

## COVID-19 Dashboard

Issue # 84 Tuesday, June 23, 2020



## Day's Highlights

"Strategic Guidance in an Era of Unprecedented Change"

Measure	Desired Change	Yesterday in the U.S.
Number of Tests	Increase	>469,000
Test-Positivity Rate	Decline	6.0% test-positive on Friday; 5.4% for past 7 days
Number of Cases	Plateau	Cases increased nearly 28% week-over-week – concentrated in 7 states
Deaths % of Total Cases	Decline	5.19%
Number of Deaths / 1M Population	Plateau	369.3
Recoveries : Death	Increase	8.02

- New cases in the United States exceeded 30,000 yesterday, marking the 3rd time in the past 4 days. Once again, a few states accounted for more than 1/2 of these new cases: Arizona, California, Florida, North Carolina and Texas
- Most concerning, over the past week net infections per capita have increased by 80-190% in Arizona, Florida, Idaho, Montana, Texas and Oklahoma. Arizona's rate of 351 new infections per million for the past week (trailing 7-day moving average) is approaching rates observed in New York, New Jersey, Connecticut, Rhode Island at the peak of the crisis in early April
- New daily infections per million in the United States are now 89.2; these were as low as 64.2 on May 29. They had peaked at 96.8 on April 10
- An encouraging sign is the drop in new infections per capita in Alabama in the
  past week: after peaking at 160 on June 16, the current rate is 122. rates in 21
  states are <50% of there peak; in Connecticut, Massachusetts, New Jersey and
  New York, they are 10% or less of the peak</li>
- Over the past week, several states with large populations have moved into our "High" concern category: California, Florida, Mississippi, Nevada and Texas join Alabama, Arizona, Arkansas, North Carolina, South Carolina and Utah. These states exhibit high rates of new infections per capita, as well as either high testpositive rates, hospitalization or case growth. At this point, 43% of the US population resides in a "High" concern state; 47% reside in a "Low" concern state

- Estimated ICU bed needs in at least two states of concern are nearing capacity, according to the Institute for Health Metrics and Evaluation (IHME): Arizona (83% of capacity) and Florida (92%). The remaining states in the "High"" concern category each reportedly are at <50% of ICU bed capacity</li>
- The test-positive rate on Monday was up to 6.0%, the highest daily rate since May 27th. Washington's rate for the past week is 23.1%; Arizona's, 21.2%
- Deaths continued trending downward in the United States; 362 deaths were recorded yesterday. Deaths for the past week are ~ 1/4 the level experienced in mid-April. Cumulatively, the death rate is now down to 5.13%
- Reports from Texas, Arizona and Florida are suggesting that case increases are
  primarily among younger people, and that it is being driven by increased testing
  among these people. We are working to gather and analyze the data to validate
  these reports. What we have learned thus far:
  - Over the past 3 weeks, testing has more than doubled in Arizona and is up 19% in Florida and 24% in Texas
  - However, test-positive rates have also increased in this time, in Arizona from 8.8% to 21.2%; Florida, from 3.8% to 12.2%; and, Texas, from 5.4% to 11%
  - In Arizona, 57% of the cases and 5% of the deaths are age 20-44; 13% of the cases and 75% of deaths are 65 years and older
  - Death rates in all 3 states continue to be low: Arizona, 2.5%; Florida, 3.2%; and Texas, 1.9%. Notably, these rates were low in each state even prior to the recent run-up in cases



## UNITED STATES & STATE-BY-STATE INFORMATION



# STATE-BY-STATE OVERALL ASSESSMENT SCORECARD



#### **Overall Assessment Scorecard**

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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)

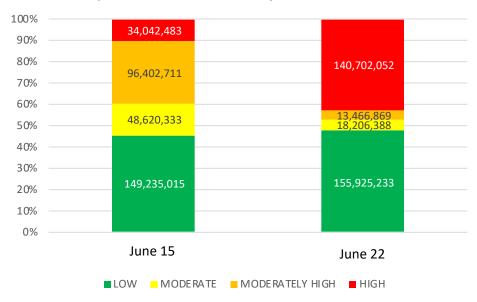




### Population Distribution By Level of Concern

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#### Population Distribution By Level of Concern





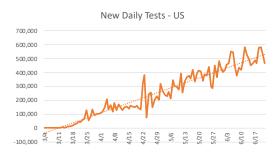
#### **United States**

#### **Overall Statistics**

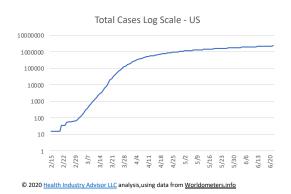
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With significantly increased testing, the US is now meeting the WHO standard of <10% test-positives. This suggests that asymptomatic cases are being captured and that we have a better view of true infection rates.

Further, new daily infections continue to decline; the death rate seems to have stabilized.



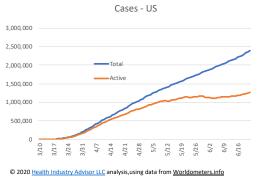
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Test-Positive Rate

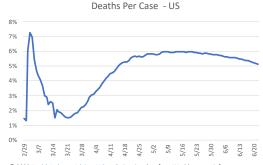
25% — Cumulative — Trailing 7-Day Moving Average

20% — Trailing 7-Day Moving Average





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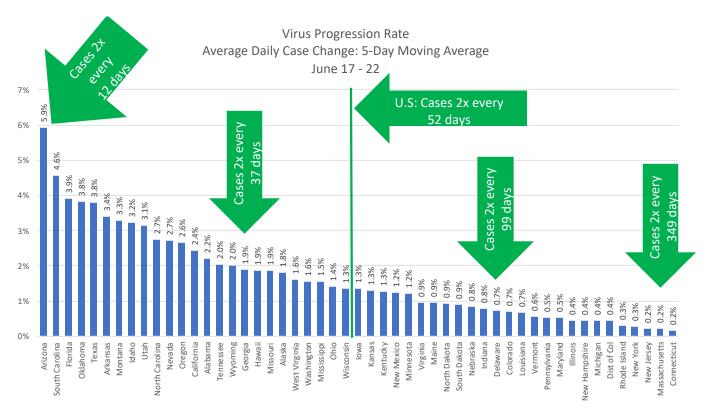
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## Average Daily Case Growth

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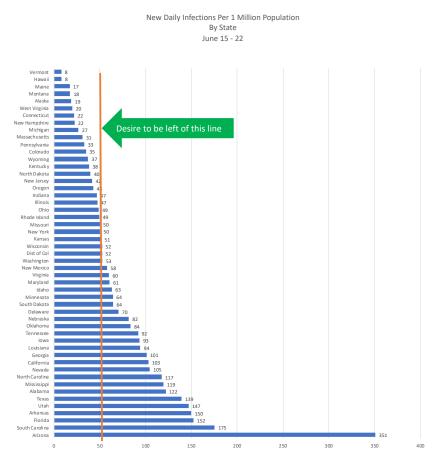
At the height of the epidemic, cases in some states were doubling every few days. Now, they would take from 12 – 477 days to double

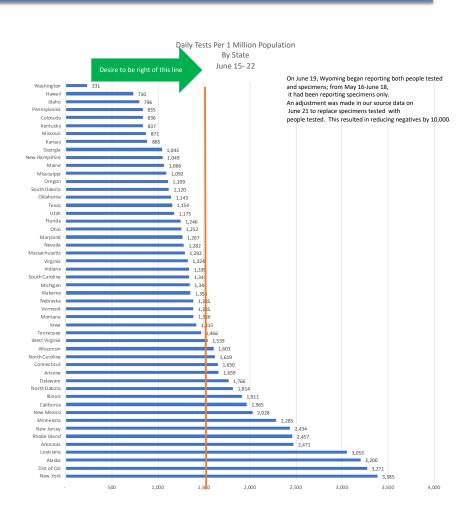




## New Daily Infections & Tests Per Capita

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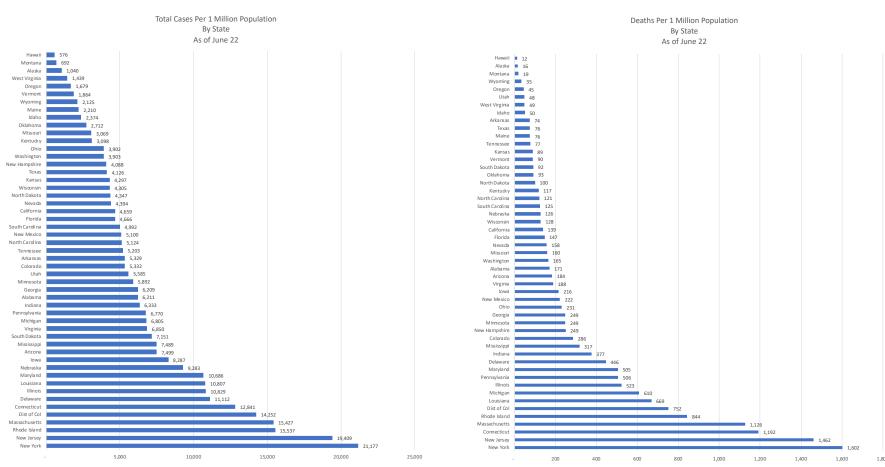






## Cases & Deaths Per Capita

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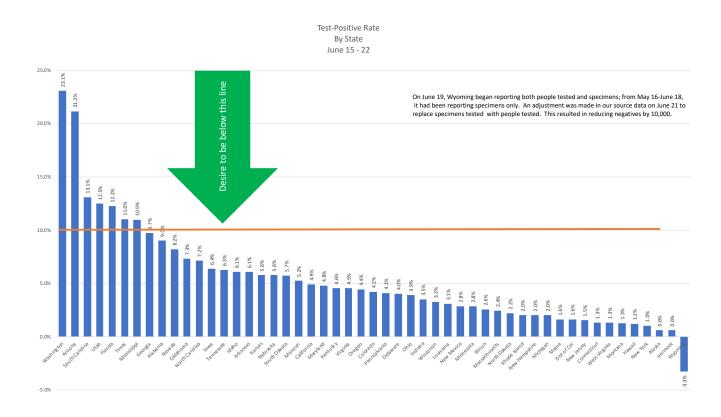




#### Which States Are Performing Sufficient Tests?

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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





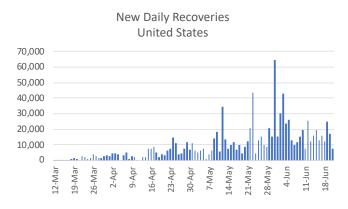
# UNDER-REPORTED RECOVERIES? POSSIBLE LAG IN STATE REPORTING



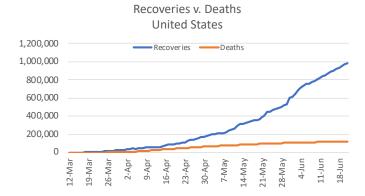
#### **United States**

#### Recoveries

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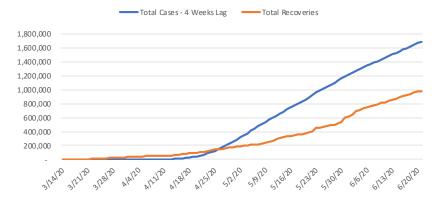


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Total Cases - 4-Week Lag v. Total Recoveries





#### Recoveries

#### Reporting of Recoveries Seems to Be Lagging

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#### 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 ~360-530k

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

State	Recoveries	Expected R	ecoveries	State	Recoveries	Expected
State	Recoveries	Low	High	State	Recoveries	Low
labama	15,974	11,989	13,487	Montana	550	383
Alaska	491	327	368	Nebraska	11,980	9,884
rizona	7,581	13,249	14,905	Nevada	9,545	6,303
rkansas	10,793	4,823	5,426	New Hampshire	4,290	3,358
California	49,410	77,494	87,181	New Jersey	37,146	125,282
Colorado	5,044	19,415	21,842	New Mexico	4,742	5,621
onnecticut	9,161	32,698	36,786	New York	87,335	297,995
Delaware	6,459	7,172	8,069	North Carolina	36,921	19,245
istrict Of Columbia	1,182	6,580	7,403	North Dakota	2,952	1,966
lorida	19,517	41,397	46,571	Ohio	10,120	26,028
Georgia	5,299	34,720	39,060	Oklahoma	7,648	4,872
lawaii	669	514	579	Oregon	2,588	3,159
daho	3,405	2,101	2,363	Pennsylvania	59,459	57,906
llinois	104,512	89,614	100,815	Rhode Island	1,554	11,252
ndiana	31,739	25,372	28,544	South Carolina	10,790	8,142
owa	16,260	14,062	15,819	South Dakota	5,437	3,669
Cansas	7,614	7,409	8,335	Tennessee	23,567	16,486
Centucky	3,534	6,857	7,714	Texas	69,174	45,354
ouisiana	39,792	30,247	34,028	Utah	9,863	6,817
⁄laine	2,391	1,659	1,867	Vermont	926	770
/laryland	4,776	37,722	42,437	Virginia	7,663	30,182
/lassachusetts	88,725	74,617	83,944	Washington	9,676	16,692
⁄lichigan	49,290	43,905	49,393	West Virginia	1,726	1,426
/linnesota	29,065	17,052	19,184	Wisconsin	19,543	12,467
∕lississippi	17,242	10,766	12,112	Wyoming	931	674
∕lissouri	4,006	9,942	11,185			
				United States	1,002,929	1,364,981

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

<sup>-</sup> States seemingly up-to-date with reporting recoveries
- States only reporting~ 1/2 expected recoveries

<sup>-</sup> States well-behind in reporting recoveries



## VIRUS PROGRESSION: ROADMAP TO RECOVERY



## Virus Progression

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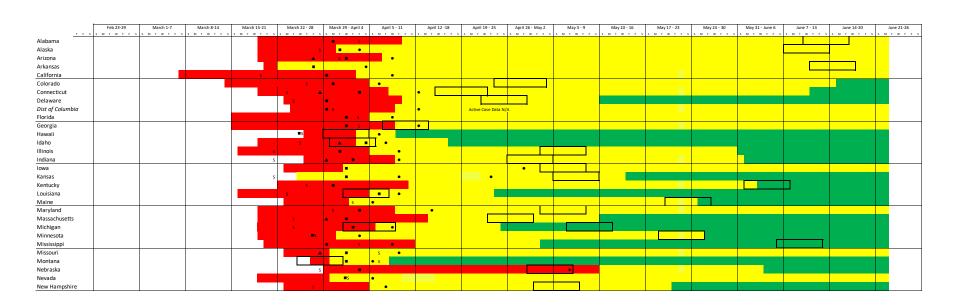
The graphic on the following two pages illustrates when the state first recorded 100 total cases (start of the "contagion" phase); when growth stopped following an exponential pattern (start of the "containment" phase); and, when peak total cases were recorded (start of the "recovery" phase). It uses 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

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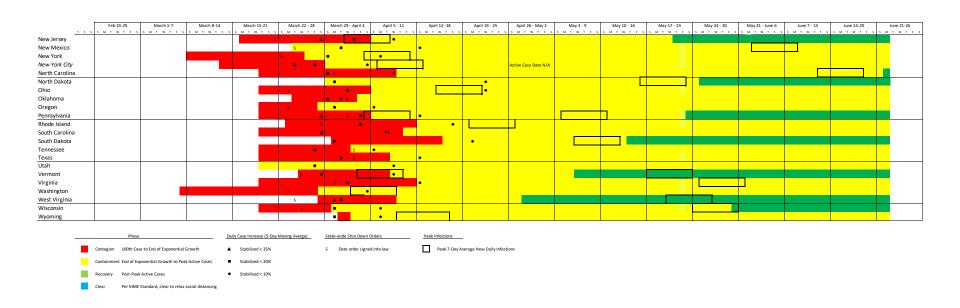
Note: Many states are in yellow because they fail to keep up-to-date in reporting recovered patients

Legend on following page



## Industry Advisor, IIc Virus Progression – 2 of 2

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



## Comparative Statistics- Page 1 of 2

"Strategic Guidance in an Era of Unprecedented Change"

As of June 22

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	30,454	(22)	6,211.1	(20)	841	(25)	2.8%	(34)	171.5	(24)	2.2%	(14)	1,353	(24)	128.4	(6)
Alaska	761	(50)	1,040.3	(49)	12	(51)	1.6%	(46)	16.4	(50)	1.8%	(20)	3,200	(3)	18.4	(47)
Arizona	54,586	(13)	7,499.4	(13)	1,342	(19)	2.5%	(38)	184.4	(23)	5.9%	(1)	1,659	(14)	327.7	(1)
Arkansas	16,083	(32)	5,329.3	(25)	227	(39)	1.4%	(48)	75.2	(43)	3.4%	(6)	2,471	(5)	144.9	(3)
California	184,095	(2)	4,659.2	(31)	5,565	(7)	3.0%	(30)	140.8	(29)	2.4%	(13)	1,965	(10)	92.9	(13)
Colorado	30,705	(21)	5,331.9	(24)	1,651	(16)	5.4%	(12)	286.7	(15)	0.7%	(38)	836	(46)	35.0	(39)
Connecticut	45,782	(16)	12,841.0	(6)	4,263	(8)	9.3%	(1)	1,195.7	(3)	0.2%	(51)	1,650	(15)	26.7	(43)
Delaware	10,820	(36)	11,111.5	(7)	435	(34)	4.0%	(22)	446.7	(12)	0.7%	(37)	1,766	(13)	75.0	(17)
District Of Columbia	10,058	(39)	14,251.5	(5)	535	(29)	5.3%	(13)	758.1	(6)	0.4%	(46)	3,271	(2)	51.2	(27)
Florida	100,217	(7)	4,666.1	(30)	3,176	(9)	3.2%	(29)	147.9	(28)	3.9%	(3)	1,246	(33)	144.5	(4)
Georgia	65,928	(10)	6,209.4	(21)	2,648	(13)	4.0%	(23)	249.4	(17)	1.9%	(17)	1,043	(42)	94.5	(11)
Hawaii	816	(49)	576.3	(51)	17	(50)	2.1%	(42)	12.0	(51)	1.9%	(18)	730	(49)	8.7	(50)
Idaho	4,254	(43)	2,373.8	(43)	89	(44)	2.1%	(41)	49.7	(45)	3.2%	(8)	796	(48)	48.4	(30)
Illinois	137,224	(4)	10,829.1	(8)	6,671	(4)	4.9%	(15)	526.4	(9)	0.4%	(43)	1,911	(11)	47.6	(31)
Indiana	42,633	(18)	6,332.7	(19)	2,553	(14)	6.0%	(9)	379.2	(13)	0.8%	(36)	1,339	(27)	53.3	(25)
Iowa	26,145	(24)	8,286.7	(12)	686	(27)	2.6%	(36)	217.4	(21)	1.3%	(26)	1,415	(20)	92.2	(14)
Kansas	12,518	(35)	4,296.8	(35)	259	(37)	2.1%	(43)	88.9	(39)	1.3%	(27)	885	(43)	54.0	(24)
Kentucky	13,839	(33)	3,097.6	(40)	526	(31)	3.8%	(24)	117.7	(34)	1.3%	(28)	837	(45)	41.7	(37)
Louisiana	50,239	(15)	10,806.9	(9)	3,117	(10)	6.2%	(7)	670.5	(7)	0.7%	(39)	3,053	(4)	105.9	(9)
Maine	2,971	(45)	2,210.2	(44)	102	(42)	3.4%	(28)	75.9	(42)	0.9%	(32)	1,066	(40)	17.4	(48)
Maryland	64,603	(11)	10,685.8	(10)	3,074	(11)	4.8%	(17)	508.5	(10)	0.5%	(42)	1,267	(31)	61.6	(21)
Massachusetts	107,210	(6)	15,427.0	(4)	7,874	(3)	7.3%	(6)	1,133.0	(4)	0.2%	(50)	1,292	(29)	30.0	(41)
Michigan	67,957	(9)	6,804.6	(17)	6,097	(6)	9.0%	(2)	610.5	(8)	0.4%	(45)	1,344	(25)	23.7	(45)
Minnesota	33,227	(20)	5,891.7	(22)	1,416	(18)	4.3%	(21)	251.1	(16)	1.2%	(30)	2,285	(8)	62.0	(20)
Mississippi	22,287	(27)	7,488.5	(14)	978	(23)	4.4%	(18)	328.6	(14)	1.5%	(23)	1,092	(39)	72.3	(18)

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## Comparative Statistics- Page 2 of 2

"Strategic Guidance in an Era of Unprecedented Change"

As of June 22

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	18,838	(28)	3,069.4	(41)	981	(22)	5.2%	(14)	159.8	(26)	1.9%	(19)	871	(44)	44.9	(35)
Montana	740	(51)	692.4	(50)	21	(48)	2.8%	(32)	19.6	(49)	3.3%	(7)	1,386	(21)	15.5	(49)
Nebraska	17,957	(29)	9,282.9	(11)	249	(38)	1.4%	(49)	128.7	(30)	0.8%	(35)	1,385	(23)	80.1	(16)
Nevada	13,535	(34)	4,394.3	(32)	489	(32)	3.6%	(25)	158.8	(27)	2.7%	(11)	1,282	(30)	94.2	(12)
New Hampshire	5,558	(42)	4,087.6	(37)	339	(36)	6.1%	(8)	249.3	(18)	0.4%	(44)	1,049	(41)	23.7	(44)
New Jersey	172,390	(3)	19,408.5	(2)	13,030	(2)	7.6%	(4)	1,467.0	(2)	0.2%	(49)	2,434	(7)	42.4	(36)
New Mexico	10,694	(38)	5,100.1	(28)	469	(33)	4.4%	(19)	223.7	(20)	1.2%	(29)	2,028	(9)	57.4	(23)
New York	411,972	(1)	21,177.2	(1)	31,268	(1)	7.6%	(3)	1,607.3	(1)	0.3%	(48)	3,385	(1)	49.9	(29)
North Carolina	53,736	(14)	5,123.5	(27)	1,275	(21)	2.4%	(39)	121.6	(33)	2.7%	(10)	1,619	(16)	118.1	(8)
North Dakota	3,313	(44)	4,347.4	(33)	77	(46)	2.3%	(40)	101.0	(35)	0.9%	(33)	1,814	(12)	39.0	(38)
Ohio	45,609	(17)	3,901.8	(39)	2,709	(12)	5.9%	(10)	231.8	(19)	1.4%	(24)	1,252	(32)	45.1	(34)
Oklahoma	10,733	(37)	2,712.4	(42)	369	(35)	3.4%	(27)	93.3	(36)	3.8%	(4)	1,143	(36)	82.5	(15)
Oregon	7,083	(40)	1,679.3	(47)	192	(40)	2.7%	(35)	45.5	(47)	2.6%	(12)	1,109	(38)	47.5	(32)
Pennsylvania	86,668	(8)	6,769.9	(18)	6,485	(5)	7.5%	(5)	506.6	(11)	0.5%	(41)	835	(47)	30.0	(42)
Rhode Island	16,459	(31)	15,536.7	(3)	903	(24)	5.5%	(11)	852.4	(5)	0.3%	(47)	2,457	(6)	52.6	(26)
South Carolina	25,701	(25)	4,991.7	(29)	659	(28)	2.6%	(37)	128.0	(31)	4.6%	(2)	1,341	(26)	163.6	(2)
South Dakota	6,326	(41)	7,150.8	(15)	81	(45)	1.3%	(50)	91.6	(37)	0.9%	(34)	1,120	(37)	64.4	(19)
Tennessee	35,553	(19)	5,203.0	(26)	531	(30)	1.5%	(47)	77.7	(40)	2.0%	(15)	1,466	(19)	97.6	(10)
Texas	119,645	(5)	4,126.3	(36)	2,218	(15)	1.9%	(44)	76.5	(41)	3.8%	(5)	1,154	(35)	124.6	(7)
Utah	17,906	(30)	5,585.2	(23)	158	(41)	0.9%	(51)	49.3	(46)	3.1%	(9)	1,175	(34)	140.3	(5)
Vermont	1,163	(48)	1,863.8	(46)	56	(47)	4.8%	(16)	89.7	(38)	0.6%	(40)	1,385	(22)	7.3	(51)
Virginia	58,465	(12)	6,849.6	(16)	1,620	(17)	2.8%	(33)	189.8	(22)	0.9%	(31)	1,324	(28)	58.4	(22)
Washington	29,718	(23)	3,902.6	(38)	1,278	(20)	4.3%	(20)	167.8	(25)	1.6%	(22)	231	(50)	47.4	(33)
West Virginia	2,571	(46)	1,438.6	(48)	90	(43)	3.5%	(26)	50.4	(44)	1.6%	(21)	1,539	(18)	20.2	(46)
Wisconsin	25,068	(26)	4,305.4	(34)	745	(26)	3.0%	(31)	128.0	(32)	1.3%	(25)	1,603	(17)	50.6	(28)
Wyoming	1,230	(47)	2,125.2	(45)	20	(49)	1.6%	(45)	34.6	(48)	2.0%	(16)	(1,287)	(51)	33.8	(40)
United States	2,388,153		7,214.9		122,610		5.1%		370.5		1.3%		1,531		97.5	

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#### **COUNTRY-BY-COUNTRY INFORMATION**



## **Countries Included**

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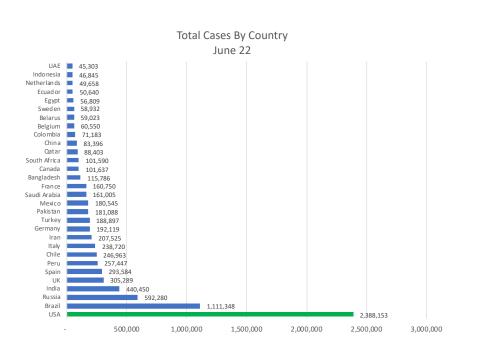
- In Mid-March, we began tracking the twenty countries with the most coronavirus cases; in mid-April, we expanded it to the thirty countries with the most cases
- We now have visibility to all 213 countries and 2 conveyances that have at least 1 coronavirus case
- Case and death information is sourced 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

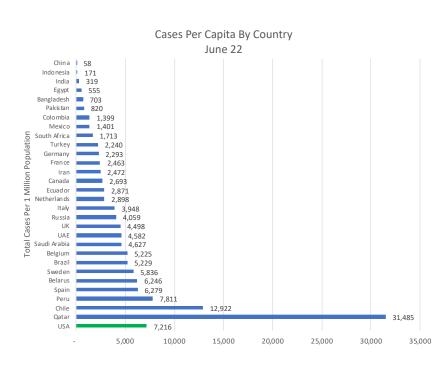


## Cases & Cases Per Capita

"Strategic Guidance in an Era of Unprecedented Change"

#### Countries Ranked 1-30 In Total Cases



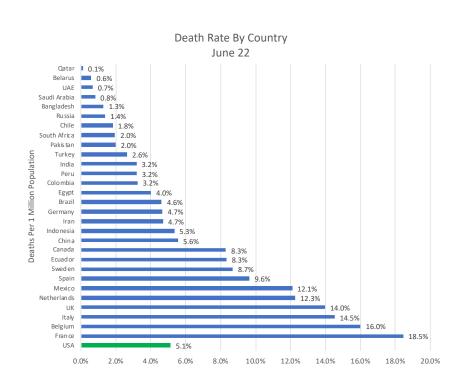


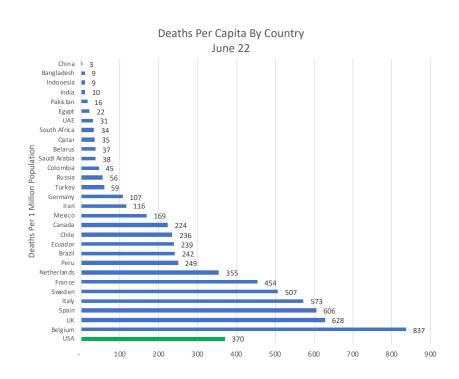


## Deaths Per Cases & Per Capita

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#### Countries Ranked 1-30 In Total Cases



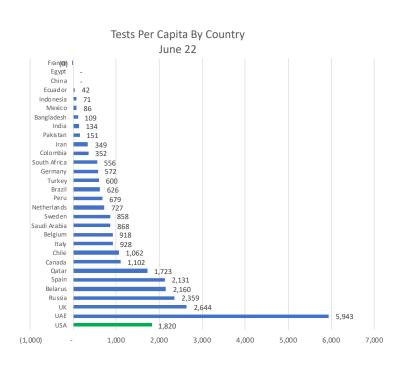


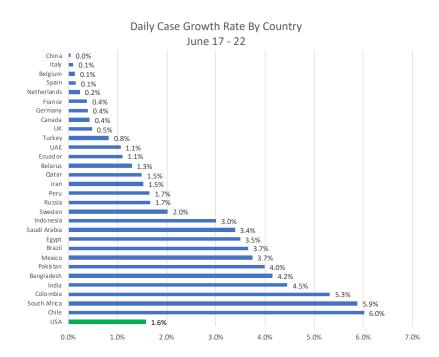
 $\hbox{@ 2020 $\underline{$Health$ Industry Advisor LLC$}$ analysis, using data from $\underline{$worldometers.info}$}$ 

## Daily Tests Per Capita & Daily Case Growth

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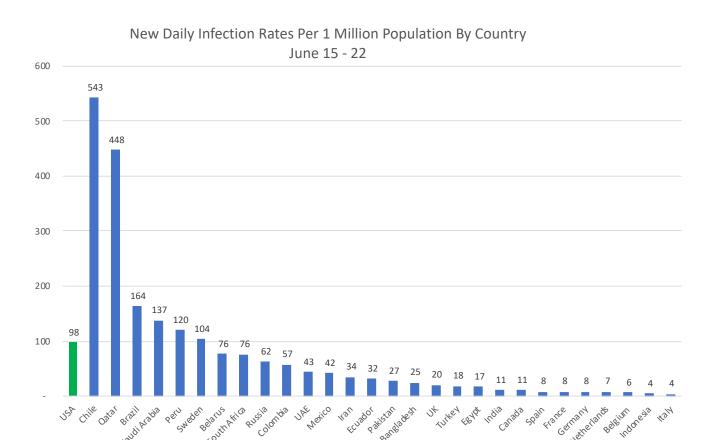
Daily Tests Per Capita For Past Week

Daily Case Growth – 5-Day Moving Average



## New Daily Infection Rates

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### Listing of Countries By Total Cases

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#### 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
- Oatar
- · Panama
- Philippines
- Romania
- · South Africa
- UAE
- Ukraine

The original 30 still account for 84.5% of all cases worldwide.

Rank	Country	22-Jun	Rank Country	6-May	Rank Country	27-Apr
1 US	Α	2,388,153	1 USA	1,263,092	1 USA	1,010,35
2 Bra	azil	1,111,348	2 Spain	253,682	2 Spain	229,42
3 Rus	ssia	592,280	3 Italy	214,457	3 Italy	199,41
4 Ind	lia	440,450	4 UK	201,101	4 France	128,33
5 UK		305,289	5 France	174,191	5 Germany	158,75
6 Spa	ain	293,584	6 Germany	168,162	6 UK	157,14
7 Per	ru	257,447	7 Russia	165,929	7 Turkey	112,26
8 Chi	ile	246,963	8 Turkey	131,744	8 Iran	91,47
9 Ital	ly	238,720	9 Brazil	126,611	9 Russia	87,14
10 Irai	n	207,525	10 Iran	101,650	10 China	82,83
11 Ge	ermany	192,119	11 China	82,883	11 Brazil	66,50
12 Tur	rkey	188,897	12 Canada	63,496	12 Canada	48,50
13 Pak	kistan	181,088	13 Peru	54,817	13 Belgium	46,68
14 Me	exico	180,545	14 India	52,987	14 Netherlands	38,24
15 Sau	udi Arabia	161,005	15 Belgium	50,781	15 India	29,45
16 Fra	ance	160,750	16 Netherlands	41,319	16 Switzerland	29,16
18 Car	nada	101,637	17 Saudi Arabia	31,938	17 Peru	28,66
21 Chi	ina	83,396	18 Switzerland	30,060	18 Portugal	24,07
23 Bel	lgium	60,550	19 Ecuador	29,420	19 Ecuador	23,24
25 Sw	veden	58,932	20 Portugal	26,182	20 Ireland	19,6
27 Ecu	uador	50,640	21 Mexico	26,025	21 Sweden	18,9
28 Ne	therlands	49,658	22 Sweden	23,918	22 Saudi Arabia	18,8
32 Sin	ngapore	42,313	23 Pakistan	23,214	23 Israel	15,55
34 Por	rtugal	39,392	24 Chile	23,048	24 Austria	15,27
38 Sw	ritzerland	31,310	25 Ireland	22,248	25 Mexico	14,67
44 Irel	land	25,383	26 Singapore	20,198	26 Singapore	14,42
48 Isra	ael	21,082	29 Israel	16,310	27 Pakistan	13,9:
51 Jap	oan	17,916	31 Austria	15,684	28 Chile	13,83
53 Aus	stria	17,380	32 Japan	15,253	29 Japan	13,6:
61 S. F	Korea	12,438	38 S. Korea	10,806	35 South Korea	10,73
Oth	hers	1,422,685	Others	356,176	Others	301,44
Wo	orld	9,180,875		3,817,382	World	3,062,53



## **Comparative Statistics**

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Top 30 Countries By Total Cases
As of June 22

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	2,388,153	(1)	7,216	(4)	122,610	(1)	5.1%	(13)	370.5	(7)	1.6%	(15)	1,820	(6)	97.5	(7)
Brazil	1,111,348	(2)	5,229	(8)	51,407	(2)	4.6%	(16)	241.9	(10)	3.7%	(8)	626	(16)	163.7	(3)
Russia	592,280	(3)	4,059	(13)	8,206	(14)	1.4%	(25)	56.2	(18)	1.7%	(13)	2,359	(3)	62.0	(10)
India	440,450	(4)	319	(28)	14,015	(8)	3.2%	(20)	10.2	(27)	4.5%	(4)	134	(23)	11.1	(21)
UK	305,289	(5)	4,498	(12)	42,647	(3)	14.0%	(4)	628.3	(2)	0.5%	(22)	2,644	(2)	19.8	(18)
Spain	293,584	(6)	6,279	(5)	28,324	(6)	9.6%	(7)	605.8	(3)	0.1%	(27)	2,131	(5)	7.9	(23)
Peru	257,447	(7)	7,811	(3)	8,223	(13)	3.2%	(19)	249.5	(9)	1.7%	(14)	679	(15)	120.1	(5)
Chile	246,963	(8)	12,922	(2)	4,502	(19)	1.8%	(24)	235.6	(12)	6.0%	(1)	1,062	(9)	543.2	(1)
Italy	238,720	(9)	3,948	(14)	34,657	(4)	14.5%	(3)	573.2	(4)	0.1%	(29)	928	(10)	4.1	(29)
Iran	207,525	(10)	2,472	(18)	9,742	(9)	4.7%	(14)	116.0	(15)	1.5%	(16)	349	(21)	34.2	(14)
Germany	192,119	(11)	2,293	(20)	8,969	(11)	4.7%	(15)	107.1	(16)	0.4%	(24)	572	(18)	7.6	(25)
Turkey	188,897	(12)	2,240	(21)	4,974	(17)	2.6%	(21)	59.0	(17)	0.8%	(21)	600	(17)	18.1	(19)
Pakistan	181,088	(13)	820	(25)	3,590	(21)	2.0%	(22)	16.3	(26)	4.0%	(6)	151	(22)	27.1	(16)
Mexico	180,545	(14)	1,401	(23)	21,825	(7)	12.1%	(6)	169.3	(14)	3.7%	(7)	86	(25)	42.0	(13)
Saudi Arabia	161,005	(15)	4,627	(10)	1,307	(27)	0.8%	(27)	37.6	(20)	3.4%	(10)	868	(12)	137.4	(4)
France	160,750	(16)	2,463	(19)	29,663	(5)	18.5%	(1)	454.5	(6)	0.4%	(25)	0	(30)	7.7	(24)
Bangladesh	115,786	(17)	703	(26)	1,502	(26)	1.3%	(26)	9.1	(29)	4.2%	(5)	109	(24)	24.5	(17)
Canada	101,637	(18)	2,693	(17)	8,436	(12)	8.3%	(10)	223.6	(13)	0.4%	(23)	1,102	(8)	10.8	(22)
South Africa	101,590	(19)	1,713	(22)	1,991	(25)	2.0%	(23)	33.6	(23)	5.9%	(2)	556	(19)	76.0	(9)
Qatar	88,403	(20)	31,485	(1)	99	(30)	0.1%	(30)	35.3	(22)	1.5%	(17)	1,723	(7)	447.8	(2)
China	83,396	(21)	58	(30)	4,634	(18)	5.6%	(11)	3.2	(30)	0.0%	(30)	0	(28)	0.0	(30)
Colombia	71,183	(22)	1,399	(24)	2,310	(23)	3.2%	(18)	45.4	(19)	5.3%	(3)	352	(20)	56.9	(11)
Belgium	60,550	(23)	5,225	(9)	9,696	(10)	16.0%	(2)	836.7	(1)	0.1%	(28)	918	(11)	6.4	(27)
Belarus	59,023	(24)	6,246	(6)	351	(28)	0.6%	(29)	37.1	(21)	1.3%	(18)	2,160	(4)	76.3	(8)
Sweden	58,932	(25)	5,836	(7)	5,122	(16)	8.7%	(8)	507.2	(5)	2.0%	(12)	858	(13)	103.5	(6)
Egypt	56,809	(26)	555	(27)	2,278	(24)	4.0%	(17)	22.3	(25)	3.5%	(9)	0	(28)	17.1	(20)
Ecuador	50,640	(27)	2,871	(16)	4,223	(20)	8.3%	(9)	239.5	(11)	1.1%	(19)	42	(27)	31.5	(15)
Netherlands	49,658	(28)	2,898	(15)	6,090	(15)	12.3%	(5)	355.4	(8)	0.2%	(26)	727	(14)	7.3	(26)
Indonesia	46,845	(29)	171	(29)	2,500	(22)	5.3%	(12)	9.1	(28)	3.0%	(11)	71	(26)	4.5	(28)
UAE	45,303	(30)	4,582	(11)	303	(29)	0.7%	(28)	30.6	(24)	1.1%	(20)	5,943	(1)	43.5	(12)

Note: China does not report test volumes



## **VIRUS PROGRESSION BY COUNTRY**



# Virus Progression — Original 30 Hardest-Hit Countries

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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.

