

ILLUSTRATION: ROHNIT PHORE

ALOK SHEEL

The author is RBI Chair professor in Macroeconomics, ICRIR



INDIA'S SECOND WAVE

Deadly, but not more than transatlantic's

The second wave appears to have peaked in the Americas and Europe. It is trending upwards in the Middle East, North Africa and Central Asia region. It is also trending upwards in Australasia, although it is evident only in South Asia. Mortality in Australasia, including India, is, however, on a much lower base compared to the transatlantic region

COVID-19 DEATHS crossed the 3-million mark globally on April 16, 2021. These have doubled over the last four and a half months. There is continuing panic and media chatter regarding a deadly second, and possibly a third, Covid-19 wave. How does the latest available data—updated daily at the Worldometers website—square with popular perceptions?

A deadly second wave shows up clearly in the global data with regional variations. It appears to have peaked in the Americas and Europe. It is still trending upwards in the Middle East, North Africa and Central

Asia (MENACA) region. It is also trending upwards in Australasia, although the second wave is evident only in South Asia. Mortality in Australasia, including India, is, however, on a much lower base compared to the transatlantic.

The accompanying graphics have aggregated Covid-19 mortality data in deaths per million to equalise for population differences across countries. Second, mortality is calculated for six-weekly intervals beginning March 6, 2020. This is when Covid-19 mortality, initially confined to China, started rising globally. There are nine six-weekly intervals in all, the last ending on April 21, 2021. Third, the data is

from 37 major countries, and includes all countries with Covid-19 deaths exceeding 20,000, with the exception of South Africa (53,887 deaths so far). Together, these countries account for about 88% of Covid-19 mortality, and 72% of the global population. Fourth, the data is aggregated into four regions for analytical reasons. The regions are the Americas (10 countries), Europe (13 countries), MENACA (six countries), and Australasia (eight countries). Mortality in the rest of Africa (with the notable exception of South Africa) is minimal, and it has, therefore, been excluded from the graph to keep things simple.

The Covid-19 pandemic shows up in the graph as mostly a Transatlantic-Mediterranean phenomenon, taken to include the Americas, Europe and MENACA. With just a third of the global population, it accounts for 90% of Covid-19 mortality so far. Within this region, the Americas (1,608 per million), led by the US (one in five of all global deaths), has fared the worst, followed closely by Europe (1,349 per million), with MENACA a distant third (383 per million).

In sharp contrast, Australasia, with two-thirds of the global population, accounts for just 10% of total mortality. Its Covid-19 mortality of just 73 per million is overstated as the two outliers India (132 deaths per million) and Indonesia (160 deaths per million) account for well over 80% of Asian deaths. India is the only country outside the transatlantic region to have more than 1 lakh Covid-19 deaths. It accounts for two-thirds of the overall Australasian mortality, far out of proportion to its population share of 37%. Although India's Covid-19 mortality is high by, and critical for, overall Australasian trends, it is nevertheless still a fraction of transatlantic levels.

There is a clear second wave in Europe. After having dropped from a high of 155 per million in April 2020 to 11 in September, mortality rose again to peak at 290 in January 2021, following which it started to recede. Current mortality at 201 in the last six weeks of March 6 to April 21, 2021, is nevertheless substantially higher than the peak of the first wave (155).

While the Americas also witnessed a second wave, this was superimposed on the first wave, which never receded. Starting with 53 per million in April 2020, Covid-19 mortality stayed steady at around 150 per million in each of the next five six-weekly intervals until December 2020. The Americas were then hit by an even more deadly second wave that peaked in March 2021, at 283 per million. This has declined only slightly to 235 during the last six weeks ending April 21, 2021. As in the case of the East Atlantic, mortality levels currently are still higher than the peak of the first wave (169).

Clearly, the second wave of Covid-19 is deadlier than the first wave on both sides of the Atlantic Ocean. This was also the case with the Spanish Flu a century ago, where

overall mortality was much higher.

Asia presents an intriguing contrast. Its first wave peaked at 16 per million by October 2020. From then on, it showed a slow but steady decline till around March 2021, even as the transatlantic was embarking on a deadly second wave. Mortality has, however, risen slightly from 6 per million to 9 in the last six weeks ending April 21, 2021. But this is almost entirely on account of South Asia, particularly India, which alone shows a second wave. Indian mortality has risen from 3 per million in the six weeks ending March 6 to 15 in the six weeks ending April 21, 2021. While there is a distinct second wave in South Asia, unlike the transatlantic region, Covid-19 mortality is still lower than the peak of the first wave. The trend in MENACA is similar, but at significantly higher levels.

What then of the sharply rising and record number of Covid-19 cases being reported in India, anecdotal evidence of increased hospital admissions, overflowing mortuaries, humungous election rallies and the Kumbh Mela? It is possible that while the second wave is more virulent and infectious, it is not as deadly as the first wave, and that Covid-19 mutants in India are milder than in the West, being more flu-

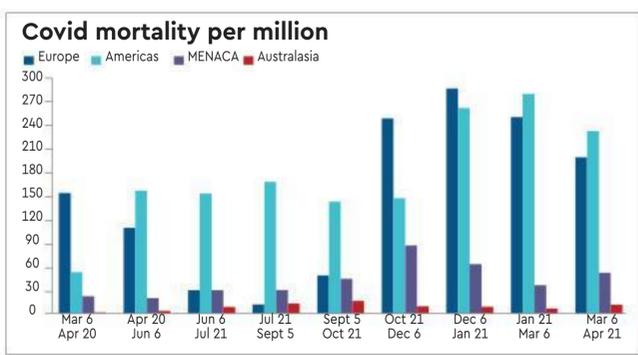
like from which most people recover. The vaccine drive may also have helped in keeping mortality in the second wave lower.

It is, however, still too early to comment on the severity of the ongoing second wave, as the Indian graph is still trending upward. We would need to watch out for incoming data. Though absolute mortality per million is modest compared to the transatlantic numbers, it has nevertheless increased six

times over the last six weeks, from 3 per million to 16. While this is still significantly lower than the first wave peak of 36, the increase over the last six weeks (13) is higher than in any earlier six-weekly interval. The Lancet Covid-19 Commission India Task Force Report of April 2021 has raised the prospect of a worst-case scenario of daily mortality of 2,320 per day by early June in the absence of adequate mitigation efforts.

There is also the issue of reliability of data that makes cross-country comparisons problematic. Testing and reporting rates, including those relating to mortality, vary across countries. Positivity rates, and number of cases, are dependent on testing that may not be equally uniform over space and time, even within the same country. While recognising this difficulty, one has to necessarily work with what data is out there. Covid-19 mortality remains the single-best indicator because large-scale mortality is difficult to conceal. Within a country, the rate of under-reporting can be assumed to remain constant over time. So, the mortality data is arguably the single-most reliable indicator for comparing Covid-19 trends across countries over time.

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MOBILE telecommunication technologies have transformed everyday life in virtually every field of human activity including work, entertainment, transportation, banking, agriculture and medicine. The third and fourth generations of wireless standards (3G and 4G) reached a user base of 3 billion in only 15 years, making them the fastest-adopted technologies in history. The number of mobile connections globally is expected to reach about 5.86 billion by 2025, with the Asia-Pacific gaining the largest share. Today, about 81% mobile users in India are on 4G phones. Despite the Covid-19-related uncertainty, the new wireless standard, 5G, is expected to surpass the adoption rate of 3G and 4G and bring about even more drastic improvements in the performance of mobile telecom networks. 5G networks will enable a broad range of applications and services such as the autonomously driven car.

The main reason behind this explosive development of mobile tech is collaboration and technology sharing between innovators that develop wireless standards and thousands of manufacturers of consumer electronics devices worldwide. The prevailing form of this cooperation is the licensing of patents that are technically essential to the implementation of wireless standards (standard-essential patents, or SEPs) on fair, reasonable and non-discriminatory (FRAND) terms and conditions. FRAND licences allow innovators to earn a fair return on their invest-

A license to compete globally

How worldwide portfolio licences for standard-essential patents are a beneficial deal for Indian players

SHEETAL CHOPRA

The author is director, IPR Policy, Ericsson India. Views are personal

ment and manufacturers to access cutting-edge technologies on reasonable terms. To minimise the costs of SEP licensing and increase efficiency, SEP-holders and prospective licensees (technology users) typically negotiate a comprehensive licence to all essential patents (i.e. portfolio of SEPs owned globally) of a certain standard or standards for the duration of the agreement. Global portfolio licences of SEPs are highly beneficial for both parties for several reasons:

Flexibility and efficiency: Worldwide portfolio licences allow the parties to shape the terms of the licence to fit their unique individual circumstances. Worldwide portfolio licences may include a variety of royalty-payment arrangements (e.g.

lump-sum royalty payments, running royalties, or a combination thereof). This kind of agreement may also include provisions on global R&D collaboration, technical assistance in the implementation of the standard, and other forms of cooperation between licensors and licensees. A patent-by-patent approach, on the other hand, would lead to an inefficient SEP licensing in terms of time and costs.

Freedom to operate: Worldwide portfolio licences provide licensees with much-needed legal certainty and assurance that they will not be sued for patent infringement of the SEP portfolio in any jurisdiction where the licensor holds rights. Freedom to operate allows licensees to focus on their productive activities



instead of dealing with legal disputes in faraway jurisdictions.

Scalability: With a worldwide portfolio licence, licensees can penetrate new markets, expand the scope of their activities and scale up faster. Under this, the licensee can safely expand its international presence and pursue its commercial strategy free from legal hurdles and without having to negotiate new licences each time it considers entering a new market. Moreover, the worldwide scope of the licence is flexible and economical: the licensee will pay FRAND royalties only for those markets where sales of standard-compliant products are made. This means that a local company will pay the agreed rates (within the global agreement) for the India mar-

ket, and only start paying for other countries in the event it expands. Thus, he will be able to start sales anywhere in the world at any time during the term of the agreement without any risk of litigation.

Cutting-edge technology: Worldwide portfolio licences allow licensors to earn a fair reward for their innovations and thus maintain their strong commitment to the development of innovative standards. Licensees, in turn, benefit from access, on FRAND terms, to most innovative technologies currently on offer on the market.

The substantial efficiencies of worldwide portfolio licences explain why they have become the industry norm in mobile telecommunications and courts in several major jurisdictions have consistently

recognised this reality. In Germany, the Federal Court of Justice, in its *Sisvel v. Haier* judgment, stressed the substantial benefits of global portfolio licences for both licensors and licensees and noted the inefficiency and wastefulness of a country-by-country and patent-by-patent licensing negotiation. In the UK, the Supreme Court, in *Unwired Planet v. Huawei*, affirmed the substantial gains from a worldwide portfolio licence. Specifically, the Court noted that the costs of bringing enforcement proceedings on a patent-by-patent, country-by-country basis would be 'impossibly high' such that implementers would be incentivised to continue infringing, distorting the balance in licensing negotiations. These concerns explain, according to the Court, why global portfolio licences are the industry norm. To summarise, worldwide SEP portfolio licences have become the industry norm in wireless telecommunications because they are highly beneficial to both licensors and licensees.

For licensees, worldwide SEP portfolio licences bring flexibility, legal certainty and freedom to operate, scalability and access to cutting-edge tech on FRAND terms. For licensors, global portfolio licences allow a fair return on their investment and thus provide incentives for further investments in innovation and standards development. Because worldwide portfolio licences make obvious sense, from an economic standpoint, courts in several major jurisdictions have recognised their value, benefits and importance for a well-functioning marketplace.

BOARD EXAMINATION

An elephant that refuses to dance

ASHOK PANDEY

The author, an educationist, is director, Ahlcon Group of Schools. Views are personal



A year-end summative exam cannot judge the future of a student

THE COVID-19 PANDEMIC has forced schoolchildren to stay at home for the second academic year. Worse, the new strain seems to affect schoolchildren. Amid growing anxiety, safety and health concerns, conducting board examinations involving 3.5 million students in CBSE schools became a national furore, inviting Prime Minister's intervention.

Now that the examinations for class 10 stand cancelled and postponed for class 12, multiple realities are staring at students, parents, schools and policymakers. The recent decision exacerbates broader concerns for repurposing education and accelerating examination reform in the country. The bold pronouncements in the NEP 2020 on holistic assessment—setting up of the National Assessment Centre PARAKH (Performance Assessment, Review, and Analysis of Knowledge for Holistic Development)—place an additional onus on the CBSE to take the issue head-on.

Soothsayers have argued a year-end summative exam cannot judge the future of a student. Despite this, an option to include the cumulative effect of internal assessment, periodic test scores and class 9 scores as plausible markers to prepare class 10 results faces opposition from the same people, defeating their earlier logic. The pandemic and the NEP 2020 are steering us again towards conducting more formative assessments that CBSE schools practised during 2010-15.

The new assessment—360 degrees, encompassing self, peer and parental feedback—broadens the scope of 'assessment for learning'. It catalyses decision around grades, instructional needs and curriculum. Additionally, it would inspire educators to ponder learning outcomes, competencies and syncing of pedagogies, engagement and love for learning. The new scheme instils partnerships and collaborations amongst students from early on. Involving students in enhancing each other's development and validating qualities and talents will help shape values and personalities.

All teachers know by experience that one cannot predict the future accomplishments of children from current abilities. Benjamin Bloom, we all swear by, said, "What any person in the world can learn, almost all persons can learn, if provided with the appropriate prior and current conditions of learning." The quest for learning and evaluation, therefore, should focus on self-development and equity. Participation, doing thinking, research and presentation are the hallmarks of new classrooms where a teacher is a table-hopping participant. The teacher also enjoys the autonomy to plan activities with students and exchange feedback.

The mere logistics of conducting summative assessment for over 2 million students in class 10 alone makes us wonder how much worth the effort, time and cost this is? The actual price of conducting exams is exorbitant. Many teachers—deputed as practical examiners, on invigilation duties, central evaluation and again for compartment exams—keep away from students for weeks. The opportunity cost of their absence is irrecoverable, ask any school principal.

Coming to classes 11-12, the rush for coaching, and a race for marks and cracking entrance exams lead to absenteeism and alienation from school life and from the best that campuses offer. A professor from IIT Delhi is researching why students seeking admissions in IITs do not exhibit adequate knowledge of India's heritage, culture and values. While it would be instructive to know the findings, the fact remains that the coaching institutions—relying on cramming, competition and cracking—gleefully mock at the other Cs: creativity, collaboration, communication and critical thinking.

The NEP 2020 invests a lot in the last four years of schooling. Packaging the finest human qualities, community service, volunteerism, innovation and problem-solving in the teens can be daunting if they escape from the temples of learning to the coaching centres.

The NEP 2020 states: "While the Board exams for Grades 10 and 12 will be continued, the existing system of Board and entrance examinations shall be reformed to eliminate the need for undertaking coaching classes." Ironically, an incredible billion-dollar deal is reportedly through, reasserting the might of coaching, even before the ink used to draft the policy is dry. The pandemic has disrupted our lives concerning health and economic wellbeing. However, it would administer a stress test to fix education is surprising.