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Reimagining Public Health and Nutrition in India in the context of COVID-19

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Abstract

Health and well-being are crucial at all stages of life, and therefore it is rightly said 'health is wealth.' The importance of health was greatly realized during COVID-19 and conversely, the pandemic also exposed the fault-lines of India's public health care system and thus deepened and worsened the already broken public health infrastructure! How do we set that right? How do we reimagine a public health system in India from a sustainable perspective? What more needs to be done?

The Sustainable Development Goal 3 is about 'ensuring healthy lives and promoting wellbeing for all at all ages' with many indicators and targets. A country's real progress might well be defined in terms of the health of its population. In the case of India, however, with a large percentage of poor population, the challenge is so huge that there needs to be more concerted commitment to providing basic healthcare to its vast poor and deprived sections of population. On the methodology front, this paper will rely on both the quantitative and qualitative methods and will draw from the secondary data (WHO database and National Family Health Survey NFHS-5) and the primary data (of a research study that was carried out in 12 states through 5210 household samples between September 2021- January 2022). From the secondary data, the status of India's pathway towards sustainable health would be assessed and analysed through the performance of Indian states. For a better understanding of the status of health and nutrition from a SDG perspective, two developed states (Gujarat and Kerala) would be compared (on select health indicators) with two backward states (Bihar and Uttar Pradesh), assuming better health and nutritional status in the developed states. From the primary data, the status of public health in 12 states of India during the time of COVID-19 would be analysed based on access to public health facilities, functioning of health facilities, including a few case studies depicting the functioning of public health facilities.

From the findings, the paper would also discuss some recommendations to move closer towards the attainment of 'Good health and wellbeing' by 2030, the third goal of the SDG.



Keywords: Health; Nutrition; Sustainable Development Goals; Sustainability.

Introduction

COVID 19 pandemic brought the entire world to a standstill, affecting almost everyone in various proportions. In the case of India, though the first wave was considered to have predominantly affected the cities, the second wave devastatingly affected the lives and livelihood of even the rural population. (CSE, 2022). The impact of COVID-19 was such that it pushed many people to poverty. A study, jointly conducted by the World Health Organization and World Bank, shows that more than half a billion were pushed further into poverty due to healthcare costs (WHO and World Bank, 2021). Being thrown into poverty is akin to being added to the number of hungry population and thus impacting the productivity of people due to their poor and deprived nutritional status. This vicious cycle continues with more and more people rendered poor, hungry, stunted and malnourished.

This paper draws from the findings of a research study titled 'Impact of COVID-19 in rural India', conducted between September 2021- January 2022, from 5210 samples.

Drawing from secondary sources like the National Family Health Survey (NFHS), Sustainable Development Goals India Index (SDG India Index) and Rural Health Statistics Reports, this paper attempts to understand and assess the status of health in India on the one hand and how to make it better and more sustainable.

Methodology

This paper relies on both primary data and secondary data, using both quantitative research method, (through questionnaire for households) and qualitative research method (through FGDs and Case Studies).

The Primary Data was collected from 12 states between September 2021- January 2022, through the use of KoBo Toolbox and it was analysed through the Statistical Package for Social Sciences (SPSS).

A target sample size of 400 responses from different cross-sections of the target population from each state was selected in the intervention areas of Jesuit Conference of India (JCI) through a purposive sampling method. A semi structured interview schedule was used to gather information from the households. Totally 5210 samples were received against the targeted sample size of 4800, which covered 474 villages from 46 districts. The qualitative data was collected through FGDs and Case studies from the sample states and a few select case studies are included in this paper.



Sources of Secondary data

The secondary data relies on the sources from the National Family Health Survey (NFHS) and World Health Organization (WHO) Database. From NFHS- 5 data, two indicators are considered for a better understanding of the case study states. From the WHO health expenditure data, two indicators are considered from 2010 to 2020 to understand the trends in India's health expenditure.

Objectives of the Study

- To analyse how the pandemic impacted the public health systems and the health status in rural India
- To assess India's status on select health indicators and to compare them between two developed states and two backward states
- To explore the status of health and nutrition in India based on a few secondary sources
- To suggest some sustainable ways to improve the status of health and nutrition in India

Research questions

- What do the health indicators suggest? Have they improved or deteriorated over the years?
- What is the progress of India towards the targets of SDG 3 relating to 'Good health and well-being?'
- What is the impact of COVID-19 on health and nutritional status of rural populations?
- What does the government need to do to improve the health and nutritional status of its population?
- How do we move towards attaining the objective of 'health for all'.

Limitations of this study

- This study has limitations like a limited sample from each of the 12 states, as it covered
 less than 50 per cent of the states in India and it largely focused on the rural population.
 Though the targeted sample was 400 from each state, there was the limitation of getting
 enough samples from Andhra Pradesh and Telangana.
- The number of villages, districts and taluks is not uniform across the 12 states. It varies from one district (from Odisha) to 10 districts (from Jharkhand).
- The percentage of SCs (30) and STs (45) in the sample is much higher than their national average, 20 per cent (SCs) and 9 per cent (STs) as per 2011 census. This is due to the fact



we used a purposive sampling in terms of limiting the study to the lower strata of rural population. Lok Manch (People's Forum of different organizations, working to empower people at the grassroots) partners were engaged in data collection.

- The data collection was carried out by the field partners though the use of mobile app, Kobo Collect and the researchers didn't visit the field. Despite the online trainings given to the enumerators, including the pilot study, on the usage of app for data collection, we cannot rule out the errors resulting from the use of app for data collection. The researchers weren't able to visit the field areas due to COVID restrictions.
- Only a few select indicators were considered from the secondary data.
- All states were not considered for secondary data, instead the study is limited to just four states, randomly selected two forward states (Kerala and Gujarat) and two backward states (Bihar and Uttar Pradesh).

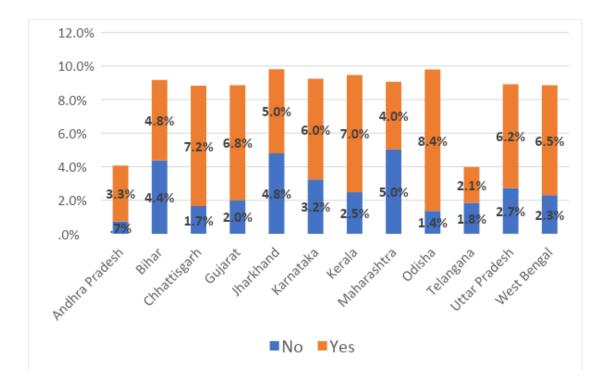
COVID-19 and its impact on health

In order to understand the health impact of COVID 19 in rural India, we focused on such variables as a) access to and functioning of public health facilities, b) expenditure on COVID related health treatment, c) access to non-COVID related treatment and d) status of health insurance during COVID 19.

How did the different components of the health system function during the pandemic? Did people frequent the public health facilities more than the private health facilities? Were the people satisfied with the services and facilities available in the public health facilities? The answers to these and related questions are shown in the next few pages.

Figure 1: Accessing public health facilities





A large majority of people (67 per cent) had accessed the public health facilities in the last one year. Among the 67 per cent of the respondents who visited the public health facilities, many of them were from the states of Odisha, Kerala, West Bengal, Chhattisgarh, Gujarat and Uttar Pradesh. The respondents from these states also expressed general happiness over the functioning of public health facilities in their respective states.

Those with household income less than Rs 3000 frequented the public health facilities more as evident from table 3. The data also reveals that people from all social categories had frequented the public health facilities.



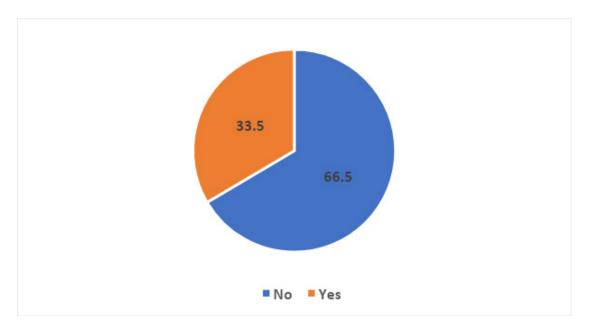
Table 3: Income and social category of the respondents who frequented the public health facilities

	Did you or your family visit any public health facilities in the last		
Household Income (in	one year? (In percentages)		
thousands/month)	No	Yes	Total
Less than Rs 3000	19.0	40.6	59.6
Between Rs 3000-5000	7.6	16.0	23.6
Rs 5000 and above	5.9	10.9	16.9
Total	32.6	67.4	100
	Did you or your family visit any		
	public health facilities in the last		
	one year? (In percentages)		
Social Category	No	Yes	Total
General	1.6	4.9	6.5
Other Backward Classes	4.6	13.9	18.4
(OBC)			
Scheduled Caste (SC)	11.0	19.0	30.0
Scheduled Tribe (ST)	15.4	29.7	45.1
Total	32.6	67.4	100

When the respondents were asked if any inadequacies in the public health facilities compelled them to visit private health facilities only about 34 per cent said yes. Of these 34 per cent a significant number is from the states of Bihar, Uttar Pradesh and Karnataka, pointing to the poor status of their public health facilities in comparison to other states. From the qualitative data, we gather that many respondents had pointed out to the poor public healthcare system that caused heavy financial burden on them due to high health expenditure.

Figure 2: Percentage of people who accessed private health facilities due to poor public health facilities





It is evident through the FGDs and case studies that among the 34 percent of people who had to access private health facilities due to the poor public health facilities reported heavy expenditure on health leading to a huge debt burden. As some respondents said the 'focus was on saving lives of our dear ones and we didn't care about the money.'

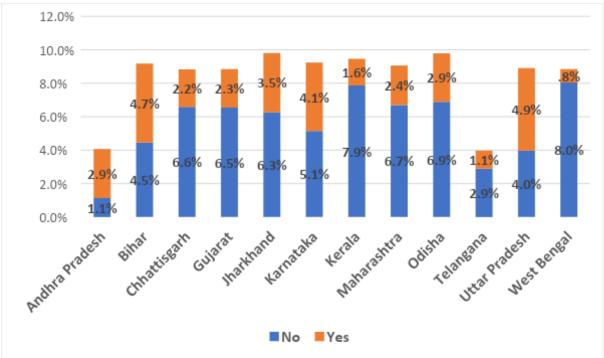
Box 1: Poor public healthcare System

In 2020, when COVID hit Bihar, Rashmi's father who was working in the Railways got infected with COVID. A diabetic patient, his condition became very severe and he was rushed to the hospital. Rashmi recalls the night her father was rushed to the hospital as one of the scariest moments in her life as when they reached the government hospital, they were referred to another hospital due to lack of beds and facilities. She informed us about the lack of facilities during such hard times at the government hospitals. She feels that if the government hospital had better facilities her father would have survived.



Figure 3: State-wise distribution of people who accessed private health facilities due to poor public health facilities

12.0%



As evident from figure 3, the percentage of people who were forced to visit private health facilities was more in the states of Uttar Pradesh, Karnataka and Bihar.

Box 2: Delayed treatment and high costs of medical treatment

During COVID, Mr. V experienced breathing difficulties and visited six hospitals in Ongole, Andhra Pradesh in search of a bed, including the district hospital, Ongole. He was later admitted and given a bed in one of the RIMS GOVT Hospitals in Ongole and was given oxygen for 30 days.

His total expenses were over Rs. 2 lakhs mainly due to oxygen, and medicines. His son and daughter-in-law were skeptical of the public health system. They firmly believed that in order to save a person's life, people should go to private hospitals. They also mentioned that they have not been visited by an ASHA worker or anyone from the health department in the last two years.



About the expenditure on COVID related treatment, most of the states, led by Kerala, spent less than Rs 3000. But this needs to be seen against the income status of the respondents, where 60 per cent of the respondents earned less than Rs 3000 per month. Even this amount, seemingly low, would have meant a lot of burden for the rural population, adding further burden into their meagre incomes.

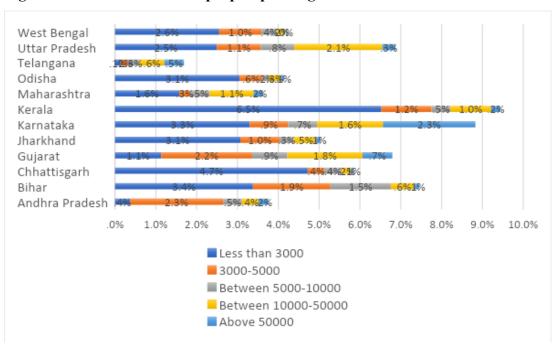


Figure 4: State-wise status of people spending on COVID related Treatment

Though predominantly the spending on COVID related treatment was less than Rs 3000, it is a big amount for the rural population and more so for the marginalized groups like SCs and STs. It is observed that the expenditure has gone beyond Rs 50,000 in some cases. Among



those who spent between Rs 5000-10,000 and between Rs 10,000- 50,000 the SC respondents outnumber the others.

Box 3: Poor facilities and inadequate care in public health centers

Mrs Rani (name changed) was eight months pregnant. She suffered from a cold and a cough for a few days and was having difficulty in breathing. So, her husband, Mr Chandu (name changed) took her to Balliguda, CHC first, accompanied by his in-laws. They referred her to Berhampur Medical College and Hospital, Odisha on October 6, 2020, where she was tested COVID positive. Her condition required intensive care at the time, so she was admitted to the ICU ward early in the morning. She died that night at 02:11 a.m. During the pandemic, Mr Chandu lost both his wife and his unborn child. He had to spend Rs.30,000/- towards medical treatment and Rs.20,000/- for vehicle rental during his wife's funeral. He blamed the poor facilities and inadequate care in the public health facilities as the main reasons for the death of his pregnant wife.

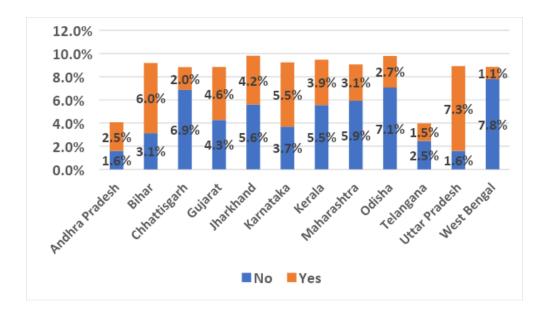
It is observed that when the government invests more on the public health facilities, it ensures easy access for the poor and vulnerable sections of people. When better healthcare facilities are provided, it also paves the way for bringing down the expenditure on healthcare by the individuals and thus minimizing the financial burden of people, especially those belonging to the marginalized and the vulnerable communities.

There were many complaints about the poor conditions and facilities at the quarantine centers. Moreover, the people from the ST and SC categories also reported to having had to spend huge amounts of money on COVID related treatment.

Studies show that Arunachal Pradesh, Goa, Kerala, Himachal Pradesh, Jammu and Kashmir, Mizoram, Sikkim, and the union territory of Puducherry are among the states that spent more than twice the national average, ranging from \$3,500 to \$10,000. As a result, these states have robust primary healthcare facilities, and their health outcomes are among the best in the country. (Duggal, 2020). It was evident from our findings as well that among the 12 states, Kerala presented a better picture in terms of people spending least on COVID related treatment and more percentage of people, over 90 per cent of those who visited them, were satisfied with the functioning of public health facilities.

Figure 5: State-wise borrowing for COVID-19 related Treatment expenses (In percentage)





As noted from figure 5, a lot of people were forced to borrow money to cover their COVID related treatment expenses. These were predominantly from the states of Uttar Pradesh, Bihar, Karnataka, Gujarat and Andhra Pradesh and it can be observed that the percentage of respondents who said yes outnumbered those who said no in these states.

7.8 9.0% 7.3 7.0 6.6 8.0% % 6.1 % % 5.6 7.0% % 6.0% 4.4 % % 5.0% % .72.6 .8 4.0% 2.5 2.6 %1.6 3.0% 2.0% 1.0% 0.0% Jharkhand Urta Pradesh Chhattistath Maharashtra Kamataka Odisha Fetals Gujarat No Yes

Figure 6: State-wise access to Treatment for Non- COVID related health issues

When the respondents were asked if they faced any difficulties in getting treatment for non-COVID related treatment, 46 per cent said yes and among the 46 per cent, the respondents were primarily from the states of Bihar, Uttar Pradesh, Gujarat and Maharashtra (Figure 6). There have been reports of people with non-COVID related health issues turned away from hospitals.



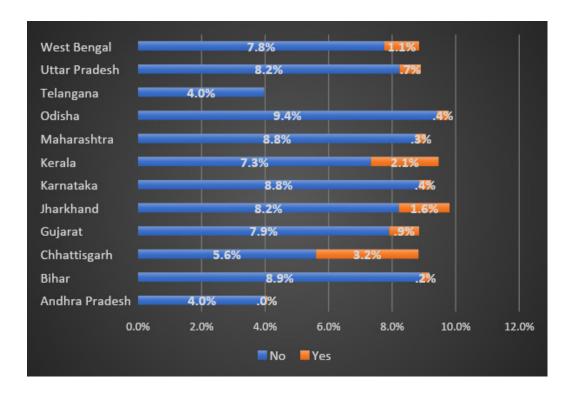
There have also been reports of an increase in the cases of some of the other diseases like TB, Measles (WHO, 2022) and others due to the exclusive focus on the COVID and neglect of other health issues. According to Dr Tedros Adhanom Ghebreyesus, the WHO Director-General, "The paradox of the pandemic is that while vaccines against COVID-19 were developed in record time and deployed in the largest vaccination campaign in history, routine immunization programs were badly disrupted, and millions of kids missed out on life-saving vaccinations against deadly diseases like measles. (WHO, 2022).

In other words, a disproportionate focus on COVID-19 led to neglect in the diagnosis and treatment of other diseases such as cancer, TB, kidney failure and other rare diseases. (The Telegraph Online, 2021).

Non-COVID illnesses served by health services halted, resulting in unprecedented hardships and sufferings for chronic patients and those in need of pregnant women, for example, require immediate medical attention. Access to non-Covid medical services were worse for patients in rural and hard-to-reach areas than in urban areas due to the lack of nearby health care facilities and a lack of transportation options (Oxfam, 2021).

Figure 7: State-wise status of Health Insurance Scheme availed during COVID-19





As observed from figure 7, many respondents did not avail any health insurance. If only the health insurance was available and easily accessible to these rural people, their burden on health would have been much lower. Only in the states of Chhattisgarh and Kerala the coverage was marginally better.

What is evident is that COVID-19 has impacted and negatively altered the health status of rural population. The Right to Food Campaign, through the Hunger watch surveys, has documented a lot of instances of women's health being severely impacted due to lack of access to nutrition. (Right to Food Campaign, 2021). It remains to be seen how the poor nutritional intake during the testing times of COVID would further deteriorate the health conditions of many women, especially the rural women.

Analysis of secondary data

To understand and assess the status of health and nutrition in India a few important secondary sources like National Family Health Survey (NFHS), and World Health Organization (WHO) Database are considered.

National Family Health Survey (NFHS-5)

From the NFHS-5 the following indicators are considered.

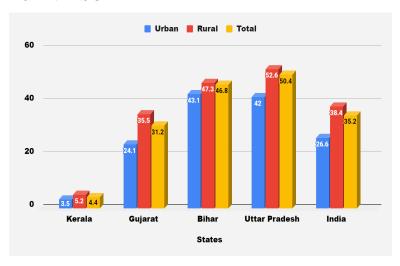
• Infant Mortality Rate (IMR)



• Children under five years who are underweight (Underweight is defined as low weight for age)

These indicators are taken to understand the health and nutrition status of India in consideration with the selected states (two developed states, Kerala and Gujarat and two backward states, Bihar and Uttar Pradesh).

Figure 8: Comparison of Infant Mortality Rates (IMR) in developed and backward states from NFHS 5

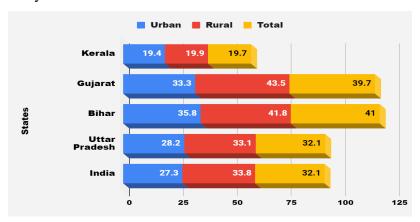


The figure 8 illustrates infant mortality rates in urban and rural areas of selected four states. Except Kerala, all other three states have significantly high infant mortality rates, in which Uttar Pradesh has the highest. Even though Gujarat is considered a developed state, it also has a higher infant mortality rate when compared with Kerala. But a huge disparity between developed and backward states cannot be noted because of the higher infant mortality rate of Gujarat. When we compare the state wise IMR with the national average of the country, it can be seen that Bihar and Uttar Pradesh have higher percentages of infant mortality than the national average, which is alarming. Only Kerala shows a better record, much lower than the national average.

When we make a comparison between NFHS 5 and NFHS 4, a reduction in the infant mortality rate can be noted. From NFHS 4 to NFHS 5, IMR of India has reduced from 40.7 percent to 35.2 percent.



Figure 9: NFHS 5 data comparison of Children under 5 years who are underweight in the case study states



When we compare the percentage of children under- five who are underweight in developed and backward states it is understood that there is no major difference in percentages between these states. Except Kerala, all other three states have more than 30 percent. Bihar has the highest (41 percent) which is followed by Gujarat (39.7 percent). Both Gujarat and Bihar have shown higher percentages than the national average (32.1 percent). Even when we compare NFHS 5 (32.1 percent) and NFHS 4 (35.8 percent), a notable change is not seen in the percentage of underweight children.

World Health Organization Health Expenditure Data

Comparable information on health spending for more than 190 WHO Member States has been made available since 2000 through the Global Health Expenditure Database (GHED), which is open to the general public. WHO works collaboratively with the member states to update the available information. This report is made based on a few health spending indicators to monitor the existing health policies and resources available for the public. But will be focusing only on three indicators:

- Current Health Expenditure (CHE) as percentage of Gross Domestic Product (GDP)
 (%)
- 2. Domestic General Government Health Expenditure (GGHE- D) as percentage of Gross Domestic Product (GDP) (%)

Figure 10: Comparison of Current Health Expenditure (CHE) as percentage of Gross Domestic Product (GDP) of India from 2010 to 2020



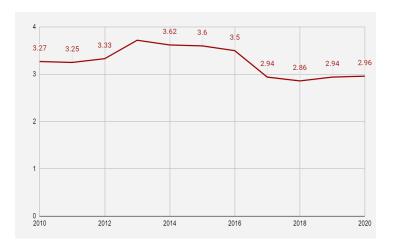
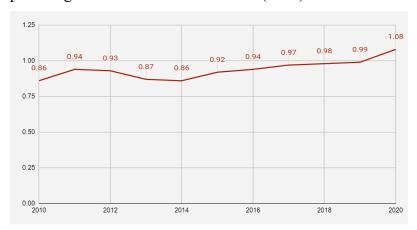


Figure 10 traces the path of health expenditure in the country from 2010 to 2020. It is disturbing to see that no significant change has happened during this period. Even with a span of ten years the country could not make a difference of at least 1 percent.

There is also the problem of huge out-of-pocket expenditure (more than 50 percent of the total health expenditure) which is alarming.

Figure 11: Comparison of Domestic General Government Health Expenditure (GGHE- D) as percentage of Gross Domestic Product (GDP) of India from 2010 to 2020



From figure 11 it is very alarming to see that India has not even shown an improvement of 1 percent between 2010 and 2020. In contrast, the GGHED as percentage of GDP for developed countries is over 8 per cent.!

Major Findings



- During the pandemic a large majority, 67 percent, had accessed the public health facilities. A majority of the respondents who visited public health facilities were from the states of Odisha, Kerala, West Bengal, Chhattisgarh, Gujarat and Uttar Pradesh.
- When the respondents were asked whether the inadequacies in the public health facilities had compelled them to visit private health facilities 34 per cent of them said yes. Most of them were from the states of Bihar, Uttar Pradesh and Karnataka.
- Regarding the health expenditure, data showed that 32 per cent of the respondents spent above Rs 5,000 on COVID-19 related treatment and 25 percent of them spent above Rs 10,000 on COVID related treatment. To meet the health expenditure, 45 per cent said that they had borrowed money for COVID-19 related treatment, most of them from the states of Uttar Pradesh, Bihar, Gujarat, Karnataka and Andhra Pradesh.
- There were people who faced difficulties in getting treatment for non-COVID health issues. Most of the 46 per cent of the respondents who said that they faced difficulties in getting treatment for non-COVID related health issues were from the states of Uttar Pradesh, Bihar, Gujarat and Maharashtra. In these four states those who faced difficulties to access treatment for non-COVID related health issues outnumbered those who didn't face difficulties to access treatment for non-COVID related health issues.
- Data also shows that only 11 per cent had availed health insurance. Many of them were from the states of Kerala and Chhattisgarh.
- The states of Bihar (46.8 percent) and Uttar Pradesh (50.4 percent) have high Infant Mortality Rates, more than the NFHS 5 national average (35.2 percent).
- The percentage of children under 5 who are underweight in the states of Gujarat, Bihar and Uttar Pradesh is more than 30 percent, with only Kerala (19.7 percent) performing better than the national average (32.1 percent).
- The Current Health Expenditure (CHE) as percentage of gross domestic product (GDP) of India from 2010 (3.27 percent) to 2020 (2.96 percent) shows no increase over the years.
- Government health expenditure as a percentage of GDP has not shown any significant increase over the years, it is still around 1 per cent of GDP, much lower than the share of developed countries (8 per cent).

Way Forward: Some Suggestions



- The NFHS 5 data suggests that a large population in India is suffering from a high percentage of infant mortality rate, children under five years who are stunted, wasted and underweight, indicating huge nutrient and health deficits within the country. This necessitates more investments in programs that improve maternal and child health, such as prenatal care, immunizations and access to nutritious food.
- Data shows huge regional disparities in health indicators like IMR, Under-five Mortality rates, and MMR. Systematic and regular monitoring of PHCs and CHCs is required to prevent irregularities in healthcare services and to ensure better healthcare access to all. The Rural Health Statistics report 2021 also shows a huge shortfall of manpower in government health facilities like CHCs and PHCs. India can have better health indicators and health standards only with improved health infrastructure both physical and human.
- The secondary data showed that the domestic general government health expenditure
 in the country is 1.08 percent which is extremely low compared to developed countries.
 The government should allocate more funds for the healthcare sector, particularly for
 primary health care services and rural health facilities, to improve access to care for all
 citizens.
- Government can implement universal health coverage programs that provide access to a comprehensive package of essential health services for all citizens. This will not only reduce the out-of-pocket expenditure by providing financial protection for people who need health services but also can help ensure that everyone has access to quality health care.

Conclusion

What is evident, from both the primary data and secondary data, is that India, despite making much progress yet lags behind on many health indicators, in comparison to many countries including our neighbouring countries. Reimagining better health and nutrition status demands greater commitment from the government to address the health inequalities across the states. The government of India must acknowledge the seriousness of this matter and work towards increasing health expenditure and thus improving the health and nutritional status of its population.

India has a thriving private health system with a lot of multi-speciality hospitals, pharmacy shops etc but why don't we have a thriving public health system? Increased budgetary



allocations will address this puzzle! Only with a better funded and better monitored public health system India's health and nutrition indicators can be improved.

While India seems to be doing much better on economic indicators like Gross Domestic Product, its social indicators especially in the health and education sectors are a cause of concern. In the absence of an approach that aims to balance both economic and social indicators, without sacrificing the latter for the former, India would not become the 'vishwa guru' that it aspires to be.! India's dream to be a 'vishwa guru' cannot coexist amidst such glaring disparities like the rural-urban divide, gender divide, inequality, poverty, hunger and malnutrition. The 'vishwa guru' cannot be merely focused on growth while neglecting equity. Better health and nutritional standards will lend more credibility to India's claims of a 'super power' or 'trillion dollar economy' or 'vishwa guru'.!

References

CSE (2022). State of India's Environment 2022. Delhi.

Duggal, B. R. (2020, June 3). States that spend more on healthcare less affected by Covid impact. The Hindu Business Line. Available at https://www.thehindubusinessline.com/opinion/states-that-spend-more-on-healthcare-less-affected-by-covid/article31738995.ece

D'Souza, Alwyn (2023). Impact of COVID-19 in Rural India: A cross sectional study from 12 states. Indian Social Institute, Delhi.

International Institute for Population Sciences (IIPS) and ICF. 2021. *National Family Health Survey (NFHS-5)*, India, 2019-21: Uttar Pradesh. Mumbai: IIPS. Retrieved February 3, 2023, from http://rchiips.org/nfhs/factsheet NFHS-5.shtml

Mint (2023, January 31). *Health expenditure at 2.1% of GDP in FY23: Economic Survey*. Retrieved February 3, 2023, from https://www.livemint.com/news/india/health-expenditure-at-2-1-of-gdp-in-fy23-economic-survey-11675160463795.html

MOHFW (2021). *Rural Health Statistics*, New Delhi: Ministry of Health and Family Welfare, Government of India. Retrieved February 3, 2023, from https://main.mohfw.gov.in/documents/Statistics

NITI Aayog (2021). SDG India: Index and Dashboard, New Delhi. Retrieved February 3, 2023, from https://sdgindiaindex.niti.gov.in/#/ranking

Oxfam (2021). Inequality report 2021: India's unequal healthcare story. Available at https://dlns4ht6ytuzzo.cloudfront.net/oxfamdata/oxfamdatapublic/2021-07/

 $India \% 20 Inequality \% 20 Report \% 202021_single \% 20 lo.pdf?nTTJ4 to C1_$

AjHL2eLoVFRJyAAAgTqHqG



Right to Food Campaign. (2021). Hunger Watch Survey Report 2021. Available at http://www.righttofoodcampaign.in/home/covid-19

The Telegraph Online. 2021. 'Deeper Crisis'. Editorial. Available at https://www.telegraphindia. com/opinion/a-disproportionate-focus-on-covid-19-has-led-to-neglect-in-the-diagnosisand-treatment-of-other-diseases/cid/1838453

WHO. *Health Financing*. Retrieved February 4, 2023, from https://apps.who.int/gho/data/node.main.HEALTHFINANCING?lang=en

WHO. 2022. World Tuberculosis Report 2022. Geneva.

WHO and World Bank (2021). Global monitoring report on financial protection in health 2021. Available from

https://openknowledge.worldbank.org/bitstream/handle/10986/36723/Global-%20

Monitoring-Report-on-Financial-Protection-in-Health-

%202021.pdf?sequence=5&isAllowed=y