

# Engaging Private Sector Partners (PSPs) for Radiology Services in Patna District, Bihar: An “Un” Sustainable Model of Health Services Delivery

Chandan Kumar\*

## Abstract

Involvement of Private sector partners (PSPs) in service provisioning gained momentum in many states in many states in India. National rural health mission (NRHM) announced in 2005, institutionalise the PPPs through its strategy to achieve health goals in the country. Since its implementation in Bihar, a large number of PSPs engaged with the state to provide clinical and non-clinical services. One of the reasons behind multiple partnerships in the health sector in Bihar is the inadequate public sector. Radiology services are one of them, which was started in 2006-07 and continued till date. There are multiple private actors engaged with the government to provide radiology services from public health facilities across Bihar.

The paper highlighted different models adopted by the government to engage PSPs for radiology services. Moreover, the article attempted to identify several challenges and opportunities of engaging PSPs in a particular context. The study adopted qualitative research design and data was collected in four health facilities of Patna district in the year 2012-13, revisited by the researcher in 2015-16. The study adopted purposive sampling. The primary data accessed through open-ended semi-structured in-depth interviews conducted with health administrators. Secondary data were also used extensively to substantiate the primary data. Some major findings of the study include local contracting is more effective in comparison to centralised contracting. The other important findings of the study weak public sector have

an opportunity to utilise National Health Mission (NHM) resources to strengthen its position against the private sector. Finally, weak monitoring and regulation of PSPs weaken the objectives underlined in the contractual agreement. A pragmatic approach needed in the engagement of PSPs to take care of needs of the public sector and its population.

**Keywords:** Public-private partnership (PPP), Private sector partners (PSPs), National rural health mission (NRHM), National health mission (NHM)

## Introduction

Traditionally, it's a state responsibility is to finance and provide health services in the country. The World Bank (WB) and International Monetary Fund (IMF) pushed the government in developing countries to accept Structural Adjustment Policies (SAP). The argument that was is to encourage “quality” and increase “efficiency” to achieve long-term economic growth and development (Qadeer, Sen and Nayar, 2001). The SAP measures arrived in the early 80s, significantly trim down the allocation in the social sector which was also evidently felt in the health sector. India, in the last two decades, experienced a downsizing trend in the financial allocation of resources from 1.05 percent of GDP in 1985 to 0.96 percent of in 2003-04 (GOI, 2005). These cuts are the precursor to the further expansion of the private sector into health care and the continued marginalisation of the public sector of the public sector, while the poor in India and other South

\* Centre of Social Medicine and Community health, Jawaharlal Nehru University, Delhi, India.  
Email: [chandantiss@gmail.com](mailto:chandantiss@gmail.com), [chandankumar044@gmail.com](mailto:chandankumar044@gmail.com)

Asian countries continue to depend upon this very public sector for medical care (Banerji, 2001, p. 47). It is the period when the private sector in health sector grows exponentially. In other words, the vacuum created by the public sector constantly filled the gap by the private sector. The private sector today in its diverse forms includes Non-government organisations (NGOs), quacks, and clinics, nursing homes hospitals managed by Multi-National Corporations (MNC) or in collaboration with them. Large sections of the population today visit these private facilities. During the 10<sup>th</sup> plan period, private participation gained greater legitimacy by stating the prominent role of the private sector in meeting the growing needs for health care services. PPP is seen in the context of viewing the whole medical sector as a national asset with health promotion as the goal of all health providers, private or public<sup>1</sup>. Therefore, a consensus was built upon the involvement of private sector and considered them as an equal stakeholder in the health service delivery.

The National Rural Health Mission (NRHM) announced in 2005, aimed to increase budgetary allocation in the health sector with special focus on improving primary health care. The NRHM adopted private participation as key supplementary strategies to achieve its goals (GOI, 2005-12). Lack of capacity in the high focus states (HFS) to implement multiple tasks coupled with the huge inflow of funds from Government of India (GoI) put pressure to increase the spending of health under NRHM necessitated the increasing role of PPP in health service delivery (Gupta, n.d). In this situation, public-private partnership (PPP) in its various forms became a prime strategy for spending the funds as well as for ensuring delivery of primary health services in poor performing state like Bihar (Gupta, n.d).

NRHM offers a formal channel to engage with the private sector. Bihar is amongst the HFS under the NRHM, introduced clinical and non-clinical services through engaging private partners. Diagnostic (Radiology and Pathology) services one of them in Bihar provided through involving private partners. Radiology services

like X-ray, Ultrasound, Computer tomography (C.T) scan, Magnetic resonance imaging (MRI) has been initiated by the state government at different levels in PPP mode. The private partners working with the state government are IGE medical system, Scimed and Medanta Hospital providing radiological services in the health facilities (PHC to MCH) in Patna district. However, the models adopted to engage PSPs are different from each other. The current article tries to analyse the multiple models of PSPs providing radiological services in different health facilities (PHC to MCH) of Patna district. There are very few studies in India particularly in the context of Bihar which has unravelled the multiple models adopted to implement radiology services in Patna district. Besides bringing out a debate on engaging PSPs in radiological services, the article attempts to examine the opportunities and challenges of engaging PSPs.

## Methodology

The study adopted for the current study is qualitative research design. The data were collected in four health facilities of Patna district in the year 2012-13 and revisited by the researcher in 2015-16. The primary data collection was through in-depth interviews with policymakers, administrators and private providers. Open-ended semi-structured in-depth interviews were conducted with health administrators and with staffs of PSPs. Purposive sampling adopted at every stage of data collection. The health institutions included were Primary Health Centre (PHC) Bikram, Sub-divisional Hospital (SDH) Danapur, Patna Medical College and Hospital (PMCH) Patna and Nalanda Medical College and Hospital (NMCH) Patna. Health institutions were chosen to cover the multiple models of PPP and similarity of models in other hospitals excluded from the study. Interviews supplemented by the qualitative tools of field observation employed during data collection. The secondary data used in the current study are Common Review Mission (CRM) reports, District Health Action Plans (DHAP), State Programme Implementation Plans (SPIP) and contractual agreements were employed to substantiate the primary source of information.

<sup>1</sup> Draft report on recommendation of task force on public private partnerships for the 11th five year plan.

**Table 1: Participants in the Study**

<i>Key Stakeholders at the Public (State, District and Health Facility Levels) and Private Sectors</i>							
<i>State level health officials</i>	<i>State program manager</i>			<i>Deputy collector- R/P</i>			<i>Total</i>
<b>Sub-Total-A</b>	1			1			2
<b>Health Facilities</b>	<b>Health personnel</b>						<b>Total</b>
	HM	HoM	MoIC	DS	CCMO	MS	
BPHC, Bikram	1	-	1	-	-	-	
SDH, Danapur	-	1	-	1	-	-	
PMCH	2	1	-	1	1	1	
NMCH	-	1	-	-	-	-	
<b>Sub-total-B</b>	<b>3</b>	<b>3</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>11</b>
<b>Private company staff</b>							
	Sub-contractor		Director, IGE Medical services			Total	
BPHC, Bikram	1						
SDH, Danapur	1						
<b>Sub-total-C</b>	<b>2</b>		<b>1</b>			<b>3</b>	
<b>Total- Sub-total A+B+C</b>							<b>16</b>
HM- Health manager, HoM- Hospital manager, MOIC-Medical officer Incharge, DS- Deputy superintendent, CCMO- Chief causality Medical officer, CPIO- Chief public information officer, MS- Medical Superintendent							

The participation of subjects under the study was voluntary, and informed consent was taken from the respondents at the time of interview. The respondent's identity anonymised for confidentiality at every stage of data collection.

The audio recorded qualitative data were transcribed and supplemented by the field notes. Qualitative data analysis organised in a stepwise manner started with a free listing, major theme identification and finally ends with a summary of the data. Semi-quantitative qualifiers have used the analysis. Adjectives used for responses less than 25 percent; almost half for 25-50 percent responses; majority for 50-70 percent; most for 75-90 percent and almost all were used for more than 90 percent (Dasgupta. et al., 2008). Finally, data generated from all sources were triangulated and thematic linkages for major findings. One of the limitations of the current study is the limited accessibility of programme data, especially contractual agreements.

## Major Findings

### Public-Private Partnership in Bihar

The public-private partnership is not a new phenomenon for Bihar, and it was started much earlier through family planning programme introduced in the country just after Independence. Many more development organisations, Bi-lateral and Multi-lateral organisations, Non-government organisations (NGOs) started working with the Bihar government during the period. The global endorsement after 1990, by the World Bank, WHO and other similar organisations reflects the ideological shifts to include PPPs in planning and implementation at local and national level. Bihar was not an exception during the 1990s especially the period known for governance deficit. Comptroller and auditor general (CAG) for Bihar (2003-04, p.31) pointed out that:

*Rural health care units failed to provide basic minimum services and bring about improvement*

*in referral linkages. The health care services in rural areas of the state were grossly inadequate. Shortage of medical officers and paramedical staff ranged up to 95 percent. There were huge shortages of health care units compared to the GOI norms. Infrastructure facilities, equipment and diagnostic facilities were lacking in most of the health units. The report concluded by saying that the health care services characterised by underspending against budget provisions which led to lack of basic and essential infrastructure like building, electricity, water, sanitation, machine and equipment, manpower, labour rooms etc.*

The white paper on state finances and development (GOB, 2005, p.32) noticed the poor condition of health services by saying “it can be said that the system of state delivery of health care has collapsed”. World Bank (2005) in its report suggested reform measures including PPPs to improve health service delivery. The “for-profit” and “not-for-profit” sectors continuously strengthen their position and emerged as major health services provider during the period. A majority of private “for-profit” sectors were providing clinical services through private clinics and nursing homes. The “not-for-profit” sectors were working either on disease control programme, family planning programme and reproductive and child health programmes.

The National Rural Health Mission (NRHM) launched in 2005, further NHM (2012-2017) to bring out architectural correction of the public health delivery system. Since NRHM, the state initiated many services (clinical and non-clinical) like pathology services, ambulance services, DHAP planning, Human resources at every levels, diet, laundry and cleaning services in the health facilities. Most of the unsuccessful PPPs projects were either discontinued or changes the private partners, mainly because it failed to deliver desired results. The state government constituted State health society; Bihar (SHSB) in 2005 and successive years District health societies (DHS) has been constituted in all districts of Bihar. The main idea behind creating SHSB and DHS is for speedy implementation of NHM, playing a key role in engaging PSPs in different programmes across the state.

## Public-Private Partnership in Radiology Services

The last two decade experienced a rapid diffusion of medical devices in the country. One reason could be the expansion of private health sector in the country. The public sector, not equipped with modern technologies for its effective use in precise diagnosis and treatment. The public sector depended on traditional medical technologies for diagnosis. The public sector in India invested very little in procuring adequate technologies, shortage of technicians; poor maintenance leads to underutilization of existing diagnostic technologies. Adequate modern diagnostic technologies are need of the hour for timely detection and proper treatment of diseases. In the last two decades partial presence of public radiological services fully capitalised by the private radiological services. Mahal and Karan (2009) pointed out that the rapid increase in modern technologies, particularly diagnostic devices likely to have contributed medical care expenditure inflation in India. The shrinking public sector and expansion of private sector push for new “PPP” arrangement through the policy paradigm. After Pharmacy and General hospital-Private, Diagnostic expenditure in 2013-14 was the major source (9.61%) of OOP expenditure in India (GOI, 2016). It includes both radiology and pathology services. The case of Bihar is not different in providing radiological facilities. The state has involved multiple PSPs in delivering radiology services, mostly X-ray, ultrasound, CT scan and MRI services within the hospital premises.

Radiology services in Bihar are much-needed services running in bad shape in public health facilities across the state. The services like ultrasound, CT scan, X-ray and MRI services are either not functional in the public health facilities or not catering to the proper needs of the population. The private diagnostic facilities are costly and unregulated. In the absence of radiology services in public health facilities, the patients increasingly depended on the unregulated private sector. Without any strict monitoring and regulatory framework for private sector and absence of public health measures in radiology, the patients coming to the public health facilities get partial relief. The state government and hospital administration operationalised the radiology services in the public health

facilities by engaging PSPs. NRHM provides a formal channel for utilising the financial resources by partnering with the private sector to radiology services.

The state government initially engaged private sector for providing radiology services (X-ray and ultrasound) from PHC to DH in 2006-07. The service has been extended to all 38 districts of Bihar through sub-contracting. Patna Medical College and Hospital (PMCH) is one of the oldest institutions of Bihar, located in the state capital. The total number of sanctioned beds in PMCH is 1675. In the past, the radiology services (X-ray, CT scan, ultrasound etc.), provided to the patients by the hospital. Due to non-functional CT scan services, the hospital administration in 2008-09, “contracted out” the CT scan services to Scimed, a Patna based firm. Nalanda Medical College Hospital (NMCH) has established in 1970 in Patna. The total number of sanctioned bed is 750. The location of NMCH is very important, at the junction of three highways connecting Barh, Gaya and Hajipur. The hospital location is prone to trauma (accident) related cases, but in the absence radiological facilities doctors refer the cases to other hospitals and in the meantime, golden hour of

saving any such patients is lost (The Telegraph, 2017). The hospital involved PSPs in delivering CT scan and MRI services. In all the three contracts the private (2<sup>nd</sup> party) is a provider of radiological services and public (1<sup>st</sup> party) limits itself to a regulator. The private either charge user fees (at AIIMS or CGHS rate) from the patients or reimbursed by the government (1<sup>st</sup> party) on behalf of services provided by the Private agency. At PMCH, the charges for CT scan as user fees from the patients range between Rs900 to Rs 3,400 depending on the body parts under the diagnosis. However, the market rate for the same test is between Rs 2,000 and Rs 8,000 (The Telegraph, 2017).

### Three Models of PPP in Radiology Services: An Overview

The study discusses three different models of Public-private partnership running in different public health facilities of Patna district. The same model is also adopted (with or without few changes) in other regions to involve private agencies in radiology services. Table 2, gives us an overview of the three models.

**Table 2: Overview of Contracts in Radiological services in Patna District**

Contract details	Scimed, PMCH	IGE medical system	Medanta Hospital
contractual agreement (Year)	2008-09	2006-07	2015-16
Duration	Ten years	One year, Renewed and extended for ten years in revised contractual agreement.	Ten years
Method of awarding contract	Open tender	----	Open tender
Service areas	CT scan and MRI	Radiology services ( X-ray and ultrasound)	CT scan and MRI
Implementing channel	The local contract for CT scan and state contract for MRI through SHS, B.	Sub-contracting	Tender through BMSICL.
Timings	24X7 services	24X7 services	24X7 services
Scope of contract	PMCH	38 districts. (From PHC to DH)	NMCH and DMCH
Condition before contracting	CT scan (Not in operation), MRI facility not available.	Non-functional in most of the places.	CT scan (Not in operation), MRI facility not available.
Arrangement	Contracting out	Contracting out	Contracting out
Mode of payment	User fee paid by patients (CGHS rate).	Reimbursed by the state government.	User fee paid by patients (CGHS rate).

Source: Primary source.

The SHSB (first party) get into a partnership with IGE medical system (second party) to deliver radiology services (X-ray and ultrasound) through sub-contracting (third party). The x-ray and ultrasound services are running in PHC to DH, through sub-contractors in all 38 district of Bihar. Since Patna district has no DH, the X-ray and ultrasound facilities provided by IGE medical system have been functional in PHC to SDH through multiple sub-contractors. Initially, user fees were charged from the patients, but after 2011, patients do not have to pay for the X-ray and ultrasound services and the agency get reimbursement from the government.

It is a local contract between the Hospital administration (PMCH) and the private agency for the functioning of round the clock services CT scan services. The Hospital administration provides space, electricity and water to run the services. The electricity bills will be paid on a monthly basis by the private agency. The private agency charges user fees fixed by the Hospital administration which is much lower than the market rate. The revenue generated from the user fees shared by both hospital administration and the private agency in 30:70 ratio. Recently in 2015-16, MRI services are also contracted out by the SHS, B to provide round the clock MRI services. The private agency for MRI is same (Scimed) implementing CT scan services, but the contract is between SHS, B and private agency (2<sup>nd</sup> party) instead of Hospital administration in case of CT scan. The hospital administration is just a stakeholder in the MRI contract. Under the contract, user fees charged from the patients by Central government health scheme (CGHS) rate.

NMCH is another public hospital in Patna, where the private agency is providing radiological services. MRI is the new facility for the hospital, but CT scan services are in a dysfunctional state, earlier the CT scan services were operational in the hospital. The tender for NMCH, floated by Bihar Medical Services and Infrastructure Corporation Limited (BMSICL) in 2015-16, a state-run organisation under the health department. However, the terms and conditions of the selected firms for MRI in PMCH and CT scan and MRI in NMCH is almost similar for responsibilities to run round the clock, maintenance and for paying for the facilities like space in the hospital premises and electricity consumption. The only difference is in NMCH, the private agency charge as per market rate

for private patients (patients those who are coming from private hospitals). Here the CGHS rate is applicable for CT scan and MRI in NMCH. Delhi NCR based Medanta hospital awarded the contract to provide both CT scan and MRI services in NMCH.

## Advantages and Disadvantages of the Three Models

The three models engaged in different health institutions of Bihar have its advantages and disadvantages. Their orientation is almost similar, but their operationalisation is different from each other. Let us discuss advantages and disadvantages of each model one by one.

### Sub-Contracting

In 2006-07, the SHS, B on behalf of the state government sub-contracted the radiology services from PHC to DH to IGE medical system initially for a year and renewed for another ten years. SHS, B is the first party, while IGE medical system is the second party under the contractual agreement. Adding to the complexity, the third party the sub-contractor also involved under the contractual agreement for implementation at PHC to DH. In a sense, the second party is working as a mediator between the first party (SHS, B) and the sub-contractor. During 2006-07, the public health infrastructure was very poor, and there were no X-ray and ultrasound services available in the health facilities (PHC to DH) across Bihar and Patna. One of the advantages of sub-contracting is an extension of the radiology services (ultrasound and X-ray) reaches to all 38 districts, although most of the urban areas covered and in most of the places, rural health facilities still waiting for sss-contractors to provide the radiology services. The services reached to PHC level in the next two years of implementation through sub-contracting.

*Through sub-contracting, we can able to provide services in a very less time. It is very difficult to operate without sub-contracting in all 38 districts within a year from PHC to DH. Moreover, sub-contracting also provides employability to hundreds of sub-contracts, so it not only provides X-ray services it is also a good and successful entrepreneurial model. – Head of a PSP*

The private provider claimed that sub-contracting is the only solution in the present situation and a pragmatic approach adopted by the government. Furthermore, the Private agency asserted that they could be able to provide radiology services due to sub-contracting and by performance, it will extend for another ten years.

The problem with sub-contracting is the involvement of three parties under the agreement. The sub-contractor has an agreement with the IGE medical system (second party) and no direct channel of communication with the first party (SHSB).

*Sub-contractor is not responsible to the government because their contract is with the contractor (second party). How can we expect they were responsible for hospital administration? So I suggest a system where sub-contractor was responsible for hospital administration and the government. – Health officials at SDH*

The contractual agreement between SHSB (GoB) and IGE medical system allowed for sub-contracting but their accountability towards the hospital/health administration (HA) is missing, and most of the HA claimed that sub-contractors ignore them. The other disadvantage of providing radiology services (X-ray and ultrasound) is weak monitoring system as HA has limited power.

### Local Contracting

The PMCH administration outsourced CT scan services to a Patna based private agency. It is a local contract between PMCH administration and private agency who are ready to provide day night CT scan services on the terms and conditions mentioned under the agreement. A more decentralised system of outsourcing adopted in case of local contracting, where hospital needs and requirements are in priority. In a sense, the local contracting take care of local needs and available resources for effective outcomes. This arrangement of involving PSPs has more advantages than disadvantages. For instance, the HA has proper authority to monitor the PSPs and timely advise in case of flaunting the norms contractual agreement. There is no confusion over the roles and responsibilities among the partners. The other important advantage is the BPL patients do not suffer because of good coordination and rapport between the partners.

### Centralised Contracting

In a centralised contracting, either state or any state institutions are in a contractual agreement with the PSPs. In case of MRI services at PMCH, SHS, B has an agreement with the Scimed (a private agency). At NMCH, BMSICL has a contractual agreement with Medanta hospital (a private agency) to provide CT scan and MRI services. SHS, B and BMSICL are state institutions constituted by Government of Bihar (GOB). The only advantage in the centralised arrangement is the availability of radiological services in the absence of public facilities in the hospital. But there are problems like limited coordination between private agency and Hospital administration. Though HA is a stakeholder under the contractual arrangement and confusions prevails persistently between the roles of HA and private agency. Under these circumstances, it is difficult to monitor private agency by local administration especially when there is a weak monitoring system. BPL patients suffer under this arrangement; they face an uphill task to convince the private agency to relax user fees norms. Moreover, the HA frequently gets complains against malpractices by the private agency which is a violation of the agreement. In the absence of poor regulatory mechanism and monitoring system, this is a real challenge for the HA to pressurise the private agency to abide by the rules mentioned in the agreement.

*In local contracting, one of the major advantages, I observed the monitoring and control of local administration (HA) on PSPs is more effective compared to centralised contracting. The other advantages of local contracting are flexibility in service delivery. These are the few reasons we are experiencing effective services in local contracting. One of the advantages of centralised contracting is the HA has no liability in case of failures of expected services provided by PSPs. -Hospital administrator at PMCH*

The private agency selected for MRI services in PMCH is same who provides CT scan services since 2008-09. In this case, only first party changes firstly HA and then SHS, B and the second party (private agency) are same. Due to good rapport and coordination, the HA and private agency didn't find any issue in providing services. However, in other health facilities, HA struggling to build up a rapport with the private partners whether it is at PHC to DH or NMCH especially refers to centralised contracting.

## Challenges and Opportunities of Engaging PSPs in Radiology Services

No doubt engagements with PSPs at least resume diagnostic services. At the same time, there are multiple challenges cropped up after the involvement of PSPs. Most of these challenges are contextual in the complex health system of the state. Let's discuss challenges and opportunities one by one.

**Table 3: Challenges and Opportunities for PSPs Involvement**

<i>Opportunities</i>	<i>Challenges</i>
Tapping NRHM resources	Weak public sector
PPP as a supplementary strategy of NRHM	Weak organisational capacities
Re-establish Radiology services	Weak monitoring and regulation
Quick implementation of services	Establishing a good rapport, coordination with local administration
State government starts a discussion on strengthening and extension of diagnostic services in Public health facilities.	Regular complains of flouting contractual agreements.

One of the major challenges today in Bihar is weak public sector, and the population is dependent on private sector. The health care services in Bihar is dependent on private healthcare services, and it is highest among the Indian states, the lowest government spending on health and an estimated 22 lakh household face "catastrophic" health expenditure (Sinha, 2016). High OOPE pushes them into extreme poverty and unable to spend on other essential commodities and basic nutrition. NRHM announced in 2005 is observed as an opportunity for Bihar to strengthen its public sector and make it a sustainable system to meet the requirement of the current and future generation.

Another opportunity in the context of PPP as an important strategy of NRHM to achieve the health goals, but due to weak organisational capacities, Bihar does not properly capitalise the resources and strategies provided by the NHM. The weak organisation is due to multiple factors, most important is huge shortages of health workforce at every level, weak infrastructure with inadequate capital investments. The state government after 2005, wanted

utilises the NRHM funds to re-establish the essential services like diagnostic services in most of the public health facilities in Bihar. There are not many options left for the government to opt for PSPs to provide radiological services. But the real challenge is the presence of dominant un-regulated private sector. There are many constraints in building partnerships with PSPs in the health sector. Baru and Nundy (2008) pointed out some of them like availability of an adequate number of players in the market, the framing of Memoranda of understandings (MOU); the administrative and organisational capacity of the system to define roles and regulate these partnerships; the impact of these partnerships on comprehensiveness and equity.

The PSPs are quick in establishing the system to provide the services mentioned in the agreement. However, there are many issues which come along during the time of implementation. One such major issues are the relationship between the stakeholders, proves important for smooth functioning of in partnership. The deteriorating relationship between hospital administration and PSPs, especially in centralised contracting witnessing as a stumbling stone in the partnership. The challenges are many, but the given opportunities of NHM resources in strengthening its infrastructure are only possible option to mitigate with these challenges. The long-term health goals in the state will be only achieved by investing and reducing dependence on PSPs.

### Way Ahead

Recently the multiple incidents in the two private hospitals of Delhi NCR making the headlines. In one case the private hospital charged 15.6 lakh for 15 days of dengue treatment in Gurugram, another charged 15.88 lakh for 21 days in similar dengue case, and A twin who was prematurely born on November 30 was declared stillborn, while one of them is still alive. In the absence of public health system, the aggressive presence of private sector increases the medical inflation in the country. The data released by National Health Profile (NHP) 2017 reflects that public expenditure is only 1.1 percent of Gross domestic product (GDP) which is lower, compared with World Bank income groups (GOI, 2017). Except for Bangladesh and Myanmar, the other SERO countries are doing more public expenditure on health as compared to

India. The data reflects that public expenditure on health is not increased substantially even after the implementation of NHM in the last one decade.

Today, there are instances; the predatory private providers come in partnership with the government. In the absence of strict monitoring and regulations, many of the PSPs challenges the norms mentioned in the contractual agreement. The country even miserably failed to implement the existing norms or bringing new legislation in the changing contexts. For instance, The union and state government since the existence of Clinical establishments (registration and regulation) act, only ten states and six union territories adopted fully or some partially. Many of the current malpractices can be addressed after its proper implementation. Similarly, the clinical establishment act in Bihar diluted and never acted seriously by the state government (Sinha, 2016). Secondly, due to weak organisational and technical capacity, the state government isn't able to monitor and make negotiation with the PSPs. The unequal power relationships between the public and the private dent the benefits out of it and poses serious on the sustainability of such partnership in future.

The success of engaging private partners in the health sector depends on many contextual factors and gets a mixed response around the world. In Bihar, there were many such partnerships started between government and private agencies after 2005, but most of them either under the court trial or failed to deliver formidable results. The question arises why it get failed or does not translate into expected results? The success rate of PPP is limited to few services. The 6<sup>th</sup> Common Review Mission (CRM) report to Bihar was critical of the diagnostic PPP and shows their concern about the quality and duplication of the same services in the public health facilities. But the question remains why the PPP policies are pushed even after limited evidence of success. In coming years we would expect more public investments in health, strictly implementation of the existing legislation and new legislation in changing contexts by the union and the state governments. It determines any partnership and future health of the country.

## Conclusion

The choices are limited for the government to re-establish the needed radiological services and utilise the NHM

funds. Contracting is intrinsically a politico-administrative process that requires more evidence to implement any PPP in unprepared settings. It not only disturbs the functioning of local (hospital) administration where most of them cannot adopt PSPs. The study reflects the current problem with the public health system in Bihar, and a sustainable model of health system requires more investments of resources to ensure quality and free health care to its citizens. It can only reduce the households OOPe to save its citizens to fall into debt trap and poverty.

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