

HEALTH FACILITY DISPARITIES AT PHC LEVEL:

A COMPARATIVE STUDY BETWEEN

ANDHRA PRADESH AND BIHAR

Author Name : Dr. N.Ravichandran;

M.A, M.Phil, PhD

Designation : Asst Maintenance Engineer

Office Address: Indian Maritime University,

Visakhapatnam Campus,

Gandhigram.

Visakhapatnam – 530 005.

Telephone (O): 0891- 2578360 to 64 (Ext 408)

Mobile : 09573259979

Email : ravichan8@gmail.com

ravichandrann@imu.co.in

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ABSTRACT

The establishment of Primary Health Centres in India started as early as in 1952, and over the last six decades it has undergone several changes to meet the increasing demand for health care services. During the Eighth and subsequent plans the emphasis was mainly on consolidation of existing health infrastructure rather than on expansion. The National Health Policy stressed on the provision of preventive, promotive and rehabilitative health services to the people thereby making a shift from medical care to health care in the rural areas. Services are provided through a network of integrated health and family welfare system and the health programmes have been restructured and reoriented from time to time to meet the objectives of the National Health Policy. Data were drawn from INDIA FACILITY SURVEY (Under Reproductive and Child Health Project) Phase – II, conducted during 2003. Totally 1225 sampled PHCs were considered for this study at Andhra Pradesh (380) and Bihar (845).

In line with this, the Ministry of Health and Family Welfare (MoHFW), Government of India (GoI) is implementing a Reproductive and Child Health (RCH) programme in the country. The primary aim of the RCH Programme is to bring all the RCH services within easy reach of the community. Primary Health Centres (PHCs) comprise the second tier in rural healthcare structure envisaged to provide integrated curative and preventive healthcare to the rural population with emphasis on preventive and promotive aspects. PHCs are established and maintained by State Governments under the Minimum Needs Programme (MNP)/Basic Minimum Services Programme (BMS) There were 23,236 PHCs functioning in September 2005 compared to 23,109 a year earlier, according to the Ministry of Health. Though the numbers appear to be increasing there is still a shortfall of about 16 per cent when compared to the required norms for PHCs.

The parameters of availability of infrastructure, staff, equipment, training and supplies have an impact on utilization levels and health outcomes in these States. In this regard, demand as well as supply side constraints are observed (on staff, infrastructure, equipment, training and supplies) which restrain the optimum utilization of existing health services in Bihar when compare to Andhra Pradesh state.

Key Words: National health policy, Primary Health Centres, health care, Reproductive, rural and medical care.

HEALTH FACILITY DISPARITIES AT PHC LEVEL:
A COMPARATIVE STUDY BETWEEN ANDHRA PRADESH AND BIHAR

Dr. N.Ravichandran, MA, M.Phil, PhD

INTRODUCTION

The establishment of Primary Health Centres in India started as early as in 1952, and over the last six decades it has undergone several changes to meet the increasing demand for health care services. Until the Eighth Five Year Plan, the emphasis was on the expansion of the health care establishment. However, during the Eighth and subsequent plans the emphasis was mainly on consolidation of existing health infrastructure rather than on expansion. The trust has been on qualitative improvement in the health services through strengthening of physical facilities like provision of essential equipment, supply of essential drugs and consumables, construction of buildings and staff quarters, filling up of vacant posts of medical and paramedical staff and in-service training of staff.

The National Health Policy stressed on the provision of preventive, promotive and rehabilitative health services to the people thereby making a shift from medical care to health care. The delivery of Primary Health Care is the foundation of the rural health care system and is an integral part of the national health care system. In the rural areas, services are provided through a network of integrated health and family welfare system and the health programmes have been restructured and reoriented from time to time to meet the objectives of the National Health Policy. In line with this, the Ministry of Health and Family Welfare (MoHFW), Government of India (GoI) is implementing a Reproductive and Child Health (RCH) programme in the country. The primary aim of the RCH Programme is to bring all the RCH services within easy reach of the community. The RCH Programme also aims to strengthen health infrastructure in terms of man power/trained staff and material/equipment and supply to provide good quality RCH services.

In India, the healthcare in rural areas has been developed as a three tier structure based on predetermined population norms. The sub-centre is the most peripheral institution and the first contact point between the primary healthcare system and the community. Each sub-centre is manned by one Auxiliary Nurse Midwife (ANM) and one male Multi-purpose Worker [MPW (M)]. A Lady Health Worker (LHV) is in charge of six sub-centers each of which are provided with basic drugs for minor ailments and are expected to provide services in relation to

maternal and child health, family welfare, nutrition, immunization, diarrhea control, and control of communicable diseases. Sub-centres are also expected to use various mediums of interpersonal communication in order to bring about behavioral change in reproductive and hygiene practices. The sub-centres are needed for taking care of basic health, needs of men, women and children. As per the figures provided by the MOHFW there were 146,026 sub centres functioning in September 2005.

Primary Health Centres (PHCs) comprise the second tier in rural healthcare structure envisaged to provide integrated curative and preventive healthcare to the rural population with emphasis on preventive and promotive aspects. (Promotive activities include promotion of better health and hygiene practices, tetanus inoculation of pregnant women, intake of IFA tablets and institutional deliveries.) PHCs are established and maintained by State Governments under the Minimum Needs Programme (MNP)/Basic Minimum Services Programme (BMS). A medical officer is in charge of the PHC supported by fourteen paramedical and other staff. It acts as a referral unit for six sub-centres. It has four to six beds for inpatients. The activities of PHC involve curative, preventive, and Family Welfare Services. There were 23,236 PHCs functioning in September 2005 compared to 23,109 a year earlier, according to the Ministry of Health. Though the numbers appear to be increasing there is still a shortfall of about 16 per cent when compared to the required norms for PHCs.

Community Health Centres (CHC) forming the uppermost tier are established and maintained by the State Government under the MNP/BMS programme. Four medical specialists including Surgeon, Physician, Gynecologist, and Pediatrician supported by twenty-one paramedical and other staff are supposed to staff each CHC. Norms require a typical CHC to have thirty in-door beds with OT, X-ray, Labour Room, and Laboratory facilities. A CHC is a referral centre for four PHCs within its jurisdiction, providing facilities for obstetric care and specialist expertise. There were 3346 CHCs in the country, almost a 50 per cent shortfall.

Most reports and evaluation studies point to the lack of equipment, poor or absence of repairs, improper functioning, or lack of complementary facilities such as 24-hour running water, electricity back-ups, and so on. The following conditions are necessary mandatory for a PHC

Infrastructure: Tap water, regular supply of water, electricity Telephone, toilet, functional vehicle, Labour room available, in-patient bed.

- Staff:** At least one Medical officer male, female and paramedical staff and Laboratory Technician.
- Supply:** IUD kits, delivery kits, EsOC kit, mounted lamp supply of OP, measles, IFA large and ORS.
- Equipment:** Deep freezer, B.P. instrument, Labour room equipment, autoclave, MTP aspirators and labour room table.
- Training:** Training includes only medical officers (Sterilization, NSV, IUD insertion, MTP and RCH foundation skills for 12 days duration).

OBJECTIVE

- 1. To assess the availability of critical inputs at PHC's as per the norms under RCH programme at Bihar and Andhra Pradesh states.**
- 2. To study the health facility disparities at PHC level between Bihar and Andhra Pradesh.**

METHODOLOGY

Data were drawn from INDIA FACILITY SURVEY (Under Reproductive and Child Health Project) Phase – II, conducted during 2003. Totally 1225 sampled PHCs were considered for this study at Andhra Pradesh (380) and Bihar (845).

PRIMARY HEALTH CENTRES

Primary health centres have the major responsibility of providing both preventive and curative health care services in the area. This includes delivery of reproductive and child health services, such as, antenatal care and immunization in addition to routine inpatient and outpatient services. Compared to District Hospitals or sub-divisional Hospitals, PHCs are accessible to a larger population, as one PHC is expected to serve 30,000 populations. However, just the availability of PHCS is not sufficient for the effective delivery of these services. They should also have essential infrastructure, staff, equipment and supplies.

Infrastructure

In Bihar, out of 845 surveyed PHCs, 78.8 percent of the PHCs are functioning from their own building. On contrast in Andhra Pradesh 96.6 percent of the PHC are functioning at own building. In PHCs where women are expected to get services like antenatal and postnatal

check-ups including internal examination and IUD insertions, and where women are admitted for delivery, sterilization or MTP, it is crucial to have at least one toilet. However, in Bihar about 30 percent of the PHCs have at least one flush toilet whereas in Andhra Pradesh overwhelming majority of the PHCs have at least one flush toilet facility (89.5 percent). In any health facility, continuous supply of water is a critical input. However, 16.3 percent PHCs in Andhra Pradesh have tap water facility and the same facility condition is worse in Bihar state with only 2 percent.

Table 1: Infrastructure Status of Primary Health Centres

INFRASTRUCTURE STATUS RCH-II (2003)	Bihar	Andhra Pradesh	All India
INFRASTRUCTURE FACILITIES	Percentage of PHCs having		
Functioning at own building	78.8	96.6	89.2
Toilet facility(Flush toilet only)	29.5	89.5	52.3
Tap water facility (Water Supply through Tap only)	2.1	16.3	23.5
Electricity connection	32.0	98.4	66.4
Labour room facility	27.0	87.4	48.4
Laboratory facility (At least one basic Laboratory)	68.0	89.2	45.6
Telephone facility	2.4	36.3	19.8
Vehicle Functional	21.9	43.2	22.8
At least one in-patient bed	3.9	92.4	71.3
TOTAL	845	380	9688

Provision of immunization to children and pregnant women is one of the important functions of the PHC. PHCs need electricity for purposes of lighting, operating equipment and for storage of vaccines at specified temperatures in a refrigerator/ freezer. However 34 percent PHC's in India and 68 percent of the PHCs in Bihar are functioning without electricity respectively. Again the Andhra Pradesh PHCs ranked third (98.4 percent) in terms of availability of electricity facility. In the context of the National population policy 2000 goal of eighty percent institutional deliveries, the availability of a labour room is a critical facility for a PHC. However, only 48 percent of the PHCs in India have a labour room. This proportion ranges from 27 percent at Bihar to 87.4 percent in Andhra Pradesh state. In the context of provision of RCH services, the availability of laboratory facility in PHC is most important to test blood and urine of the women seeking antenatal care, as well as for the diagnosis of RTI/STI among men and women. 68.0 Percent of the PHC's at Bihar and 89.2 Percent of the PHC's in Andhra Pradesh have at least one basic Laboratory facility. The PHCs are supposed to refer the complicated cases to higher health facilities, the telephone facility in PHC is very important. Poorly in Bihar just 2 percent of the PHCs have the telephone facility.

In the context of the out-reach programme of the PHCs and referral of the complicated cases to higher health facilities, the availability of a vehicle in running condition becomes a critical input. But only 23 percent of PHCs in India have a functional vehicle. This proportion for Bihar is 22 percent whereas in Andhra Pradesh it is about 43.2 percent. PHCs are supposed to provide medical services for in-patients and hence PHCs are expected to have at least six beds. 92.4 percent of the PHC's in Andhra Pradesh has at least one bed facility, whereas this condition is regretful in Bihar.

Staff Position

The availability of at least one Medical Officer on the role of PHC is absolutely essential. Almost two in every ten PHCs in India is functioning without any doctor. However, overwhelming majority of the PHCs in Bihar (98.1 Percent) is functioning with any one male or female doctor. On the other hand the percentage in Andhra Pradesh is low as 74.3. The inclusion of a lady Medical Officer on the PHC staff is advantageous maternal care services, as women can confide with a lady doctor easily. However, only 15 percent of the PHCs in Bihar have at least one lady Medical Officer. It is more than doubled in Andhra Pradesh (37.7 percent). It is necessary to have a Medical Officer within the PHC compound, for attending to emergency cases round the clock. But this is determined by the availability of staff quarters as well as the MOs desire to stay in the quarters. 62.3 percent of the MO is stayed at quarters within PHC compound at Bihar however this proportion for Andhra Pradesh is just 34.1 percent.

Table 2: Staff position at Primary Health Centres

STAFFS POSITION AND TRAINING STATUS RCH-II (2003)	Percentage of PHCs		
	Bihar	Andhra Pradesh	All India
Medical personnel	Percentage of PHCs with at least one		
Medical officer (male & female)	98.1	74.3	80.0
Female medical officer	15.1	37.7	15.5
Quarters occupied by MO	62.3	34.1	64.1
Para-Medical personnel			
Health Assistant			
Male	30.9	87.6	81.0
Female	35.7	88.7	85.3
Female Health Worker	80.0	100.0	89.6
Laboratory Technician	20.2	70.1	65.0

As far as the implementation of the RCH programme is concerned, male health workers have a role in popularizing the male methods of family planning among men and educating as

well as counseling men on RTI/STI and HIV (AIDS). They also expected to help female health workers in immunization sessions. The staffing pattern of PHCs includes male health worker, though only about 30 percent of the PHCs in Bihar have at least one male health worker, amazingly in Andhra Pradesh, 87.6 percent of the PHCs have at least one male health worker.

The health assistant (female) also known as ANM has a key role to play in the implementation of the RCH programme at the PHC as well as in the outreach activities of PHCs. At least four-fifths of the PHCs in all the states in south India and some other states have an ANM. Their availability varies from 36 percent in Bihar to 88.7 percent in Andhra Pradesh. But there is not a single PHC in Orissa with a female health assistant. Because of the difference in nomenclature of the PHC staff in different states and because of the possibility of some of the ANMs getting classified in some other category of female health workers, a new category called Female Health Worker (FHW) was created taking all the Public Health Nurses, Female Health Assistant and Female Multipurpose Workers. This shows that in Bihar state more than 80 percent of the PHCs have FHWs and this percentage is high in Andhra Pradesh (100.0 Percent).

Along with the laboratory for pathological tests the availability of a Laboratory Technician on the PHC staff is necessary. In India, 46 percent of the PHCs have a laboratory and 65 percent of the PHCs have a Laboratory Technician on their staff. On contrary in Bihar about 68 percent of PHCs have the laboratory facility however, only 20 percent of PHCs have the Laboratory Technician whereas these facilities are better in Andhra Pradesh.

Training Status of PHC Staff

The Training of PHC staff refers to the training received during last three years before the survey. In-service training in various components of RCH enhances the skills and utility of medical and paramedical staff in PHCs. Though PHCs are expected to provide facilities for conducting normal deliveries, MTP, sterilization and treatment of RTI/STI, very few PHCs have doctors trained for this specialization

Table 3: Training status of staffs at Primary Health Centres

STAFFS POSITION AND TRAINING STATUS RCH-II (2003)	Percentage of PHCs		
	Bihar	Andhra Pradesh	All India
Training status of Medical Officers	Percentage of PHCs having at least one MO received training during last three		

	years		
Sterilization	0.1	39.5	14.6
Vasectomy	24.0	13.9	10.8
Medical Termination of Pregnancy (MTP)	12.8	16.3	14.6
Reproductive and child health integrated training of 12 days duration	14.7	50.0	47.4
Training status of Paramedical Staff	Percentage of PHC having at least one Para-medical staff received training during last three years		
IUD insertion	88.9	62.6	56.2
Checking BP	17.3	99.5	43.0
CDD/ORT	39.9	99.7	52.7
UIP	54.0	99.7	56.7
CSSM	18.2	99.7	52.8
RCH	32.7	99.7	68.5
ARI	26.6	99.7	48.0

Among the study states, Andhra Pradesh PHC's Medical Officers (at least one) are moderately trained (except NSV) in conducting sterilization (39.5 percent) (tubectomy), MTP (16.3 percent) and RCH integrated training (50.0 percent) than the Bihar Medical Officers (0.1, 12.8 and 14.7 percent respectively). Similarly, the paramedical staff (at least one) in each PHC in India trained in IUD insertion, checking blood pressure, control of diarrhea CDD/oral Rehydration Therapy (ORT), Universal Immunization Programme (UIP), Child Survival and Safe Motherhood (CSSM) Programme, RCH Programme and Acute Respiratory Infection (ARI).

Table 4: Stock of selected items of health care of PHC's

STOCK POSITION RCH-II (2003)	% of PHCs		
	Bihar	Andhra Pradesh	All India
ITEMS	Percentage of PHCs having some stock on the day of survey		
<i>Contraceptives</i>			
Nirodh	50.4	51.3	59.1
Oral pills	50.1	48.4	58.4
IUD	53.0	47.1	56.3
<i>Prophylactic drugs</i>			
IFA (Large)	6.4	20.3	57.4
IFA (Small)	63.3	16.0	50.2
Vitamin A	61.4	15.5	50.9
ORS Packet	51.3	82.0	71.2
<i>Vaccines</i>			
BCG	17.4	86.3	45.2
DPT	15.0	93.0	48.5
OPV	17.3	91.0	49.1

Measles	16.0	92.4	48.1
DT	10.0	82.0	35.4
TT	16.0	92.4	48.8

Of the 845 PHCs in Bihar, almost half of the PHCs had stock of each of the three contraceptives (Nirodh 50.4, oral pills 50.1 and IUD 53.0). Whereas in Andhra Pradesh, around 47.1 percent of the PHCs have the stock of IUD, 51.3 percent had stored with Nirodh and about 48.4 percent of the PHCs have the stock of oral pills. With regard to IFA tablets (small and large) about three-fifth of the PHCs in Bihar have some stock on the day of survey. About 20.3 and 16.0 percent of the surveyed PHCs in Andhra Pradesh reported having some stock of each of the IFA (large) and IFA (small). 51.3 percent of Bihar PHCs show lesser proportion with the stock of ORS packets than Andhra Pradesh (82.0 percent). The availability of vaccines at Bihar PHCs was very poor (10-17 percent),

Regular Supply of Kits, Contraceptives, Vaccines

Under the RCH programme, PHCs in India are provided with a few instrumental/medicinal kits. PHCs also received a regular supply of contraceptives, vaccines and medicines. The survey reveals that only 7 percent of the Bihar PHCs are supplied with IUD insertion kit (kit G) and 38 percent of PHCs have and normal delivery kit (kit I). In contrast, more than 63 percent of PHCs in Andhra Pradesh PHCs are supplied with IUD insertion kit (kit G) and 62.4 percent of PHCs have and normal delivery kit (kit I). At all India level only 32 percent of PHCs had a regular supply of Essential Obstetric care drug kit and this proportion for Bihar was slightly lower than Andhra Pradesh(28.4 and 34.5 percent respectively).

Table 5: Regular supply status of different items at Primary Health Centres

STOCK POSITION RCH-II (2003)	% of PHCs		
	Bihar	Andhra Pradesh	All India
ITEMS	% of PHCs having stock on the day of survey		
IUD insertion kit	6.6	63.0	50.0
Normal delivery kit	38.2	62.4	50.0
Essential Obstetric care drug kit	28.4	34.5	32.2
Mounted Lamp 200W	2.5	7.6	7.1
Oral pills	82.7	100.0	94.6
Measles Vaccine	92.5	100.0	96.6
IFA Tab (large)	86.7	98.7	96.0
IFA Tab (Small)	85.4	98.3	95.8
ORS Packets	84.2	100.0	96.5

The mounted lamp (200 W) essential for the treatment of hypothermia, a common health problem among neo-natals, is supplied to only three percent of the PHCs in Bihar and 7.6 percent of the PHC's in Andhra Pradesh. The oral pills, measles vaccine, IFA tablets (large and small) and ORS packets are supplied to at least 80 percent of the PHCs in Bihar and hundred percent in Andhra Pradesh.

Equipments

Generally PHCs are supplied with certain essential equipment like MTP suction, deep freezer and vaccine and weighing machines autoclave, steam sterilizer drum, labour room table and equipment for the delivery of RCH services. Weighing machines is essential for the identification of low birth weight babies as well as for assessing the nutritional status of the infants and monitoring their growth. 66.9 percent of PHCs in Bihar can be weighed new born babies at the time of delivery, whereas this rate 91 percent in Andhra Pradesh. A similar proportion of PHCs at both the states have adult weighing machine for checking the weight of pregnant women during ante-natal visits. The availability of weighing machines for adult and infant in Bihar PHCs are not at satisfactory level when compare to Andhra Pradesh.

Table 6: Availability of selected equipment at Primary Health Centres

EQUIPMENTS AVAILABLE RCH-II (2003)	% of PHCs		
	Bihar	Andhra Pradesh	All India
ITEMS	Percentage of PHCs having functional equipment on the day of survey		
Infant Weighing machine	66.9	91.0	89.4
Adult weighing machine	66.5	97.6	89.5
Deep freezer	29.6	95.0	53.0
Vaccine carrier	39.4	97.6	68.1
BP instrument	82.3	84.5	85.3
Autoclave	82.5	89.3	82.0
Steam sterilizer Drum	87.6	91.0	88.6
MTP suction aspirator	17.5	69.6	62.8
Labour room table	74.3	96.0	91.2
Labour room equipment	47.6	98.8	93.3

A deep freezer is needed in PHCs for the storage of vaccines. Overwhelming majorities of the PHCs have the deep freezer (95.0 percent) in Andhra Pradesh and this proportion for Bihar PHCs is just 29.6 percent. Vaccine carrier is other important equipment; with 97.6 percent of the PHCs in Andhra Pradesh have the vaccine carrier, on the other hand only 39.4 percent have the vaccine carrier in Bihar.

Measuring BP is an essential component of antenatal care. Availability of a BP instrument is much better in both the states (82 in Bihar and 84.5 percent in Andhra Pradesh). Autoclave or steam sterilizer drum is absolutely essential for sterilizing needles, syringes and other instruments. The situation is much better than other equipments (around 87 & 91.0 percent) for both the states respectively. The provision of safe abortion services for women having an unwanted pregnancy is one of the functions of the PHCs. MTP suction respirator is the device using for conducting an abortion. About three-fifth of the PHCs in Andhra Pradesh have the MTP suction respirator at the time of survey date (69.6 percent). On the other hand, less than one-fifth of the PHCs have the MTP suction respirator in Bihar (17.5 percent).

Table 7: Performance of PHC's in Bihar, Andhra Pradesh and All India

SERVICES PERFORMANCE AT PHC RCH-II (2003)	% of PHCs		
	Bihar	Andhra Pradesh	All India
Services	% of PHC giving services (Last 3 months preceding survey)		
Delivery Conducted	53.7	93.2	58.1
MTP	7.2	11.3	6.1
Neo natal care	36.4	12.1	22.0
Children Treated for Pneumonia	43.2	8.2	53.0
Children Treated for diarrhoea	34.8	55.5	67.9
Sterilization	% of PHCs conducting (Last 3 months preceding survey)		
Male	5.4	44.2	8.7
Female	33.6	96.3	37.9
IUD insertion	55.4	91.8	65.1

The NPP 2000 set a goal of eighty percent deliveries should undertake at the institution. The availability of a labour room, labour table and labour room equipments are most important to achieve this goal. 52.4 percent of the PHCs at Bihar are not having labour room equipments on the day of survey whereas 74.3 percent of the PHCs have the labour room table. At the same time, all the 380 PHCs in Andhra Pradesh have labour room equipments (98.8 percent) and labour room table (96.0 percent).

Provision of various services to children and pregnant women is one of the important functions of the PHC. It is expected to provide services in the area of maternal and child health care, family planning and treatment of RTI/STI. In Bihar, only 54 percent of the PHCs conducted delivery during the last three months, whereas 93.2 percent of the PHCs in the Andhra Pradesh state conducted delivery during the last three months. Provision of MTP services is more or less the same and highly unsatisfactory at both the states. About 92 percent

of the PHCs in Andhra Pradesh have conducted IUD insertion during the last three months preceding the survey. Bihar shows the poorest performances where 55.4 percent of the women are inserted with IUD.

Table 8: PHC’s with adequate equipment available

EQUIPMENT AVAILABLE RCH-II (2003)	% of PHCs		
	Bihar	Andhra Pradesh	All India
Adequate of Supplies of			
Needles	0.1	49.7	61.9
Syringes	56.1	66.8	69.8
Syringes autoclave	56.8	83.2	62.4
Disposal item used	44.7	95.0	79.9

The needles, syringes, autoclave and disposal items have their own significance at the PHCs. The PHCs need all these items for day-to-day functioning and requirement. However, about half of the PHC’s in Andhra Pradesh are adequately supplies with needles.

In case all the items under the category are present, availability will be considered as hundred percent. Let us assume that there are 5 items under one category and one is absent. In this case availability index will be 80 percent (4 items present/5total). In this report, a facility is considered adequately equipped if availability index is 60 percent or more. It means that any 3 items should be present in case of 5 items category to classify the facility as adequately equipped. The main disadvantage of this simple procedure is an assignment of equal weight for all the items within the category. For example, in a category of paramedical staff nurse/ANM (female) and pharmacist get the same weight.

Table 9: Percentage of PHC’s with adequate equipment and critical inputs

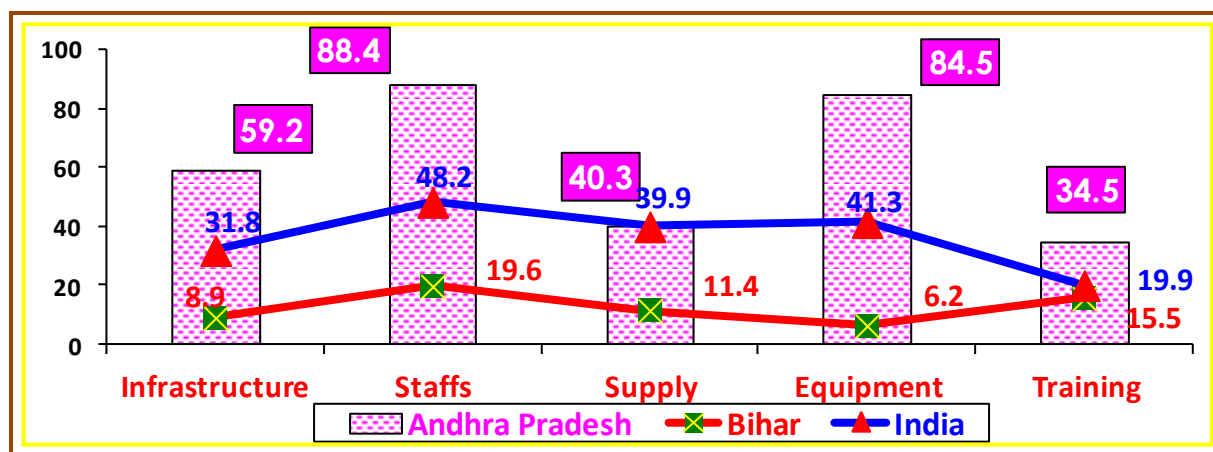
EQUIPMENT AND CRITICAL INPUTS RCH-II (2003)	% of PHCs		
	Bihar	Andhra Pradesh	All India
Percentage of PHC having at least 60 percent			
Infrastructure (includes tap water, regular supply of water, electricity telephone, toilet, functional vehicle and Labour room available)	8.9	59.2	31.8
Staff (includes Medical officers male, female and paramedical staff)	19.6	88.4	48.2
Supply (includes IUD kits, delivery kits, EOsc kit, mounted lamp supply of OP, measles, IFA large and ORS)	11.4	40.3	39.9

Equipment (includes deep freezer, B.P. instrument, Labour room equipment, autoclave, MTP aspirators and labour room Table)	6.2	84.5	41.3
Training (includes only medical officers on (Sterilization, NSV, IUD insertion, MTP and RCH foundation skills 12 days duration)	15.5	34.5	19.9

With respect to infrastructure facilities, only around 9 percent of the PHCs in Bihar having at least 60 percent infrastructure on the other hand 59 percent of PHCs in Andhra Pradesh have infrastructure facilities.

In Bihar, out of the 845 PHCs, only about one-fifth of PHCs (19.6 percent) have adequate staffs (Medical officer male, female and paramedical staff) on the contrary overwhelming majority of the PHCs (88.4 percent) in Andhra Pradesh have sufficient staffs. The situation of PHCs in terms of supplies of IUD kits, delivery kits, EOsC kit, mounted lamp supply of OP, measles, IFA large and ORS in Bihar PHCs are far from satisfactory, only eleven percent of PHCs have adequate supplies. Whereas these facilities in Andhra Pradesh is 40.3 percent and this is equal to national level (40.0 percent).

Fig 1: Percentage of PHC's with adequate equipment and critical inputs (at least 60 percent) in the states of Bihar, Andhra Pradesh and all India



Andhra Pradesh have two-fifth of supplies of IUD kits, delivery kits, EOsC kit, mounted lamp, supply of OP, measles, IFA large and ORS packets. In terms of supply of these kits Andhra Pradesh is better than Bihar.

The availability of deep freezer, B.P instrument, Labor room equipment, autoclave, MTP aspirators and labor room table are inadequate at the Bihar PHCs. Only six percent of the

PHCs at Bihar have adequate supplies of these six items, on the other hand less than ninety percent of the PHCs in Andhra Pradesh have adequate supplies of these six items. The situation of PHCs in terms of 12 days duration training on Sterilization, NSV, IUD insertion, MTP to the Doctors is far from satisfactory at both the states. The situation of PHCs, in terms of adequately equipped critical inputs (infrastructure, staff, supply, equipment and training) is marginal in Bihar states, whereas the PHCs in Andhra Pradesh have adequate infrastructure, staff, supply and equipments. On the whole, the pattern of adequacy in staff, infrastructure, equipment, training and supplies in Bihar PHCs are quite contradictory with Andhra Pradesh PHC's.

RESULT AND DISCUSSION

Besides two exclusive national health policies, there were nine expert committees, 11 Plan documents, 60 budgets and numerous Govt. orders that pronounced policies pertaining to health in India in the post independence era. But the healthcare experts and the health care providers are still increasingly concerned about the growing incidence of significant health inequalities. India's fight to lower maternal and child mortality rates is failing due to growing social inequalities and shortages in primary healthcare facilities.

It can be concluded from the above analysis that these parameters of availability of infrastructure, staff, equipment, training and supplies have an impact on utilization levels and health outcomes in these States. In this regard, demand as well as supply side constraints are observed (on staff, infrastructure, equipment, training and supplies) which restrain the optimum utilization of existing health services in Bihar when compare to Andhra Pradesh state.

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