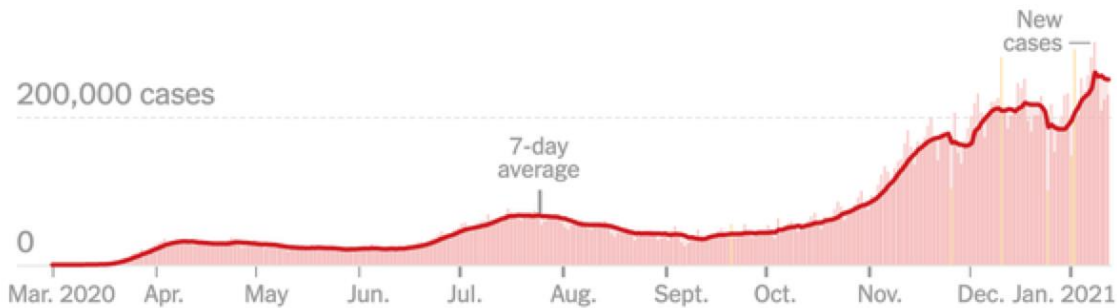


This edition will focus exclusively on vaccine news, since that remains the primary focus. As I mentioned in the Town Hall this week, however, we cannot ignore the reality that right now we are **enduring the worst overall month of this pandemic** regarding cases (>200,000 daily), hospitalizations (many at full capacity and triaging care with ambulances declined if patient unlikely to survive), and deaths (> 9/11 attack every day with total approaching 400,000!).

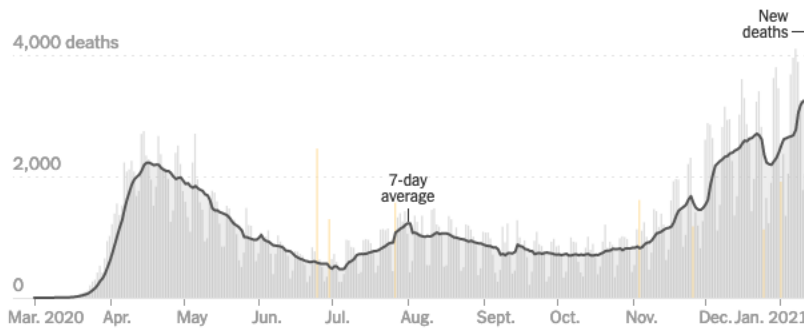
Regardless of vaccines, herd immunity is not predicted until late 2021 or 2022 so we **must continue our masks, distancing, hand and cough hygiene, reduced travel and staying home when sick. But, pandemic will be controlled MUCH FASTER with broad vaccination efforts**

## New reported cases by day in the United States



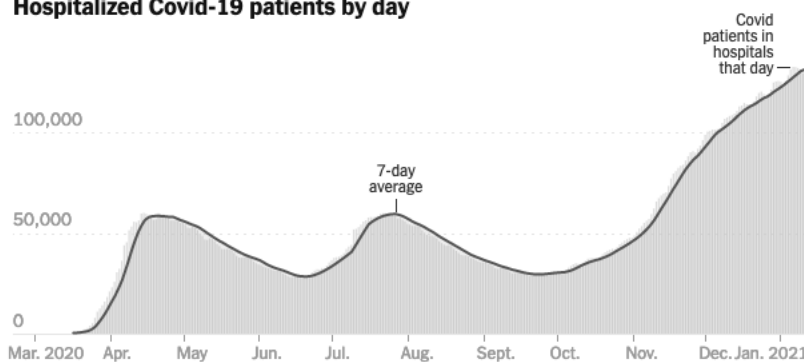
	TOTAL REPORTED	ON JAN. 12	14-DAY CHANGE
<b>Cases</b>	<b>22.9 million+</b>	<b>229,712</b>	<b>+37%</b> →
<b>Deaths</b>	<b>382,682</b>	<b>4,406</b>	<b>+49%</b> →
<b>Hospitalized</b>		<b>131,326</b>	<b>+9%</b> →

### New reported deaths by day



These are days with a reporting anomaly. Read more [here](#).

### Hospitalized Covid-19 patients by day



Source: Hospitalization data from the Covid Tracking Project. \* Currently hospitalized is the number of patients with Covid-19 reported by states to be in a hospital on that day. Dips and spikes could be due to inconsistent reporting by hospitals.

- Recent study = **59% COVID-19 infections from asymptomatic people**
  - **35% pre-symptomatic**
  - **24% never symptomatic**
- **Household contacts** – important venues for transmission
- Higher risk = **symptomatic** > asymptomatic ; **adults** > children; **spouses** > other family
- Cases low among children, even after schools reopened

### VACCINE NEWS

- Both Pfizer and Moderna vaccines - mRNA technology showing 95% effectiveness
  - \*how they work\* <https://twitter.com/JohnsHopkins/status/1349517083692957698>
    - Can still become infected with coronavirus but odds reduced to **only 1 in 20** compared to those without vaccination
      - If infected, *much milder illness*; NO ONE required hospitalization (study)
      - In Israel, first Pfizer shot reduced infections by 50% after just 14 days
- Pfizer (likely Moderna) show efficacy for more transmissible UK and South Africa variant
- Johnson & Johnson vaccine candidate looks very promising on early data from NEJM
  - May require only single dose; likely 3<sup>rd</sup> vaccine to be available in 2-3 months

- Pfizer and Moderna vaccines – unstable molecules that DO NOT CROSS PLACENTA so would not pass to fetus
  - Generally considered safe for pregnant and nursing females but studies did not include this population; therefore no long term safety data
    - My 19 and 23 y.o. daughters are planning to be vaccinated when able
  - American College of Obstetrics and Gynecology favors vaccination and recommends discussing with one’s own physician for risks and benefits
  - Society of Maternal Fetal Medicine specifically recommends vaccination for female health care workers because pregnancy is considered “vulnerable” population for more complicated infection
  - CDC recommends vaccine for patients with immunosuppression, and history of autoimmune conditions, Guillain-Barré and Bell’s palsy
  - Vaccine recommended for those already recovered from COVID-19
  - Contraindications: allergy to any specific ingredient
  - Vaccines DO NOT IMPLANT MICROCHIPS OR ALTER GENES OR DNA
  
- **Vaccination = Risk : Benefit Analysis** for each individual
  - **Benefits** – avoid acute COVID-19 infection, hospitalization, death
    - Mortality increases with age and higher with more underlying medical conditions, but even young healthy people die
    - Avoid long term health consequences – “long haulers” suffer prolonged extreme fatigue for months
    - 75% hospitalized patients suffer from at least 1 symptom 6 months later
    - 1/3 show evidence of heart inflammation (myocarditis) – unknown long term damage or effect
    - Lung damage, neurologic problems, loss of taste and smell
  - **Risks** – unknown long-term data but studies show excellent early safety profile
    - Allergic reactions rare (1:100,000) – epinephrine (Epi-Pen) effective
    - Short term side effects very common and reflect normal body response to vaccines and how our immune systems make antibodies
      - Headache, fever, chills, tiredness
      - Pain, swelling and redness at site
        - Moderna - higher rate of exaggerated delayed reaction (>day 5 upto weeks) – itchy, sore, swollen, red
        - Treatment: antihistamines, Motren/Tylenol, ice, steroid cr.



QDP policy = **strongly recommend** immunization, but not mandatory

COVID-19 VACCINATION STATUS						
	QDP Overall	NC	OH	TN	PA	GA
Vaccinated/Waiting List	50 %	63%	54%	30%	74%	28%
Undecided	34%	6%	27%	60%	16%	60%
Declined	16%	31%	19%	10%	10%	12%

Note: Most declining staff includes those previously infected and recommended to wait; contraindicated underlying conditions; and females of child-bearing age, which has no long term safety data

- CDC expanding vaccine prioritization
  - now recommends vaccine available for all >65 y.o. and anyone with 1 complicating risk factor/medical condition
    - GOAL = quickly increase number vaccinated to save most lives possible
  - All health care workers priority 1a
  - CDC releasing all doses but still recommends 2<sup>nd</sup> booster dose
    - Pfizer – 3 weeks
    - Moderna – 4 weeks
      - 4-day grace period early or later for booster shot
  - Obtain vaccine anywhere possible; neighboring county, pharmacy, health dept, hospital, vaccine fair at stadium/fair grounds – **not required to be in own county**
  - Studies show prolonged immunity of 8 – 12 months – likely need annual booster
    - Experts believe over many years C-19 will become like common cold

Please continue to stay safe and take care of yourselves, patients, teammates and families.

**Mass vaccination is the best way to do this in my opinion** so thank you to everyone who has already or is planning to be immunized. For those with concerns or questions, please feel free to contact me as many have already. I am happy to help address your hesitancy issues.

Sincerely,

Dr A