## Twitter Thread by Suraj





Vaccine supply chain management is a careful balancing act everywhere right now. Here's a sampling of news to offer context:

US: https://t.co/d4C038NVrK

1/

UK: https://t.co/LnGxuqJbkv

2/

Shortages in California in late March: <a href="https://t.co/ixaLo0oYPm">https://t.co/ixaLo0oYPm</a>

3/

UK supply disruptions late March: https://t.co/BStPj9rYGV

4/

Germany update late March : https://t.co/rlamkakowz

5/

Japan, which started this week after several delays - https://t.co/Em3wW0PTRm

6/

For context, India has multiple vaccines. It produces it all at home. One is entirely homegrown IP. The other we licensed because we have the demonstrated scale to make it at home.

Multiple developed countries lack their own IP and manufacturing base. They are dependent on the vagaries of Pfizer supply choices made in another country: <a href="https://t.co/ZZxYmEgKT0">https://t.co/ZZxYmEgKT0</a>
8/
The scale of Indian vaccine production is under appreciated:
https://t.co/u5n7hiZBSC
Table 4: of \$155 billion in saved medical costs btwn 2001-20, SII's vaccines alone contributed to \$140 billion savings
9/
Here's some additional data from WHO summarizing vaccine and generics suppliers ( <a href="https://t.co/BafB9byVsp">https://t.co/BafB9byVsp</a> ) . Page 5 and 6 are interesting.
10/
The current situation despite the existing manufacturing and development prowess is difficult - scale up production multiple times prior baseline, while simultaneously maintaining quality without any interruption. Distribute without any bottleneck anywhere.
11/
Most do not even have the luxury of having local supply, even if raw material is imported in some cases.
Ordering Pfizer in Sept 2020 hasn't ensured EU reliable supplies as of April 2021. Pfizer is made in US, Belgium and Germany.
12/
The UK delayed second dose guidance to up to 12 weeks: <a href="https://t.co/QdXpj4Rtxq">https://t.co/QdXpj4Rtxq</a>
and exploring giving different vaccines for 2 doses: https://t.co/xRHiW4eiXK
13/
It's beneficial to understand the challenges in a clear and unemotional manner.
To educate on the complexities of vaccine IP, let a famed immunologist speak. To understand how complex supply chain works, let someone who has run complex intl supply chain speak.
14/
The Indian population counts amongst it some of the most accomplished individuals in every aspect related to how this process works.

The population values	education and o	deserves to le	earn the deta	ails and r	nuances	of the proble	n and ap	preciate t	ne na	ature of
the challenge.										

15/

A continuous stream of mind-numbing sensationalism does not serve the needs of the modern Indian state. We have amongst ourselves some of the worlds best medical professionals, technocrats, logistics and operations experts.

16/

People need to be able to clearly learn what they have to say about the various challenges associated with an effort on this scale and complexity. The effort needs to be benchmarked against the problems others are also facing.

17/

The role of the press here is to connect the expert knowledge directly to the public in clear understandable language. It cannot by itself monopolize the conversation. It leads to embarrassing gaffes like someone not knowing that Remdesivir is a chemical.

18/

The press isn't expect to be domain experts and should pretend to be one. It has a job to connect the experts to the public and to let the public quietly learn and understand the details of the medical, technological and operational challenges itself.

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