Contents: virus tracking reports for all 50 states + DC

- Chart 1: Infections vs hospitalizations
- Chart 2: Daily deaths vs case fatality rates
- Chart 3: Infections, hospitalizations and mortality
- Chart 4: Deaths as a % of current hospitalizations
- Chart 5: Daily number of tests and percentage of positive tests
- Chart 6: Infections vs doctor visits with COVID-like symptoms
- Chart 7: Hospital bed and ICU bed utilization rates vs 2018 averages

States appear in this report in descending order of State GDP.

Source: COVID Tracking Project, JPMAM. 10/1/2020. 7 day avgs.

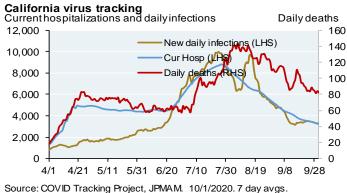
Eye on the Market Coronavirus tracking: California

California virus tracking

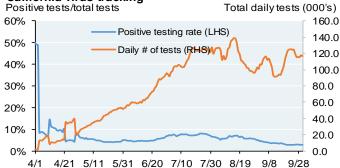
---New infections per mm, with % of positive cases



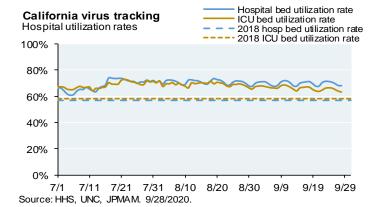
Source: COVID Tracking Project, JPMAM. 10/1/2020. 7 day avgs.



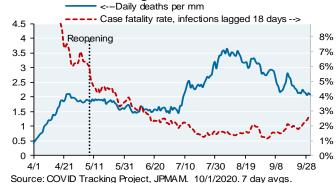




Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



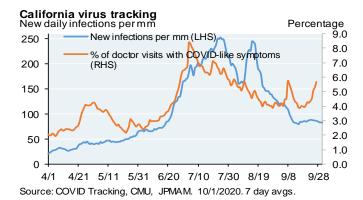
California virus tracking



California virus tracking

Daily deaths as a % of current hospitalizations





Michael Cembalest

JP Morgan

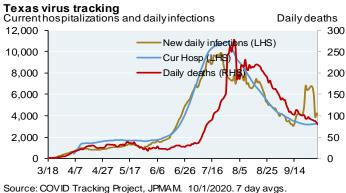
Eye on the Market Coronavirus tracking: Texas

Texas virus tracking

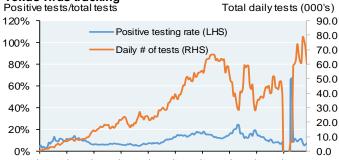
<---New infections per mm, with % of positive cases



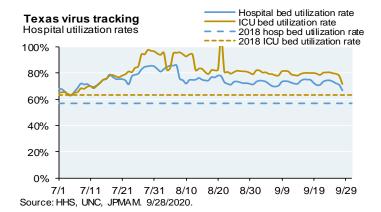
Source: COV ID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



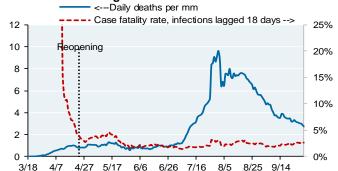
Texas virus tracking



3/18 4/7 4/27 5/17 6/6 6/26 7/16 8/5 8/25 9/14 Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



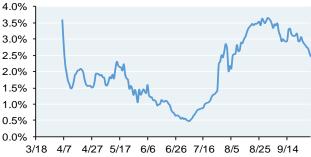
Texas virus tracking

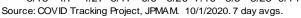


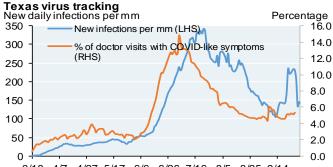
Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.

Texas virus tracking

Daily deaths as a % of current hospitalizations





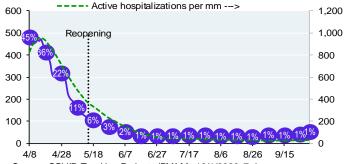


3/18 4/7 4/27 5/17 6/6 6/26 7/16 8/5 8/25 9/14 Source: COVID Tracking, CMU, JPMAM. 10/1/2020.7 day avgs.

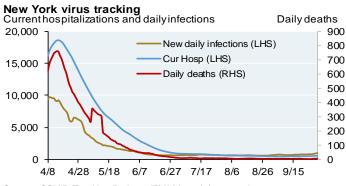
Eye on the Market Coronavirus tracking: New York

New York virus tracking

---New infections per mm, with % of positive cases

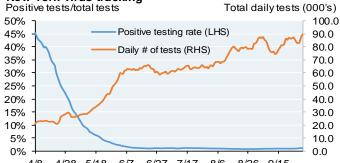


Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.

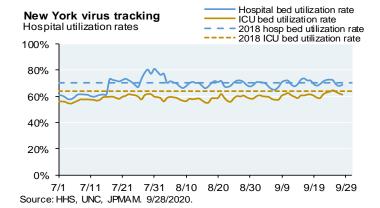


Source: COVID Tracking Project, JPMAM. 10/1/2020. 7 day avgs.

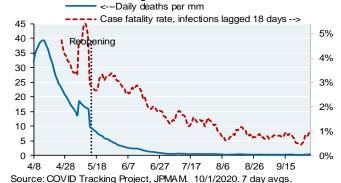
New York virus tracking



4/8 4/28 5/18 6/7 6/27 7/17 8/6 8/26 9/15 Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



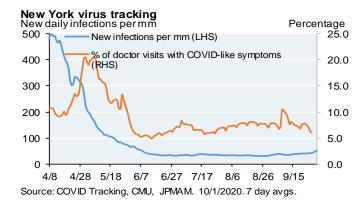
New York virus tracking



New York virus tracking

Daily deaths as a % of current hospitalizations





Eye on the Market Coronavirus tracking: Florida

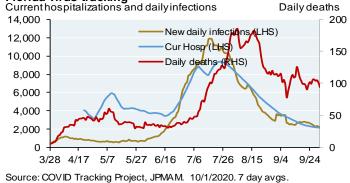
Florida virus tracking

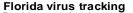
---- New infections per mm, with % of positive cases

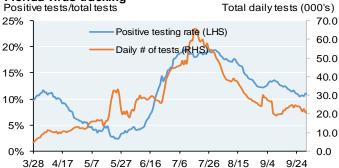


Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.

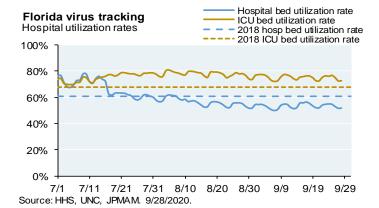
Florida virus tracking







3/28 4/17 5/7 5/27 6/16 7/6 7/26 8/15 9/4 9/2 Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



Florida virus tracking

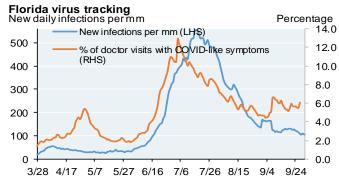
Michael Cembalest



Florida virus tracking

Daily deaths as a % of current hospitalizations





Source: COVID Tracking, CMU, JPMAM. 10/1/2020.7 day avgs.

JP Morgan

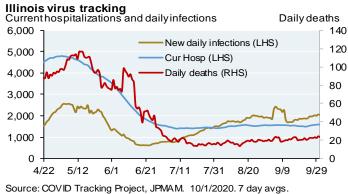
Eye on the Market Coronavirus tracking: Illinois

Illinois virus tracking

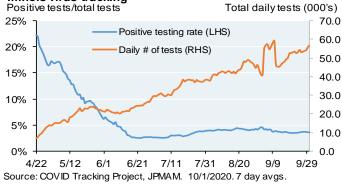
<---New infections per mm, with % of positive cases

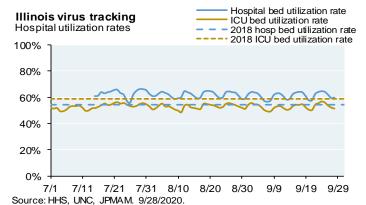


Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



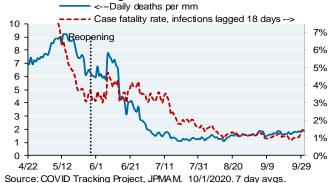






50.0

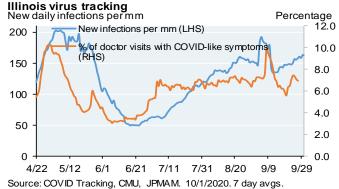
Illinois virus tracking



Illinois virus tracking

Daily deaths as a % of current hospitalizations



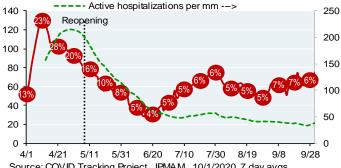


Eye on the Market Coronavirus tracking: Pennsylvania

Michael Cembalest

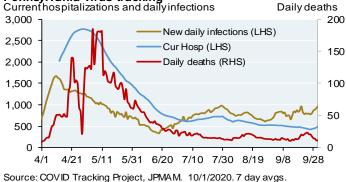
Pennsylvania virus tracking

---New infections per mm, with % of positive cases

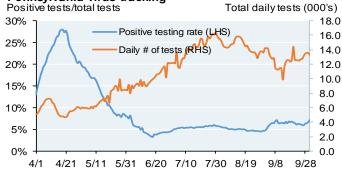


Source: COVID Tracking Project, JPMAM. 10/1/2020. 7 day avgs.

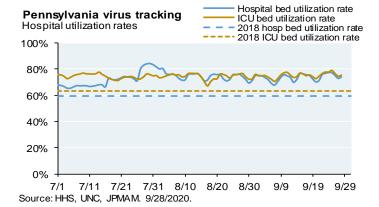
Pennsylvania virus tracking Current hospitalizations and daily infections



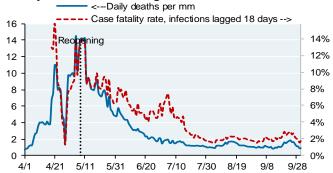
Pennsylvania virus tracking



Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



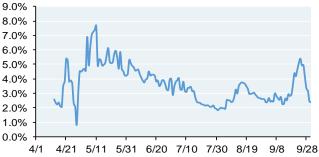
Pennsylvania virus tracking



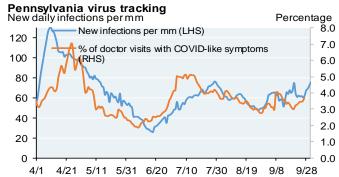
Source: COVID Tracking Project, JPMAM. 10/1/2020. 7 day avgs.

Pennsylvania virus tracking

Daily deaths as a % of current hospitalizations



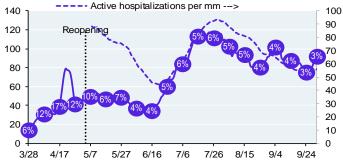
Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



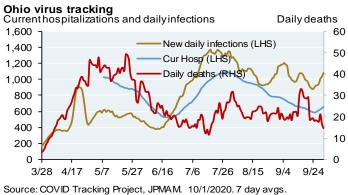
Eye on the Market Coronavirus tracking: Ohio

Ohio virus tracking

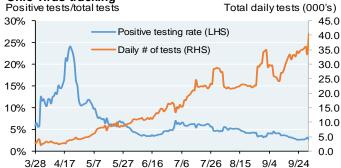
<---New infections per mm, with % of positive cases



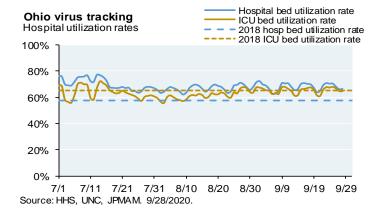
Source: COVID Tracking Project, JPMAM. 10/1/2020. 7 day avgs.



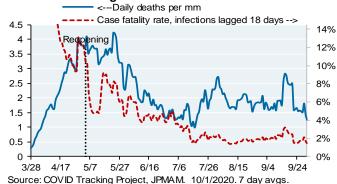
Ohio virus tracking



Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



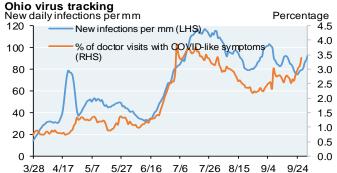
Ohio virus tracking



Ohio virus tracking Daily deaths as a % of current hospitalizations

Michael Cembalest

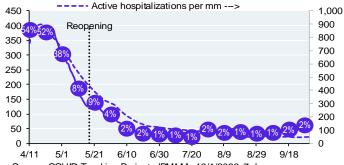




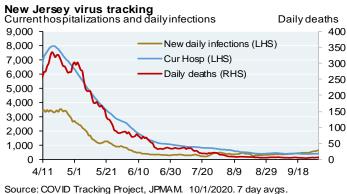
Eye on the Market Coronavirus tracking: New Jersey

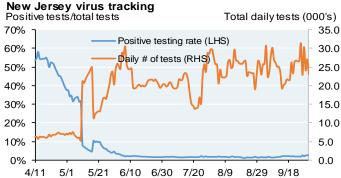
New Jersey virus tracking

<---New infections per mm, with % of positive cases

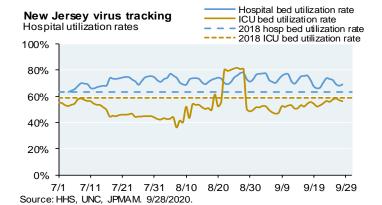


Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.

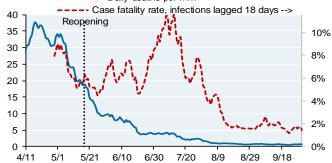




Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.

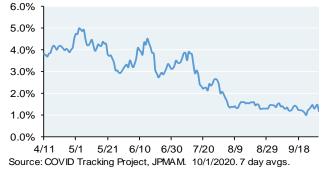


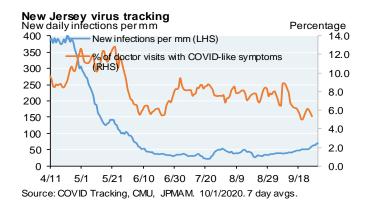




Source: COVID Tracking Project, JPMAM. 10/1/2020. 7 day avgs.

New Jersey virus tracking





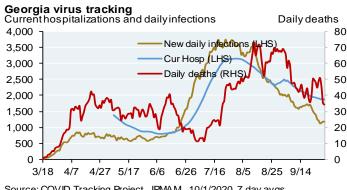
Eye on the Market Coronavirus tracking: Georgia

Georgia virus tracking

<---New infections per mm, with % of positive cases



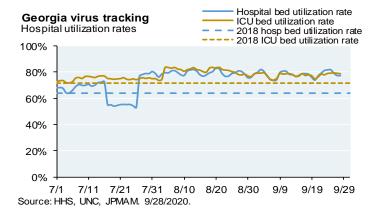
Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



Source: COVID Tracking Project, JPMAM. 10/1/2020. 7 day avgs.

Georgia virus tracking Total daily tests (000's) Positive tests/total tests 350% 35.0 Positive testing rate (LHS) 300% 30.0 Daily # of tests (RHS) 250% 25.0 200% 20.0 150% 15.0 100% 10.0 50% 5.0 0% 0.0

3/18 4/7 4/27 5/17 6/6 6/26 7/16 8/5 8/25 9/14 Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



Georgia virus tracking

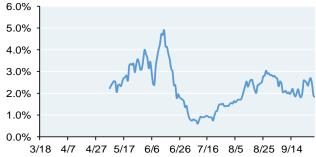
Michael Cembalest



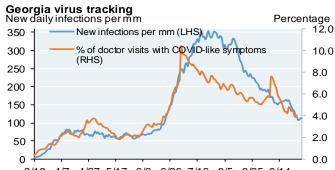
Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.

Georgia virus tracking

Daily deaths as a % of current hospitalizations



Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



3/18 4/7 4/27 5/17 6/6 6/26 7/16 8/5 8/25 9/14 Source: COVID Tracking, CMU, JPMAM. 10/1/2020.7 day avgs.

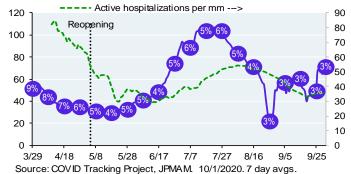
Eye on the Market Coronavirus tracking: Washington

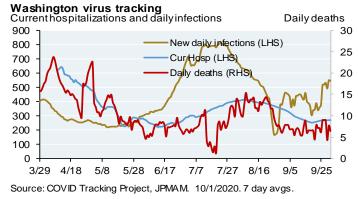
Michael Cembalest

JP Morgan

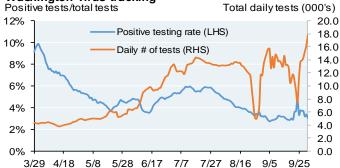
Washington virus tracking

<---New infections per mm, with % of positive cases

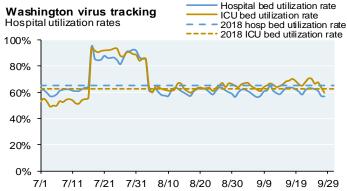


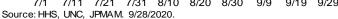


Washington virus tracking

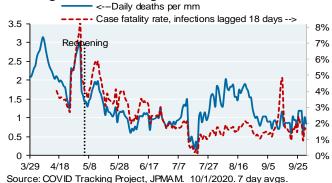


3/29 4/18 5/8 5/28 6/17 7/7 7/27 8/16 9/5 Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



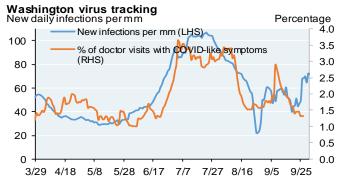


Washington virus tracking



Washington virus tracking Daily deaths as a % of current hospitalizations



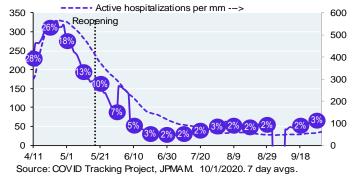


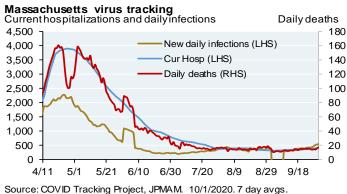
Eye on the Market Coronavirus tracking: Massachusetts

Michael Cembalest

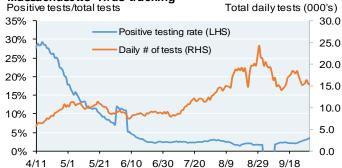
Massachusetts virus tracking

<---New infections per mm, with % of positive cases

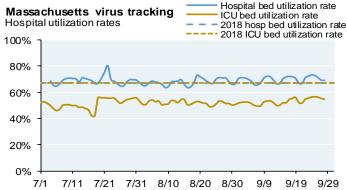


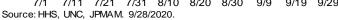


Massachusetts virus tracking

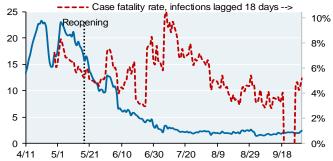


Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



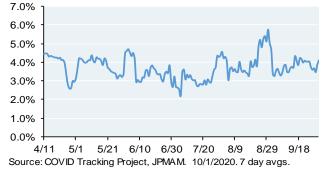


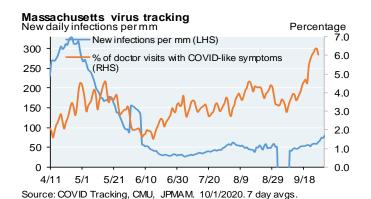
Massachusetts virus tracking <---Daily deaths per mm



Source: COVID Tracking Project, JPMAM. 10/1/2020. 7 day avgs.

Massachusetts virus tracking

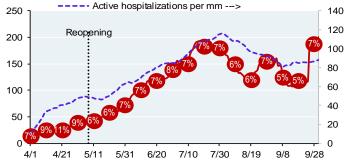




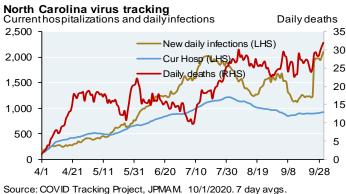
Eye on the Market Coronavirus tracking: North Carolina

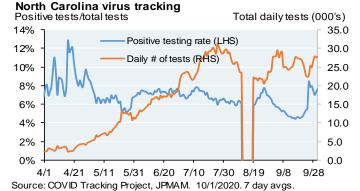
North Carolina virus tracking

<---New infections per mm, with % of positive cases



Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.

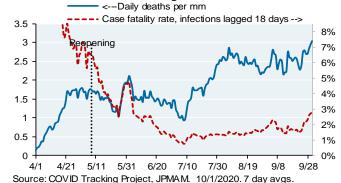




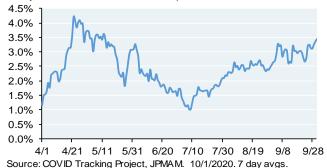
Hospital bed utilization rate North Carolina virus tracking ICU bed utilization rate Hospital utilization rates 2018 hosp bed utilization rate 2018 ICU bed utilization rate 100% 80% 60% 40% 20% 0% 7/1 7/11 7/21 7/31 8/10 8/20 8/30 9/9 9/19 9/29

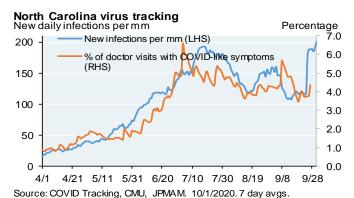
Source: HHS, UNC, JPMAM. 9/28/2020.

North Carolina virus tracking



North Carolina virus tracking





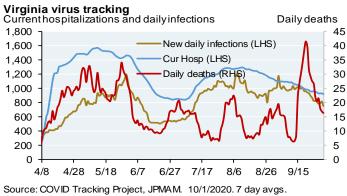
Eye on the Market Coronavirus tracking: Virginia

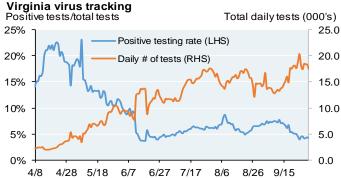
Virginia virus tracking

<---New infections per mm, with % of positive cases

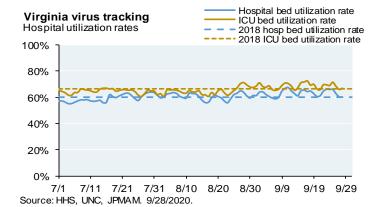


Source: COVID Tracking Project, JPMAM. 10/1/2020. 7 day avgs.

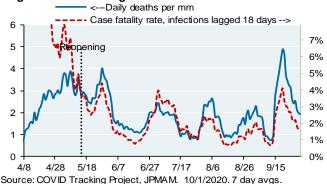




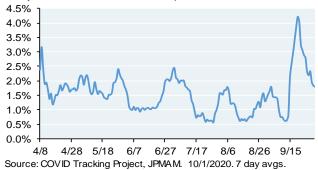
Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.

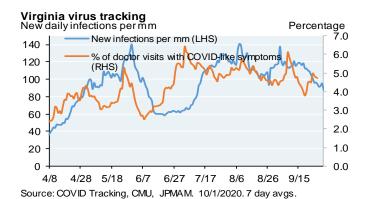


Virginia virus tracking



Virginia virus tracking Daily deaths as a % of current hospitalizations

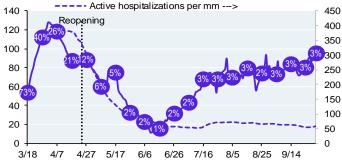




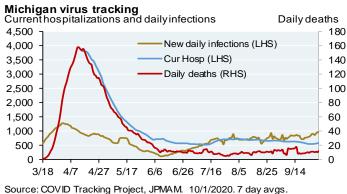
Eye on the Market Coronavirus tracking: Michigan

Michigan virus tracking

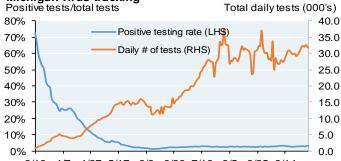
<---New infections per mm, with % of positive cases



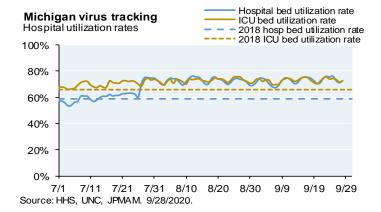
Source: COV ID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



Michigan virus tracking

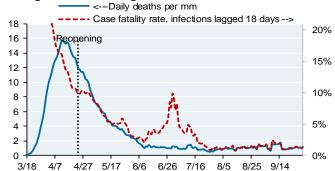


3/18 4/7 4/27 5/17 6/6 6/26 7/16 8/5 8/25 9/14 Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



Michigan virus tracking

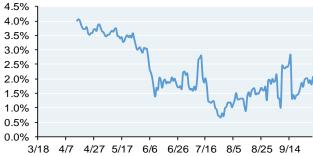
Michael Cembalest



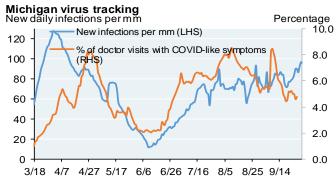
Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.

Michigan virus tracking

Daily deaths as a % of current hospitalizations



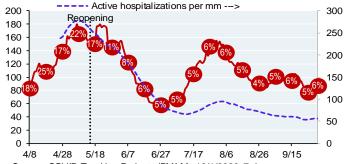
Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



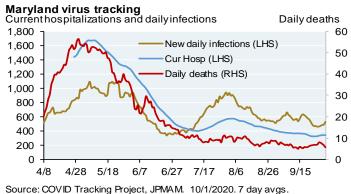
Eye on the Market Coronavirus tracking: Maryland

Maryland virus tracking

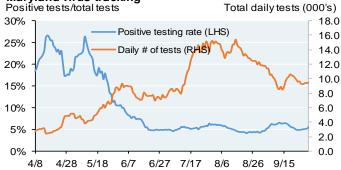
<---New infections per mm, with % of positive cases



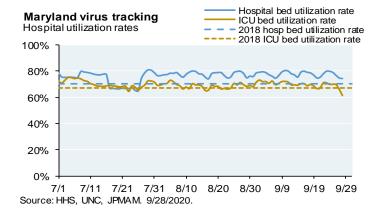
Source: COVID Tracking Project, JPMAM. 10/1/2020. 7 day avgs.





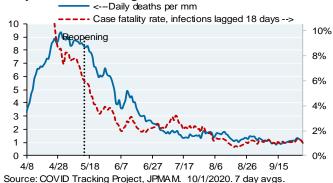


Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.

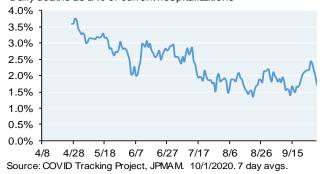


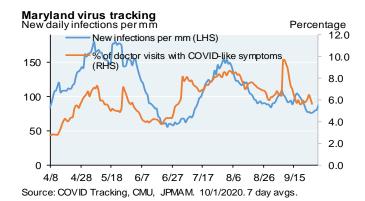
Maryland virus tracking

Michael Cembalest



Maryland virus tracking

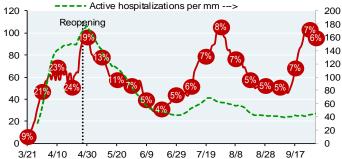




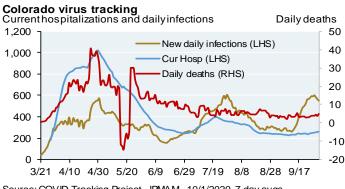
Eye on the Market Coronavirus tracking: Colorado

Colorado virus tracking

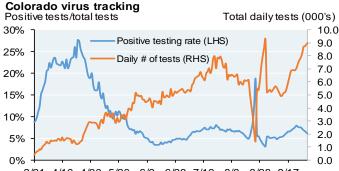
<---New infections per mm, with % of positive cases



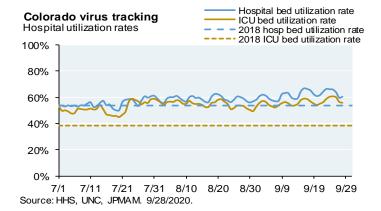
Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



Source: COVID Tracking Project, JPMAM. 10/1/2020. 7 day avgs.

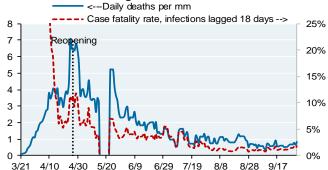


3/21 4/10 4/30 5/20 6/9 6/29 7/19 8/8 8/28 9/17 Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



Colorado virus tracking

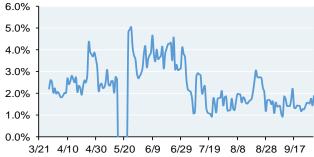
Michael Cembalest



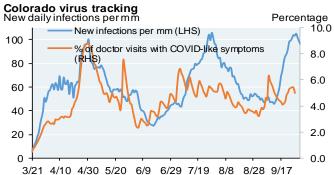
Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.

Colorado virus tracking

Daily deaths as a % of current hospitalizations



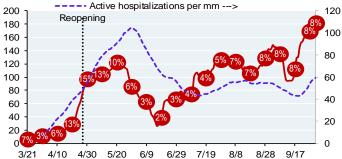
Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



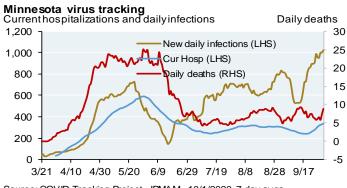
Eye on the Market Coronavirus tracking: Minnesota

Minnesota virus tracking

<---New infections per mm, with % of positive cases

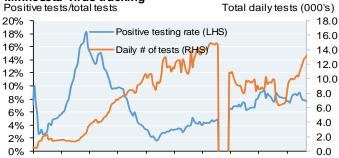


Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.

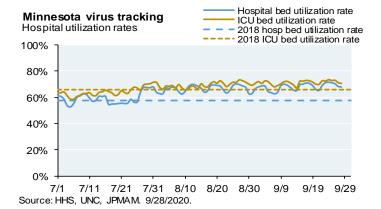


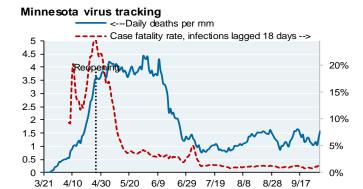
Source: COVID Tracking Project, JPMAM. 10/1/2020. 7 day avgs.

Minnesota virus tracking Positive tests/total tests



3/21 4/10 4/30 5/20 6/9 6/29 7/19 8/8 8/28 9/17 Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.





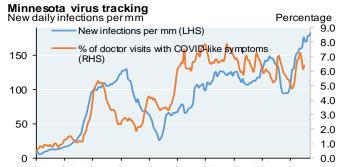
Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.

Minnesota virus tracking

Daily deaths as a % of current hospitalizations



Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



3/21 4/10 4/30 5/20 6/9 6/29 7/19 8/8 8/28 9/17 Source: COVID Tracking, CMU, JPMAM. 10/1/2020.7 day avgs.

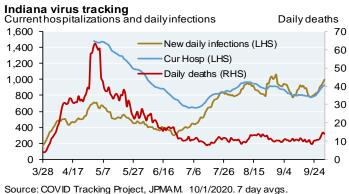
Eye on the Market Coronavirus tracking: Indiana

Indiana virus tracking

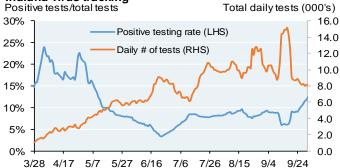
<---New infections per mm, with % of positive cases



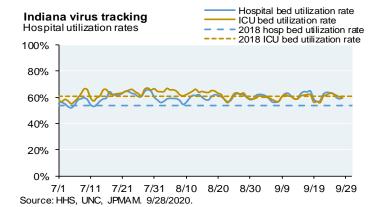
Source: COVID Tracking Project, JPMAM. 10/1/2020. 7 day avgs.



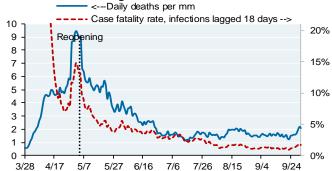
Indiana virus tracking



Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



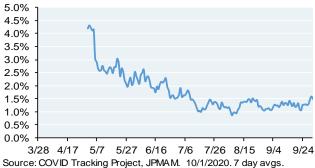
Indiana virus tracking



Source: COVID Tracking Project, JPMAM. 10/1/2020. 7 day avgs.

Indiana virus tracking

Daily deaths as a % of current hospitalizations



Indiana virus tracking Percentage New daily infections permm 8.0 160 New infections per mm (LHS) 140 7.0 % of doctor visits with COVID-like symptoms 120 (RHS) 6.0 100 5.0 80 4.0 60 3.0 40 2.0 20 1.0 0.0 Ω

3/28 4/17 5/7 5/27 6/16 7/6 7/26 8/15 9/4 9/24 Source: COVID Tracking, CMU, JPMAM. 10/1/2020.7 day avgs.

JP Morgan

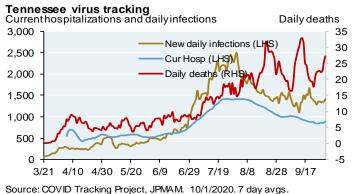
Eye on the Market Coronavirus tracking: Tennessee

Tennessee virus tracking

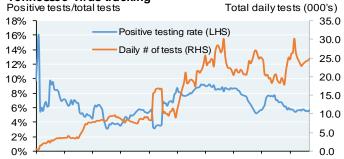
<---New infections per mm, with % of positive cases



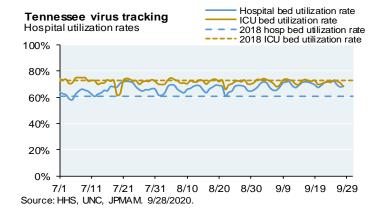
Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



Tennessee virus tracking

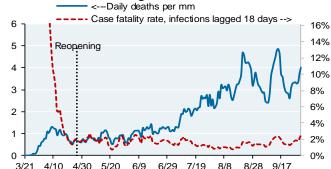


3/21 4/10 4/30 5/20 6/9 6/29 7/19 8/8 8/28 9/17 Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



Tennessee virus tracking

Michael Cembalest



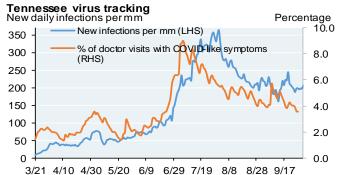
9/17 3/21 4/30 5/20 6/9 Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.

Tennessee virus tracking

Daily deaths as a % of current hospitalizations



Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



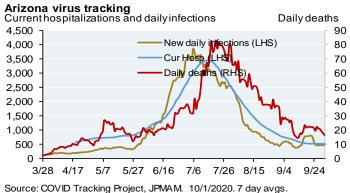
Eye on the Market Coronavirus tracking: Arizona

Arizona virus tracking

<---New infections per mm, with % of positive cases

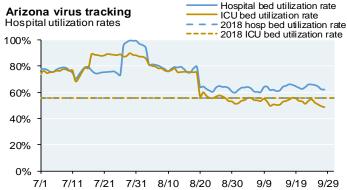


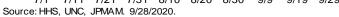
Source: COV ID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



Arizona virus tracking Total daily tests (000's) Positive tests/total tests 30% 16.0 Positive testing rate (LHS) 14.0 25% Daily # of tests (RHS 12.0 20% 10.0 15% 8.0 6.0 10% 4.0 5% 2.0 0% 0.0 3/28 4/17 5/7 5/27 6/16 7/6 7/26 8/15 9/4 9/24

Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.





Michael Cembalest

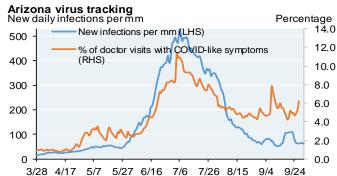


Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.

Arizona virus tracking

Daily deaths as a % of current hospitalizations





3/28 4/17 5/7 5/27 6/16 7/6 7/26 8/15 9/4 Source: COVID Tracking, CMU, JPMAM. 10/1/2020.7 day avgs.

JP Morgan

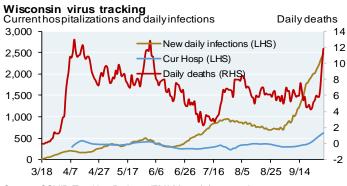
Eye on the Market Coronavirus tracking: Wisconsin

Wisconsin virus tracking

<---New infections per mm, with % of positive cases

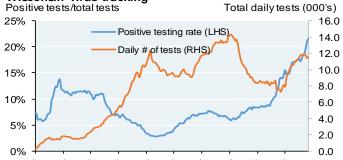


Source: COV ID Tracking Project, JPMAM. 10/1/2020.7 day avgs.

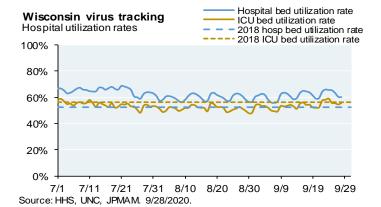


Source: COVID Tracking Project, JPMAM. 10/1/2020. 7 day avgs.

Wisconsin virus tracking

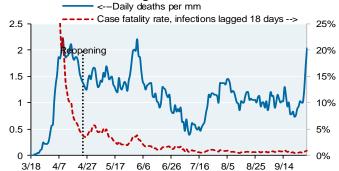


3/18 4/7 4/27 5/17 6/6 6/26 7/16 8/5 8/25 9/14 Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



Wisconsin virus tracking

Michael Cembalest

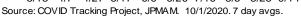


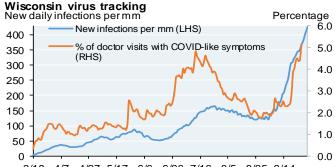
Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.

Wisconsin virus tracking

Daily deaths as a % of current hospitalizations







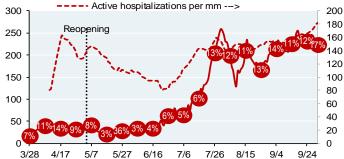
3/18 4/7 4/27 5/17 6/6 6/26 7/16 8/5 8/25 9/14 Source: COVID Tracking, CMU, JPMAM. 10/1/2020.7 day avgs.

JP Morgan

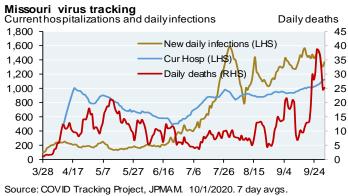
Eye on the Market Coronavirus tracking: Missouri

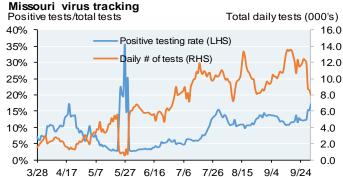
Missouri virus tracking

<---New infections per mm, with % of positive cases

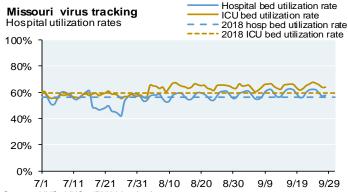


Source: COV ID Tracking Project, JPMAM. 10/1/2020.7 day avgs.





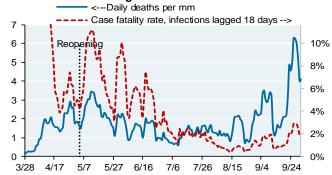
Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



Source: HHS, UNC, JPMAM. 9/28/2020.

Missouri virus tracking

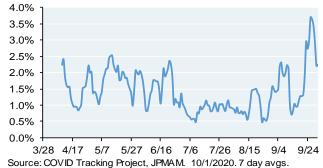
Michael Cembalest

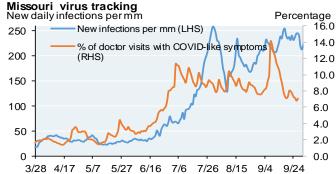


Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.

Missouri virus tracking

Daily deaths as a % of current hospitalizations



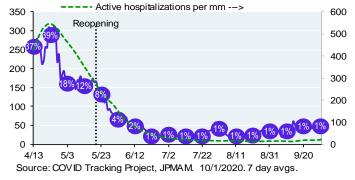


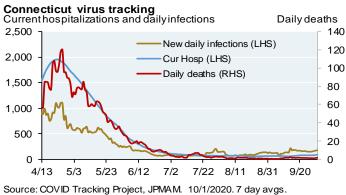
Eye on the Market Coronavirus tracking: Connecticut

Michael Cembalest

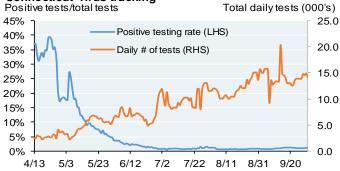
Connecticut virus tracking

<---New infections per mm, with % of positive cases

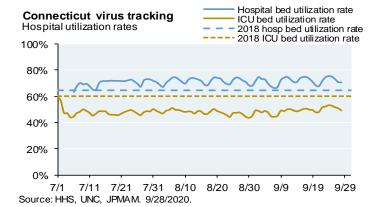


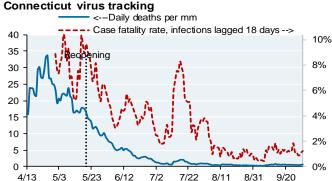


Connecticut virus tracking



Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.

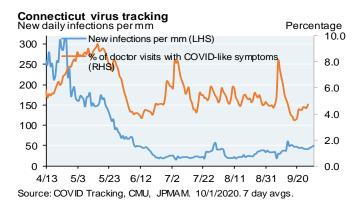




Source: COVID Tracking Project, JPMAM. 10/1/2020. 7 day avgs.

Connecticut virus tracking Daily deaths as a % of current hospitalizations



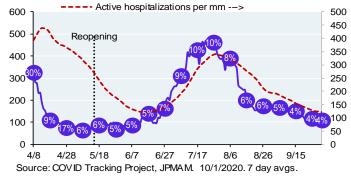


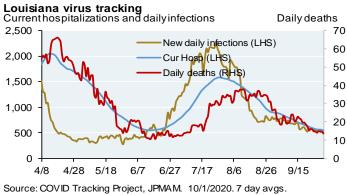
Eye on the Market Coronavirus tracking: Louisiana

Michael Cembalest

Louisiana virus tracking

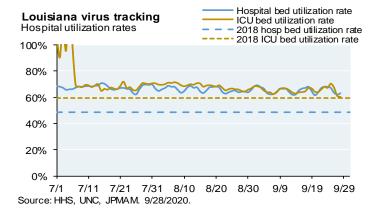
---New infections per mm, with % of positive cases





Louisiana virus tracking Total daily tests (000's) Positive tests/total tests 350% 30.0 Positive testing rate (LHS) 300% 25.0 Daily # of tests (RHS 250% 20.0 200% 15.0 150% 10.0 100% 5.0 50% 0% 0.0 4/8 4/28 5/18 6/7 6/27 7/17 8/6 8/26 9/15

Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



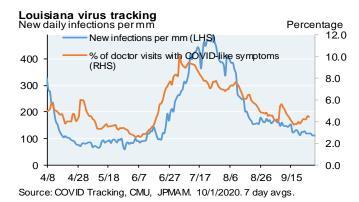
Louisiana virus tracking



Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.

Louisiana virus tracking





Eye on the Market Coronavirus tracking: Oregon

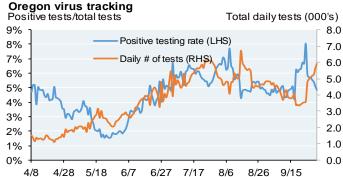
Oregon virus tracking

----New infections per mm, with % of positive cases

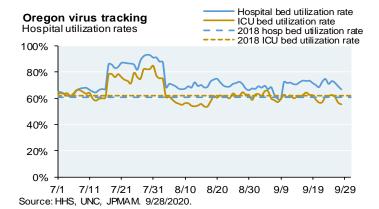


Oregon virus tracking

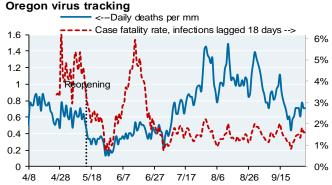




4/8 4/28 5/18 6/7 6/27 7/17 8/6 8/26 9/18 Source: COVID Tracking Project, JPMAM. 10/1/2020. 7 day avgs.

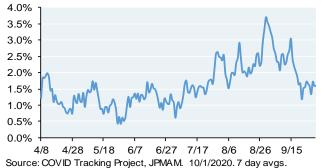


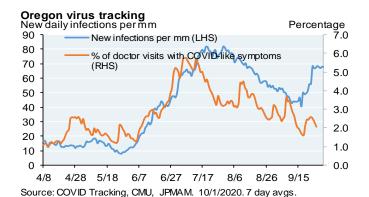
Michael Cembalest



Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.

Oregon virus tracking





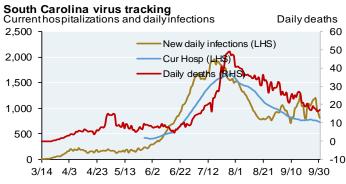
Eye on the Market Coronavirus tracking: South Carolina

South Carolina virus tracking

<---New infections per mm, with % of positive cases

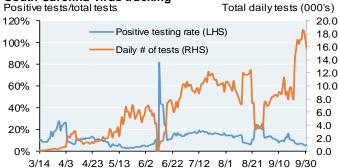


Source: COV ID Tracking Project, JPMAM. 10/1/2020.7 day avgs.

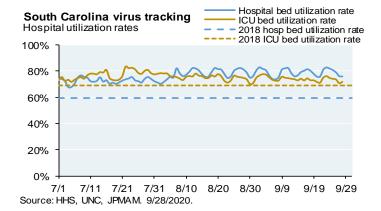


Source: COVID Tracking Project, JPMAM. 10/1/2020. 7 day avgs.

South Carolina virus tracking



Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



South Carolina virus tracking



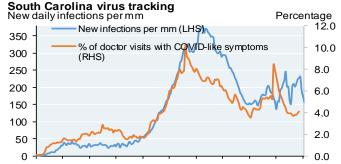
Source: COVID Tracking Project, JPMAM. 10/1/2020. 7 day avgs.

South Carolina virus tracking

Daily deaths as a % of current hospitalizations



Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



3/14 4/3 4/23 5/13 6/2 6/22 7/12 8/1 8/21 9/10 9/30 Source: COVID Tracking, CMU, JPMAM. 10/1/2020.7 day avgs.

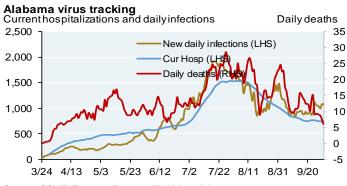
Eye on the Market Coronavirus tracking: Alabama

Alabama virus tracking

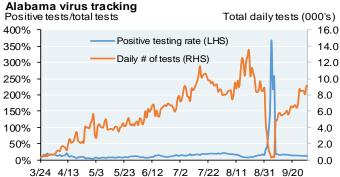
<---New infections per mm, with % of positive cases



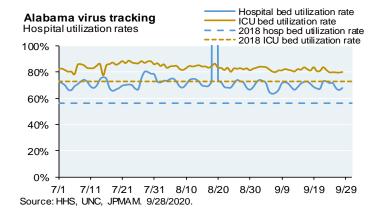
Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



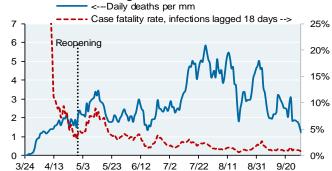
Source: COVID Tracking Project, JPMAM. 10/1/2020. 7 day avgs.



Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.

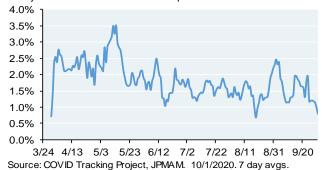


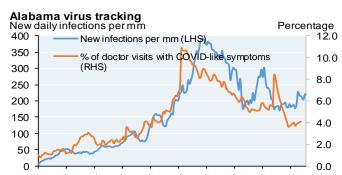
Alabama virus tracking



Alabama virus tracking Daily deaths as a % of current hospitalizations

Source: COVID Tracking Project, JPMAM. 10/1/2020. 7 day avgs.





3/24 4/13 5/3 5/23 6/12 7/2 7/22 8/11 8/31 9/20 Source: COVID Tracking, CMU, JPMAM. 10/1/2020.7 day avgs.

JP Morgan

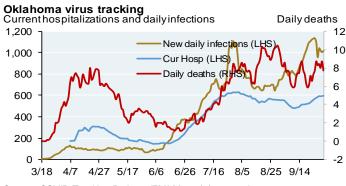
Eye on the Market Coronavirus tracking: Oklahoma

Oklahoma virus tracking

<---New infections per mm, with % of positive cases

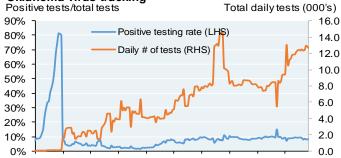


Source: COV ID Tracking Project, JPMAM. 10/1/2020.7 day avgs.

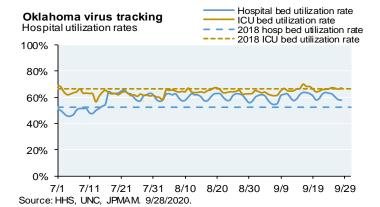


Source: COVID Tracking Project, JPMAM. 10/1/2020. 7 day avgs.

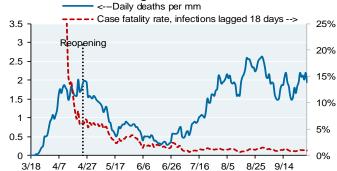
Oklahoma virus tracking Positive tests/total tests



3/18 4/7 4/27 5/17 6/6 6/26 7/16 8/5 8/25 9/14 Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



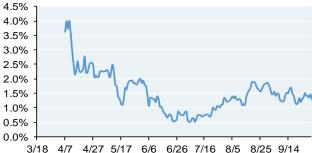
Oklahoma virus tracking



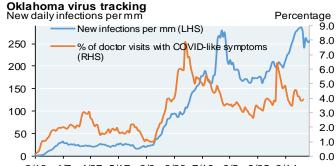
Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.

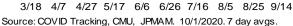
Oklahoma virus tracking

Daily deaths as a % of current hospitalizations



Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.





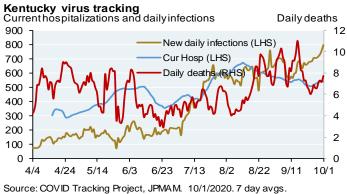
Eye on the Market Coronavirus tracking: Kentucky

Kentucky virus tracking

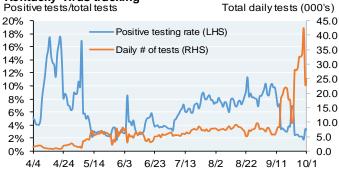
---New infections per mm, with % of positive cases



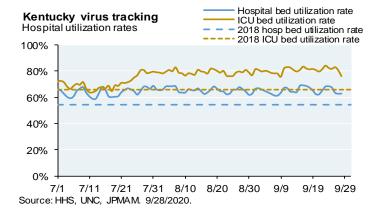
Source: COVID Tracking Project, JPMAM. 10/1/2020. 7 day avgs.



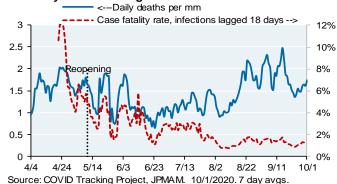
Kentucky virus tracking



Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



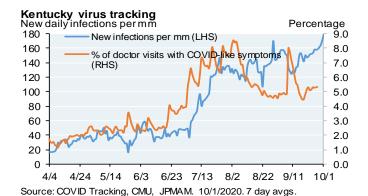
Kentucky virus tracking



Kentucky virus tracking

Daily deaths as a % of current hospitalizations





Eye on the Market Coronavirus tracking: Iowa

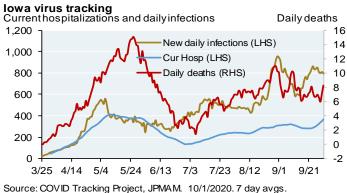
Michael Cembalest

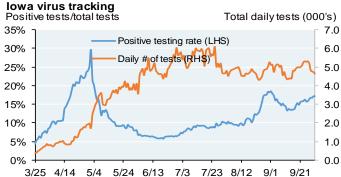
lowa virus tracking

<---New infections per mm, with % of positive cases

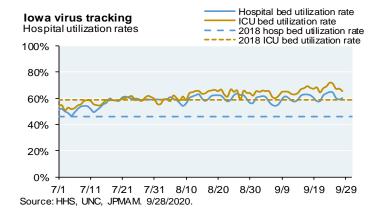


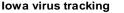
Source: COVID Tracking Project, JPMAM. 10/1/2020. 7 day avgs.





Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.





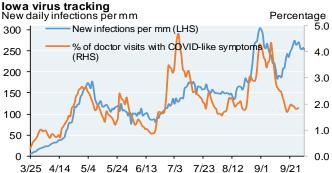


Source: COVID Tracking Project, JPMAM. 10/1/2020. 7 day avgs.

lowa virus tracking Daily deaths as a % of current hospitalizations







Source: COVID Tracking, CMU, JPMAM. 10/1/2020.7 day avgs.

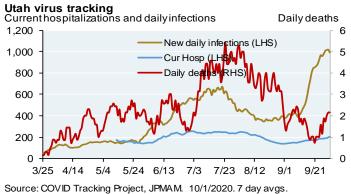
Eye on the Market Coronavirus tracking: Utah

Utah virus tracking

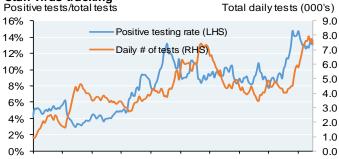
<---New infections per mm, with % of positive cases



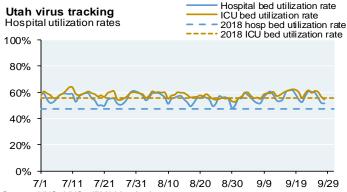
Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



Utah virus tracking

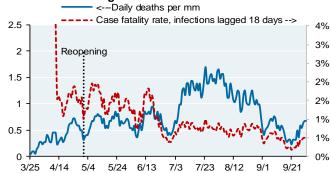


3/25 4/14 5/4 5/24 6/13 7/3 7/23 8/12 9/1 9/21 Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



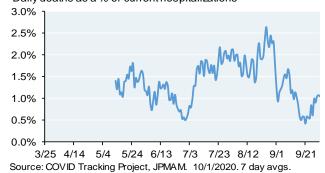
Source: HHS, UNC, JPMAM. 9/28/2020.

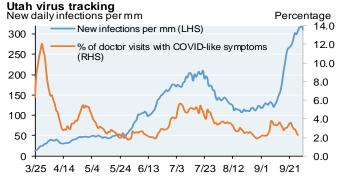
Utah virus tracking



Utah virus tracking Daily deaths as a % of current hospitalizations

Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.





Source: COVID Tracking, CMU, JPMAM. 10/1/2020.7 day avgs.

Eye on the Market Coronavirus tracking: Kansas

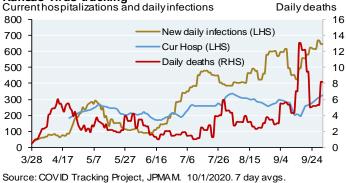
Kansas virus tracking

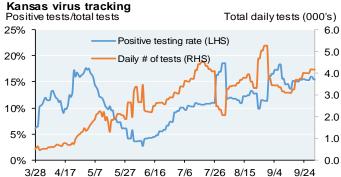
----New infections per mm, with % of positive cases



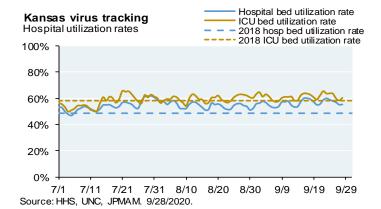
Source: COV ID Tracking Project, JPMAM. 10/1/2020.7 day avgs.

Kansas virus tracking



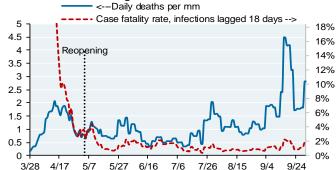


Source: COVID Tracking Project, JPMAM. 10/1/2020. 7 day avgs.



Kansas virus tracking

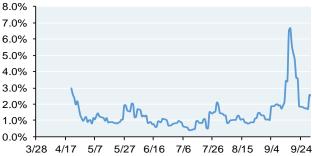
Michael Cembalest



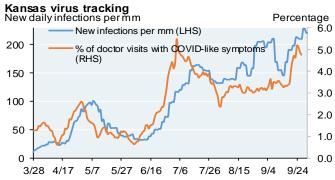
Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.

Kansas virus tracking

Daily deaths as a % of current hospitalizations



Source: COVID Tracking Project, JPMAM. 10/1/2020. 7 day avgs.



Eye on the Market Coronavirus tracking: Nevada

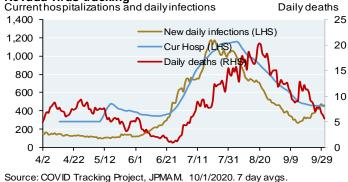
Nevada virus tracking

----New infections per mm, with % of positive cases



Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.

Nevada virus tracking



Nevada virus tracking Total daily tests (000's) Positive tests/total tests 25% 8.0 Positive testing rate (LHS) 7.0 20% Daily # of tests (RHS 6.0 5.0 15% 4.0 10% 3.0 2.0 5% 1.0 0% 0.0 4/2 4/22 5/12 6/1 6/21 7/11 7/31 8/20 9/9 9/29

Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.

Hospital bed utilization rate Nevada virus tracking ICU bed utilization rate Hospital utilization rates 2018 hosp bed utilization rate 2018 ICU bed utilization rate 100% 80% 60% 40% 20% 0% 7/1 7/11 7/21 7/31 8/10 8/20 8/30 9/9 9/19 9/29

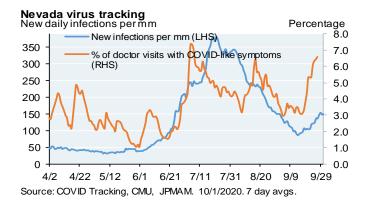
Michael Cembalest

Nevada virus tracking <---Daily deaths per mm Case fatality rate, infections lagged 18 days --> 8 6% 7 5% 6 5 4% 4 3% 3 2% 2 1% 1 0 0% 7/11 6/21 7/31 9/29 4/24/22 5/12 6/1 8/20 9/9

Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.

Nevada virus tracking

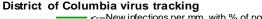


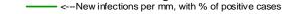


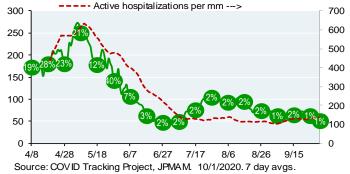
^{7/1 7/11 7/21 7/31 8/10 8/20 8/30 9/9 9/19 9/29} Source: HHS, UNC, JPMAM. 9/28/2020.

Eye on the Market Coronavirus tracking: District of Columbia

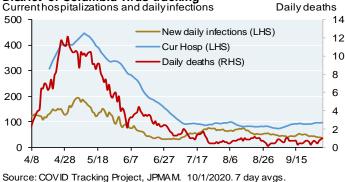
Michael Cembalest



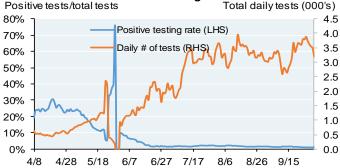




District of Columbia virus tracking Current hospitalizations and daily infections

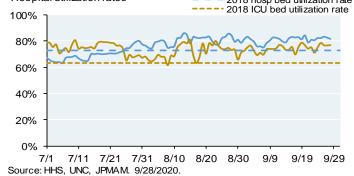


District of Columbia virus tracking

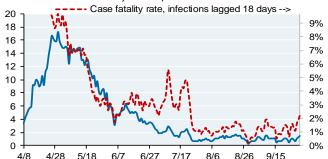


Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.







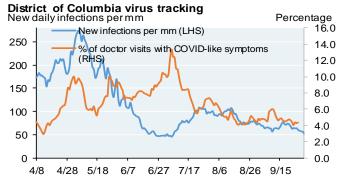


Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.

District of Columbia virus tracking



Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



Source: COVID Tracking, CMU, JPMAM. 10/1/2020.7 day avgs.

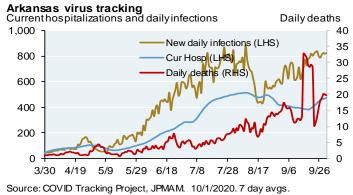
Eye on the Market Coronavirus tracking: Arkansas

Arkansas virus tracking

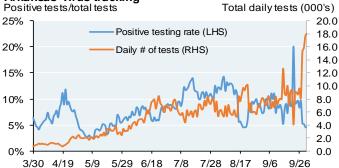
<---New infections per mm, with % of positive cases



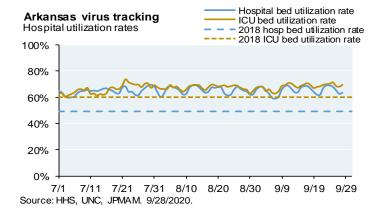
Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



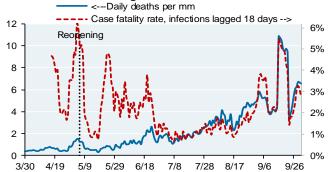
Arkansas virus tracking



Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



Arkansas virus tracking

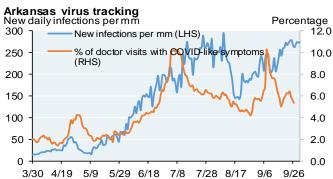


Source: COVID Tracking Project, JPMAM. 10/1/2020. 7 day avgs.

Arkansas virus tracking

Daily deaths as a % of current hospitalizations





Source: COVID Tracking, CMU, JPMAM. 10/1/2020.7 day avgs.

JP Morgan

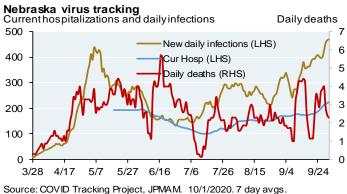
Eye on the Market Coronavirus tracking: Nebraska

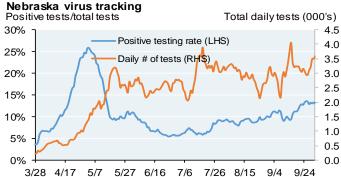
Nebraska virus tracking

---New infections per mm, with % of positive cases

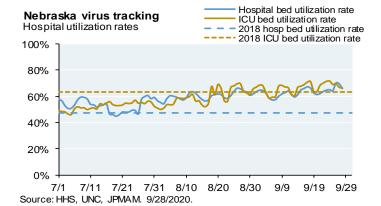


Source: COVID Tracking Project, JPMAM. 10/1/2020. 7 day avgs.

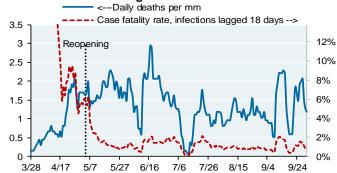




Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



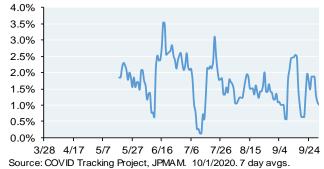
Nebraska virus tracking

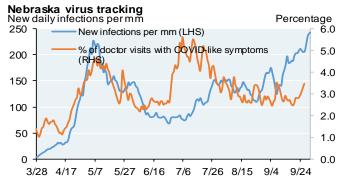


Source: COVID Tracking Project, JPMAM. 10/1/2020. 7 day avgs.

Nebraska virus tracking

Daily deaths as a % of current hospitalizations





Source: COVID Tracking, CMU, JPMAM. 10/1/2020.7 day avgs.

Michael Cembalest

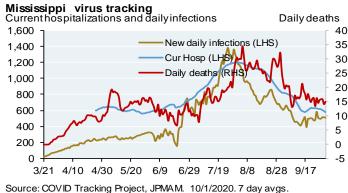
Eye on the Market Coronavirus tracking: Mississippi

Mississippi virus tracking

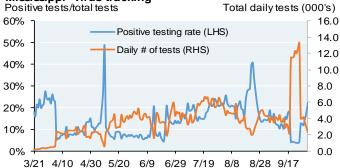
<---New infections per mm, with % of positive cases



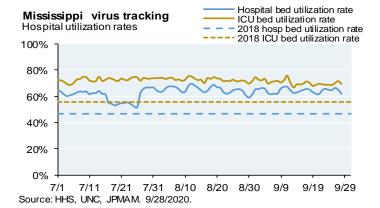
Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



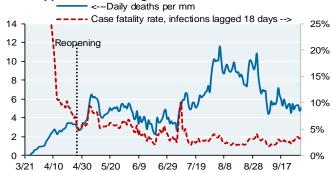
Mississippi virus tracking



Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



Mississippi virus tracking



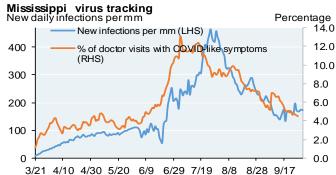
Mississippi virus tracking

Daily deaths as a % of current hospitalizations

Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



Source: COVID Tracking, CMU, JPMAM. 10/1/2020.7 day avgs.

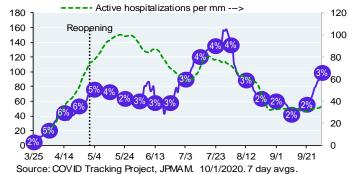
JP Morgan

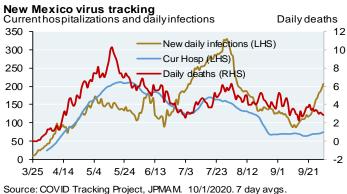
Michael Cembalest

Eye on the Market Coronavirus tracking: New Mexico

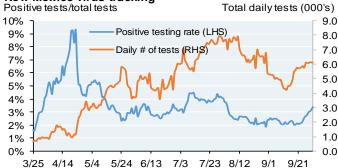
New Mexico virus tracking

<---New infections per mm, with % of positive cases

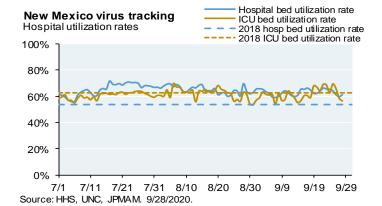




New Mexico virus tracking

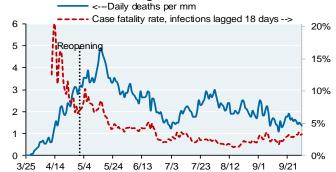


Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



New Mexico virus tracking

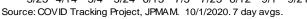
Michael Cembalest

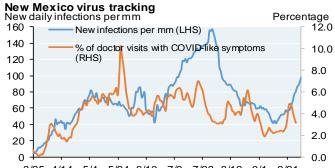


Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.

New Mexico virus tracking Daily deaths as a % of current hospitalizations







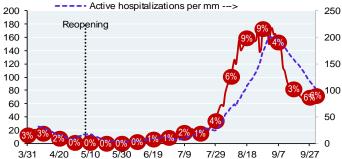
3/25 4/14 5/4 5/24 6/13 7/3 7/23 8/12 9/1 9/21 Source: COVID Tracking, CMU, JPMAM. 10/1/2020.7 day avgs.

JP Morgan

Eye on the Market Coronavirus tracking: Hawaii

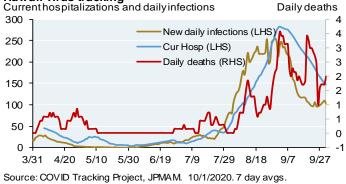
Hawaii virus tracking

<---New infections per mm, with % of positive cases

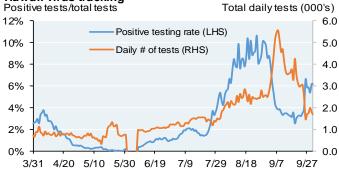


Source: COV ID Tracking Project, JPMAM. 10/1/2020.7 day avgs.

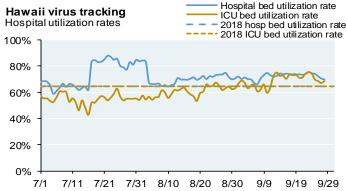
Hawaii virus tracking



Hawaii virus tracking



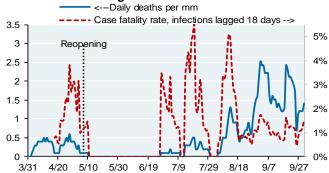
Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



Source: HHS, UNC, JPMAM. 9/28/2020.

Hawaii virus tracking

Michael Cembalest



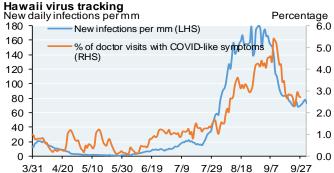
Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.

Hawaii virus tracking

Daily deaths as a % of current hospitalizations



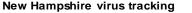
Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



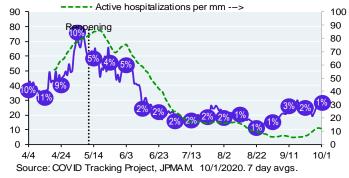
Source: COVID Tracking, CMU, JPMAM. 10/1/2020.7 day avgs.

Eye on the Market Coronavirus tracking: New Hampshire

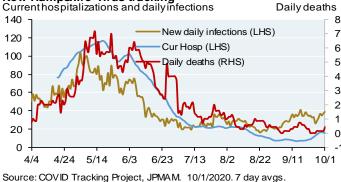
Michael Cembalest



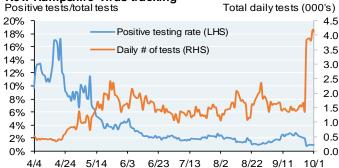
<---New infections per mm, with % of positive cases



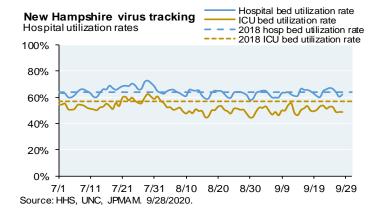
New Hampshire virus tracking Current hospitalizations and daily infections



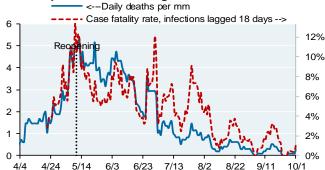
New Hampshire virus tracking

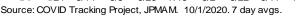


Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.

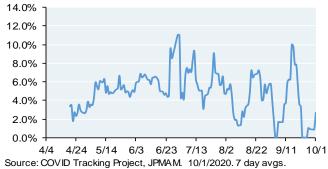


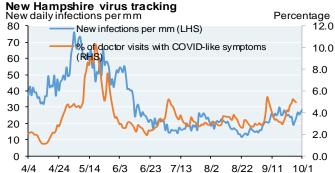






New Hampshire virus tracking



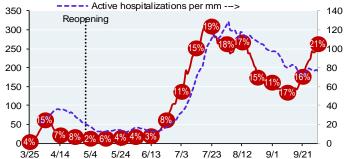


Source: COVID Tracking, CMU, JPMAM. 10/1/2020.7 day avgs.

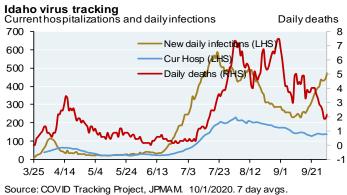
Eye on the Market Coronavirus tracking: Idaho

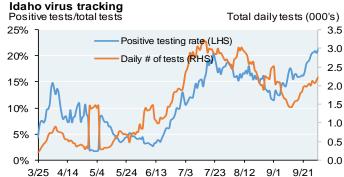
Idaho virus tracking

<---New infections per mm, with % of positive cases

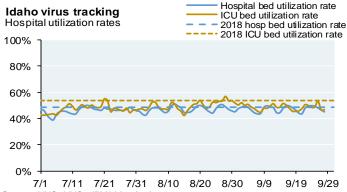


Source: COVID Tracking Project, JPMAM. 10/1/2020. 7 day avgs.





3/25 4/14 5/4 5/24 6/13 7/3 7/23 8/12 9/1 Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



Source: HHS, UNC, JPMAM. 9/28/2020.

Michael Cembalest

25%

20%

15%

10%

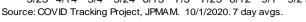


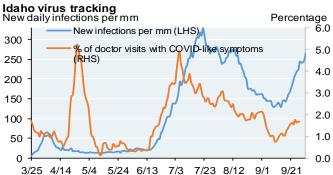
1.5 1 5% 0.5 0 0%

Idaho virus tracking

Daily deaths as a % of current hospitalizations







Source: COVID Tracking, CMU, JPMAM. 10/1/2020.7 day avgs.

^{5/24 6/13} 7/23 8/12 7/3 9/21 3/25 4/14 5/49/1 Source: COVID Tracking Project, JPMAM. 10/1/2020. 7 day avgs.

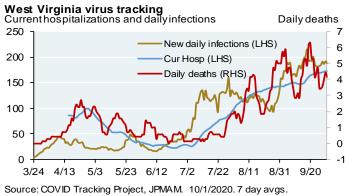
Eye on the Market Coronavirus tracking: West Virginia

West Virginia virus tracking

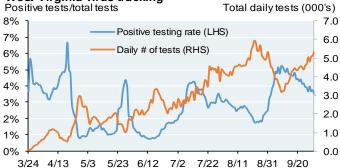
<---New infections per mm, with % of positive cases



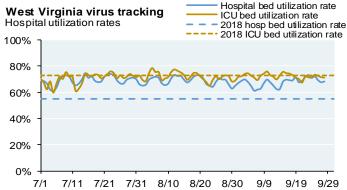
Source: COVID Tracking Project, JPMAM. 10/1/2020. 7 day avgs.



West Virginia virus tracking



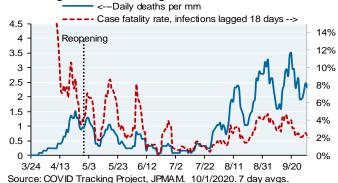
Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



Source: HHS, UNC, JPMAM. 9/28/2020.

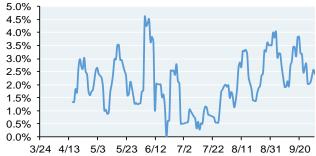
West Virginia virus tracking

Michael Cembalest

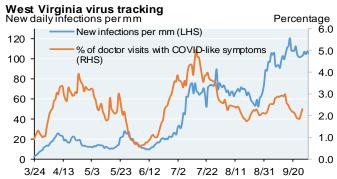


West Virginia virus tracking

Daily deaths as a % of current hospitalizations



Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



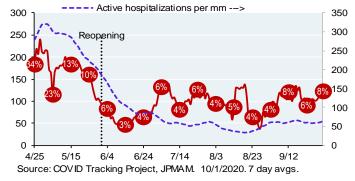
Source: COVID Tracking, CMU, JPMAM. 10/1/2020.7 day avgs.

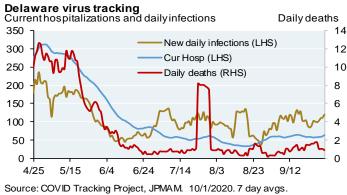
JP Morgan

Eye on the Market Coronavirus tracking: Delaware

Delaware virus tracking

<---New infections per mm, with % of positive cases



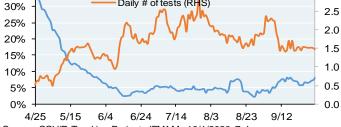




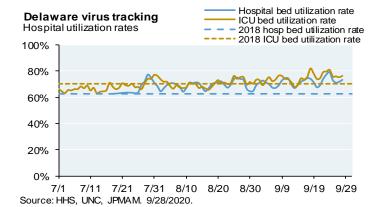
40%

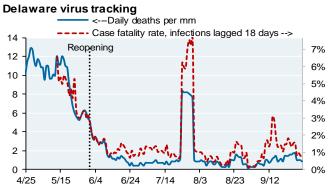
35%

Total daily tests (000's) Positive tests/total tests 3.5 Positive testing rate (LHS) 3.0 Daily # of tests (RHS)



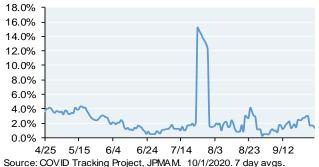
Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.

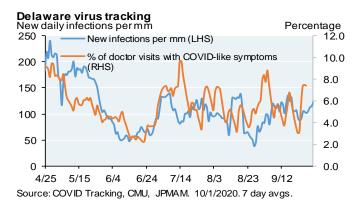




Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.

Delaware virus tracking



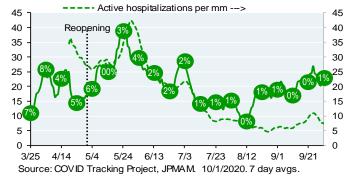


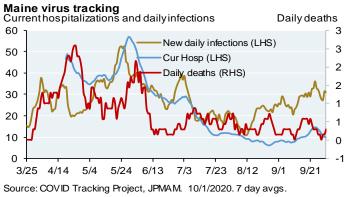
Eye on the Market Coronavirus tracking: Maine

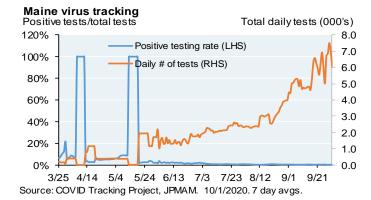
Michael Cembalest

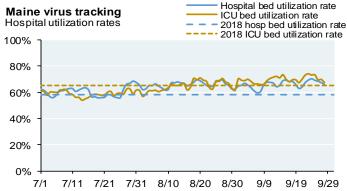
Maine virus tracking

<---New infections per mm, with % of positive cases



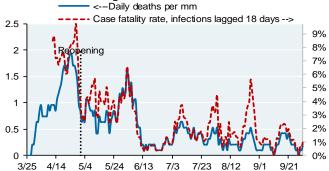






Source: HHS, UNC, JPMAM. 9/28/2020.

Maine virus tracking

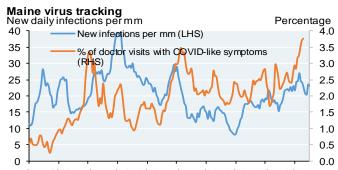


Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.

Maine virus tracking



Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



3/25 4/14 5/4 5/24 6/13 7/3 7/23 8/12 9/1 9/21 Source: COVID Tracking, CMU, JPMAM. 10/1/2020.7 day avgs.

Eye on the Market Coronavirus tracking: Rhode Island

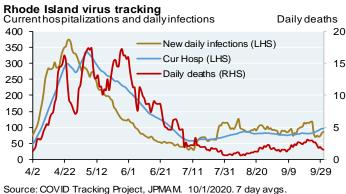
Michael Cembalest

JP Morgan

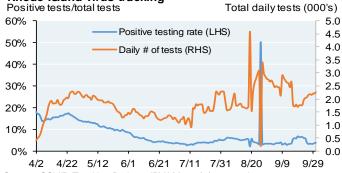
Rhode Island virus tracking

<---New infections per mm, with % of positive cases

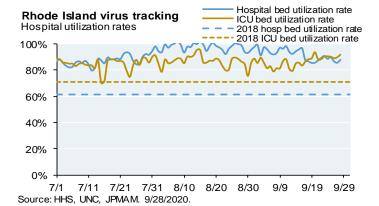




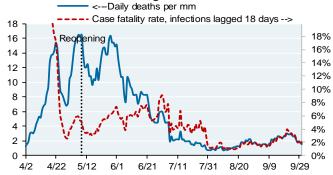
Rhode Island virus tracking



Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.

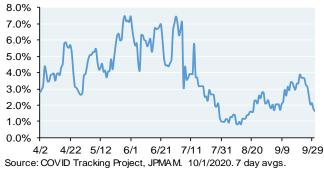


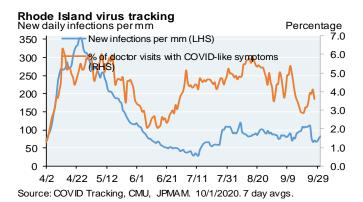
Rhode Island virus tracking



Source: COVID Tracking Project, JPMAM. 10/1/2020. 7 day avgs.

Rhode Island virus tracking



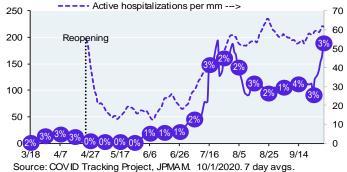


Eye on the Market Coronavirus tracking: Alaska

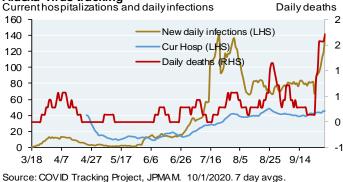
Michael Cembalest

Alaska virus tracking

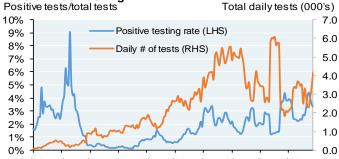
---New infections per mm, with % of positive cases



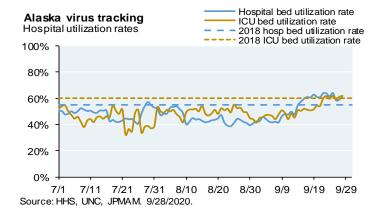
Alaska virus tracking



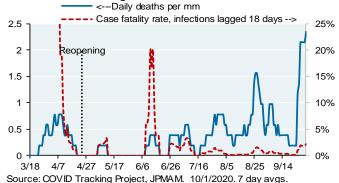
Alaska virus tracking



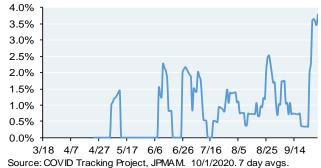
3/18 4/7 4/27 5/17 6/6 6/26 7/16 8/5 8/25 9/14 Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.

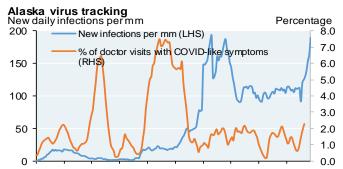


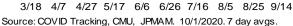
Alaska virus tracking



Alaska virus tracking



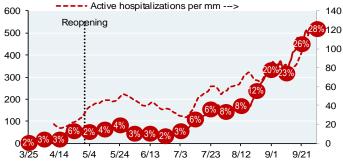




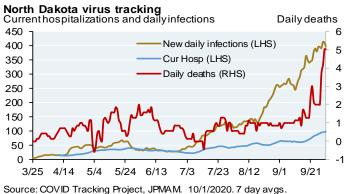
Eye on the Market Coronavirus tracking: North Dakota

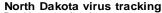
North Dakota virus tracking

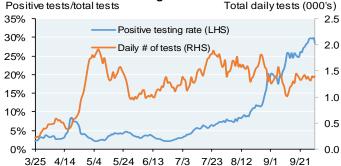
<---New infections per mm, with % of positive cases



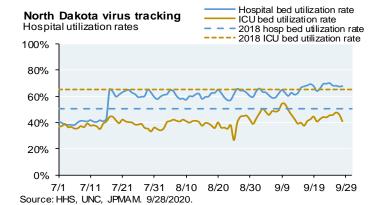
Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.





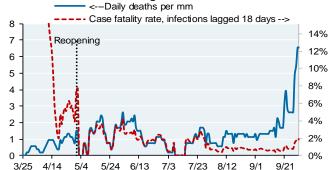


Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



North Dakota virus tracking

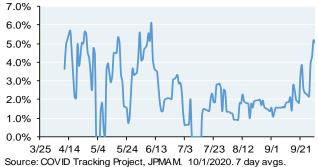
Michael Cembalest

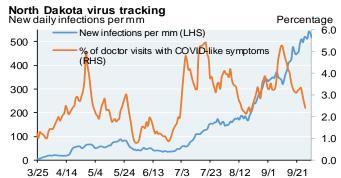


Source: COVID Tracking Project, JPMAM. 10/1/2020. 7 day avgs.

North Dakota virus tracking

Daily deaths as a % of current hospitalizations



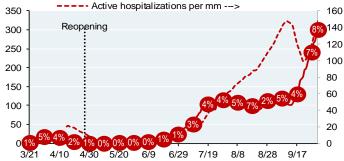


Source: COVID Tracking, CMU, JPMAM. 10/1/2020.7 day avgs.

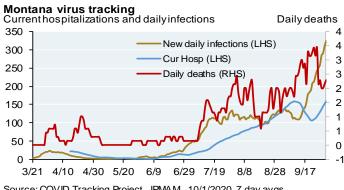
Eye on the Market Coronavirus tracking: Montana

Montana virus tracking

<---New infections per mm, with % of positive cases



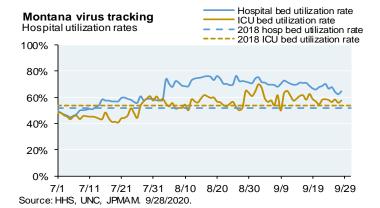
Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



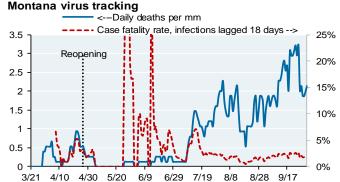
Source: COVID Tracking Project, JPMAM. 10/1/2020. 7 day avgs.

Montana virus tracking Positive tests/total tests Total daily tests (000's) 9% 6.0 Positive testing rate (LHS) 8% 5.0 7% Daily # of tests (RHS) 6% 4.0 5% 3.0 4% 3% 2.0 2% 1.0 1% 0% 0.0 8/28 9/17

3/21 4/10 4/30 5/20 6/9 6/29 7/19 8/8 Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



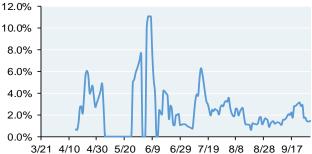
Michael Cembalest



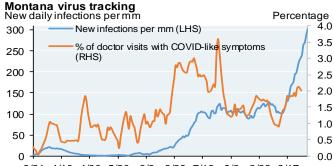
Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.

Montana virus tracking

Daily deaths as a % of current hospitalizations



Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



3/21 4/10 4/30 5/20 6/9 6/29 7/19 8/8 8/28 9/17 Source: COVID Tracking, CMU, JPMAM. 10/1/2020.7 day avgs.

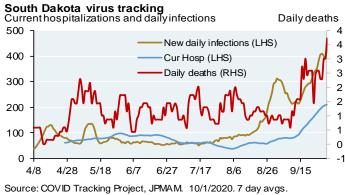
Eye on the Market Coronavirus tracking: South Dakota

Michael Cembalest

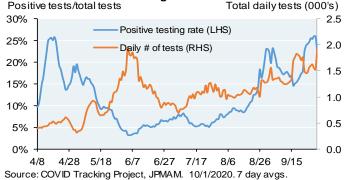
South Dakota virus tracking

<---New infections per mm, with % of positive cases

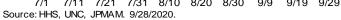




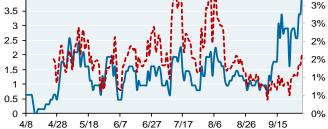
South Dakota virus tracking



Hospital bed utilization rate South Dakota virus tracking ICU bed utilization rate Hospital utilization rates 2018 hosp bed utilization rate 2018 ICU bed utilization rate 100% 80% 60% 40% 20% 0% 7/1 7/11 7/21 7/31 8/10 8/20 8/30 9/9 9/19 9/29

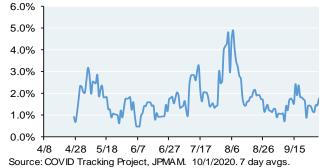


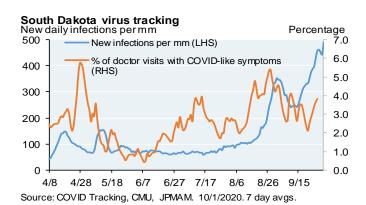
South Dakota virus tracking <---Daily deaths per mm --- Case fatality rate, infections lagged 18 days --> 4.5 4% 4



Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.

South Dakota virus tracking



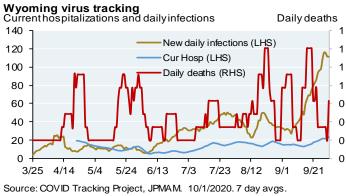


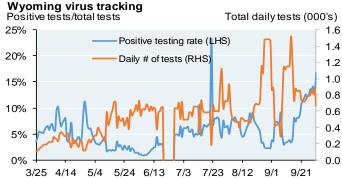
Eye on the Market Coronavirus tracking: Wyoming

Wyoming virus tracking

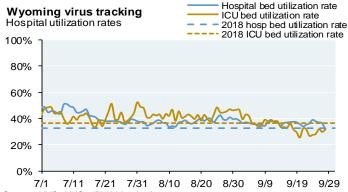
<---New infections per mm, with % of positive cases

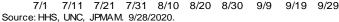




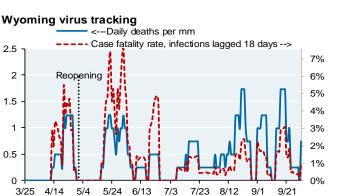


Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.





Michael Cembalest

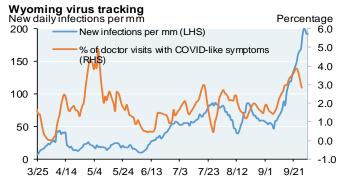


Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.

Wyoming virus tracking Daily deaths as a % of current hospitalizations



Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



Source: COVID Tracking, CMU, JPMAM. 10/1/2020.7 day avgs.

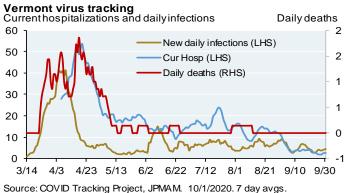
Eye on the Market Coronavirus tracking: Vermont

Vermont virus tracking

<---New infections per mm, with % of positive cases

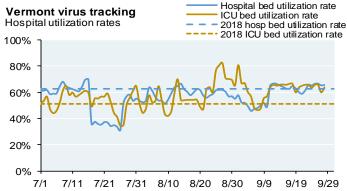


Source: COVID Tracking Project, JPMAM. 10/1/2020. 7 day avgs.



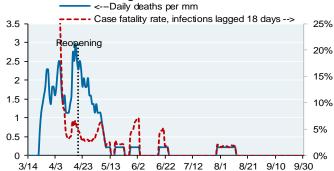
Vermont virus tracking Total daily tests (000's) Positive tests/total tests 14% 2.5 Positive testing rate (LHS) 12% 2.0 Daily # of tests (RHS) 10% 1.5 8% 6% 1.0 4% 0.5 2% 0% 0.0

3/14 4/3 4/23 5/13 6/2 6/22 7/12 8/1 8/21 9/10 9/30 Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



Source: HHS, UNC, JPMAM. 9/28/2020.

Vermont virus tracking



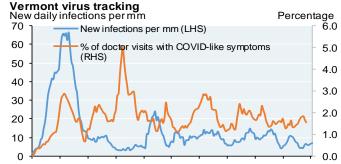
Source: COVID Tracking Project, JPMAM. 10/1/2020. 7 day avgs.

Vermont virus tracking

Daily deaths as a % of current hospitalizations



Source: COVID Tracking Project, JPMAM. 10/1/2020.7 day avgs.



3/14 4/3 4/23 5/13 6/2 6/22 7/12 8/1 8/21 9/10 9/30 Source: COVID Tracking, CMU, JPMAM. 10/1/2020.7 day avgs.

Michael Cembalest

IMPORTANT INFORMATION

The views, opinions and estimates expressed herein constitute Michael Cembalest's judgment based on current market conditions and are subject to change without notice. Information herein may differ from those expressed by other areas of J.P. Morgan. This information in no way constitutes J.P. Morgan Research and should not be treated as such.

The views contained herein are not to be taken as advice or a recommendation to buy or sell any investment in any jurisdiction, nor is it a commitment from J.P. Morgan or any of its subsidiaries to participate in any of the transactions mentioned herein. An y forecasts, figures, opinions or investment techniques and strategies set out are for information purposes only, based on cert ain assumptions and current market conditions and are subject to change without prior notice. All information presented herein is considered to be accurate at the time of production. This material does not contain sufficient information to support an investment decision and it should not be relied upon by you in evaluating the merits of investing in any securities or products. In addition, users should make an independent assessment of the legal, regulatory, tax, credit and accounting implications and determine, togeth er with their own professional advisers, if any investment mentioned herein is believed to be suitable to their personal goals. Investors should ensure that they obtain all available relevant information before making any investment. It should be noted that investment involves risks, the value of investments and the income from them may fluctuate in accordance with market conditions and taxa tion agreements and investors may not get back the full amount invested. Both past performance and yields are not reliable indicat ors of current and future results.

Non-affiliated entities mentioned are for informational purposes only and should not be construed as an endorsement or sponsorship of J.P. Morgan Chase & Co. or its affiliates.

For J.P. Morgan Asset Management Clients:

J.P. Morgan Asset Management is the brand for the asset management business of JPMorgan Chase & Co. and its affiliates worldwide.

To the extent permitted by applicable law, we may record telephone calls and monitor electronic communications to comply with our legal and regulatory obligations and internal policies. Personal data will be collected, stored and processed by J.P. Morgan Asset Management in accordance with our privacy policies at https://am.jpmorgan.com/global/privacy.

ACCESSIBILITY

For U.S. only: If you are a person with a disability and need additional support in viewing the material, please call us at 1-800-343-1113 for assistance.

This communication is issued by the following entities:

In the United States, by J.P. Morgan Investment Management Inc. or J.P. Morgan Alternative Asset Management, Inc., both regulated by the Securities and Exchange Commission; in Latin America, for intended recipients' use only, by local J.P. Morgan entities, as the case may be.; in Canada, for institutional clients' use only, by JPMorgan Asset Management (Canada) Inc., which is a register ed Portfolio Manager and Exempt Market Dealer in all Canadian provinces and territories except the Yukon and is also registered as an Investment Fund Manager in British Columbia, Ontario, Quebec and Newfoundland and Labrador. In the United Kingdom, by JPMorgan Asset Management (UK) Limited, which is authorized and regulated by the Financial Conduct Authority; in other Europe an jurisdictions, by JPMorgan Asset Management (Europe) S.àr.l. In Asia Pacific ("APAC"), by the following issuing entities and in the respective jurisdictions in which they are primarily regulated: JPMorgan Asset Management (Asia Pacific) Limited, or JPMorgan Funds (Asia) Limited, or JPMorgan Asset Management Real Assets (Asia) Limited, each of which is regulated by the Securities and Fut ures Commission of Hong Kong; JPMorgan Asset Management (Singapore) Limited (Co. Reg. No. 197601586K), which this advertisement or publication has not been reviewed by the Monetary Authority of Singapore; JPMorgan Asset Management (Taiwan) Limited; JPMorgan Asset Management (Japan) Limited, which is a member of the Investment Trusts Association, Japan, the Japan Investment t Advisers Association, Type II Financial Instruments Firms Association and the Japan Securities Dealers Association and is regulated by the Financial Services Agency (registration number "Kanto Local Finance Bureau (Financial Instruments Firm) No. 330"); in Australia, to wholesale clients only as defined in section 761A and 761G of the Corporations Act 2001 (Commonwealth), by JPMorgan Asset Management (Australia) Limited (ABN 55143832080) (AFSL 376919). For all other markets in APAC, to intended recipients only.

For J.P. Morgan Private Bank Clients:

ACCESSIBILITY

J.P. Morgan is committed to making our products and services accessible to meet the financial services needs of all our clients. Please direct any accessibility issues to the Private Bank Client Service Center at 1-866-265-1727.

LEGAL ENTITY, BRAND & REGULATORY INFORMATION

In the **United States**, bank deposit accounts and related services, such as checking, savings and bank lending, are offered by **JPMorgan Chase Bank**, **N.A.** And its affiliates (collectively "JPMCB") offer investment products, which may include bank-managed investment accounts and custody, as part of its trust and fiduciary services. Other investment products and services, such as brokerage and advisory accounts, are offered through **J.P. Morgan Securities LLC** ("JPMS"), a member of FINRA and SIPC. Annuities are made available through Chase Insurance Agency, Inc. (CIA), a licensed insurance age ncy, doing business as Chase Insurance Agency Services, Inc. in Florida. JPMCB, JPMS and CIA are affiliated companies under the common control of JPMorgan Chase & Co. Products not available in all states.

In **Luxembourg**, this material is issued by **J.P. Morgan Bank Luxembourg S.A. (JPMBL)**, with registered office at European Bank and Business Centre, 6 route de Treves, L-2633, Senningerberg, Luxembourg. R.C.S Luxembourg B10.958. Authorised and regulated by Commission de Surveillance du Secteur Financier (CSSF) and jointly supervised by the European Central Bank (ECB) and the CSSF. J.P.

Morgan Bank Luxembourg S.A. is authorized as a credit institution in accordance with the Law of 5th April 1993. In the United Kingdom, this material is issued by J.P. Morgan Bank Luxembourg S.A- London Branch. Prior to Brexit, (Brexit meaning that the UK leaves the European Union under Article 50 of the Treaty on European Union, or, if later, loses its ability to passport finan cial services between the UK and the remainder of the EEA), J.P. Morgan Bank Luxembourg S.A–London Branch is subject to limited regulation by the Financial Conduct Authority and the Prudential Regulation Authority. Details about the extent of our regulation by the Financial Conduct Authority and the Prudential Regulation Authority are available from us on request. In the event of Brexit, in the UK, J.P. Morgan Bank Luxembourg S.A.-London Branch is authorised by the Prudential Regulation Authority, subject to regulation by the Financial Conduct Authority and limited regulation by the Prudential Regulation Authority. Details about the extent of our regulation by the Prudential Regulation Authority are available from us on request. In Spain, this material is distributed by J.P. Morgan Bank Luxembourg S.A., Sucursal en España, with registered office at Paseo de la Castellana, 31, 28046 Madrid, Spain. J.P. Morgan Bank Luxembourg S.A., Sucursal en España is registered under number 1516 within the administrative registry of the Bank of Spain and supervised by the Spanish Securities Market Commission (CNMV). In Germany, this material is distributed by J.P. Morgan Bank Luxembourg S.A., Frankfurt Branch, registered office at Taunustor 1 (TaunusTurm), 60310 Frankfurt, Germany, jointly supervised by the Commission de Surveillance du Secteur Financier (CSSF) and the European Central Bank (ECB), and in certain areas also supervised by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin). In Italy, this material is distributed by J.P. Morgan Bank Luxembourg S.A- Milan Branch, registered office at Via Catena Adalberto 4, Milan 20121, Italy and regulated by Bank of Italy and the Commissione Nazionale per le Società e la Borsa (CONSOB). In the Netherlands, this material is distributed by J.P. Morgan Bank Luxembourg S.A., Amsterdam Branch, with registered office at World Trade Centre, Tower B, Strawinskylaan 1135, 1077 XX, Amsterdam, The Netherlands. J.P. Morgan Bank Luxembourg S.A., Amsterdam Branch is authorised and regulated by the Commission de Surveillance du Secteur Financier (CSSF) and jointly supervised by the European Central Bank (ECB) and the CSSF in Luxembo urg; J.P. Morgan Bank Luxembourg S.A., Amsterdam Branch is also authorised and supervised by De Nederlandsche Bank (DNB) and the Autoriteit Financiële Markten (AFM) in the Netherlands. Registered with the Kamer van Koophandel as a branch of J.P. Morgan Bank Luxembourg S.A. under registration number 71651845. In Denmark, this material is distributed by J.P. Morgan Bank Luxembourg, Copenhagen Br, filial af J.P. Morgan Bank Luxembourg S.A. with registered office at Kalvebod Brygge 39-41, 1560 København V, Denmark. J.P. Morgan Bank Luxembourg, Copenhagen Br, filial af J.P. Morgan Bank Luxembourg S.A. is authorised and regulated by Commission de Surveillance du Secteur Financier (CSSF) and jointly supervised by the European Central Bank (ECB) and the CSSF. J.P. Morgan Bank Luxembourg, Copenhagen Br, filial af J.P. Morgan Bank Luxembourg S.A. is also subject to the supervision of Finanstilsynet (Danish FSA) and registered with Finanstilsynet as a branch of J.P. Morgan Bank Luxembourg S.A. under code 29009. In Sweden, this material is distributed by J.P. Morgan Bank Luxembourg S.A. - Stockholm Bankfilial, with registered office at Hamngatan 15, Stockholm, 11147, Sweden, J.P. Morgan Bank Luxembourg S.A. - Stockholm Bankfilial is authorised and regulated by Commission de Surveillance du Secteur Financier (CSSF) and jointly supervised by the European Central Bank (ECB) and the CSSF. J.P. Morgan Bank Luxembourg S.A., Stockholm Branch is also subject to the supervision of Finansinspektionen (Swedish FSA). Registe red with Finansinspektionen as a branch of J.P. Morgan Bank Luxembourg S.A.. In France, this material is distributed by JPMorgan Chase Bank, N.A. ("JPMCB"), Paris branch, which is regulated by the French banking authorities Autorité de Contrôle Prudentiel et de Résolution and Autorité des Marchés Financiers. In Switzerland, this material is distributed by J.P. Morgan (Suisse) SA, which is regulated in Switzerland by the Swiss Financial Market Supervisory Authority (FINMA). In Hong Kong, this material is distributed by JPMCB, Hong Kong branch. JPMCB, Hong Kong branch is regulated by the Hong Kong Monetary Authority and the Securities and Futures Commission of Hong Kong. In Hong Kong, we will cease to use your personal data

Monetary Authority and the Securities and Futures Commission of Hong Kong. In Hong Kong, we will cease to use your personal d ata for our marketing purposes without charge if you so request. In **Singapore**, this material is distributed by **JPMCB**, **Singapore branch**. JPMCB, Singapore branch is regulated by the Monetary Authority of Singapore. Dealing and advisory services and discretionary investment management services are provided to you by JPMCB, Hong Kong/Singapore branch (as notified to you). Banking and custody services are provided to you by JPMCB Singapore Branch. The contents of this document have not been reviewed by any regulatory authority in Hong Kong, Singapore or any other jurisdictions. This advertisement has not been reviewed by the Mone tary Authority of Singapore. JPMorgan Chase Bank, N.A., a national banking association chartered under the laws of the United States, and as a body corporate, its shareholder's liability is limited.

JPMorgan Chase Bank, N.A. (JPMCBNA) (ABN 43074 112 011/AFS Licence No: 238367) is regulated by the Australian Securities and Investment Commission and the Australian Prudential Regulation Authority. Material provided by JPMCBNA in Australia is to "wholesale clients" only. For the purposes of this paragraph the term "wholesale client" has the meaning given in section 761G of the Corporations Act 2001 (Cth). Please inform us if you are not a Wholesale Client now or if you cease to be a Wholesale Client at any time in the future.

JPMS is a registered foreign company (overseas) (ARBN 109293610) incorporated in Delaware, U.S.A. Under Australian financial services licensing requirements, carrying on a financial services business in Australia requires a financial service provider, such as J.P. Morgan Securities LLC (JPMS), to hold an Australian Financial Services Licence (AFSL), unless an exemption applies. **JPMS is exempt from the requirement to hold an AFSL under the Corporations Act 2001 (Cth) (Act) in respect of financial services it provides to you, and is regulated by the SEC, FINRA and CFTC under US laws, which differ from Australian laws. Material provided by JPMS in Australia is to "wholesale clients" only. The information provided in this material is not intended to be, and must not be, d istributed or passed on, directly or indirectly, to any other class of persons in Australia. For the purposes of this paragraph the term "wholesale client" has the meaning given in section 761G of the Act. Please inform us immediately if you are not a Wholesale Client now or if you cease to be a Wholesale Client at any time in the future.**

This material has not been prepared specifically for Australian investors. It:

may contain references to dollar amounts which are not Australian dollars;

may contain financial information which is not prepared in accordance with Australian law or practices; may not address risks associated with investment in foreign currency denominated investments; and does not address Australian tax issues. With respect to countries in Latin America, the distribution of this material may be restricted in certain jurisdictions. We may offer and/or sell to you securities or other financial instruments which may not be registered under, and are not the subject of a public offering under, the securities or other financial regulatory laws of your home country. Such securities or instruments are of fered and/or sold to you on a private basis only. Any communication by us to you regarding such securities or instruments, includin g without limitation the delivery of a prospectus, term sheet or other offering document, is not intended by us as an offer to sell or a solicitation of an offer to buy any securities or instruments in any jurisdiction in which such an offer or a solicitation is unlawful. Furthermore, such securities or instruments may be subject to certain regulatory and/or contractual restrictions on subsequent transfer by you, and you are solely responsible for ascertaining and complying with such restrictions. To the extent this con tent makes reference to a fund, the Fund may not be publicly offered in any Latin American country, without previous registration of such fund's securities in compliance with the laws of the corresponding jurisdiction. Public offering of any security, including the sh ares of the Fund, without previous registration at Brazilian Securities and Exchange Commission –CVM is completely prohibited. Some products or services contained in the materials might not be currently provided by the Brazilian and Mexican platforms.

References to "J.P. Morgan" are to JPM, its subsidiaries and affiliates worldwide. "J.P. Morgan Private Bank" is the brand name for the private banking business conducted by JPM.

This material is intended for your personal use and should not be circulated to or used by any other person, or duplicated for nonpersonal use, without our permission. If you have any questions or no longer wish to receive these communications, please con tact your J.P. Morgan representative.

© 2020 JPMorgan Chase & Co. All rights reserved.