

"Strategic Guidance in an Era of Unprecedented Change"

Issue #4: March 25, 2020

#### What we need to see, as evidence of progress:

Measure	Desired Direction	What Happened Yesterday	
No. of Tests	Increase	Up 21% (Cumulative)	
Positive Test Rate	Decline	Steady @ 15.1%	
No. of Cases	Plateau	Up 25.5%	
% of Deaths Per Case	Decline	Up slightly to 1.4%	
No. of Deaths / 1M Pop.	lo. of Deaths / 1M Pop. Plateau		
Recoveries : Deaths Increase (>1:1)		Unreported	

#### Yesterday's Highlights:

- Testing continues to ramp-up quickly, although we performed moderately fewer tests yesterday than on Monday. It is somewhat encouraging that the positive test rate held steady.
- Increases in case volume continues at a high rate, albeit at a lower rate than on Tuesday. The continued high daily increase is likely due to a combination of the true rate of infection and our catch-up in testing.
- The spread of the virus in the US is clearly a significant concern, as the number of cases per 1M population is increasing each day at a rapid rate. Still, our rate remains markedly lower than many other European and Asian countries.
- The US death rate for coronavirus increased slightly, to 1.4%. Still, the US and Canadian rates are on par with South Korea and significantly lower than many other countries
- New York and New Jersey continue to be of major concern: they have the highest number of cases per 1M in the US (1354 and 414, respectively) and they have posted large daily increases in case volume (36.4% and 40.4%, on 3-day moving average basis, respectively). Death rates in these states, however, remain relatively low (1.0% and 1.0%, respectively)
- Will Italy turn the corner soon? China and South Korea each showed declines in active cases within 7-11 days of their average daily change in case volume (3-day moving average) dropping below 10%; Italy's rate dropped below that threshold yesterday!
- Based on China, Italy and South Korea's experience, we are trialing a new classification schema, to reflect
  the stages of progression in a geography: Stage I Early Development (fewer than 100 cases); Stage II:
  Rapid Progression (daily case volume increasing >25%, 3-day moving average); Stage III Slowing Growth
  (daily case volume increases falls >10%, 3-day moving average); Stage IV Recovery (active cases
  decline). Using this schema:
  - Washington state is nearing, but not yet at Stage III Recovery
  - 16 states (CT, FL, GA, IL, LA, MA, MI, NJ, NY, NC, OH, PA, SC, TN, TX and UT) are in Stage II –
     Rapid Progression
  - 24 states (AS, AZ, DE, HA, ID, IA, KS, KY, ME, MS, MO, MN, NE, NM, ND, OK, RI, SD, VT, WV and WY) are in Stage I – Early Development
  - The remaining states are between Stage I and II (i.e. more than 100 cases yet daily case growth <25%)</li>

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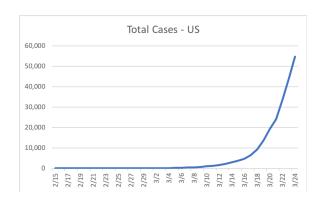
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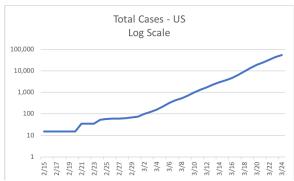
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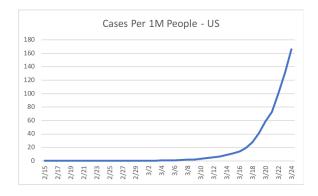


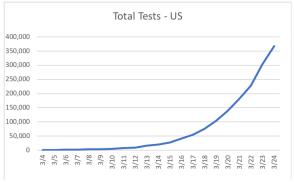
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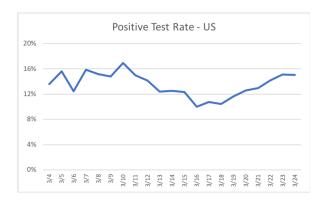
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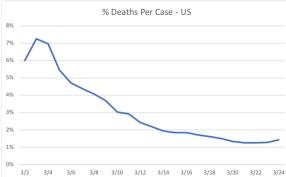








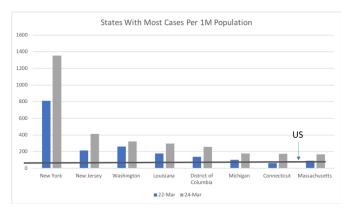


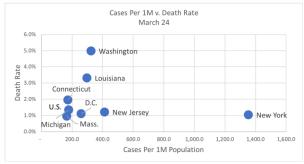


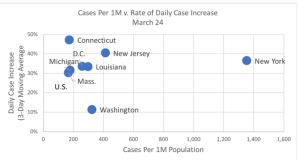


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Stage (as of March 24)						
				III	IV	
Early Development		Rapid Progression		Slowing Progression	Recovery	
No. of Cases Per 1M		No. of Cases Per 1M		No. of Cases Per 1M		
100		>100		>100	Declning Active Case	
		Average Daily Case		Average Daily Case	Average Daily Case	
		Increase >25%		Increase >10%	Increase >10%	
Alaska	Alabama	Connecticut	Washington			
Azrizona	California	Florida				
Arkansas	Colorado	Georgia				
Delaware	Minnesota	Illinois				
Hawaii	Nevada	Louisiana				
Idaho	Oregon	Massachusetts				
Indiana	Virginia	Michigan				
Iowa	West Virginia	New Jersey				
Kansas		New York				
Kentucky		North Carolina				
Maine		Ohio				
Mississippi		Pennsylvania				
Missouri		South Carolina				
Montana		Tennessee				
Nebraska		Texas				
New Hampshire		Utah				
New Mexico						
North Dakota						
Oklahoma						
Rhode Island						
South Dakota						
Vermont						
West Virginia						
Wyoming						

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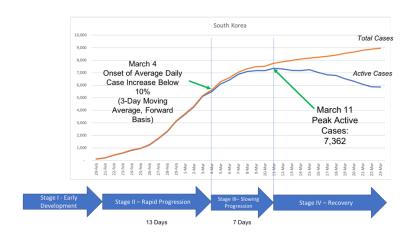
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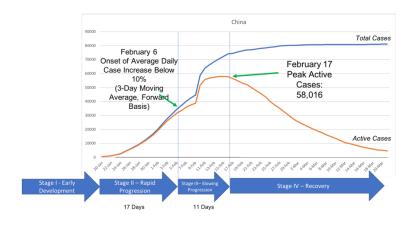
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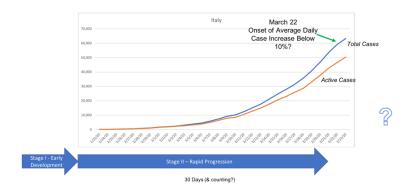


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Information provided as a courtesy, based on data from the above-named sources. HIA has no responsibility for the accuracy and updating of any data. Sources: <a href="worldometers.info">worldometers.info</a>; <a href="covidtracking.com">covidtracking.com</a>, <a href="Financial Times">Financial Times</a> Graphics depict data as of March 24, 2020

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