

Cardiovascular Disease Data

1. Select Year from 2015-2022 and copy data and paste it into a new Excel

The screenshot shows the Microsoft Excel interface with the 'U.S. Chronic Disease Indicators_CDI' workbook open. The 'Filter by Color' task pane is open on the left, displaying a list of years from 2013 to 2021. The years 2015 through 2021 are selected. The main data table is visible in the background, showing various health indicators across different states and years.

2. Deselect all Diseases and Select only cardiovascular disease

The screenshot shows the Microsoft Excel interface with the 'Book1 - Excel' workbook open. The 'Filter by Color' task pane is open on the left, displaying a list of diseases. The 'Cardiovascular Disease' checkbox is selected. The main data table is visible in the background, showing various health indicators across different states and years.

3. Select Mortality from Cardiovascular Diseases

AutoSave OFF U.S_Chronic_Disease_Indicators_CDL Search (Alt+Q) Bharath Simha Muthyala

File Home Insert Draw Page Layout Formulas Data Review View Automate Developer Help

Clipboard Font Alignment Number Styles Cells Editing Analysis Sensitivity

Topic

YearStart	YearEnd	Location	Location	DataSource	Topic	Question	Response	DataValue	DataValue	DataValue	DataValue	DataValue	DataValue	LowCor	HighCor	Stratific	Stratific	Stratific	Stratific	Stratific	Stratific	GeoLoc	Re
2018	2018	AK				per : Crude Rate		153.2	153.2							Overall	Overall					POINT (-147.7)	
2016	2016	AK				he h Number		300	300							Gender	Female					POINT (-147.7)	
2017	2017	AK				art d Number		141	141							Gender	Female					POINT (-147.7)	
2017	2017	AL				ascu Number		8271	8271							Gender	Female					POINT (-86.6)	
2018	2018	AL				art d Number		3056	3056							Gender	Male					POINT (-86.6)	
2017	2017	AL				Number										Gender	Male					POINT (-86.6)	
2015	2015	AR				he h Number		1022	1022							Race/Ethn Black, non-Hispanic						POINT (-92.2)	
2016	2016	AR				he h Number		4373	4373							Gender	Male					POINT (-92.2)	
2018	2018	AR				art d Number		2022	2022							Gender	Female					POINT (-92.2)	
2018	2018	AZ				ascu Number		260	260							Race/Ethn Asian or Pacific Islander						POINT (-111.1)	
2015	2015	AZ				he h Number		5026	5026							Gender	Female					POINT (-111.1)	
2015	2015	AZ				ular : Number		1398	1398							Gender	Female					POINT (-111.1)	
2016	2016	AZ				ular : Number		1106	1106							Gender	Male					POINT (-111.1)	
2015	2015	CA				ular : Number		1576	1576							Gender	Female					POINT (-111.1)	
2017	2017	CO				Number										Gender	Female					POINT (-120.3)	
2015	2015	CO				ascu Number		4748	4748							Race/Ethn Hispanic						POINT (-106.1)	
2017	2017	CO				ascu Number		8188	8188							Race/Ethn White, non-Hispanic						POINT (-106.1)	
2018	2018	CT				he h Number		322	322							Race/Ethn Hispanic						POINT (-72.6)	
2015	2015	CT				art d Number		144	144							Race/Ethn Hispanic						POINT (-72.6)	
2016	2016	CT				ular : Number		779	779							Gender	Female					POINT (-72.6)	
2017	2017	CT				per : Crude Rate		39.1	39.1							Overall	Overall					POINT (-72.6)	
2016	2016	DC				he h Number		1375	1375							Overall	Overall					POINT (-77.0)	
2017	2017	DC				he h Number		188	188							Race/Ethn White, non-Hispanic						POINT (-77.0)	
2017	2017	DC				ocai Number		506	506							Gender	Male					POINT (-77.0)	
2017	2017	DE				he h Number		922	922							Gender	Female					POINT (-75.5)	
2018	2018	DE				he h Number		32	32							Race/Ethn Hispanic						POINT (-75.5)	
2016	2016	DE				Number										Race/Ethn White, non-Hispanic						POINT (-75.5)	

Ready 77264 of 1048575 records found Accessibility: Unavailable Count: 34 100%

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4. Select Datavalue Number

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Clipboard Font Alignment Number Styles Cells Editing Analysis Sensitivity

Topic

YearStart	YearEnd	Location	Location	DataSource	Topic	Question	Response	DataValue	DataValue	DataValue	DataValue	DataValue	DataValue	LowCor	HighCor	Stratific	Stratific	Stratific	Stratific	Stratific	Stratific	GeoLoc	Re
2018	2018	AK				per : Crude Rate		153.2	153.2							Overall	Overall					POINT (-147.7)	
2016	2016	AK				he h Number		300	300							Gender	Female					POINT (-147.7)	
2017	2017	AK				art d Number		141	141							Gender	Female					POINT (-147.7)	
2017	2017	AL				ascu Number		8271	8271							Gender	Female					POINT (-86.6)	
2018	2018	AL				art d Number		3056	3056							Gender	Male					POINT (-86.6)	
2017	2017	AL				Number										Gender	Male					POINT (-86.6)	
2015	2015	AR				he h Number		1022	1022							Race/Ethn Black, non-Hispanic						POINT (-92.2)	
2016	2016	AR				he h Number		4373	4373							Gender	Male					POINT (-92.2)	
2018	2018	AR				art d Number		2022	2022							Gender	Female					POINT (-92.2)	
2018	2018	AZ				ascu Number		260	260							Race/Ethn Asian or Pacific Islander						POINT (-111.1)	
2015	2015	AZ				he h Number		5026	5026							Gender	Female					POINT (-111.1)	
2015	2015	AZ				ular : Number		1398	1398							Gender	Female					POINT (-111.1)	
2016	2016	AZ				ular : Number		1106	1106							Gender	Male					POINT (-111.1)	
2015	2015	CA				ular : Number		1576	1576							Gender	Female					POINT (-111.1)	
2017	2017	CO				Number										Gender	Female					POINT (-120.3)	
2015	2015	CO				ascu Number		4748	4748							Race/Ethn Hispanic						POINT (-106.1)	
2017	2017	CO				ascu Number		8188	8188							Race/Ethn White, non-Hispanic						POINT (-106.1)	
2018	2018	CT				he h Number		322	322							Race/Ethn Hispanic						POINT (-72.6)	
2015	2015	CT				art d Number		144	144							Race/Ethn Hispanic						POINT (-72.6)	
2016	2016	CT				ular : Number		779	779							Gender	Female					POINT (-72.6)	
2017	2017	CT				per : Crude Rate		39.1	39.1							Overall	Overall					POINT (-72.6)	
2016	2016	DC				he h Number		1375	1375							Overall	Overall					POINT (-77.0)	
2017	2017	DC				he h Number		188	188							Race/Ethn White, non-Hispanic						POINT (-77.0)	
2017	2017	DC				ocai Number		506	506							Gender	Male					POINT (-77.0)	
2017	2017	DE				he h Number		922	922							Gender	Female					POINT (-75.5)	
2018	2018	DE				he h Number		32	32							Race/Ethn Hispanic						POINT (-75.5)	
2016	2016	DE				Number										Race/Ethn White, non-Hispanic						POINT (-75.5)	

Ready 6135 of 1048575 records found Accessibility: Unavailable Count: 34 100%

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5. Select Overall

U.S. Chronic Disease Indicators_CDI

Sort & Filter

Sort A to Z

Sort Z to A

Sort by Color

Clear Filter From "StratificationCat."

Filter by Color

Text Filters

Search

(Select All)

GENDER

OVERALL

RACE

OK

Cancel

Count: 34

6. Sort the results of the filters by Smallest Year to Largest Year (i.e 2015 – 2021)

Book1 - Excel

Sort & Filter

Sort Smallest to Largest

Sort Largest to Smallest

Custom Sort...

Filter

Clear

Reapply

Average: 2017

Count: 261

Sum: 524420

7. Delete Unnecessary Columns to streamline and simplify the data that's required.

AutoSave OFFBook1 - Excel

Search (Alt+Q)

Bharath Simha Muthyala

FileHomeInsertDrawPage LayoutFormulasDataReviewViewAutomateDeveloperHelp

UndoClipboardFontAlignmentNumberStylesCellsEditingAnalysisSensitivity

Calibri11A^A

General

Conditional FormattingFormat as TableCell StylesInsertDeleteFormat

SumSort & FilterFind & SelectAnalyze DataSensitivity

L1

FileDataValueAlt

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	
1	YearStart	YearEnd	LocationA	LocationD	DataSource	Topic	Question	Response	DataValue	DataValue	DataValue	DataValue	DataValue	DataValue	LowConfic	HighConfic	Stratificati	Stratificati	Stratificati	Stratificati	Stratificati	Stratificati	GeoLocati	Re
2	2015	2015	MO	Missouri	NVSS	Cardiovasi	Mortality from total cardiovascu	Number	19023	19023							Overall	Overall					POINT (-92.5)	
3	2015	2015	AK	Alaska	NVSS	Cardiovasi	Mortality from total cardiovascu	Number	1110	1110							Overall	Overall					POINT (-147.2)	
4	2015	2015	AR	Arkansas	NVSS	Cardiovasi	Mortality from total cardiovascu	Number	10239	10239							Overall	Overall					POINT (-92.2)	
5	2015	2015	AL	Alabama	NVSS	Cardiovasi	Mortality from total cardiovascu	Number	16991	16991							Overall	Overall					POINT (-86.6)	
6	2015	2015	CA	California	NVSS	Cardiovasi	Mortality from total cardiovascu	Number	84345	84345							Overall	Overall					POINT (-120.4)	
7	2015	2015	AZ	Arizona	NVSS	Cardiovasi	Mortality from total cardiovascu	Number	15538	15538							Overall	Overall					POINT (-111.1)	
8	2015	2015	DC	District of	NVSS	Cardiovasi	Mortality from total cardiovascu	Number	1601	1601							Overall	Overall					POINT (-77.0)	
9	2015	2015	CT	Connecticut	NVSS	Cardiovasi	Mortality from total cardiovascu	Number	9263	9263							Overall	Overall					POINT (-72.6)	
10	2015	2015	CO	Colorado	NVSS	Cardiovasi	Mortality from total cardiovascu	Number	9649	9649							Overall	Overall					POINT (-106.1)	
11	2015	2015	DE	Delaware	NVSS	Cardiovasi	Mortality from total cardiovascu	Number	2557	2557							Overall	Overall					POINT (-75.5)	
12	2015	2015	FL	Florida	NVSS	Cardiovasi	Mortality from total cardiovascu	Number	61182	61182							Overall	Overall					POINT (-81.9)	
13	2015	2015	GA	Georgia	NVSS	Cardiovasi	Mortality from total cardiovascu	Number	23934	23934							Overall	Overall					POINT (-83.6)	
14	2015	2015	HI	Hawaii	NVSS	Cardiovasi	Mortality from total cardiovascu	Number	3543	3543							Overall	Overall					POINT (-157.4)	
15	2015	2015	IL	Illinois	NVSS	Cardiovasi	Mortality from total cardiovascu	Number	33832	33832							Overall	Overall					POINT (-88.9)	
16	2015	2015	IA	Iowa	NVSS	Cardiovasi	Mortality from total cardiovascu	Number	8973	8973							Overall	Overall					POINT (-93.8)	
17	2015	2015	ID	Idaho	NVSS	Cardiovasi	Mortality from total cardiovascu	Number	3719	3719							Overall	Overall					POINT (-114.1)	
18	2015	2015	KS	Kansas	NVSS	Cardiovasi	Mortality from total cardiovascu	Number	7937	7937							Overall	Overall					POINT (-98.2)	
19	2015	2015	KY	Kentucky	NVSS	Cardiovasi	Mortality from total cardiovascu	Number	13030	13030							Overall	Overall					POINT (-84.7)	
20	2015	2015	IN	Indiana	NVSS	Cardiovasi	Mortality from total cardiovascu	Number	18291	18291							Overall	Overall					POINT (-86.1)	
21	2015	2015	LA	Louisiana	NVSS	Cardiovasi	Mortality from total cardiovascu	Number	13699	13699							Overall	Overall					POINT (-92.4)	
22	2015	2015	MA	Massachusetts	NVSS	Cardiovasi	Mortality from total cardiovascu	Number	15870	15870							Overall	Overall					POINT (-72.0)	
23	2015	2015	ME	Maine	NVSS	Cardiovasi	Mortality from total cardiovascu	Number	3869	3869							Overall	Overall					POINT (-68.9)	
24	2015	2015	MD	Maryland	NVSS	Cardiovasi	Mortality from total cardiovascu	Number	15115	15115							Overall	Overall					POINT (-76.6)	
25	2015	2015	MI	Michigan	NVSS	Cardiovasi	Mortality from total cardiovascu	Number	31656	31656							Overall	Overall					POINT (-84.7)	
26	2015	2015	MN	Minnesota	NVSS	Cardiovasi	Mortality from total cardiovascu	Number	11068	11068							Overall	Overall					POINT (-94.7)	
27	2015	2015	MT	Montana	NVSS	Cardiovasi	Mortality from total cardiovascu	Number	2744	2744							Overall	Overall					POINT (-109.5)	
28	2015	2015	MS	Mississippi	NVSS	Cardiovasi	Mortality from total cardiovascu	Number	10410	10410							Overall	Overall					POINT (-89.5)	

Sheet1

Ready39°FPartly cloudyAccessibility: Good to go

Average: 11655.57436Count: 4238Sum: 9091348

5:30 PM12/3/2022

8. Result after scrapping unnecessary data

AutoSave OFF Book1 - Excel Search (Alt+Q) Bharath Simha Muthyala

File Home Insert Draw Page Layout Formulas Data Review View Automate Developer Help

Clipboard Font Alignment Number Styles Cells Editing Analysis Sensitivity

Calibri 11 A A

General Conditional Formatting Format as Table Cell Styles Insert Delete Format

Sum Sort & Filter Find & Select Analyze Data Sensitivity

Comments Share

Sheet1

YearStart	LocationD	DataValue
2015	Missouri	19023
2015	Alaska	1110
2015	Arkansas	10239
2015	Alabama	16991
2015	California	84345
2015	Arizona	15538
2015	District of	1601
2015	Connecticut	9263
2015	Colorado	9649
2015	Delaware	2557
2015	Florida	61182
2015	Georgia	23934
2015	Hawaii	3543
2015	Illinois	33832
2015	Iowa	8973
2015	Idaho	3719
2015	Kansas	7937
2015	Kentucky	13030
2015	Indiana	18291
2015	Louisiana	13699
2015	Massachusetts	15870
2015	Maine	3869
2015	Maryland	15115
2015	Michigan	31656
2015	Minnesota	11068
2015	Montana	2744
2015	Mississippi	10410

Ready 39°F Partly cloudy Accessibility: Investigate Average: 17468.59231 Count: 783 Sum: 9083668 5:32 PM 12/3/2022

9. Using Pivot table to format and sort the data in a readable and easy to understand the format

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File Home Insert Draw Page Layout Formulas Data Review View Automate Developer Help PivotTable Analyze Design

Undo Clipboard Font Alignment Number Styles Cells Editing Analysis Sensitivity

Sum of DataValue

Row Labels	2015	2016	2017	2018	2019	Grand Total
Alabama	16991	16894	17125	17676	17699	86385
Alaska	1110	1097	1112	1130	1143	5592
Arizona	15538	16098	16691	16812	17086	82225
Arkansas	10239	10348	10577	10472	10878	52514
California	84345	85368	87559	87282	87581	432135
Colorado	9649	9941	9775	10173	10577	50115
Connecticut	9263	8961	9249	9315	9380	46168
Delaware	2557	2643	2724	2790	2838	13552
District of Columbia	1601	1752	1677	1681	1625	8336
Florida	61182	62193	63902	65203	65895	318375
Georgia	23934	24776	24726	25386	25984	124506
Hawaii	3543	3389	3596	3630	3580	17738
Idaho	3719	3894	4034	4093	4002	19742
Illinois	33832	33087	34019	34112	34322	169372
Indiana	18291	18408	19093	19118	19413	94323
Iowa	8973	9029	9342	9427	9657	46428
Kansas	7937	7897	7970	7975	8037	39816
Kentucky	13030	13403	13271	13704	13845	67253
Louisiana	13699	14040	14435	14526	14335	71035
Maine	3869	3827	3847	3941	3868	19352
Maryland	15115	15306	15693	15777	16036	77927
Massachusetts	15870	15593	15721	15781	15529	78494
Michigan	31656	32282	32358	32725	32937	161958
Minnesota	11068	11095	11546	11770	11974	57453

PivotTable Fields

Choose fields to add to report:

Search

YearStart
LocationDesc
DataValue

More Tables...

Drag fields between areas below:

Filters

Columns
YearStart

Rows
LocationDesc

Values
Sum of DataValue

Defer Layout Update Update

Sheet2 Sheet1

Ready 39°F Partly cloudy

10. Using Forecasting Analysis under Arithmetic Increase Method ($P_n = P_o + nX$)

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File Home Insert Draw Page Layout Formulas Data Review View Automate Developer Help

Undo Clipboard Font Alignment Number Styles Cells Editing Analysis Sensitivity

E3 =AVERAGE(A3:D3)

Forecasting Analysis for Year 2020 and 2021 ($P_n = P_o + nX$)										
2016-2015	2017-2016	2018-2017	2019-2018	Average	2016-2015	2017-2016	2018-2017	2019-2018	Average	
-97	231	551	23	177	-0.570890471	1.367349355	3.217518248	0.130119937	1.036024267	
-13	15	18	13	8.25	-1.171171171	1.367365542	1.618705036	1.150442478	0.741335471	
560	593	121	274	387	3.604067448	3.683687415	0.724941585	1.629788246	2.410621173	
109	229	-105	406	159.75	1.064557086	2.212988017	-0.992720053	3.877005348	1.540457599	
1023	2191	-277	299	809	1.212875689	2.56653547	-0.316358113	0.342567769	0.951405204	
292	-166	398	404	232	3.026220334	-1.669852128	4.071611253	3.971296569	2.349819007	
-302	288	66	65	29.25	-3.260282846	3.213927017	0.713590658	0.697799249	0.34125852	
86	81	66	48	70.25	3.363316386	3.064699205	2.422907489	1.720430108	2.642838297	
151	-75	4	-56	6	9.431605247	-4.280821918	0.238521169	-3.331350387	0.514488528	
1011	1709	1301	692	1178.25	1.652446798	2.747897673	2.035930018	1.06130086	1.874393837	
542	250	660	598	512.5	2.264560876	1.021408727	2.669255035	2.355629087	2.077713431	
-154	207	34	-50	9.25	-4.346598927	6.107996459	0.945494994	-1.377410468	0.332370514	
175	140	59	-91	70.75	4.705566012	3.595274782	1.462568171	-2.223308087	1.885025219	
-745	932	93	210	122.5	-2.202057224	2.816816272	0.273376642	0.615619137	0.375938707	
117	685	25	295	280.5	0.639658849	3.72120817	0.13093804	1.543048436	1.508713374	
56	313	85	230	171	0.624094506	3.466607598	0.909869407	2.439800573	1.860093021	
-40	73	5	62	25	-0.503968754	0.924401672	0.062735257	0.777429467	0.31514941	
373	-132	433	141	203.75	2.862624712	-0.984854137	3.262735372	1.028896673	1.542355155	
341	395	91	-191	159	2.489232791	2.813390313	0.630412193	-1.314883657	1.15453791	
-42	20	94	-73	-0.25	-1.085551822	0.522602561	2.443462438	-1.852321746	0.007047858	
191	387	84	259	230.25	1.263645385	2.528420227	0.535270503	1.641630221	1.492241584	
-277	128	60	-252	-85.25	-1.745431632	0.208881165	0.381655111	-1.59685698	-0.534938084	
626	76	367	212	320.25	1.977508213	0.235425314	1.134186291	0.647822765	0.998735646	
27	451	224	204	226.5	0.243946512	4.064894096	1.940065824	1.732220051	1.995531621	
-115	185	-121	224	43.25	-1.104707012	1.79698883	-1.154580153	2.162370885	0.425018137	
-199	509	-117	-96	24.25	-1.046102087	2.7039949	-0.605182848	-0.499583368	0.138281571	

US Cardiovascular Diseases Sheet3

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11. Final Forecasting results for 2020 and 2021 Data

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File Home Insert Draw Page Layout Formulas Data Review View Automate Developer Help

Undo Clipboard Font Alignment Number Styles Cells Insert Delete Format Editing Analysis Sensitivity

G2 =F2+1*Forecasting!E3

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1	Geographic Regions	2015	2016	2017	2018	2019	2020	2021											
2	Alabama	16991	16894	17125	17676	17699	17876	18230											
3	Alaska	1110	1097	1112	1130	1143	1151.25	1167.75											
4	Arizona	15538	16098	16691	16812	17086	17473	18247											
5	Arkansas	10239	10348	10577	10472	10878	11037.8	11357.3											
6	California	84345	85368	87559	87282	87581	88390	90008											
7	Colorado	9649	9941	9775	10173	10577	10809	11273											
8	Connecticut	9263	8961	9249	9315	9380	9409.25	9467.75											
9	Delaware	2557	2643	2724	2790	2838	2908.25	3048.75											
10	District of Columbia	1601	1752	1677	1681	1625	1631	1643											
11	Florida	61182	62193	63902	65203	65895	67073.3	69429.8											
12	Georgia	23934	24476	24726	25386	25984	26496.5	27521.5											
13	Hawaii	3543	3389	3596	3630	3580	3589.25	3607.75											
14	Idaho	3719	3894	4034	4093	4002	4072.75	4214.25											
15	Illinois	33832	33087	34019	34112	34322	34444.5	34689.5											
16	Indiana	18291	18408	19093	19118	19413	19693.5	20254.5											
17	Iowa	8973	9029	9342	9427	9657	9828	10170											
18	Kansas	7937	7897	7970	7975	8037	8062	8112											
19	Kentucky	13030	13403	13271	13704	13845	14048.8	14456.3											
20	Louisiana	13699	14040	14435	14526	14335	14494	14812											
21	Maine	3869	3827	3847	3941	3868	3867.75	3867.25											
22	Maryland	15115	15306	15693	15777	16036	16266.3	16726.8											
23	Massachusetts	15870	15593	15721	15781	15529	15443.8	15273.3											
24	Michigan	31656	32282	32358	32725	32937	33257.3	33897.8											
25	Minnesota	11068	11095	11546	11770	11974	12200.5	12653.5											
26	Mississippi	10410	10295	10480	10359	10583	10626.3	10712.8											
27	Missouri	19023	18824	19333	19216	19120	19144.3	19192.8											

US Cardiovascular Diseases Forecasting

Ready Accessibility: Good to go We're starting the add-ins runtime, just a moment...

39°F Party cloudy 6:54 PM 12/31/2022