Health Industry Advisor, llc

"Strategic Guidance in an Era of Unprecedented Change"

COVID-19 Dashboard

Issue # 88

Sunday, June 28, 2020

Day's Highlights

"Strategic Guidance in an Era of Unprecedented Change"

Measure	Desired Change	Yesterday in the U.S.
Number of Tests	Increase	>590,000 on Saturday
Test-Positivity Rate	Decline	7.4% on Saturday; 6.7% for past 7 days
Number of Cases	Plateau	Cases increased 42.5% week-over-week – concentrated in 6 states
Deaths % of Total Cases	Decline	4.9%
Number of Deaths / 1M Population	Plateau	387.2
Recoveries : Death	Increase	8.44

- Saturday was another day of disappointing day in the United States, with >43,500 new cases reported. The U.S., Brazil (~36,000 new cases) and India (>20,000) accounted for 56.4% of new cases worldwide yesterday. Total cases worldwide now exceed 10 million. The U.S, Brazil, Russia and India account for 50% of these cases
- New daily infections per 1 million population in the U.S. (trailing 7-day moving average) is now 115; it was at a low of 64.8 on June 9. A few states account for a majority of the new cases in the United States during this time:
  - The new infection rate / 1 million in Arizona, California, Florida and Texas combined is 183; it was 67.1 on June 9
  - This rate for the rest of the U.S in 80; it was 63.8 on June 9
  - Unfortunately, California, Florida and Texas are the 3 most populous states in the country; With Arizona, these states represent 30% of the population
- Testing in the U.S was strong again on Saturday, with >590,000 tests. Testing on each of the past 3 days has been higher than on any day since the pandemic began. Test-positive rate, remained at 7.4% - high by recent experience yet, still below the upper limit of 10% suggested by the World Health Organization
  - California and Florida have ramped up their testing recently - likely in an effort to regain some measure of control in the virus spread
  - California's test-positive rate remains below the 10% WHO standard; Florida's remains above it
- Of these 4 states currently hardest-hit by the virus, Arizona may be showing early signs of improvement: its rate of daily increase in cases has trended down for the past 8 days
- Encouragingly, the % of hospitalized patients in the ICU and on ventilators has declined in Arizona; the % of hospitalized patients in the ICU has also declined in California. (Ventilator data is unavailable for California, Florida or Texas; ICU data are unavailable for Florida and Texas)
- The declining death rate in the U.S. continues to be encouraging - it is now <5% cumulatively, down from its high of 5.96% on May 20). Although there is a time lag of several weeks between the onset of cases and deaths, we have yet to see any uptick in deaths from the recent acceleration in cases. Instead, we continue to experience substantially fewer deaths per day in June (745) than in May (1,390) and April (1,957)

UNITED STATES & STATE-BY-STATE INFORMATION

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United States

Overall Statistics

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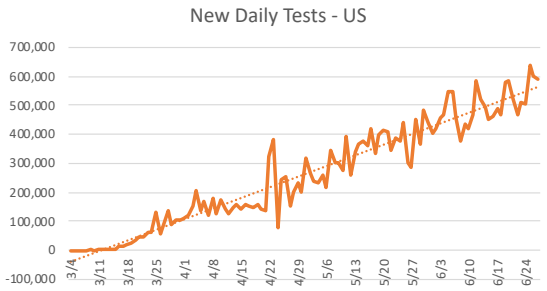
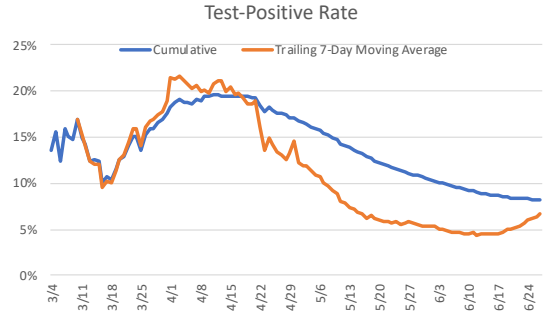
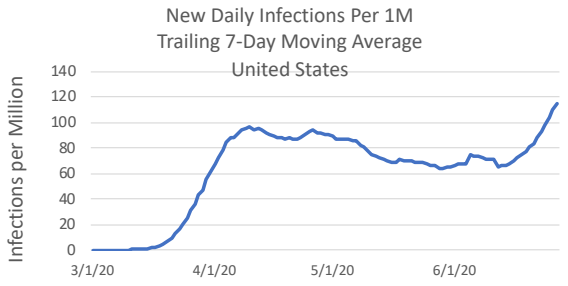
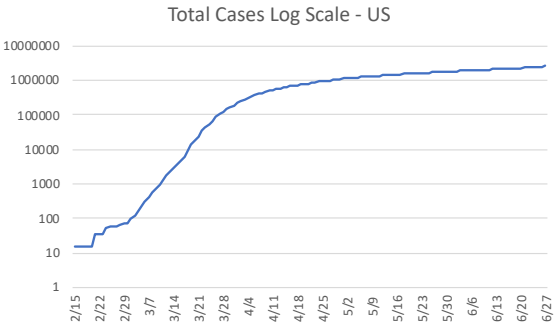
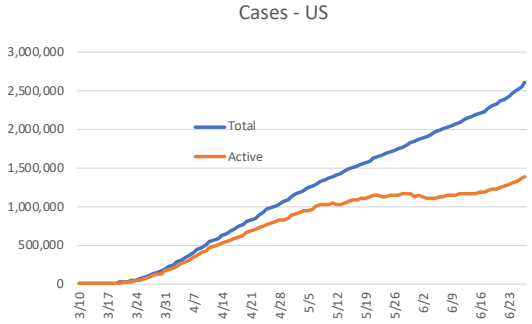
With significantly increased testing, the US is now meeting the WHO standard of <10% test-positives. This suggests that asymptomatic cases are being captured and that we have a better view of true infection rates.
Further, new daily infections continue to decline; the death rate seems to have stabilized.

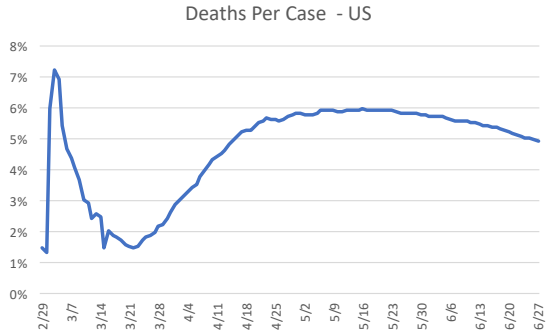












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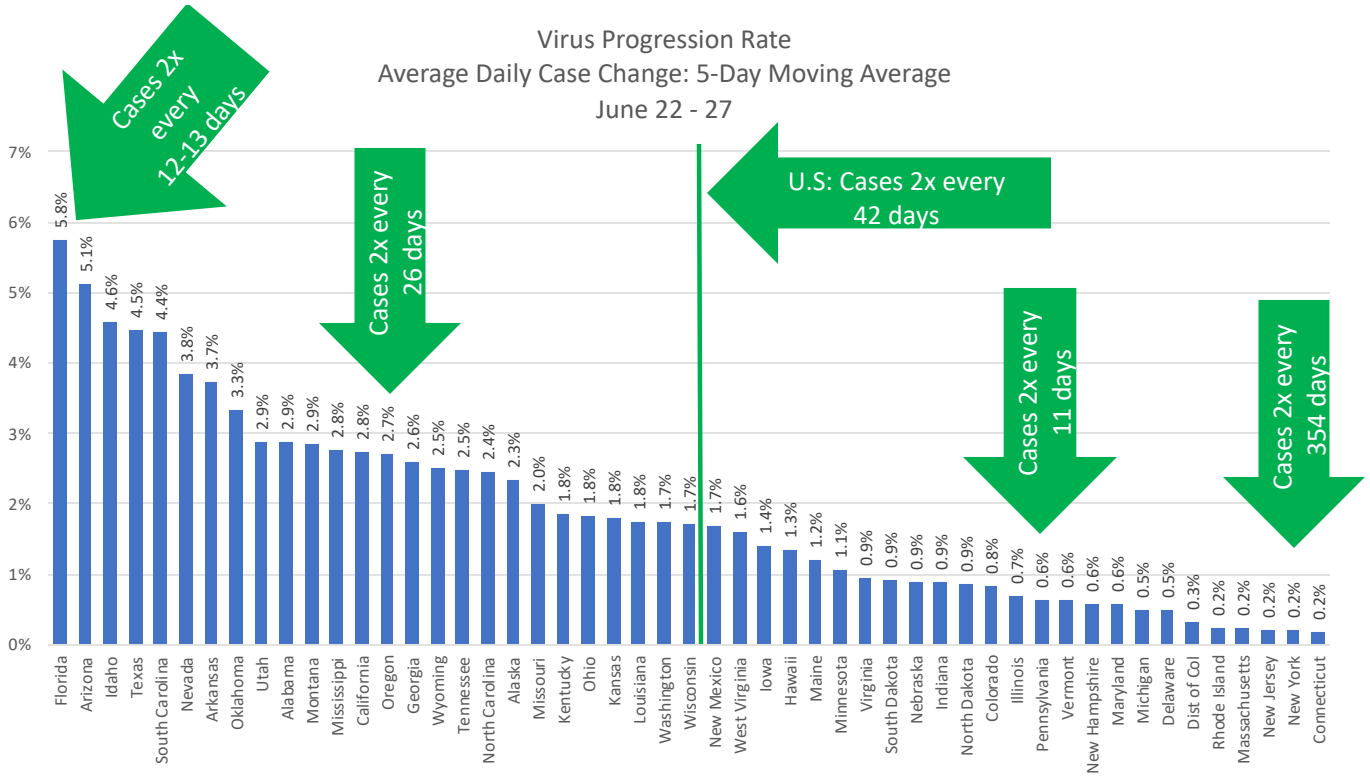
State-by-State

Average Daily Case Growth

"Strategic Guidance in an Era of Unprecedented Change"

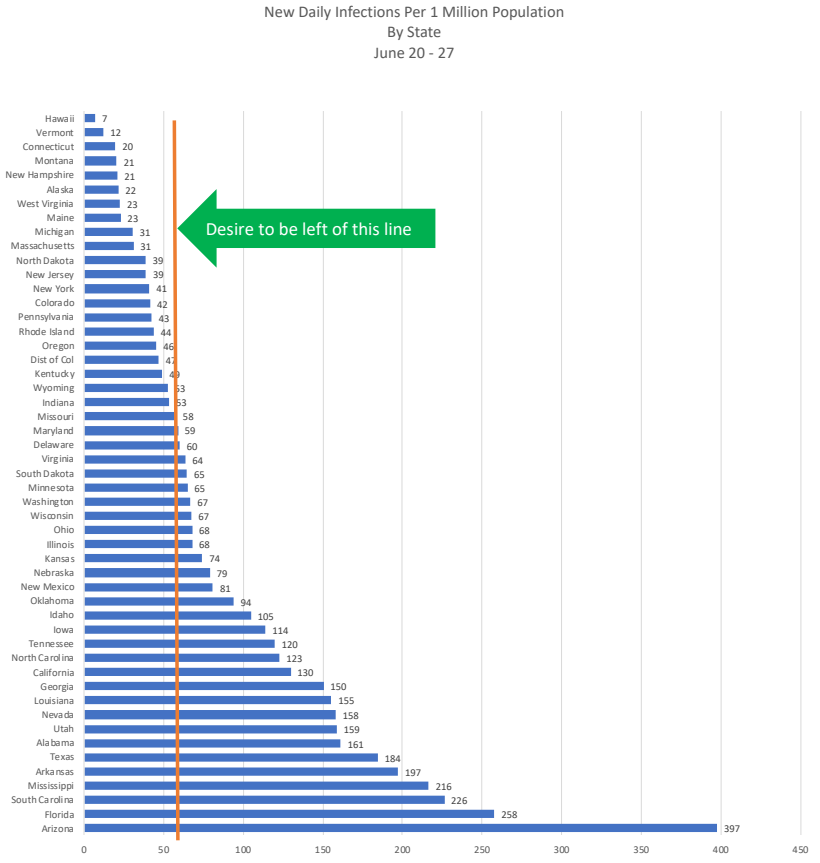
At the height of the epidemic, cases in some states were doubling every few days. Now, they would take from 12 – 375 days to double

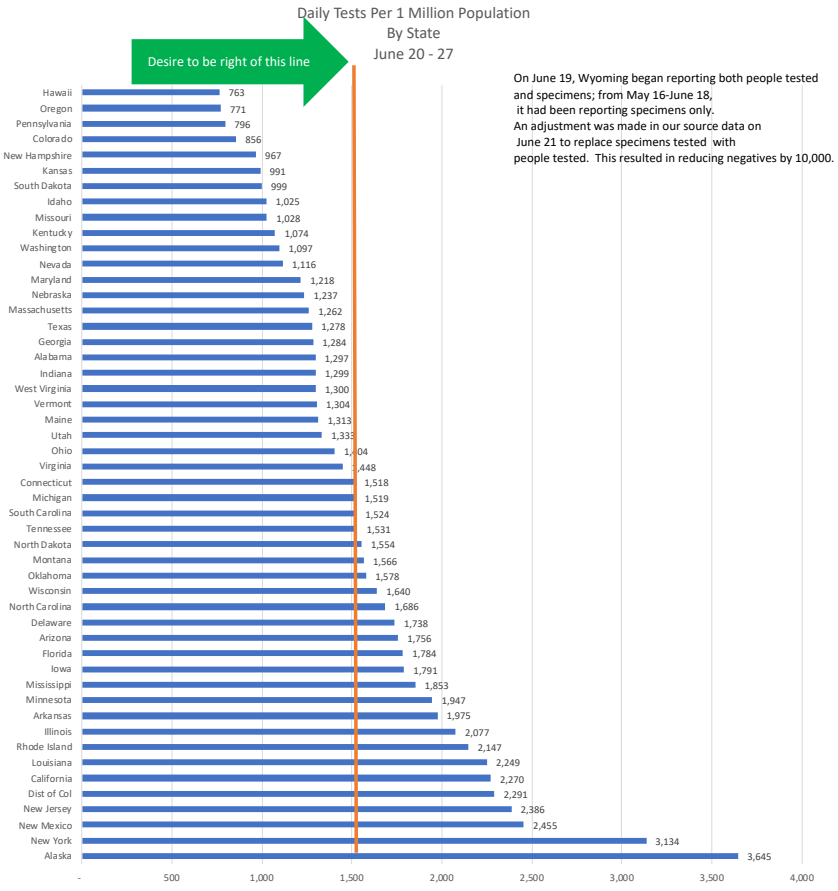


State-by-State

New Daily Infections & Tests Per Capita

"Strategic Guidance in an Era of Unprecedented Change"





State-by-State

Cases & Deaths Per Capita

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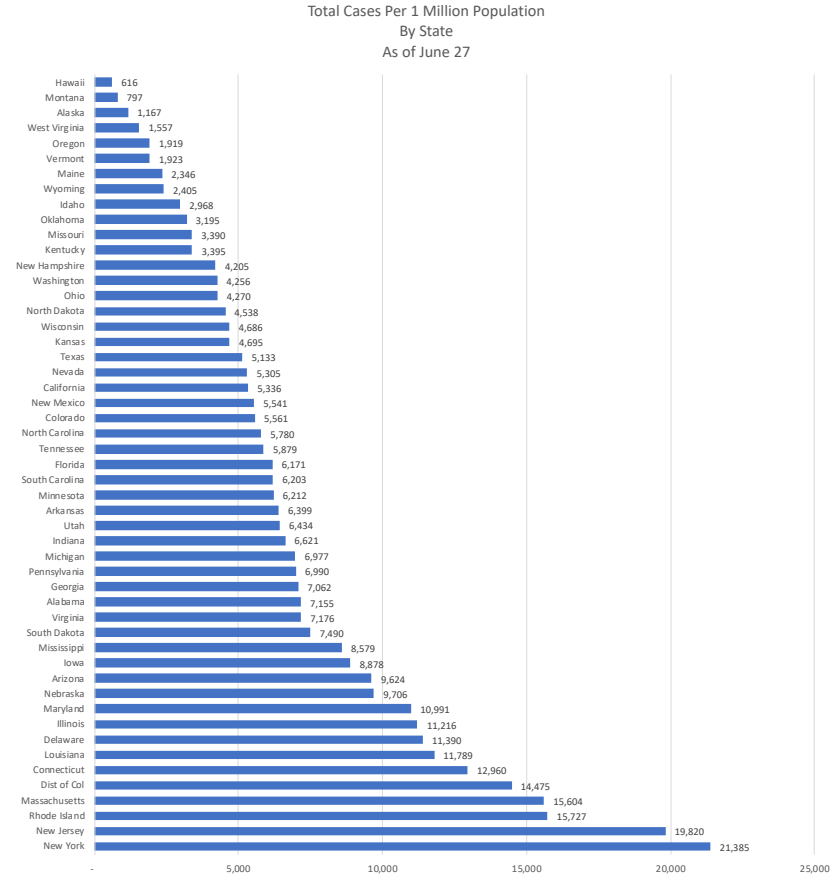

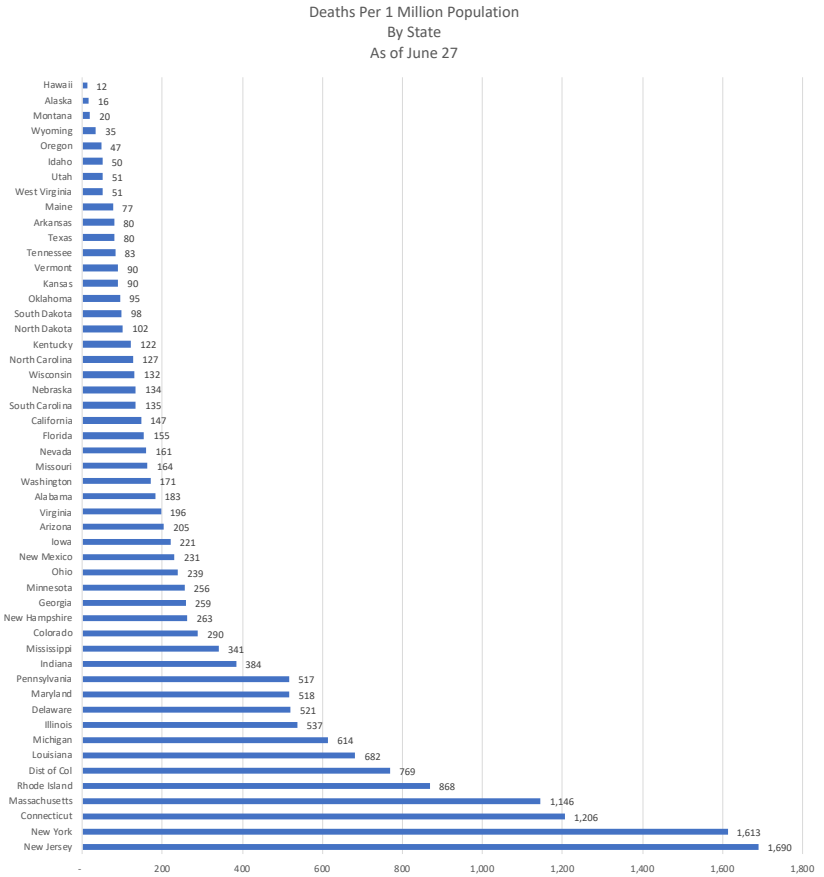

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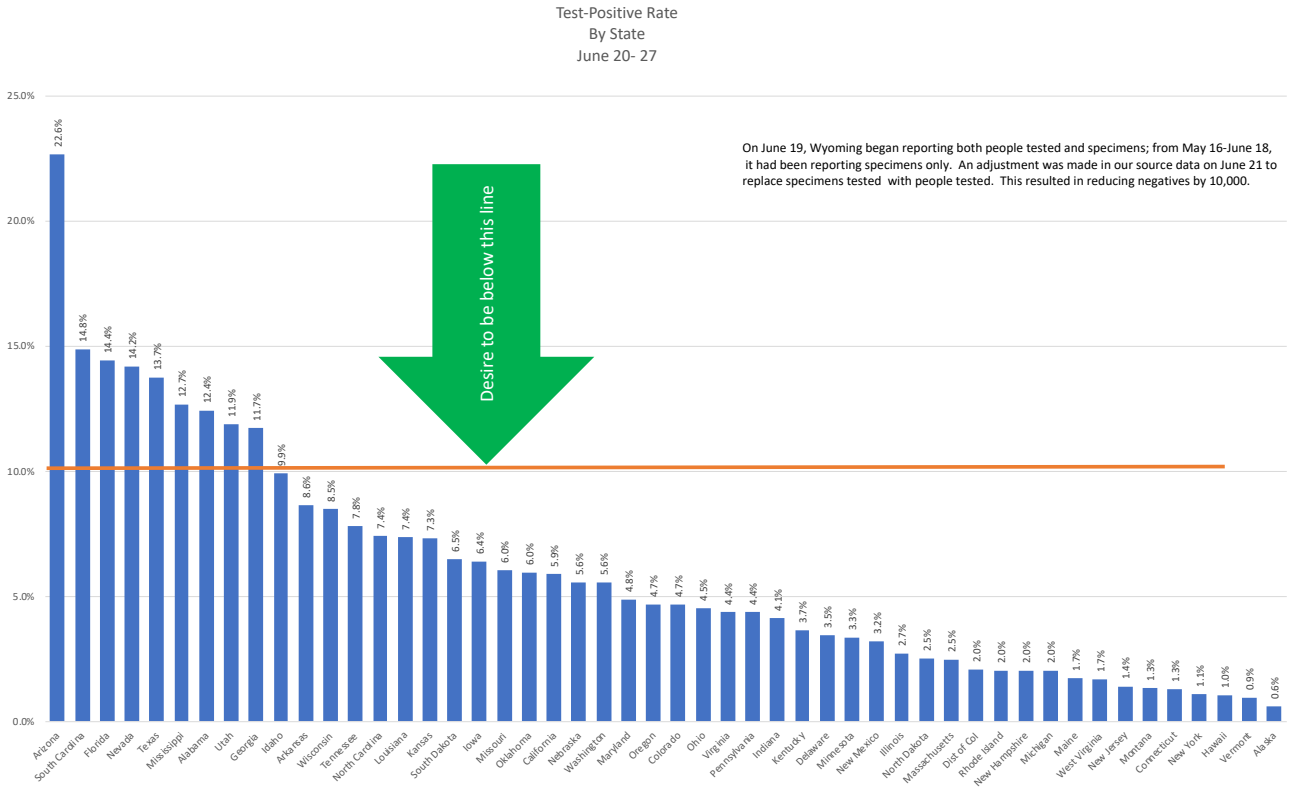
State-by-State

Which States Are Performing Sufficient Tests?

"Strategic Guidance in an Era of Unprecedented Change"

The World Health Organization suggested that the test-positive rate should be 10% or lower, for testing to be sufficient to assess the true prevalence of the virus. Several states failed to meet this guideline for the past week

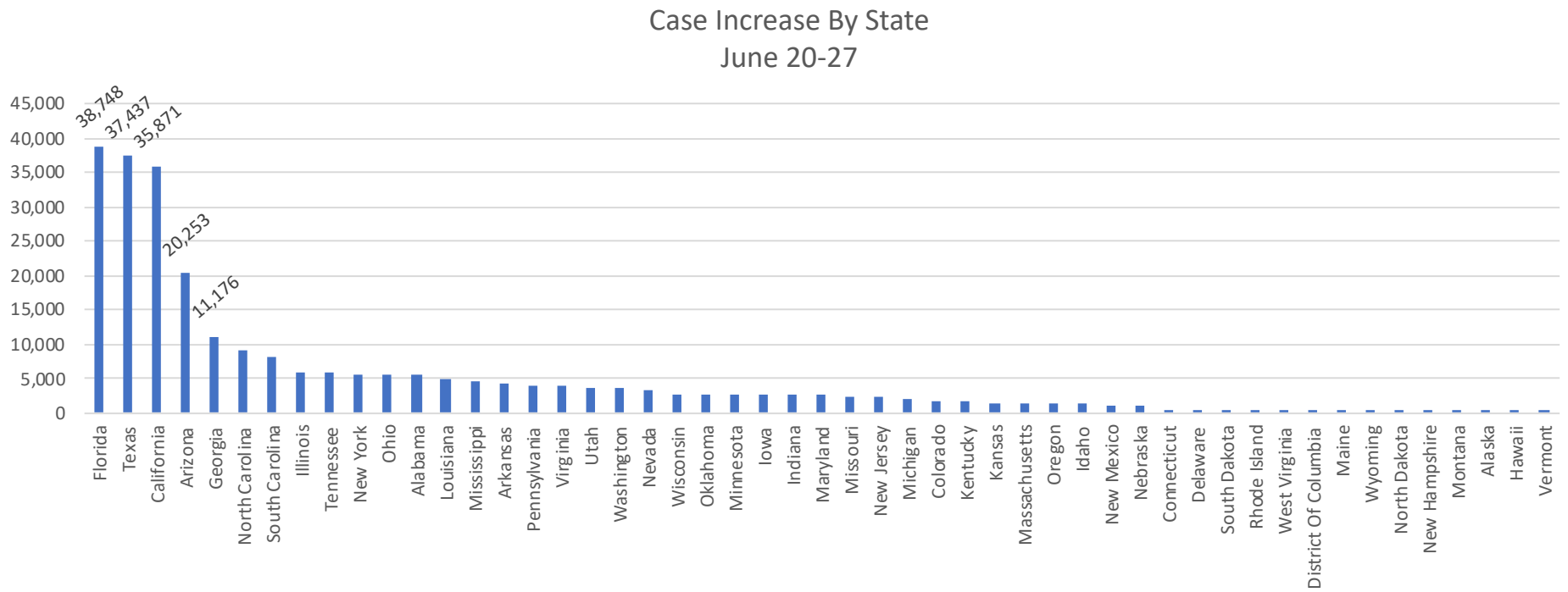


ANALYZING TRENDS IN THE CONCENTRATION & SEVERITY OF THE VIRUS

Case Increases By State – Past 7 Days

"Strategic Guidance in an Era of Unprecedented Change"

Case Growth in the U.S. Has Been Concentrated in A Few States

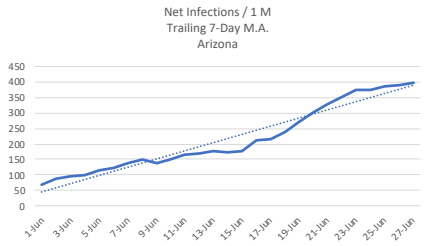


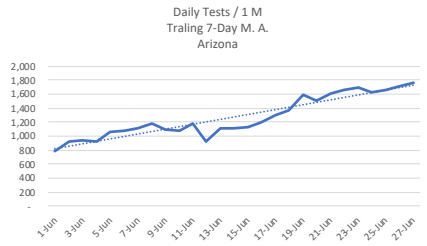
Tracking Virus Impact in States With Most Increase in Cases In Past Week

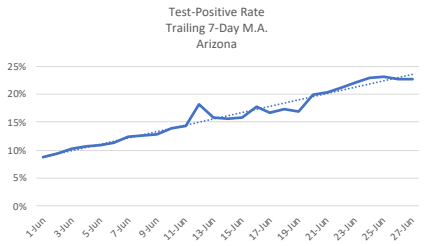
"Strategic Guidance in an Era of Unprecedented Change"

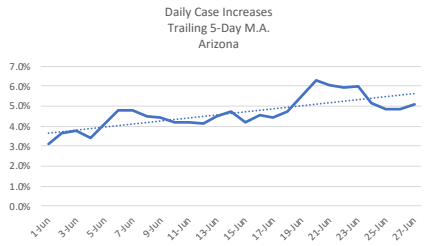
Arizona:

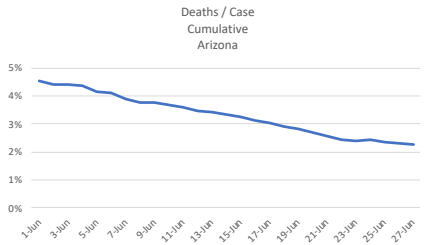
- Highest rates of new daily infections per capita and test-positive in the U.S.
- Is the rate of daily increases beginning to slow?
- Death rate low and declining
- Hospitalized patients increasing, however,
- % of patients in ICU and on ventilators declining

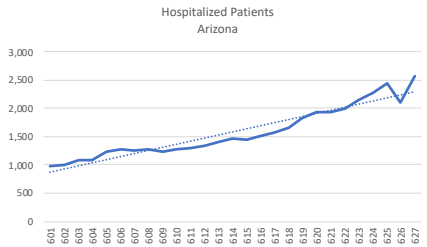


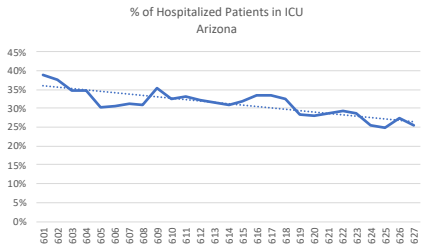


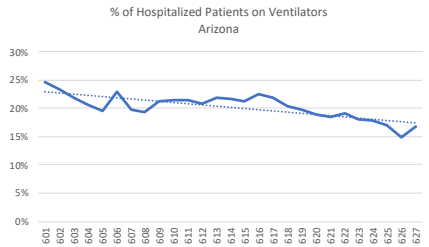










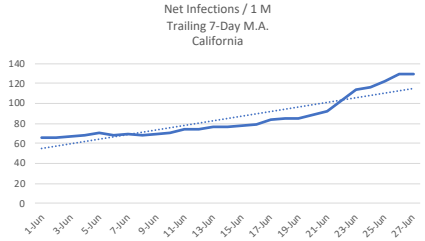


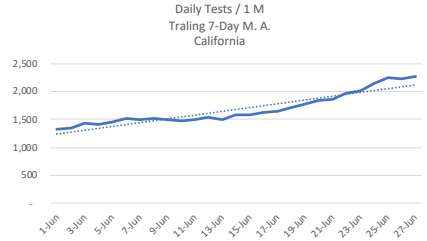
Tracking Virus Impact in States With Most Increase in Cases In Past Week

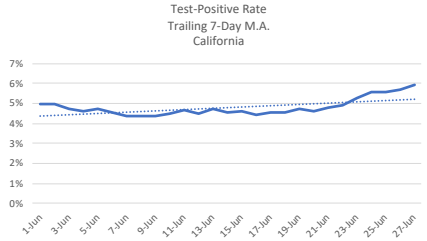
"Strategic Guidance in an Era of Unprecedented Change"

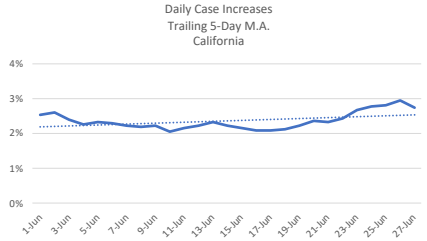
California:

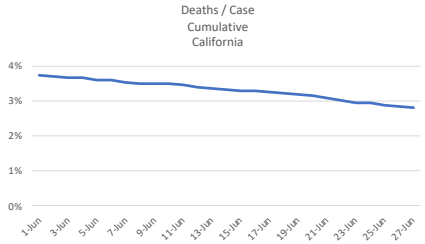
- High testing rate & relatively low test-positive rate
- Rate of increase in daily cases is fairly modest
- Is recent case growth at least partly due to increasing & high testing rate?
- Death rate low and declining
- Hospitalizations increasing, however,
- % of hospitalized patients in ICU declining

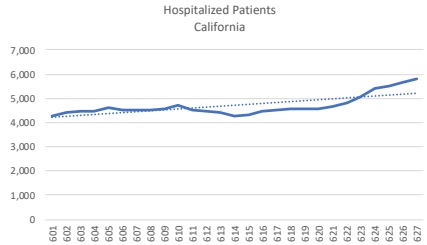


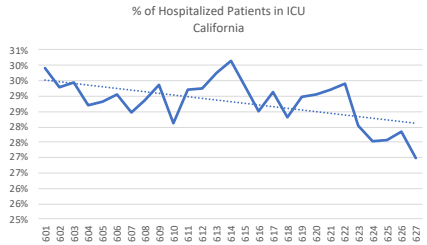










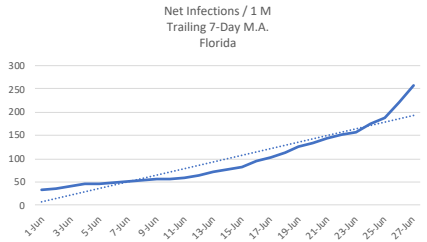


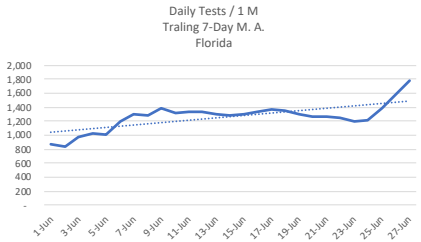
Tracking Virus Impact in States With Most Increase in Cases In Past Week

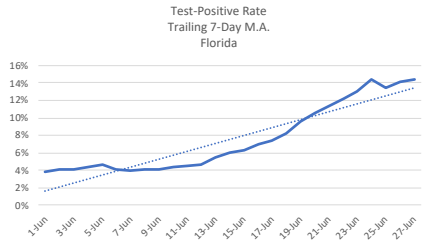
"Strategic Guidance in an Era of Unprecedented Change"

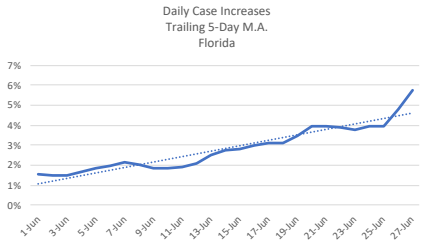
Florida:

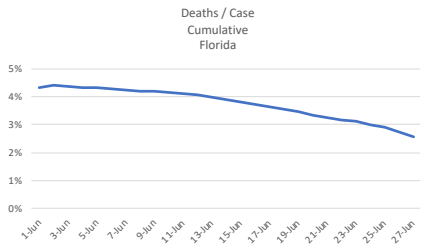
- Significant increase in new daily infections per capita, especially past 2 days
- Corresponds with both:
  - Significantly higher testing rate, and
  - Increased test-positive rate
- So, spike in rate of new daily case growth due to more testing & likely, increased actual virus spread









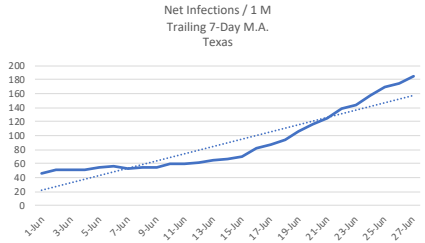


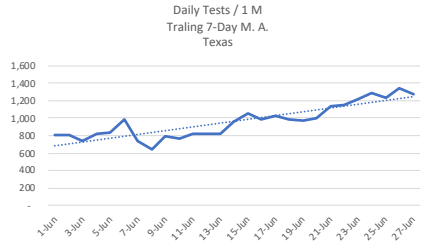
Tracking Virus Impact in States With Most Increase in Cases In Past Week

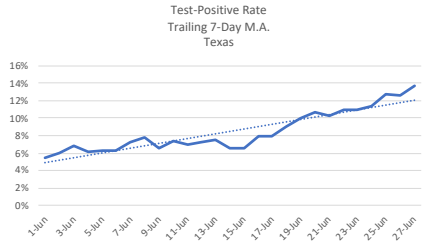
"Strategic Guidance in an Era of Unprecedented Change"

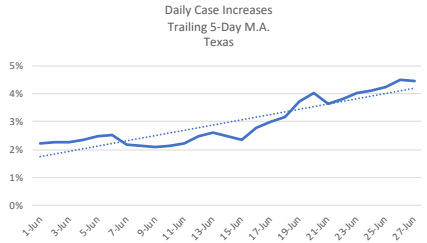
Texas:

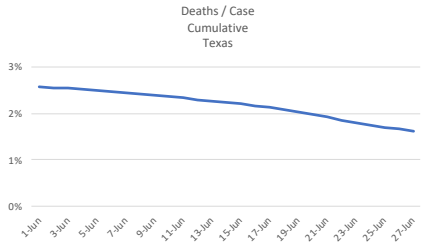
- Significant increase in new daily infections per capita, especially past 2 weeks
- Trends in testing (modest uptick in past 2 weeks) and test-positive rates (more significant uptick) suggests that increased reported infections mirrors an increase in actual infections
- Pattern of increase in hospitalizations parallels that of increased infections in past 2 weeks

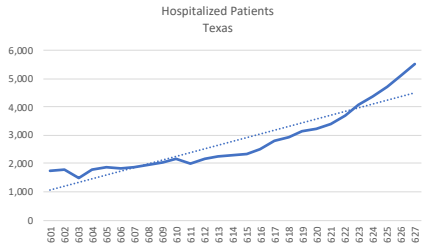












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"Strategic Guidance in an Era of Unprecedented Change"

STATE-BY-STATE
OVERALL ASSESSMENT SCORECARD

COVID-19 Dashboard
Sunday, June 28, 2020

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State-By-State
Overall Assessment Scorecard

"Strategic Guidance in an Era of Unprecedented Change"

Several factors should be considered when assessing where a state stands with its virus progression status:

- Current rate of new infections, relative to its peak (is it declining or near its peak?)
- Test-positive rate
- Rate of change in cases
- Hospitalized patients v. its peak

We combined these criteria into a single score, reflective of our relative degree of concern of each state's current status (High, Moderately High, Moderate, Low)

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State-By-State

Population Distribution By Level of Concern

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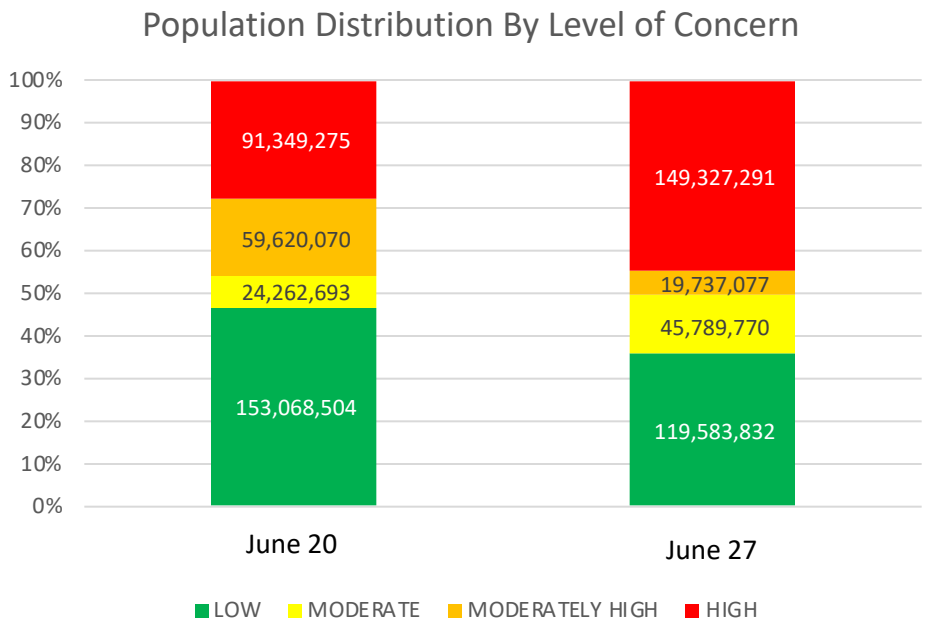
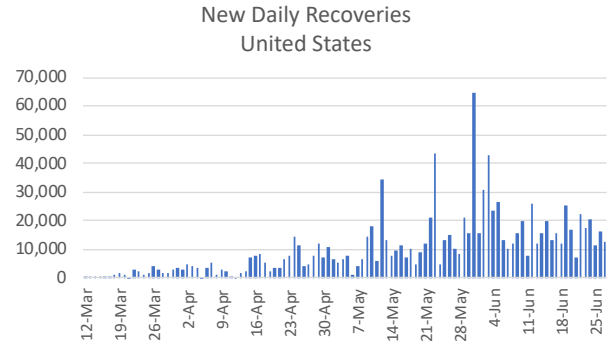
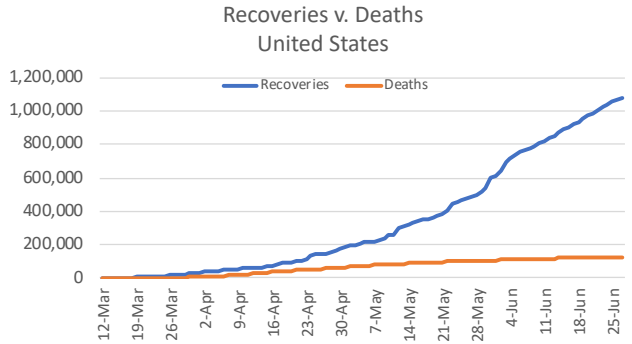


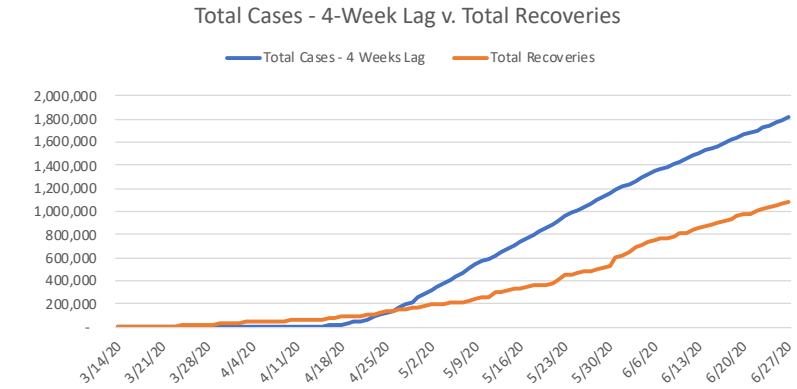
UNDER-REPORTED RECOVERIES? POSSIBLE LAG IN STATE REPORTING

Recoveries

"Strategic Guidance in an Era of Unprecedented Change"







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Recoveries

Reporting of Recoveries Seems to Be Lagging

"Strategic Guidance in an Era of Unprecedented Change"

Which states seem to be lagging in reporting?

At this point, we should be expecting far more recoveries in the U.S.

Comparing the reported recoveries to Total Cases 4 weeks ago*, this shortfall is ~385-565k

State	Recoveries	Expected Recoveries Low	Expected Recoveries High
Alabama	18,866	14,119	15,884
Alaska	521	347	391
Arizona	8,659	15,404	17,330
Arkansas	13,270	5,610	6,312
California	57,603	87,906	98,895
Colorado	6,824	20,878	23,488
Connecticut	9,767	33,618	37,820
Delaware	6,665	7,538	8,480
District Of Columbia	1,194	6,974	7,845
Florida	22,334	44,339	49,882
Georgia	7,504	37,065	41,698
Hawaii	714	521	586
Idaho	3,898	2,271	2,555
Illinois	107,677	95,134	107,025
Indiana	33,725	27,369	30,790
Iowa	17,467	15,399	17,324
Kansas	8,689	7,811	8,788
Kentucky	3,730	7,763	8,734
Louisiana	39,792	31,665	35,623
Maine	2,566	1,826	2,054
Maryland	4,935	41,612	46,814
Massachusetts	91,404	77,041	86,671
Michigan	51,099	45,507	51,196
Minnesota	30,401	19,352	21,771
Mississippi	17,242	12,183	13,706
Missouri	4,102	10,566	11,886
Montana	604	404	455
Nebraska	13,053	11,124	12,515
Nevada	10,795	6,796	7,646
New Hampshire	4,401	3,636	4,091
New Jersey	41,296	130,050	146,306
New Mexico	5,251	6,099	6,862
New York	88,658	303,161	341,056
North Carolina	37,705	22,234	25,014
North Dakota	3,119	2,043	2,299
Ohio	11,908	28,032	31,536
Oklahoma	9,155	5,134	5,776
Oregon	2,649	3,348	3,767
Pennsylvania	66,619	60,635	68,215
Rhode Island	1,600	11,855	13,337
South Carolina	13,456	9,115	10,255
South Dakota	5,717	3,968	4,464
Tennessee	26,159	18,053	20,309
Texas	78,248	50,733	57,074
Utah	11,658	7,626	8,580
Vermont	946	782	879
Virginia	7,968	34,889	39,250
Washington	10,335	17,771	19,993
West Virginia	2,056	1,591	1,790
Wisconsin	21,606	14,584	16,407
Wyoming	1,054	718	808
United States	1,081,437	1,466,361	1,649,656

* - 4 weeks is the presumed time from infection-onset to recovery referenced by many states

Low = 80% of Total Cases 4 week ago
High = 90% of Total Cases 4 week ago

- States seemingly up-to-date with reporting recoveries
- States only reporting~ 1/2 expected recoveries
- States well-behind in reporting recoveries

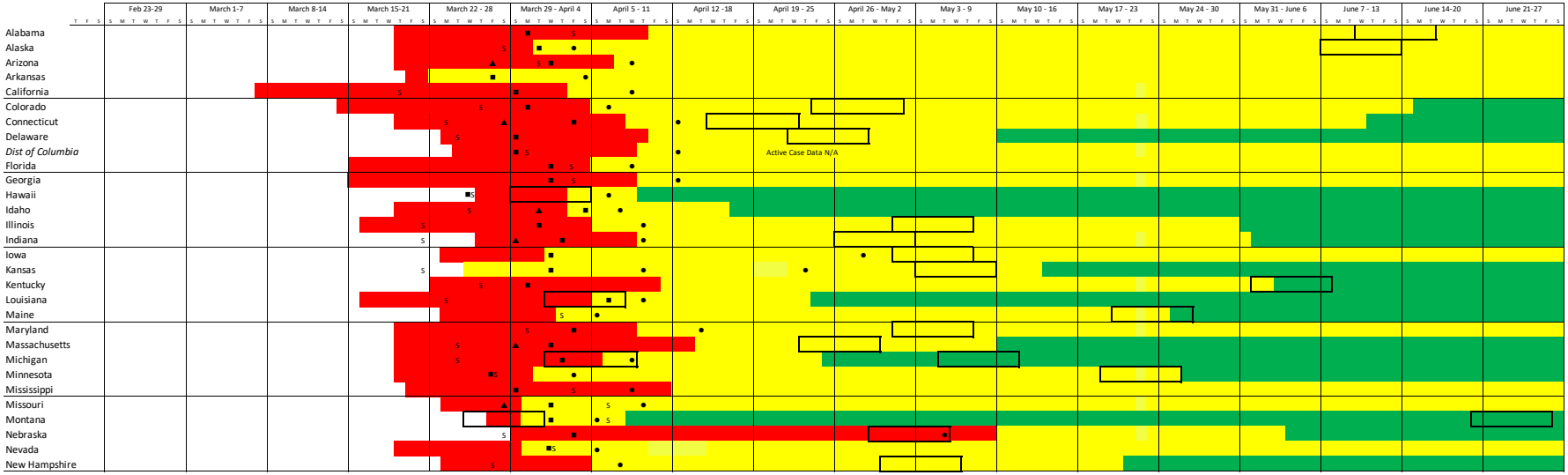
VIRUS PROGRESSION: ROADMAP TO RECOVERY

Virus Progression

The graphic on the following two pages illustrates when the state first recorded 100 total cases (start of the "contagion" phase); when growth stopped following an exponential pattern (start of the "containment" phase); and, when peak total cases were recorded (start of the "recovery" phase). It uses symbols to indicate when average daily case growth rates fell (and were sustained) below certain benchmarks, as well as when deaths stopped growing exponentially.

A state is not shaded green until active cases appear to have peaked.

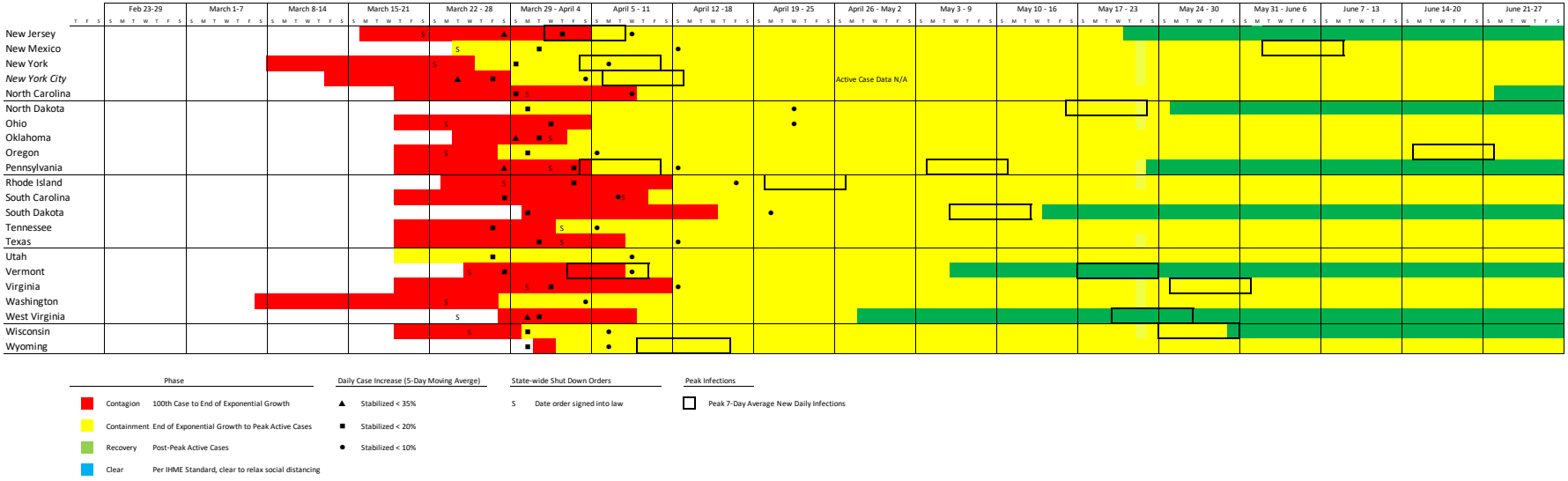
Virus Progression – *1 of 2*



Note: Many states are in yellow because they fail to keep up-to-date in reporting recovered patients

Legend on following page

Virus Progression – *2 of 2*



Note: Many states are in yellow because they fail to keep up-to-date in reporting recovered patients

Health Industry Advisor, llc

State-by-State

Comparative Statistics- Page 1 of 2

"Strategic Guidance in an Era of Unprecedented Change"

As of June 27

State	Total Cases	Rank	Cases per 1M Population	Rank2	Deaths	Rank3	Death Rate	Rank4	Deaths per 1 Million Population	Rank5	5-day Moving Average Case Growth Rate	Rank6	Tests per 1M Population Past 7 days	Rank7	New Daily Cases Per 1M Population (5-Day M.A.)	Rank8
Alabama	35,083	(20)	7,155.1	(17)	919	(25)	2.6%	(32)	187.4	(24)	2.9%	(10)	1,297	(33)	151.0	(9)
Alaska	854	(50)	1,167.4	(49)	14	(51)	1.6%	(44)	19.1	(50)	2.3%	(19)	3,645	(1)	22.3	(44)
Arizona	70,051	(10)	9,624.1	(12)	1,579	(18)	2.3%	(38)	216.9	(22)	5.1%	(2)	1,756	(15)	388.0	(1)
Arkansas	19,310	(30)	6,398.6	(23)	259	(39)	1.3%	(50)	85.8	(40)	3.7%	(7)	1,975	(10)	194.5	(4)
California	210,849	(2)	5,336.3	(31)	5,904	(7)	2.8%	(31)	149.4	(29)	2.8%	(13)	2,270	(6)	130.2	(11)
Colorado	32,022	(23)	5,560.6	(29)	1,674	(17)	5.2%	(13)	290.7	(15)	0.8%	(38)	856	(47)	39.9	(40)
Connecticut	46,206	(17)	12,960.0	(6)	4,311	(8)	9.3%	(1)	1,209.2	(3)	0.2%	(51)	1,518	(25)	20.1	(47)
Delaware	11,091	(38)	11,389.8	(8)	507	(32)	4.6%	(18)	520.7	(11)	0.5%	(45)	1,738	(16)	59.6	(29)
District Of Columbia	10,216	(39)	14,475.4	(5)	548	(31)	5.4%	(12)	776.5	(6)	0.3%	(46)	2,291	(5)	47.2	(33)
Florida	132,545	(6)	6,171.3	(26)	3,392	(9)	2.6%	(34)	157.9	(28)	5.8%	(1)	1,784	(14)	220.9	(2)
Georgia	74,985	(9)	7,062.4	(18)	2,776	(13)	3.7%	(23)	261.5	(17)	2.6%	(15)	1,284	(34)	147.8	(10)
Hawaii	872	(49)	615.9	(51)	18	(50)	2.1%	(41)	12.7	(51)	1.3%	(30)	763	(50)	7.8	(51)
Idaho	5,319	(43)	2,968.1	(43)	91	(45)	1.7%	(43)	50.8	(46)	4.6%	(3)	1,025	(43)	101.8	(16)
Illinois	142,130	(5)	11,216.2	(9)	7,074	(4)	5.0%	(14)	558.2	(9)	0.7%	(39)	2,077	(9)	66.2	(21)
Indiana	44,575	(18)	6,621.1	(21)	2,616	(14)	5.9%	(8)	388.6	(13)	0.9%	(36)	1,299	(32)	50.8	(31)
Iowa	28,012	(25)	8,878.4	(13)	704	(28)	2.5%	(35)	223.1	(21)	1.4%	(29)	1,791	(13)	110.5	(15)
Kansas	13,677	(35)	4,694.7	(34)	270	(37)	2.0%	(42)	92.7	(38)	1.8%	(23)	991	(45)	73.0	(19)
Kentucky	15,167	(34)	3,394.8	(40)	554	(30)	3.7%	(24)	124.0	(34)	1.8%	(21)	1,074	(41)	44.9	(34)
Louisiana	54,804	(15)	11,788.9	(7)	3,197	(10)	5.8%	(9)	687.7	(7)	1.8%	(24)	2,249	(7)	193.3	(6)
Maine	3,154	(45)	2,346.4	(45)	104	(42)	3.3%	(26)	77.4	(43)	1.2%	(31)	1,313	(29)	20.1	(48)
Maryland	66,450	(12)	10,991.3	(10)	3,157	(11)	4.8%	(16)	522.2	(10)	0.6%	(43)	1,218	(38)	60.7	(28)
Massachusetts	108,443	(7)	15,604.4	(4)	8,041	(3)	7.4%	(6)	1,157.1	(4)	0.2%	(48)	1,262	(36)	29.2	(43)
Michigan	69,679	(11)	6,977.1	(20)	6,153	(6)	8.8%	(2)	616.1	(8)	0.5%	(44)	1,519	(24)	31.9	(42)
Minnesota	35,033	(21)	6,211.9	(24)	1,452	(19)	4.1%	(20)	257.5	(18)	1.1%	(32)	1,947	(11)	65.5	(22)
Mississippi	25,531	(27)	8,578.5	(14)	1,035	(22)	4.1%	(21)	347.8	(14)	2.8%	(12)	1,853	(12)	194.1	(5)

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State-by-State

Comparative Statistics- Page 2 of 2

"Strategic Guidance in an Era of Unprecedented Change"

As of June 27

State	Total Cases	Rank	Cases per 1M Population	Rank2	Deaths	Rank3	Death Rate	Rank4	Deaths per 1 Million Population	Rank5	5-day Moving Average Case Growth Rate	Rank6	Tests per 1M Population Past 7 days	Rank7	New Daily Cases Per 1M Population (5-Day M.A.)	Rank8
Missouri	20,806	(28)	3,390.0	(41)	1,021	(23)	4.9%	(15)	166.4	(26)	2.0%	(20)	1,028	(42)	59.0	(30)
Montana	852	(51)	797.2	(50)	22	(48)	2.6%	(33)	20.6	(49)	2.9%	(11)	1,566	(20)	21.8	(45)
Nebraska	18,775	(31)	9,705.8	(11)	267	(38)	1.4%	(48)	138.0	(31)	0.9%	(35)	1,237	(37)	68.9	(20)
Nevada	16,339	(33)	5,304.6	(32)	500	(33)	3.1%	(27)	162.3	(27)	3.8%	(6)	1,116	(39)	127.7	(12)
New Hampshire	5,717	(42)	4,204.6	(39)	367	(36)	6.4%	(7)	269.9	(16)	0.6%	(42)	967	(46)	19.4	(49)
New Jersey	176,045	(3)	19,820.0	(2)	15,091	(2)	8.6%	(3)	1,699.0	(1)	0.2%	(49)	2,386	(4)	40.0	(39)
New Mexico	11,619	(37)	5,541.2	(30)	491	(34)	4.2%	(19)	234.2	(20)	1.7%	(27)	2,455	(3)	78.2	(18)
New York	416,018	(1)	21,385.2	(1)	31,452	(1)	7.6%	(4)	1,616.8	(2)	0.2%	(50)	3,134	(2)	41.2	(37)
North Carolina	60,621	(14)	5,780.0	(28)	1,353	(20)	2.2%	(39)	129.0	(33)	2.4%	(18)	1,686	(17)	125.9	(13)
North Dakota	3,458	(44)	4,537.7	(36)	78	(46)	2.3%	(37)	102.4	(36)	0.9%	(37)	1,554	(21)	36.6	(41)
Ohio	49,907	(16)	4,269.5	(37)	2,824	(12)	5.7%	(10)	241.6	(19)	1.8%	(22)	1,404	(27)	64.1	(23)
Oklahoma	12,642	(36)	3,194.9	(42)	384	(35)	3.0%	(28)	97.0	(37)	3.3%	(8)	1,578	(19)	95.2	(17)
Oregon	8,094	(40)	1,919.0	(47)	202	(40)	2.5%	(36)	47.9	(47)	2.7%	(14)	771	(49)	42.2	(36)
Pennsylvania	89,488	(8)	6,990.2	(19)	6,660	(5)	7.4%	(5)	520.2	(12)	0.6%	(40)	796	(48)	40.8	(38)
Rhode Island	16,661	(32)	15,727.4	(3)	927	(24)	5.6%	(11)	875.1	(5)	0.2%	(47)	2,147	(8)	43.7	(35)
South Carolina	31,939	(24)	6,203.3	(25)	711	(27)	2.2%	(40)	138.1	(30)	4.4%	(5)	1,524	(23)	213.8	(3)
South Dakota	6,626	(41)	7,489.9	(15)	91	(45)	1.4%	(49)	102.9	(35)	0.9%	(34)	999	(44)	60.9	(27)
Tennessee	40,172	(19)	5,879.0	(27)	584	(29)	1.5%	(46)	85.5	(41)	2.5%	(17)	1,531	(22)	113.5	(14)
Texas	148,845	(4)	5,133.3	(33)	2,406	(15)	1.6%	(45)	83.0	(42)	4.5%	(4)	1,278	(35)	175.4	(7)
Utah	20,628	(29)	6,434.3	(22)	167	(41)	0.8%	(51)	52.1	(44)	2.9%	(9)	1,333	(28)	161.5	(8)
Vermont	1,200	(48)	1,923.1	(46)	56	(47)	4.7%	(17)	89.7	(39)	0.6%	(41)	1,304	(30)	12.4	(50)
Virginia	61,247	(13)	7,175.5	(16)	1,724	(16)	2.8%	(30)	202.0	(23)	0.9%	(33)	1,448	(26)	63.2	(25)
Washington	32,408	(22)	4,255.9	(38)	1,310	(21)	4.0%	(22)	172.0	(25)	1.7%	(25)	1,097	(40)	62.6	(26)
West Virginia	2,782	(46)	1,556.7	(48)	93	(43)	3.3%	(25)	52.0	(45)	1.6%	(28)	1,300	(31)	20.9	(46)
Wisconsin	27,286	(26)	4,686.4	(35)	777	(26)	2.8%	(29)	133.4	(32)	1.7%	(26)	1,640	(18)	63.6	(24)
Wyoming	1,392	(47)	2,405.1	(44)	20	(49)	1.4%	(47)	34.6	(48)	2.5%	(16)	(1,156)	(51)	48.1	(32)
United States	2,596,537		7,844.5		128,152		4.9%		387.2		1.7%		1,654		114.8	

COUNTRY-BY-COUNTRY INFORMATION

Countries Included

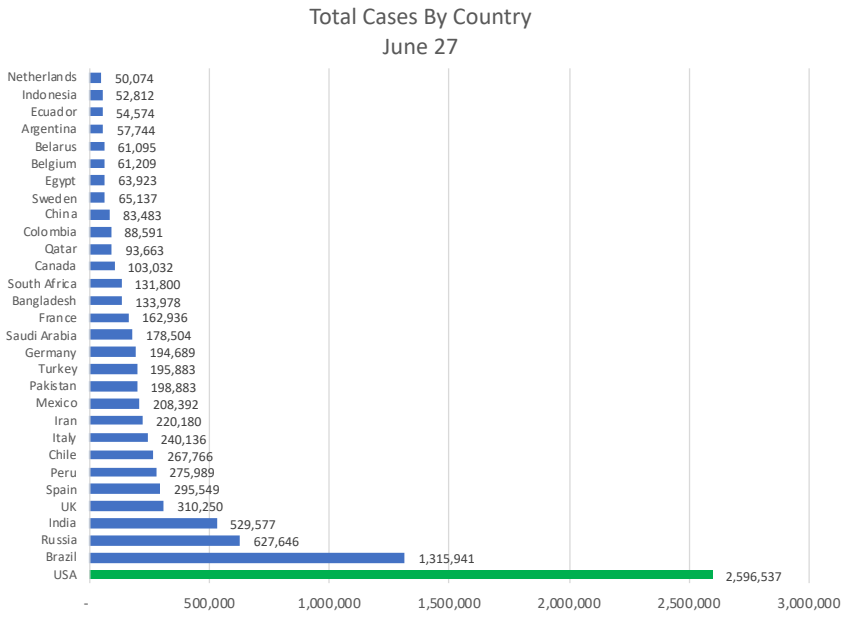
- In Mid-March, we began tracking the twenty countries with the most coronavirus cases; in mid-April, we expanded it to the thirty countries with the most cases
- We now have visibility to all 213 countries and 2 conveyances that have at least 1 coronavirus case
- Case and death information is sourced from the worldometers.info, the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University and the New York Times, each of which are accessed daily; analysis by Health Industry Advisor LLC

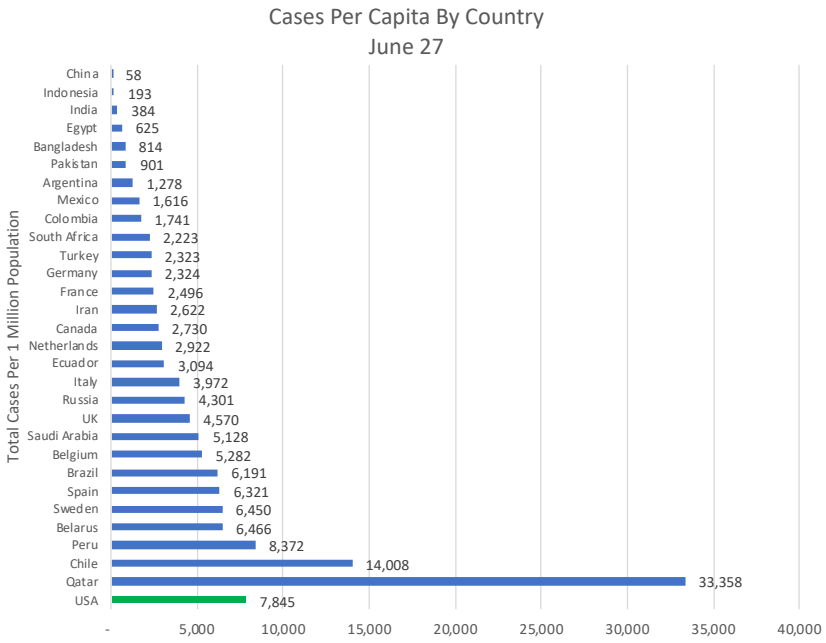
Country-by-Country

Cases & Cases Per Capita

"Strategic Guidance in an Era of Unprecedented Change"

Countries Ranked 1-30 In Total Cases



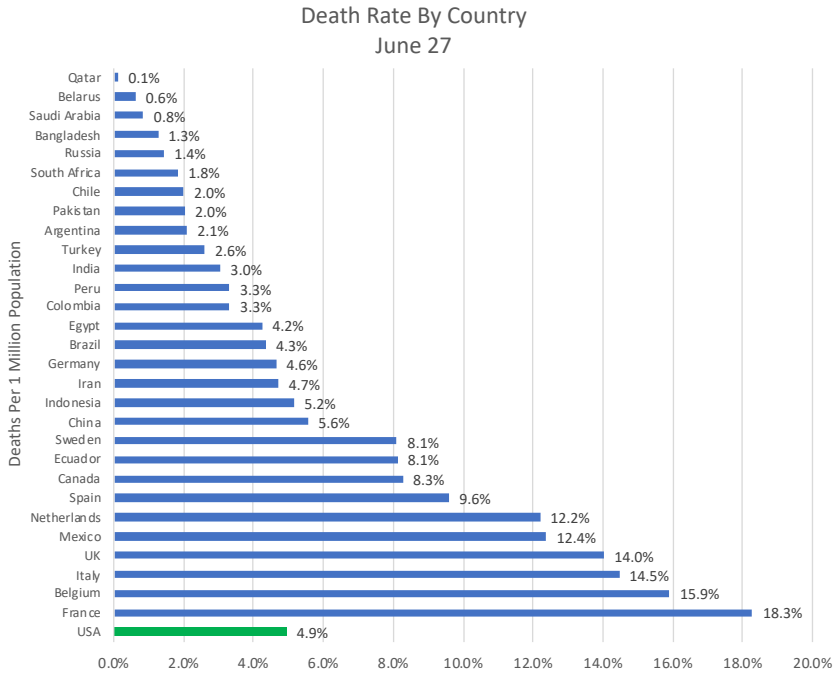


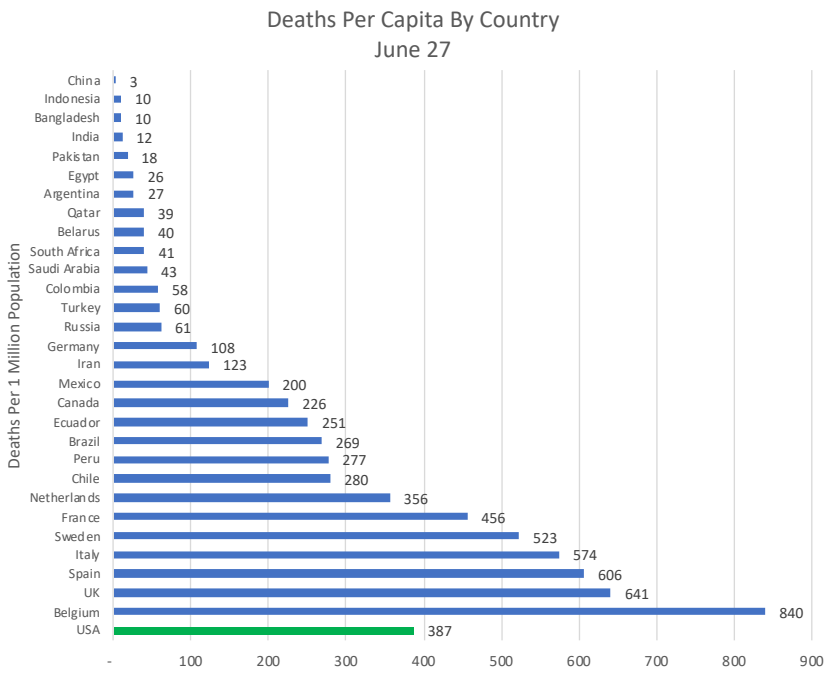
Country-by-Country

Deaths Per Cases & Per Capita

"Strategic Guidance in an Era of Unprecedented Change"

Countries Ranked 1-30 In Total Cases



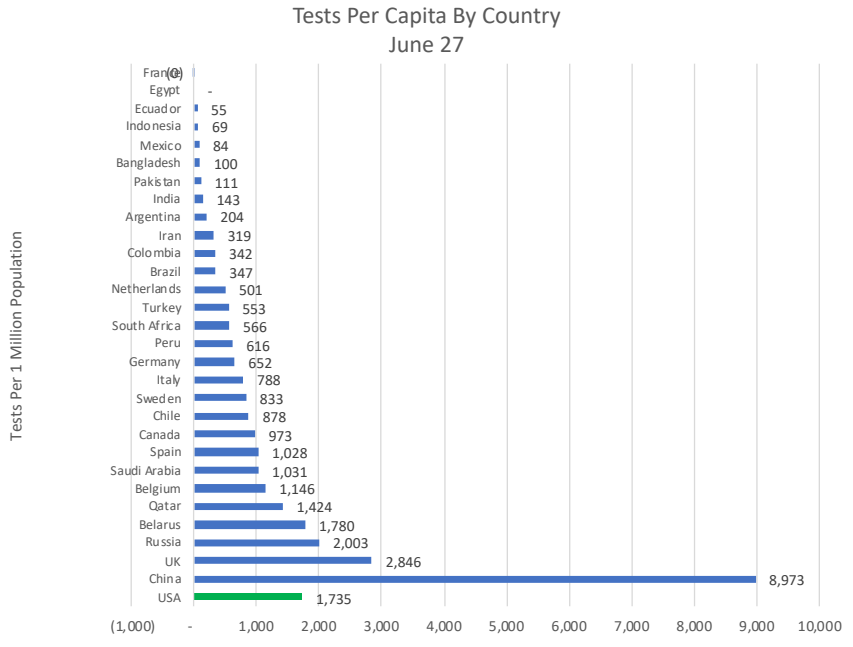


Country-by-Country

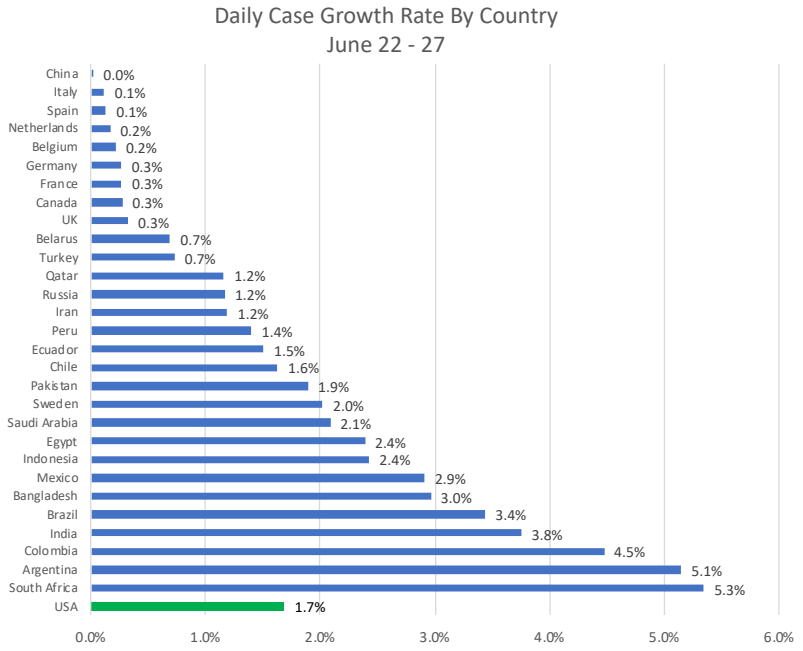
Daily Tests Per Capita & Daily Case Growth

"Strategic Guidance in an Era of Unprecedented Change"

Countries Ranked 1-30 In Total Cases



Daily Tests Per Capita For Past Week

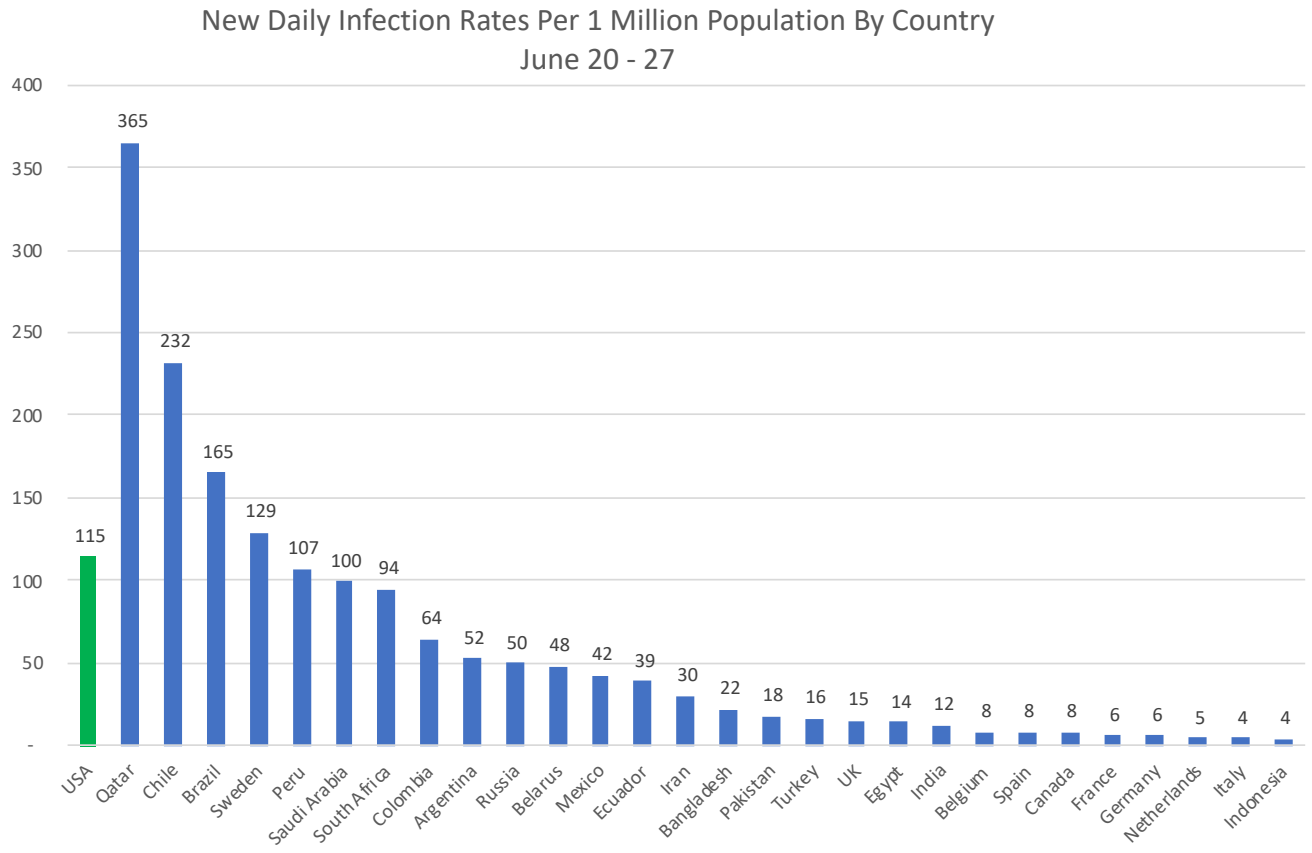


Daily Case Growth – 5-Day Moving Average

Country-by-Country

New Daily Infection Rates

"Strategic Guidance in an Era of Unprecedented Change"



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"Strategic Guidance in an Era of Unprecedented Change"

Country-By-Country

Listing of Countries By Total Cases

Countries making large upward movements are highlighted

When we first expanded our tracking to 30 countries in mid-April, they represented the most countries with cases in the world. Since that time, Austria, Israel, Japan and South Korea have dropped in the rankings. Among the countries that have moved up:

- **Afghanistan**
- **Argentina**
- **Bangladesh**
- **Belarus**
- **Columbia**
- **Denmark**
- **Dominican Republic**
- **Indonesia**
- **Kuwait**
- **Poland**
- **Qatar**
- **Panama**
- **Philippines**
- **Romania**
- **South Africa**
- **UAE**
- **Ukraine**

The original 30 still account for 83.9% of all cases worldwide.

		Total Cases						
Rank	Country	27-Jun	Rank	Country	6-May	Rank	Country	27-Apr
1	USA	2,596,537	1	USA	1,263,092	1	USA	1,010,356
2	Brazil	1,315,941	2	Spain	253,682	2	Spain	229,422
3	Russia	627,646	3	Italy	214,457	3	Italy	199,414
4	India	529,577	4	UK	201,101	4	France	128,339
5	UK	310,250	5	France	174,191	5	Germany	158,758
6	Spain	295,549	6	Germany	168,162	6	UK	157,149
7	Peru	275,989	7	Russia	165,929	7	Turkey	112,261
8	Chile	267,766	8	Turkey	131,744	8	Iran	91,472
9	Italy	240,136	9	Brazil	126,611	9	Russia	87,147
10	Iran	220,180	10	Iran	101,650	10	China	82,830
11	Mexico	208,392	11	China	82,883	11	Brazil	66,501
12	Pakistan	198,883	12	Canada	63,496	12	Canada	48,500
13	Turkey	195,883	13	Peru	54,817	13	Belgium	46,687
14	Germany	194,689	14	India	52,987	14	Netherlands	38,245
15	Saudi Arabia	178,504	15	Belgium	50,781	15	India	29,451
16	France	162,936	16	Netherlands	41,319	16	Switzerland	29,164
19	Canada	103,032	17	Saudi Arabia	31,938	17	Peru	28,669
22	China	83,483	18	Switzerland	30,060	18	Portugal	24,070
23	Sweden	65,137	19	Ecuador	29,420	19	Ecuador	23,240
25	Belgium	61,209	20	Portugal	26,182	20	Ireland	19,648
28	Ecuador	54,574	21	Mexico	26,025	21	Sweden	18,926
30	Netherlands	50,074	22	Sweden	23,918	22	Saudi Arabia	18,811
34	Singapore	43,246	23	Pakistan	23,214	23	Israel	15,555
36	Portugal	41,189	24	Chile	23,048	24	Austria	15,274
40	Switzerland	31,555	25	Ireland	22,248	25	Mexico	14,677
46	Ireland	25,437	26	Singapore	20,198	26	Singapore	14,423
50	Israel	23,421	29	Israel	16,310	27	Pakistan	13,915
52	Japan	18,297	31	Austria	15,684	28	Chile	13,813
53	Austria	17,580	32	Japan	15,253	29	Japan	13,614
62	S. Korea	12,653	38	S. Korea	10,806	35	South Korea	10,738
	Others	1,625,370		Others	356,176		Others	301,446
	World	10,075,115			3,817,382		World	3,062,515

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Country-by-Country

Comparative Statistics

"Strategic Guidance in an Era of Unprecedented Change"

Top 30 Countries By Total Cases
As of June 27

Country	Total Cases	Rank	Cases per 1M Population	Rank2	Deaths	Rank3	Death Rate	Rank4	Deaths per 1 Million Population	Rank5	5-day Moving Average Case Growth Rate	Rank6	Tests per 1M Population - Past 7 Days	Rank7	New Daily Infections Per 1M Population (7-Day M.A.)	Rank8
USA	2,596,537	(1)	7,845	(4)	128,152	(1)	4.9%	(13)	387.2	(7)	1.7%	(13)	1,735	(5)	114.8	(5)
Brazil	1,315,941	(2)	6,191	(8)	57,103	(2)	4.3%	(16)	268.7	(11)	3.4%	(5)	347	(19)	165.2	(3)
Russia	627,646	(3)	4,301	(12)	8,969	(13)	1.4%	(26)	61.5	(17)	1.2%	(18)	2,003	(3)	49.6	(11)
India	529,577	(4)	384	(28)	16,103	(8)	3.0%	(20)	11.7	(27)	3.8%	(4)	143	(23)	12.2	(21)
UK	310,250	(5)	4,570	(11)	43,514	(3)	14.0%	(4)	641.0	(2)	0.3%	(22)	2,846	(2)	15.0	(19)
Spain	295,549	(6)	6,321	(7)	28,341	(6)	9.6%	(7)	606.2	(3)	0.1%	(28)	1,028	(9)	7.7	(23)
Peru	275,989	(7)	8,372	(3)	9,135	(11)	3.3%	(19)	277.1	(10)	1.4%	(16)	616	(15)	106.8	(6)
Chile	267,766	(8)	14,008	(2)	5,347	(16)	2.0%	(24)	279.7	(9)	1.6%	(14)	878	(11)	231.8	(2)
Italy	240,136	(9)	3,972	(13)	34,716	(4)	14.5%	(3)	574.2	(4)	0.1%	(29)	788	(13)	4.4	(28)
Iran	220,180	(10)	2,622	(17)	10,364	(9)	4.7%	(14)	123.4	(15)	1.2%	(17)	319	(21)	29.9	(15)
Mexico	208,392	(11)	1,616	(23)	25,779	(7)	12.4%	(5)	200.0	(14)	2.9%	(7)	84	(26)	42.0	(13)
Pakistan	198,883	(12)	901	(25)	4,035	(21)	2.0%	(23)	18.3	(26)	1.9%	(12)	111	(24)	17.6	(17)
Turkey	195,883	(13)	2,323	(20)	5,082	(18)	2.6%	(21)	60.3	(18)	0.7%	(20)	553	(17)	15.9	(18)
Germany	194,689	(14)	2,324	(19)	9,026	(12)	4.6%	(15)	107.7	(16)	0.3%	(25)	652	(14)	5.9	(26)
Saudi Arabia	178,504	(15)	5,128	(10)	1,511	(27)	0.8%	(28)	43.4	(20)	2.1%	(10)	1,031	(8)	99.6	(7)
France	162,936	(16)	2,496	(18)	29,778	(5)	18.3%	(1)	456.2	(6)	0.3%	(24)	0	(30)	6.2	(25)
Bangladesh	133,978	(17)	814	(26)	1,695	(26)	1.3%	(27)	10.3	(28)	3.0%	(6)	100	(25)	21.9	(16)
South Africa	131,800	(18)	2,223	(21)	2,413	(25)	1.8%	(25)	40.7	(21)	5.3%	(1)	566	(16)	94.2	(8)
Canada	103,032	(19)	2,730	(16)	8,516	(14)	8.3%	(8)	225.7	(13)	0.3%	(23)	973	(10)	7.6	(24)
Qatar	93,663	(20)	33,358	(1)	110	(30)	0.1%	(30)	39.2	(23)	1.2%	(19)	1,424	(6)	365.1	(1)
Colombia	88,591	(21)	1,741	(22)	2,939	(22)	3.3%	(18)	57.8	(19)	4.5%	(3)	342	(20)	64.5	(9)
China	83,483	(22)	58	(30)	4,634	(19)	5.6%	(11)	3.2	(30)	0.0%	(30)	8,973	(1)	0.0	(30)
Sweden	65,137	(23)	6,450	(6)	5,280	(17)	8.1%	(10)	522.8	(5)	2.0%	(11)	833	(12)	128.6	(4)
Egypt	63,923	(24)	625	(27)	2,708	(24)	4.2%	(17)	26.5	(25)	2.4%	(9)	0	(29)	14.2	(20)
Belgium	61,209	(25)	5,282	(9)	9,732	(10)	15.9%	(2)	839.7	(1)	0.2%	(26)	1,146	(7)	8.1	(22)
Belarus	61,095	(26)	6,466	(5)	377	(29)	0.6%	(29)	39.9	(22)	0.7%	(21)	1,780	(4)	47.8	(12)
Argentina	57,744	(27)	1,278	(24)	1,207	(28)	2.1%	(22)	26.7	(24)	5.1%	(2)	204	(22)	52.3	(10)
Ecuador	54,574	(28)	3,094	(14)	4,424	(20)	8.1%	(9)	250.8	(12)	1.5%	(15)	55	(28)	39.2	(14)
Indonesia	52,812	(29)	193	(29)	2,720	(23)	5.2%	(12)	9.9	(29)	2.4%	(8)	69	(27)	4.1	(29)
Netherlands	50,074	(30)	2,922	(15)	6,105	(15)	12.2%	(6)	356.3	(8)	0.2%	(27)	501	(18)	4.8	(27)

Note: China only recently started reporting test volumes, as a result, their 7-day rates are inaccurate

VIRUS PROGRESSION BY COUNTRY

Country-by-Country

Virus Progression – Original 30 Hardest-Hit Countries

"Strategic Guidance in an Era of Unprecedented Change"

This graphic illustrates when the country first recorded 100 total cases (start of the "contagion" phase); when growth stopped following an exponential pattern (start of the "containment" phase); and, when peak total cases were recorded (start of the "recovery" phase). It uses symbols to indicate when average daily case growth rates fell (and were sustained) below certain benchmarks, as well as when deaths stopped growing exponentially.