

# COVID-19 Statistical Review

*Today's Analysis: Data from December 22, 2020*

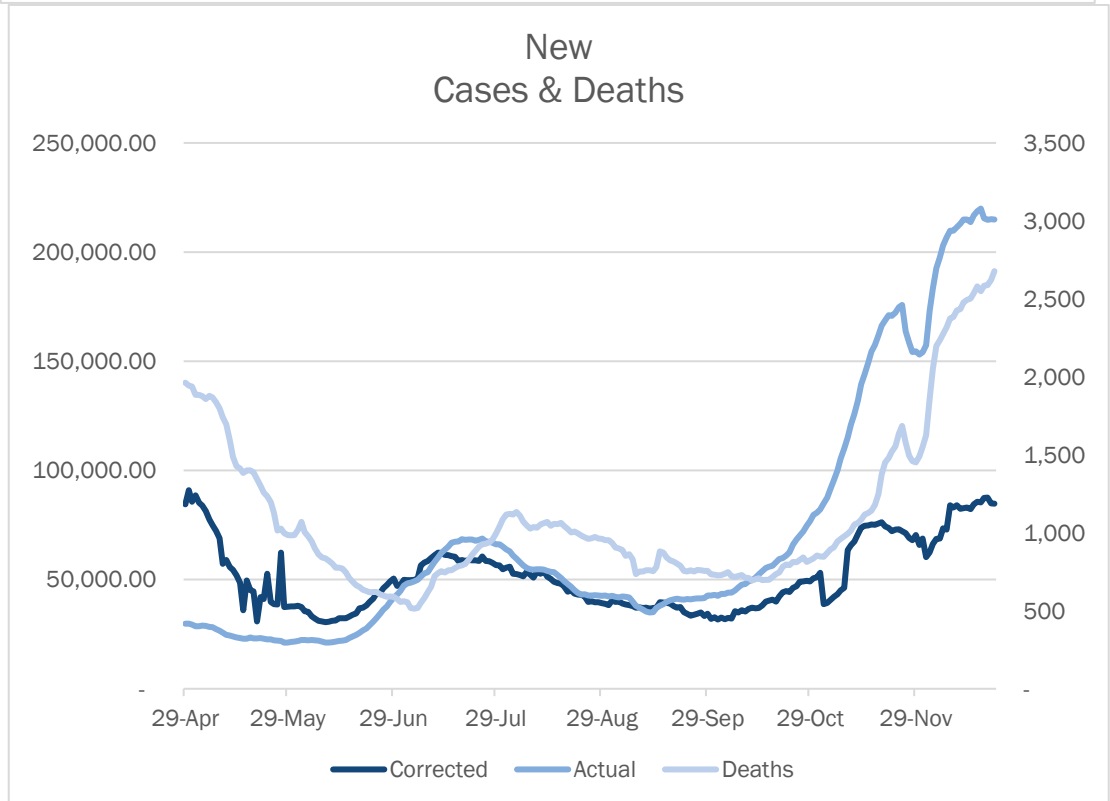
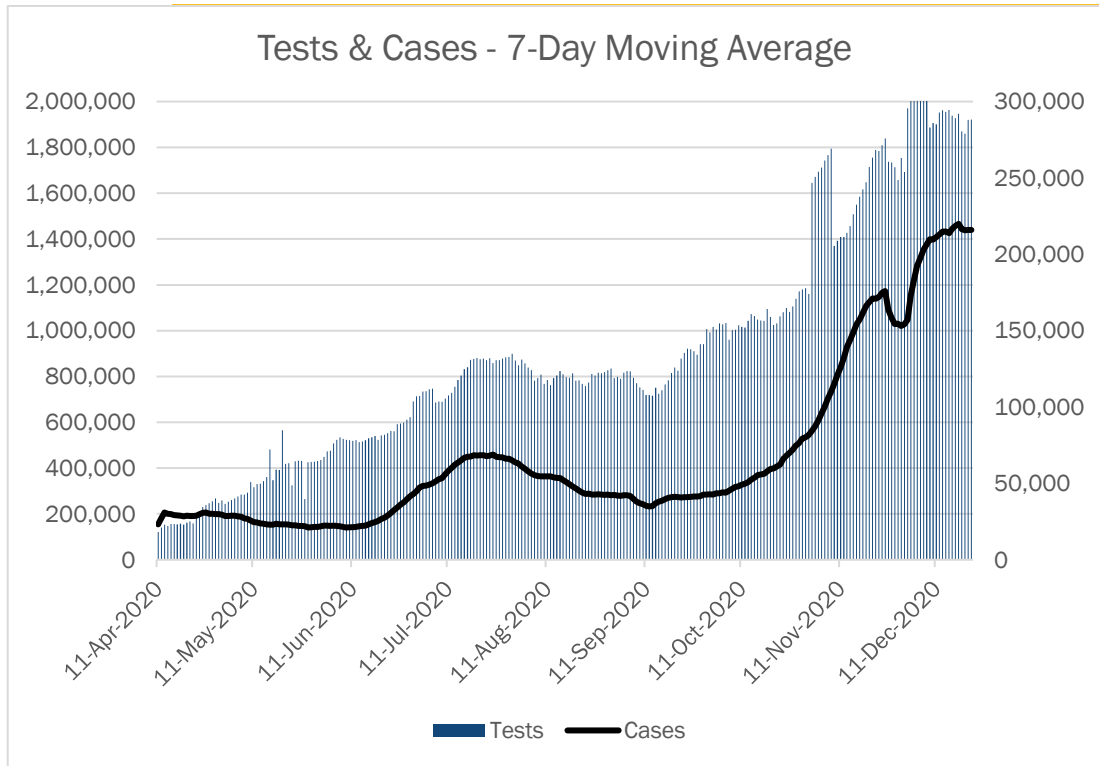
*Tuesday – another good, down day for cases, although deaths continued to rise. As the numbers indicate, death counts lag case counts. With case inflection just starting, we have perhaps as much as two weeks until a definite inflection in deaths.*

*Here's one of those pieces of cognitive dissonance that the authorities are fond of ignoring. Much has been made of the practice of contact tracing. Identify an infected person, find out whom he or she has been in contact and you can isolate them, slowing or preventing the further spread of the virus. Sound logical. Yet, many authorities have concluded that contact tracing is not practical with SARS-COV2. The numbers tell us quickly why.*

*Yesterday I visited seven commercial establishments and was exposed to many people, let's say seventy-two of them. Perhaps tomorrow I have a positive test. How do we identify and contact all seventy-two to test them? Okay, we can use cell phone location to do that and somehow contact all seventy-two. Or course, those people have contacted others, let's say sixty-two each. Conservatively, the number is smaller than my seventy-two because there would be duplicates. Now the authorities have to locate and test over 2,500 people, half of the city of Lebanon, PA. Or course, again, those 2,500 people also have contacted another group, perhaps fifty-two additional people each. Now we have 250,000 people under surveillance, the entire population of the Lebanon Valley where I live. Of course, again, those people have contacted another group, let's say an additional forty-two each. That iteration gets us to 85% of the state of Pennsylvania. One more iteration gets us to the whole country. Okay, my assumptions are too radical, covering the entire country in five iterations. Do you own math, and you still get the whole country within several weeks to a month. Oh, by that time, the data is obsolete, and you have to do it again. Get my point? With a slow-moving, isolated bug like Ebola, contract tracing works. With a widespread, fast-moving bug like SARS-COV2, it is theoretical nonsense. Contract tracing is a perfect example of things that authorities do rather than admit they are powerless to protect us.*

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**Exhibit 1**



Source: [Worldometer.com](http://Worldometer.com), [Transport Futures](http://TransportFutures.net)

Exhibit 2.

Country	Status	Cases	Deaths	Death Rate	Pop per case	Pop per death	Daly Max Cases	New Cases Latest Day	Daily Max Deaths	New Deaths Latest Day	Change In New Case Count Latest Day	Change In New Case Count From Week Before	Change in New Death Count Latest Day	Change in New Death Count From Week Ago
China	Recovery	86,867	4,634	5.3%	16,667	333,333	127	15	9	-	(8)	(2)	0	0
S. Korea	Recovery	51,458	722	1.4%	997	71,429	1,075	867	22	24	(59)	(13)	0	11
Italy	Falling	1,977,370	69,842	3.5%	31	865	40,902	13,318	919	628	2,446	(1,526)	213	-218
Iran	Falling	1,170,743	54,003	4.6%	72	1,565	13,843	6,208	480	187	57	(1,496)	-4	-36
Germany	Rising	1,556,611	28,241	1.8%	54	2,967	30,951	22,495	749	944	3,162	1,118	411	139
France	Falling	2,490,946	61,702	2.5%	26	1,059	86,852	11,795	1,495	487	5,998	263	136	59
UK	Rising	2,110,314	68,307	3.2%	32	996	36,804	36,804	980	691	3,440	18,354	476	185
Norway	Falling	44,932	405	0.9%	121	13,514	717	596	16	-	165	78	-1	-2
Netherlands	Rising	710,683	10,633	1.5%	24	1,613	12,779	9,810	234	114	(1,358)	3,177	86	28
Sweden	Falling	389,439	8,167	2.1%	26	1,241	3,180	-	185	23	22,319	1,388	23	3
USA	Inflection	18,684,628	330,824	1.8%	18	1,003	101,461	199,080	3,486	3,376	(1,029)	(795)	1535	400
Spain	Falling	1,838,654	49,520	2.7%	25	944	25,595	8,544	961	260	1,041	(908)	148	-128
Switzerland	Falling	418,266	6,924	1.7%	21	1,255	21,926	4,275	167	143	(5,727)	4	-16	31
Belgium	Falling	626,911	18,697	3.0%	19	621	23,921	981	496	71	(1,189)	(93)	-10	-32
Denmark	Falling	140,175	1,070	0.8%	41	5,435	4,034	2,543	22	17	(655)	(449)	-1	6
Austria	Falling	342,226	5,540	1.6%	26	1,631	9,586	1,853	218	105	334	(775)	21	-13
Canada	Falling	521,509	14,425	2.8%	73	2,625	8,119	6,195	222	93	(1,324)	(157)	-11	-13
Ireland	Falling	81,228	2,171	2.7%	-	2,288	1,515	961	220	13	236	634	13	5
Portugal	Falling	378,656	6,254	1.7%	27	1,629	7,497	2,436	87	63	337	(202)	6	-21
Australia	Recovery	28,219	908	3.2%	908	28,571	651	21	59	-	(5)	12	0	0
Brazil	Falling	7,320,020	188,285	2.6%	29	1,133	68,437	55,799	1,554	963	30,178	10,950	414	54
Malaysia	Recovery	97,389	439	0.5%	334	76,923	2,234	2,062	8	1	44	290	0	-2
Mexico	Falling	1,325,915	118,598	8.9%	98	1,093	12,253	5,370	1,092	396	(1,500)	(560)	70	51
Singapore	Recovery	58,461	29	0.0%	100	200,000	1,426	29	2	-	19	13	0	0
North America	Falling	20,532,052	463,847	2.3%	24	1,077	264,640	210,645	4,427	3,865	(3,853)	(1,512)	1,594	438
Western Europe	Inflection	13,106,411	337,473	2.6%	31	1,193	208,662	116,411	4,450	3,559	30,549	21,063	1,505	42
Other	Falling	44,707,988	921,528	2.1%	154	7,457	329,242	277,917	11,244	5,756	44,058	(1,715)	1,182	65
World	Rising	78,346,451	1,722,848	2.2%	99	4,525	714,908	604,973	13,180	#####	70,754	17,836	4,281	545

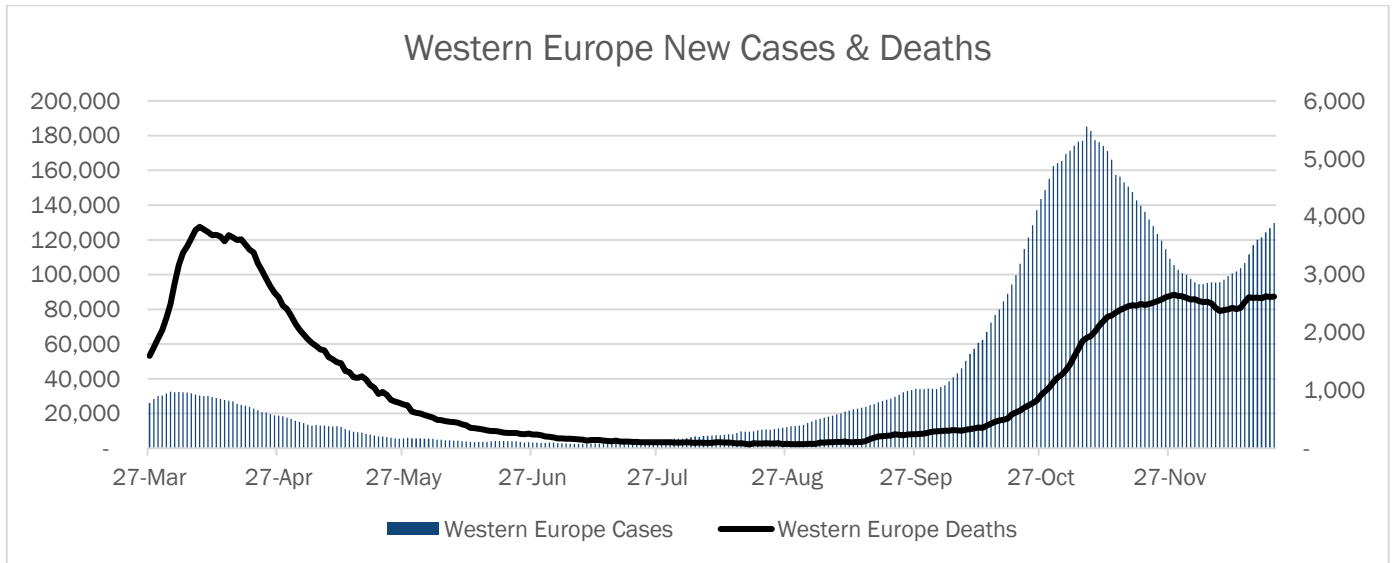
Source: Worldometer.com, Transport Futures

Exhibit 3..

	Hot Spot Group	Total Cases	Max New Cases/Day Since 21 April	New Cases Latest Day	Change in New Cases/Day	Change In Cases/Day Since Week Ago	Change In Cases/Day Since Max	Total Deaths	Max New Deaths/Day Since 21 April	New Deaths Latest Day	Change In New Deaths/Day	Change In Deaths/Day Since Week Ago	Change In Deaths/Day Since Max	Cases/M	Million	Population
USA Total	All	18,684,628	86,293	199,080	(1,029)	(795)	131%	330,824	3,023	3,376	1,535	400	12%	56,449	999	331,004,361
Hot-Spot Group 1	1	3,140,782	45,315	35,116	(623)	(1,447)	-23%	102,956	1,830	669	149	(24)	-63%	45,300	1,413	67,002,431
Hot-Spot Group 2	2	7,730,710	131,479	99,889	(3,521)	1,816	-24%	113,907	1,277	1,177	549	282	-8%	56,384	867	131,632,800
Hot-Spot Group 3	3	4,285,951	63,150	35,666	2,974	(2,118)	-44%	68,547	1,008	1,014	620	221	1%	62,149	908	67,059,786
Hot-Spot Group 4	4	3,527,185	52,356	28,409	141	954	-46%	45,414	915	516	217	(79)	-44%	48,269	706	71,140,342
New York	1	906,834	12,484	9,889	121	(724)	-21%	36,735	764	154	(25)	28	-80%	46,615	1,888	19,453,968
New Jersey	1	450,564	7,126	4,368	279	707	-39%	18,457	458	106	80	20	-77%	50,727	2,078	8,882,395
Massachusetts	1	331,174	6,675	3,800	(43)	(129)	-43%	11,804	252	45	3	(10)	-82%	48,048	1,713	6,892,405
Pennsylvania	1	577,183	13,318	7,770	(1,295)	(1,934)	-42%	14,286	294	227	168	(34)	-23%	45,085	1,116	12,801,381
Louisiana	1	290,960	5,326	3,699	2,583	1,066	-31%	7,158	126	51	(14)	1	-60%	62,588	1,540	4,648,783
Connecticut	1	168,960	8,129	1,583	(3,012)	113	-81%	5,703	125	27	(68)	5	-78%	47,390	1,600	3,565,242
Maryland	1	255,397	3,792	2,324	59	(77)	-39%	5,519	77	48	25	(16)	-38%	42,245	913	6,045,713
Rhode Island	1	81,187	1,717	956	537	(210)	-44%	1,678	27	8	(9)	(7)	-70%	76,638	1,584	1,059,367
District Of Columbia	1	26,900	392	160	21	(141)	-59%	744	19	2	(3)	(2)	-89%	38,116	1,054	705,739
Delaware	1	51,623	1,058	567	127	(118)	-46%	872	69	1	(8)	(9)	-99%	53,014	895	973,792
California	2	1,966,215	61,569	34,914	(8,188)	(470)	-43%	23,288	407	365	120	75	-10%	49,762	589	39,511,060
Florida	2	1,223,015	15,300	10,434	(581)	1,023	-32%	20,757	276	82	(28)	(8)	-70%	56,943	966	21,477,832
Texas	2	1,635,987	21,353	21,505	4,496	1,787	1%	26,461	322	214	72	(6)	-34%	56,421	913	28,995,746
Georgia	2	600,517	9,079	9,079	5,559	1,642	0%	10,463	122	64	48	8	-48%	56,560	985	10,617,138
Tennessee	2	534,019	11,410	4,441	(5,450)	(3,810)	-61%	6,269	177	133	68	59	-25%	78,197	918	6,829,015
North Carolina	2	488,902	8,444	5,255	776	19	-38%	6,291	98	51	35	25	-48%	46,615	600	10,487,897
Alabama	2	329,811	5,348	4,979	2,599	1,341	-7%	4,452	81	63	63	41	-22%	67,265	908	4,903,192
Arizona	2	467,215	11,806	5,870	(1,878)	1,736	-27%	8,125	172	153	152	89	-11%	64,189	1,116	7,278,621
Nevada	2	206,974	3,772	1,090	(849)	(1,230)	-71%	2,825	57	38	32	(10)	-33%	67,196	917	3,080,195
South Carolina	2	278,055	4,302	2,322	(5)	(222)	-46%	4,976	80	14	(13)	9	-83%	54,005	966	5,148,707

Source: Worldometer.com, Transport Futures

Exhibit 4.



	Hot Spot Group	Total Cases	Max New Cases/Day Since 21 April	New Cases Latest Day	Change in New Cases/Day	Change In Cases/Day Since Week Ago	Change In Cases/Day Since Max	Total Deaths	Max New Deaths/Day Since 21 April	New Deaths Latest Day	Change In New Deaths/Day	Change In Deaths/Day Since Week Ago	Change In Deaths/Day Since Max	Cases/M	Deaths/ Million	Population
Ohio	3	637,032	12,720	7,678	1,130	(1,077)	-40%	8,252	138	130	63	34	-6%	54,498	706	11,689,615
Washington	3	231,158	6,615	1,507	(2,496)	(88)	-77%	3,278	53	42	23	2	-21%	30,356	430	7,615,063
Mississippi	3	197,691	2,746	2,191	1,024	(14)	-20%	4,490	79	79	77	31	0%	66,425	1,509	2,976,189
Illinois	3	911,308	15,415	6,239	1,540	(1,120)	-60%	16,671	235	144	24	12	-39%	71,916	1,316	12,671,873
Michigan	3	504,629	10,140	3,514	730	(1,877)	-65%	12,342	233	189	110	(17)	-19%	50,529	1,236	9,987,209
Missouri	3	396,543	6,539	3,767	758	(58)	-42%	5,616	174	174	159	12	0%	64,611	915	6,137,553
Wisconsin	3	461,015	7,989	2,403	968	(1,038)	-70%	4,545	92	120	112	66	30%	79,179	781	5,822,701
Utah	3	255,085	4,588	2,302	483	387	-50%	1,173	30	12	6	(3)	-60%	79,566	366	3,205,934
Arkansas	3	205,048	3,039	1,941	484	(200)	-36%	3,338	43	43	(15)	17	0%	67,946	1,106	3,017,747
Other	3	486,442	10,048	4,124	(1,647)	3,027	-59%	8,842	186	81	61	67	-56%	56,449	999	2,764,129
Indiana	4	471,876	8,460	3,657	(208)	(584)	-57%	7,581	143	143	109	15	0%	70,092	1,126	6,732,546
Colorado	4	313,552	6,439	2,516	370	238	-61%	4,369	267	-	(10)	(116)	-100%	54,448	759	5,758,981
Virginia	4	314,481	4,398	3,591	(451)	431	-18%	4,705	56	51	47	(5)	-9%	36,844	551	8,535,562
Iowa	4	269,213	5,451	1,086	212	(173)	-80%	3,653	102	64	64	(3)	-37%	85,327	1,158	3,155,131
Kentucky	4	247,344	4,314	3,047	1,071	119	-29%	2,440	37	28	13	13	-24%	55,363	546	4,467,477
Oklahoma	4	265,620	4,827	2,186	(410)	(38)	-55%	2,240	42	22	16	8	-48%	67,127	566	3,956,946
Minnesota	4	401,011	8,946	1,700	(292)	(623)	-81%	4,955	101	24	2	3	-76%	71,106	879	5,639,743
Kansas	4	207,220	7,002	396	(3,509)	(12)	-94%	2,448	144	-	(107)	-	-100%	71,129	840	2,913,351
New Mexico	4	132,075	3,665	1,267	452	9	-65%	2,203	48	23	14	(5)	-52%	62,988	1,051	2,096,906
Oregon	4	105,073	1,806	1,318	493	236	-27%	1,382	53	35	29	(18)	-34%	24,912	328	4,218,066
Idaho	4	132,594	2,298	1,717	800	(85)	-25%	1,313	35	12	(9)	(8)	-66%	74,197	735	1,787,063
South Dakota	4	95,509	2,020	435	88	90	-78%	1,381	54	-	(20)	(2)	-100%	107,961	1,561	884,627
Nebraska	4	158,324	3,440	1,221	500	1,221	-65%	1,521	31	10	(15)	10	-68%	81,846	786	1,934,391
New Hampshire	4	38,008	1,187	620	(226)	(50)	-48%	656	19	-	-	-	-100%	27,953	482	1,359,843
West Virginia	4	74,737	1,636	1,400	405	86	-14%	1,171	34	42	41	8	24%	41,702	653	1,792,229
Maine	4	19,743	2,456	458	119	47	-81%	303	20	10	9	4	-50%	14,687	225	1,344,330
Vermont	4	6,608	181	74	(17)	8	-59%	112	4	1	1	(3)	-75%	10,590	179	624,007
North Dakota	4	90,453	2,270	332	250	6	-85%	1,238	37	5	3	(8)	-86%	118,695	1,625	762,045
Hawaii	4	20,417	354	66	(68)	10	-81%	282	11	-	-	-	-100%	14,420	199	1,415,828
Wyoming	4	42,379	1,260	261	(195)	(28)	-79%	373	27	22	22	15	-19%	73,224	644	578,769
Montana	4	77,947	1,642	623	469	(114)	-62%	895	37	14	(2)	6	-62%	72,931	837	1,068,733
Alaska	4	43,001	1,453	438	288	160	-70%	193	18	10	10	7	-44%	58,781	264	731,588

Source: Worldometer.com, Transport Future