

CHAPTER-IV: SETTING UP OF NEW AIIMS

4.1 Introduction

Projects for new AIIMS has three principal components viz. (a) construction works, (b) procurement of equipment and furniture and (c) recruitment of manpower. Construction works and procurement of equipment and furniture were divided into six packages. In addition, construction of residential complex was also taken up in each AIIMS.

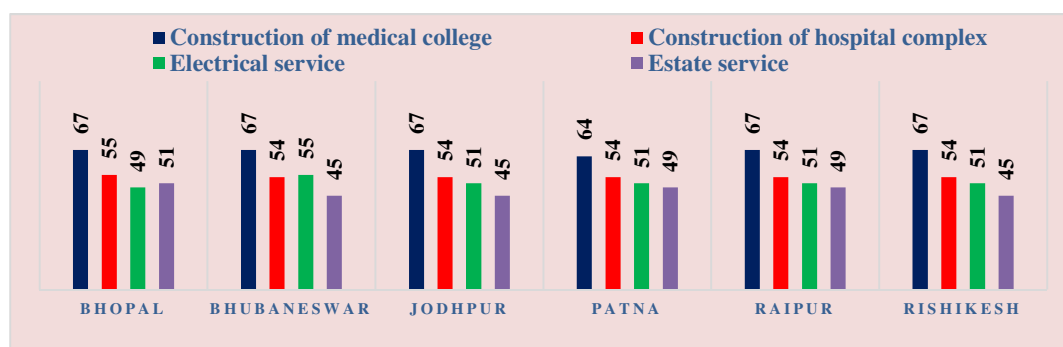
(A) Execution of works

4.2 Delay in implementation of Hospital, Medical College, Estate and Electrical Packages

Initial approval for the six new AIIMS was granted by the Government in March 2006 for completion within three years i.e. by March 2009. However, none of the works except those relating to residential complexes had even commenced within this period.

While approving revised estimates for the six new AIIMS in March 2010, it had been stipulated that the new AIIMS be set up within three years from the date of approval i.e. by March 2013¹. The scheduled dates for start of work under various packages were between May 2010 and July 2012 and the scheduled dates of completion were between August 2011 and July 2013. However, the target dates were not achieved in any of the new AIIMS and there were delays of about four to five years as depicted in **Chart-4.1**:

Chart-4.1: Delay in construction of new AIIMS (in months) as on 31 March 2017



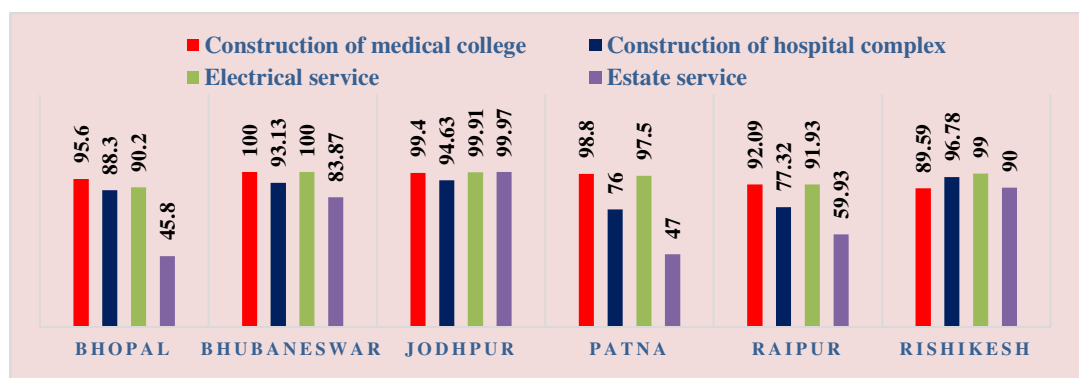
¹ CCEA had approved the revised proposal in March 2010.

New AIIMS in Raebareli

The CFA approved the setting up of a new AIIMS at Raebareli, under Phase-II of the PMSSY on 5 February 2009. According to the approval, the project was to be completed by the end of February 2012. However, no work on the new AIIMS except the work of housing complex had been started as on March 2017. The work of Residential and Hostel Blocks which was started in November 2013 and was scheduled for completion by February 2015, was still in progress.

Only two out of 24² packages i.e. construction of medical college complex and electrical works for **AIIMS-Bhubaneswar** had been completed. The physical progress of other packages ranged from 45.8 per cent to 99.97 per cent as shown in **Chart-4.2**:

Chart-4.2: Physical Progress of new AIIMS (Per cent)



The main reasons for the delays were preparation of erroneous Bills of Quantities, delays in issue of drawings by design consultants, delays in providing work sites, delays in clearance of deviations, extra items and substituted items, cash flow problems of agencies due to withheld payments due to delays in granting clearances, slow progress of work by contractors, vacancies in engineering positions in the Project Cell of the new AIIMS and abandonment of works by Project Consultants and delay in making alternate arrangements. These reasons were indicative of deficient project and contract management, administrative laxity and weak monitoring. It was incumbent upon the departments to take effective steps where necessary to mitigate the delays, remove bottlenecks and expedite the progress.

² 24 packages (four package each of six new AIIMS (i) Construction of medical college, (ii) Construction of hospital complex, (iii) Electrical service and (iv) Estate service.

Ministry attributed (February 2018) the delays to site-specific issues such as poor performance on the part of the consultants and failure of contractors to perform at desired levels. The reply of the Ministry is not acceptable as it was the responsibility of the Ministry to select competent consultants and ensure time bound completion of projects through better management and monitoring.

Effluent Treatment and Sewage Treatment Plants

A provision for Effluent Treatment Plant (ETP) and Sewage Treatment Plant (STP) was included under package-IV for each new AIIMS. Audit noted that works for package-IV were awarded only between February 2012 and July 2012. Further, construction of ETP and STP was delayed by more than four years and had not been completed at new AIIMS at **Bhopal, Raipur and Patna**. The ETP and STP at AIIMS **Bhubaneswar** though completed was not functional. Failure of the project authorities in these cases to synchronise construction and operationalization of ETPs and STPs exposed the Institutes to the risk of pollution and contamination from hospital effluents and posed a health hazard to patients as well as the visiting public.

4.3 Works relating to Residential Complexes

The Project Management Committee (PMC) had decided to delink work with regard to residential complexes at the six new AIIMS from the work of other packages and had commenced planning for the same in 2007 itself. It had initially proposed to undertake these works on “Engineering, Procurement and Construction” (EPC) basis. However, it could select an agency for undertaking work on this basis only in the case of new AIIMS Jodhpur. As a result, M/s HLL and M/s HSCC were nominated as consultants for two sites each and the consultants entrusted with the main packages were assigned this work at the remaining site. Construction agencies were selected at these five sites in July/August 2008 and the work commenced in September 2008 at four locations and in November 2008 at one location with scheduled completion within 18 months. Work has been completed at four AIIMS with delays ranging from five months to nearly three years. At the remaining site i.e. Bhubaneswar, one phase of the work is still to be completed. The main reasons for delay in completion of work relating to residential complexes were

disputes relating to land, site related hindrances, late commencement of work and slow pace of work by contractors.

4.4 Deficiencies in execution of works

While undertaking construction projects, it is vital that project costs are estimated based on applicable scales, schedule of rates/assessed market rates, prevailing site conditions and special requirements, if any, taking into account the nature of the project. It is also important that projects are thereafter implemented in terms of GFRs, manuals, guidelines and the contract so that costs and time lines are not exceeded. Audit noticed several deficiencies in execution of the projects with a total financial implication of ₹ 140.28 crore as detailed in succeeding paragraphs.

4.4.1 Improper estimation of quantities of items

Section 2.5 of the CPWD Works Manual states that a technical sanction amounts to a guarantee that the works proposals are technically sound and that the estimates are accurately prepared and are based on adequate data. In the case of three new AIIMS projects (**Patna, Rishikesh and Raebareli**), it was noted that there were deviations upto 150 times in the original quantities in actual quantities with respect to 127 items of work as compared to quantities given in the Bill of Quantities (BOQ) of the contract. The total monetary value of these deviations was ₹ 74.84 crore as detailed in **Table-4.1**:

Table-4.1: Deviation of items

(₹ in crore)

Sl. No.	Name of new AIIMS	Description of work	Number of items	Deviation in per cent	Amount incurred due to deviation
1.	AIIMS-Patna	Construction of medical college building and Hospital Complex (Package-I and Package-II)	1	158 to 173	41.68
2.	AIIMS-Rishikesh	Construction of hospital complex building (Package-II)	70	133 to 15,000	5.94
		Construction of hospital complex building (Package-II)	13	133 to 400	7.64
		Civil work, internal PH works and internal electrical work (Package-I)	30	132 to 900	6.62
		Construction of medical college building (Package-I)	1	195	10.78
		Construction of Hospital Complex, Estate Service (Package-IV)	4	109 to 2016	0.54
		Construction of Hospital complex (Package-II)	2	114 to 135	0.03

Sl. No.	Name of new AIIMS	Description of work	Number of items	Deviation in per cent	Amount incurred due to deviation
3.	AIIMS-Raebareli	Construction of Housing Complex including external development and service (Package-I)	6	134 to 853	1.61
Total			127		74.84

Avoidable expenditure of ₹ 3.75 crore on deviated items

Clause 12 of GCC applicable to contracts for works provides that deviation in quantity upto 30 per cent beyond plinth/foundation level and 100 per cent upto plinth/foundation level was permissible and beyond this limit payment was to be made at market rates.

In Package-II of **AIIMS-Jodhpur**, several items of work were executed beyond permissible limit and an additional amount of ₹ 1.76 crore was paid to contractors at prevailing market rates. The Institute admitted (June 2017) mismatch in quantity executed and the quantity in BOQ and attributed it to incorrect survey by the Design and DPR Consultants (DDPRC). Similarly, in Package-I and II of **AIIMS-Patna**, the quantity given in BOQ was not as per drawings which resulted in excess consumption of 6,855.40 MT of TMT Bars leading to an additional expenditure of ₹ 1.99 crore.

The extent of variation indicated inadequate technical scrutiny at the time of grant of technical sanctions as the quantities of items of work mentioned in the detailed estimates had not apparently been realistically estimated nor were based on field survey and site conditions. This led to payment of higher market rates to contractors than what was otherwise admissible under the contracts.

Ministry stated (February 2018) that actual execution of quantities always deviates from estimate as it is not possible to cater for all future circumstances. The reply of the Ministry is not tenable as such large deviations indicate unrealistic estimation of quantities and inadequate technical assessment and improper site surveys.

4.4.2 Excess payment to contractors

(a) Adoption of higher rates

As per Notice Inviting Tender (NIT), bids for construction of Medical College, Hospital Complex and Estate Services (Package I, II and IV) in four new AIIMS (**Bhopal, Jodhpur, Patna and Raipur**) were invited on percentage basis. The BOQ was prepared on the basis of Delhi Schedule of Rates (DSR) 2007 considering cost index at the rate of 13 *per cent* over DSR rates. The bids were processed between December 2009 and March 2012. CPWD had reduced the rate of some DSR items by issuing correction slips³ during the period March 2007 to November 2009. However, the corrected rates of some of the DSR items were not incorporated while preparing the BOQ resulting in excess payment of ₹ 9.28 crore to the contractors as given in **Table-4.2:**

Table-4.2: Excess payment due to adoption of higher rates in BOQ

(₹ in crore)

Sl. No.	Name of new AIIMS	Description of work	Excess payment to contractor
1.	Bhopal	Package-I, II and IV	2.08
2.	Jodhpur	Package-I, II and IV	1.35
3.	Patna	Package-I, II and IV	3.31
4.	Raipur	Package-I, II and IV	2.54
		Total	9.28

Further, scrutiny of records related to construction work of hospital complex (Package-II) at new AIIMS Raipur revealed that bids were invited on percentage rate basis. The Institute had however not taken price index for steel and cement for the period from May 2013 to August 2013 issued by CPWD into consideration. This resulted in excess payment of ₹ 1.84 crore⁴ to the contractor.

Ministry stated (February 2018) that as the NIT was called on percentage rate system, bidders quote their percentage after analysing their rates and costs. The reply of the Ministry is not acceptable as basic rate given in the NIT itself was inflated leading to rates quoted as a percentage of base rates being inflated.

³ Correction slips No. 1 of March 2007, No. 2 of November 2008 and No. 5 of November 2009.

⁴ ₹ 1.72 crore for steel and ₹ 0.12 crore for cement.

(b) Price escalation in violation of contract

An amount of ₹ 8.50 crore was paid to contractors due to excess payment of price escalation in new AIIMS at **Jodhpur** and **Patna** as discussed below:

AIIMS Jodhpur

- (i) Clause 10 CC of the agreement relating to Hospital complex (Package-II) stipulated that price escalation for civil component/electrical component shall be paid as worked out on the basis of All India Wholesale Price Index (WPI) for Individual Commodities/Group Items for the period under consideration. Further, price escalation for HVAC, lifts and internal electrical work was to be paid on the basis of WPI issued for air conditioners, lifts and electrical accessories. Audit observed that the price escalation paid to the contractor was not calculated as per the above provisions as indices for all commodities had been taken into account instead of indices for Individual Commodities/Group Items. This resulted in an excess payment of ₹ 5.03 crore.

The Institute stated that it was difficult or impractical to take into account indices for individual commodities. The reply patently untenable is it was incumbent upon the Institute to calculate the payments due to the contractor strictly as per the terms of the contract.

AIIMS Patna

- (i) As per the agreement with respect to Package II, payment for excess quantity upto 30 *per cent* was to be made as per agreement rates while payment for quantity beyond this was to be made as per market rate. Audit noted that though payment for excess quantity of TMT bars beyond 30 *per cent* was made at market rates which included escalation, an escalation of ₹ 1.15 crore was also allowed on this quantity of TMT bars. Payment of price escalation when payments were made on market rate was not correct as the market rate already had an in built element of escalation and this resulted in excess payment of ₹ 1.15 crore to the contractor.

Ministry stated (February 2018) that payment at market rates for excess quantity beyond 30 *per cent* was as per the Agreement. The reply is not

tenable, as audit has not questioned payment of market rate but the allowance of price escalation.

- (ii) As per contract entered into between Ministry and contractor for various works for AIIMS Patna, escalation clause was not applicable for heating ventilation and air-conditioning (HVAC) works. The work was to be executed on turnkey basis. The contractor in turn entered into a MoU with an air conditioning firm at an agreement value of ₹ 37.87 crore. Audit observed that the Institute paid price escalation of ₹ 2.32 crore in contravention of the agreement. Despite the excess payment, the work remained incomplete as of March 2017.

Ministry stated (February 2018) that the Empowered Review Committee of AIIMS Patna had changed the nature of work from turnkey to item rate work. Audit, however, observed that there had been no change in the contract terms and as such the payment has to be regulated as per the terms of the existing contract.

4.4.3 Poor contract management

(i) Repeated grant of time extension

The General Conditions of Contract (GCC) stipulates that time allowed for execution of works as specified in the contract shall be the essence of the contract and the contractor shall submit a time and progress chart for each milestone and get the same approved by the Department. Clause 5.3 of the GCC also stipulates that the contractor may request in writing for re-scheduling of milestones and extension of time (EoT). The Engineer-in-Charge (EIC) may give extension of time and re-schedule the milestones for completion of work. Repeated grant of extensions of time without due justification or without reference to any pre-determined milestones reflects a lack of concern for adherence to time lines and the need for early completion of works. Audit noticed the following:

- (a) Neither time nor progress charts had been submitted by contractors (Package-I, III, IV) in **AIIMS-Jodhpur** nor were any milestones fixed. Moreover, EIC/Ministry repeatedly granted provisional EoTs without any written request from contractors and without re-scheduling of milestones. The Institute stated (June and July 2017) that the competent authority could grant fair and reasonable EoT in terms of the GCC even if the contractor failed to apply for the same to keep the contract alive. The reply is not tenable as grant

of EoT appeared to be contractor driven though without any request from the contractor and non-submission of time and progress chart or milestones was reflective of the lack of effort on the part of the Institute in ensuring due adherence to time lines and clearly resulted in delay in project completion.

(b) Similarly, in the case of contract for Estate Services relating to new **AIIMS-Bhopal**, Clause 2 of the agreement provided that a penalty of nine *per cent* will be levied if the contractor failed to maintain required progress as per the terms of the contract and there were delays of work of six months. The contract was awarded to the contractor in February 2012 with due date of completion as 1 February 2013. The contractor did not complete the work within the stipulated time and was granted EoT eight times upto 30 June 2016. As the work still remained incomplete, the Institute rescinded the work in August 2016. The Institute stated that EoT case is being prepared by the project consultant and will be placed before the Empowered Review Committee for a decision on recovery of compensation.

(ii) Release of payments despite poor workmanship

In Package-I and Package-II of **AIIMS-Jodhpur**, contractors executed work of vitrified tile flooring as provided in BOQ at a cost of ₹ 11.61 crore. The contractors stated (June/July 2012) that they were not able to fix the tiles securely and sought approval for use of adhesive as per manufacturer's recommendations. The DDPR Consultant, however, attributed (March 2014) the matter to poor workmanship which was endorsed by the project engineers in February 2014 and November 2015. Audit noted that though the project authorities were aware of the problem since June/July 2012, they continued to release payments (July 2012 to November 2016) for the sub-standard work and had paid the full amount of ₹ 11.61 crore to the contractors. The Ministry stated (February 2018) that the contractors had re-fixed the tiles whenever required from time to time. However, on verification it was seen that while one of the contractors had re-fixed the tiles at its own cost, the other contractor which had been paid ₹ 5.72 crore for the work had intimated that it would raise a bill for the re-work done.

(iii) Excess release of Mobilization advance

Section 32.5(i) of the CPWD Works Manual stipulates that mobilization advance upto ten *per cent* of the tendered amount with a simple rate of interest of ten *per cent* can be sanctioned to contractor on specific request. This

provision is also included in the GCC applicable to contracts/agreements relating to new AIIMS. C&AG's Report No.19 of 2013 had highlighted (Para 6.2.3.3) incorrect release of mobilization advances to contractors in contracts for construction of residential complexes at new AIIMS at Bhubaneswar, Bhopal and Patna. Contract records for other works related to new AIIMS Bhubaneswar, Jodhpur and Raipur revealed excess payment of mobilization advances of ₹ 16.91 crore to four contractors as given in **Table-4.3:**

Table-4.3: Excess release of mobilization advance

(₹ in crore)

Sl. No.	Name of work	Contract value	10 per cent of contract value	Mobilization advance paid	Excess mobilization advance paid
AIIMS Bhubaneswar					
1.	Construction of Medical college	67.37	6.74	10.11	3.37
AIIMS Jodhpur					
2.	Construction of Medical college	66.39	6.64	9.96	3.32
AIIMS Raipur					
3.	Construction of Medical college	115.21	11.52	15.02	3.50
4.	Construction of Hospital complex	262.40	26.24	32.96	6.72
Total					16.91

Ministry stated (February 2018) that excess mobilization advance was paid due to financial crunch being faced by the contractors.

The reply is unacceptable as payment of mobilization advance have to be guided by the provisions of the CPWD works manual and the GCC and it is not for the department to extend financial assistance to contractors. Further, the justification given by the Ministry also raises doubts as to the efficacy of the assessment of capability including financial viability of contractors for execution of such works.

(iv) Excess payment of secured advance

As per the GCC, the contractor shall be entitled to secured advance up to 90 per cent of the assessed value of materials brought on the site during execution of the work. **AIIMS-Patna** paid secured advance of ₹ 3.79 crore to a contractor for excess quantity of TMT bars and cement at site in the construction of hospital complex (Package-II) which resulted in excess payment of secured advance of ₹ 1.49 crore as detailed in **Table-4.4:**

Table-4.4: Details of excess payment of Secured Advance

RA Bill No.	Qty. B/F from previous bill (MT)	Fresh Qty. brought since previous bill (MT)	Consumed in this bill (MT)	Balance outstanding qty at site (MT)	Difference as excess in OB in 24 RA Bill	Rate/MT given in 24 RA Bill (in ₹)	Excess payment as secured advance (₹ in lakh)
TMT bars							
23	457.519	313.096	373.37	397.245	282.955	31,244	88.40
24	680.2	146.99	0	827.19			
Cement							
23	501.85	569.9	246.75	825	1316.15	4,568	60.12
24	2,141.15	1,470.45	954	2,657.6			
Total							148.52

(v) Non-renewal of Bank Guarantee

Clause-I of the GCC stipulates that a performance guarantee will be submitted by the contractor. This guarantee will initially be valid upto the stipulated date of completion of work plus 60 days beyond that and shall get further extended upto the extended date of completion of work, if any. Audit noticed the following:

(a) Non-renewal of Bank Guarantee: In three works of **AIIMS-Jodhpur**, it was noticed that the Institute was not prompt in getting bank guarantees (BG) amounting to ₹ 15.62 crore furnished as performance guarantees renewed. As a result, these BGs expired though the work was still in progress as detailed in **Table-4.5:**

Table-4.5: Bank guarantee not renewed

Sl. No.	Name of work	BG Amount (₹ in lakh)	Stipulated date of work completion	Actual date of work completion	Date of validity of BG	Remarks
1	Hospital Complex (Package-II)	1,085.53	15-09-2012	In progress	30-04-2017	BG lapsed
2	Electrical services (Package-III)	216.91	18-12-2012	-DO-	31-12-2016	BG lapsed
3	Estate services (Package-IV)	259.22	03-07-2013	-DO-	30-09-2016	BG lapsed
Total		1,561.66				

Lack of bank guarantees undermines the ability of the Institute to enforce due compliance of contractual terms by the contractor in case of defects in work or poor performance.

(b) In **AIIMS-Bhubaneswar**, the work of DDPR Consultant was awarded to firm-A for ₹ 6.5 crore and Project Consultancy was awarded to the firm-B

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for ₹ 2.46 crore. In terms of the agreement, both the consultants were required to furnish bank guarantees amounting to five *per cent* of the estimated contract value. As per the GCC (Clause 5.19.1), if the agency failed to complete items of work under the contract by the stipulated period, it was required to pay compensation of a maximum of five *per cent* of the billed amount on account of such default. Clause 5.20 of the GCC further stipulated that the client also had the right to encash the performance security in the event of breach of agreement by the consultant agency. Both the firms abandoned their work during June 2015 after being paid ₹ 2.15 crore and ₹ 5.59 crore respectively. However, while records relating to BG submitted by firm-A was not available, the BG submitted by firm-B had lapsed in March 2015. In the absence of valid BGs, AIIMS-Bhubaneswar failed to enforce penal action in terms of clauses *ibid* of the agreement leading to a loss of ₹ 38.70 lakh i.e. five *per cent* of billed amount of ₹ 7.74 crore.

(vi) Avoidable/extra contractual payments

In **AIIMS-Jodhpur** avoidable and extra payments in violation of contract provisions were made in respect of works relating to Package I as discussed below:

(a) Clause 12.2 of GCC stipulated that in case of extra item(s), the Engineer-in-charge shall determine the rates for the same on the basis of a market analysis. In works relating to Package-I, substituted and extra items costing ₹ 1.31 crore were paid to the contractor (May 2017) without determining rates of these items on the basis of a market analysis and without the approval of competent authority.

(b) In the same package, the BOQ provided for fixing structural steel frame for dry cladding with cement concrete. However, during execution, this item was substituted by cement blocks without steel frame work. The Ministry directed (April 2013) recovery of ₹ 62.95 lakh from the contractor for the cladding without steel framework as substitution of the item constituted undue benefit to the contractor. This amount is yet to be recovered from the contractor as of March 2017.

(B) Installation and operationalization of equipment in New AIIMS**4.5 Overall status of procurement and installation of equipment**

Ministry appointed M/s. Hindustan Life Care Limited (M/s HLL) as Procurement Support Agent (PSA) for procurement of equipment for the six new AIIMS being established during Phase-I. The total estimated cost of equipment to be purchased was ₹ 1,200 crore (₹ 200 crore for each of the six new AIIMS) out of which ₹ 763.24 crore was released to M/s HLL (March 2017). The amount allocated for procurement of equipment, orders placed and the cost of equipment delivered as on March 2017 are shown in **Chart-4.3**:

Chart-4.3: Allocation of funds and value of equipment ordered*(₹ in crore)*

As per Ministry's order (July 2013), all procurement processes viz. procurement, inspection, quality assurance, delivery and installation were to be completed in three months for domestic items and in five months for global items. Further, equipment and machinery received in hospitals were to be installed and commissioned as per the time schedule prescribed in the purchase contract.

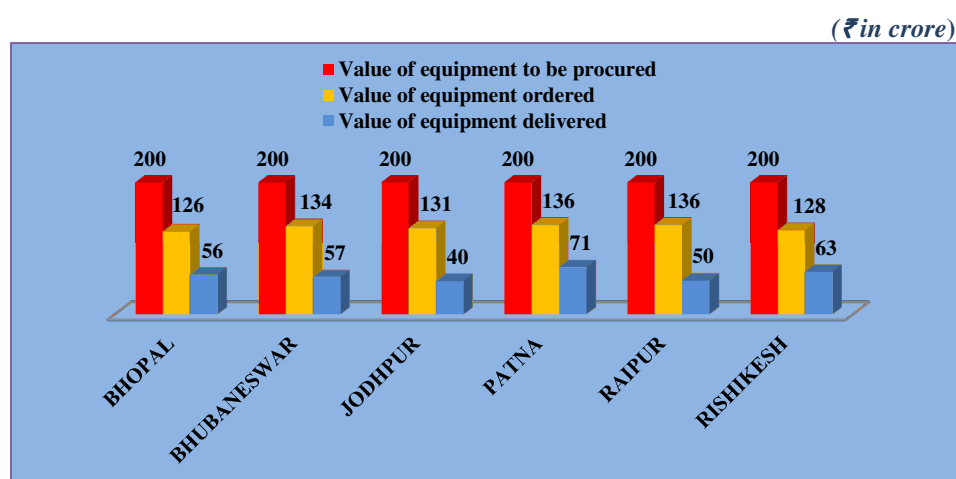
4.5.1 Inadequate assessment of requirement

AIIMS-Patna, procured 15 items such as hospital beds, hostel cots and Monitors costing ₹ 2.84 crore during January 2015 and September 2016 in excess of requirement. As a result, these items were lying unused for periods ranging from eight months to over three years.

4.5.2 Non-supply of equipment

The value of the equipment ordered and delivered against the allocation, institute-wise, as on March 2017 is depicted in the **Chart-4.4**:

Chart-4.4: Value of equipment ordered and delivered



Against procurement orders for 5,834 items of equipment (March 2017) costing ₹ 791 crore, 4,516 items equipment costing ₹ 337 crore had been received by the Institutions. Thus, 1,318 items of equipment (22.59 per cent) with estimated cost of ₹ 454 crore (57.39 per cent) remained undelivered as on 31 March 2017 for periods upto 25 months from the due date of delivery. It was evident that major items of equipment were yet to be delivered. The main reasons for delays were non-readiness of site, non-acceptance of equipment by the Institutes, reluctance on the part of vendors to make supplies due to delay in issue of delivery receipts/installation certificate for earlier supplies and delays in submission of invoices. Audit observed that such delays could be mitigated by prompt and timely administrative action and effective monitoring.

Delayed Supplies

In **AIIMS Raipur**, 58 items of equipment such as ICU ventilator, CT 128 slice, orthopaedic operation theatre and MRI machine valuing ₹ 44.46 crore were supplied with delays ranging between three and 23 months from the stipulated date of delivery.

4.5.3 Non-installation of equipment

A total of 195 equipment such as Heart-Lung machines, digital mammography, cardiac monitors, Bi-Plane DSA, CT 128 Slice etc. costing ₹ 72.04 crore that were delivered were not installed due to pending civil work, non-availability of site, non-availability of adequate space in the concerned department and non-availability of skilled manpower. These equipment were

consequently lying un-installed in the hospitals for periods ranging between three months and four years as on March 2017 as detailed in **Table-4.6:**

Table-4.6: Non-installation of equipment

Sl. No.	Name of new AIIMS	Number of equipment	Cost of equipment (₹ in crore)	Months for which equipment remained un installed
1.	Bhopal	9	10.38	13 to 42
2.	Bhubaneswar	12	3.41	03 to 42
3.	Jodhpur	58	3.56	07 to 27
4.	Patna	62	7.77	04 to 42
5.	Raipur	42	33.80	04 to 41
6.	Rishikesh	12	13.12	12 to 48
	Total	195	72.04	

Non-installation of equipment had resulted in delays in operationalization of the critical healthcare facilities and deprived patients of diagnostic/therapeutic benefits.

Ministry stated (February 2018) that the issues were being sorted out with the suppliers.

4.5.4 Delay in installation of equipment

There were delays ranging from three months to over three years in installation of 850 equipment costing ₹ 76.40 crore in four new AIIMS (**Bhopal, Bhubaneswar, Patna and Rishikesh**) as detailed in **Table-4.7:**

Table-4.7: Delay in installation of equipment

Sl. No.	Name of new AIIMS	No. of equipment	Cost of the equipment	Delay in installation of equipment (in months)
1.	Bhopal	4	0.30	15 to 26
2.	Bhubaneswar	284	25.28	3 to 42
3.	Patna	486	22.41	6 to 37
4.	Rishikesh	76	28.41	3 to 29
	Total	850	76.40	

Thus, the Institutes procured equipment without ascertaining the availability of space, manpower and infrastructure required for installation. Due to non-installation/delayed installation of medical equipment, patients were deprived of the benefits from medical equipment procured at a high cost. Further operationalization of key diagnostic and in-patient facilities would also have been adversely affected.

Ministry stated (February 2018) that procurement orders have been synchronized with construction and manpower recruitment and orders are now being placed centrally since 2016 to avoid such situations.

4.5.5 Non-functioning/non-utilization/under-utilization of equipment

Audit noted that 123 equipment costing ₹ 55.07 crore procured during July 2013 to December 2016 in four new AIIMS (**Bhubaneswar**⁵, **Patna**⁶, **Raipur**⁷ and **Rishikesh**⁸) were not functional or remained unutilised/underutilized as on March 2017 though installed.

Audit noted that the reasons for non-functioning non-utilization/under-utilization of the equipment were poor after sales service, equipment being defective at the time of installation, breakdowns and absence of required manpower for operating the equipment.

4.5.6 Deficiency in procurement of equipment

Rule 160 of GFR stipulates that all government purchases should be made in a transparent, competitive and fair manner to secure best value for money. Para (xiv) of Rule 160 of GFR further stipulates that contracts should ordinarily be awarded to the lowest evaluated bidder except where the lowest bidder is not in a position to supply the full quantity required. In that event, the remaining quantity may be ordered from the next higher bidder at the rates offered by the lowest bidder. Audit noted the following deviations from these stipulations:

(a) **AIIMS Patna**, purchased chairs at the rate of ₹ 4,767/unit from a firm even though another firm had quoted a lower rate of ₹ 2,919.75/unit. The firm quoting the lowest rate was excluded from financial evaluation by the Financial Bid Committee although it was technically qualified by the Technical Evaluation Committee (TEC). This resulted in excess payment of ₹ 16.62 lakh.

(b) In **AIIMS Rishikesh**, a tender was floated for procurement of 260 Fowler beds in December 2014. Ten bidders were found to be technically qualified for opening of their financial bids. Audit, however, noted that though the financial bids for all the qualified bidders were opened, comparative statement was prepared only for three firms while the remaining seven firms

⁵ 29 equipment costing ₹ 13.48 crore

⁶ 14 equipment costing ₹ 37.09 crore

⁷ 76 equipment costing ₹ 3.85 crore

⁸ Four equipment costing ₹ 0.65 crore

were not considered for financial comparison without assigning any reason. Based on the lowest rates from amongst the three bidders, a supply order for supply of beds was placed at the rate of ₹ 22,050 per unit in October 2015 on a Firm treating it as L1. The total value of the order was ₹ 57.33 lakh. Audit observed that another firm that had been technically qualified had quoted a lower rate of ₹ 12,450 per unit. Due to non-consideration of the bid given by this firm, AIIMS Rishikesh incurred an extra expenditure of ₹ 24.96 lakh on the procurement. Further, payments were made for the beds supplied even though the Inspection Committee of the Institute had found these beds to be not as per specifications.

Payment for substandard equipment

Rules 187 (1) and (2) of GFR stipulates that a technical inspection by a Technical Inspector or agency approved for the purpose before goods and materials are received and accepted to ensure that the quantities and specifications conform to that stipulated in the contract. Audit observed that **AIIMS Patna** procured 4D Color Doppler Ultrasound Machine worth ₹ 72 lakh in March 2014 from a firm. In June 2015, the Head of the Radiology Department pointed out that the machine procured was not as per the tender specifications as it did not have the facility of quantitative electrography and only recorded semi-quantitative measurements. The Institute thereafter asked the firm to upgrade the machine as per the stipulated technical specifications. The firm however, did not upgrade the equipment (July 2017). Thus, acceptance of substandard equipment by the Institute without proper technical inspection resulted in acquisition of an equipment worth ₹ 72 lakh that did not fully meet its requirements.

(C) Availability of Human Resources in new AIIMS

4.6 Shortage of Manpower

The Ministry sanctioned 305 faculty posts and 3,776 non-faculty posts for each of the six AIIMS. The position of sanctioned strength vis-à-vis person-in-position of faculty and non-faculty posts as of March 2017 in new AIIMS was as given in **Charts-4.5** and **4.6**:

Chart-4.5: Shortage of faculty posts

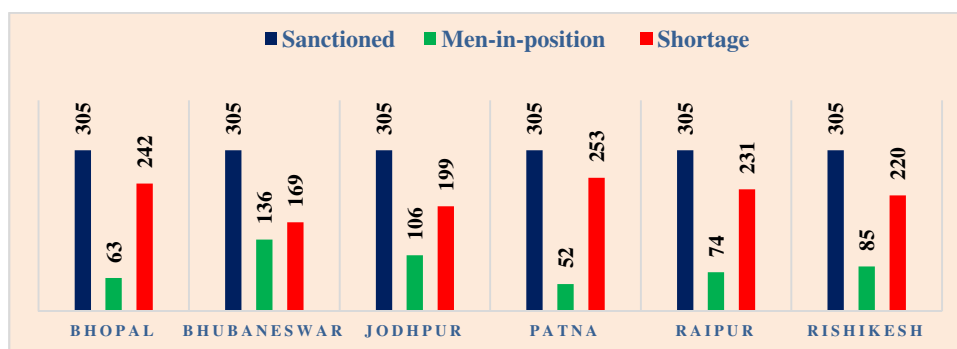
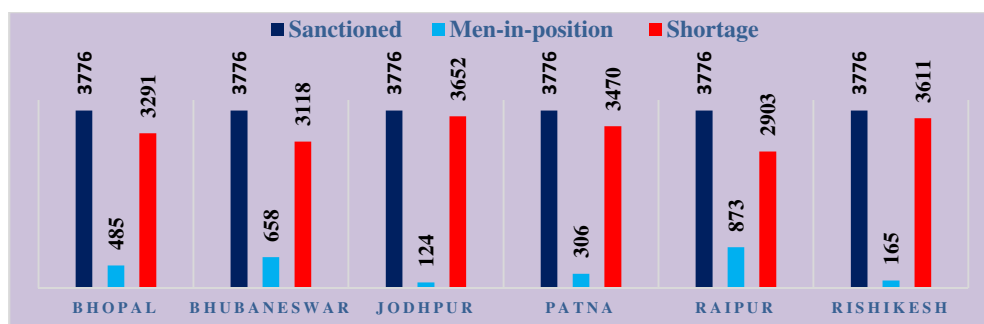


Chart-4.6: Shortage of non-faculty posts



The shortage against various faculty and non-faculty posts in different AIIMS ranged from 55 per cent to 83 per cent and 77 per cent to 97 per cent respectively. The shortages restricted the functioning of several departments and led to reliance on outsourced employees, additional load on doctors during OPD and for carrying out tests and ultimately failure to provide treatment of required quality to patients. The delay in filling up of posts were attributed to delay in finalizing recruitment rules, court cases, non-availability of eligible candidates and lack of synchronization of recruitment with development of infrastructure.

4.6.1 Outsourcing of staff without tendering

As per Rule 181 (b) of General Financial Rules, an advertised tender enquiry is required to be issued for award of any work or service valued at above ₹ 10 lakh. However, **AIIMS-Bhopal** engaged an agency for provision of manpower without tendering as stipulated in the GFRs. The Institute had paid ₹ 5.13 crore upto March 2015 to the agency in addition to service charges @ 1.96 per cent. The engaging of an agency for providing staff without following the GFR provisions for procurement of services was irregular and also deprived the Institute the benefit of competitive pricing.

4.6.2 Recruitment of staff and faculty without essential qualification

(i) **AIIMS-Jodhpur**, hired technical staff on contract basis from November 2013 to March 2017. As on 31 March 2017, a total of 228 technical staff were working in different departments on outsourced basis. It was observed that 37 of these personnel did not fulfil the essential technical qualification or experience as per terms and conditions of the contract but were providing technical services in laboratories. The Institute stated (August 2017) that it was very difficult to find technical staff due to the location of Jodhpur. The reply is not acceptable as unqualified staff providing services in medical establishments pose a risk to patients.

(ii) Scrutiny of 84 cases of recruitment of faculty in **AIIMS Bhubaneswar**, brought out that seven Assistant Professors and one Associate Professor were appointed though they did not have the prescribed teaching experience or academic qualification.

(D) Achievement against envisaged deliverables

4.7 Functioning of Hospital

Hospital facilities at all the six new AIIMS planned in Phase-I of PMSSY have commenced functioning from 2012-13. The data provided by the Ministry on OPD and IPD patient attendance in these new AIIMS during the period 2012-13 to 2016-17 is given in the **Table-4.8**:

Table-4.8: OPD and IPD attendance in new AIIMS since the start of their functioning

Name of the new AIIMS	Average OPD patient attendance per day					IPD patient attendance Annual				
	2012-13	2013-14	2014-15	2015-16	2016-17	2012-13	2013-14	2014-15	2015-16	2016-17
Bhopal	68	188	795	906	963	NA	NA	773	2,330	3,137
Bhubaneswar	223	456	856	928	1,242	9	626	5,204	8,252	NA
Jodhpur	-	148	582	837	1,214	-	-	2,316	6,298	9,950
Patna	-	203	613	931	1,018	-	-	2,043	3,458	4,501
Rishikesh	-	234	524	781	1,100	-	126	2,004	3,571	7,073
Raipur	NA	234	724	771	791	NA	105	1,875	4,281	6,050

Audit observed that the patient load in both OPD and IPD was increasing every year in each of the six new AIIMS. Thus, deficiencies in equipment and delay in opening of facilities and services would increasingly impact the delivery of required medical services to the patients.

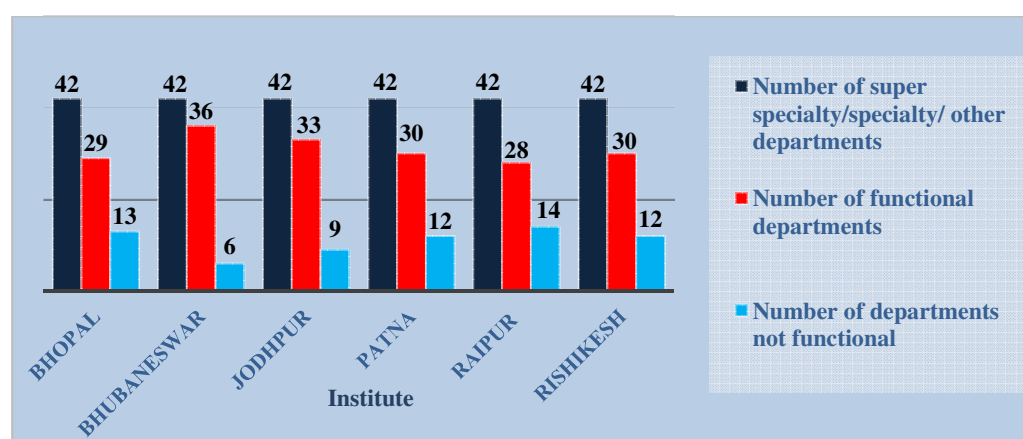
Non-functional OPD in AIIMS-Raebareli

In November 2013, the Ministry decided to start a temporary OPD at **AIIMS-Raebareli**. The construction work of the temporary OPD was completed in February 2014 at a cost of ₹ 4.71 crore. In March 2014, the Ministry sanctioned an advance of ₹ five crore to M/s HSCC for outsourcing required manpower and procurement of equipment to make the temporary OPD functional. However, as M/s HSCC neither procured equipment nor deployed any manpower, the OPD could not be made operational as of August 2017.

4.7.1 Non-functional departments

The scheme envisaged creation of 42 Speciality/Super-speciality/other departments in each new AIIMS. The position of actual creation of Departments as against the numbers planned is depicted in the **Chart-4.7**:

Chart-4.7: Number of functional departments



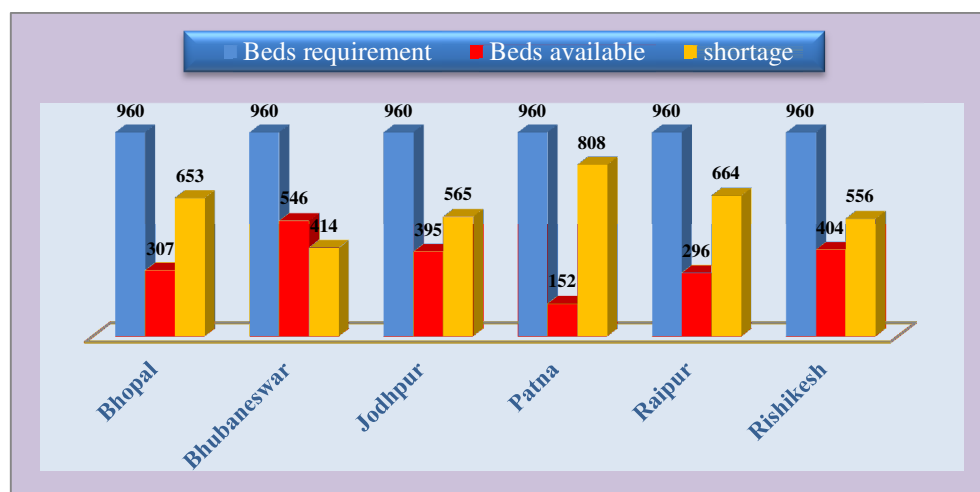
Thus, though all six new AIIMS were functional, six to fourteen speciality, super-speciality and other departments such as nephrology, cardio-thoracic & vascular surgery, gastroenterology, surgical gastroenterology and pediatric surgery in the new AIIMS have not become functional as a result of delays in construction work, shortage of manpower and shortfalls with regard to provision of equipment.

4.7.2 Shortfall with respect to availability of beds

A basic requirement for proper service delivery and quality patient care/treatment was the provision of adequate number of beds for patients. The

scheme envisaged that each new AIIMS would have a 960 bedded hospital⁹ and the scheduled dates of completion were between August 2011 and July 2013. However, only 152 to 546 beds were available as on March 2017 in these Institutes as depicted in the **Chart-4.8**:

Chart-4.8: Availability of beds in six new AIIMS



Thus, the shortage of beds in the new AIIMS ranged from 43 per cent to 84 per cent.

Ministry stated (February 2018) that the shortage of beds was due to the delay in construction of hospital complexes and due to shortage of faculty.

- In **AIIMS-Rishikesh**, AYUSH and Physical Medicine & Rehabilitation Departments were functioning without any bed whereas in the non-functional Oncology Department 12 beds were available.
- As per Medical Council of India norms, a teaching hospital was required to have a 500 bed capacity for 100 undergraduate students. However, **AIIMS-Patna** which takes 100 undergraduate students each year had only 152 beds in the hospital.

Audit Summation

Though all the six new AIIMS taken up in Phase-I had become functional, there had been delays ranging from about four to five years in setting up the new AIIMS that were attributable to deficient project and contract management, administrative laxity and weak monitoring. Certain residual

⁹ 500 beds for medical college hospital, 300 beds for Speciality/super speciality, 100 beds for ICU/Accident trauma, 30 beds for Physical medicine & rehabilitation and 30 beds for AYUSH).

works were yet to be completed. Deficiencies in execution of works including improper estimation of scope and quantities, extra payment to contractors and poor contract management had a financial implication of ₹ 140.28 crore including ₹ 39.96 crore as excess or extra payments to contractors. Several departments out of 42 sanctioned had not become functional in the new AIIMS and there were shortages of beds in the Institute hospitals ranging between 43 *per cent* and 84 *per cent*. The delays in procurement of equipment arose mainly from poor contract management as well as engagement of staff who lacked the requisite qualifications undermined the quality of medical services that were being delivered by these premier institutes that were expected to adhere to the highest standards of medical education and patient care.