

India's Contribution To Global Health And The G20: A Review Of The Country's Efforts To Address The Health Challenges, Including Covid-19 And Its Role In Shaping The Group's Response

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Abstract

As India is working towards the G20 presidency in 2023, one of the major focuses of the country is on its health sector. Due to the Covid-19 pandemic, the country had received a reality check of its infrastructure conditions and the problems related to the health sector. Before 2020, the Indian government had not much emphasis on improving the health sector or even bringing a health agenda to the political rallies, therefore, the pandemic brought in a shift in the paradigm of the nation's functioning. In the same light, this research paper presents the health situation of India before, during, and after the Covid-19 pandemic. This paper also highlights how India as the G20 Health Working Group's member can utilize the opportunity in making the 'Vasudaiva Kutumbakam' a global phenomenon.

Introduction

Health is seen as one of the most important elements of an individual's life as one's well-being can contribute to the progress of society. In the last few decades, the health system in India has changed in terms of policies and the upliftment of the sector. Even though the government is pumping thousands of crores in the health sector along with pvt investments being poured in, the question of whether the change is visible on ground, the condition remains the same. India's health budget is ₹5,96,440 crore (3.2% of GDP and ₹4,470 per capita)¹ and during the COVID-19 when the nation saw the rural healthcare crumble, the government realized that there is a need to increase the investments or allocation for this sector. With the commencement of Covid-19, India witnessed issues on various fronts like the oxygen cylinder crisis, shortage of beds, rural healthcare system deterioration, shortage of experienced doctors, etc, which made India witness the flaws in its healthcare system being displayed at the forefront. On the contrary, India also took the courage to ramp up the production of PPE kits, 2 homemade vaccines which every nation used to save millions of lives. Thus, India became an example for other countries across the world in holding onto a ray of hope and dealing with the problems while India itself faced the flaws of the healthcare system.

¹ Overall, for FY19, Total Health Expenditure (THE) for India is estimated to be Rs.5,96,440 crore (3.2 percent of GDP and Rs.4,470 per capita). Current Health Expenditure (CHE) is Rs.5,40,246 crore (90.6 percent of THE) and capital expenditures are Rs.56,194 crore (9.4 percent of THE). Of the Government Health Expenditure (GHE), the Union Government's share is 34.3 percent and the State Government's share is 65.7 percent. - Ministry of Finance press release.

1. India's Health System

1.1 An Overview

Health as a subject lies under the state list wherein the federal government of India has divided the responsibilities of the health sector among these three levels. The central government's role is majorly in the drafting of policies like the National Health Policy (1983, 2002, and 2018) and the formulation of guidelines concerning the Indian Public Health Standards; the state government is majorly involved with the delivery of healthcare services, decision-making power with regards to policy implication and funding procedures and lastly, the concurrent list or the local government which is governed by both central and state government is responsible for control on contagious diseases across state boundaries and issues that are governing the medical profession. The healthcare system in India is organized in a three-tier system with a hierarchy namely;

1. Primary - Public Health Centres
2. Secondary - Community Health Centres, Taluka, and District Hospitals
3. Tertiary - Medical Colleges and Teaching Hospitals.

Intending to modify behavior and provide services for mother and child health, family welfare, nutrition, immunization, diarrhea control, and communicable disease control programs, sub-centers (sub-centers draw a connection between the primary health center and community health centers wherein a female health worker or a midwife nurse along with male health worker are required to be present to assist the patients in rural India) are given interpersonal communication-related activities. A minimum of one auxiliary nurse midwife (ANM) / female health worker and one male health worker must staff each sub-center. One additional second ANM is allowed under the National Rural Health Mission (NRHM) on a contract basis. A single lady health visitor (LHV) is tasked with managing six sub-centers. ANMs and LHVs are paid by the Government of India, whereas male health workers are paid by the State governments.

On the other hand, Primary Health Center (PHC) serves as the local community's primary point of contact with the medical officer. The PHCs were designed to offer rural people comprehensive curative and preventive healthcare, with a focus on the preventive and promotional components of healthcare. The State governments operate and maintain PHCs as part of the Minimum Needs Programme (MNP)/Basic Minimum Services (BMS) Programme. A PHC must have at least 14 paramedical and other employees in addition to a medical officer as a minimum staffing requirement. Two more staff nurses may be hired by PHCs under NRHM on a contract basis.

Lastly, within the MNP/BMS project, the State government creates and maintains Community Health Centers (CHC) wherein a CHC must have four medical professionals on duty, including a surgeon, physician, gynecologist, and pediatrician, along with 21 paramedical and support workers, to meet basic standards. It features 30 indoor beds, one operating room, an X-ray room, a labor room, and lab equipment. It provides facilities for obstetric treatment and specialist consultations in addition to acting as a referral hub for four PHCs. However, certain schemes are centrally funded like the Ayushman Bharat and some schemes are state-funded or the funding is shared between both central and state governments as mohalla clinics in Delhi and Punjab are run by the state government whereas Prime Minister Jan Aushadhi Kendra is run by the central government.

Although there are divisions made in the health sector, certain changes that were a component of the new economic strategy and structural adjustment of the 1990s, came into being when India changed its course from providing comprehensive primary health care (CPHC) for everyone to **putting** the private sector front and center. The turn of the century was marked by a substantial decrease in public sector investment and the rise of a powerful private sector in the health industry. In this, the state has given us a new gift: universal health care (UHC), which replicates the original goal of health for all but conceals a significant policy change in which the state guarantees access to services rather than necessarily their supply.

In India, UHC was introduced as a way to make healthcare services available, accessible, and affordable all over the country. The cost of household out-of-pocket (OOP) expenditure on outpatient care (or non-hospitalization care) had become the main concern as the country took a step towards UHC. According to a conservative estimate based on National Sample Survey (NSS) 2017–18, the average OOP spent on an outpatient's treatment is more than ₹1,250 per person annually. However, based on Niti Aayog's article on 'Road to Universal Healthcare', it can be argued that the OOP expenditure was lower than that in 2014 and the main reason given for this change was that there were fewer outpatient visits. "Each year, millions of people fall into poverty due to a lack of financial protection for outpatient care. Nearly 70% of the 1.8 consultations the average individual seeks each year are in the private sector. Around 70% of outpatient expenses are spent on medications", quoted from the same article, it can also be concluded that with the emergence of privatization, the road to UHC had become a difficult task because medical care was now based on the economic development of the institution as a whole, with high fees and claiming to better facilities, private hospitals were gaining the attention of the public. Government schemes like Ayushman Bharat taken under the Pradhan Mantri Jan Ayogya Yojana were utilized by 40% of the population which accounted for 50 crore people, even after this, UHC has still not been claimed in India.

1.2 Organization & Functioning of Healthcare System in India

As health is a state subject, every state is held responsible for the functioning of the healthcare system and its facilities. However, at the national level, the Ministry of Health and Family Welfare (MoHFW) formulates and executes health policy in India. The functions of this ministry are to define and formulate policies for the health sector at a national level and provide funding to national programs. However, these functions are carried out by the state governments after a procedure of consultation between the two governments. Moreover, MoHFW has been further divided into two separate departments:-

1. Department of Health and Family Welfare
2. The Department of Health Research

An example of the National AIDS Control Organisation was established in 1992 and functions under the Department of Health and Family Welfare which envisions that HIV patients are not discriminated against and treated with proper quality healthcare in India.

Furthermore, the government health system is organized under the Department of Health and Family Welfare which is led by a State Minister of Health and Family Welfare and a State Minister of Medical Education. The Health Secretariat is administered by an officer from Indian Administrative Services wherein the health department is required to work in coordination with other departments such as rural development, water supply, women and child development, and so on. In 2002, the National Health Policy viewed different causes for health issues which ranged from social well-being to environmental conditions.

1.3 Challenges Faced by India

a. Health Insurance

The privatization of the health sector brought major changes, one of which was the introduction of 'health insurance'. Private hospitals like Max, Fortis, etc. promoted their environmental setting and the availability of doctors with precision in their treatments, this led to an increase in hospital bills, and medicine expenditure which costs a person a fortune in one sitting. Insurance was seen as a way to overcome this issue of financial crisis for individuals in the health sector but instead of doing this, health insurance is more privatized which leads the government of India with concerns. According to a report released by Niti Aayog in October 2021², it was stated that India's health system requires an improvement in the financing of healthcare facilities. This financing is, however, not dependent only on the private insurers but rather the government is required to step in to provide a platform for

² [Health Insurance for India's Missing Middle_08-12-2021.pdf\(niti.gov.in\)](#)

proper financing. In the 2023-2024 budget discussion, the Ministry of Health and Family Welfare has been allocated 89,115 crore which is a 13% increase from last year.

"Ayushman Bharat" with more than 12 crores of poor and vulnerable families (or roughly 55 crore beneficiaries), who make up the bottom 40% of the Indian population, PM-JAY is the largest health insurance program in the world. Its goal is to provide a health cover of Rs. 5 lakhs per family per year for secondary and tertiary care hospitalization. According to the socio-economic caste Census 2011 (SECC 2011) occupational and deprivation criteria for rural and urban regions, respectively, the families included are based on these factors. The National Health Protection Scheme (NHPS), which was once known as PM-JAY, in its place, the 2008-launched Rashtriya Swasthya Bima Yojana (RSBY) was absorbed. Therefore, the families that were covered by RSBY but are no longer are also covered by the coverage stated under PM-JAY.

b. Rural Healthcare Challenge

According to the World Health Organisation, half of the population of the world resides in the rural area and in India specifically, 70% of the population is located in the rural side. It has been witnessed that rural India lacks in providing proper medical care as the doctors are not willing to work as medical professionals in rural areas which again brings us back to the doctor-patient ratio mentioned earlier. This therefore poses a major challenge to the health sector in India, however, one landmark decision that came across recently was the Right to Health Bill³ passed in Rajasthan which stated that patients reaching private hospitals in an emergency would not be responsible for making payments from their pockets rather the government would take charge of paying the bill of the patients. Although it does give leverage to the patients, the bill also stated certain emergencies which would fall under this were - snake bites, animal bites, and accident cases. This bill, therefore, restricts the financial burden on the patient and ultimately puts a question of 'health being a fundamental right'.

This brings us to another major issue in rural India which is 'focus on communicable diseases and less emphasis on non-communicable diseases' which makes the latter a burden on the shoulders of the health sector as a way to solve the problems. Rural health does not have enough facilities due to a lack of doctors preferring to work in poor environments and this increases the number of quarks in such

³ "Right to health: Every person in the state of Rajasthan will have certain rights regarding health. These include the right to (i) avail free outdoor and indoor patient department services, medicines, and diagnostics in public health institutions, (ii) emergency treatment and care at all health care providers, without any delay waiting for prepayment or police clearance, (iii) receive information about the nature and cause of illness, results, complications and cost of treatment, and access related records, (iv) informed consent before specific tests or treatments, (v) confidentiality and privacy in treatments at all health care establishments, (vi) referral transport, (vii) safe and quality health care, and (iii) grievance redressal."

areas. Quarks have existed since ancient times wherein they claim to be a specialized doctor while treating their patients but in reality, they are just pretending to treat a person in a manner to earn profit.

c. Non-Communicable and Communicable Diseases

In simpler words, non-communicable diseases refer to those health problems which cannot be transferred through the physical environment. Examples of non-communicable diseases would be diabetes, hypertension, and cancer sickness. According to the report given by “India-Health of the Nation States”⁴ the initiative taken by the Indian Council of Medical Research estimated in 2022 that the deaths due to NCD have increased from 37.9% in 1990 to 61.8% in 2016. Another report released by the National Family Health Survey indicated that there is a high increase in lifestyle diseases among individuals in Indian society. The Urban sector was seen as the increasing population of diseases such as diabetes, hypertension, etc. This further indicates that with more wealth and development, there is a major chance of health problems. However, to combat the NCD challenges, preventive measures were taken under the Comprehensive Primary Healthcare through the Ayushman Bharat Wellness Scheme. On the other hand, communicable diseases are a global concern due to various socio-cultural and environmental causes behind them. India faced the challenge of malaria due to mosquito breeding which occurs in the monsoon season, this can also be considered in terms of lack of cleansed water supply in households.

d. Ayushman Bharat Digital Mission

Healthcare delivery to rural regions and 'last mile coverage' have been two of India's biggest concerns. By providing treatment via telemedicine to individuals who are either located in extremely rural places or are unable to travel because of their age or prognosis, government funding in programs like the Ayushman Bharat Digital Mission (ABDM) has greatly surmounted this obstacle. The Nationwide Health Authority funded the nationwide rollout of ABDM in 2022 with INR 1600 crore over five years. The budget for ABDM in the Budget 2023–24 was INR 341.02 cr, an increase of 70.51 percent over the previous year. Several digital health services are provided by ABDM, including e-Sanjeevani, a telemedicine service that links patients with physicians and other medical professionals via their cell phones. Additionally, patients can make direct appointment bookings through e-Sanjeevani and get information on medical services at the nearby Ayushman Bharat Health & Wellness Centre.

⁴ [India Health of the Nation's States Report 2017.pdf\(healthdata.org\)](https://www.healthdata.org/india/health-of-the-nation-states-report-2017)

e. Medical Investment

The low level of investment in healthcare is one of the main causes of the health system's dysfunction and poor health indicators. As a result, India has a high burden of diseases that can be prevented, which keeps families in poverty. To offer financial entitlement for the purchase of services and cover out-of-pocket costs, public health finance is essential. India has one of the lowest public health spending ratios in the world at about 1.2% of GDP, the investment in the healthcare system is required to increase to have a more effective system in India. However, unless it is supported by an easily accessible and effective delivery system, greater healthcare spending alone might not be adequate in the country.

f. Medical Education

Medical education in India is one of the most prominent institutions in the country, and a large number of the population aspires to indulge in medical fields. However, the cost of medical colleges is very high majorly because of privatization whereas the seats for admission are comparatively low in proportion to the number of students appearing for the entrance. Any substantial changes to the medical curriculum must have the regulating body's approval, the Medical Council of India (MCI). The accrediting procedure for medical schools places minimal emphasis on the method, quality, or consequences of instruction, focusing instead on the necessary infrastructure and human resources. The Ministry of Health and Family Welfare is in charge of carrying out MCI's recommendations for the recognition or de-recognition of a medical college, and individual universities also have different sets of rules for their associated medical schools. The caliber of medical education, therefore, varies greatly across the nation.

Even though medical institutions emphasize high fees, India's medical facilities have improved since Covid-19 wherein India was capable of providing help and medical care to other countries. Such an example is of the Ukraine war with Russia where India evacuated two thousand Indian medical students back to their domiciles. The reason behind this is that Ukraine was not in a condition to provide facilities to Indian students abroad and was therefore asked to be evacuated safely back to India. However, according to an article published in Hindustan Times (12th April 2023), it stated that almost all of the students gave the qualification exam from their domicile and preferred returning to Ukraine for the continuation of their studies later on. In this scenario, the Indian government had a stronghold on the medical supplies which were demanded by the Ukraine government.

1.4 Healthcare Policies in India

According to the national health policy report released in 2017 by the government, the focus had shifted from maternal and child mortality rates to non-communicable diseases. The reason is that health priorities in contemporary times are being influenced by the Western culture which is being acquired through economic advancements. The policy drafted in 2017 focused on the environmental causes of health problems which led to different schemes introduced in the year such as:

1. The Swachh Bharat Abhiyan
2. Yatri Suraksha
3. Nirbhaya Nari
4. Balanced, healthy diets
5. Addressing tobacco, alcohol, and substance abuse
6. Reduced stress and improved safety at the workplace
7. Reducing indoor and outdoor air pollution

The policy of 2017 also addressed the issue of governance in terms of the division of responsibilities between the Central and State governments. Under this policy, Ayushman Bharat Yojana was introduced which aimed at providing a healthy, content, and capable new India. This policy is aimed at covering up to ₹5 **lakhs** to the patient's family. The problem that could be seen here would be the awareness of such a scheme in rural or backward areas in India such as the tribal communities. Another problem seen here would be the accessibility of healthcare facilities in such areas where the policy could be implemented. Even after this new policy in 2017, the funding given to the health sector was not as much as it had required. The conditions had improved in certain hospitals where the government was covering the financial cost of the medical treatments but yet there were provisions not made for all families to receive such a platform.

2. India's response to Covid-19

2.1 Overview

Covid-19 or the Coronavirus Pandemic was a global problem in the sphere of health. This pandemic threatened people's lives as it was a communicable disease. Lockdowns were instructed by governments all over the world. People's day-to-day lives had come to a halt as schooling jobs **and even** socialization became virtual. In such a situation, providing medical facilities became a tedious task for the country, especially for the underprivileged and backward-class societies. Medical treatment (except for emergencies and surgeries) was done online through either a telephone call or a video call. As life became immersed in social media platforms and usage of the internet increased, health problems

increased side by side. Apart from the Covid-19 pandemic, people were facing mental health issues such as stress, depression, anxiety, and so on. However, the government of India did come up with different ways of responding to the Covid-19 pandemic which are stated below.

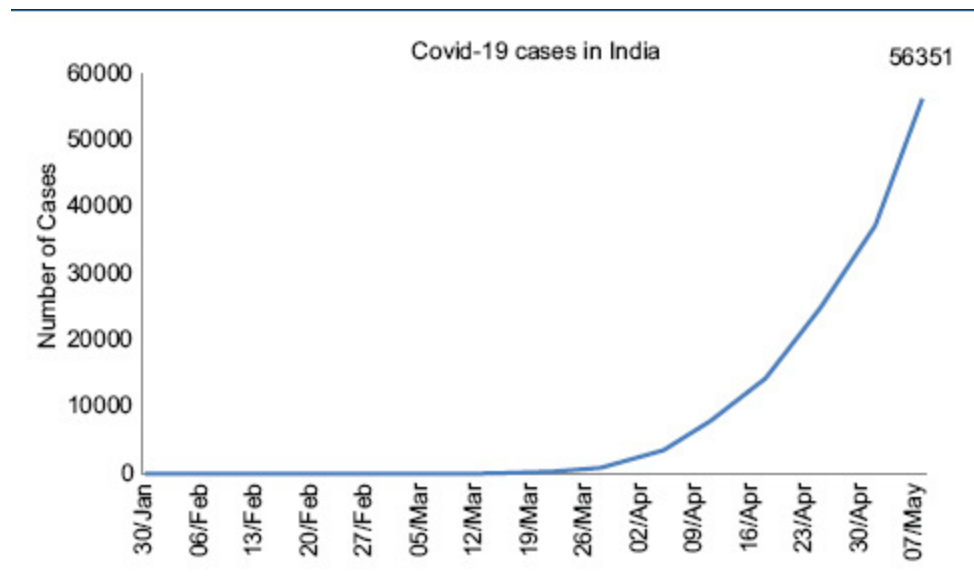
1. Public Health Communication:

Given India's enormous size and population, the Indian government places a high priority on public health. The government has included INR 88,956 cr for health expenditures in the Union Budget 2023–24, an increase of 2.71 percent from the previous year. Following the WHO's "End TB Strategy," reducing and eliminating deadly tuberculosis (TB) outcomes has been a primary emphasis of India's public health policy. Between 2015 and 2030, the WHO has set goals to lower TB mortality by 90% and new infections by 80%. Between 2015 and 2019, the incidence of TB fell by around 9% worldwide. In India, TB occurrences decreased by 24 percent between 2015 and 2019 as a result of increasing efforts to combat the illness.

- A. The Health Promotion Division of the Public Health Foundation of India started with the 'Project Pathway: Promoting Health and Well-Being'. Their aim through this project was to spread awareness about the pandemic on social media platforms.
- B. The covid-19 Relief Campaign was also organized in June 2020 in collaboration with Janaseva Foundation and NIMHANS, this campaign reached out to households that required hand sanitizer, masks, a fee for grocery kits, and cooked meals to families without income.
- C. Project IPROMISE was started as an initiative to make students achieve a healthy lifestyle. This project is ongoing in schools aiming to provide an environment for students to adopt positive health habits. It is in collaboration with World India Diabetes Foundation. This project can be analyzed with the report presented earlier on non-communicable diseases, the report stated that lifestyle diseases were increasing rapidly in society, and during Covid-19 where groceries and outdoor activities had come to a pause, people's health was getting affected instantly. This project can therefore be seen as a way to change this data in the coming future.

2. Testing and Tracing Strategy

WHO declared Covid-19 Pandemic on March 11, 2020, and brought out the strategy of 'test, test and test'. Whereas India adopted a different strategy to combat Coronavirus which was to go for a complete lockdown from March 24 when 1.3 billion people were in lockdown. The Government of India had taken a decision which saved many lives in the initial period of Covid-19. However, the major problem was faced by the migrant workers by April 2020 when they marched toward their homes by road and other public transport. This had led to an increase in the cases as shown in the image below:



However, as compared to developed countries like the USA, UK, Italy, etc. India had a successful start in combating coronavirus. The Indian Health Ministry on 5th May announced the doubling time of lockdown to 12 days for people with symptoms and then later brought it down to 10.2 days, however, this strategy helped India in training its workforce, bringing in equipped ventilators, drugs, and manufacturing protective equipment in the hospitals. To sum up, the lengthy national lockdown and instructions for the widespread usage of masks in public settings have been added to India's strategic testing approach while expanding its testing capabilities utilizing novel approaches.

2.2 Impact of Covid-19

A. Short-Term Impact on Health Sector

1. Treatments shifted to telecommunication and telemedicine approaches. The biggest challenge for this shift is the 'accessibility of the internet' across India. This was the outcome of the prevailing problem of the digital divide. Access to the internet and technological convenience was possible for the economically richer section of the country as it became a way for telecommunications to earn profit rather than providing access to every house in the nation.
2. Demand changed wherein there was an increased demand which led to panic-buying of medicine. This panic-buying situation was because of two major reasons: i) an increase in sudden death rates which made people anxious about their lives and ii) a shortage of medicines led to the rise of its price. One such example is the 'Redmesivir' drug which was made as a preventive cure in the initial times of the pandemic and was rejected by WHO but India

refuted this rejection. In India, the price of this drug went up to 14000 which was not affordable for the whole country.

3. There was an increase in hospitalization which led to a lack of beds that eventually couldn't admit patients.
4. There was a shortage of medicines as the production by pharmaceutical companies was lagging due to the lockdown and virtual settings.
5. India's involvement in making vaccines during Covid-19 paved the way for it to build strong foreign relations. Earlier, diplomacy focused on economic growth, and India aimed to be one of the key nations at the global level. However, during the pandemic, India's vaccine diplomacy led it in helping with medical cures with 5.84 crore doses of indigenous Covid-19 vaccines in 70 countries during the latter half of 2020.

B. Long-Term Impact on Health Sector

1. Delayed treatment for Non-Covid-19 diseases was one of the biggest setbacks of the phase. Even today, Covid-19 case is given priority over other health problems.
2. Questions about the ethical practice of medicine as a priority are supposed to be based on the emergency case or which patient requires treatment first. But with Covid-19, other health-related issues are given secondary importance.
3. There was a change in the health practices amongst people wherein hygiene and environment were given immense importance over the medicinal procedure of curing.
4. One of the major impacts in the health sector as an outcome of the Covid-19 pandemic was the strengthening of the 'telemedicine' policy. Telemedicine is defined by WHO as "*the delivery of healthcare services, where distance is a critical factor, by all healthcare professionals using information and communication technologies for the exchange of valid information for the diagnosis, treatment, and prevention of disease and injuries, research and evaluation, and for the continuing education of healthcare providers, all in the interests of advancing the health of individuals and their **communities***". On August 9, 2020, the government of India announced the eSanjeevani under the Digital India initiative. This was the platform where telemedicine was being practiced in the form of consultations between doctor-patient and discussions among doctors themselves.

C. Impact on the Indian Economy

1. Food and Agriculture: The movement of import of food supplies was restricted yet online portals were in high demand for groceries. According to a Times of India article⁵ published in

⁵ [Impact of Covid-19 on the Indian economy \(indiatimes.com\)](https://www.indiatimes.com)

2021, there was an unclear movement of the food whereas several States had allowed the free movement of vegetables, fruits, and dietary products. Apart from this, the government of India had also announced the Pradhan Mantri Garib Kalyan Yojana (PMGKY) as a method to reach out to the poor suffering during the pandemic. In 2021 the government had allocated 199 lakh tonnes of food grains during the second wave of Covid-19. In this way, the affected population of the country received help and was provided with relief. Under this scheme, the central government provided 5kg per month to the individuals who were covered in this scheme.⁶

2. **Aviation and Tourism:** These two sectors were largely affected by the pandemic. The aviation sector contributed 2.4% and the tourism sector contributed 9.2% (2021 article in TOI) to India's GDP, during Covid-19, the economic setback came largely from these two sectors. However, the other side of this was the advancement in technologies that allows transportation without physical contact such as the facial recognition program set in the aviation sector from December 2022.
3. **Telecom:** Another sector that contributes largely to India's GDP with 6.5% (2021) and employs over 4 million people. With Covid-19 the employment sector here had increased by 10% in 2021 which led to an increase in broadband usage and high contribution to India's GDP.
4. **Pharmaceutical Industry:** One of the most prominent sectors since the initial time of Covid-19 and even before the pandemic. The net worth of this industry was 55\$ billion before the pandemic, however, with Covid-19 certain restrictions were imposed by the government on the import of drugs in the country. This became a setback for the industry along with a shortage of labor force.

2.3 Comparison of India with other countries and International Organisations

Covid-19 was announced as a worldwide pandemic on 11th March 2022 by WHO which had also laid down the strategies for the countries to follow. However, the crisis was the same for all but the difference came in the usage of the strategy. WHO had given the strategy of 'test, test and test' which was not followed by India as the government took the strategy of lockdown. Whereas other countries like the USA, UK, Italy, etc. used the strategy of conducting tests with their citizens. The result of this was the loss of lives in large numbers even during the initial days of the Covid-19 pandemic.

⁶ [Covid-19: Govt allocates 199 lakh tonnes of foodgrains for free distribution during July-November - The Economic Times \(indiatimes.com\)](https://www.indiatimes.com/News/COVID-19-Govt-allocates-199-lakh-tonnes-of-foodgrains-for-free-distribution-during-July-November-The-Economic-Times/indiatimes.com)

To combat the two waves of the epidemic, the United States has implemented many mitigating measures, such as improving virus detection and urging people to wear masks. Although there were fewer daily new instances as of May 30, 2021, the outcome was not ideal. The total number of confirmed cases in the US ranked first globally while its daily new cases were placed fourth. In the early stages of the outbreak, India used containment techniques, which made the pandemic reasonably stable. India has started to use mitigating techniques in the later stages. Additionally, several issues, such as a shortage of medical resources and hasty relaxation measures, contributed to the pandemic scenario rapidly getting worse. The outbreak is still very bad in the two nations, though. With the emergence of virus mutants and the absence of immune barriers, the two nations must continue to implement non-pharmacotherapy intervention strategies and speed up vaccination, as well as adopt containment strategies that can quickly stop an outbreak when necessary.

2.4 Strengths and Weaknesses of India's Response to Covid-19

1. Strengths

- a. The Indian government took quick and strict action lockdown through public health measures of containment, reduction, and prevention.
- b. India's response was way better than many other countries in reducing the spread of coronavirus within the country. For eg; the Indian government increased the lockdown period even when the covid-19 cases were minimal whereas countries like the USA, the UK, etc removed their lockdown when the number of cases went down. This helped the country to prevent the virus from spreading at a rapid speed.
- c. India's biggest contribution during the pandemic was the development of vaccines for Covid-19 which was COVAXIN, an indigenous vaccine developed by Bharat Biotech in collaboration with the Indian Council of Medical Research. Along with this, 'Vaccine Maitri' was also developed under which 6.63 crore doses were sent to 95 countries by India as a way to help others combat the pandemic situation.
- d. The usage of infrastructure during the lockdown as the quarantine zones or isolation wards was another achievement made by the country.
- e. The largest strength of the country came from the willingness doctors and medical professionals showed to work amidst the Covid-19 scenario even during adverse conditions.

2. Weaknesses

- a. Initially, the aim was to prevent the pandemic, and the Indian medical system was used which was beyond allopathy medicine but later on, the aim shifted to cure or treat the

patients which relied on the biomedical practice. Private hospitals exploited people economically as well as socially.

- b. Another major weakness was the rumors and false content being circulated on social media platforms which led to miscommunication about the pandemic.
- c. The pandemic highlighted the shortage of staff and the functioning of primary health care in rural and tribal areas. The treatment was not properly provided in such areas which showed the major challenge that India was facing.
- d. India's health policy was claimed to be implemented efficiently throughout the country but during the Covid-19 pandemic, health policies were having their major drawbacks which led the government to make amendments. For eg; the Ayushman Bharat scheme for covering health insurance was raised to 1.5 lakh health and wellness centers at the primary level. Apart from this, the financial condition of the health sector was highlighted which eventually made the government raise the budget for the same.

3. India's involvement in G20's health working groups

3.1 Overview

The G20 Health Working Group (HWG) was established under the German presidency in 2017 to assess global health issues ranging from malnutrition to vaccines to health-crisis management. The first presidency was under Argentina in 2018 which combatted the Antimicrobial resistance and strengthened the health system simultaneously. Following this, the presidency was under Japan and Italy in 2019 and 2021 respectively. With the outbreak of the pandemic in 2020, the aim of HWG focused on access to vaccines, therapeutic methods, and diagnosis of diseases. The G20 summit is an annual gathering of the leaders of the member nations to debate and coordinate their approaches to global concerns such as financial regulation, trade, and economic growth. These leaders will have the chance to engage in bilateral and multilateral conversations at the summit as well as debate global issues and possibilities. The G20 summit alternates hosts each year, and the host nation decides the agenda with consultation from the other countries.

3.2 India's Participation in G20 HWG

India's participation in G20 HWG will be heightened in the year 2023-2024 as the presidency was taken by India on 1st December 2020. India laid down certain priorities in addressing the problems faced in the Global South in the health sector. These were:

1. Health emergency preparation wherein the focus was on preventive methods to combat health emergencies in society.
2. Strengthening cooperation in the pharmaceutical industry to provide affordable medicines and treatment.
3. Focus on digital health innovation and formulate solutions to aid the universal healthcare system in the world.

The first meeting was held in January 2023 in Thiruvananthapuram, Kerala wherein the agenda was to address the ways to Achieving Holistic Well-being through Integrated Healthcare. The discussion emphasized 'One Health, One World' wherein the focus was shifted to the traditional medicinal practice to achieve universal healthcare services and preventive methods. This was however also introduced earlier in India through the policy of 'AYUSH' which was about the mixed medical treatments present in a hospital. This scheme allowed patients to choose which medical treatment they wanted to go with, especially through their belief system. Coming to the discussion that led to the idea of bringing back Ayurveda as one of the prominent alternatives to cure patients, questions the entire scientific argument that was presented by biomedicine decades ago.

However, this meeting in Kerala emphasized Vaidya as Kerala's medical system still used the traditional treatments of Ayurveda and had become one of the tourist spots for people to explore an alternative medical system. This can be seen as another reason why the panel had emphasized 'Medical Value Travel' as an essential element to combat vulnerabilities in the healthcare system as was said by Sh Vaidya Rajesh Kotecha **in the January** 2023 meeting. Similarly, India's presidency would be holding three more G20 meetings in Goa, Hyderabad (Telangana), and Gandhinagar (Gujarat) and one ministerial meeting in the year.

3.3 Effectiveness Evaluation

As mentioned earlier, G20's HWG had done major works in Germany, Argentina, Japan, and Italy and had a global impact in all the countries in G20. The aim of Group 20 Global Health was to make sure that no individual was absent from appropriate healthcare services. However, the idea of making health beyond crisis management led to the point of universalized healthcare which was again difficult to achieve. Every culture has its health policies and beliefs and scientific evaluation of health is not always the solution in every society. For eg; in India, the traditional health system of Ayurveda goes beyond the scientific understanding of medicine. People have a high belief in Ayurveda and therefore not every individual accepted European medicine. This was one of the reasons why the government of India came up with the AYUSH scheme so that no alternative medical system can be left behind.

However, one of the major setbacks of the world's health system is the insurance aspect or in other words the financing of health. Medical institutions became a business wherein getting admission to medical colleges was a very difficult task. Apart from this, people were exploited economically in private hospitals which claimed to provide the best health facilities. This pushed the government hospitals at a setback as people avoided receiving treatment from there or even doctors avoided working there, as mentioned earlier, this became a huge problem during the pandemic in India. The G20 worked towards combating different health issues but the problems were yet visible in many countries. It was only in 2023 that the G20 HWG focused on strengthening healthcare systems and emphasizing providing universal health care which was advocated in 2017 but established only recently. Under India's presidency, this has been implied and the journey has begun.

4. Global Health Initiatives led by India

4.1 Overview

India's medical system has been seen as one of the world's most prominent and effective healthcare systems. The establishment of the Global Health Strategy in 2010, Delhi was one of the major steps towards advocating health-related problems wherein India contributed largely in bringing out a solution.

- a. Infectious Diseases: In 2015, Tuberculosis became the most dangerous disease in society wherein 1.8 million lives were taken away on the other hand HIV/AIDS became another biggest problem with 2.1 million people being infected across the world. India introduced preventive strategies to combat AIDS under the National AIDS Programme and the National TB Elimination Programme where the government urges the citizens to take precocious steps in protecting themselves.
- b. CEPI: The Coalition for Epidemic Preparedness Initiatives was a global initiative collaborating between public, private, philanthropists, and civil society organizations founded in Davos by the governments of India and Norway the Bill & Melinda Gates Foundation, the Wellcome Trust, and the World Economic Forum. The objective of this initiative was the development of vaccines as a preventive measure to combat epidemic instances in the world. The faster development of vaccines was an aim of CEPI. India's participation at the global level under this is stated below:
 1. Financial support was provided to the 'Global Chikungunya Vaccine Clinical Development Program' (GCCDP).

2. Financial support was given for Gennova's mRNA-based COVID-19 vaccine candidate HGCO19; the Phase I Clinical trial for HGCO19 nearing completion.
3. Efforts are underway for the development of novel vaccine technologies for rapid response towards emerging infectious diseases.

5. Analysis of India's plans for the G20 Presidency

A. **Framework to facilitate Cross-Border flow of Health data:** In April 2022, India and the United States of America, both the countries confirmed partnering for sharing information and research done in the health sector. This was majorly done in combating the Covid-19 pandemic, under the Global Action Programme. They established a platform for sharing vaccine relation research and information. This initiative's analysis can be said that the USA is way more dependent on India in terms of the healthcare system as was explained above, India's approach was way more successful than the USA. Another major argument that can emerge from here is that this relationship may affect India's position on the global level as one of the prominent medical enforcement in the world. Therefore, the sharing of data beyond the border can lead to improvements in the technicalities of the health system along with the promotion of the medical treatments of the country. On the contrary, this cross-border sharing of information can also lead to security threats as the world is moving towards artificial intelligence or rather techno-savvy world. The sharing of information, therefore, needs to be limited to protect the nation's system and functioning. The importance of cross-border sharing of health data was recognized at the recently concluded G7 summit in the United Kingdom. Thus, India would require to focus more on the digital system of healthcare like telemedicine along with working on ayurvedic medicine.

B. **World Health Organisation:** The WHO India Country Cooperation Strategy provides a strategic roadmap for the WHO to work with the Government of India to achieve health sector goals. The provisions framed by India under WHO,

1. Implementation of Ayushman Bharat: Health and Wellness Centres and hospital insurance scheme
2. Monitoring and evaluation of the health sector's performance in India.
3. Establishing better access to priority health services such as immunizations, maternal and child health, tuberculosis, and so on.
4. Introduction of the digital ecosystem.

5. Eliminating neglected tropical diseases and control of vaccine-preventable and vector-borne diseases.

- C. **G20's Global Challenge and Role:** G20's focus on health has grown due to greater awareness of global health challenges. Non-communicable diseases (NCDs) are the leading cause of death in high-income countries, while communicable diseases are the main cause in lower-income countries. A 2019 study showed a high proportional mortality from NCDs among the grouping's member countries, mainly in the developed member countries. Collective action is needed to prevent the spread of both communicable and NCDs.
- D. **Standardization of Telemedicine:** During the Covid-19 Pandemic, the operations of the health sector had shifted to the virtual mode, increasing the use of telecommunications and networks in finding a solution to health-related problems. The sharp increase shows the importance of telemedicine in providing equitable health access, particularly in emergencies or remote locations. The National Teleconsultation Service or the e-Sanjivani OPD, a first-of-its-kind virtual outpatient department, was rolled out last year to provide an end-to-end solution for telemedicine through the existing network of Health and Wellness Centres. However, one of the challenges that India would face while providing telemedicine would be the technological availability and accessibility in every part of the country, especially the remote areas. It's no doubt that telemedicine is one of the best methods India has introduced to enhance health facilities, but the outreach of the same needs to be standardized so that each person would be able to access telemedicine.
- E. **India's G20 Presidency:** The G20 presidency is providing a greater opportunity for India to promote its plans and frameworks on a global level, in the same notion, the idea of Universal Health Care in the medical system of India can be taken into a global level through this presidency. Although the framework proposed by the G20 is the 'global-to-local' initiative which refers to the implication of a medical facility from a global prospect to a local usage. India's emphasis on Ayurveda would be a way to promote alternative treatments or traditional methods of curing patients. Ayurveda is a prolonged traditional method used in India which was although not considered a scientific method therefore not included in biomedicine. As there were different methods of curing patients, India had earlier implemented the AYUSH scheme which included alternative healing techniques. Furthermore, the Vasudeva Kutumbakam (One Earth, One Family, One Future) would work towards combating health issues together in the world. However, the implication of such a framework in a diverse community would be difficult enough to make people (a) aware of the traditional methods (b)

gain trust in the medical fraternity, and (c) promote this 'multi-methods' in the health sector on a global level.

6. Recommendations

1. **India-USA Cross Border Information:** As mentioned above, India-US had decided to share information about medicine. In the latest meeting held between Shri Narendra Modi (Prime Minister, India) and President Biden on June 22, 2023, a statement was released by the White House stating the collaborations made by two democracies in combating various problems. One such problem was healthcare, aimed at eliminating tuberculosis by 2025 and securing pharmaceutical supply chains. It also emphasized digitizing of diagnosis and treatment through AI research and collaborations. **Therefore, India needs to expand medical research by collaborating with the USA, promoting ayurvedic medicine and telemedicine while drawing a boundary for sharing information.**⁷
2. **Medical Insurance:** Since 1986, medical insurance has covered certain health diseases under it which primarily secluded non-communicable diseases such as diabetes. And even today, the insurance's main focus is on physical health problems such as emergencies, accidents, communicable diseases, etc are covered through the insurance. **It is recommended that the insurances or schemes produced by the government need to cover non-communicable and lifestyle health problems like thyroid, diabetes, etc, even though they can remain for one's life but still, the medical treatment is expensive for the individuals.** One of the announcements made in the insurance was the Pradhan Mantri Jan Arogya Yojana or PM-JAY by Shri Narendra Modi in September 2018. This scheme is India's largest scheme so far and has aimed to provide insurance coverage for 'pre-existing' health issues as well. Similarly, more such insurance can be implemented to cover 'non-communicable diseases as well.
3. **Medical education:** The price of medical colleges has always been higher for all the economic classes to afford medical education, apart from this, the number of seats for the same is also limited as compared to the number of students appearing for the entrance exam. According to the data obtained from the National Medical Commission, there are a total of 183,279 lakh seats available in the medical fraternity whereas 21 lakh students appeared for the entrance exam in 2023.⁸ Along with this, the doctor-patient ratio in India is 1:1655 which is higher than

⁷ [Joint Statement from the United States and India | The White House](#)

⁸ As per the latest NEET seats, data obtained from both the National Medical Commission (NMC) and the Dental Council of India (DCI), 99,013 MBBS seats, 27,868 BDS seats, 52,720 AYUSH seats, and 603 BVSc & AH seats are

the ratio provided by WHO (1:1000). Medical colleges have been increased but the quality of lecturers still seems to be lacking as was reported in **an** article⁹, this brings to the problem of e-learning and the digital gap in the country. Medical education is required to bring in advanced technologies and increase the number of opportunities for students to get enrolled in medical colleges. Medicine as a course is looked at in terms of “brand” as in aiming at only the top universities in the country, this reduces the chance of uplifting other colleges. Medical education needs to be widened through proper knowledge among the students. This can be done by inculcating practical lectures on medicinal requirements as a prerequisite for students to understand medical education. Apart from lab experiments and theoretical foundation, the experience of hospitals can be provided to students in senior secondary education which would focus on their learning rather than the 'name of the university' that students join in the future. Also, Indian medical education can **bring in degrees that will tie up with universities abroad. For example, AIIMS has a faculty exchange program with the University of Harvard, USA internship and learning purposes (though the cost is supposed to be self-taken by the students & faculty). These courses in medical universities can start with a 'Dual-Degree' course which would include the tuition fees in both universities for students to study in India and abroad. The approach of dual-degree will not only expand the student's knowledge of global health, but the Indian medical education stance would improve the number of medical students in India. While implementing this, India can take help from the USA, Russia, and Germany (the reason being IIT colleges already have tie-ups while some medical colleges have exchange programs).**¹⁰

4. **Ayurvedic Promotion:** Ayurveda has always been the root of Indian medicine but with the commencement of colonization, biomedicine was promoted on a larger scale. Ayurveda got a setback in India but still in some parts of the country, ayurveda has a stronghold in e.g. Kerala. As India's knowledge of Ayurveda has a stronghold, it will make the country apart from other countries at a global level. Along with this, **Ayurvedic knowledge can be promoted in India itself through the New Education Policy which the government has planned to implement. In the NEP, ayurveda can be one of the subjects in classes 9th and 10th under the science subject as a 'herbal medicinal' concept.** Through this, young minds would get an idea of what ayurvedic medicine is in reality and its pros and cons for one's well-being. To achieve the global platform, India can start with the small step of increasing

available, along with 1,899 AIIMS and 249 JIPMER seats in 612 medical and 315 dental colleges. NTA NEET 2023 was held for over 21 lakh medical students in around 485 cities in India and 14 cities abroad.

⁹ [Why medical education in India needs urgent reforms - India Today](#)

¹⁰ [New AIIMS to tie up with top health institutes abroad- The New Indian Express](#)

Ayurvedic knowledge amongst the youth and then move up the ladder to achieve global promotion.

5. **Universal Healthcare:** India is required to make the healthcare system universal on 2 platforms:

- a. **Economical:** Healthcare services should be made affordable across classes so that they can have a foundation for universality. During Covid-19, it was witnessed that higher class or households which had affordability to healthcare facilities were able to afford medicines like remdesivir tablets during the initial stages. The insurance scheme also covers all classes without discrimination but apart from this, healthcare should not be a profit-making mafia that looks out only at the higher classes. This could be done only when economic disparity would be removed, therefore universal healthcare can be achieved here via having a low fee structure for the treatment procedures as well as the medicines which would account for the average of the population of India.
- b. **Regional:** The regional difference has made a huge impact on the outreach of medical treatments and cures which are required to be reduced by establishing hospitals and medical treatments in every area across the country. The medical profession has become a way to earn a salary rather than serve care for people and this same notion makes many doctors work in 'well-paid' hospitals which would earn them both fame and money. This leads to regional differences where the staff in remote areas are less and the probability of better treatment goes down. Universal healthcare could be achieved when the payment for doctors across hospitals is considered in the same manner as well as their cost of living which would increase their will to work in remote areas, giving the patients the appropriate treatment for well-being.

The idea of universal healthcare has always been difficult to achieve in India because the Indian medical system runs in terms of equality of medical service to all instead of equity. **However, it is recommended that health coverage in India needs to implement the concept of equity¹¹ so that every health problem can be taken into account. For doing so, a separate commission can be formed under the National Medical Commission which would be responsible for inspecting the schemes carried out amongst the population. Purpose of this commission would be to (i) make the procedure of applying for insurance more efficient by helping the people (ii) once the insurance procedure completed, the commission would be required to ensure that the money transferred to the individual's account along with all the other**

¹¹ The notion of equity stems from the idea of "equal platforms for all" - medical equity refers to providing facilities based on the economic position of the individual. The schemes are required to be established separately for different classes for eg; an upper class's protection through insurance is different from a lower middle class's family. Therefore equity needs to be implemented rather than equality.

requirements needed and (iii) this inspection's power would be similar to that of Income Tax's power which works to make sure the tax paid across the country, similarly, this commission would make sure that no disparity is there while implementing the medical insurance for the patients, recommended that this inspection should also cover the private insurance companies that function in the country.¹²

7. Conclusion

The health sector in India has a big market, but the budget allocated to the same is comparatively less than that of the population. Healthcare focus has always been on curing health issues rather than preventing the problem itself. However, during Covid-19, prevention became the primary focus of the country. Recently, there has been an increase in the number of hospitals and medical institutes (along with the rise in the number of seats for students) even though India lacks the coverage of the doctor-patient ratio as given by the World Health Organisation. Although the Indian government's G20 presidency is focusing on implementing Ayurveda on a global platform as the long-term plan, it is intrinsically needed for the government to implement the knowledge of Ayurveda among the people. India has signed 25 MoUs with other countries under the Ayush Scheme, yet, there is still a lack of knowledge among the people in the country itself that can hinder the progress of the implementation of the medicine globally. Therefore, it is time for the nation to improve its educational system to incorporate more doctors while spreading awareness of Ayurvedic medicine among the students as a starting point. Apart from this, the Government of India needs to implement a universal healthcare scheme emphasizing the equity of the health sector rather than equality. Thus, this paper concludes by stating that India's contribution to global health has been massive, especially with the medicinal requirements that have strengthened its relations with other countries. However, India needs to focus on improving the health infrastructure within the nation to gain confidence in India's healthcare from other G20 nations during the presidency.

¹² [Health insurance: Surging premiums & unfulfilled claims: The problem with buying health insurance in India - The Economic Times \(indiatimes.com\)](https://www.indiatimes.com/Health/Health-insurance-Surging-premiums-unfulfilled-claims-The-problem-with-buying-health-insurance-in-India-The-Economic-Times-indiatimes.com) - many patients had complained about not receiving insurance coverage even after the 'promise' from the company.