Research Paper Economic

Has India's economic growth over the last decade led to an Improvement in the country's public health Profile?

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KEYWORDS

The Indian economy has been catapulted out of the mire of low economic growth over the last decade. As compared to the Hindu growth rate1 of 2 to 3% which had dominated the economic scenario since independence, in 2000s India witnessed a phenomenon which it had never seen before i.e. unprecedented economic growth at an average rate of 7% (Figure 1). Has this growth improved the quality of life measured in terms of Public health indicators?

This paper wants to explore whether India's economic growth has been inclusive or not, with a specific focus on public health outcomes. In Public health also, the focus is on child and maternal health care. The distinguishing feature of this paper is that, 1) it accomplishes this by doing cross- regional analysis across different Indian states, of key health indicators as well as variables that capture the government's commitment to improve health profile of the state, 2) it uses the recent data on these variables obtained through Ministry of Statistics and Program Implementation of India, CEIC and World Bank and 3) it assigns high importance to the diversity and the regional dynamics shaping health outcomes.

Results: 1) Over the last decade of high GDP growth rate, the public health indicators for the country as a whole and all the states have improved. 2) Broadly speaking, states with high per

1 The Hindu rate of growth
is a derogatory term referring to the low annual growth rate of the socialist economy of India before 1991, which stagnated around 3.5% from 1950s to 1980s, while per capita income growth averaged 1.3%.[1]

capita income like Kerala, Tamil Nadu, and Maharashtra etc. have reported better public health indicators than the states with low per capita income like Jharkhand, Chhattisgarh, and Rajasthan etc. However, there are quite a few exceptions to this trend like Gujarat, Haryana and West Bengal, explaining which requires venturing beyond the purely economic determinants like GDP growth rates, and per capita income and government expenditure into the realm of non-economic factors like literacy rates, socio-cultural norms, status of women in the society, government's ideological bent and belief systems etc. 3) The commitment of government in terms of expenditure on public health has not improved between 2000 and 2011. It not only has stagnated around 4% but it also remains far below the numbers observed in the other comparable emerging market economies.

Motivation:
Health impacts quality of human capital2. Sustainable economic growth can take place if the quality of life as reflected in the level of health outcomes is good particularly in an emerging economy like India as 60.5% of her population years is 'young'3 (between 15 and 59 years of age). In order, for India to utilize fully the productive capacities of its young population it is imperative that a high quality of life in terms of health and education4 is attained by the majority.

2 Economist Theodore Schultz invented the term in the 1960s to reflect the value of our human capacities. He believed human capital was like any other type of capital; it could be invested in through education, training and enhanced benefits that will lead to an improvement in the quality and level of production.

Secondly, India contributes a quarter of the world's total newborn deaths5 and maternal deaths6 every year. Therefore, the progress that India makes towards achieving the Millennium Development Goals (MDGs) of reducing maternal and child mortality will continue to determine the progress that the world will make towards achieving the MDGs. From a policy perspective, the analysis of the condition of the health of children and women in India would be incomplete without a disaggregated state-level empirical analysis that draws attention to the disparities in health inputs and outcomes that exist across different Indian state

Literature Review:
In order to investigate the effect of India's economic growth on the public health, my literature review included the analysis of Planning Commission reports, SRS (Sample Registration Survey) bulletins, Census of India 2001 and 2011, World Bank's "India:

Development Policy Review", OECD's "Better Series Policies" on India' growth viz. "India: Sustaining High and Inclusive Growth"(Oct., 2012), Annual Health Survey of Indian States, "Fertility in India : Trends and Prospects", UNICEF Reports, Reports and Publications of Ministry of Health and Family welfare, "Promoting Institutional Deliveries In Rural India: The Role of Antenatal-Care Services"7(K. S. Sugathan, Vinod Mishra, and Robert D. Retherford). I also reviewed National Family Health Surveys, UNICEF India- Health- Coverage Evaluation Survey report 2009 (CES), "Refining State Level Comparisons in India" (Bhandari, Pranjul, 2012), Planning Commission, Government of India Working Paper Series, 2012.

In the light of the literature review it can be stated that the quality and not just the quantity of economic growth matters; economic growth must improve the average quality of life by addressing the challenges of poverty, inequality, poor health and educational infrastructure and expand the opportunities available for better employment. Further, the quality of health itself is crucial since it determines whether an individual will be able to reap the benefits of globalization and economic growth. Reviewed studies and data show that within the larger domain of public health, child and maternal health care constitute an extremely important component; they determine the overall health profile of a developing or an under-developed economy since most of these economies suffer from child malnutrition, high infant and maternal mortality rates and low levels of institutional deliveries towards child and maternal health care. Previous work on India's economic growth over the last decade and its impact on economic development like the World Bank's "India: Development Policy Review" (2006) have been more general covering an array of

indicators in diverse fields like education, employment, health, agriculture, infrastructure, financial services and labor reforms. This paper is inspired from the World Bank's Development Review and the Planning Commission of India's reports as well as the Economic Survey of India reports but focuses specifically on indicators of public health. This paper also differs from previous work in that it explores the evolving state of public health in India by exploring inter-state differences not just for key outcomes of public health but also for key inputs that capture a government's commitment to improve the health profile of the state. Finally, it is useful to highlight that for a country of the scale and heterogeneity of India, there are several inter-state variations in health outcomes that cannot be accounted for by disparities in economic growth and material standards of living. Several factors that are not directly observable in the data such as socio-cultural norms are also responsible and that too in a very significant way.

Data: This paper, in order to capture the health scenario of India, in the backdrop of rapid economic growth of India over the last decade examines key indicators of public health and economic growth for the period between 2000 and 2011. I primarily use annual data that has been sourced from CEIC, the International Monetary Fund's 'World Economic Outlook' and the World Bank's 'World Development Indicators'. The paper will examine and analyze the trends in the following key indictors:

A) Indicators of Economic Growth: 1)Real GDP growth rate of India and the GSDP growth rate of bigger states of India, 2)Per Capita Income of India and per capita income of the twenty-two bigger states which constitute 95% of India's population and the land area

B) Indicators of Public Health: B.1) Indicators determining the government's commitment towards improving health profile: 1) General Government Total expenditure as a percentage of GDP: This is to explore the role and importance of the public sector in India's economy and society. 2) Total Expenditure on health as a percentage of GDP, 3) Public health expenditure as a percentage of total health expenditure, 4) State Government's Average Revenue Expenditure on Medical, Public health and Family Welfare as a percentage of total revenue expenditure on development

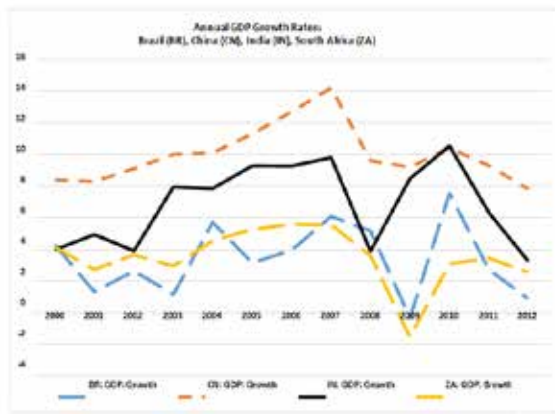
B.2) Indicators of the Change in Consumer Expenditure on Health:1) Per capita health expenditure, 2) 'Out-of-Pocket' health expenditure as a percentage of total health expenditure, 3) Average per capita monthly consumption expenditure on medical services

B.3) Indicators demonstrating Key Public health Outcomes: 1) Infant Mortality Rate (IMR), 2) Maternal Mortality Rate (MMR), 3) Status of Immunization, 4) Skilled Attendance at Birth

Methodology: These indicators mentioned in section 'A' are the widely accepted indicators by World Bank and IMF to capture the economic performance of a country. As regards the public health indicators, although there are several other indicators of public health and, child and maternal care but, keeping in mind the limitation of data, and space and time constraints this paper has selected indicators recognized as MDGs8. The primary reason for analyzing per capita consumption expenditure on medical services is that the trends in monthly per capita consumption expenditure may demonstrate the correlation between economic growth and the ability to access health care services, where the latter is captured by the per capita expenditure on medical services. This paper is organized as follows: It will first analyze the economic growth trends in India followed by an examination of the changes in public health indicators to determine whether rapid economic growth has been associated with a favorable change in health outcomes. Then, to arrive at more nuanced inferences and policy implications it will examine the state level trends and differences.

India: Economic Scenario:
It can be observed from the Figure 1 given below that India has come up as one of the prominent emerging economies with its rapid economic growth. Between 2000 and 2012, India's average growth rate has remained around 7% except for the recent slo wdown because of global economic crises. It is comparable to other major emerging economies like China which grew at an average rate of 10% and Brazil which grew at the rate of 4.30% to 7.53%. Its per [8] Millennium Development Goalscapita income in PPP (Purchasing Power Parity) terms in the year 1999 was USD 1684.45 which increased to USD 3,223.34 in 2011[9].

Figure 1

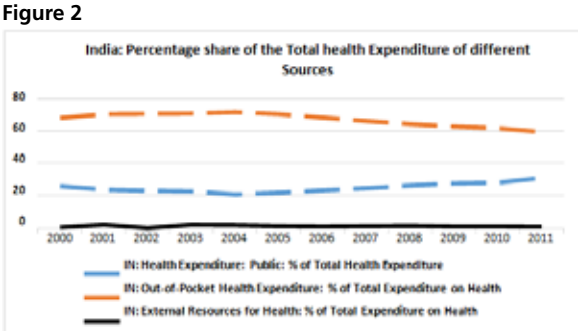


Data Source: CEIC

Health Scenario: General government expenditure as a percentage of GDP:
This indicator has been used to depict the role of public sector in the total economy. In India the general

Health Expenditure:
Sources: From the Figure 2 given below, it can be asserted that in India out-of-pocket health expenditure 12constitutes the maximum share of total health expenditure. In the year 2011 it was 59% of the total health expenditure. It decreased from 67% in 2000 to 59% in 2011 which can be regarded as a positive development. Interestingly, it can also be observed that it increased until 2004 to 71%. In 2005 central government launched NRHM13 to improve the maternal and child health indicators in India. Since then it has declined. The share of Public sector is very less as compared to the out-of-pocket expenditure on health. It increased from 25.9% in 2000 to 31% in 2011. Again, in this case also it can be observed that it actually decreased until 2004 to 20% of the total health expenditure. In 2005, NRHM was launched and since then it has continued to increase.

Figure 2



Data Source: CEIC

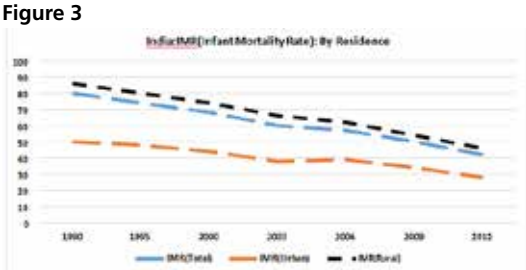
Health Expenditure: Per Capita (PPP): From the Figure 2 (given in the appendix), it can be observed that India's per capita health expenditure in PPP14 terms increased from USD 59 in 1999 to USD15 141(CEIC) in the year 2011. It can be

observed that during the high growth period of last decade the per capita expenditure on health has increased but since the major share of total health expenditure comes from out-of-pocket health expenditure so it can be argued that the increase in per capita health expenditure is not the result of any major increase in the government outlay towards improving public health. The Out-of-pocket health expenditure in India constituted 87% of total private health expenditure (in 2011 and it was 91% in 2000) so it can be said that the increase in per capita health expenditure is due to increase in expenditure by individual households over the period. (Figure 2 is in the appendix). Hence it can be observed that with the rise in per capita income the per capita expenditure on health also increased.

India: Public Health Outcomes:

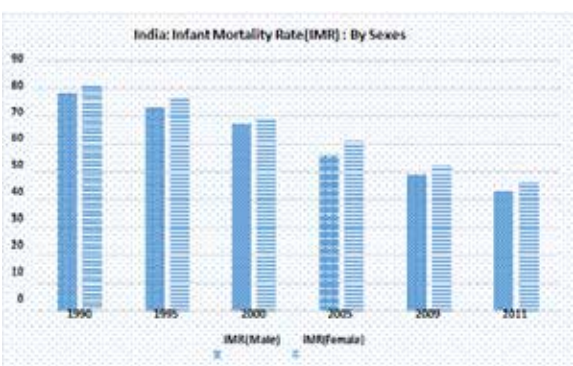
1) Infant Mortality Rate (IMR): IMR measures number of infant (< 1 Year) deaths per live births. It is one of the three indicators of MDG 4 which is 'to reduce child mortality'. The MDG is 28 per 1000 by 2015 and the indicator is IMR.

Figure 3



Data Source: Census of India 2011

Figure 4



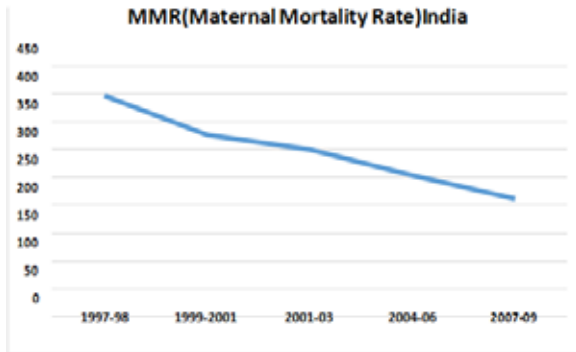
Data Source: Census of India 2011

IMR estimates: Highlights: 1) every 6th death in the country pertains to an infant. 2) IMR in India has declined to 42 in 2011 from 53 in 2008, 3) IMR for the country declined by 30 points (rural IMR by 31 points vis-à-vis urban IMR 16 points) in the last 20 years at an annual average decline of 1.5 points, 4)Still, 1 in every 20 children - National level; 1 in every 18 children - rural area and, 1 in every 29 children - urban area die within one year of birth (against 1 in 37 under MDG) and Female infants continue to experience higher mortality than male infants.

Percentage of Children aged 12-23 Immunized against Measles: The target is to achieve 100% immunization. In 2000 55% of children aged 12-23 were immunized against measles. This number increased to 74% in the year 2011. Thus it can be observed that the number has significantly come down over the last decade but still the target of achieving 100% immunization by 2015 remains distant.

Maternal Mortality Rate (MMR): MMR measures number of women aged 15-49 years dying due to maternal causes per 100,000 live births. The MDG 5 is to reduce MMR to 109 by 2015.

Figure 5



Data Source: Census of India 2011

The MMR has declined from 327 to 212 between 1999-2000 and 2009.

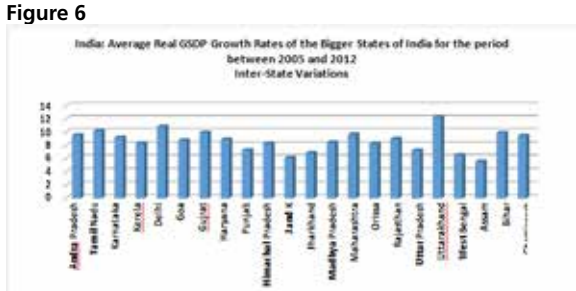
Percentage of births attended by skilled health staff:

It increased from 42.5 % in the year 2000 to 52.3 % in 2008. In the next section of this paper, I have analyzed the performance of Indian states in the major public health outcomes mentioned in data and methodology section. After the analysis of the Public health indicators and their 'Connect' with the rapid economic growth of India over the last decade, it is rational to examine the disaggregated data and the trends at the state level as the next logical step. The relevance of this exercise in the case of India emanates from the fact that there are large-scale inter-state variations not just in the performance of Indian states in public

health indicators but also in the 'connect' between the economic growth and the development indicators of public health. Prior to this, it becomes essential to review the growth performance of the bigger Indian states as this paper's primary focus is to analyze the impact of economic growth on public health outcomes. Twenty-two bigger states of India have been selected for this study as they represent 95% of India's population and the land area.

1) Economic Indicators: Real GSDP16 Growth Rate: In the figure 6 given below it can be observed that states with higher real GSDP like Andhra Pradesh, Gujarat, Goa, Punjab, Haryana, Tamil Nadu, Maharashtra, Karnataka Kerala and Delhi grew at an average of 9.3% whereas the states with low real GSDP like Jharkhand, Chhattisgarh, Bihar, Madhya Pradesh, Uttar Pradesh, Assam, West Bengal, Odisha, Uttarakhand and Rajasthan grew at an average of 8.1% but the inter- state disparities in the latter group are larger, for instance states like Uttarakhand grew at 12%, Rajasthan at 9% while Assam grew at 5.5% and J & K at 6.1%.

Figure 6



Data Source: Ministry of Statistics and Program Implementation Reports and Author's Calculations

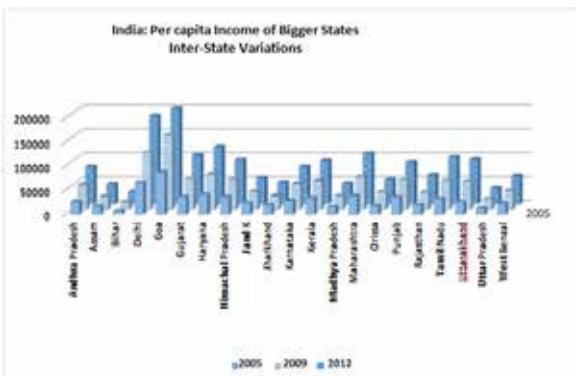
Thus it can be stated that despite inter-state variations, almost all the states registered high growth rates.

Per Capita Income17: From the figure 7 given below it can be observed that there are a lot of

inter-state variations in GSDP per capita of the states. The average per capita GSDP (2005-12) for the states with high real GSDP like Delhi, Goa, Gujarat, Haryana, Punjab, Tamil Nadu, Kerala, Karnataka, Maharashtra are the states with high per capita income is INR18 78,470.519 as compared to the states with low real GSDP like Bihar, Assam, Madhya Pradesh, Assam, Odisha, West Bengal, Jharkhand, Uttarakhnad, Rajasthan and Uttar Pradesh for whom it is INR 37,257.8920. From the figure 7 given below, it can be observed the per capita incomes of all the states

irrespective of their baseline situation, increased during the high growth period.

Figure 7



Data Source: Ministry of Statistics and Program Implementation and Author's Calculations

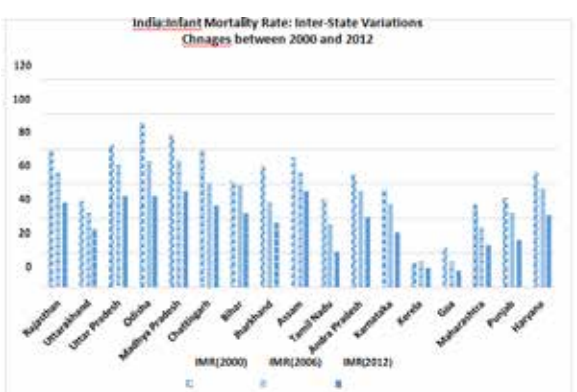
Thus, it can be stated that despite the inter-state disparities, all the states benefitted from the high economic growth during the last decade of high economic growth.

2) Public Health Outcomes in the Bigger States of India21: Infant Mortality Rate (IMR):

From the figure 8 given below it can be observed that IMR has declined for all the states between

2000 and 2012. Further, it can be stated that: a)Maximum IMR is in Madhya Pradesh (59) and minimum IMR is in Kerala (12), b)Kerala (12) & Tamil Nadu (28) have achieved the MDG target (28 by 2015), c) Delhi (33), Maharashtra (31) and West Bengal (33) are in close proximity

Figure 8



Data Source: Sample Registration Survey Bulletins, Office of the Registrar General of India

It can be observed that high per capita income states like Kerala, Delhi, Goa, Tamil Nadu, Punjab, and Maharashtra have achieved the MDG target in IMR. Low income states like Assam, Bihar, Chhattisgarh, Uttar Pradesh, Madhya Pradesh, Rajasthan and Odisha continue to have very high IMRs. Interestingly, there are some high income states like Gujarat (IMR: 41), Andhra Pradesh (41), Haryana (42) and Karnataka (32) continue to have high IMRs.

Maternal Mortality Rate (MMR): From the table given below, it can be stated that in the last decade of high economic growth the MMR declined for all the states. However, there are still significant inter-state variations.

India and Major States	MMR(2004-06)	MMR(2007-09)
India Total	254	212
Assam	480	390
Bihar/Jharkhand	312	261
Madhya Pradesh/ Chhattisgarh	335	269
Orissa	303	258
Rajasthan	388	318
Uttar Pradesh/ Uttarakhand	440	359
EAG and Assam Subtotal	375	308
Andhra Pradesh	154	134
Karnataka	213	178
Kerala	95	81
Tamil Nadu	111	97
South Subtotal	149	127
Gujarat	160	148
Haryana	186	153
Maharashtra	130	104
Punjab	192	172
West Bengal	141	145
Other	206	160
Other Sub Total	174	149

Data Source: Census of India 2011

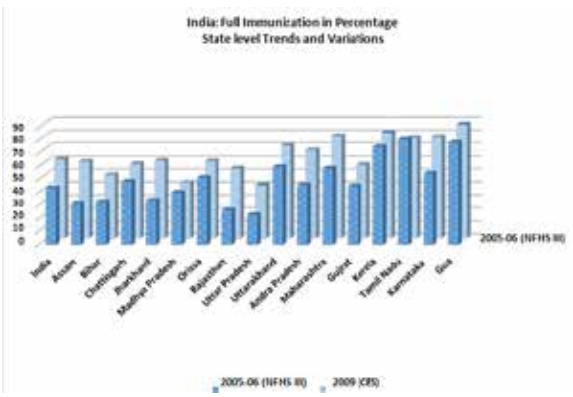
MMR estimates for 2007-09 from the above table: a) For India: 212 from 254 (a fall of about 17%), b) In Empowered Action Group (EAG)22 states & Assam: 308 from 375 (18%), c) Among Southern States: 127 from 149 (15%), d) In Other States: 149 from 174 (14%), e)States realizing MDG target of 109 have gone up to 3 with Tamil Nadu & Maharashtra (new entrants) joining Kerala, f) Andhra Pradesh, West Bengal, Gujarat and Haryana are in closer proximity to achieving the MDG target. 61% of total maternal deaths take place in EAG states, 11.4% take place in southern states. It can be stated that high income states like Kerala, Tamil Nadu, and Maharashtra have achieved the MDG (109 by 2015) and Andhra Pradesh, Gujarat and Haryana are in closer proximity to achieve it whereas the low income EAG states have high MMRs but the maximum decline has taken place in the EAG states i.e. 18% which is an encouraging factor. Again, interestingly some of the high income states like Gujarat, Haryana, Punjab and Karnataka continue to have high MMRs.

4) Immunization: Full (in Percentage):

From the figure 9 given below it can be stated that, firstly for all the states the percentage of full immunization increased for all the states. However, the high income states like Maharashtra, Kerala, Tamil Nadu, Karnataka and Goa, Gujarat registered high percentages of full immunization (75% average in 2009) whereas

in the low income EAG states the immunization levels were very low(61% average in 2009).

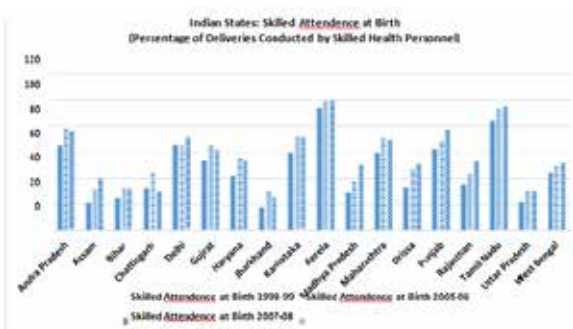
Figure 9



Data Source: Family Welfare Statistics in India, 2011, Statistics Division, Ministry of Health and Family Welfare, Government of India23, NFHS24 III (205-06), CES (2009)25 Skilled Attendance at Birth (Data collected is from UNICEF report: "A Situation of Children in

Skilled Attendance at Birth (Data collected is from UNICEF report: "A Situation of Children in India: A profile"26) It calculates the Percentage of deliveries conducted by skilled health personnel. The target is 100%. From the figure 10 given below percentage of deliveries conducted by skilled health personnel improved for all the states in the last decade.

Figure 10



Data Source: Data Source: A Situation of Children in India: A profile27

However, there are a lot of inter-state variations for instance the high per capita income states like Punjab (76.9%), Andhra Pradesh (75.6%), Maharashtra (69%), Kerala (99%), Tamil Nadu (95%) and Delhi (71%) have high percentage of the deliveries conducted by skilled personnel whereas the EAG states like Assam (39%), Bihar (31.7), Chhattisgarh (29.6%), Jharkhand (24.9%), Rajasthan (52%), Uttar Pradesh, Madhya Pradesh (49%) have low percentages of deliveries attended by the skilled personnel28. Interestingly, some richer states like Gujarat (61%) and Haryana (53%) have registered low skilled attendance at birth as compared to other high income states, for explaining which purely economic factors like real GSDP growth rate and per capita income are not sufficient.

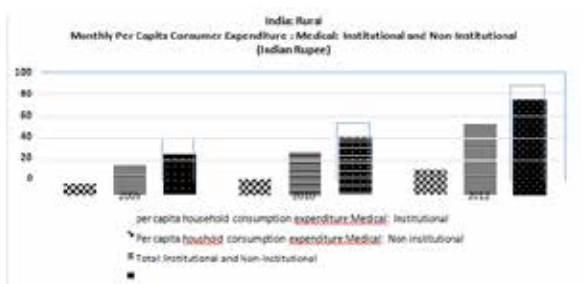
In the following section this paper will analyze the trends in monthly per capita consumption expenditures on medical services. Secondly, this section will also analyze the commitment of the state governments in improving the health profile by exploring its expenditure on medical, public health and Family Welfare over the last decade of high GDP growth rate. Finally, this section will find out the linkages between the above mentioned two indicators and the public health outcomes of different states29.

Monthly Per capita Consumption Expenditure on Medical Expenses30: Rural and Urban Differences: The figures given(11 and 12) below show that between 2005 and 2012 total per capita household average monthly consumption expenditure on medical services; institutional and non- institutional31 both increased. Between 2005 and 2012, it increased by 137.2%32 in rural areas and

142%33 in urban areas which clearly shows the disparity between the urban and rural areas. Secondly, the above charts also show that in all three time periods of consideration, in rural as well as urban areas the per capita average monthly household consumption expenditure was more on non-institutional medical expenses which shows that there is acute shortage of quality institutional

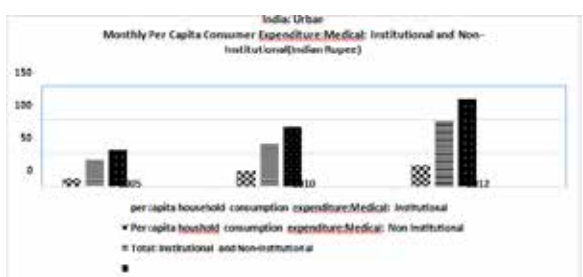
health infrastructure. Lastly, the expenditure on institutional medical services increased by 139.6% in rural areas 154% in urban areas (between 2005 and 2012) which is a good sign, showing that institutional health infrastructure is improving in both urban and rural areas but again the concern is that there is acute disparity in this improvement in the institutional health infrastructure between urban areas (where it increased at a much higher rate i.e. 154%) and rural areas.

Figure 11



Data Source: CEIC and Author's Calculations

Figure 12

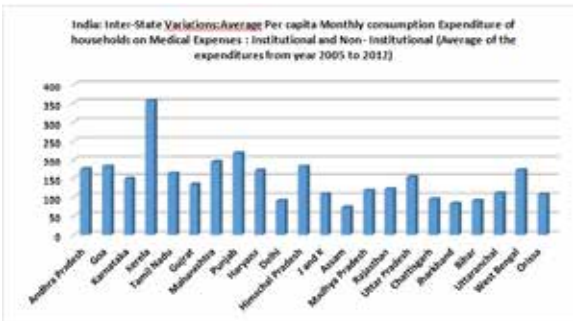


Data Source: CEIC and Author's Calculations

Average Per Capita Monthly Household Consumption Expenditure on Medical expenses: Institutional and Non-Institutional: Inter-State Variations34: The figure 13 given below depict the inter-state differences in average per capita monthly household consumption expenditure on medical expenses (Institutional and Non-Institutional) for the years from 2005 to 2012. It can be stated that in high-income states like Goa, Karnataka, Kerala, Tamil Nadu, Andhra Pradesh, Maharashtra, Punjab and Haryana the average of per capita monthly household consumption expenditures for the years from 2005 to 2012 was higher than the national average for the same period i.e. INR 151.28 (CEIC).The high income states where per capita household consumption expenditure on medical expenses was below the national average were Gujarat and Delhi35. The low income states like Bihar, Chhattisgarh, Jharkhand, Uttaranchal, J&K (Jammu

and Kashmir) Madhya Pradesh, Rajasthan and Odisha were below the national average of INR 151.28. Among the latter group also the worst performing ones were Assam Jharkhand and Bihar. Some of the low income states like West Bengal (170) and Himachal Pradesh (181) performed better than the national average. Uttar Pradesh was just at the national average.

Figure 13



Data Source: CEIC and Author's Calculations

Regarding the growth rates36 of per capita household expenditure on medical expenses between

2005 and 2012, the states which deserves special attention are the ones with poor baseline situation i.e. the status in the year 2005. Most of the states with poor baseline situation are the ones which are in low income group like Bihar, Chhattisgarh, Jharkhand, Uttar Pradesh, Rajasthan, Uttaranchal and Assam, J& K and Odisha. Among them except Odisha, Bihar and J & K the growth rate in all of them were below the national average growth rate i.e. 140% (CEIC). Odisha grew at 209%, Bihar at 229 % and J & K at 253% which is noteworthy. The worst performers were Chhattisgarh (18.2%), Jharkhand (72%) and Uttarakhand (69.2%). The rich state of Gujarat which had a poor baseline situation grew at 169.6% which is higher than the national average of 140%, which is sign of improvement in trends.

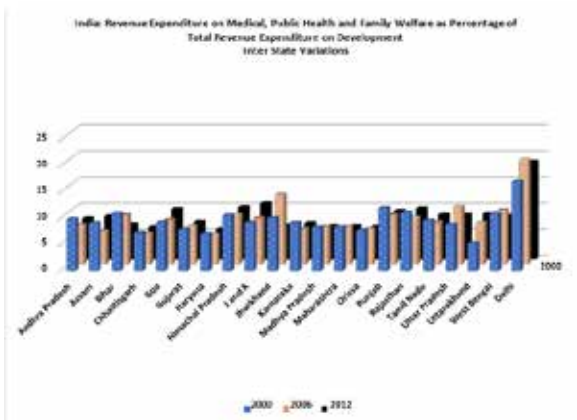
India: Inter-State Variations in Government's Efforts to Improve the Health Profile: Prior to analyzing this it becomes necessary to see the percentage of revenue spent on development activities in the different states of India because it will enable us to know the significance of development agenda in the state government's policies and then the amount of revenue spent on medical, public health and Family Welfare as a percentage of total revenue expenditure on development will be analyzed.

Average Revenue Expenditure on Development as Percentage of Total revenue Expenditure: Inter-State Variations

The average revenue expenditure on development as a percentage of total revenue expenditure was a significant amount in all the states, ranging from 50% to 64% for most of the Indian states except Punjab where the indicator under consideration was 42% for the period under study (**CEIC and Author's Calculations, see figure 4 of the appendix**)[37].

Change in the Revenue Expenditure on Medical, Public Health and Family Welfare between 2000 and 2012: From the figure 14 given below it can be observed that between 2000 and 2012 the revenue expenditure on medical, public health and family welfare as a percentage of total revenue expenditure on development decreased for all the states irrespective of their per capita income status. The average for all the states in 2000 was 9.5 % which came down to 8.4% in 2012. This decline hit the low per capita income states more as they had already low absolute average revenue expenditures on development[38].

Figure 14



Data Source: CEIC and Author's Calculations

Conclusion and Analysis:

1) The public health indicators for the country as a whole and the states have improved significantly between 2000 and 2011 i.e. the period of high economic growth. Not a single case has been observed where the public health indicators worsened during the last decade of rapid economic growth.

2) Broadly speaking, states with high per capita income like Kerala, Tamil Nadu, and Maharashtra etc. have reported better public health indicators than the states with low per capita income like Jharkhand, Chhattisgarh, and Rajasthan etc. However, there are quite a few exceptions to this trend like Gujarat, Haryana and West Bengal. Regarding them it can be argued that economic growth has not translated into better health profile but the matter is not that simplistic. To explain these exceptions one needs to venture beyond the purely economic determinants into the realm of non- economic, qualitative factors like literacy rates, socio-cultural norms, status of women in the society, government's ideological bent and the society's belief systems etc. For instance, in the case of Kerala and West Bengal (a comparatively poorer state), the governments have been highly influenced by socialist ideas and therefore invested huge capital since 1950s on social heads and public health. Besides, the literacy rates among females and condition of women are better in these states which can be factored into in explaining their better performance in public health outcomes. On the other hand, in the states like Haryana and Gujarat (comparatively richer states) the society is still heavily influenced by feudal norms and patriarchal culture which leads to lower status of women. Consequently, literacy rates among women are very low and these states' poor performance in public health indicators can be analyzed in the backdrop of these factors.

3) Over the last decade of high economic growth rate the per capita monthly average household consumption expenditure on medical services has increased in urban as well rural areas but there exist large disparities between the two. In urban average outlays on health have increased at a
much faster rate. These disparities can be partially explained by higher per capita incomes and higher per capita consumption expenditure in urban areas. But the income disparities alone cannot explain the rural-urban disparity in per capita consumption expenditure on medical services. Several other factors like the general health conditions in rural areas and urban areas, the nature of illnesses prevailing in both the areas (as there are some diseases which require high expenditures and there can be variations in their prevalence in rural and urban areas), literacy rates, life-style factors, socio-cultural norms and the availability of health practitioners must be taken into account. The analysis of the above-mentioned non-economic factors is beyond the scope of this paper. Secondly, over the last decade the average per capita monthly household consumption expenditure on medical expenses has improved for all the states. However, in richer states this figure is comparatively higher and the hitherto poor performers like Odisha, Bihar and, J & K have witnessed an

impressive progress. 3)

The commitment of the government towards health as captured by the expenditure on public health has not improved between 2000 and 2011. In fact over time it has stagnated and rather registered a marginal decline. It also remains far below the numbers observed in the other comparable emerging market economies. It can be argued that despite the fact that public expenditure on health did not increase, the public health indicators improved especially after the launch of schemes like National Rural Health Mission (NRHM) and Janani Surakhsa Yojna (JSY). There could be several explanations for this contradictory situation: either the implementation of the government's efforts prior to 2004 was not effective and with the launch of NRHM and JSY the implementation of the health schemes was streamlined and channelized properly in which case government needs to improve its monitoring and evaluation systems. Alternatively, due to the better economic status of people in terms of per capita income and increased awareness household expenditure on health and education increased which led to the improvement in the health profile of the nation.

Policy Recommendations: It can be concluded that, a) The health interventions need to be region/state specific for instance the policies in high income but poor performing states need to address social and cultural factors whereas in economically poor states the policies need to address the infrastructural bottlenecks. b) The government must ensure effective implementation of its projects and pay attention to monitoring and evaluation of its schemes. c) The expenditure on health should be increased to at least six to seven percentage of GDP (comparable to other emerging economies like China and South Africa etc.) d) The improvement in health indicators in the decade of 2000 do not show a marked difference as compared to their performance at the end of 1990s. For instance, between 1990 and 2000 IMR improved by 22.2 points (CEIC) whereas contrary to our higher expectations IMR improved by just 20.5 points (CEIC) between 2000 and 2011. In the last decade of high economic growth rate IMR was expected to decrease at a higher rate. This underlines the importance of exploring the effect of non-economic factors like literacy rates, socio-cultural norms, status of women in the society, government's ideological bent and belief systems etc. on the public health outcomes.

REFERENCES

1) Sample Registration Survey bulletins, (2000 to 2011). Planning Commission of India | | 2) World Bank, (2006). India: Development Policy Review | | 3) OECD, (Oct.2012). Better Series Policies: "India: Sustaining High and Inclusive Growth" | | 4) Census of India, (2011) Annual Health Survey. Publications Division, Government of India | | 5) Haub, C., "Fertility in India: Trends and Prospects", Population Reference Bureau | | 6) UNICEF, The Situation of Children in India: A Profile, 2011 | 7) Sugathan, K., Mishra, V., Retherford, R., (2001). "Promoting Institutional Deliveries in Rural India: The Role of Antenatal-Care Services", International Institute for Population Sciences, Mumbai, India and, East-West Center, Population and Health Studies, Honolulu, Hawaii, U.S.A. | 8) UNICEF India, (2009). Coverage Evaluation Survey report | | 9) Bhandari, P. (2012). "Refining State Level Comparisons in India", Working Paper Series, Planning | | Commission of India, 2012 |