

## Supplemental Online Content

Schneiderman M, Romain B, Kaganovskiy L, Geliebter A. Incidence and relative risk of COVID-19 in adolescents and youth compared with older adults in 19 US states, fall 2020. *JAMA Netw Open.* 2022;5(7):e2222126. doi:10.1001/jamanetworkopen.2022.22126

**eFigure 1.** Proportion of Variants Circulating in the US from April 11, 2021, through April 24, 2021, Based on SARS-CoV-2 Genomes Sequenced During that Time Period

**eAppendix 1.** Case Data by State Websites

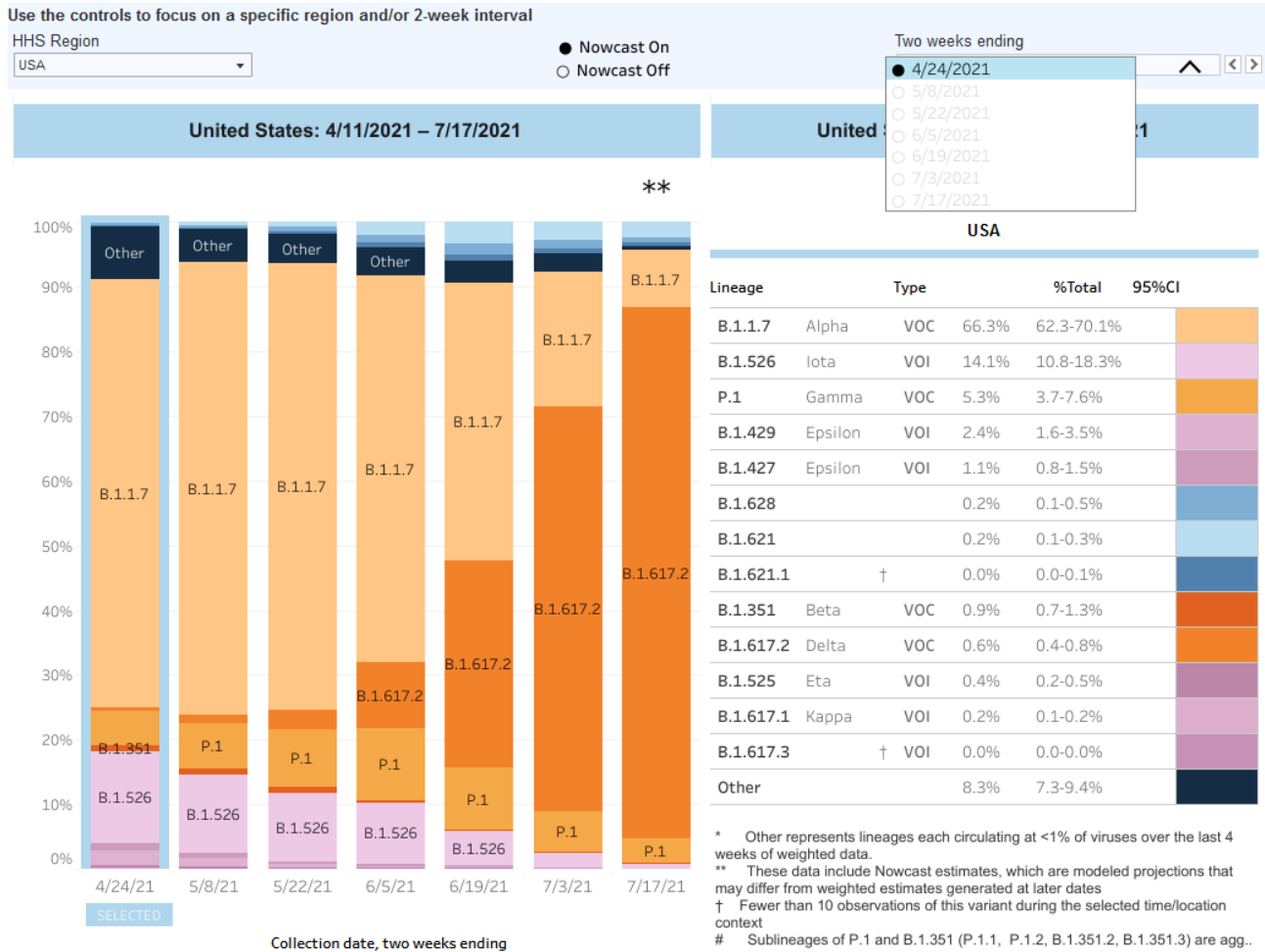
**eAppendix 2.** *New York Times* Websites Indicating Surges by State

**eAppendix 3.** List of Supplemental Figures/Tables Containing Case Data

**eAppendix 4.** Demographic Data by Age and by State Websites

This supplemental material has been provided by the authors to give readers additional information about their work.

**eFigure 1. Proportion of Variants Circulating in the US from April 11, 2021, through April 24, 2021, Based on SARS-CoV-2 Genomes Sequenced During that Time Period**



Source: <https://covid.cdc.gov/covid-data-tracker/#variant-proportions>

## eAppendix1. Case Data by State Websites

- (i) Alaska: <https://experience.arcgis.com/experience/2d19dc2b5c7e4b399ff6495a8950493d/> [Retrieved Nov. 1, 2020]
- (ii) Colorado: <https://covid19.colorado.gov/data> [Retrieved Oct. 23, 2020]
- (iii) Michigan: <https://www.mistartmap.info/compare/age-group> [Retrieved Nov. 18, 2020]
- (iv) Montana: <https://dphhs.mt.gov/publichealth/cdepi/diseases/coronavirusmt/demographics> [Retrieved Oct. 24, 2020]
- (v) Nevada: <https://nvhealthresponse.nv.gov> [Retrieved Oct. 31, 2020]
- (vi) New Mexico: <https://cvprovider.nmhealth.org/public-dashboard.html#> [Retrieved Oct. 24, 2020]
- (vii) North Dakota: <https://www.health.nd.gov/diseases-conditions/coronavirus/north-dakota-coronavirus-cases> [Retrieved October 24, 2020]
- (viii) Oregon: <https://public.tableau.com/app/profile/oregon.health.authority.covid.19/viz/OregonCOVID-19CaseDemographicsandDiseaseSeverityStatewide/DemographicData> [Retrieved Oct. 31, 2020]
- (ix) Pennsylvania: <https://experience.arcgis.com/experience/ed2def13f9b045eda9f7d22dbc9b500e> [Retrieved Oct. 31, 2020]
- (x) South Carolina: <https://scdhec.gov/covid19/south-carolina-county-level-data-covid-19> [Retrieved May 15, 2021]
- (xi) South Dakota: <https://doh.sd.gov/news/coronavirus.aspx> [Retrieved Oct. 24, 2020]
- (xii) Tennessee: <https://www.tn.gov/content/tn/health/cedep/ncov/data.html> [Retrieved Nov. 12, 2020]
- (xiii) Wisconsin: <https://www.dhs.wisconsin.gov/covid-19/cases.htm#by%20age> [Retrieved Oct. 24, 2020]
- (xiv) Alabama: <https://bamatracker.com/chart/caseages> [Retrieved Nov. 14, 2020]
- (xv) Florida: <https://floridahealthcovid19.gov/> [Retrieved November 13, 2020]
- (xvi) Oklahoma: [https://coronavirus.health.ok.gov/sites/g/files/gmc786/f/2020.10.23\\_weekly\\_epi\\_report.pdf](https://coronavirus.health.ok.gov/sites/g/files/gmc786/f/2020.10.23_weekly_epi_report.pdf) [Retrieved Oct. 23, 2020]
- (xvii) Rhode Island: <https://ri-department-of-health-covid-19-case-data-rihealth.hub.arcgis.com/#age> [Retrieved October 25, 2020]
- (xviii) Minnesota: <https://www.health.state.mn.us/diseases/coronavirus/situation.html#ageg1> [Retrieved Oct. 24, 2020]
- (xix) Missouri: <https://health.mo.gov/living/healthcondiseases/communicable/novel-coronavirus/data/public-health/demographics.php> [Retrieved Oct. 24, 2020]

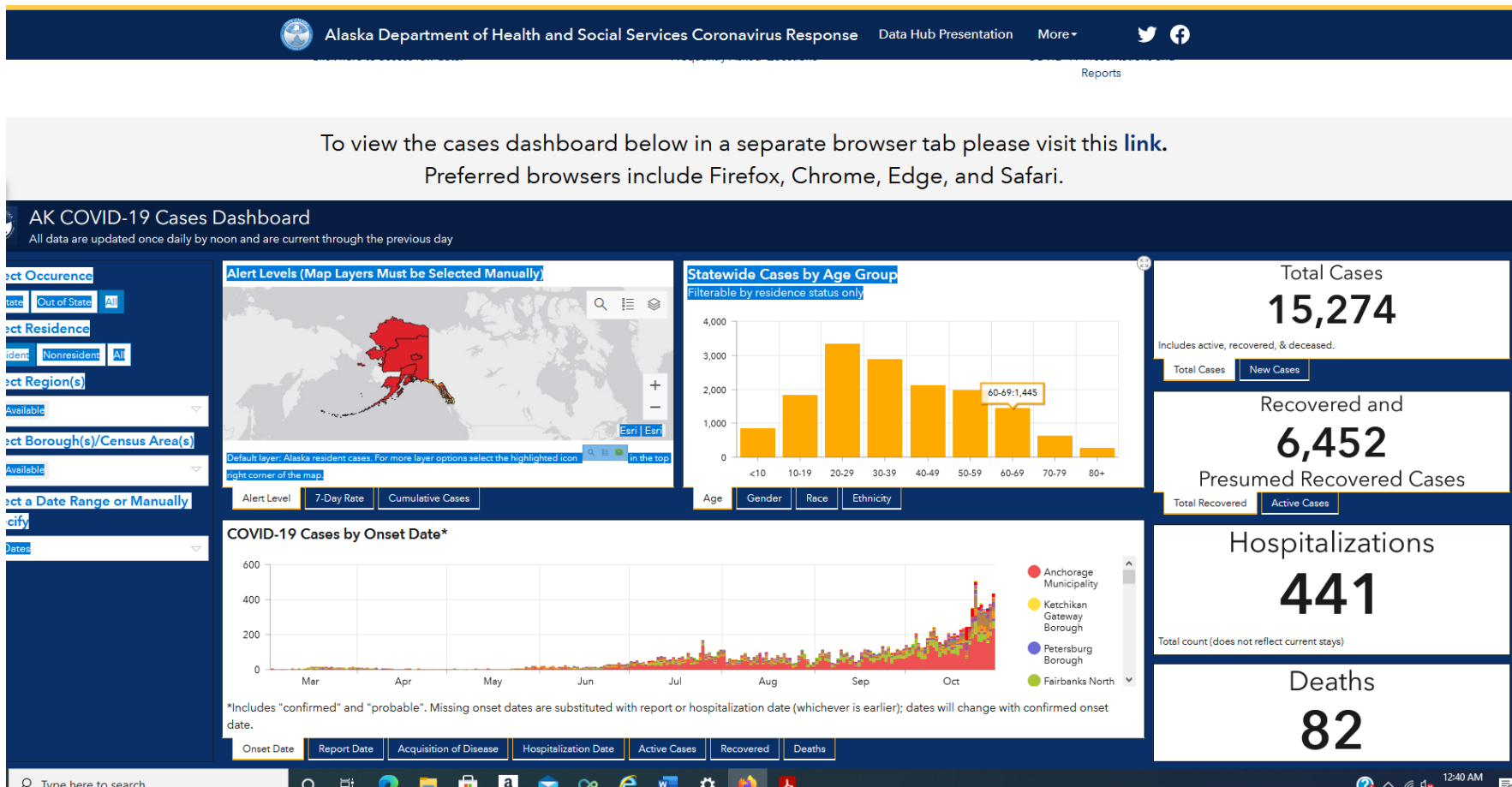
Since the data on the websites above are updated on a daily basis, we are including below, in the Supplemental Tables/Figures, the data as they appeared on the websites when we accessed them. These provide the numbers we used in our calculations.

**eAppendix 2. New York Times Websites Indicating Surges by State**

<https://www.nytimes.com/interactive/2021/us/alaska-covid-cases.html>  
<https://www.nytimes.com/interactive/2021/us/colorado-covid-cases.html>  
<https://www.nytimes.com/interactive/2021/us/michigan-covid-cases.html>  
<https://www.nytimes.com/interactive/2021/us/montana-covid-cases.html>  
<https://www.nytimes.com/interactive/2021/us/nevada-covid-cases.html>  
<https://www.nytimes.com/interactive/2021/us/new-mexico-covid-cases.html>  
<https://www.nytimes.com/interactive/2021/us/north-dakota-covid-cases.html>  
<https://www.nytimes.com/interactive/2021/us/oregon-covid-cases.html>  
<https://www.nytimes.com/interactive/2021/us/pennsylvania-covid-cases.html>  
<https://www.nytimes.com/interactive/2021/us/south-carolina-covid-cases.html>  
<https://www.nytimes.com/interactive/2020/us/south-dakota-coronavirus-cases.html>  
<https://www.nytimes.com/interactive/2020/us/tennessee-coronavirus-cases.html>  
<https://www.nytimes.com/interactive/2021/us/wisconsin-covid-cases.html>  
<https://www.nytimes.com/interactive/2021/us/alabama-covid-cases.html>  
<https://www.nytimes.com/interactive/2020/us/florida-coronavirus-cases.html>  
<https://www.nytimes.com/interactive/2021/us/oklahoma-covid-cases.html>  
<https://www.nytimes.com/interactive/2021/us/rhode-island-covid-cases.html>  
<https://www.nytimes.com/interactive/2021/us/minnesota-covid-cases.html>  
<https://www.nytimes.com/interactive/2020/us/missouri-coronavirus-cases.html>

### **eAppendix 3.** List of Supplemental Figures/Tables Containing Case Data

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- 2) eTable B. Colorado COVID-19 Cases by Age (as of Oct. 22, 2020)
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- 4) eTable D. Montana COVID-19 Cases by Age (as of Oct. 23, 2020)
- 5) eFigure E. Nevada COVID-19 Cases by Age (as of October 30, 2020)
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- 13) eFigure M. Wisconsin COVID-19 Cases by Age (as of Oct. 23, 2020)
- 14) eTable/Figure N. Alabama COVID-19 Cases by Age (as of November 13, 2020)
- 15) eTable/Figure O. Florida COVID-19 Cases by Age (through November 12, 2020)
- 16) eTable/Figure P. Oklahoma COVID-19 Cases by Age (as of October 22, 2020)
- 17) eTable Q. Rhode Island COVID-19 Cases by Age (as of October 24, 2020)
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**eFigure A. Alaska COVID-19 Cases by Age (as of October 31, 2020)**

Source: Alaska Department of Health and Social Services Coronavirus Response Hub, AK COVID-19 Cases Dashboard <https://experience.arcgis.com/experience/2d19dc2b5c7e4b399ff6495a8950493d/>

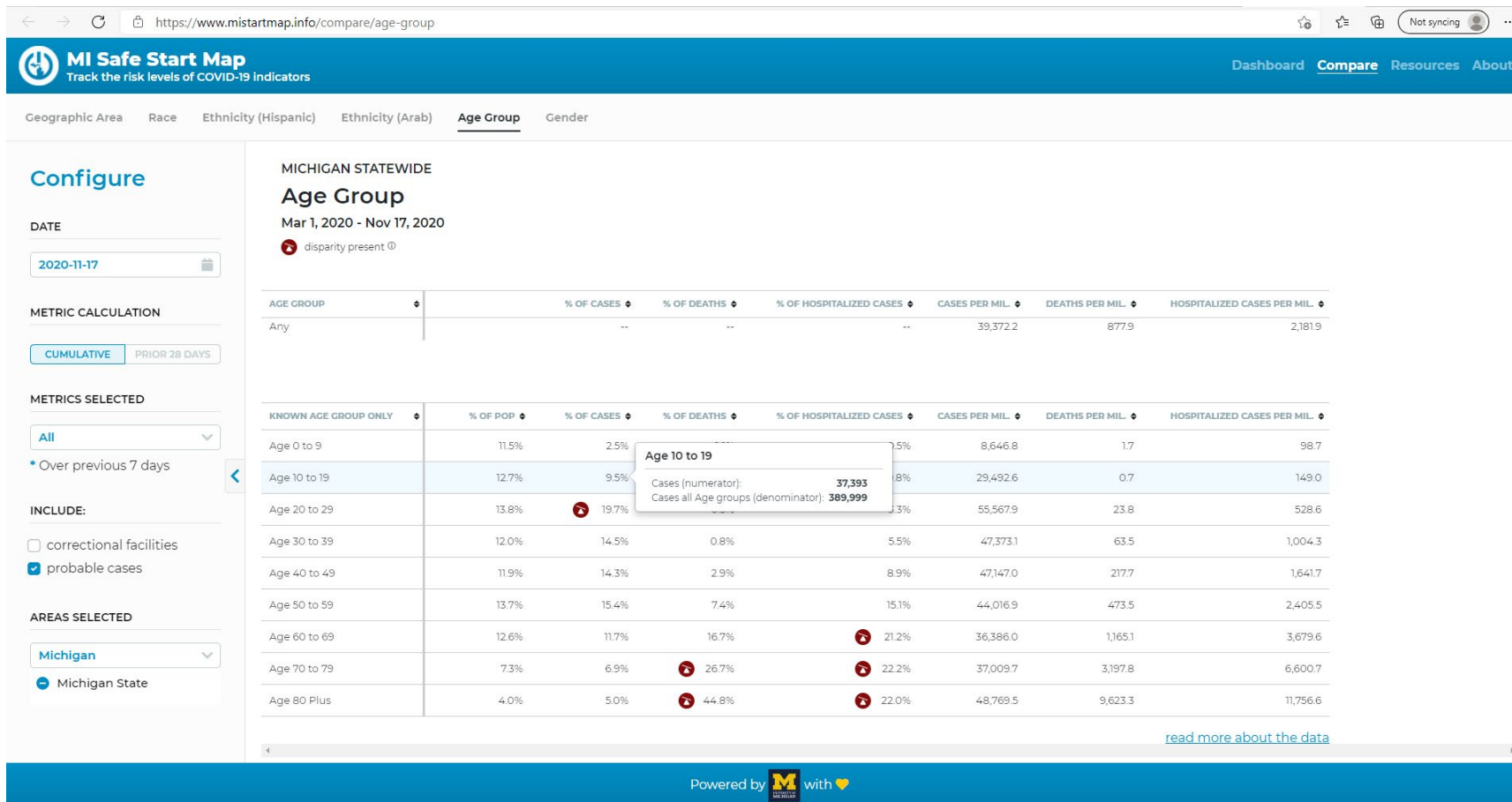
**eTable B. Colorado COVID-19 Cases by Age (as of Oct. 22, 2020)**

Age	Proportion of Cases	Total Case Count
0-9	0.038	3480
10-19	0.108	9890
20-29	0.223	20421
30-39	0.175	16025
40-49	0.154	14102
50-59	0.133	12179
60-69	0.085	7784
70-79	0.046	4212
80+	0.038	3480

Total cumulative cases: 91,572

Source: Colorado Department of Public Health and Environment, "CDPHE COVID19 State-Level Expanded Case Data" (as of 10/22/2020)

<https://covid19.colorado.gov/data>



**eFigure C. Michigan COVID-19 Cases by Age (as of Nov. 17, 2020)**

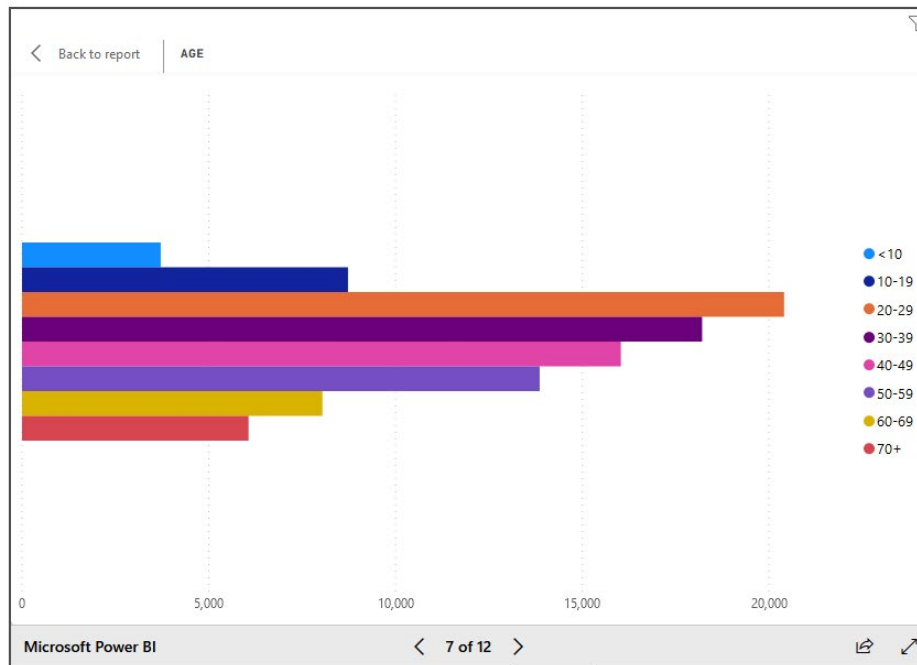
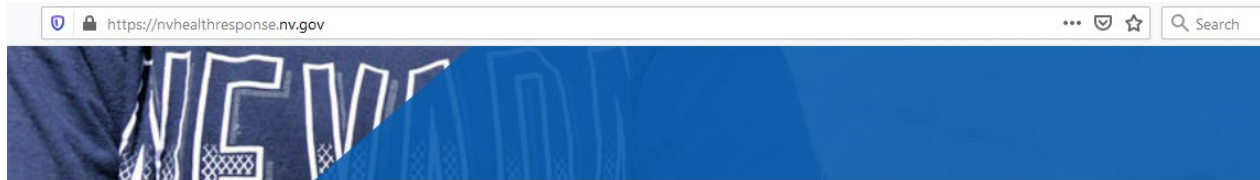
Source: MI Safe Start Map, University of Michigan  
<https://www.mistartmap.info/compare/age-group>



**eTable D. Montana COVID-19 Cases by Age (as of Oct. 23, 2020)**

<u>Age Group</u>	<u>Number of Cases (percent of total)</u>
0-9 years	1,148 (4%)
10-19 years	3,001 (11%)
20-29 years	5,452 (21%)
30-39 years	4,263 (16%)
40-49 years	3,514 (13%)
50-59 years	3,457 (13%)
60-69 years	2,883 (11%)
70-79 years	1,714 (6%)
80-89 years	796 (3%)
90-99 years	257 (1%)
100+	18 (<1%)
Total Cases:	26,503

Source: Montana Department of Public Health and Human Services  
<https://dphhs.mt.gov/publichealth/cdepi/diseases/coronavirusmt/demographics>



Total cases: 101,235

**eFigure E. Nevada COVID-19 Cases by Age (as of October 30, 2020)**

Source: Nevada Department of Health  
<https://nvhealthresponse.nv.gov>

**eTable F. New Mexico COVID-19 Cases by Age (as of 10/23/2020)**

<b>Age</b>	<b>Number of Cases</b>
0-9	2120
10-19	4513
20-29	7987
30-39	7290
40-49	6145
50-59	5339
60-69	3594
70-79	1810
80-89	975
90+	347

Total: 4012

Source: New Mexico Department of Health

<https://cvprovider.nmhealth.org/public-dashboard.html#>

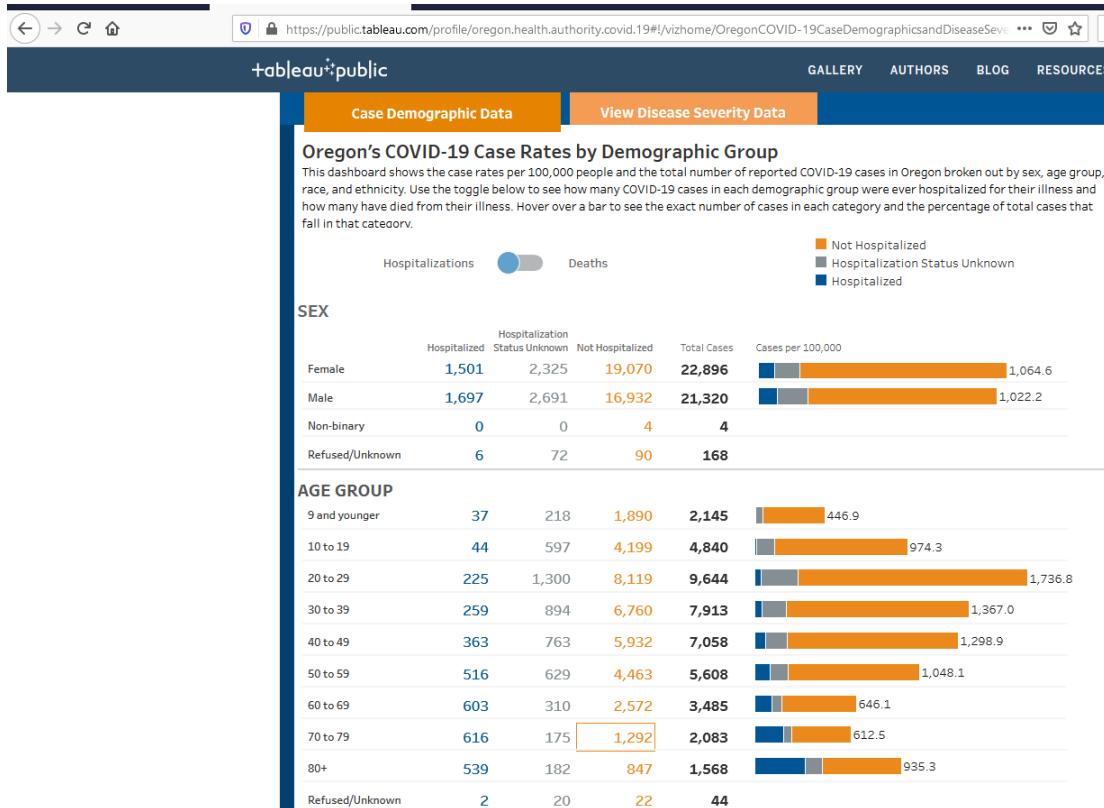
**eTable G. North Dakota COVID-19 Cases by Age (as of October 23, 2020)**

Age	Total Cases
0-9	1549
10-19	4658
20-29	8814
30-39	5932
40-49	4486
50-59	4292
60-69	3490
70-79	1859
80+	1794
Total	35,080

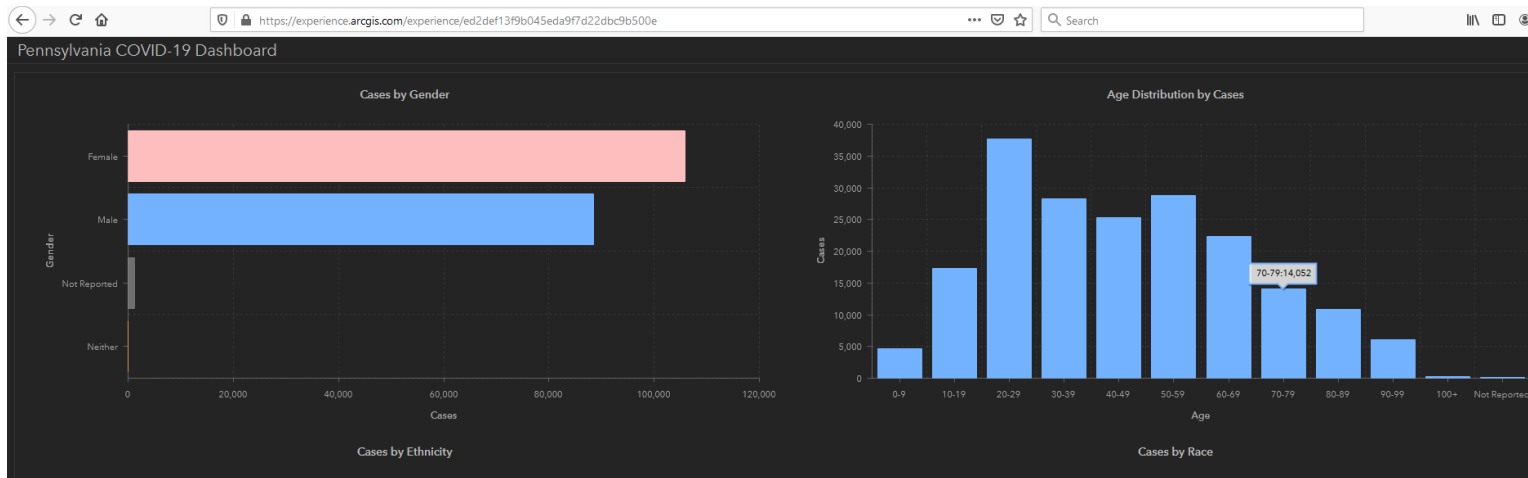
Source: North Dakota Department of Health

<https://www.health.nd.gov/diseases-conditions/coronavirus/north-dakota-coronavirus-cases>

## eTable/Figure H. Oregon COVID-19 Cases by Age (as of October 30, 2020)



Source: Oregon Health Authority (OHA) and the OHA Public Health Division  
<https://public.tableau.com/app/profile/oregon.health.authority.covid.19/viz/OregonCOVID-19CaseDemographicsandDiseaseSeverityStatewide/DemographicData>



https://data.pa.gov/Health/COVID-19-Aggregate-Cases-Current-Daily-County-Health/j72v-r42c/data

opendata PA Commonwealth of Pennsylvania

Home Data Catalog governor.pa.gov COVID-19 Spatial Data Other

COVID-19 Aggregate Cases Current Daily County Health

Based on [COVID-19 Aggregate Cases Current Daily County Health](#)

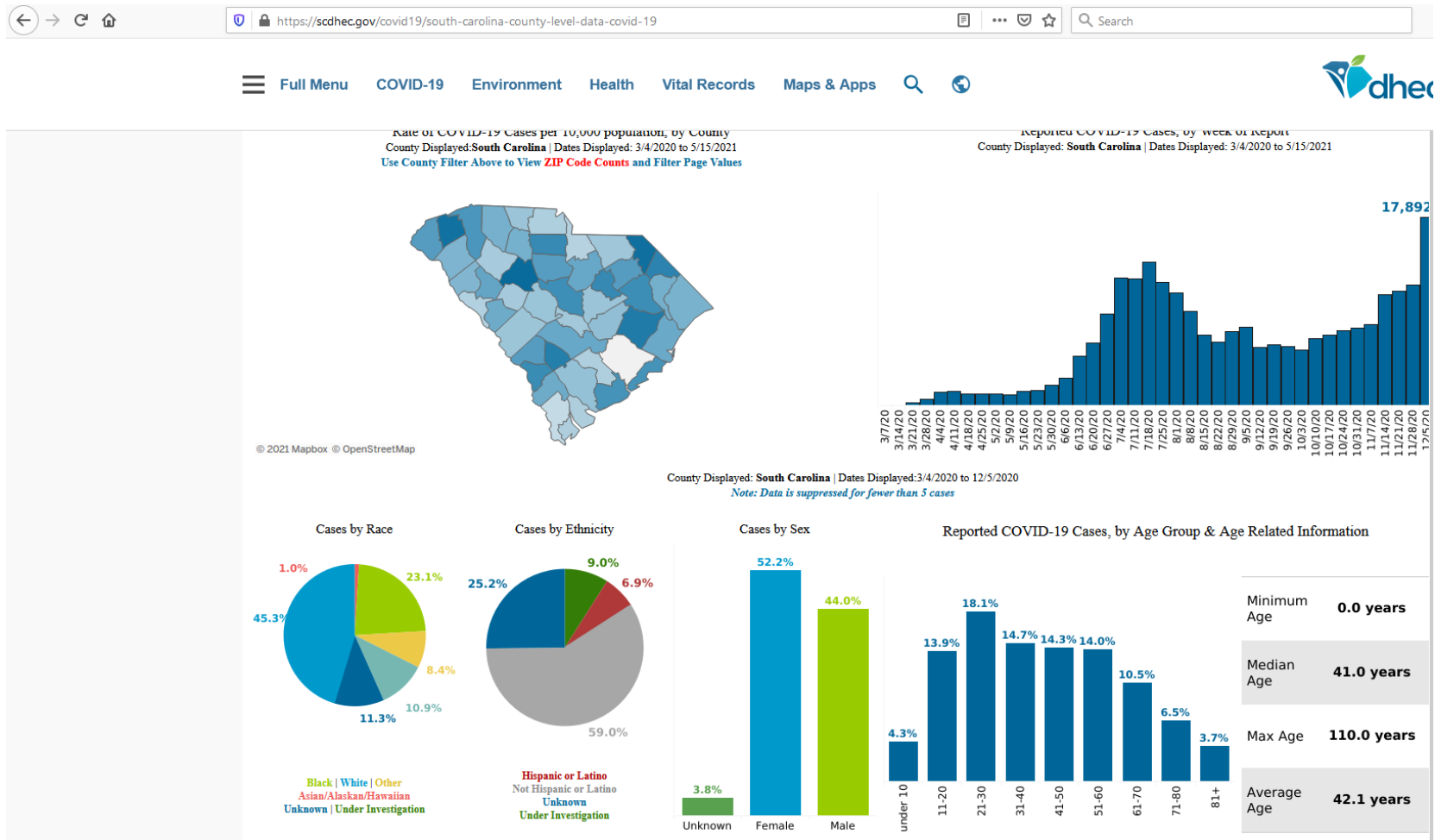
This dataset contains aggregate COVID-19 case counts and rates by date of first report for all counties in Pennsylvania and for the state as a whole. Counts

Jurisdiction	Date	New Cases	7-day Averag...	Cumulative c...	Population (...)	New Case Rate	7-Day Averag...	Cumulative ...	County FIPS ...	Longitude	Latitude	Georeferenc...
Pennsylvania	10/30/2020	2,691	2,226.3	209,822	12,801,989	21	17.4	1,639	42000	-75.167756	39.346129	POINT (-75.16775...

Total cases 209,822.

# eFigure I. Pennsylvania COVID-19 Cases by Age (as of October 30, 2020)

Source: Pennsylvania Department of Health, <https://experience.arcgis.com/experience/ed2def13f9b045eda9f7d22dbc9b500e>



Total cases: 17,892

## eFigure J. South Carolina COVID-19 Cases by Age (as of Dec. 5, 2020)

Source: South Carolina Department of Health and Environmental Control

<https://scdhec.gov/covid19/south-carolina-county-level-data-covid-19>

<https://doh.sd.gov/news/coronavirus.aspx>

☰ ⋮ 🏠 ☆ 🔍 Search

Click the boxes below to explore the data.

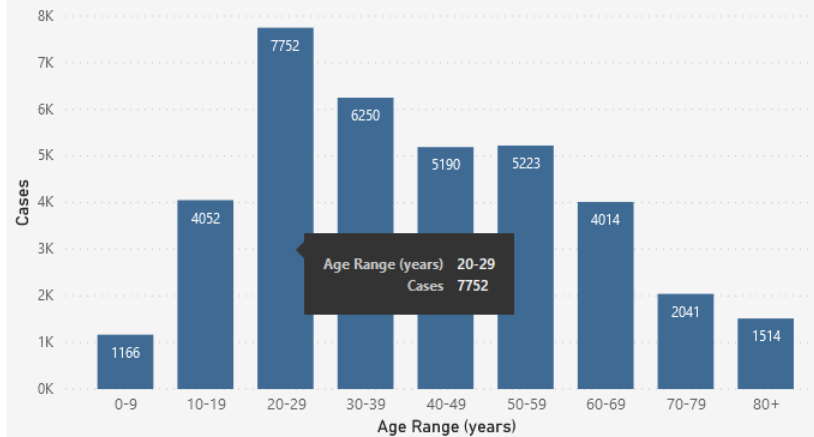
- Active
- Recovered
- Deceased
- Ever Hospitalized
- Non-Hospitalized

**Cases:** Persons who meet the national surveillance case definition for COVID-19. According to the case definition, a confirmed case includes persons with a positive RT-PCR test and a probable case includes persons with a positive antigen test for the SARS-CoV-2 virus that causes COVID-19. A positive case moves from active to recovered status based on the CDC guidelines for removal from isolation.

**Hospitalized:** Refers to a person ever being hospitalized at some point during their COVID-19 infection. The number of persons Ever Hospitalized are based on cumulative numbers from the state's electronic disease surveillance system and reflect current and prior hospitalizations.

**Deaths:** SD-DOH does not report deaths until a certified death record has been filed with COVID-19 as a cause or contributing factor. By law, a death record must be filed within 5 days of the date of death.

### Cases by Age Range



Total cases: 37,262



**eFigure K. South Dakota COVID-19 Cases by Age (as of Oct. 23, 2020)**

Source: South Dakota Department of health

<https://doh.sd.gov/news/coronavirus.aspx>

**eTable L. Tennessee COVID-19 Cases by Age (as of November 11, 2020)**

Age	Total Cases
0-10	14,363
11-20	38,925
21-30	57,829
31-40	46,794
41-50	43,426
51-60	39,243
61-70	27,287
71-80	16,316
81+	8,801
Pending	397

Total 293,381

Source: Tennessee Department of Health, "Age Dataset" in <https://www.tn.gov/health/cedep/ncov/data/downloadable-datasets.html>

## Percent of confirmed COVID-19 cases by age group

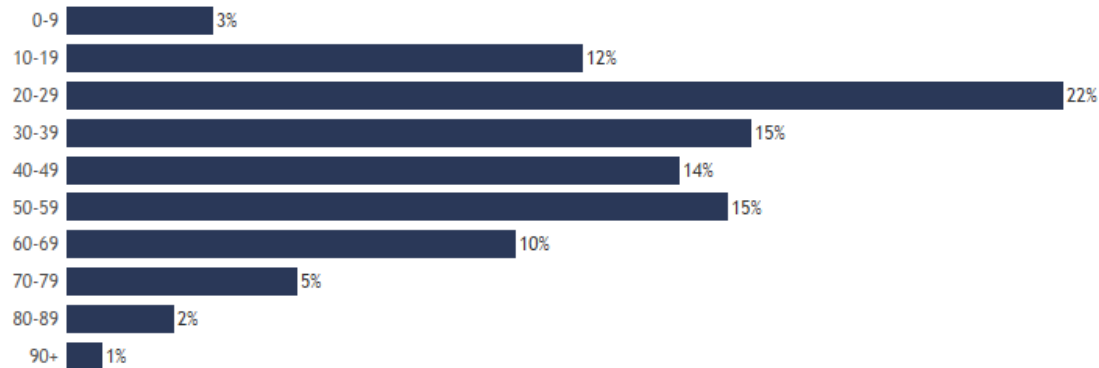
Updated: 10/23/2020 (Total: 190,478)

View cases by:

- Age group (years)
- Gender
- Race
- Ethnicity
- Region

Select case confirmation status:

- Confirmed
- Probable
- Confirmed and probable

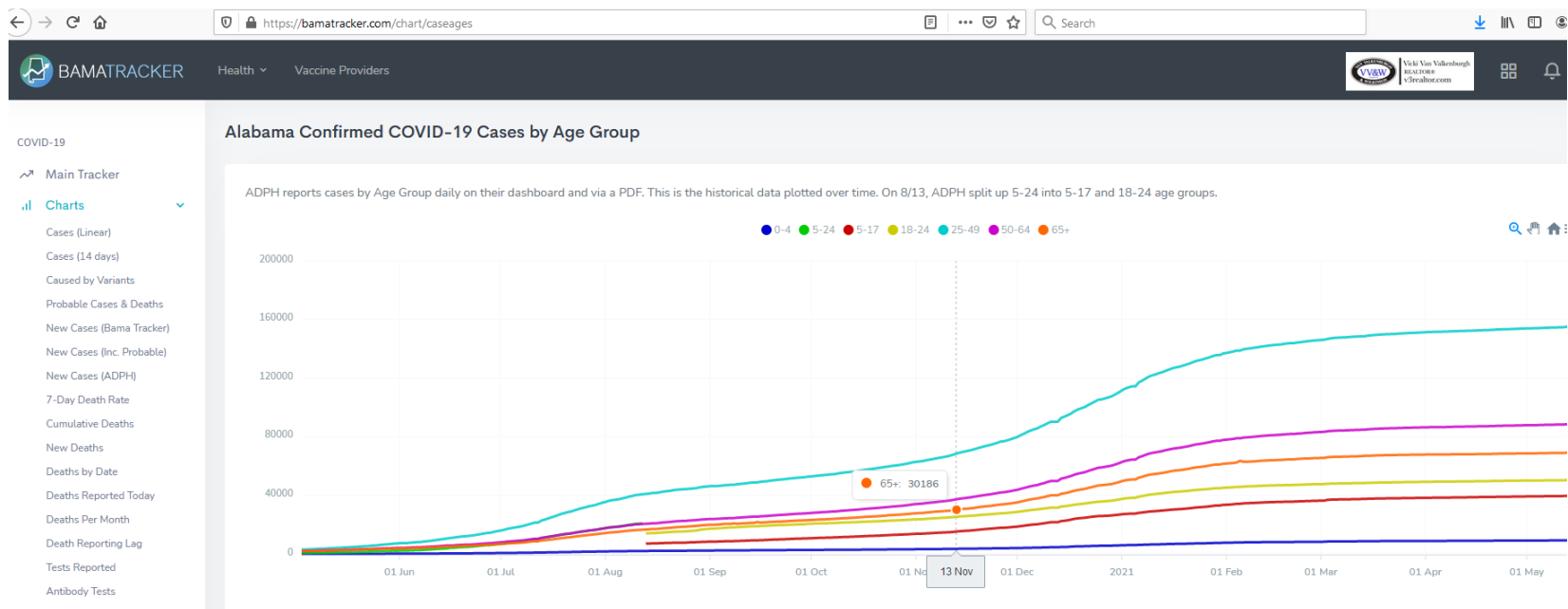


**eFigure M. Wisconsin COVID-19 Cases by Age (as of Oct. 23, 2020)**

Source: Wisconsin Department of Health Services

<https://www.dhs.wisconsin.gov/covid-19/cases.htm#by%20age>

## eTable/Figure N. Alabama COVID-19 Cases by Age (as of November 13, 2020)



Age	Cumulative Cases
0-4	3,519
5-17	15,316
18-24	25,413
25-49	68,497
50-64	37,344
65+	30,186

Source: Alabama Department of Public Health COVID-19 Dashboard Hub  
<https://bamatracker.com/chart/caseages>

eTable/Figure O. Florida COVID-19 Cases by Age (through November 12, 2020)

## COVID-19: characteristics of 858,585 Florida resident cases

Data through Nov 12, 2020 verified as of Nov 13, 2020 at 09:25 AM

Data in this report are provisional and subject to change.

Age group	Cases	Hospitalizations	Deaths	Gender	Cases			
0-4 years	14,429	2%	336	1%	0	0%	Female	441,75
5-14 years	39,056	5%	310	1%	5	0%	Male	412,38
15-24 years	140,515	16%	1,376	3%	32	0%	Unknown	4,44
25-34 years	156,421	18%	2,870	6%	101	1%	<b>Total</b>	<b>858,58</b>
35-44 years	135,609	16%	4,282	8%	302	2%		
45-54 years	133,416	16%	6,404	12%	714	4%		
55-64 years	111,472	13%	9,001	17%	1,920	11%		
65-74 years	67,147	8%	10,310	20%	3,726	21%		
75-84 years	38,283	4%	9,751	19%	5,096	29%		
85+ years	21,217	2%	6,895	13%	5,549	32%		
Unknown	1,020	0%	7	0%	0	0%		
<b>Total</b>	<b>858,585</b>		<b>51,542</b>		<b>17,445</b>			

Source: Florida Department of Health, <https://floridahealthcovid19.gov/>

**eTable/Figure P. Oklahoma COVID-19 Cases by Age (as of Oct. 22, 2020)**

**DEMOGRAPHIC INFORMATION as of October 22, 2020**

		Cases count (%) <sup>1</sup>		Deaths count (%) <sup>1</sup>		Cumulative Incidence Rate <sup>2</sup>	Cumulative Mortality Rate <sup>2</sup>
<b>Oklahoma</b>		<b>112,483</b>		<b>1221</b>		<b>2,852.7</b>	<b>31.0</b>
<b>Gender</b>							
	Male	53,835	(47.9)	680	(55.7)	2,756.5	34.8
	Female	58,648	(52.1)	541	(44.3)	2,947.1	27.2
<b>Age group</b>							
	Under 1- 4	2,126	(1.9)	0	(0.0)	816.3	0.0
	5-14	6,392	(5.7)	1	(0.1)	1,188.3	0.2
	15-24	22,499	(20.0)	2	(0.2)	4,183.3	0.4
	25-34	19,221	(17.1)	11	(0.9)	3,538.4	2.0
	35-44	17,855	(15.9)	19	(1.6)	3,641.0	3.9
	45-54	15,456	(13.7)	56	(4.6)	3,357.7	12.2
	55-64	13,080	(11.6)	150	(12.3)	2,650.8	30.4
	65-74	8,698	(7.7)	324	(26.5)	2,425.2	90.3
	75-84	4,771	(4.2)	333	(27.3)	2,541.7	177.4
	85+	2,384	(2.1)	325	(26.6)	3,257.0	444.0
	Unknown	1	(0.0)				

Source: Oklahoma State Department of Health

[https://coronavirus.health.ok.gov/sites/g/files/gmc786/f/2020.10.23\\_weekly\\_epi\\_report.pdf](https://coronavirus.health.ok.gov/sites/g/files/gmc786/f/2020.10.23_weekly_epi_report.pdf)

**eTable Q. Rhode Island COVID-19 Cases by Age (as of October 24, 2020)**

Age	Cumulative Cases
0-4	480
5-9	531
10-14	656
15-18	1174
19-24	3522
25-29	2655
30-39	4658
40-49	4125
50-59	4175
60-69	2880
70-79	1773
80+	2364

Total cases 28,993

Source: Rhode Island Department of Health (RIDOH) Salesforce COVID-19 Case Dataset  
<https://ri-department-of-health-covid-19-case-data-rihealth.hub.arcgis.com/#age>

**eTable R. Minnesota COVID-19 Cases by Age (as of Oct. 23, 2020)**

<b>Age Group</b>	<b>Number of Cases</b>
0-4 years	2,536
5-9 years	2,624
10-14 years	3,988
15-19 years	11,769
20-24 years	16,429
25-29 years	12,611
30-34 years	11,466
35-39 years	10,447
40-44 years	9,371
45-49 years	8,916
50-54 years	8,893
55-59 years	8,242
60-64 years	6,536
65-69 years	4,415
70-74 years	3,393
75-79 years	2,561
80-84 years	2,066
85-89 years	1,754
90-94 years	1,209
95-99 years	524
100+ years	95
<b>Unknown/missing</b>	18

Total 129,863

Source: <https://www.health.state.mn.us/diseases/coronavirus/situation.html#ageg1>

**eTable S. Missouri COVID-19 Cases by Age (as of Oct. 23, 2020)**

<b>Age</b>	<b>Missouri Number of Cases</b>
0-9	3054
10-19	13637
20	3596
21	3512
22	2831
23	2655
24	2403
25	2316
26	2260
27	2243
28	2181
29	2114
30	2006
31	1942
32	1893
33	1762
34	1769
35	1761
36	1659
37	1761
38	1736
39	1761
40	1752
41	1554
42	1589
43	1659
44	1579
45	1654
46	1556
47	1620
48	1678
49	1783
50	1686
51	1704
52	1616



53	1619
54	1579
55	1655
56	1633
57	1677
58	1619
59	1608
60	1519
61	1477
62	1361
63	1394
64	1308
65	1188
66	1100
67	1028
68	1031
69	976
70	950
71	886
72	908
73	844
74	731
75	707
76	679
77	746
78	627
79	574
80-84	2410
85-89	1918
90+	1975
Unknown	289

Total cases: 120,298

Source: Missouri Department of Health and Senior Services

<https://health.mo.gov/living/healthcondiseases/communicable/novel-coronavirus/cases-by-age.php>

#### **eAppendix 4.** Demographic Data by Age and by State Websites

- (i) Alaska: <https://live.laborstats.alaska.gov/pop/>
- (ii) Colorado: Colorado State Demography Office, Colorado Department of Local Affairs, <https://demography.dola.colorado.gov/population/data/sya-regions/>
- (iii) Michigan: <https://censusreporter.org/profiles/04000US26-michigan/>
- (iv) Montana: <https://censusreporter.org/profiles/04000US30-montana/>
- (v) Nevada: <https://censusreporter.org/profiles/04000US32-nevada/>
- (vi) New Mexico: [https://censusreporter.org/data/table/?table=B01001&geo\\_ids=04000US35&primary\\_geo\\_id=04000US35](https://censusreporter.org/data/table/?table=B01001&geo_ids=04000US35&primary_geo_id=04000US35)
- (vii) North Dakota: <https://censusreporter.org/profiles/04000US38-north-dakota/>
- (viii) Oregon: <https://censusreporter.org/profiles/04000US41-oregon/>
- (ix) Pennsylvania: <https://censusreporter.org/profiles/04000US42-pennsylvania/>
- (x) South Carolina: <https://censusreporter.org/profiles/04000US45-south-carolina/>
- (xi) South Dakota: <https://www.sdstate.edu/sociology-rural-studies/census-data-center/population-change>
- (xii) Tennessee: <https://www.tn.gov/content/dam/tn/health/documents/population/TN-Population-by-AgeGrp-Sex-Race-Ethnicity-2019.pdf>
- (xiii) Wisconsin: <https://censusreporter.org/profiles/04000US55-wisconsin/>
- (xiv) Alabama: <https://censusreporter.org/profiles/04000US01-alabama/>
- (xv) Florida: [http://edr.state.fl.us/Content/populationdemographics/data/Pop\\_Census\\_Day.pdf](http://edr.state.fl.us/Content/populationdemographics/data/Pop_Census_Day.pdf)
- (xvi) Oklahoma: <https://censusreporter.org/profiles/04000US40-oklahoma/>
- (xvii) Rhode Island: <https://censusreporter.org/profiles/04000US44-rhode-island/>
- (xviii) Minnesota: <https://censusreporter.org/profiles/04000US27-minnesota/>
- (xix) Missouri: <https://healthapps.dhss.mo.gov/MoPhims/QueryBuilder?qbc=PNM&q=1&m=1>