<div align="center">श्री</div>

"India and the World after - COVID 19"

Our world is facing a life changing crisis and its consequences will have a far reaching effect on our health, economy and society; but a crisis is also an opportunity to change things for the better. Like the legendary Phoenix, we can rise from the ashes and become stronger. This is the 11th health pandemic to have hit global societies, starting with Antonine Plague (165 AD) to CoVid-19, each one made a serious impact on human beings and its existence. The latest pandemic is traced to the city of Wuhan, China, where a new ("novel") coronavirus began appearing in humans mid-November 2019. It is named CoVid-19, a shortened form of 'coronavirus disease of 2019.' Pathogens (CoVid-19) are mass killers because they self-replicate and when CoVid19 infects a host, that host becomes a cellular factory to manufacture more viruses.

Global societies are bearing the brunt of lockdowns, lack of public transport, social and economic disruption, and recession. It has a negative impact on daily life and world-wide events such as tourism, sporting, religious and cultural events. Restaurants, theatres, schools and universities have been closed. Due to this, millions have lost their jobs and suffered anxiety and depression. Domestic violence is increasing. According to the World Health Organization (WHO), a 155-country survey shows severe disruption to services for non-communicable diseases, such as hypertension, diabetes, cancer treatments and cardiovascular emergencies. The International Labour Organization estimates that 195 million jobs were lost. The World Bank projects a US$110 billion decline in global remittances this year, which could mean 800 million people will not be able to meet their basic needs.

Since stay in place orders and workplace shutdowns, we have had to conduct our interactions in different ways. "Virtual" is the key word of our present times. Schools, jobs, meetings, family get-togethers are happening virtually. It does help but may have a negative impact on children; they were already deprived of human to human interaction due to digital devices and apps available for entertainment. Loneliness, anxiety and depression will soar and there is a huge possibility of deteriorating mental health across the globe.

Until a vaccine for the novel coronavirus is available, many companies will keep workers at home while others will experiment with a mixed approach, having workers come to the office a couple days a week and staggering the days groups of workers come in. In the long-term, some companies might decide to have certain workers continue to work remotely, we may see greater use of flexible scheduling and settings where employees work remotely a few days a week. The latter approach preserves the benefits to creativity and problem solving that arise from having team members working together in the same location, while cutting overhead costs as less office space is needed.

We tend to forget that many years ago; families were the center of society. With remote work becoming a more permanent fixture in our future, I believe we will return to that structure, with a heightened focus on our families first and everything else falling into place around them.

Of course, not everyone can do their jobs from home. Workers in manufacturing or on assembly lines can't take the heavy machinery they operate home with them. Neither can construction workers building projects in the field nor healthcare workers and first responders on the front lines of this crisis.

Potential long-term impacts of Covid 19

With increased numbers of people isolated in the home for longer periods of time, the home matters more than ever as a haven for domestic life. Where homes cannot or do not provide sufficient living space or financial resources, emotional support, the consequences for physical and mental health are potentially significant. Domestic violence is reported to have increased since the onset of the lockdown in many countries; divorce rate is increasing as well. Working from home in small homes adds to the stress of everyday life, and the impossibility of separating home and professional life can exacerbate existing work-related anxieties and depression.

According to Dr. Vikram Patel, Professor of Global Health at Harvard Medical School, The GlobalMentalHealth@Harvard initiative was launched in 2017 to marshal the rich, inter-disciplinary expertise within the university and to scale up this knowledge with a worldwide network of partners. In response to the pandemic, the initiative is prioritizing actions to transform and build resilient mental health care systems globally by deploying a range of digital tools to build a mental health workforce. It enables front-line providers - community health workers and nurses - to deliver evidence-based brief psychosocial therapies. Dr. Patel has led research generating knowledge on the burden and determinants of mental health problems in Low and Middle Income Countries (LMIC) and pioneered approaches which utilize community resources for the prevention and treatment of mental health problems in India.Other countries could amplify this approach to suit their resources and adapt similar strategies.

Behavioral changes:

Behavioral changes like washing hands, hoarding supplies, may be fear-driven to some extent but may not be long term, says Yale School of Medicine psychologist Valeria Martinez-Kaigi but survivors of collectively traumatic events tend to be especially vigilant in situations that burned them in the past. When people are forced to react to a deadly virus running rampant, they may be especially keen to keep future viruses at bay.

According to Dr. Utpal M. Dholakia, Professor of Marketing at Rice University, most of us will revert to what we were before, in terms of buying. This time around, the change will be in the reverse direction, from the global to the local. The COVID-19 pandemic has increased the salience of self-sufficiency, vigilance, and individual social responsibility.

Other trends, such as increasingly visible climate change, the broad adoption of artificial intelligence and population growth have the potential to contribute to emergent change. Consumer behaviors that support local enterprises, whether it is local farms, mom-and-pop restaurants, or neighborhood manufacturers, will become popular and even mainstream. Large corporations, that make high-tech products, cutting-edge drugs, or provide standardized services, will be tolerated, but they won't gain consumers' trust or loyalty.

Foreign goods and brands may be treated with suspicion and seen as second choices in many categories; this will definitely benefit India. A lot of local businesses will grow and the 'make in India' movement will skyrocket. The post-CoVid-19 world is likely to be an insular place.

The bonus predicted by remote work is empathy inside corporations and corporate offices will increase due to Covid-19. Large numbers of people reported bracing for the possibility that they would lose their jobs or contract the virus. In fact, even before the novel coronavirus, necessary leadership and management skills and qualities had been trending toward vulnerability, empathy, emotional intelligence, active listening, and transparency

After the pandemic has passed, these qualities and skills will become mainstream. With more people working remotely, companies may open regional hubs or provide access to co-working spaces wherever their workers are concentrated rather than have the majority of their workforce at one central office.

Another bright spot to how the pandemic will impact the future of work could be strengthening the personal relationships we form with colleagues. "For a long time, we've probably taken for granted the ability to see our coworkers every day and maybe didn't realize how valuable that was," says Lakshmi Rengarajan, a workplace connection consultant. "I think teams will be a lot closer when they're able to move back into the workplace."

Preparedness:

Bill Gates saw the COVID-19 outbreak coming — and he knew we weren't prepared for it. The Microsoft co-founder on multiple occasions over the past decade talked about the potential for something like the novel coronavirus that has infected nearly 12 million worldwide and killed almost 600,000 people.(July 12, 2020). His TED Talk from 2015 titled 'The next outbreak? We're not ready' he said "If anything kills over 10 million people in the next few decades, it's likely to be a highly infectious virus rather than a war. Not missiles, but a microbe". But even he admits he should have done more to raise the alarm; but he and other philanthropists have donated billions of dollars towards vaccine development.

So what should we expect from a government of any country in the event of a pandemic? Given that each country has different circumstances, it is imperative that each one fine tune a global template for its conditions and resources. This also underscores a need for more global response teams far beyond what WHO now has. If one looks at the history of emerging or re-emerging infectious disease pandemics globally, on average they have appeared every

decade but now, worryingly, the frequency between pandemics seems to be disturbingly shorter as evident with Severe Acute Respiratory Syndrome (SARS) in 2003, Influenza A H1N5 (bird flu) in 2007, H1N1 (swine flu) in 2009, Middle East Respiratory Syndrome (MERS) in 2012 and Ebola in 2014.9

Overpopulation and poverty are the primary factors that have brought about this change. Malnourished populations in LMIC serve as the breeding grounds for future pandemics. According to WHO, 137 million people in urban centres have no access to safe drinking water and over 600 million lack sanitation. The UN predicts that the world's urban population will double to over six billion by 2050 and most of the increase in density will occur in LMICs. Population density is directly correlated with the rate of transmission of respiratory and faecal-oral pathogens (e.g. Mycobacterium tuberculosis, influenza, cholera, rotavirus, helminths). The current pandemic started in China which is not a LMIC and it could have been stopped if proper measures were taken.

L.O. Gostin and E.A. Friedman in their paper titled 'A retrospective and prospective analysis of the West African Ebola virus disease epidemic: robust national health systems at the foundation and an empowered WHO at the apex' published in Lancet 385 (2015) have researched the failure to plan for crises and come up with recommendations. They state that if the WHO member nations (194) do not take the International Health Regulations (IHR) core capacity-building requirements of disease surveillance, reporting, and response seriously, then why continue to use them as an international framework? In reality WHO member nations from LMICs see the regulations as an enormous obligation primarily developed to protect the health and welfare of developed nations.

For most countries in the developing world it is difficult to improve their health systems to a standard that is similar to that of high-income countries. Moreover, most LMIC countries will not be able to establish core IHR capabilities without considerable donor support and international assistance for training, creating the necessary laboratory infrastructure for prompt diagnosis, and the technology required for 'real-time' reporting.

It is known in management circles that 'if one fails to plan then one should plan to fail'. With regard to pandemic planning, if we fail to build national epidemic capacities in LMICs then we should plan to deal with a global pandemic in the not too distant future. However, in order to build such national capacity it will take considerable international political will that at the moment seems to be lacking. Instead of allocating huge resources that 'react' to pandemics, funds must be earmarked to 'prevent' pandemics.

This would include building national capacities of LMICs and smart surveillance of Emerging Infectious Diseases (EIDS) in identified hotspots in the tropical and subtropical world. What are the likely organisms to cause a future pandemic and where will they originate from? Zoonosis from wildlife represents the most significant global health threat of our time yet little funds are

spent monitoring and identifying new zoonotic pathogens originating in wildlife. Clearly a global 'One Health' approach is the way forward.

According to European Centre for Disease Prevention and Control: Pandemic preparedness, response and evaluation should be built on generic preparedness platforms, structures, mechanisms and plans for crisis and emergency management. At least this pandemic will generate awareness among all countries to plan, work and execute preparedness of future pandemics.

In November 2019, the Center for Strategic and International Studies published the report "Ending the Cycle of Crisis and Complacency in the US Global Health Security." It states that "As the global population presses towards 9.7 billion by 2050 (India will be #1 in population) and expands into wild frontiers, as agriculture becomes more intensive, as cities of great density and scale proliferate, and as the earth grows hotter, the threat of new emerging infectious diseases rises steeply. The long-term costs of strategic protection and prevention programs are but a tiny fraction of the astronomic costs of episodic, often chaotic responses to sudden, emergent crises." As our grandmothers would say "a stitch in time saves nine."

India:

India has done an amazing job of internet/digital connectivity and that has proved to be a boon for studying/working from home. Full fibre broadband service all over India will help citizens who will be more dependent on digital mode of communications. With so many foreign venture capitalists investing in cutting edge start up companies in India, perhaps the central government can play an stronger role in giving grants, loans, and even land to digital entrepreneurs who diversify their presence all over India instead of concentrating on a few cities. GOI needs to come up with plans to encourage more entrepreneurship programmes for its youth, so that they are guided and supported financially to start their own business.

Sundar Pichai, the chief executive of Google's parent company Alphabet Inc announced on July 12, 2020 Google will invest $10bn in India in the next five years, The investment will be made through the Google for India Digitisation Fund. Mr Pichai said that this mission was "deeply personal". Of course, all this progress was only possible because of a strong foundation of digital connectivity. Thanks to Prime Minister Modi's vision for Digital India, the country has made huge progress in getting a billion Indians online.

Food sources and supply will be more important than ever, plans need to overcome the country's reliance on people power to harvest, distribute and sell goods leaves it vulnerable during coronavirus shutdown. Delays in the supply chain are resulting in a slow movement of raw, processed food and perishable items. Farmers are already battling the fear of wasted produce due to a near stagnant supply chain resulting in enhanced demand for adequate storage space and conditions for these. Apart from fruits and vegetables, other processed foods with a shorter shelf life are also occupying space in warehouses, both for temperature-controlled

and regular storage. This is an important sector that needs more planning and GOI must ensure that agricultural workers are given more health resources

Another important issue that needs immediate attention is the plight of the poor and vulnerable of the country. India is currently facing the worst migrant crisis since the Partition of 1947. While its efforts have been praised by WHO and by other international players, the country has had to face sharp criticism in handling the migrant crisis. By numbers too, the situation seems far worse in India than other South Asian nations, where it is projected that 400 million workers may sink into poverty.

Indian governments need to ensure that the migrant/daily wage workers are taken care of, the lockdown scenes of millions walking was very sad to see. It highlighted poor planning of the consequences of lockdown. Something like this should have been considered. NRI's like us, should get more encouragement to start in import-export businesses. A safer and modern infrastructure and transparency of rules are the keys.

I lived almost half of my life in India and now in the United States. The big difference I see is in the infrastructure and rule of law. Bigger cities in India are overcrowded because of the concentration of businesses, but a plan to spread out businesses in rural areas would definitely bring uniformity and opportunity for Indian citizens. Now that a lot of businesses are allowing their employees to work remotely, this can be easily executed to spread out to rural areas. Branches and offices shifted to rural areas will definitely bring a decrease in unemployment, as local people will get opportunity. There is a dire need to bring a change in the school system in India. The curriculum should include knowledge of India's rich cultural heritage, lessons of spirituality, ancient healthy lifestyle mantras in school, so the future generations will not be ignorant.

India is already an important player in global matters. So many scientists, doctors, engineers and other experts in Western countries are of Indian origin, its soft power is in its export of educated and entrepreneurial citizens, culture and ancient knowledge. When I see Yoga, turmeric latte, the importance of meditation being adapted and practiced beautifully here in the United states, but I do not see the same in India, the pioneer of those practices. I wish to see the youth of India learn, adapt and research to patent these practices and products to bring India in the forefront. One more area where India can do more is in the area of cultural tourism. Foreigners usually travel to well-known destinations in India, but there are so many ancient temples, monuments there with a rich and interesting history that can become popular through cultural tourism.

A continued effort from the government (center and the state levels) to bring reforms can make the future of this country's prospects brighter. But, more importantly it depends on the citizens of the nation to help the government in achieving the goals. India must now rise from this disaster. The importance of a well-planned organic-growth strategy has never been greater. But no government can by itself do everything to make the country great; the patience shown by the

population over the tribulations of lockdown are commendable. It depends on the people who define the country and its potential to make it a great nation.

Aishwarya Kokatay
kokatayash@gmail.com
Los Angeles