

Yesterday's growth in total US new active cases declined 1% to 14% from 15% the day prior. This continues the decline in the daily growth in total new cases from a high of 39% ten days ago. While the overall growth in new cases continues to decline, the daily rate of growth of new cases (*% change in new daily cases*) ticked up on Monday across the board after several days of decline from the highs reached last week. The rate of growth/decline in new cases is the key early indicator that the Curve is Flattening. Testing volumes remained flat yesterday at ~100,000 test per day amid prospects of new/faster testing devices rolling out this week. The next 5 days will be important to understand the shape of the curve and our trajectory with this outbreak as lockdown measures continue to increase along with testing levels.

We are clearly navigating uncharted waters. Our goal is to bring data/fact to an uncertain and unsettling situation and avoid the daily media hype. There is no playbook for what we are all experiencing right now. So, as an aid in helping us understand the shape of the curve we are living, we **can** look to others that are 10 to 20 days ahead of us in dealing with this. To this end I have included below today some comparisons of our earliest index State, Washington, to S. Korea and Italy (*see Charts below*). These are just above the normal Testing Volumes, Daily New Case and New Case Growth Rate charts,

Summary: Total new US cases were 20,354 yesterday, up 14% from prior day. The rate of growth in new cases turned up yesterday after 3 days of decline, from a -5% decline in daily new case growth rates Sunday, to +10% yesterday. Hospitalized cases grew yesterday by 2,651 with 1,646 of these in New York. New York is clearly stretched now with a total ~14,000 hospitalized Covid-19 patients. Most other states remain at manageable levels given bed capacity at a few 100 cases each. California and Louisiana are the only states over the 1,000 mark in hospitalized cases. Rate of Positive Test Outcomes remains at ~20%. Lockdowns and movement controls are also escalating as many States and many Counties/Cities announced new border controls/restrictions/closures over the last few days (*Hawaii, Texas-Louisiana, Florida, Massachusetts, Vermont, Rhode Island, Delaware, Alaska, Kansas, Kentucky, Maryland, North Dakota*).

Headlines:

- Vaccine Clinical Human Trials in progress, Blood Serum therapy underway, new high speed testing devices (*5min result*) rollout this week and Antibody testing research continues.
- Lockdowns and movement controls are also escalating as many States and many Counties/Cities announced new border controls/restrictions/closures over the last few days.
- Total US testing grew slightly yesterday to ~105,000 tests. Testing expanded significantly in Delaware, Iowa and Idaho.
- **New US Cases Growth – Total US new case growth was 14% yesterday, down 1% from Sunday. Daily Rate of Growth turned positive yesterday after several days of decline and negative growth rates Sunday.**
 - **New York:** The growth in new cases remained flat at ~6,500 new cases yesterday. Total new case growth was 11%, the lowest level in 9 days, falling from 46% on March 22.
 - **Top 12 States:** Total new cases grew to 9,659 yesterday, up ~1,200. Total new case growth was 16%, the lowest level in 5 days, falling from a high of 35% last Thursday.

- **All Other State Totals:** Total new cases grew to 4,049 yesterday, up ~300. Total new case growth was 17%, continuing a 5 day decline, falling from a high of 25% last Thursday.
- **Washington State:** New cases grew to 354 yesterday after a sharp decline the prior day. Total new case growth was 8%,.
- **Hospitalization:** Rates held steady at roughly 14%, with ~22,000 Hospitalized cases,, up from ~20,000 on Sunday.
- **Mortality:** increased yesterday to 1.9 % across the US, up from 1.7% the day prior.
- **Positive Tests rates fell slightly to 20% from 22% the day prior.**

Testing:

- Testing yesterday of ~104,000 tests, was up from Sunday. We have conducted ~1,000,000 tests across the US to date.
- We have eliminated counting “Pending” tests in daily test volumes, but will monitor these. They remained at ~60,000 tests yesterday
- Test volumes rose materially yesterday in Vermont, Arizona & Utah.
- The rate of positive outcomes remained relatively flat at 20% yesterday.

New/Active Cases

- *The “Curve” has improved slightly as the new case growth rate (14%) continued its decline across the US. The Rate of growth in New Cases turned back up yesterday to 10%, reversing a three day downward trend.*
- Total new cases grew 14% yesterday, or 20,354 cases, up from 18,469 the prior day, reversing a one day overall decline in new cases on Sunday.

Hospitalization

- The Hospitalization remained steady yesterday at ~14% after rising steadily the last three days and up from 7.7% on last Monday
- ***New York Hospitalization grew to 13,721 cases, up from 12,075 cases the prior day – New York total bed capacity is ~53,000, and ICU bed capacity is ~3,000***
- Total positive cases in hospital beds across the US yesterday was 22,490 up from 19,839 the prior day.
- ***Total US Hospital beds are ~925,000, Total US ICU Beds is ~100,000***

Recovery/Mortality

- The Mortality rose 0.2% to 1.9% nationally. Deaths totaled 3,156 across the US to date.

Comparison Covid-19 Growth Curves

Lessons we can learn:

- 1) *We have another 10 to 15 days to understand the curve we are on (hang in there!)*
- 2) *When we begin to see a consistent declining new case growth rate trend (more than three days) we can expect a potential short rebound (see Italy below)*
- 3) *When case growth declines, and the “Curve Flattens”, we can expect a persistent level of this virus we will have to manage – every day for a while (see S. Korea below)*