Good call to free vaccine pricing. Price controls help one lot but, as supplies dwindle, this hurts those who don't get access

Operationalising prime minister Modi's call to use whatever capacity India has to step up production of vaccines is easier said than done because, as Serum Institute CEO Adar Poonawala pointed out in a CNBC-TV18 interview, the fastest way to augment production is to divert existing capacity from other vaccines. He estimated the cost of this would be Rs 3,000 crore. While the government seems to have opted for a less-costly solution (bit.ly/2RO0ZYV), the ramp-up will take 4-6 months; in fact, one of the PSUs chosen—Maharashtra's Haffkine Bio—has said it will take a year to deliver its share of vaccines. India can ill-afford the delay in vaccination, but leave that aside for now since there are also other issues of new strains and how effectively the existing vaccines can tackle them (bit.ly/3ajaq8M). For now, the important thing is that the PM is also of the view that, while test-track-treat is important, vaccinations are possibly the most effective weapon in the fight against Covid. What is important to keep in mind is the impact of price controls since such actions are almost the default response of all governments, right from the time of Independence. Indeed, though it has been 30 years since PV Narasimha Rao first unleashed his sweeping reforms, most Indians continue to remain impressed by price controls and see them as action by the government to protect them from profiteering businessmen. Ba
sic economics makes it clear that price controls don't work in even the short run and, in fact, make things worse. And yet, faced with a shortage of vaccines, and more recently remdesivir, the government has imposed price caps; fortunately, on Monday evening, price caps have been removed for vaccines. The impact is to restrict supply that imposes high costs on society; in even the short-run, it encourages hoarding and black-marketing which hurt everyone.

Economists have a term for it; they call it 'deadweight' loss, or a loss that both consumers and producers suffer. This is best explained using a simple diagram, but for those whose eyes are about to glaze over, ignore the maths, just focus on the concept. If there is a shortage of anything, prices rise, right? So, when a cap is imposed, costs come down for those who are fortunate to get the goods/service; but for those who are not so lucky, there is a big loss.

Those who get both Covid-19 shots at a cost of Rs 500 are obviously better off as compared to a situation where they are asked to pay Rs 2,000, going by the free-market price Poonawala said he would like to charge. But, if the result of the price control is delaying supply to others, their loss can be huge since it could result in them requiring greater hospitalisation; indeed, till the country is fully vaccinated, parts of the economy will continue to face some kind of lockdown and, when that happens, even those who benefitted from the price caps may have to bear an

additional cost due to job losses and higher inflation resulting from supply disruptions.

All those whose eyes glaze over when looking at graphs can safely exit this column here since, even without this, the general point is quite intuitive. Take the first graph which has a normal demand (CD) and supply (AB) curve; the point where the two intersect, G, is the equilibrium one since demand equals supply here, and AF goods are sold at a price of AE. If you look at just the demand curve, when the market is at equilibrium, consumers as a group are willing to pay an amount equal to the area CGFA for AF goods; since they pay only EGFA as that is the market-clearing price for everyone, the triangle CGE is then the consumer surplus.

Producers, on the other hand, would be willing to sell AF for a value that equals the area GAF, but as it happens, they get EGFA; the producer surplus is then the triangle EGA. The two triangles CEG and EGA are the total surplus for the economy.

Now put a price cap at P in the second graph; AR goods will now be sold at the price AP. If AR of goods are sold, based on the demand curve, consumers would have been willing to pay CTRA, but they pay only PQRA; so, the consumer surplus is CTQP.

As for the producers, they would be willing to supply AR at a value of AQR, but they get PQRA, leaving them with a surplus of PQA. In the price-cap situation, however, as we can see, the surplus in the triangle TQG doesn't acrrue to either consumers or producers as compared to the first graph. This is the deadweight loss.

If you're still up for it, let's go a step forward and introduce the concept of inelastic-ish demand. Basically, this would be a situation where consumers want the vaccine so badly, they don't mind

paying fairly high prices for it; as compared to the US price of $20 for the first lot of vaccines, Pfizer vaccines are retailing at up to $1,200 (bit.ly/3sv644X). What happens then is that the demand curve CD pivots to the right at G, and in the case of complete inelasticity, the demand curve becomes a vertical line.

Assuming the same supply curve AB and the same cap P, in our example of the deadweight loss triangle TQG, the length of QG remains the same but QT and GT get longer; so the area of the triangle, or the deadweight loss, rises. Hopefully, the next time a government puts a price cap, and not just for vaccines, it will keep this in mind.