



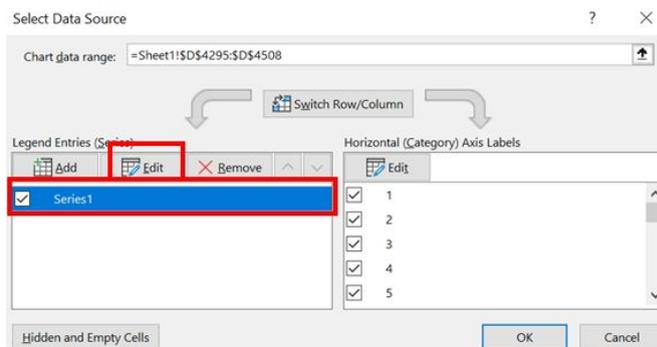
11. Click “Select Data”



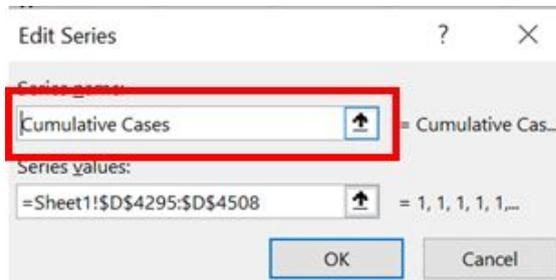
12. This will bring up a new window titled “Select Data Source.”



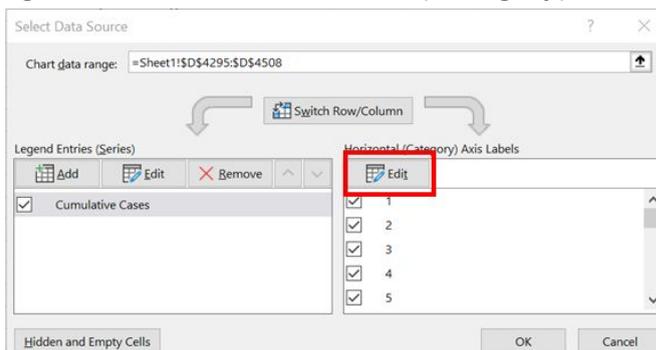
13. Select “Series 1” on the left side under “Legend Entries (Series)” and click “Edit” above it.



14. If there is something in the “Series name” box already, delete that and type in your own label. In this example, we will rename “Series 1” to “Cumulative Cases.” Click “OK.”



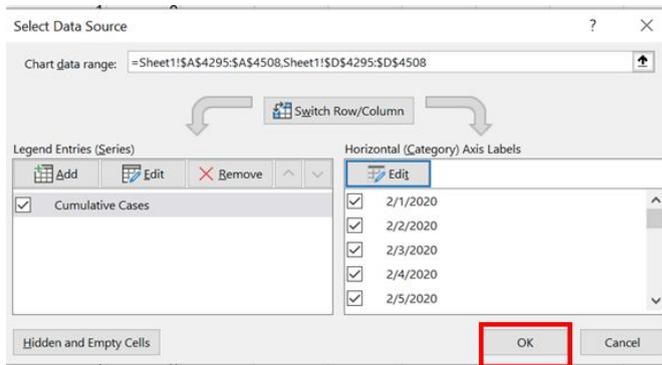
15. To change the X axis label to properly reflect the dates, select “Edit” under the right side labeled “Horizontal (Category) Axis Labels.”



16. If there is something in the “Axis label range” box, delete it. Click and drag to select all of the dates associated with the cumulative cases numbers you previously selected.

	A	B	C	D	E	F	G
1	Date	State	New Cases	Cumulative Cases	Deaths		
4476	7/31/2020	Massachusetts	514	117612	8609		
4477	8/1/2020	Massachusetts	428	118040	8626		
4478	8/2/2020	Massachusetts	418	118458	8638		
4479	8/3/2020	Massachusetts	199	118657	8648		
4480	8/4/2020	Massachusetts					
4481	8/5/2020	Massachusetts					
4482	8/6/2020	Massachusetts					
4483	8/7/2020	Massachusetts					
4484	8/8/2020	Massachusetts					
4485	8/9/2020	Massachusetts					
4486	8/10/2020	Massachusetts	275	121315	8741		
4487	8/11/2020	Massachusetts	392	121707	8751		
4488	8/12/2020	Massachusetts	293	122000	8769		
4489	8/13/2020	Massachusetts	423	122423	8790		
4490	8/14/2020	Massachusetts	305	122728	8810		
4491	8/15/2020	Massachusetts	471	123199	8826		
4492	8/16/2020	Massachusetts	394	123593	8838		
4493	8/17/2020	Massachusetts	248	123841	8842		
4494	8/18/2020	Massachusetts	222	124063	8848		
4495	8/19/2020	Massachusetts	352	124415	8876		

17. Click “ok”



18. The final graph will look like so:

