



GROWTH AND DEVELOPMENT OF HEALTH INFRASTRUCTURE IN BIHAR

Gopal Sahu

B.Com, M.Com

**Research Scholar , University Department of Commerce and Business Administration,
L.N. Mithila University, Darbhanga.**



ABSTRACT

Bihar, with a population of 83 millions, is the third most population state in India. The population density in the State is 880 persons per sq. km. which is more than double the national average of 324 persons per sq km. The State has recorded the highest decadal growth during the nineties. While all-India decadal growth rate of population was 21.34%, the population of Bihar rose by 28.45% between 1991 and 2001. Around 40% of the population is below poverty line. The major health and demographic indicators of the State like infant mortality rate (IMR), maternal mortality ratio (MMR), total fertility rate (TFR), etc, are much higher than the all India level and reflect a poor health state in

the State. The Human Development Index (HDI), a composite of literacy, life expectancy and per capita income, has increased for Bihar like the rest of India. But the State still lags at 0.367 compared to the Indian average of 0.472. In view of the large population size, high poverty ratio and high decadal growth indices in the State. Bihar is one of the States covered by the National Rural Health Mission. This paper highlights the growth and development of health infrastructure in Bihar.

KEYWORDS:

Family Planning Programmes, Health Infrastructure, Human Development Index National Rural Health Mission

INTRODUCTION

Based on the indicators primarily related to primary health care infrastructure and reproductive and child health care, the State ranks 35th in the country. The districts which are lagging behind in the State are Seohar, Samastipur, Kishanganj, Jahanabad, Nalanda, Khagaria, Araria, Sitamarhi, and Pashchim Champaran. The MMR in Bihar is 371 per 100,000 live births, which is fourth highest in the country. The high level of MMR can be attributed to low level of institutional/supervised deliveries, high level of anaemia among women, and low level of full antenatal coverage etc. Though the infant and child mortality rates in Bihar are nearer the national figures, yet the State is amongst the State with high mortality rates. The Infant Mortality Rate (IMR) in the State is 61 per 1000 live births which is close to the national average of 58.0. The total Fertility Rate in the State is second highest in the country (4.2 compared to the national average of 3.0), However, the mean age of marriage in Bihar is relatively high at 18.9 years. Birth Rate and Death Rate in the State are still higher than the national average with Birth Rate

being 30.4 and Death Rate as 8.1 per thousand population.

The coverage under routine immunization and pulse polio is also very low as compared to the national figure. As per 2001 census, full immunization in the State was only 11% against the national average of 54%. As a result, a large number of cases of vaccine preventable diseases are will reported in the State. Under nutrition among children and women is also among children and women is also much higher than the national level with 54.4% children being underweight and 81% anaemic. The percentage of women with chronic energy efficiency (39.3%) is also higher than the national figure of 35.8%.

However, the recent National Family Health Survey indicates some improvement. It has shown increase in: immunization coverage from 12% to 33% contraceptive use from 24% to 34% institutional deliveries from 15% to 22% and the proportion of women who have heard of AIDS from 11% to 35%. But the figure are still far off from the national average. Malnutrition continues to be very high. In fact, malnutrition among children has increased from 54% to 58%. Number of children showing wasting (weight for age) has gone up by 8%. Anaemia has gone up from 81% to 88% amongst children of 6-35 months and from 46% to 60% amongst pregnant women.

The State has the largest number of Kala-azar cases. The prevalence of other vector borne diseases like tuberculosis is quite high. The occurrence of water borne diseases is also high. In 2010-11 the second highest number of polio cases in the country is from Bihar.

Available data on rural primary health care infrastructure indicate that, in Bihar, there are substantial gaps in sub-centres, primary health centres and community health centres, and also in essential requirements in terms of manpower, equipment, drugs and consumables in primary health care institutions. The State has a shortage of 1210 sub-centres, 13 primary health centres, and 389 community health centres. There is only one sub centre for 10,000 population. However, according to the national norms there should be at least one sub-centre for 5000 population. Moreover, Bihar has one Primary Health Centre for one lakh population where ideally there should be one PHC for every 30,000 population.

Shortage of human resources in the health sector is another major problem with 5648 female health workers and 9786 male health workers being deficient. There is also a lack of specialists at the Community Health Centres.

In rural areas, the share declined from 13% to 11% (1995-96) to 5% (2009). In urban areas, it declined from 33% to 11% during the corresponding period. The number of hospitalized cases treated (per 1000) in public hospital in rural areas is only 144 as compared to all-India average of 417. In urban areas, the figure is 215 as compared to all-India average of 382.

Most of the Auxiliary Nurse Midwives (ANMs) and AWWs felt that ASHA was meant to assist them in immunization and listing of pregnant women. A few districts did not even receive the money to disburse as united fund and District Action Plans had not been prepared. Neither the women got any money under the Janani even Bal Surakshn Yojana, nor did the ones who were sterilized know about the family planning insurance schemes.

The State has 11 Ayurvedic, 5 Unani and, 11 Homeopathic hospitals. It also has 311 Ayurvedic, 143 Unani and, 179 homoeopathic dispensaries (Department of AYUSH, Ministry of Health & Family Welfare). By placing AYUSH practitioners in the PHGs along side the MBBS doctors, it will be possible to mainstream this system into the general health care system and also enable the patients to avail the care in the system or their choice. Training and reorientation of AYUSH practitioners in Family Welfare and National disease Control Programmes will help in improving the coverage under these programmes.

Health is now being given due attention by the State. With the efforts towards upgradation of health infrastructure, requirement of doctors on contract, outsourcing of diagnostic facilities, availability of free medicines, provision of ambulance services, increasing outreach through mobile medical units and through a mechanism of web-based monitoring, better health outcomes are expected in the State.

The important Issues Concerning Health in Bihar are:

- Substantial gaps in sub-centres, primary health centres, and a very large gap in community health centres.

- Substantial gaps in essential requirements in terms of manpower, equipment, drugs and consumables in the primary health care institutions.
- Skewed sex ratio (919).
- Very low Couple protection rate (34%).
- Very high fertility rate (4.2).
- Very high percentage of girls marrying below 18 years of age (51.5%)
- Very low coverage of Full Immunization (33%)
- Very low Awareness of HIV/AIDS (25.6%)
- Low Level Of Institutional Delivery (23.2%) and high level of maternal deaths (3.71 per 1000).
- High level of malnutrition among children of age 0-6 years (55.9% children are moderately and 24.5% are severely malnourished).
- Very high levels of anaemia among children (81%), adolescent girls (40.9%) and pregnant women (63.4%)
- very low coverage for Vitamin A (10%) and salt iodisation 25.2% (15 ppm & above).

Public Health Approaches:

In order to achieve the desired outcomes and to bring about an improvement in the health sector, it is necessary that a right mix of public health approaches/measures is adopted. This consists of

Service Approach:

For an appropriate health care delivery system, it is absolutely necessary to have a blend of services delivered through (i) Static health facilities-This would involve correcting the regional imbalance, existing deficiencies in the health care infrastructure and making it operational: (ii) Outreach facilities-With the development of infrastructure in Bihar which also consists of better road connectivity, the unreached segments of the population should be reached through mobile medical units. This may involve having more than one medical mobile unit per district. At least each block should be provided with one Mobile unit; and (iii) Telemedicine- Though it is desirable to develop proper referral linkage, yet in order to get faster consultation, with an improvement in the information technology network, telemedicine is an option which the State should actively pursue.

A plan has been prepared for operationalisation of Telemedicine in the State. In the first phase, video conferencing facilities will be started at the district headquarters. every year 1544 new sub centers and 331 new PHCs will be operationalised in the State. Besides, the dilapidated health facilities are being refurbished in the State in collaboration with the Department of Building Construction.

Education Approach:

The other important public health approach to yield dividends in the long run consists of behavioral change communication strategy. Mass media is effective for advocacy, whereas, community/group education is necessary for further providing programme information. Thereafter, education at the individual/family level to address the specific queries and facilitation for the utilization of health services would lead to social mobilization for better health outcomes in Bihar. BCC/IEC campaigns should be launched in collaboration with ICDS/PRIs to bring about desirable, attitudinal and behavioral changes among the rural people.

Regulatory approach: In the current context, the regulatory approach may not be a viable option on large scale. However, on certain issues viz, strict enforcement of PC and PNDDT Act, it is a must.

National Rural Health Mission (NRHM):

NRHM is an opportunity, District Health Plans have assumed a new centrality and urgency. Action needs to be complete immediately for the preparation improvement of the State Action Plan which identifies sectoral needs and priorities, specifically related to the monitorable targets suggested by the planning commission and the NRHM. It should include outlays for reproductive & Child Health Programme,

National Disease Control Programmes, Integrated Disease Surveillance Programme, Janani, Evam Bal Suraksha Yojana, Immunisation Programme, etc. Further funds under AYUSH, Finance Commission, Grant-in-aid, Rashtriya Sam Vikas Yojana/BRGF, external bilateral funding and NGO grants need to be included. Outlays for improving sanitation and nutrition should be reflected even though the budgeting would remain separate. The State Action Plan has to be based on the District Action Plans and the districts should consolidate the existing resources within health & family welfare sector and plan for convergence with nutrition, drinking water and sanitation. It would be even desirable, if Coordination Committees are formed in each and every district and at all functional levels, i.e. Blocks, with representatives from the Departments dealing with health, family welfare, nutrition, water supply and sanitation.

Capacity Building:

Though Reproductive & Child Health (RCH) is the flagship programme of NRHM, yet the capacity building efforts have to be all inclusive to cover not only RCH but also other programmes for the delivery of comprehensive health care. For that, it is necessary to give appropriate orientation to the functionaries of the public health system and the private providers at different levels. The ones who matter outside the health system viz. PRIs, NGOs, related departments, district collectors etc, should also be sensitized. Sensitization to community on various issues pertaining to health is also required.

In essence, there is a need to combine training on health care and public health. This can be achieved by converging the training funds available under NRHM with those available under Total Sanitation Campaign and ICDS, to run one closely coordinated programme that shares resource persons, logistics and feedback systems. An integrated training programme of this nature for Panchayat members would be efficient and cost effective. ASHAs also require much more training in hygiene and sanitary practices and AWWs need training in maternal and child health care. Training content, preparation should, therefore, involve all the Department concerned, as also SIRD, NGOs and CBOs across the State.

For integrated training programme of large number of health and non-health functionaries, a systematic district specific approach is needed. It is also important to upgrade/expand the network of fully equipped training facilities. A comprehensive programme for capacity development needs to be chalked out.

Inter Sectoral Co-ordination:

The indicators of health depend as much on drinking water, female literacy, nutrition, early childhood development, sanitation, women's empowerment, etc., as they do on hospital and health systems. Realizing this, an effective convergence between department dealing with health, ICDS, education, drinking water and sanitation has been planned. Village health committee will be a modified version of health and sanitation committee already existing in village. They will co-opt ANM and ASHA in their committee.

Substantial Gaps in Primary Health Care Infrastructure:

In Bihar, there are substantial gaps in sub-centers, primary health centers, and a very large gap in community health centers. The State has a shortage of 1210 health sub-centers, 13 Primary Health Centers (PHCs) and 389 Community Health Centers. Besides, out of the 38 districts.

Shortage of Manpower, Drugs and Equipment Necessary for Primary Health Care:

There are also substantial gaps in essential requirements in terms of manpower, equipment, drugs and consumables in the primary health care institution. Moreover, there are no specialists at the Community Health Centers. There is a shortage of 3376 Medical officers and 19945 Auxiliary Nurse Midwife (ANM). Percentage of PHCs adequately equipped with equipment stands at only 6.2 compared to the national figure of 41.3%. There is inadequate and erratic availability of essential Drug supplies, ORS packets, weighing scales, etc. There is a big shortage of gynecologists and obstetricians to provide maternal health services in peripheral areas of the State.

Lack of Training Facilities:

The status of training facilities in the State (both in terms of infrastructure and human resources) remains far from satisfactory at all levels. At the State level, there is only one Training Institute (the State Institute of Health and Family Welfare (SIHFW) that imparts training to health personnel. The SIHFW is facing a severe shortage of faculty and related facilities. At the regional level too there is an acute shortage of good Training Centers.

Very High Fertility Rate:

The Total Fertility Rate in the State is second highest in the country. The Birth Rate is also second highest in the State (30.4 compared to the national figure of 23.8). Besides, birth order 3 + is 54.4% compared to the national figure of 42%. Roughly 51.5% of the girls get married below the age of 18 years as compared to the national figure of 28%. The couples practicing any method of contraception are only 34% against the national figure of 53.9%

Low Institutional Deliveries and High Level of Maternal Death:

The maternal Mortality Ratio in Bihar (371 per 100,000 live births) is the 4th highest in the country. The high level of MMR can be attributed to low level of institutional deliveries (23.2% compared to national figure 41%), high level of anemia among women (63.4% compared to national figure of 51.8%), low provision of iron and folic acid tablets to ante-natal cases (8.1 compared to national figure of 2.4%) and low level of full ante-natal coverage (5.4% compared to national figure of 16.4).

Under-Nourishment among Children and Women:

Bihar is a State with lowest per capita income and with very high level of poverty. Diet surveys carried out by the Department of Women & Child Development indicate that the State ranks very low in terms of dietary intake (not more than 2000 calories). Under-nutrition rate is very high in the State, because of low dietary intake, high morbidity and also closely spaced pregnancies. Roughly 39.3% of women are undernourished (BMI of less than 18.5 kg/m²). The State has very low overweight and obesity rates in women. The percentage of women with chronic energy deficiency is also higher (39.3%) compared to the national figure of 35.8%.

In the State, 54.4% of children under the age of three years, as assessed by weight-for age, are under weight in comparison to the national figure of 47% about 53.7% of the children are stunted, as assessed by height-for-age in comparison to the national figure of 45.5%. Number of infants receiving semi solid foods at the age of six months is much lower than the national level and as a result, under nutrition rate in children is much higher than the national level. About 54.4% children are under weight and 81% are anemic.

Very Low Coverage of Full Immunization:

Low female literacy rate in the State, particularly in rural areas, is one of the major reasons for poor health conditions in the State. According to 2001 census, female literacy rate in the State is 33.57% against the national average of 54.28%. Due to illiteracy, there is a lack of awareness among women about antenatal, intra natal and post natal care, especially in rural areas.

Poor Status of Family Planning Programmes:

Key indicators related to Maternal and Child Health (MCH) and family Planning clearly show the poor health status in Bihar. Roughly 51.5% of the girls in the State get married below the age of 18 years compared to the national figure of 28%. The proportion of couples practicing any method of contraception.

34 against the national figure of 53.9%. Some of the reasons affecting the implementation of the family Planning programme in the State are: lack of health facilities, both in terms of physical infrastructure and skilled human resources to deliver quality family planning services, evidently low exposure to mass

media in Bihar, leading to lower exposure of family planning messages in the community, particularly among rural and socio-economically disadvantaged groups. There is a failure of the programme to effectively undertake measure to increase median age at marriage and first childbirth. etc.

Challenges and Issues:

Health is a complex sector with deep cross linkages across other social sectors like nutrition, literacy, poverty, women and child development, panchayati raj, etc. Health is still not a high priority areas and as such need to be brought under the prime focus, particularly at the State level. For successful planning and implementation of the Mission activities, it is also necessary that the outlay is made known to the State in time so that these could be factored while preparing the annual plan. The State also needs to hike its health budget very significantly in order to meet the target of 2-3% of the GDP.

PRIs have a very crucial role to play in the entire process. It is therefore, imperative that sufficient powers are delegated to them for enabling them to lead the process. The shortage of manpower particularly doctors and paramedical staff willing to work in the rural areas will be a serious challenges. Operationalising all the health care facilities in the light of the manpower constraints would be a major challenges for the State.

Since there is a variety of health programmes under implementation involving was financial resources, it is very important to pay particular attention to accounting system and social audit at key operating levels on fund allocation. utilization, and actual benefits to the health sector users.

Health is now being given due attention by the State. With the upgradation of health infrastructure, recruitment of doctors on contract, outsourcing diagnostic facilities, availability of free medicine provision of ambulance services and through a mechanism of web-based monitoring, better health outcomes are expected in the State. In a span of about a year, manifold (100 times) increase in OPD attendance has been reported at the CHCs/Block PHCs.

The goal of reducing MMR from 371 per 100,000 live birth to 123 by the end of 12th is a formidable task. Yet, the State would be making all out effort to reach that goal. With the operationalisation of Janani Evam Bal Suraksha Yojana, the institutional deliveries are fast picking up. Besides, efforts are being made to improve antenatal care, provide skilled attendance at birth, and enhance facilities for emergency obstetric care.

The State is hopeful to reduce TFR from 4.2 to 3.0 by the end of 12th through behavioral change communication to bring an increase in the age at marriage of girls, delaying first child birth, greater male participation and meeting the unmet needs (23.1%) for family planning through improved infrastructure and organization of family planning camps, and other services delivery measures.

The State is confident of reaching the goal of 950, Child Sex Ratio (0.6 years), by the end of Eleventh Plan through strict enforcement of PC & PNDDT Act and emphasis on gender issues. By better inter Sectoral coordination with ICDS and organization of health days at the Anganwadis, the State also expects to reduce malnutrition amongst children (0.3 years) and anaemia amongst women and girls to half its present level by the end of Eleventh Plan.

The State officials feel that the National Rural Health Mission has been a facilitating factor and is expected to further improve the health system and its outcomes. In Bihar, NRHM has been launched to provide accessible, affordable, accountable, effective and reliable primary health care facilities, especially, to the poor and vulnerable sections of the population. The aim is to bridge the gap in Rural Health care services through creation of a cadre of Accredited Social Health Activists (ASHA) and improved hospital care, decentralization of programme to district level to improve intra and inter-sectoral convergence, and effective utilization for resources. Further, an overarching umbrella has been provided to the existing programmes of Health and Family Welfare including RCH-II, Malaria, Blindness, Iodine deficiency disorders, Filariasis, Kala Azar, T.B., Leprosy and Integrated Disease Surveillance.

Issues of health, in the context of sector-wide approach addressing sanitation and hygiene, nutrition and safe drinking water as basic determinants of good health in order to have greater convergence among the related social sector Department i.e. AYUSH, Women & Child Development

Sanitation, Elementary Education, Panchayati Raj and Rural Development, are also being addressed. Community is being involvement through Panchayati Raj Institutions, NGOs and other state holders for greater ownership. Extensive and focused initial trainings for all human resources have been carried out to make NRHM a success.

CONCLUSION:

Effort are being made to mainstream AYUSH and increase social & community outreach by enhanced role in public health revitalization of community based local health traditions of AYUSH with the ultimate aim of enhancing the role of AYUSH health care in providing accessible, acceptable, affordable and quality health care to all.

Mechanism to validate information by surprise field visits and feedback need to be built. Vast financial information by surprise field visits and feedback need to be built. Vast financial resources make it imperative to pay particularly attention to accounting system and social audit at key operating levels on fund allocation, utilization, and actual benefits to the health system users. Recent efforts towards human resources, provisioning of drugs and equipment, convergence, district level planning and monitoring training, etc, have shown positive result in key indicators of health.

REFERENCE:

1. Antle, John M. (1983), Infrastructure and Aggregate Productivity: International Evidence, Economic Development and Cultural Change, Vol. 31, No. 3. P. 28-33
2. Arun Kumar, A.V. and C. Upendranath (1993)- Infrastructure Development in India: an Alternative Approach to Measurement, Productivity, Vol. 34, No.3, p. 45-53
3. Ibid
4. Centre for Monitoring Indian Economy (CMIE) (2001). Infrastructure, January, 2001, CMIE, Mumbai, p. 62-68
5. Canning, D. and Mariane Fay (1993)- The Effect of Transportation Network on Economic Growth, Columbia University Working Papers, New York. p. 72-83
6. Ibid
7. Caming. David (1998) "A Data Base of World Infrastructure Stock, 1950-1995, "World Bank Economic Review 12,, Vol. 2, p. 41-44
8. Crihfield, J.B and M.P.H panggabean (1995)- Is Public Infrastructure Productive? A Metropolitan Perspective Using New Capital Stock Estimates, Regional Science and Urban Economics, Vol 25, p. 112-118.
9. Devi. Shail Bala (1998): Pattern of Infrastructure development in India-An inter state comparison, the IEA conference volume, p. 85-91
10. Ibid
11. De la Fuente, A. and A. Estache, (2004)- "Infrastructure Productivity and Growth: A quick survey" Washington DC., WBIGF, mimeo. p. 136-139
12. Ibid
13. Datt, R and Sundaram, K.P.M. (2007) "Indian Economy" (56th Edition 2007) p. 73-84
14. Ibid
15. Dadibhavi, R.V. (1991)- Disparities in Social Infrastructural Development in India: 1970-71 to 1984-85, Asian Economic Review, Vol. 33, No.1. p. 36-41
16. Ibid
17. Ghose, B & De, P (1998), Role of Infrastructure in Regional Development Economics & Political Weekly, Nov, 28, 1998, p. 3040.
18. Ibid
19. Ibid
20. RBI, (1997), Reserve Bank of India, Annual Report, Various Year.

-
21. Dhirendra Agrawal: "Power Resource and Economic Development in Bihar," A Thesis Submitted in M.U. Both-Gaya, p. 75-78
 22. Dr. VKRV Rao: Infrastructure and Economic Development Commerce, Annual, p. 91-96
 23. Ibid