

# Effective lockdown may cut load by 90%: Study

SACHIN P MAMPATTA  
Mumbai, 4 April

An effective lockdown and quarantine regime could dent the impact of the coronavirus disease (Covid-19) by 90 per cent, compared with unchecked growth. This would bring it within manageable limits for India's limited healthcare infrastructure.

Such an outcome would require over 50 per cent quarantine compliance among infected cases, according to a study — *Healthcare impact of COVID-19 epidemic in India: A stochastic mathematical model* — published in the Medical Journal Armed Forces India. The study was conducted by Kaustuv Chatterjee, head of department of Medical Informatics at the naval hospital INHS Asvini, along with Armed Forces Medical College Professor Kaushik Chatterjee, Associate

Professor Arun Kumar Yadav, and Professor Shankar Subramanian.

The four doctors, set out to determine the magnitude of the pandemic, and its impact on India's healthcare resources, and to study the effect of non-pharmacological interventions such as lockdown and social distancing.

The study suggests that Covid-19 would have peaked in July in the absence of any measures. Effective implementation of measures like shutting down schools, colleges, offices, and mass gatherings in addition to social distancing, could reduce the number of cases significantly and retard its progress two-three months earlier.

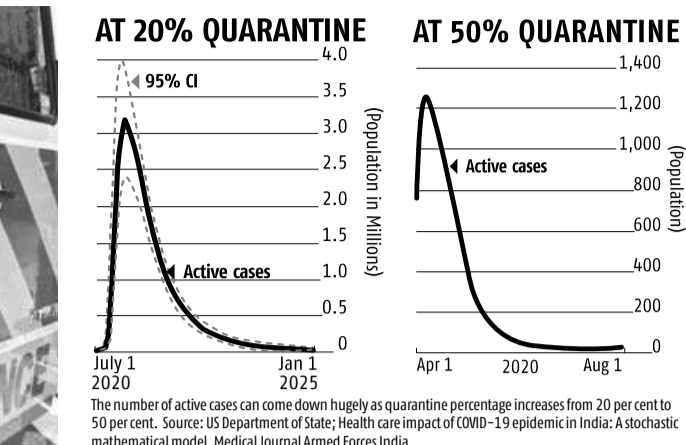
The model looked at effectiveness with varying degrees of quarantine. The impact on growth begins to set in when 50 per cent or more of infected individuals are isolated to prevent spread. The paper



suggests that immediate implementation of the interventions "has the potential to retard the progress of the epidemic by April" and "bring down hospitalisations, intensive care unit (ICU) require-

ments and mortality by almost 90 per cent."

The study concluded: "This will make the epidemic manageable, and bring it within the ambit of available healthcare resources in



India." The mathematical model estimated that a natural, uninterrupted evolution of the pandemic would have resulted in 364 million cases and 1.56 million deaths, with the epidemic peaking by the middle

of July. This assumes a certain natural rate of growth that has not materialised. It suggests that early measures by the government might have had a positive impact on reducing the growth rate.

The research also said the elderly are particularly at risk. They account for 10 per cent of the population, but would account for 43 per cent of the all hospital admissions and 82 per cent each of ICU admissions and deaths, according to the model.

"The elderly are most likely to get infected by household contacts. Hence, special (interventions may) have to be developed for them, with a greater focus amongst their household contacts," the study said.

According to World Bank data, India has only seven hospital beds for 10,000 people. The number of doctors is similar. China has 38 hospital beds in comparison, and 18 physicians. India's growth rate of Covid-19 has thus far been lower than countries like the US, Spain and Italy. India implemented a three-week lockdown from March 25 to April 14.

## HDFC Bank's advances rise 21%

Deposits grow 24%

SUBRATA PANDA  
Mumbai, 4 April

The country's largest private sector lender HDFC Bank said in its quarterly update that its advances grew 21 per cent in the quarter ending March (Q4FY20) while its deposit base grew 24 per cent in the same period.

In absolute numbers, the bank's advances aggregated to ₹9.93 trillion in Q4FY20 compared to ₹8.94 trillion in Q4FY19. This comes at a time when the overall bank credit growth has remained weak, given the challenging economic conditions.

Similarly, the deposit base of the private sector lender stood at ₹11.46 trillion in Q4FY20 compared to ₹9.23 trillion in the same period last year. In the recent past, the private banking sector, especially the small banks, has seen erosion in deposit base after the YES Bank crisis.

The bank's current account savings account (CASA) ratio



stood at 42 per cent in the quarter compared to 42.4 per cent as of March 31, 2019, and 39.5 per cent as of December 31, 2019.

The lender said it purchased loans of ₹5,479 crore in the quarter through the direct assignment route under the home loan arrangement with Housing Development Finance Corporation (HDFC).

On Thursday, Moody's said that disruptions to economic activity from the coronavirus pandemic will exacerbate a slowdown in India's economy.

## 'Migration will resume when urban economy restarts'

VARUN AGGARWAL, founder of India Migration Now — a migration data, policy, and advocacy organisation based in Mumbai — has studied migration in India extensively. In an interview to Aditi Phadnis, he says the government's 'invisibilisation' of migrants needs drastic re-thinking. Edited excerpts:

**Are we seeing the largest migration movement in recent Indian history?**

It is difficult to say so, given the lockdown window is small. Not every migrant managed to cross the state/district boundary. However, the intensity of the movement on foot was striking. While millions of seasonal/short-term migrants return home every summer for the harvest season, it's only now that the movement has received national attention.

**People go home for harvesting, but once it ends, don't the very issues that made them migrate — food, money, ambition — return to haunt them?**

The frantic reverse migration at present is not because of harvesting needs (still a month away) but because of the income shock (due to ceasing of all sectors dependent on migrant labour).

Migrant households have fixed strategies of hoisting village incomes, with urban/destination wages during the non-agri season.

They keep a very small portion of their wages with themselves and remit 80-90 per cent back home. Therefore, the moment work stops or the off season ends, they return.

This strategy is influenced by the fact that migrant workers are largely excluded from policy frameworks (domicile restrictions) of the destination states. If and when the urban economy restarts (subject to length of the lockdown or re-emergence of liquidity/investment in migrant-dependent sectors), I expect migration to restart.

**Now that most labourers are said to have returned home, what should the government do — keep them there or ask them to return?**

It is unlikely that majority of the labourers have returned home. On the contrary, it looks like most of them are stuck in their destination states or in transit.

Here is a guiding philosophy for policymakers — make sure you provide enough support



(income, nutrition, health care, and housing) to migrants stuck (and their households), so they are not compelled to seek work or migrate back. Otherwise, the risk of contagion is extreme; we have examples from Italy and China. Especially short-term seasonal migrants, working in informal settings, should be identified and supported.

In addition to programmes/schemes, the focus should be on accurately and clearly communicating these support measures and setting up access points, such as mobile financial agents, kirana shops as cash out/in points, delivery agents for rations, and increased capacity for civil society support.

I would absolutely prioritise screening for these workers over other communities, given the contagion risks. Finally, states should remove all domicile restrictions from their schemes and support policies to include migrants.

**Could this movement have been anticipated, and handled better?**

My organisation exists because the Centre and almost all state governments have been ignorant about the role of migration throughout the history of the Indian Republic. If anything, they consider migration a negative development that needs to be curtailed (an explicit aim of MNREGA). They don't understand that the wealthier a household becomes, the more likely people are to migrate.

The backbone of all Indian cities — migrant workers — has been completely 'invisibilised'. The private sector (like banks), too, is guilty of this. Spread of the virus in China (to a limited extent) and Italy (to a very large extent), due to reverse migration, should have sent alarm bells ringing for policymakers. But it did not.

This is negligence of gigantic proportions, and a severe indictment about the lack of under-

standing as well as data we have regarding our own country. The fact that the 2011 Census migration data was only released in 2019 epitomises the level of indifference. The Interstate Migrant Workmen Act has been a complete failure for the same reason.

**In many ways, the government is starting with a clean slate. What should the policy on migrants now be?**

First, state governments should remove all domicile restrictions from their schemes and support policies, and include migrants. Second, they should universalise access to benefits of all central government schemes/programmes, along with expansion and early release of migration data.

**Could returning workers be putting pressure on micro-economies of their villages?**

I do not think so. On the contrary, food supply will need the extra agri-workers (stuck in cities/destination regions) eventually. Therefore, if anything, there will be labour shortfall. In addition, the loss of remittance/migration income for households needs to be compensated.

## HEALTH

### FIT & PROPER

Your weekly health guide

## Setting up a routine for your baby's sleep



KERRY BAJAJ  
Sleep consultant and author of *Sleep, Baby, Sleep*

Routine is a powerful tool for parents to keep their babies happy, healthy and secure. Here are the fundamentals of setting a routine for your baby.

#### The 12-hour rule

As the parent, you can aim to set a morning wake-up time, and it should be consistent every day (plus or minus half an hour). Bedtime will be 12 to 13 hours later. This means that if the baby is waking up at 7 am, bedtime will be between 7 pm and 8 pm.

#### Wake windows

Wake windows refers to how long the baby should be awake in the day before you offer a nap. Before 4 months, use wake windows to guide your daily activities so you don't have an overtired baby on your hands. After 4 months, your nap timing will be more predictable, but you should still always be aware of age-appropriate awake times. Wake windows are a great guidepost.

These are approximate wake windows based on a baby's age: 0 to 6 weeks: 45 minutes to 1 hour only; 7 to 12 weeks: 75 minutes only; 3 months: 75 to 90 minutes; 4 months: 1 hour 30 minutes to 1 hour 45 minutes; 5, 6 and 7 months: 2 to 2.5 hours; 8, 9 and 10 months: around 3 hours; 11 months: around 3.5 hours; 12, 13, 14 months: 3.5 to 4 hours.

For children taking one nap per day (after 14 months),

the wake window in the morning will be 5 to 6 hours and the wake window in the afternoon will be about 5 hours.

Of course, there will always be ranges with baby sleep. However, if your baby's wake windows are significantly bigger than the ones described above, your baby may be overtired.

#### Sleep cues

Pay attention to your baby's early sleep cues, such as a blank stare, frowning, rubbing eyes and yawning. That's when you want to put the baby for a nap. Not when they enter the overtired "emergency zone" and start arching the back and howling. A good rule of thumb that I learned from Gina Ford is to put them for a nap after the first yawn... don't wait until the third yawn.

Following wake windows plus watching for sleep cues is a powerful combination.

#### Don't keep the baby up till late for a better sleep

If your child is struggling to sleep, you might be unsure if the baby is overtired or if they need more activity to tire them out. If you're unsure, my advice from working with hundreds of families is to first assume the baby is overtired. Keeping the baby up till late in hope of a sleep better tends to backfire and cause lots of drama at bedtime in the night.

#### Let the sun set inside

When the sun sets in the evening, pull the curtains and turn off at least half of the bright overhead lights in the house. You can start to build the connection with your child that sunset = sleep time. It's important because when it is dark, your child's body will produce the sleep hormone melatonin. Bedtime can become much easier when you work with the rhythms of nature.

I hope these guidelines are able to help you and your baby sleep better.

## In Italy, the right antibodies may be needed to go back to work

JASON HOROWITZ  
4 April

There is a growing sense in Italy that the worst may have passed. The weeks of locking down the country, centre of the world's deadliest coronavirus outbreak, may be starting to pay off, as officials announced this week that the numbers of new infections had plateaued.

That glimmer of hope has turned the conversation to the daunting challenge of when and how to reopen without setting off another cataclysmic wave of contagion. To do so, Italian health officials and some politicians have focused on an idea that might once have been relegated to the realm of dystopian novels and science fiction films.

Having the right antibodies to the virus in one's blood — a potential marker of immunity — may soon determine who gets to work and who does not, who is locked down and who is free. That debate is in some ways ahead of the science. Researchers are uncertain, if hopeful, that antibodies in fact indicate immunity. But that has not stopped politicians from grasping at the idea as



A man in central Milan

PHOTO: REUTERS

they come under increasing pressure to open economies and avoid inducing a widespread economic depression.

The conservative president of the northeastern Veneto region has proposed a special "license" for Italians who possess antibodies that show they have had, and beaten, the virus. The former prime minister, Matteo Renzi, a liberal, has spoken about a "Covid Pass" for the uninfected. Prime Minister Giuseppe Conte said that while the lockdown remained in place, the government had begun working with scientists

to determine how to send people who have recuperated back to work. With its echoes of a "Brave New World," the debate about how to reopen arrived in earnest this week in Italy. Like the virus's crushing toll — some 14,681 dead in Italy as of Friday evening — the shift is ahead of countries like Spain, Britain and the United States, where the contagion is still on an upswing.

Italy was the first European country to announce a nationwide lockdown, which it began on March 9. But the rate of new infections slowed this week —

on Friday, there were about 4,500 new cases, less than in recent weeks — leading officials and first responders alike to talk with guarded optimism.

"We are beginning to see the light at the end of the tunnel," said Fabio Arrighini, a supervisor of an ambulance hotline in the Lombardy town of Brescia, which has one of the highest death rates in Italy. "The calls have gone down."

But the debate over an antibody-based work force has once again placed Italy at the unfortunate vanguard of Western democracies grappling with the virus, its uncomfortable ethical choices and inevitable aftermath. Such questions have already been raised by the wrenching decisions of doctors to treat the young, with a better chance of life, before the old and sick. But at some stage, nearly all governments will have to strike a balance between ensuring public safety and getting their countries running again. They may also find themselves weighing what is best for society against individual rights, using biological criteria in ways that almost certainly would be rejected absent the current emergency.

"It looks like it splits humanity into two, the strong and the weak," said Michela Marzano, a professor of moral philosophy at the Paris Descartes University. "But this is actually the case."

From an ethical perspective, she argued, the question of using antibodies as a basis for free movement reconciles a utilitarian vision of what is best for society with respect for individual humanity, by protecting "the most fragile, not marginalising them." "It's not discriminating," she said. "It's protecting."

Scientists in Italy, like their counterparts in Germany, the United States, China and beyond, are already studying whether antibodies are a potential source of protection or immunity from the virus.

China has slowly reopened its economy, focusing on preventing another wave of infection arriving from overseas. In New York, Governor Andrew Cuomo has envisioned a strategy in which younger people, and people who have antibodies showing they have been cured of the virus, can go back to work.

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## Miracle cures? UK to go after fake Covid drugs

British authorities said on Saturday they were clamping down on bogus cures for the coronavirus, which currently has no specific licensed treatment.

The Medicines and Healthcare products Regulatory Agency (MHRA) said it was investigating 14 fake or unlicensed products to treat Covid-19, the respiratory disease caused by the coronavirus. So far 3,605 Britons have died from the coronavirus, the latest data show, and experts have said deaths will continue to rise until the effect of recent lockdown measures filter through and slow the spread of the disease in the coming weeks.

MHRA said it was investigating fake self-testing kits, miracle cures and so-called "anti-viral misting sprays". "Don't be fooled by online offers for medical products to help prevent or treat Covid-19," Lynda Scammell, MHRA enforcement official said.

"There is no medicine licensed specifically to treat or prevent Covid-19, therefore any claiming to do so are not authorised and have not undergone regulatory approvals required for sale on the UK market." REUTERS

## 3D printers forge face shields for fight against coronavirus

NATHAN FRANDINO  
4 April

Oscar Valera likes to use 3D printers to build an assortment of crafts, but he is now turning his hobby toward the fight against the coronavirus pandemic.

In just four days, the New Jersey high school teacher has printed and distributed 200 face shields to medical professionals across the country, including Florida and Texas. He is far from done.

"One woman told me what you're doing right now is giving

people peace of mind. You're probably saving lives," said Valera, who found a shield design posted online.

Demand for face shields, along with N95-masks and other personal protective equipment (PPE) has skyrocketed with the surge of patients infected with the highly contagious virus. There were more than 238,800 confirmed US cases as of Thursday.

That has prompted volunteer 3D printers like Valera to step in to support doctors, nurses and first responders, who are all in danger of contracting the

sometimes deadly illness.

Face shields help protect frontline-workers from potential virus-containing droplets released by coughing, sneezing and other close contact. In Sunnyvale, California, community workspace non-profit Maker Nexus has been running its 13 3D printers and three laser cutters nonstop. The company produced 1,800 masks for local hospitals and now has requests for another 13,000.

**About 500 shields have gone to the Santa Clara Valley Medical Center, where officials estimate nurses use up to 15 PPE sets over three shifts for just one patient**

General manager Eric Hess said 300 volunteers helped scour the internet for raw materials to make the shields. They also reached out to hospitals in need of PPE and printed the visors for the shields.

"They're sitting at home. They're working from home, or they've been laid off. This is a way that they can contribute," said Hess, whose company uses the open-source

Prusa 3D printed shield design from the Czech Republic. About 500 shields have gone to the nearby Santa Clara Valley Medical Center (SCVMC), where officials estimate nurses use up to 15 PPE sets over three shifts for just one patient.

Sanjay Kurani, SCVMC medical director, said as coronavirus cases increased in the Bay Area, they quickly realised the hospital was burning through PPE faster than it could source the equipment.

"Once we hit the surge, we could be in very critically low supplies," Kurani said.

Elsewhere in Silicon Valley, more companies are joining in. Fremont-based Printer Prezz, a 3D-printing medical device contract manufacturer that specialises in metal spinal implants, switched production to printing PPE after getting a request from nearby Washington Hospital Healthcare System. Snap Lab, a unit of Snap Inc, is also producing face shields to donate to hospitals.

In New Jersey, Valera said he will continue to do his part. "I don't mind doing this," Valera said. "I just hate the fact that I have to." REUTERS