



## PUBLIC HEALTHCARE IN BIHAR : AN OVERVIEW

## Community Medicine

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## ABSTRACT

In India, the aim of the Government is to lower the incidence of the different diseases and encourage the human development. But health outcomes are dependent on the socio-economic, geographic differences in the country.

**Objectives of the Study:** 1. Review of Existing State level Policies.

2. Review of existing situation of health status in Bihar.

**Methodology:** This study was a review of secondary literature. A combination of search techniques are employed to find the relevant data.

**Conclusion:** Improvement in the health and nutritional status of the population has been one of the major thrust areas for the social development programmes of the country. This can be achieved through improving the access to and utilization of Health, Family Welfare and Nutrition services with special focus on underserved and under privileged segments of the population.

**Data analysis:** Each article was analyzed conceptually to be included and quoted in the study. Only abstract was read initially to be included in the review and the whole article was read later.

## KEYWORDS

Public Healthcare, Bihar

## INTRODUCTION:-

Bihar, with a population of 83 millions, is the third most populous 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 status 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. Amongst the major States, the HDI of Bihar has been the lowest for the last three decades. 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. Based on the indicators primarily related to primary health care infrastructure and reproductive and child health care, the State ranks 35<sup>th</sup> in the country (DLHS 2002-04). On a similar basis, the districts in Bihar have also been ranked.

## Objectives of the Study:

1. Review of Existing State level Policies.
2. Review of existing situation of health status in Bihar.

## Methodology:

This study was a review of secondary literature. A combination of search techniques are employed to find the relevant data. Major source of information and data are online journals. Different scientific engines are searched for related articles, using different search words and their combinations.

## Criteria for inclusion of article:

1. To be included in the review,
2. every article was matched with the criteria given below, and had to fulfill all of the requirements.
3. Written in English, published between 1990 and 2010,
4. contained the search phrase in title or abstract, addressed the concept under study
5. Full text was available

## Criteria for exclusion of articles:

The articles which met any of the following criteria were not included in the review.

1. Published in languages other than English,
2. Published before 1990,
3. Addressed concepts other than Health policy making and health

care review, alone or in combination with it.

4. For which, full text was not available

## DATA ANALYSIS:

Each article was analyzed conceptually to be included and quoted in the study. Only abstract was read initially to be included in the review and the whole article was read later. It was quoted in the study only if it addressed any of the health concepts. The sampling of states was done through purposive sampling method and the comparative analysis method was used for the analysis of policy level gaps for the study. Analysis was based upon the secondary data which was collected through the literature review.

## Health Programs and achievements so far; Financial viz-a-viz Physical Progress of NRHM in Bihar (June 2009)

Infrastructure Improvements: In total 105 PHCs have been strengthened with three Staff Nurses each to make them functional for 24x7 work, 70 CHC are functioning on 24x7 and facility survey has been completed in 66 CHCs which include other facilities below district level. A total of 20 DH, 29 SDH and 27 CHC and others level made operational as FRUs.

No districts have functional Mobile Medical Unit. Human Resources: A total of 67,506 ASHAs have been selected and 57,362 are trained for 1st module. None of them have been provided with drug kits. 7672 Subcentres are functional with an ANM. 5880 SCs have been strengthened with 2<sup>nd</sup> ANM. No appointments of contractual AYUSH Doctors in the State. As far as Manpower augmentation is concerned 381 specialists, 1763 MBBS Doctors, 2906 Staff Nurse and 5896 ANMs have been appointed under NRHM on contractual basis.

Services: Institutional deliveries in the State have improved from 1.24 lakhs (2006-07) to 8.38 lakhs (2007-08) and further 10.51 lakhs institutional deliveries have been reported during the year 2008-09. The JSY beneficiaries significantly increased from 1.14 lakhs (2006-07) to 8.38 lakhs (2007-08). During the year 08-09 the numbers of JSY beneficiaries was 11.00 lakh.

Female sterilizations have increased from 1.62 lakh (2006-07) to 3.00 lakh (2007-08) and male sterilization has decreased from 428 (2006-07) to 400 (2007-08). During the year 2008-09, 358576 female and 1427 male sterilization has been reported. 23 districts are implementing IMNCI and 7496 people are trained so far. 741168 VHND held since the launch of NRHM.

## Progress under RCH II

RCH II Goals

Bihars (including Jharkhand) MMR at 312 (SRS 04-06) has improved from 371 in SRS 01-03, but is still way above the national average of

254. The IMR (SRS 2007) at 58 is 7th highest in the country. TFR at 3.9 (SRS 2007) is higher than the national average of 2.7 and nowhere close to the target of 2.1 for the year 2012

### Immunization:

As per the various evaluated surveys the immunization coverage shows an improving trend with full immunization increasing to **41.4 % in 2007-08 (DLHS 3)**. The state initiative of **Muskaan** is apparently showing good results including immunization coverage. There has been a very good progress in immunization trainings of the health workers (11478/12675) with 90 % of training completed. District level AEFI committees constituted in 25/38 districts.

Table 3.39: Immunization Progress

Survey Indicator	NFHS 1 (1992-93)	NFHS 2 (1998-99)	NFHS 3 (2005-06)	CES (2005)	CES (2006)	DLHS 2 (2002-04)	DLHS 3 (2007-08)
FI	NA	11.6	32.8	19.0	37.7	20.7	41.4
BCG	NA	36.0	64.7	52.8	75.2	44.6	81.5
Measles	NA	16.2	40.4	28.4	46.0	24.4	54.2
DPT 3	NA	24.9	46.1	36.5	49.0	31.0	54.4

Source: National Family Health Survey; District Level household Survey

### National TB Control Program:

State has only around 600 DMCs and 168 TUs to cover 953 lakh population which is not as per population norms of RNTCP (1DMC/lakh pop). Unless the State has more DMCs it is difficult to break the case detection trend which has stagnated at the present level for more than 2 years.

Table 3.40: Infrastructure

Sr. No.	Parameters	Value
1	Population	953 Lakh
2	Number of Districts	38
3	No. of tuberculosis units	168
4	No. of designated Microscopy centers (DMCs)	738 (only 590 functional)

Source: Bihar State Report 2009

### National Vector Borne Disease Control Program (NVBDCP):

The State has 38 districts with a population of 82.9 Million. There are 70 CHCs, 1648 PHCs, 8909 Sub-centres and 27424 Villages. In the addition the state has 248 Fever Treatment Depots (FTDs) and 416 Malaria Clinics.

### Malaria

Though the reported malaria cases have declined, the number of Pf cases has increased in 2007, which is of concern. The surveillance in the state is very poor so there may be unreported cases. It needs to be strengthened by filling up the key post like Surveillance Workers and Lab. Technicians.

Table 3.41: Epidemiological Situation

Year	B.S. examined	Malaria cases	Pf cases	Deaths
2006	240019	2744	428	0
2007	130654	1451	615	1
2008	71272	496	63	1
2009 (Upto Feb.)	0	0	0	0

Source: Bihar State Report 2009

**Kala-azar:** Kala-azar is major problem in the state and has been targeted for elimination by the year 2010. The cases and deaths due to Kala-azar in the state since 2006 are given below:

Table 3.42: Incidences Reported

Year	Cases	Deaths
2006	29711	162
2007	37189	172
2008	28125	137
2009 (Upto April)	5156	14

Source: Bihar State Report 2009

### Elimination of Lymphatic Filariasis:

The goal of Elimination of Lymphatic Filariasis in the country is set to be achieved by 2015. In pursuance to achieve this, Government of India during 2004 initiated Mass Drug Administration (MDA) with annual single dose of DEC tablets to all the population living at the risk of filariasis excluding pregnant women, children below 2 years of age and seriously ill persons. The population coverage of MDA in the state was 84.39% in 2004, 77.82% in 2005, 79.77% in 2006 and 81.28% in 2007. The state could not observe MDA in 2008 which need to be observed to avoid gap in MDA. Line listing of Lymphoedema and Hydrocele cases was also initiated in 2004 for morbidity management and as per updated report (2007), there are 212536 Lymphoedema and 164543 Hydrocele cases.

### Japanese Encephalitis/Acute Encephalitis Syndrome:

Two districts namely Muzaffarpur and West Champaran were covered for JE vaccination during 2007. District Gaya was supposed to be covered during 2008, which could not be done. The situation of JE/AES is indicated below:

Table 3.43: Incidences Reported

Year	Cases	Deaths
2006	21	3
2007	336	164
2008	203	45
2009 (Prov. upto March,09)	0	0

Source: Bihar State Report 2009

**Chikungunya:** The state has not reported any Chikungunya fever case during 2006 and 2009 till May. However, for proactive surveillance Patna Medical college and Hospital has been identified as Sentinel Surveillance Hospitals with laboratory support in the state and linked with ICMR, Virus Unit, National Institute of Cholera and Enteric Diseases, Kolkata which has been identified as Apex Referral Laboratory for back up support. NIV Pune has been entrusted the supply of IgM ELISA test kits to the identified institutes.

### Status of Leprosy Eradication Program in Bihar

Epidemiological scenario: Bihar is one of the 3 states yet to achieve the goal of elimination of leprosy (i.e. prevalence rate of less than 1 case /10000 population). There were 10771 leprosy cases on record as on March 2009. New case detection and treatment completion: During 2008-09, a total of 20086 new leprosy cases were detected as compared to 19041 new cases detected during the corresponding period of previous year. Out of 19085 cases discharged during the year, 18092 cases (94.8%) were released as cured after completing treatment. Reconstructive Surgery for leprosy affected persons: There are 2 Govt. Institutions viz. Patna Medical College and Dharbhanga Medical College and 1 NGO institution i.e. the Leprosy Mission Hospital in Muzaffarpur, providing reconstructive surgery services to leprosy affected persons with disability in the state. In the year 2008-09, about 90 reconstructive surgeries were performed in these 3 institutions. NLEP action plan for the year 2009-10 amounting to 215 lakhs has been approved for the state.

### Integrated Disease Surveillance Project (IDSP):

The state of Bihar has an area of 94,163 sq. km. and a population of 82.9 million. There are 9 divisions, 38 districts, 101 sub divisions, 533 blocks and 45,098 villages. There are 1648 PHC and 70 CHC in the state. The State has population density of 881 per sq. km. (as against the national average of 312). (Source: [www.mohfw.nic.in/nrhm.htm](http://www.mohfw.nic.in/nrhm.htm)). Bihar is a Phase-III state under IDSP and has been inducted into the program during 2007-08. The state PIP was received and MoU was signed with GoI on 18.09.2007. Dr. A. K. Tiwari, Joint Director from Directorate Health Services, Govt. Of Bihar has been designated as the State Surveillance Officer. The first installment of Grant-in-aid in the project of Rs 125 Lakhs has been released on 18.11.2007.

### Pulse Polio Program:

With the global initiative of eradication of polio in 1988 following World Health Assembly resolution in 1988, Pulse Polio Immunization program was launched in India in 1995. Children in the age group of 0-5 years administered polio drops during National and Sub-national immunization rounds (in high risk areas) every year. About 172 million children are immunized during each National Immunization Day (NID). With the implementation of pulse polio program from 1995, significant success has been achieved in reducing number of polio cases. There has also been significant reduction in number of infected districts. In 2008, the virus could be restrained to 90 districts mainly in Western UP and Bihar. Most parts of India are polio free. Of the 35 states and Union Territories, 33 have stopped indigenous polio virus transmission. Only Uttar Pradesh (UP) and Bihar remain endemic for polio virus because of the uniquely challenging conditions like poor environmental sanitation, high population density, high birth rate which makes them the most challenging places on earth to eradicate polio. Of the 3 types of polio causing viruses, type 2 virus has already been eradicated in 1999. Currently Type 3 virus and Type 1 virus are in circulation and is limited mainly to UP and Bihar. The number of genetic families of polio virus Type 1 circulation has also been reduced from 12 in 2005 to 3 in 2008. Only 1 family is circulation since May 08. Polio Situation in 2009: 24 Wild Polio Virus cases have been reported in Bihar during 2009 out of which 9 cases are P1 and 15 cases are P3. Total number of infected districts in 2009 is 8. Steps taken by the Government to finish Polio circulation in the State In Bihar there has been intensification of the program since 2002 by increasing the frequency of polio immunization campaigns. At least 8 SIAs are

implemented per year. To finish the P1 circulation mOPV1 vaccine are being used in the State since April 2005 as per advice of IEAG. To keep P3 circulation under check, mOPV3 vaccine is used intermittently. One additional mOPV3 round was held in Bihar on 2nd May 09. Migratory populations from Bihar are being identified in the States of Punjab, Haryana, Gujarat and West Bengal and these migratory children are being covered during the SNID in UP and Bihar. Social Mobilization activities are being intensified by involving the local influencers, community and religious leaders to improve community participation and acceptance of polio vaccine. In the States of Bihar every new born child is being identified and vaccinated during the polio immunization campaigns and is being tracked for 8 subsequent rounds. In order to reach every eligible child during the pulse polio round, apart from the strategy of vaccinating children at fixed booths and house to house visit, efforts in vaccinating children in transit at railway stations, inside long distance trains, major bus stops, market places, religious congregations, major road crossings etc. throughout the country have been intensified. Efforts are being continually intensified to remove the misconception and rumors among certain section of the community about the use of Oral Polio vaccine.

#### Financial progress:

For the state of Maharashtra the fund allocated during 2005-2010 was 3089.82 crore but only 69.53% of the total allocation was used.

#### Observations, Discussion and Conclusion:

Improvement in the health and nutritional status of the population has been one of the major thrust areas for the social development programmes of the country. This can be achieved through improving the access to and utilization of Health, Family Welfare and Nutrition services with special focus on underserved and under privileged segments of the population. Over the last five decades, India has built up a vast health infrastructure and manpower at primary, secondary and tertiary care in government, voluntary and private sectors. These institutions are manned by professionals and paraprofessionals trained in the medical colleges in modern medicine and ISM and H and paraprofessional training institutions. The population has become aware of the benefits of health related technologies for prevention, early diagnosis and effective treatment for a wide variety of illnesses and accessed available services. Technological advances and improvement in access to health care technologies, which were relatively inexpensive and easy to implement, have resulted in substantial improvement in health indices of the population and a steep decline in mortality. The extent of access to and utilization of health care varied substantially between states, districts and different segments of society; this to a large extent, is responsible for substantial differences between states in health indices of the population.

During the 1990s, the mortality rates reached a plateau and the country entered an era of dual disease burden. Communicable diseases had become more difficult to combat because of development of insecticide resistant strains of vectors, antibiotics resistant strains of bacteria and emergence of HIV infection for which there is no therapy. Longevity and changing life style have resulted in the increasing prevalence of noncommunicable diseases. Under nutrition, micro nutrient deficiencies and associated health problems coexisted with obesity and non-communicable diseases. The existing health system suffers from inequitable distribution of institutions and manpower. Even though the country produces every year over 17,000 doctors in modern system of medicine and similar number of ISM&H practitioners and paraprofessionals, there are huge gaps in critical manpower in institutions providing primary healthcare, especially in the remote rural and tribal areas where health care needs are the greatest. Some of the factors responsible for the poor functional status of the system are: Mismatch between personnel and infrastructure; lack of Continuing Medical Education (CME) programmes for orientation and skill up gradation of the personnel; lack of appropriate functional referral system; absence of well established linkages between different components of the system. In order to address these problems the centre and the states have embarked on structural and functional health sector reforms. However, the content and quality of reforms are sub-optimal and the pace of implementation is slow. As the country undergoes demographic and epidemiological transition, it is likely that larger investments in health will be needed even to maintain the current health status because tackling resistant infections and non-communicable diseases will inevitably lead to escalating health care costs. Last two decades have witnessed explosive expansion in expensive health care related technologies, broadening diagnostic and

therapeutic avenues. Increasing awareness and rising expectations to access these have widened the gap between what is possible and what is affordable for the individual or the country. Policy makers and programme managers realise that in order to address the increasingly complex situation regarding access to good quality care at affordable costs, it is essential to build up an integrated health system with appropriate screening, regulating access at different levels and efficient referral linkages. However, both health care providers and health care seekers still feel more comfortable with the one to one relationship with each other than with the health system approach. Another problem is the popular perception that curative and preventive care compete for available resources, with the former getting preference in funding. Efforts to convince the public that preventive and curative care are both part of the entire spectrum of health care ranging from health promotion, specific protection, early diagnosis and prompt treatment, disability limitation and rehabilitation and that to improve the health status of the population both are equally essential have not been very successful. Traditionally health service (both government and private) was perceived as a social responsibility albeit a paid one. Growing commercialisation of health care and medical education over the last two decades has eroded this commitment, adversely affecting the quality of care, trust and the rapport between health care seekers and providers. The private health sector has played a significant role in health service delivery right from the pre-independence days. At the time of independence public-private participation was in the form of government doctors being allowed private practice, an arrangement that continues even today in majority of states. To cope with the lack of medical teachers in the 1950s and 1960s many medical colleges appointed private practitioners as honorary teachers and honorary physician in teaching hospital but the number of such teachers declined with the increasing availability of full-time paid government teachers. At present, there is no uniform nationwide system of registering either practitioners or institutions providing health care in the private/voluntary sectors nor is there a mechanism for obtaining and analyzing information on health care infrastructure and manpower in these sectors at the district level. During the Ninth Plan a Standing Technical Advisory Committee headed by the Director General of Health Services was set up and the Central Bureau of Health Intelligence (CBHI) was given the task of compiling data on health care infrastructure and manpower at all levels in the private, voluntary, industrial, governmental and other sectors. So far, very little progress has been reported in this direction. Assessment of the quality of health care is often thought to be a value judgement but there are determinants and ingredients of quality, which can be measured. These include assessment of infrastructure and manpower, processes such as diagnosis and treatment or outcome such as case fatality, disability and patient satisfaction. Health care quality evaluation includes safety, effectiveness and timeliness of interventions. It must also include assessment of the performance of the system in terms of meeting the changing needs of the population to stay healthy and learn to live without illness and disability. In recent years, there has been increasing public concern over the quality of health care both because of increasing awareness of the population and the mushrooming of health care institutions particularly in the private sector. During 1990s, some initiatives were taken to address issues relating to quality of care e.g. inclusion of health sector under the Consumer Protection Act. Some states have attempted to provide a legal framework for the functioning of private health care institutions on the lines of the Bombay Nursing Home Registration Act 1949. These legislative measures have so far not been effectively implemented, partly because of the lack of objective criteria for defining 'quality of care' and the fear that enforcing such regulations may increase the cost of care.

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