Twitter Thread by Suraj



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This thread discusses “vaccine shortage”. Data from news reports over last 6 months.

Tl;dr: Situation is not shortage as such. India has stockpile of ~140m doses end March. However there’s a tricky situation with supply vs consumption over short term.

1/

Month	Consumption				Production				Accumulated Stockpile
	@Home	Exports	Total	Cumulative	SII Monthly	SII Cumulative	BB Monthly	BB Cumulative	
November	0	0	0	0	*40*	40	*5*	5	40
December	0	0	0	0	*50*	90	*5*	10	90
January	3.76	15.8	19.56	19.56	*60*	150	*5*	15	130.44
February	10.54	19.8	30.34	49.9	*60*	210	*5*	20	160.1
March	50.82	28.8	79.62	129.52	*60*	270	*5*	25	140.48
April (to 12th)	43.08	0.5	43.58	173.1	*60*	330	*5*	30	156.9
May									
June									
July									
Total	108.2	64.9	173.1		330		30		

Situation: SII and BB accumulated significant stockpiles much before earliest approvals.
SII 40m by mid Nov: https://t.co/esy5oYoN1z
SII 270m doses produced end-March: https://t.co/peKENQvrxW
Covaxin 20m stockpile March: https://t.co/s4mZ7bSHZU

2/

Vaccine exports total 64.9 million : https://t.co/pLKalzySrL but dropped to almost 0 in April.

Total consumption is 173.1 million up to April 12: 108.2 m local vaccinations plus 64.9m exports .

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However, due to SII and BB both producing ahead of time, India accumulated a stockpile much before first vaccinations and exports began 3rd week of Jan.

Currently this stockpile is estimated at over 140m doses start of April .

4/

At the ongoing 3.6 million doses / day we consume 108m doses a month. Even though monthly production is 65m doses, the stockpile enables current vaccination rate to continue.

5/

Per Day Vaccination Rate (million)	Monthly Requirement To Sustain Rate (million doses)
3	90
3.5	105
3.6	***108***
4	120
4.5	135
5	150

SII is due to expand to 100m/month in May. BB to 12m doses in June. Lets extrapolate forward, assuming 4m vaccinations/day through July. Will we run out ? Extrapolating:

6/

	Consumption				Production				
Month	@Home	Exports	Total	Cumulative	SII Monthly	SII Cumulative	BB Monthly	BB Cumulative	Accumulated Stockpile
November	0	0	0	0	*40*	40	*5*	5	40
December	0	0	0	0	*50*	90	*5*	10	90
January	3.76	15.8	19.56	19.56	*60*	150	*5*	15	130.44
February	10.54	19.8	30.34	49.9	*60*	210	*5*	20	160.1
March	50.82	28.8	79.62	129.52	*60*	**270**	*5*	25	140.48
April	*108*	*0.5*	*108.5*	*238.02*	*60*	*330*	*5*	*30*	*91.98*
May	*120*	*0*	*120*	*358.02*	*100*	*430*	*5*	*35*	*71.98*
June	*120*	*0*	*120*	*478.02*	*100*	*530*	*12*	*47*	*51.98*
July	*120*	*0*	*120*	*598.02*	*100*	*630*	*12*	*59*	*31.98*
Total	**533.12**	**64.9**	598.02		630		59		

So… it's tricky but can be done without shortages. It depends on things continuing to work on schedule - SII / BB keep executing , and additional capacity comes on stream as expected.

I do not count Sputnik, Zydus/Cadila and other vaccines. That would be a bonus here.

7/

The govt is threading a fine needle between extremely high vaccination rate, utilizing stockpile, deferring export and hoping to meet the expanded supply in time. But there's no "shortage" - otherwise they could not ramp up as they did.

8/

So far we have been fortunate. EU bought half of Pfizer production only to be massively delayed: https://t.co/DTAAiVx320 . Pfizer decides where vaccines go: https://t.co/ZZxYmEgKT0

9/

There have been arguments for 'let people buy Pfizer/Moderna/JJ in open market'.

There is NO open market. Any order made now won't be fulfilled until months from now, late summer or in autumn. This is not something you order on Amazon or Tomato.

10/

Think SII is doing badly ? Compared to their 270m production by end March, Pfizer, Moderna, JJ committed to a combined 240m by end March, and failed: https://t.co/lbaojo9tnl
https://t.co/8VcHPxxVJp

11/

Vaccine production at this scale so far is not easy. J&J discarded 25m and are evaluating another 62m for contamination: https://t.co/comCMiq1b8

12/

We have been fortunate so far. SII and BB gambled their futures by producing significant volumes before approval, got approval, so far have delivered with fewer than the problems seen elsewhere. These efforts need support!

13/

While other countries beg for and fight over vaccines, we have been able to be masters of our own destiny, outproducing combined US production upto March just from SII .

This is no time to undermine these efforts.

14/

It is important to clearly understand the nature of the situation - not a shortage right now, but a demand/supply imbalance that may hurt in 2-3 months if things do not happen to plan.

15/

I hope @MoHFW_INDIA @PMOIndia help SII and BB get funding immediately for expansion. Current vaccine trials must be expedited. Pay for production before approval so there's ready supply on approval.

16/

This situation while tricky, can be managed. Compared to original plan for 250m vaccinations by July, govt will do more than 2x that as estimated. This is driven by the urgency of the 2nd wave.

Due to stockpile, we can manage it.

17/

5m/day is unlikely to be possible now unless supplies can reliably support 150m doses consumption per month. SII also has COVAX commitments it has deferred and must meet soon.

This is the situation today.

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