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A COMPLETE HEALTH MAGAZINE

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**Corona Vaccine: Limitations and Better Alternative** 









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Win the battle against Covid-19



Focus on formulation of a new road map



Vaccination in India injecting confidence

#### EDITORIAL

## Vaccine synonymous with humanitarian

#### Dear Readers,

hanks a lot for your kind support. We are humbled to place on record our infinite gratitude for your uninterrupted, unwavering support to us in bringing out edition after edition on pertinent health issues. Ever since its inception, Double Helical, a leading national health magazine, provides a platform to recognize innovation, people, products and services that are helping to transform the healthcare sector in the country and ushering in affordable, high quality and inclusive healthcare for masses.

As per report, every Covid patient is a potential source of infection to others. The advent of Corona Vaccine in the beginning of the New Year led to dramatic conquest over prevalent infectious Covid-19, followed by emergence of Covid vaccine for relief from Corona Virus.

There is increasing recognition of Covid associated multisystem inflammatory syndrome in children (MIS-C). Children with co morbidities (chronic lung /heart /kidney /liver disease) are at highest risk. Therefore as the vaccine trials confirm safety and efficacy in children, they should definitely be vaccinated as we should try to prevent even the smallest number of tragic events among children.

Today the Covid-19 outbreak is not only leading public health crisis but also caused substantial damage to the world economy due to loss of life, reduced productivity, trade disruption, business closures and decimation of service industries.

The national governments throughout the globe spend trillions of dollars to fight against negative economic impact. The outbreak of novel corona virus has impacted nations in an enormous way. India and other large populated nations have required putting huge amounts of resources on social welfare and livelihood programs during pandemic and on the other side prevention, control and treatment of Covid-19 infection is also a top priority for the government.

The availability of vaccine and other alternative treatment is going to help in safeguarding public health and also reduce significantly the socio-economic costs burden of the pandemic on the nations around the world. There will be further many more challenges takes place which can be associated with manufacturing and distribution process of vaccines or medicines around the globe.

Until there is a treatment or vaccine broadly available, physical distancing, the use of sanitizer, facemasks and lab test, surveillance and monitoring will most likely be the only effective measures in the battle against the spread of the disease. The national concern of not having enough medical commodities or resources led governments around the globe to enact both export restrictions and import liberalizing measures for personal protective equipment as well as crucial medical supplies. Whereas imposed of such restrictions boosted the domestic supply of medical equipment and pharmaceuticals, this also shifted negative implications of supply shortages on other foreign countries and as the

number of countries implementing such restrictions has escalated, the risk is spiraling protectionism that can lead to catastrophic scenario throughout the globe.

India as a nation had a far less per capita incidence as well as mortality, with much higher recovery rate than the developed nations equipped with far superior medical facilities. This has been attributed by some experts to better innate immunity among Indians due to spiritual heritage of our ancient civilization.

Though India is a developing country it is widely known as the world's vaccine capital. India provides to the global community 62% of vaccines for several diseases such as DPT, measles, and BCG to fulfil global requirements.

As our authors from Department of Science and Technology have written very well that the vaccine diplomacy has always been a part of science and health diplomacy since discovery of the smallpox vaccine in 1798. Britain's Edward Jeener discovered smallpox vaccine and advised about its administration to the diverse countries like Russia, Turkey, Spain, Canada, and Mexico. The creation of a network of laboratories in Francophone countries in Indochina and North Africa to prepare and administer the rabies vaccine by the French Pasteur Institute in the late 1800s is another example of vaccine diplomacy. The eradication of polio virus from the world was not possible without travel of Dr. Sabin from the U.S. to the Soviet Union to collaborate with Soviet virologists on prototype development for the oral polio vaccine during the Cold War.

Vaccine diplomacy is nowadays synonymous with humanitarian diplomacy as these initiatives are serving mankind and help them to survive through this pandemic. Realizing that, India is expanding its hand of friendly gesture to its immediate neighbors including Bangladesh, Maldives, Bhutan, Nepal, Myanmar, and others. This move will help India to increase its credibility as well as an image of grounded vaccine manufacturer.

India is the largest hub of pharmaceuticals and fulfills the 20 percent demand of world's generic medicines and meets 62 percent of the global demand for all vaccines. Not only vaccine, India supplied hydroxychloroquine, Remdesivir and paracetamol tablets, as well as diagnostic kits, ventilators, masks, gloves, and other medical supplies to many countries in the fight against Covid-19, despite great demand at home. The current issue of Double Helical is replete with more such interesting and thought-provoking stuff to savour, reflect and ponder. So, happy reading!

And Kan hay

Thanks and regards Amresh K Tiwary, Editor-in-Chief

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P-8, Sector-12, Noida Ph. : 0120-2555552, 2555553, Mob. : 8527222223 www.rashtriyapahal.in E-mail: rashtriyapahal@gmail.com **SPECIAL STORY** - CORONA VACCINE MANAGEMENT



## **CORONA VACCINE: LIMITATIONS AND BETTER ALTERNATIVE**

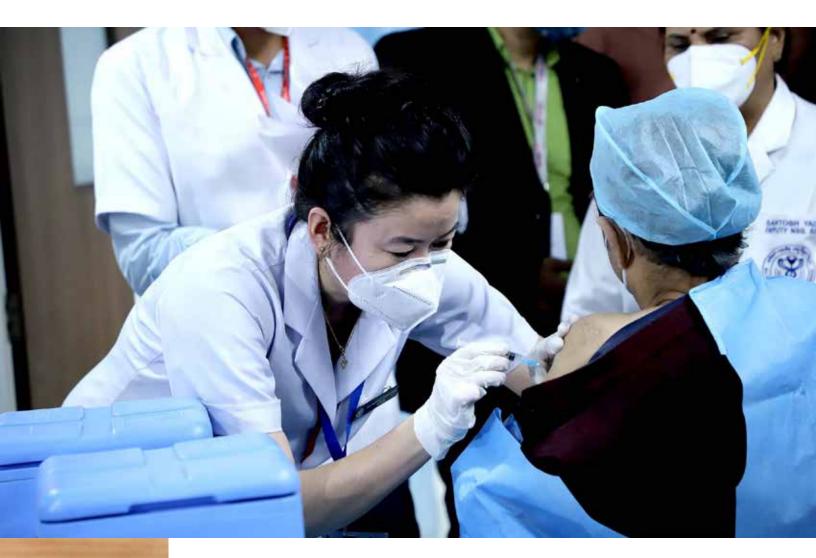
#### **BY SHALINI SAHU**

or whole of the year 2020, the world has been caught up in the unabated Covid-19 pandemic. The figure of people having suffered from this infection in our country has crossed the one crore mark with more than one and a half lakh deaths as a result, out of the worldwide figures of more than seven crore infections causing nearly seventeen and a half lakh fatalities.

This pandemic has, once again, revealed inherent limitations of exclusive dependence on modern or the 'allopathic' system of medicine due to its inability in containing this virulent infection, like most other diseases.

During this period different pharmaceutical manufacturers have tried to promote their drugs to make quick profits at the expense of ethical practices. The final hope of containing this pandemic has come to rally around developing human 'IMMUNITY' through a Vaccine, of which various candidates are trying to compete to prevent further spread of infection among the masses. But, none of these vaccines appear to





be ideal or even optimum in the present circumstances.

The availability of vaccine in such large numbers and the process of vaccination would be a huge financial and administrative challenge as it requires to cover more than sixty percent of global population to be administered with at least two successive doses at a gap of 3 or 4 weeks within next few months.

At the same time no one, at this stage, knows long term implications of this exclusive reliance on Vaccine. In spite of official rebuttals, there are controversies and doubts, as well as questions about the nature and long term consequences of these vaccines. It's quite apparent that due to the serious situation short cuts have been allowed in their development within a period of few months.

There is a significant number of people opposing vaccines on social media with more than 30 million anti-vaccine groups on Facebook alone! There is a point that no edible grain, vegetable or fruit which has undergone genetic interference, as this vaccine is designed to do, can be termed strictly 'organic' or harmlessly promotive for human health! However, what has universally crystallised is the belief, following the age-old proverb "Prevention is better than any Cure" that development of IMMUNITY of masses is the exclusive reliable answer to contain this pandemic.

But, what surprises me in our land of 'Atharveda' with our popular Prime Minister having initiated to get Yoga recognised all over the world, his commitment to 'Atmanirbhar Bharat' with 'Focus on Local' and an independent ministry dedicated to promotion of indigenous AYUSH systems of health that, while the whole world has gone all out to develop a vaccine with the purpose of developing immunity of the people, we as a nation have missed the opportunity to concurrently develop scientific evidence through multicentric research projects for authentication of role of Yoga, Naturopathy, Ayurveda or Homoeopathy in enhancing natural drug-free immunity for all almost at nil cost.

It's well known that immunity of an individual is directly proportional to one's quality of health, which in turn is most importantly based on healthy life-style, balanced nutrition and regular



#### **SPECIAL STORY** - CORONA VACCINE MANAGEMENT





fitness activities. It's universally recognised that practice of Yoga & Ayurveda as a life-style leads to promotion of health and resultant prevention from all diseases. Not only it helps its sincere practitioner to develop a comprehensive armour against all infections, that would include Covid-19; at the same time lead to significantly reduce incidence of all other life-style diseases growing as an unbridled menace in epidemic numbers all over the world.

I'll, also, strongly besiege our Hon'ble Minster of AYUSH to bat for promotion and development of the traditional drug-free ayurvedic practice of 'bhedan kriya' which reached to the far east nations along with the spread of Budhism. It was patronised by Chinese royalty for its development and is being presented to the modern world as the



Dr. [Prof] R. K. Tuli

Chinese system of Acupuncture. It has gained lot of credibility with W.H.O. giving it recognition way back in year 1982, and many developed nations licensing its practice over the decades. We are still struggling in our country to get it official recognition. I'd endorse from my over 50 years of medical practice that it's extremely efficacious at all the three levels of health. in all ages, and at all stages of every sickness. It essentially works by restoring the 'milieu interior' of the individual and boosting immunity. It's benefits shall, also, be immensely valuable in overcoming Post-Covid Syndrome, leaving a trail of morbidity and mortality, in restoring many many lives.

An honest strong political will with commitment at planning as well as professional level for "HEALTH FOR ALE can be easily reached by an all inclusive strategy comprising Holistic model of Health for an 'Ayushman Bharat' within existing infrastructure and financial resources by adopting the PM Modi's 'Skill India' programme to enhance the skills of all health care personnel at primary, secondary as well as tertiary care level in letter and spirit. Holistic model of HealthCare offers a potential to trigger revolution in health for true.

> With inputs from Dr. [Prof] R. K. Tuli

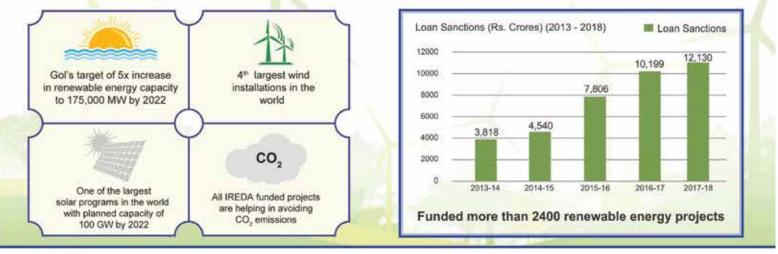
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# VACCINE DIPLOMACY

The "Vaccine Maitr", an initiative to gifting and exporting COVID-19 vaccines, proves as a major milestone to strengthen soft power and establish international relations with the leading countries and so-called developed countries...... BY SK VARSHNEY/ JYOTI SHARMA

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asudhaiva Kutumbakam" is one of the strongest Indian beliefs, which means the world is one family. As all family members have to take care of each other, through its initiative "Vaccine Maitri", India is gifting and exporting COVID-19 vaccines to 22 countries including neighbours. This will be a major milestone to strengthen soft power and establish international relations with the leading countries as well as create good will among the socalled developed countries.

Though India is a developing country it is widely known as the world's vaccine capital. India provides to the global community 62 percent of vaccines for several diseases such as DPT, measles, and BCG to fulfil global requirements.

Vaccine diplomacy has always been a part of science and health diplomacy since discovery of the smallpox vaccine in 1798.Britain's Edward Jeener discovered smallpox vaccine and advised about its administration to the diverse countries like Russia, Turkey, Spain, Canada, and Mexico. The creation of a network of laboratories in Francophone countries in Indochina and North Africa to prepare and administer the rabies vaccine by the French Pasteur Institute in the late 1800s is another example of vaccine diplomacy. The eradication of polio virus from the world was not possible without travel of Dr. Sabin from the U.S. to the Soviet Union to collaborate with Soviet virologists on prototype development for the oral polio vaccine during the Cold War.

Vaccine diplomacy is nowadays synonymous with humanitarian diplomacy as these initiatives are serving mankind and help them to survive through this pandemic. Realizing that, India is expanding its hand of friendly gesture to its immediate neighbors including Bangladesh, Maldives, Bhutan, Nepal,



Sanjeev Kumar Varshney



Jyoti Sharma



Myanmar, and others.This move will help India to increase its credibility as well as an image of grounded vaccine manufacturer.

India is the largest hub of pharmaceuticals and fulfill the 20 percent demand of world's generic medicines and meets 62 percent of the global demand for all vaccines. Not only vaccine, India supplied hydroxychloroquine, Remdesivir and paracetamol tablets, as well as diagnostic kits, ventilators, masks, gloves, and other medical supplies to many countries in the fight against Covid-19, despite great demand at home.

India's vast experience and deep knowledge in the field of medicine and health management setting the tone for health diplomacy. India has spent more than substantial sum on pharmaceuticals, test kits, and other medical equipment during this Covid pandemic. At the peak of this pandemic, when it was realized that vaccine is probably the only safeguard, many countries initiated programs encoring their researchers and industry to work out Covid Vaccine.

The disease burden- as the country with the second highest number of total Covid -19 cases- meant that India spent much of the year battling internal issues, but current lack of global leadership from the US and the EU means that India can no longer afford focus inwards. Rather, the to government must aim to export more vaccines and provide greater aid to struggling nations around the world. Like many other countries, Indian researchers and industry worked hard to develop a vaccine for Covid-19. India launched its covidvaccination drive on 16th January 2021, and by now close to 5 million healthcare and enforcement workers have been vaccinated. India is one of the world's biggest drug-makers and an increasing number of countries approached it for procuring the vaccines Covaxin by Bharat Biotech and developed in collaboration with ICMR and the National Institute of Virology, and Covishield made by the University of Oxford with AstraZeneca and manufactured by the Pune based Serum Institute of India. Three more candidate vaccinces are under last phases of clinical trials. Pfizer, Moderna and Sputnik have also sought permissions to carry out the clinical trials.

India is able to take the mantle of leadership from the US and the EU through vaccine diplomacy. The US has spent the past year recommending unproven treatments and hoarding vaccine supplies instead of coordinating a global response. The EU was more involved in aiding international endeavors, but the needs of developing countries were clearly low on their list of priorities; delays in vaccine production have already led to the EU threatening to ban vaccine exports to the UK, nevermind the rest of the world.More importantly, developed countries have already reserved the vaccine doses necessary to meet their internal demand. Canada has enough doses earmarked to



vaccinate its population more than five times over, and don't seem deeply invested in ensuring LMIC/LDCs receive them. The COVAX facility was set up to aid developing countries and claimed to have sourced 200 million doses, but has not delivered any of them yet. South Africa is paying more than double what the EU is paying for every dose of the Astrazeneca vaccine. Attempts to halt patents for the vaccines on humanitarian groundssponsored by South Africa and Indiawere blocked by the US, the EU, the UK, and Canada.

This is not an unfamiliar role for India; the push and pull of being the loudest voice for developing countries has played out in an international forum multiple times, often leading to a sense of diplomatic isolation. Now, however, India has the chance to not only be a standard-bearer, but also the knight in shining armor. Already, India remains one of the only countries exporting vaccines, to the point that more than ninety nations have approached India for vaccine supplies as opposed to the US, the EU or China. The export of vaccines- the release of more aid, not just in dispensing







vaccines but developing the infrastructure for vaccine drives- must be increased in order to provide real, substantial aid to the countries that need it most.

India has received requests for the supply of Covid-19 vaccines from 22 countries so far these have already been supplied to 15 countries, Union Health Minister Harsh Vardhan said replying to queries during question hour in Lok Sabha. As of February 2, a total of 56 lakh doses has been given as grant assistance and 105 lakh as contracts doses," the minister said.

Chinese encroachment on Bhutan last June acts as a glimpse into their aims to reduce India's primacy in the region. India's own conflicts with China don't seem to be slowing down. so it's important that the government maintains, constructs, and nurtures relationships in the region. The vaccines currently shipped to the Maldives, Bhutan, Nepal and Bangladesh are therefore utterly necessary in maintaining these ties. India must expand its release of COVID-19 vaccines as quickly and efficiently as possible in order to expand its influence, and it is in the position of a lifetime to do so: with a power vacuum for a situation in which India has experience, that can only further their diplomatic ties and entrench their position in the global community.

All the consignments carrying vaccines have a label showing our panoramic traditions that are written in Sanskrit "Verse Sarve Santu Nirmaya" (may all will be free from disease). This major step is showing India's capability of being international in the environment of self-sufficiency or a nationalistic approach.

(The authors are Adviser & Head International Division/Senior Scientist, International Division, Department of Science & Technology, Government of India)



## THE CHIL DEFINITE

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#### **INTERVIEW** - DR. NEELAM MOHAN

#### **BY ABHIGYAN/ABHINAV**

n an interview with **Double Helical**, **Dr. Neelam Mohan**, **Director, Department of Paediatric Gastroenterology**, **Hepatology and Liver transplantation**, **Medanta**, The Medicity, Gurgaon. says that though the morbidity and the mortality of Covid-19 is low in children. There is increasing recognition of Covid associated multisystem inflammatory syndrome in children (MIS-C). Children with co morbidities (chronic lung /heart /kidney /liver disease) are at highest risk. Therefore as the vaccine trials confirm safety and efficacy in children, they should definitely be vaccinated as we should try to prevent even the smallest number of tragic events among children.

Every Covid patient is a potential source of infection to others. Since children stay close to parents and especially grandparents, they can be a potential threat for the elderly at home. The advent of corona vaccine in the beginning of the new year led to dramatic conquest over prevalent infectious Covid-19, followed by emergence of Covid vaccine for relief from Corona Virus.

Today especially the children tend do what they see and not what they are told to do so its duty of parents to wash hands often and cover mouth while sneezing so that our little champs copy them automatically. Hands should be washed with soap and water for at least 20 seconds before children eat, after they use the bathroom, come inside from outdoors or touch something dirty like garbage.

#### **Excerpts from interview**

How is Covid-19 infection in children different from adults?



Children and adolescents account for only 2-7 percent of all cases reported worldwide. Most of the infections in children have been mild and non-fatal. Reported mortality is as low as 0.06 percent as per American academy of Paediatrics.

However, in the last 6 months, there have been increasing reports from UK, America and India describing children with Covid-19 associated multisystem inflammatory syndrome, which seem to develop after the infection rather than the acute stage of the disease.

#### What is Multisystem inflammatory syndrome (MIS-C)?

Clinically MIS-C is recognised as an illness similar to Kawasaki disease (rash, conjunctivitis, oral/ mucosal inflammation) or signs of shock mimicking toxic shock syndrome or significant diarrhoea, vomiting /abdominal pain in a child with initial resolution of known/highly suspected Covid-19 infection or

## DREN SHOULD Ly be vaccinated

#### **INTERVIEW** - DR. NEELAM MOHAN





history of recent Covid-19 exposure in last 4 weeks. It is supported by laboratory evidence of inflammation (low albumin, high CRP, high ESR, raised D –dimers, High ferritin, high LDH) and Covid PCR or antibody positivity. Most cases are managed with IVIG and /or steroids along with appropriate anticoagulants. The long-term outcomes remain unknown and close follow-up is important in such children.

#### Can children be a source of infection too?

Yes, every Covid patient is a potential source of infection to others. Since children stay close to parents and especially grandparents, they can be a potential threat for the elderly at home. Therefore, schools have been shut for almost a year now in India and other countries.

#### Is it safe to send the child back to school?

Some schools are planning complete in person learning while others are planning a hybrid mix of in person and online classes. Personally I feel that younger children and kids with special needs learn best in school while older children can handle online classes better. However at the same time, making young ones practice social distancing and wearing mask above the nose is a bigger task compared to older kids.

Schools teachers and health experts are all working hard to make schools as safe as possible like proper disinfection measures, limiting class size, stagger schedules, hybrid learning. Parents should play their part and train their kids to follow basic safety rules and also be flexible in their approach as per needs of the school.

## How to make children practice hand washing and social distancing?

Children tend do what they see and not what they are told to do so its duty of parents to wash hands often and cover mouth while sneezing so that our little champs copy them



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#### **INTERVIEW** - DR. NEELAM MOHAN





automatically. Hands should be washed with soap and water for at least 20 seconds before children eat, after they use the bathroom, come inside from outdoors or touch something dirty like garbage.

We should practice social distancing in front of them and count 3 feet back every time we stand and talk to anyone or stand in a queue. This will reinforce social distancing among them.

## How to react when a young child asks: "Why can't I go to school or malls?"

Avoid negative reactions like "coronavirus is dangerous; it can kill us all ". Reassure children by saying "We all are warriors fighting the evil virus and if we follow basic rules of hand washing, social distancing and masks, it will not be able find us and we shall win!" It is very important as a parentto remaincalm and not show panic in front of the young ones.

#### Should children get Covid vaccine?

Though the morbidity and the mortality of Covid-19 is low in children. There is increasing recognition of Covid associated multisystem inflammatory syndromes in children (MIS-C). Children with comorbidities (chronic lung /heart /kidney /liver disease) are at highest risk. Therefore as the vaccine trials confirm safety and efficacy in children, they should definitely be vaccinated as we should try to prevent even the smallest number of tragic events among children. There is no reason to believe that if the vaccine works in less than 16 years, why it should not work in the younger children as they have a more robust immune response. Only safety data needs to be collected before vaccinating our young ones. Many vaccines are under trial in children above 12 years of age and soon trials will begin in 6-11 years group as well.

## Should one take the vaccine if she is breastfeeding his/ her child?

As of now, WHO does not recommend vaccination in pregnant and nursing women. However FDA (USA) has left it on the individual's choice. Trials have begun on pregnant women as well.

#### Are masks safe for kids?

All Kids more than two years should wear a triple layer mask which fits them nicely above the nose.

#### Which sanitizer is best for kids?

Hand sanitizer with at least 60 percent alcohol can kill germs like Covid-19. Parents should supervise children less than five years of age when using sanitizers as they can spill it in their eyes or try tasting it which can be very harmful.

As they say after every difficulty, there is always ease....This too shall pass and our little ones shall bloom!

#### **EXCLUSIVE STORY** - BATTLE AGAINST COVID-19



Vaccine is one of the most important public health interventions where there is no appropriate cure for a disease. Since the outbreak of SARS-CoV2, a race for developing a safe and effective vaccine has commenced.... BY DR. PUNEETA AJMERA/ DR. JASEELA MAJEED







#### **EXCLUSIVE STORY** - BATTLE AGAINST COVID-19

he pace at which Covid-19 is spreading across the world is ruthless and irrevocable causing severe public health, economic and social turmoil. Countries across the world are putting in considerable efforts and resources in confronting Covid-19, from nationwide lockdowns to hygiene measures and maintaining social distancing.

Vaccine trials are being done on a war footing around the globe. In India, as on 06 January 2021, two companies have been granted restricted emergency use of two vaccines - Pune based Serum Institute of India for Covishield, the vaccine developed by Oxford University and Astra Zeneca and Hyderabad based Bharat Biotech that has developed Covaxin in collaboration with the Indian Council of Medical Research (ICMR).

#### METICULOUS PUBLIC HEALTH PROGRAMME OF INDIAN GOVERNMENT

Ministry of Health and Family Welfare, Government of India issued updated operational guidelines regarding Covid-19 vaccines on 28<sup>th</sup> December 2020. The vaccine is to be used in conjunction with other control measures.19 ministries at national level, 23 departments at state/ district and several developmental partners are involved in planning the Covid-19 vaccine introduction and their roles have been specified in the operational guidelines.

A National Expert Group on Vaccine Administration for Covid-19 (NEGVAC) has been constituted to supervise all facets of the Covid-19 vaccine introduction in India including regulation, selection, delivery, finance, funding, communications, media response, and regional cooperation.

The vaccination drive will simultaneously begin across the country and initially three crore healthcare and frontline workers and population above 50 years of age will be inoculated, followed by population below 50 years of age with associated co morbidities depending on the evolving pandemic situation, and finally to rest of the population based on epidemiology of disease and availability of vaccine. The priority group of above 50 years can be further subdivided into population above 60 years of age and population between 50 to 60 years of age for the phasing of roll out based on disease situation and vaccine availability.

The most recent electoral roll for Lok Sabha and



#### **Types of Session Sites for Different Priority Groups** Health CareWorkers Priority Frontline Workers(FLWs) Prioritized AgeGroup (HCWs) Group Fixedsessionsiteatthe *Fixedsessionsite*atthe *Fixedsessionsite*atthe *HealthFacilities* Health Facilities -Health Facilities – Government/Private Government /Private • Government Health Outreachsessionsite-Outreachsessionsite-**Session Site** facility at PHC level Schools, Community OfficeofFLWs,Schools, & above hall, Gram Panchayat Community hall etc. in Private and Municipality their residentialareas *HealthFacilitywith* ≥100 HCWs

#### FIG. 1: TYPES OF VACCINATION SESSION SITES FOR DIFFERENT PRIORITY GROUP

the Legislative Assembly election will be used to define the population aged 50 years or older. The Covid-19 Vaccine Intelligence Network (Co-WIN) system, a digital platform has been introduced by the Government to track the enlisted beneficiaries for Covid-19 vaccination on a real-time basis. More than 75 lakh beneficiaries have been registered on Co-WIN software as on 02 January, 2021 ahead of Covid-19 vaccine roll out in the country.

There will be no provision for on-thespot registrations and only preregistered beneficiaries will be vaccinated as per prioritization at the vaccination site. The vaccines in clinical evaluation will require a two dose schedule to be administered two, three or four weeks apart, and is need to be administered through the intramuscular route (as on 4 December 2020).

The structure of the governance mechanism for COVID-19 response and training of vaccination team and their roles are depicted in figure two and three respectively. EIGHT STEPS TO GET COVID SHOT IN INDIA

**STEP** IRegistration of beneficiary on Cowin system using a valid photo id.

**STEP** IIBeneficiary will then receive SMSs on registered Cell phone number

- First SMS will be generated on confirmation of registration
- Second SMS will mention date, time and place of vaccination
- Third SMS will be generated after the first dose of vaccination with the due date for the next shot

**STEP III** At entry point of vaccination site an officer will check registration status of beneficiary and photo ID verification before entering the waiting room/area.

**STEP IV** Second vaccination officer authenticates/verify document in the Co-WIN system (Health / ICDS / other government department.

STEP V Vaccination officer will vaccinate





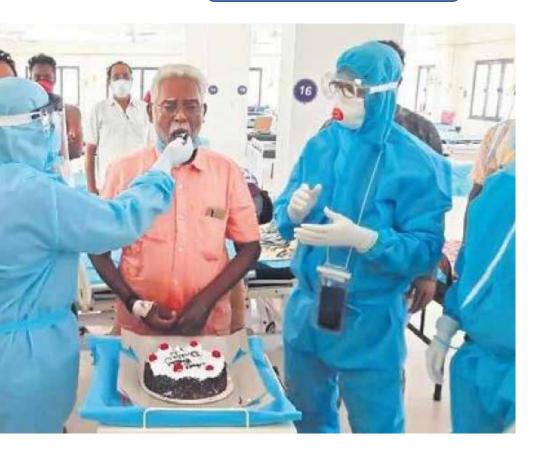
#### **NEGVAC (National Expert Group on vaccine administration for COVID 19)**



Block level

Block task force (BTF) Chair: SDM/Tehsildar/BDO

Block Control Room (BCR)



the beneficiary.

**STEP VI** Following vaccination all beneficiaries should wait in the observation area for next 30 minutes. **STEP VII** Vaccination officer number 4 and 5 ensure 30 minutes of wait and monitoring of beneficiary

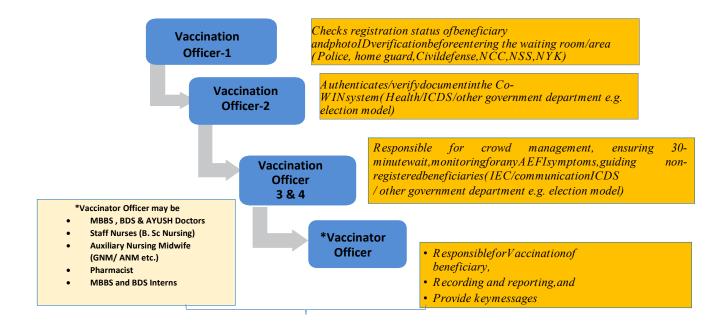
**STEP VIII** Come for second dose of vaccine on the due date as per SMS received. Completion of second dose and a link for the digital certificate will be sent on the cell phone via SMS.

The Covid-19 vaccine management will be fully integrated in the eVIN platform and will work in synchronization with the Co-WIN. The safety and security of each dose of COVID-19 vaccine is of utmost importance and therefore appropriate safety and security measures must be taken by the States at the storage location, during transport and at the site of the session.

Government has estimated requirements cold chain equipment for routine immunization during vaccine



### Fig. 2:The structure of the governance mechanism for Covid-19 response:



SUPERVISOR

Supervise 3-5 vaccinationsites Ensureadequateavailabilityofvaccineandlogistics Ensuretimelyreportingofcoverageandotherdata

transport and contingency storage. Through a rapid assessment and redeployment of available cold boxes throughout the state, states are required to ensure sufficient availability of cold boxes for routine immunisation at every cold chain point. Also, every state is directed to ensure the readiness of the supply chain system before introducing the COVID-19 vaccine campaign. Furthermore, a robust Adverse Event Following Immunization (AEFI) surveillance system has been instituted to monitor adverse events and better understand the safety profile of the vaccines.

COVID-19 VACCINE AND

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CHALLENGES AHEAD
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Now since vaccine in India is around the corner and dry runs for inoculation have started, question arises when will you get the shot? 1.38 billion people of the country need to be vaccinated with two shots and as fast as possible. How is the nation going to face this challenge with more than 9 million confirmed COVID-19 cases and a ravaged economy? The major advantage that India has, is that it has a robust Universal Immunization Programme (UIP) which is one of the largest public health programme through which around 26 million infants receive diphtheria, polio, measles and other childhood diseases vaccines and

approximately 29 million pregnant women are immunised annually. There are 27,000 cold chain points including deep freezers and ice-lined refrigerators in India to keep vaccines at the right temperature, 700 refrigerated trucks, around 50,000 cold chain technicians and about 2.5 million health workers to administer vaccines under UIP.COVID-19 vaccine need to be kept consistently at very low temperature and if adequate temperature is not maintained it might get denatured and would lose viability.

When the vaccine is moved from the laboratories to the distributors and ultimately to the patient's bedside, temperature should be consistently maintained. This is the biggest challenge in





a country like ours where in many remote and rural areas the cold chain system is in a poor state, temperature gauges for refrigerators are non-functional, vaccines are not stored or monitored adequately, and power cuts last for hours, making vaccines unfit for use.

Though UIP will be supported by digital platform Co-win where preidentified beneficiaries will he vaccinated, routine vaccination for children and pregnant women might fall by the wayside. The Indian healthcare system that operates in resourceconstrained settings may not be able to comply with both demands. Also, we need trained healthcare staff who know how to give injections, how to dispose of syringes, and how to look for sideeffects. And when day and night healthcare staff are mobilised in vaccination process, what about their daily patient responsibilities? Effective implementation of the COVID-19 vaccine would primarily rely on the quality of training conducted for enumerators, health functionaries, social mobilizers for all mobilisation activities and communication training for staff involved in the immunization related activities.

#### WAY FORWARD

We are at war with a pandemic, and the vaccine is the beginning of the end. Though the Indian Government has done scrupulous planning to address the challenge of supplying a sea of vaccine doses at controlled temperatures so that health workers can administer shots, but much more needs to be done. Government and private organisations would have to work in parallel in areas like tracking beneficiary databases, capacity building, preparing cold-chain logistics, and safeguarding smooth deliveries of medical glass vials and syringes.

Private hospitals and clinics may also be permitted to purchase licensed vaccines from the market and provide them to the general public for a small



fee. Also, other private units like pharmacists and testing laboratories could be licensed to administer vaccine to the eligible beneficiaries as approved agents of the government and charge a nominal fee for administering the vaccine. Those who prefer to go to government pharmacies will still be absolutely free to get a vaccine. Decentralized distribution would help to avoid crowding out public sector dispensaries and vaccine would be distributed swiftly. Furthermore, private enterprises may be willing to immunize their workforce and their families at their own expenses. They should be allowed to purchase vaccine from the market as this will reduce the burden on the government.

They may be permitted to use CSR funds for this purpose. But at the same time it is very important to keep vaccine prices under control. In addition, India will have to improve its cold chain capacity and distribution facilities in order to ensure that vaccines are available and distributed to each and every citizen of the country as early as possible.

Since the vaccine administration is not

obligatory and bank on voluntary uptake, an efficacious communication strategy is required to counter uncertainties, fear and concerns regarding vaccine. More transparency should be there on the ways vaccine trials are being conducted along with criteria of vaccine approval and the effects of early vaccination. A public campaign featuring famous Indian personalities like politicians, Bollywood and sportspersons getting vaccinated on media platform will raise public confidence. A clear and consistent strategy could lead to a consensus across states and other stakeholders in the battle against Covid-19.

We are hopeful that the government will take all appropriate measures to make the Covid-19 immunization a simple, easier and acceptable process to the key stakeholders of the nation - its People. Our Prime Minister Narendra Modi has announced "This is a battle for life and death. We have to win and we will definitely win the battle against the unprecedented menace of corona virus".

> (The authors are from Delhi Pharmaceutical Sciences and Research University, New Delhi)

FOCUS - NEW ROAD MAP



## FOCUS ON FORMULATION OF A NEW ROAD MAP

"Too many Cooks spoil the Broth ". This saying aptly fits Delhi's healthcare system. It is highly heterogeneous with multiple stake holders...

#### BY DR VINAY AGGARWAL

hough the health is a state subject, National Capital Delhi's healthcare is provided by Central government, State government, ESI, Railways, NDMC, MCD, Cantonment board, Delhi University. etc from the govt sector alone. Besides these there are many corporate hospitals, charitable hospitals to small Nursing homes and clinics, run by the private sector. However a large chunk of population, especially the low and middle income group, not only of Delhi but from neighboring states depends on the government sector hospitals and dispensaries.

The plethora of agencies is responsible for quality of health care not being uniform. Different agencies have different priorities or budgetary and other logistic

#### FOCUS - NEW ROAD MAP



constraints. The agencies are also under different a political party at times which exacerbates the differences of vision and approach. This is best exemplified by the state of Hospitals being run by the 3 Municipal corporations of Delhi (MCDs). Their situation is so pathetic that even Doctors and other healthcare workers most of the time have to strike work to get paid.

The genesis of this financial crisis lies in the trifurcation of the erstwhile MCD in 2012 by the Shiela Dixit's government. Since their inception, the three MCDs are facing huge financial crunch. Three MCDs mean increase in expenditure on separate administration for each. The imbalance of revenue sources and services provided has left South MCD being richer while East and North have little money but much more to spend on. The basic services like sanitation, roads, were already suffering which got exacerbated with the advent of COVID. The ongoing tussle between the two political adversaries in MCD and Delhi government has added fuel to the fire.

The MCDs are also accused of being victim of massive corruption. The situation is grim and the ultimate suffererers are common people and thousands of municipal corporation employees including Healthcare workers. This dismal show is reflected when the MCDs get the dubious distinction of being bottom most on All India comparison. The salaries of the MCD workers are disrupted frequently leading to lots of hardships. Arrears have not been paid for last 5 years, salaries are paid after months, pension to the retired employees are also delayed for months even the retirement benefits to employees retired 3-4 yrs back have not been given.





#### FOCUS - NEW ROAD MAP



### HEALTH & WELL-BEING

Primary care & essential public health functions as the core of integrated health services

The7th Pay Commission Recommendations have yet not been implemented. This systematic suffering of the employees has also allegedly led to lot of hardships and even in occasional cases suicides have also been reported. The Three municipal corporations have many dispensaries and quite a few numbers of hospitals under them. The prominent of them are Hindu Rao hospital, Kasturba Gandhi hospital, Rajan Babu TB hospital and Infectious Disease hospital under NDMC and Swami Davanand Hospital under EDMC. Hindu Rao hospital is also running a Medical College which is also financed by NDMC. The dispensaries and hospitals of MCDs treat lots of patients daily.

Most of the patients catered to belong to poor classes who have nowhere else to go. It is quite evident that the financial crunch will affect the overall effective healthcare management, due to lack of equipments, Diagnostics, medicines and other health related items. Buildings require lot of maintenance, no new technology or equipment's are added. Recent incident that happened in Swami Dayanand Hospital where a child and mother were seriously injured by falling of the plaster from roof of the ward in which they were admitted are evidence of crumbling infrastructure.

This clearly shows that MCD's are unable to run the Public Healthcare delivery. What is the solution? A serious introspection should be done about taking away the healthcare provision from MCDs. It is a department which generates very less revenue but requires huge sums to be spent on it. If MCDs are divested of this public duty they would be able to spend on sanitation, road improvement, pollution control, revenue collection etc. It would unshackle the MCDs from carrying this load. In any other state the hospitals could have been transferred to State government but Delhi being unique even Central government can be asked to take over some of these hospitals or divide them amongst the State and Central.

It would be a relief also for the healthcare workers who have to go without being paid for months. The infrastructure too would improve leading to better services. It shall also decrease the load on Tertiary care centres because many cases requiring secondary level care won't flood their centres. It is a "win-win" situation. State government would get more dispensaries to augment its already running healthcare delivery plus the hospitals which it can upgrade without having to construct new ones. The staff would be at mental peace regarding payment of salaries, pensions and other benefits. They would be free of worries and able to concentrate on providing healthcare & be accountable.

The MCDs would not have to feed the proverbial "white elephant" anymore. Their revenue generation would be impacted very little while expenditure would come down substantially. General public would get better services and would have one agency less to deal with. Hopefully even courts wouldn't have to devote time in resolving the tussle between MCDs and Delhi government despite being ruled by different political parties.

All it needs is the will of the top officials of the government. The Lt. Governor of Delhi should take the lead as he is constitutionally the head of Delhi's administration. He should ask Delhi government and MCDs to formulate a road map for this change. If it happens it would be a "game changer" in how Healthcare is delivered in Capital of India that will benefit all stakeholders specially the public.

(The author is Past National President IMA and the recipient of Dr B C Roy National Award)

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## GOOD HEALTH ADDS LIFE TO YEARS



It's basic human instinct to live as long as possible. It is important to not only live long, but live healthy, feel well, look good, be productive, and remain useful to others as long as we live. This phenomenon termed 'Positive Wellness' should be possible at any age with nil or easily manageable disability burden.....

M

odern medicine does not offer any means to arrest or reverse the effects of biological ageing, or the resultant diseases

attributable to aging. The 'science' and 'art' that addresses to prevent, arrest, minimise, or reverse the biological effects of aging and help people to live healthier, happier, and remain productive as long as possible is termed Anti-Aging.

According to W.H.O. statistics, average life expectancy at birth in India was 57 years in 1990, it increased to 61 years in 2000, and further improved to 65 years in 2009,

DOUBLE HELICA

in comparison to current global average of 68 years; whereas in Japan the same stood at 83 years. According to this trend, we are gaining an extra four years to live with the passage of each decade. In near future an increasing numbers of us in this country would live a hundred years or more. It's mandatory that increasing longevity must be supported with better health, minimal medication & good quality of life 'QOL'.

Increasing life span is attributed to increased affluence, better living conditions, higher education, more health awareness, healthier nutrition, improved sanitation & hygiene, safer working conditions, prevention & cure of infectious diseases of the past, and better medical

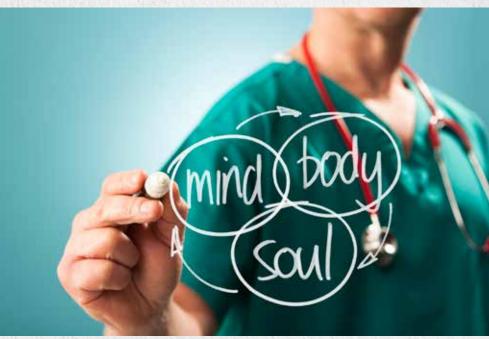
facilities. At the same time, we have to be aware of limitations of the system of modern medicine that does not fully address to the emerging threat to our survival in the form of diseases attributable to lifestyle disorders, viral infections, or due to the impact of physical aging.

We can significantly enhance efficacy of health care in the elderly by judiciously reducing our dependence on symptomatic relief offered by modern medicine with the time-tested wisdom of various harmless drug-free modalities of officially recognised traditional systems of health to reverse the effects of aging and arrest, or even cure various diseases attributable to the process of aging.

All inclusive integrative drug-free modalities that are used as 'Holistic Medicine' therapy include meaningful life-style modifications along the







path of 'yoga' including restful mind, positive thoughts, good sleep, stress elimination, breathing practices, healthy nutrition, initiation of regular physical exercise, panchakarma for detoxification and all modalities of acupuncture therapy, supported by psycho-hypnotherapy in chronic refractory diseases.

The traditional Indian as well as Chinese philosophy of health views each human being as a microcosmic whole of the universal macrocosm, creating magnificently organized networks of energy, information and intelligence, in dynamic exchange with our environment, infinitely capable of transformation and renewal, and continuously replacing all the old body tissues according to a predetermined cycle. We can m i n i m i z e disease burden,

improve our health and life b y complementing conventional medical care with conscious awareness of this phenomenon. It helps us to decelerate arrest and even reverse to an appreciable extent the impact of ever moving clock of biological health.

The all inclusive holistic approach to health termed Holistic Medicine. incorporating the ancient 'art' with modern 'science', is highly useful for therapeutic tapping of subtle shifts in our physiology, generating biochemical communicators to mould the molecules that comprise cells, tissues, organs, systems, and the human being as a whole. The inbuilt natural technology inherent in every human individual can be easily harnessed to tap into natural reservoirs of unlimited universal energy, creativity and vitality; arrest, and effect reversal of any disease process, minimise morbidity due to biological aging, improve health at any age and restore Positive Health & Total Wellness: "Earlier the Better".

In an interview with Double Helical, Dr. [Prof] R. K. Tuli Chief Consultant Holistic Medicine,



Founder: Society for Holistic Advancement of Medicine "SOHAM" and Former Indraprastha Apollo Hospitals, New Delhi, dwelt at length the complementary benefits of Holistic MediCare which by harmonizing our inherent natural lifeforce helps to impart health, eliminate sickness and restore total wellness. Thereby, it minimizes dependence on external medication and surgical interventions.

"The whole is greater than its part", goes the golden saying underlying the significance of seeing life in its totality, as the sum total of all the choices or decisions that we make; the positive and negative attributes, energies and thoughts that we possess. This innate wisdom lies at the core of the clinical concept of Holistic Medicine spearheaded by **Dr. Ravinder K. Tuli.** 

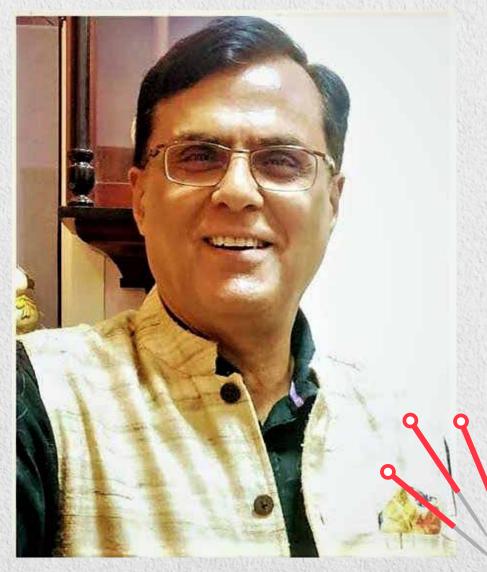
#### **Q-Why is the Holistic Medicine?**

It's being increasingly Ansrecognized world over that it would never be possible to meet all the health expectations of the humanity with the exclusive allopathy based conventional model of healthcare. The World Health Organisation (W.H.O.) recommends and our Health National Policy has promulgated integration of all the recognized systems of medicine.

#### **Q-** What is Holistic Medicine?

**Ans-** Holistic Medicine is the wholesome approach to Health where each individual is treated as a whole 'Body, Mind & Spirit' by a synergy of the evidence based 'science' of modern medicine with the highly complementary and reproducible time honoured 'art' of drug-free modalities of all the officially recognised traditional systems of health for Elimination of All Sickness and promote Positive Health and Total Wellness.

Holistic Medicine = Modern



Medicine + Alternate Medicine (Modern = Allopathy; Alternate = Traditional Indian & Chinese + NewAge) [Conservative Medicine + Life-Style & Stress Management + Ashtanga Yoga + Acupuncture-Reflexology-LASER + Panchakarma-Detoxification + Counseling-Hypnotherapy- PLRT-NLP + Reiki-Pranic Healing-Chakra Balancing + Regenerative Medicine]

The natural healing force within each of us is the greatest force in getting well...... Hippocrates

#### **BENEFITS OF HOLISTIC MEDICINE**

- 1. It treats the human being as a whole, body, mind & soul.
- 2. It offers 'synergy' of drug-free modalities of all the recognised systems of Health.
- 3. It's equally beneficial at all the levels of health, and at all ages.
- 4. It helps to take care of all the ailments of an individual concurrently.
- 5. No drugs, No interventions, No Dope, No Iatrogenesis.
- 6. It's highly reproducible, universally beneficial, and cost & time efficient.
- 7. It's very simple and easily



accessible; can be rendered anywhere & everywhere.

 8. It optimizes healthcare by complementing existing infrastructure at no extra cost.
9. It tremendously enhances skills, leading to greater professional satisfaction of the practitioners and would restore old glory of the medical profession.

#### INDICATIONS OF HOLISTIC MEDICARE IN ANTI-AGING MEDICINE

**PAIN:** Any Pain / Incurable Pain: Headache, Migraine, Neuralgias, Neuropathy, Fibro-Myalgias, Trauma, Phantom, Gangrene, etc.

**PARALYSIS:** Trauma, Polio, Stroke, Multiple Sclerosis, Neuropathy, etc.

**PALLIATIVE CARE:** Incurable or Terminal Sickness, Cancer, etc.

**STRESS** / **PSYCHOSOMATIC DISORDERS:** Anxiety, Depression, Ch Fatigue, etc.

AUTOIMMUNEDISEASES&ALLERGY:Rhtd.Arthritis,Spondylitis,Nephritis,SLE,ECZEMAS, Br.ASTHMA,Bronchitis,ILD,Sarcoidosis,Aspergillosis, etc.

**DEGENERATIVE DISEASES:** Osteoarthritis, Spondylosis, Disc Disease, Macular Degeneration (AMD), Dementia, Parkinson's / Alzheimer's Disease, etc.

**ATHEROSCLEROSIS**: Hypertension, CAD, PVD, Post-PTCA or CABG, Gangrene, etc. METABOLIC & HORMONAL DISORDERS: Obesity, Dyslipedemia, Diabetes M., Menstrual Disturbances, PCOD, Infertility-Failed IVF, Menopause / Andropause, etc.

**SUBSTANCE ABUSE – ADDICTIONS:** Tobacco, Alcohol, Drugs, Substance Abuse, etc.

**RESISTANT INFECTIONS:** PUO, Virus: Pneumonias/Influenzas, HIV/ AIDS, Hepatitis, MDR-TB, etc.

#### **EASY STEPS TO ANTI-AGING**

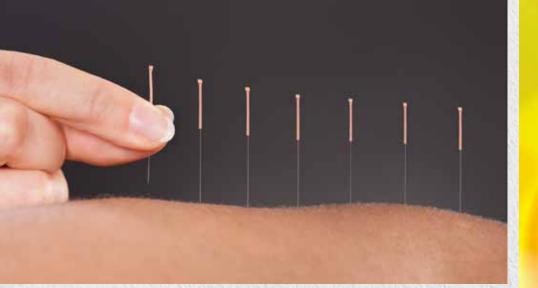
- Change your perceptions of aging & escape conditioning to Reverse Biological Clock.
- Start reversal of your biological







AUTOMATIC MODE



age by Deep Rest: Restful Awareness & Restful Sleep.

- Synchronize your biological rhythm with the rhythm of nature: "Early to Bed & Early. . Enhance Mind - Body integration by Breathing Consciously and daily YOGA.
- Do Aerobic Exercises regularly for stretching, strength and cardiovascular fitness.
- Intelligently Nourish your body with healthy organic food and eating consciously.
- Eliminate Toxins from physical & emotional bodies: drink >2 liters of water daily.
- Create Flexibility & Creativity in Consciousness; Forgive & Forget; Help others.
- Make LOVE the most important thing of your life: Be Thankful & Appreciative.
- Maintain a Youthful Mind be playful, laugh, be enthusiastic, and be light hearted.
- Accord priority to drug-free Natural Therapies in preference to medical interventions.
- Select a competent Holistic Physician as your Family Doctor for Care of your Health.

Q- Why do you focus on integrative

#### healing? Do you feel that Allopathy in itself is not capable of curing ailments?

Ans- Every system of medicine has its advantages, but none of the systems is perfect. The Allopathy for all its initial advantages is today losing its glory due to loss of efficacy in controlling infections as the germs have mutated to become increasingly resistant to antibiotics and have been replaced by viral infections for which the allopathy has limited remedies.

It's exposed to its grave deficiencies in that it only treats the proverbial 'tip of the iceberg', that is just the symptom without ever going to the root cause of sickness. Due to break down of family system in country and our changed life style noncommunicable diseases (NCDs) like anxiety, depression, diabetes, insomnia, hypertension, coronary artery disease, autoimmune disorders,

allergies, hormonal disturbances, poor fertility, cancer, drug abuse including dependence on tobacco and alcohol. have come to dominate the sickness pattern. Allopathy at best offers symptomatic relief merely at physical level of health from all these life-long diseases with inevitable side-effects and cumulative



toxicity, besides progressive morbidity and unaffordable expenditure. According to WHO statistics it's a major cause of mortality in the world and 4 percent population falls below poverty line due to its prohibitive expenditure annually.

Besides if offers no cure to diseases attributable to aging and ever increasing population of the elderly. The maximum suffering due to sickness and expenditure on health is during the last years of one's life which invariably exceeds their entire savings. Therefore, the Life Positive has taken an unique initiative in organizing a workshop to Anti-Aging which is designed to guide to reverse ill effects of aging and enjoy full health till the last breath!

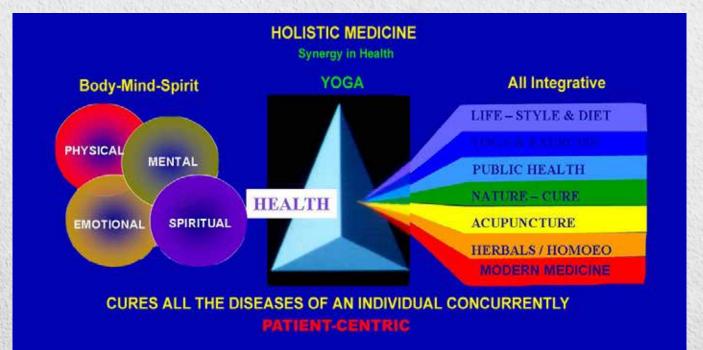
Therefore, it's the clarion call of the day that we integrate strengths of the respective systems of health which helps to overcome their inherent deficiencies, viz., the support of allopathy is inevitable for surgical support, life-saving emergency situations and its application in diagnostics. But, all the NCDs can be prevented, controlled and even cured only by following the dictums of Maharishi Charaka and Maharishi Patanjali, respectively.

The medical authorities have to understand that human being is not merely a body or its parts, but a complex of body, mind, senses and the soul. While prevention from disease remains the universal truth, for late comers human health can be improved at any stage and every disease is reversible with the dictum, "Earlier the Better", by optimum integration of all the systems of health termed Holistic Medicine.

**Q-** Which modalities do you combine while treating patients? Which is the most effective modality in curing people completely according to you? Ans- It may be highlighted that no one system of medicine is complete to take care of all kinds of sickness. Also, no two drug based systems can be prescribed simultaneously due to problems of drug-interactions. The people invariably ignore their health, giving priority to everything else in life, and realise it only when struck with a serious ailment or an emergency. In that situation they must rush for allopathic care to save their life first, for which it's universally accepted to be the most advanced and scientifically endorsed system.

It has come to dominate health care worldwide, and most people are dependent on it. However, even though it may save life in emergency situation, it never addresses to the root cause of the problem and creates dependence on medication for rest of the life. To eliminate this evil we need to complement on-going medical management with drug-free modalities of traditional Indian and Chinese wisdom, including the New Age developments in health. This optimum harmony is termed Holistic Medicine.

I practice and support Holistic Medicare comprising Life-Style management, Ashtanga Yoga, Panchakarma, various modalities of Acupuncture, and Hypnotherapy. I classify New-Age modalities of healing techniques like Reiki, Pranic



### HOLISTIC MEDICINE

#### MODERN

#### T

SCIENCE KNOWLEDGE QUALIFICATIONS CONVENTIONAL WESTERN BODY EVIDENCE BASED DOCTOR – TREATMENT

ART WISDOM SKILLS TRADITIONAL ORIENTAL MIND & SPIRIT TIME-TESTED HEALER - CURE

ALTERNATE

#### SYNERGY IN HEALTH

#### Treats the individual as a whole : BODY-MIND-SPIRIT

Healing, Mantra, Mudra, Chakra Balancing, etc. as derivatives of Yoga. I treat the person as a whole, and all diseases get cured concurrently as revealed by testimonials in Life Positive magazine every month consistently for over 22 years.

The picture below indicates white or the solar light as the source of all life representing its physical, mental, emotional and spiritual aspects of health. But, this white light in turn is made of seven different colours of the rainbow. Therefore, it's represented that even though allopathy represented by the colour red may be the backbone of health care delivery system, we need optimum integration of all the systems to give us positive health and total wellness 'Body, Mind & Spirit'.

Holistic Medicine = Modern + Traditional Medicine (Traditional = Indian & Chinese)

[Conservative Medicine + Life-Style & Stress Management +

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Ashtanga Yoga + Acupuncture-Reflexology + Panchakarma-Detoxification + Counseling-Hypnotherapy- PLRT-NLP + Reiki-Pranic Healing-Chakra Balancing + Regenerative Medicine

Holistic Medicine Takes Care of the Human Being as a Whole 'Body-Mind-Spirit' & All the ailments of an individual concurrently

**Q-Do you think it is possible to reverse ageing and stay young for as long as you want? If yes how? Ans-** Yes, in a willing person it's absolutely possible to reverse the physical damage due to ageing by restoring positive Mind-Body balance and nurturing the Spirit of the person. It's universally recognised that 'You are as as Old as you Think' or the age is what's in your mind. Our Yogis who have mastered the art of harmony of 'Body-Mind-Spirit' are its living example. They live a life of Bliss which ends in healthy departure and not death as for the usual mortals.

The 'science' of evidence based modern medicine when complemented with the 'art' of time honoured wisdom of traditional systems of Health is termed Holistic Medicine. It's a board certified specialty in the U.S., and is being increasingly recognised worldwide as the emerging speciality of future. It offers an easily accessible. predictable. reproducible. and sustainable and highly cost beneficial approach to health while infusing people to ever remain healthy, productive and young.

The process of aging commences as soon one is born. It's possible to remain ever young by creating awareness among the growing youth of the long term benefits of simple Vedic or Gurukul life style including



eating habits in the education system of the country.

As part of SKILL INDIA programme we can broaden to include benefits of drug-free modalities of Yoga, Panchakarma and the system of Acupuncture to enhance performance of available primary healthcare workers and medical doctors. They should be trained to impart health and not merely treat sickness. Holistic Medicine as a speciality must grow and such physicians should be available at every tertiary care hospital to complement the best of medical care offered to enhance its efficacy. After a life saving event each patient, instead of offering more medication and life-long dependence on the hospital system, should as a protocol be offered secondary prevention to revert to positive health once again.

I am often questioned that why I do not train more doctors in my skills. Well, whatever juniors who have worked with me to acquire the skills have not been able to cut the ice due to lack of demand or I would say awareness amongst people that with little help they can reverse their sickness and restore health by tapping on their self potential.

All the people, including the medical profession, have been conditioned for long to think that only 'allo' or the external interventions can treat their sickness. We have to kindle the awareness of infinite capability of the 'auto' or the selfhealing, as part of the natural intelligence installed within each one of us, to prevent or even overcome any kind of sickness. Let the whole world wake up to know that no antibiotic would help without your own immune system, and no surgery in the world would be possible without patient's capacity to finally heal their own wounds.

**COVER STORY** - ANTI AGING

Q-Our ancient culture has so many holistic ways to bring the human body to a state of harmony and balance. Why do you feel that a medical science which is alien to our demography and requirements became so popular in India?

Ans. You are wrong to say "our ancient culture has so many holistic ways" as the nature has only one way and that's the Nature's order you disturb that and you invite disease. There is only one way to live a life of Bliss & Youth by following Patanjali's sutras. Many ways have been created by humans, like many gods, for their own selfish interests and created abundance of 'Quacks' ruining our heritage. The education system in our country had been corrupted by the aliens to subjugate to their business interests and that included practice of medicine whereby you all the time depend on external aids. Allopathy has its distinct advantages of quick relief and emergency care; rest is our fault to let our life totally depend on it.

#### Q-What do you think is the future of medical treatment in the world?

Ans. I always remember as prophetic the words of Dr. Prathap C. Reddy, the founder Chairman of Apollo group of hospitals, who stated in year 1995 that Holistic Medicine is the future of 21st century. This lead to establish the world's first ever department of its kind at Delhi's Indraprastha Hospitals. The likes of Dr. Deepak Chopra have gained world fame propagating this concept. Most of the aware people talk about it in their social chats, but are driven to allopathy by the conditioning all around.

#### SPECIAL STORY - VACCINE DIPLOMACY





## VACCINATION IN INDIA INJECTING CONFIDENCE

The pandemic has affected every country and raised the cases toll to 107,007,730 all over the world. However, we fought this deadly contagion which almost took a year to overcome.....

#### BY DR. N K PRASANNA / DR. S K VARSHNEY

he pandemic has affected every country and raised the cases toll to 107,007,730 all over the world. However, we fought this deadly contagion which almost took a year to overcome. The US became the worst-hit country by the pandemic with the highest affected coronavirus cases which is almost 27,700,629 followed by India, Brazil, Russia, and United Kingdom. India has proved its self-sufficiency by developing the indigenous COVID[19 vaccine that is not only helping citizens residing in India but also the vaccines are being imported to our neighborhood countries as a gift. Here only the achievements of India don't end, it has broken all the records in the world's largest worldwide vaccination drive initially started on 16 January 2021. India has accelerated the vaccination drive and became the fastest country to vaccinate 7 million people countrywide in a short period of just 28 days. In a country like India where the population is very huge as well covering the healthcare worker in every city with the maintenance of cold storage technologies itself a big task but it has lived up to the expectations which are commendable. However, the countries like the USA took 26 days to reach the mark of 6





# **WORLD LARGEST** COVID-19 VACCINATION PROGRAMME





million whereas the UK took 46 days to achieve this much population.

In the vaccination drive, almost 1.91 lakh beneficiaries received vaccine jabs on the first day in which Uttar Pradesh was the highest number of beneficiaries of about 21,291. Despite some states had reported a few mild to moderate 'Adverse Event Following Immunization' (AEFI). The accumulative number of frontline and healthcare workers immunized

#### **SPOTLIGHT** - VACCINATION IN INDIA



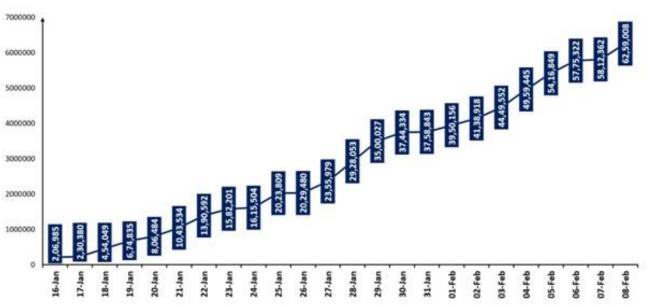


countrywide so far.

Almost 11 States/ Union Territories have vaccinated more than 65 % of the registered healthcare workers and less than 40% coverage has been recorded including Delhi, Punjab, Ladakh, J&K, D&NH, Chandigarh, Meghalaya, Tamil Nadu, Nagaland, Manipur, and Puducherry.

Total 1,05,48,521 people have been recovered from this pandemic as well as the number of affected people also decreasing gradually. The recovery rate of India is among the highest recovery rates in the world followed by UK, USA, Italy, Russia, Brazil, and Germany. India's case fatality rate (CFR) of 1.43% is the lowest among

#### 62.59 lakh individuals have been vaccinated so far



(Vaccination till 8<sup>th</sup> February, Source: <u>www.pib.gov.in</u>)

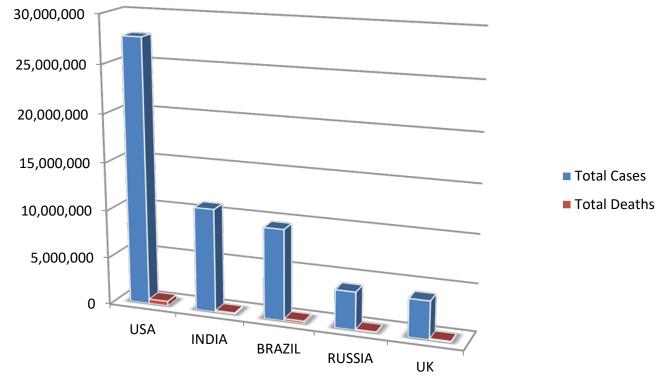
against the virus has crossed the 6 million mark on 8 February 2021. As of now, Total 62,59,008 recipients got immunized through 1,24,744 sessions worldwide this comprise 54,12,270 health care workers and 6,23,390 front line workers. On the 24th day of the inoculation drive, Total 4,46,646 recipients including 1,60,710 healthcare workers and 2,85,936 frontline workers were immunized across 10,269 sessions conducted the other countries; the global average is 2.18%.

According to Indian Council for Medical Research (ICMR), total 20,25,87,752 sample has been tested for covid-19 so far and at present



#### **SPOTLIGHT** - VACCINATION IN INDIA

Total COVID–19 cases in the world





only 1,43,652 active cases are there in India. While the cases are decreasing on one side, vaccination is also climbing steadily. Although the good news is that no link has been found between the vaccines and postvaccination deaths. Some states have started phase II of the vaccination while others are anticipated to start the session soon and phase III will be starting from March.

The pace of India's COVID recovery is bringing new sunshine to the entire country moreover it is hoped that things will soon get better. A lot of countries are expecting some ray of hope from the Indian government while India is also expanding its hand of friendship to other needy countries. Vaccination work is in progress, now just we have to wait for few more months with all the precautions to get things normalized.

(The authors are from CSIR-National Institute of Science Communication and Information Resources, New Delhi/ Department of Science and Technology, New Delhi)



## ECONOMIC IMPACT OF Covid -19 vaccines



The Covid-19 outbreak is not only leading public health crisis but also caused substantial damage to the world economy due to loss of life, reduced productivity, trade disruption, business closures and decimation of service industries.....

DR ABHISHEK DADHICH



12 Pan Rise



he national governments throughout the globe spend trillions of dollars to fight against negative economic impact. The outbreak of novel corona virus has impacted nations in an enormous way. India and other large populated nations have required putting huge amounts of resources on social welfare and livelihood programs during pandemic and on the other side prevention, control and treatment of Covid-19 infection is also a top priority for the government.

The availability of vaccine and other alternative treatment is going to help in safeguarding public health and also reduce significantly the socio-economic costs burden of the pandemic on the nations around the world. There will be further many more challenges takes place which can be associated with manufacturing and distribution process of vaccines or medicines around the globe.

Until there is a treatment or vaccine broadly available, physical distancing, the use of sanitizer, facemasks and lab test, surveillance and monitoring will most likely be the only effective measures in the battle against the spread of the disease. The national concern of not having enough medical commodities or resources led governments around the globe to enact both export restrictions and import liberalizing measures for personal protective equipment as well as crucial medical supplies. Whereas imposed of such restrictions boosted the domestic supply of medical equipment and pharmaceuticals, this also shifted negative implications of supply shortages on other foreign countries and as the number of countries implementing such restrictions has escalated, the risk is spiraling protectionism that can lead to catastrophic scenario throughout the globe.

15,48



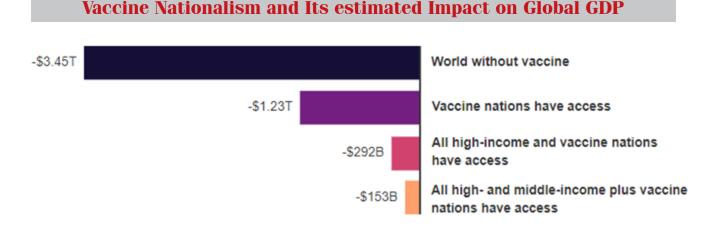
The economic burden and public healthcare crisis both continuously pressurize government and other regulatory agencies for hastening the process of vaccine discovery around the globe and this may also raise a situation where countries push to get first access to a supply of vaccines to follow their own interests instead of pursuing a more globally coordinated approach and emerging of this situation is called as 'vaccine nationalism'.

If 'vaccine nationalism' situation will be emerged than this could lead to the unequal distribution of Covid-19 vaccines and it will cost the global economy up to \$1.2 trillion a year in GDP terms. If Covid-19 infection is not controlled at all over the regions of the world due to non accessibility of vaccine than there will be continuous rise in global economic cost which is associated with Covid-19 The multicountry economic model suggests that if low- or middle-income countries cannot access the Covid-19 vaccine than the world developed countries economies like Europe will fall about \$40 billion a year whereas US and UK loose \$16 billion and 10 billion per year.

ThisshowsthepredictableassessmentwhererealannualglobalGDPwithconditionalscenariosiscomparedwiththehypotheticalbaseline

scenario that how all high-, middleand low-income countries can successfully immunize their population against the COVID-19 infection. The first bar shows no any nation have access to vaccine. The second bar shows the only nations who have early access to vaccine and last two bars predicts scenario where middle or low income countries have no any access to vaccine.

If only one nation such as US, UK, Russia, China and India is having access to vaccine than it will show significant growth in individual economy but due to lower international demand from middle and low income countries the economic activity of



#### Table: 1 Global Change in real GDP in billions of dollars in compare to baseline

Scenario	World	USA	EU	UK	China	India	Russia	High	Middle	Low
Scenario 1: World without vaccine Scenario 2: Vaccine nations have access	3,449 -1,232	-480 -127	-983 -311	-145 -41	-356 -110	-88 -26	-52 -18	-997 -453	-147 -65	-200 -82
Scenario 3: All high-income and vaccine nations have access	-292	-30	-76	-10	-27	-7	-5	-73	-30	-35
Scenario 4: All high- and middle- income plus vaccine nations have access	-153	-16	-40	-5	-14	-3	-2	-39	-6	-28





nation will still show negative growth.

#### **ISSUES TO BE CONSIDERED**

#### EFFECTIVE LOGISTICS AND DISTRIBUTIONS OF COVID-19 VACCINE

effective distribution The of COVID-19 vaccine to vulnerable population in certain nations lowers the risk of infection and prevents the number of deaths that may occur due to COVID-19 pandemic. This may also issues prevent like 'vaccine nationalism 'which can be takes place due to global completion. The leading economies should invest substantially more in vaccine development and distribution which also boost global To support cooperative effort. international and sustainable distribution of vaccine, stringent regulatory framework for vaccine development and distribution are needed and same should be

coordinated and managed by established international forums.

#### CAPACITY BUILDING OF HEALTH WORK FORCE

To increase the productivity and work efficiency of health workers government of different nations and other healthcare stakeholders mutually organize the capacity building training programs that enables them to conduct immunization program successfully and create awareness among common population regrading COVID-19 vaccination program. The capacity building program involves direct cost but for longer duration and sustainable action it will also prevent direct and indirect cost incurred during immunization program.

#### ESTABLISHMENT OF COLD-CHAIN STORES AT SERVICE DELIVERY POINTS

To maintain the potency and safety of the COVID-19 vaccines at service delivery points is more crucial and challenging aspects during immunization program. For the best technology advancement and proper utilization of resources public private partnership model can be implemented in which private sector healthcare industries can provide best resource utilization support in storing and maintaining vaccine potency during immunization program. The middleand low-income countries can also outsource the cold chain management technologies from foreign countries or international organization which can decrease the cost of ownership and maintenance during vaccine storage and distribution process. 🛍

(The author is Assistant Professor, School of Allied Health Sciences, DPSRU, New Delhi)





The Union Budget 2021-22 allocated Rs 71,268.77 crore to the Union Health and Family Welfare Ministry this is an increase of about 10 per cent from the previous year's budget estimates...

#### **BY TEAM DOUBLE HELICAL**

he revised estimate for last year was Rs 78,866 crores. This implies the budgetary allocation to the Union health ministry came down by 9.6 per cent.

Undoubtedly the primary health care is getting more support... the strengthening of disease surveillance systems across the country is also needed for pandemic prevention and epidemic response. The new health infra schemes with significantly higher outlay of Rs 35,000 crore for Bharat's mega Covid-19 vaccination drive is a huge fiscal medicine to contain the pandemic, reduce disease burden for the population, and the economy.

Of the health and well-being budget Rs. 35,000 crore will be spent on the producing and distributing the covid-19 vaccine. The budget allocation for the Department of Health and Family Welfare is Rs. 71,269 crores, an increase of 9.6% over the budget allocation (Rs. 65,012 crores) on Financial Year 2020-21. This is, however, lower than the revised estimates for financial year 2020-21 (Rs. 78,866 crores.)

Under the new union health budget the Union Ministry of Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homoeopathy (AYUSH) got a 40 per cent more than last year. All India Institute of Ayurveda was allocated Rs 313.80 crore (revised estimates) last year as against the budget estimates of 76.50 crore. It went up to Rs 348.87 crore this year.

The National Health Policy of India, which came out in 2017, envisaged that India spend at least 2.5 per cent of its Gross Domestic Product (GDP)





on health sector by 2025. A 10 per cent hike, that too during the Covid-19 pandemic, will not take us anywhere close to that goal.

A high-level expert group formed by the Planning Commission in 2012 had suggested that India should achieve this target by 2020. India spent 1.8 per cent of its GDP on health in 2020-21; it was 1-1.5 per cent in the previous years. This is among the lowest any government spends on health in the world. As a result, India is among the 10 top nations with the highest out-pocket-expenditure An increase in public health expenditure from the current levels in India to three per cent of GDP can bring the highest out-pocket-expenditure down to about 30 per cent from 60 per cent, according to the Economic Survey 2021.

As per Economic Survey, India was ranked 145th out of 180 countries (Global Burden of Disease Study 2016) on the quality and access of healthcare. Only few sub-Saharan countries, some pacific islands, Nepal and Pakistan were ranked below India, Although Union Finance Minister Nirmala Sitharaman accepted that a high OOPE was worrying. The budget estimates for expenditure on health and wellbeing increased by 137 per cent this year as compared to last year.

#### WHAT IS OOPE

(In developing countries, out-ofpocket expenditure (**OOPE**) is the **primary means of financing healthcare**. Health expenditure in India accounts for **<5%** of the gross domestic product and the level of out-



of-pocket **(OOP)** spending is **69.5%** of total health expenditures)

The 137 per cent hike was calculated by taking into account funds allocation to the Union Ministry of Ayush, department of health research, nutrition, vaccination, finance commission grants to states for water-sanitation and health as well.

Union Health Budget also assured the PM AtmaNirbhar Swasth Bharat Yojana with an outlay of about Rs 64,180 crores to be released over six years.

The allocation to PMJAY, which covers Ayushman Bharat and health and wellness centers, was worth Rs 6,400 crore. This was the same as in the last year's budget; but double according to revised estimates. For the last few years, the budget estimates for the scheme have remained the same while the revised estimates were half.

#### WHAT NEEDS TO BE DONE?

The Union government aims to build 1.5 lakh of health and wellness centres by 2022. of this, only 57,874 have been made so far.

The National Rural Health Mission saw a moderate hike of six per cent from last year. The National Programme for Health Care for the Elderly was allocated Rs 105 crore in the budget last year. The revised estimates, however, were Rs 15 crore. The allocation to National Programme for Control of Blindness went down Rs 10 crore when compared with last year budget estimates.

Telemedicne got a big thumbs-up in this year's Economic Survey owing to online consultations in the wake of Covid-19 pandemic. However, the allocation to it remained stagnant at Rs 45 crore this year as well.

While the budget allocated to Indian Council of Medical Research (under the department of health research) went up this year, the department's



budget came down compared to last year's revised estimates.

According to **Union Health Minister Harsh Vardhan**, investment on Health Infrastructure in Budget 2021 has increased... the focus on strengthening three areas preventive health, curative health and well-being... will be of immense help to the country at this critical juncture.

Dr Ravi Wankhedkar, Treasurer World Medical Association and Past National President, Indian Medical Association, said, "At first glance the focus and allocation on health care for first time is most welcome. The public health delivery system should be strengthened and resources should not be spent on insurance based health care delivery model. Adequate welfare of health care givers should be on priority. To develop capacities of health care systems, develop institutions for detection and cure of new and emerging disease the PM



Aatmanirbhar Swasth Bharat Yojana is the first step to boost rural health and keep country ready for emergency handling of pandemic situations. Further, increasing access to pneumococcal vaccine to all states and budget outlay for health and welfare by 137% as compared to previous year will boost the public health and pharmaceuticals sector."

"Atmanirbhar Health Yojana with an





outlay of Rs. 64180 crore over 6 years will be spent on primary, secondary and tertiary healthcare. With this under the National Health Mission 17,000 rural and 11,000 urban health and wellness centers are to be set up. Integrated public health lab is also to be set up in each district. There is a total Covid support amount to 13 percent of GDP. It means allotted Rs 35000 cr for Covid Vaccination. In this way India has two Covid-19 vaccines available and we expect two more vaccines soon," he added.

Dr A K Agarwal, Professor of Excellence, Medical Advisor(Innovation) Apollo Group of Hospitals, New Delhi, said, "We welcome the PM AtmaNirbhar Swasth Bharat Yojana, that would be launched with an outlay of about ₹64,180 crore over 6 years. It will certainly improve primary, secondary, and tertiary care health systems, strengthen existing national institutions, create new institutions, to cater to detection and cure of new and emerging diseases." This scheme aims to support 17,788 rural and 11,024 urban Health and Wellness Centers, establish integrated public health labs in all districts, strengthen the National Centre for Disease Control (NCDC), its five regional branches and 20 metropolitan health surveillance units, establish nine Bio-Safety Level III laboratories and four regional National Institutes of Virology.

**Dr A K Agarwal, said**, "Such emphasis on healthcare spending and immunization especially on Covid-19 and pneumococcal vaccines will help India rapidly recover from the pandemic. The enhanced allocation along with the plan to look at healthcare as a whole by including nutrition, sanitation, clean drinking water and pollution control augur well for the country is a very good step."

According to Dr H S Chhabra, **Medical Director, Indian Spinal** Injuries Centre, New Delhi, The budgetary allocation for healthcare sector for 2021-22 will translate into 10% drop in the allocation, if compared to the revised estimated 2021. Nonetheless, the allocation translates to growth of 11 percent. The initiative is aimed at developing capacities of the primary, secondary, and tertiary care health systems, strengthen existing national institutions. and create new institutions, to detect and cure new



diseases in the wake of the pandemic that has affected 10.7 million people and claimed more than 154,000 lives in the country. It will be in addition to the National Health Mission. Many inclusions in the budget this year have been made keeping in mind the Covid-19 pandemic, and to deal with such public health emergencies in future that includes setting aside ₹35,000 crore for Covid-19 vaccines, additional grants of ₹13,192 for health, ₹36,022 crore for water and sanitation, and strengthening disease surveillance initiatives by upgrading the National Centre for Disease



Control (NCDC).

In order to better deal with infectious disease outbreaks, the government plans to set up integrated public health labs in all districts and 3.382 block public health units in 11 states, and establishing critical care hospital blocks in 602 districts and 12 central institutions. The plan for strengthening of the NCDC will also include upgrading its five regional branches, and 20 metropolitan health surveillance units. There will be an expansion of the integrated health information portal to all states and Union territories to connect all public health labs; operationalisation of 17 new public health units and strengthening of 33 existing public health units at points of entry that is at 32 airports, 11 seaports and seven land crossings.



### THE LEGALITY AND ETHICS IN MEDICAL PRACTICE

The rapid development in medical sciences has created many subspecialties and super specialties all of which are impossible to be available in all hospitals.....

BY DR NEERAJ NAGPAL

FOCUS - LEGALITY AND ETHICS IN MEDICAL PRACTICE



ndia is a country where about 70% of healthcare is provided in Private Small and medium healthcare establishments which means in clinics, small nursing homes and hospitals less than 30 beds. The scale of operations of these establishment is restricted and they individually are not adequately equipped for all types of medical and surgical emergencies.

Though some of them may even be providing high quality tertiary care in their own restricted field but even these super specialty but small establishments are also grossly deficient in other fields. This type of healthcare system has developed over time in India due entrepreneurship of to the individual doctors when faced with gradual abdication by the the government of its responsibility to provide healthcare and preserve life of its citizens though enshrined in the constitution as а fundamental right under Article 21. Unfortunately few erratic judgments have penalized nursing homes and hospitals for not having ICU, NICU, Ventillators and other equipment.

Even large tertiary hospitals may not at times be providing all specialty medical services and may need to refer a patient to a different establishment. Given the situation, the SMHCEs and even the larger hospitals provide what services are available with them and thereafter refer to other similar establishments or even larger hospitals if the situation so demands.

With no codified law which encompasses this referral and transfer process one is left with Indian Medical Council Regulations 2002, the Charter of Patient's



rights provided by National Human Rights Commission and to some extent the Clinical Establishment Act to deal with the matter. Few odd case laws on the issue also exist but the need for a regulatory mechanism for such transfer and referral is urgent need of the hour.

As per the The Indian Medical Council (Professional Conduct, **Etiquette And Ethics) Regulations**, 2002 Section 2.1 A physician can refer a patient to another physician, however, in case of emergency a physician must treat the patient. However, when a patient is suffering from an ailment which is not within the range of experience of the treating physician, he may refer the patient to another physician. As per Section 3.6 When a patient is referred to a specialist a case summary of the patient should be given, and the specialist should communicate his opinion in writing to the attending physician. Section 4.3 When a physician has been called for consultation, the consultant should normally not take charge of the case, especially on the solicitation of the patient or friends. The consultant shall not criticize the referring physician. He/she shall discuss the diagnosis treatment plan with the referring physician.

As per the Charter of Patients Rights the NHRC expects that the Right of a patient to proper referral and transfer, which is free from perverse commercial influences be upheld. According to the charter, the patient has the right to continuity of care, and the right to be duly registered at the first healthcare facility where treatment has been sought, as well as at any subsequent facilities where care is sought. When being transferred from one healthcare facility to another, the patient / caregiver must receive a complete explanation of the



justification for the transfer, the alternative options for a transfer and it must be confirmed that the transfer is acceptable to the receiving facility. The referral process must not be influenced by any commercial consideration such as kickbacks, commissions, incentives, or other perverse business practices.

A SMHCE in India usually comprises of a single doctor / doctor couple who are the only full time medical staff of the establishment supported by a few visiting consultants if any. Judicial expectation of ensuring that a patient referred reaches the destination without deterioration means the SMHCE should have an ambulance which is well equipped (plus maybe a spare), a driver available round the clock, and a doctor who accompanies the patient. Since the SMHCE has only a single doctor or doctor couple that would mean the owner of the SMHCE should accompany the patient abandoning other patients who may be under his care. Obviously neither is it practical nor is it feasible. More than 95% of the SMHCEs in India will not have an ambulance and 99 percent would not have a driver available 24 hours round the clock.

Besides the transfer is also the issue of providing complete transfer papers which in themselves would not be difficult were it not for the fact that these papers have to be generated by the SMHCE's only doctor while simultaneously managing the medical emergency and personally accompanying the patient. The luxury of time is one thing a doctor does not have and unlike the judiciary which can take months to provide a written judgment, doctors need to do their paperwork in extreme



emergencies while simultaneously counseling the patient's relatives regarding the need to transfer and maybe also dealing with some degree of violence.

The elective referral of a patient to another doctor or medical establishment has its own issues which have ethical and legal ramifications. The Indian Medical Council regulations of 2002 Section 6.1 prohibits the doctors from advertising. In the absence of advertising they are expected to depend on word of mouth for sourcing their patients. Specialists. super specialists, Diagnostic Centers and even Hospitals have gradually evolved the system of cuts and commissions to develop this patient pool.

As per the Indian Medical Council Regulations 2002 Section 6.4.1 Asking for or Giving any gift, in return for the referring, any patient is punishable. However Technological developments and sky rocketing costs of this technology has shifted ownership of medical the establishments from professional doctors to businessmen who may or may not be doctors. Ethics is either a non entity for these businessmen or then it takes a backseat when the issues are of investment and return on investment. Government has also not helped matters in the sense that there is "bury your head in sand" approach. If an establishment or a doctor could advertise and reach potential patients directly they would not have to rely on touts and middlemen to source their patients. Also no cost accounting of procedures and investigations has ever been done in our country. If an establishment can do a procedure for a cost lower than what is calculated as "fair price" and still wishes to reward those who send them



#### FOCUS - LEGALITY AND ETHICS IN MEDICAL PRACTICE



patients then the issue of ethics does not arise. As long as the consumer gets a fair deal the doctors and hospitals need not be held guilty of corrupt practices regarding how they source their patients. There is then an issue where a business owner of a medical establishment is free from the shackles of Indian Medical Council Ethics regulations and to compete in open market even ethical doctors are forced to do in Rome what Roman's do.

Including doctors in the Consumer Protection Act has already established doctors to be traders of services and Hospitals to be shops, in the patients minds. Under the circumstances ,how and why the customers are coming to these shops and traders should be no one's business as long as the consumer gets a fair deal. All Insurers give a commission to the agents who source business for them. The 'cut' exists even in the legal field, in construction business, and probably in all other trades and professions. Even the Police offers "reward" for information. One cannot have one's cake and eat it too. Either we are a "noble Profession" or we are shopkeepers , traders and service providers. If we are in a noble profession where is any shred of immunity which noble professional's deserve.

The illusion of nobility of the profession may seduce a youngster to join the profession but he is bound to question the rationale of investing huge amounts to gain education which is grossly overpriced and not expect a return on investment. The Government in its wisdom has permitted medical colleges to charge crores for medical imparting education. Besides the cost of education is the huge investments needed today to set medical up

establishments.

A table, chair an examination couch and a stethoscope was all the investment which was needed 20 years ago. Today the scenario has totally changed and it is not fair to judge doctors with lenses of yesteryears. What is needed is a pragmatic approach to the issue of cost of medical education. compliances needed to be met for establishing SMHCE, issue of advertising healthcare bv establishments whether owned by doctors or by businessmen, and notification of fair price of various procedures based on professionally sourced and audited data of good private hospitals. 🛍

(The author is Convener, Medicos Legal Action Group, Managing Director MLAG Indemnity, Ex President IMA Chandigarh and Director Hope Gastrointestinal Diagnostic Clinic, Mohali)

#### FOCUS - HEALTHCARE



### ENCOURAGE RATHER THAN TRAUMATIZED THE PRIVATE HEALTHCARE

Instead of focusing on improving the facilities in government hospitals; asking private hospitals to provide cheaper healthcare would finally lead to deterioration of standards even in private hospitals...

#### BY DR VINAY AGGARWAL

nder Article 21.Constitution of India assures quality healthcare to everyone in the country. Since independence our population has grown multi fold while healthcare delivery by our government could not keep pace with the requirements of the masses. As a result of this private sector participation increased and continues to share majority of the burden.

The government collects taxes and is responsible for providing citizens with basic healthcare needs. Sadly our successive governments have neglected the health sector. The budgetary allocation for health is very meager and out of the total expenses on healthcare, government's spends only a third and rest is mostly done by private sector.

While the basic health indicators like life expectancy, MMR,IMR and percentage of institutional deliveries have improved significantly over the years with involvement of both Public



& Private Sector ; the private sector has been more focused in providing quality secondary & tertiary healthcare, government has done its job at primary level.

Private players have also improved our international image through medical tourism by providing quality healthcare at affordable charges as compared to western counterparts where cost of treatments is very high. India with its unique advantage of having Qualified Medical Professionals, Trained Paramedics & Nursing manpower has the potential to become global hub for Medical Tourism. This has helped in generating significant revenues for our Nation besides ensuring huge employment opportunities in the country.

The recent observations of the Supreme Court of India asking the government to cap the charges of Private sector will have disastrous consequences, because it may curtail private investments and lead to lower contribution in Healthcare GDP where government contribution is still 1 percent while majority contribution comes from Private Sector. Affordable healthcare or subsidised Healthcare should be provided by the government but instead it continues to shy away from its responsibilities resulting in heavy dependence on private sector. Management of corona epidemic tells the story where government had to depend heavily on private sector.

### DOUBLE HELICA

#### FOCUS - HEALTHCARE



Instead of focusing on improving the facilities in government hospitals; asking private hospitals to provide cheaper healthcare would finally lead to deterioration of standards even in private hospitals. This may lead to degradation of quality standards, reduced expenses on services, lesser focus on Academics & Research, latest technological advancements may also be curtailed for managing lower Cost Healthcare if the sector is asked to cap prices and finally may prove to be detrimental in long run.

Instead Government should focus on providing universal health assurances for maximum population coverage. Some steps like Ayushmann Bharat scheme are steps in right direction( with practical reimbursements)& need to be expanded. India is a diverse country and every citizen has the Right to Choose Quality Healthcare. If private hospitals are forced to reduce their charges without any methodology ( costing in an academic manner)they won't be able to provide world-class facilities and treatments as investments will be curtailed. This will be detrimental for the overall growth of Healthcare Sector in the country besides denying the citizens the right to seek Quality Healthcare. We don't want to create a situation in our country again when people had to travel abroad for seeking high end medical treatments.

Every Citizen irrespective of his economic status must not be denied access to Quality Healthcare. The government needs to

Increase contribution towards overall Healthcare GDP & focus on improving the infrastructure of Government institutes that over the years have been neglected and mismanaged. This has led to reduced confidence of general public in availing government facilities who cannot afford private facilities. This was clearly evident in current pandemic where majority of public including all the politicians themselves were admitted in Private Hospitals while to deflect the public ire most politicians still continue to blame the private sector. These double standards are detrimental for the society and overall Healthcare of our country.

Its important for the government to ensure comprehensive development of Healthcare sector where there is equal role for both Public & Private Hospitals to coexist.Let those who can afford and have insurance visit private hospitals for their needs and additional services while citizens from poor economic status seek reasonable healthcare at Government Hospitals. With the launch of universal Health insurance schemes citizens can even seek treatments at empaneled private hospitals.

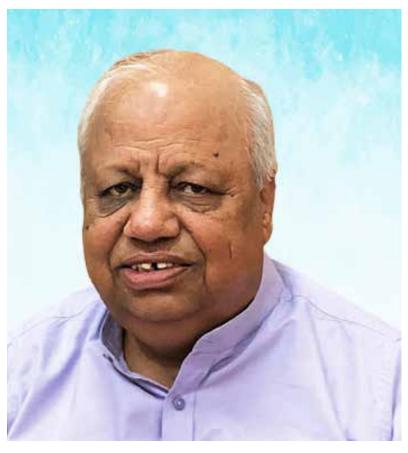
While respecting the sentiments of Honorable SC the government should ensure that every citizen is able to seek best possible healthcare by promoting Universal coverage of Health insurance to reduce dependence on out of pocket expenditures. We can turn it into a win win situation for all stakeholders and face future health challenges collectively. That is the need of this hour.

> (Acknowledging the contributions from Dr Praveen Prabhakar and Dr V K Monga)

#### FOCUS - EAR CARE



## INCREASING CRAZE OF USING HEAD PHONES BECOME LIFE THREAT



Exposing your ears to prolonged & high intensity of noise more than 85 db can lead to permanent hearing loss which can never be recovered back & permanent damage can occur...

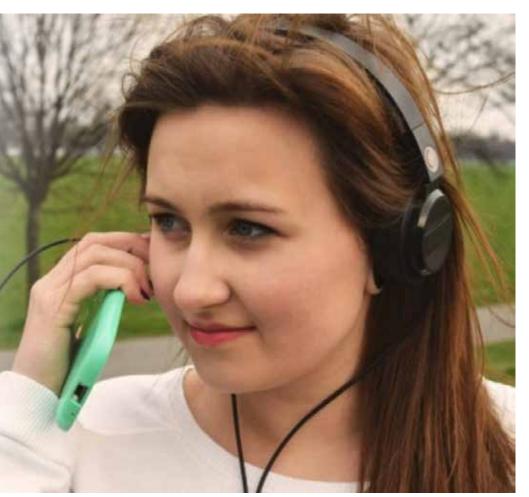
#### BY DR A K AGARWAL

oday the increasing craze of using electronic gadgets and technologies become life threat. As both were aimed to make life entertaining but not at the cost of one's own health. Improved technologies have made the mankind get entrapped in the comforts and luxuries, leading to imposition of many side effects on health. Ear phones and headsets are one such technology! Forced, improper or over use of ear phones, headsets, leads, iPod, and bluetooth can cause impairment or loss or damage to hearing. Their use not only affects the user but the surroundings too.

Cochlea is the main sense organ of hearing & has very delicate hair cells which detect sound frequencies. These hair cells can get damaged if exposed



#### FOCUS - EAR CARE



to prolonged duration of sound intensity of around 85- 125 db like from the noise of aero plane or missile or gun firing or listening to head phones at very high volumes."

Once these hair cells are damaged they generally do not recover specially if the high intensity exposure is not controlled & patient may experience hearing loss at high intensities , continuous ringing or buzzing sensation called tinnitus, headache , irritation ,lack of sleep , depression & difficulty in routine day to day activities. Then they may require the support of hearing aids& when profound hearing loss occurs where hearing aids also don't benefit they may require a cochlear implant surgery.

Moreover, many people just get lost in the world of music with the use of earphones, headsets, and loud speakers while driving, specially on highways, making the driver unable to hear the sound warnings given by other people or vehicles; thereby paving way to accidents. People also experience loss of balance owing to messed up air pressure effects.

In addition, these gadgets being constantly exposed to dirt and moisture also increase the risk of infections and other ear diseases. Prolonged ear phone use also irritates the temporomandibular joint near the ear canal causing soreness and pain in the ear. Also, sharing the leads with family and friends is a big unsafe practice. The bacteria from one person's ear can travel to other person. Personal ear plugs are advisable.

People are advised to use ear phones

in a subtle timed manner and buy only those products which fit their ear properly. Else, the skin inside the ear may get irritated or torn due to repeated adjustments. This may also cause bacterial infections.

Ear wax drains daily from our ears. Frequent prolonged use of ear leads hampers the movement of ear wax and may lead to conditions such as tinnitus (ringing of ears), pain in ears, infection, or even hearing loss.

These gadgets produce electromagnetic waves/currents which are proven to be really dangerous for the human brain. The idea of using electric currents to change the brain functions is not new. People using bluetooth daily often experience unexplained headaches.

The World Health Organization (WHO) aims to reduce the hearing loss cases and deafness by almost 50% by 2015, and by 90% over the next 15 years through the right mode of using earphones. Noise pollution is one of the most common causes of hearing impairments in adults.

The gadgets must not be used continuously beyond 15 minutes at one go. Otherwise, there is a hearing loss threat. Giving rest to ears in between is a must. Some brands are making ear phones that have to be inserted directly into the canal resulting in blockage of air passages leading to infections and hearing loss over a period of time. MP3 players should be used up to 60% of their maximum volume for maximum of 1 hour daily.

We should ensure regular cleaning of ear gadgets and also the ears. In case of any infection, the use of ear phones must be immediately discontinued and ENT doctor must be approached. Ear phones can be cleansed by immersing them in a bowl of lukewarm water with few drops of anti-bacterial soap; cleansing it thoroughly later and drain excess water and letting the earphones dry completely before reuse. Even hands should be washed thoroughly

#### FOCUS - EAR CARE





before using ear leads. In case of rubber or sponge covers, these must be changed at least monthly.

Ear plugs must be fitted in the ear with rotation. Never try to push it too far into the canal. Also, the removal of earphones must not be pulling harshly as it may damage the ear drum. Rather it should be twisted gently out of the ear. Older style, larger headsets that rest over the ear are far better than ear phones. With the right tools, we need the right approach and right attitude, to generate smarter version of ourselves!

#### EDUCATION OF CHILDREN

Education of children with hearing impairment in India is just a little over a hundred years old. After Independence, improvements were seen with the establishment of many new schools in the 1950s and many programs based on the new technology came up in the 1960s. The sixties saw the establishment of the All India Institute of Speech and Hearing in Mysore where facilities for diagnosis of hearing impairment in infants and young children were available. At present, over 500 schools for the hearing impaired children are available in the country.

The Government established and administers some schools whereas the NGOs run many others. Most of the schools, still residential, admit children aged 5 years and above who spend the entire school year in the hostels; they go home only during summer vacation. Provision of vocational courses and sheltered workshops facilitates spending almost the entire lifetime of some students in these schools. Two colleges for the Deaf, one in Chennai, Tamil Nadu affiliated to the University of Madras and another in Valakam, Kerala conduct degree courses in Commerce and Art subjects; a third program is under the Indira Gandhi National Open University, New Delhi. Educating children with multiple disabilities is a difficult task. In India training programs to train teachers to

help children who are 'deaf-blind' has only recently begun.

Globally, over 5% of world's population (more than 360 million population), have disabling hearing loss, according to new global estimates on prevalence released by the WHO, for International Ear Care Day. Of the total, 91% of these are adults and 9% are children.

Disabling hearing loss refers to hearing loss greater than 40 decibels (dB) in the better hearing ear in adults and a hearing loss greater than 30 dB in the better hearing ear in children. The majority of people with disabling hearing loss live in low- and middleincome countries. The prevalence of disabling hearing loss in children is greatest in South Asia, Asia Pacific and Sub-Saharan Africa.

Overall prevalence of disabling hearing loss in children all over the world is 1.7%. A person who is not able to hear as well as someone with normal hearing – hearing thresholds of 25 dB or better in both ears – is said to have hearing loss. Prevalence of hearing loss in South Asia in pediatric age group is 2.4%

Prevalence of Disabling Hearing Loss among men and women in South Asia are 9.5% and 7%, prevalence in South Asian children is 2.4%. . Approx. 0.5-5 of every 1000 infants are born with or develop in early childhood disabling hearing loss. The prevalence of disabling hearing loss increases with age, i.e. prevalence in children is 1.7%, in adults aged 15 years or more, it is around 7%, rapidly increasing to almost one in three in adults older than 65 years. In most regions, prevalence in children decreases linearly as parent's literacy rate increases. In adults 65 years and older, prevalence decreases exponentially as income increases 🛍

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