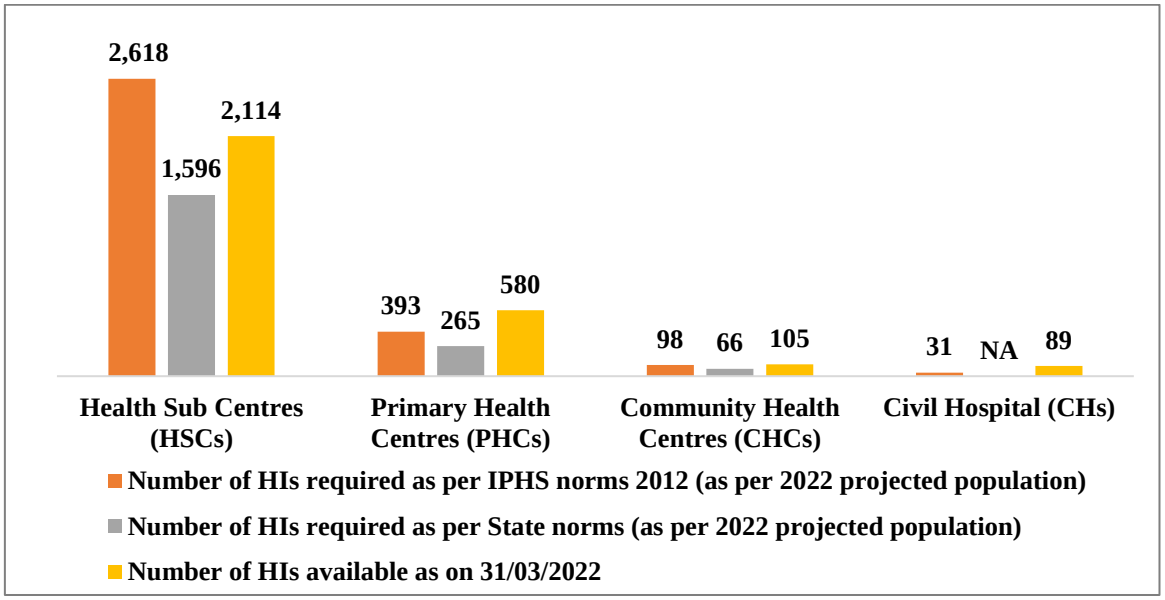
Chapter V: Healthcare Infrastructure

5.1 Availability of Healthcare Institutions (HIs)

IPHS norms 2012 for creation of HIs are based on population and geographical area. The State Government had not adopted IPHS norms but had notified (April 2016) new norms[1] for staffing/ population for opening/upgradation of new health institutions, covering the creation of CHCs, PHCs and HSCs except CHs in the State based on population in general and tribal areas[2] of the State (no norms notified for other parameters). The number of available HIs (HSCs, PHCs, CHCs and CHs) in the State as of March 2022 is shown in **Chart 5.1**.

Chart 5.1: Number of available HIs (HSCs, PHCs, CHCs and CHs) in the State as of March 2022



Projected population of Himachal Pradesh in 2022 as per Directory of HIs by GoHP (2022) is 78.53 lakh, In Chamba district, projected population as per Directory was 5.92 lakh which had increased by 22.52 *per cent* w.r.t to 2011 census. Projected Population of blocks Pangi and Bharmour for 2022 is calculated on the basis of increase of 22.52 *per cent* projected population of district Chamba w.r.t to population of 2011 as block-wise projected population of 2022 was not available in Directory 2022.

Source: As per information from Health Department.

As seen from the **Chart 5.1**, in Himachal Pradesh, the number of HSCs were less than that prescribed in the IPHS norms 2012 while other HIs (PHCs, CHCs, CHs) were more than the prescribed numbers. It was also seen that the number of HIs actually available were more than the State norms (HSCs, PHCs and CHCs). Audit observed that higher number of HIs did not translate into adequate facilities and manpower as discussed in Chapters II & III. Further, as of March 2023, 1,468 (530 PHCs, 938 HSCs) HWCs were operationalised against 2,136 (563 PHCs, 1,573 HSCs) notified HWCs as discussed in **Para 7.3.4.1**.

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1 HSC: (Tribal area: 3,000, General: 5,000), PHC: (Tribal area: 20,000, General: 30,000), CHC: (Tribal area: 80,000, General: 1,20,000).

2 Kinnaur district, Lahaul & Spiti District and Pangi & Bharmour blocks of Chamba District.

In addition to the above, there were 12 District Level Hospitals, six Medical College Hospitals (MCHs) (two MCHs in Shimla and Kangra were running prior to 2016-17 and thereafter four MCHs[3] were established during 2016-17 to 2021-22) and one Dental college functioning in the State. There was one private MCH namely Maharishi Markandeshwar Medical College and Hospital, Solan with bed capacity of 720 established in 2013. In addition to this, State Government established one Medical Super Speciality hospital at Chamiana, Shimla in September 2022 and four specialities namely Neurology, Endocrinology, Plastic Surgery and Radiology were made functional during March 2023. AIIMS, Bilaspur was inaugurated in October 2022 with a bed capacity of 750 beds in the State.

5.1.1 Increase in numbers of HIs in the State between 2016-17 and 2021-22

Addition of new HIs in the State between 2016-17 and 2021-22 is shown in **Table 5.1**.

Table 5.1: Addition of new HIs in the State between 2016-17 and 2021-22

HIs	Numbers in 2016-17	Numbers in 2021-22	Increase (*per cent*)
DHs	12	12	-
CHs	59	89	30 (50.85)
CHCs	89	105	16 (17.98)
PHCs	538	580	42 (7.81)
HSCs	2,083	2,114	31 (1.49)

Source: As per Annual Administrative Report for 2016-17 and department reply for 2021-22.

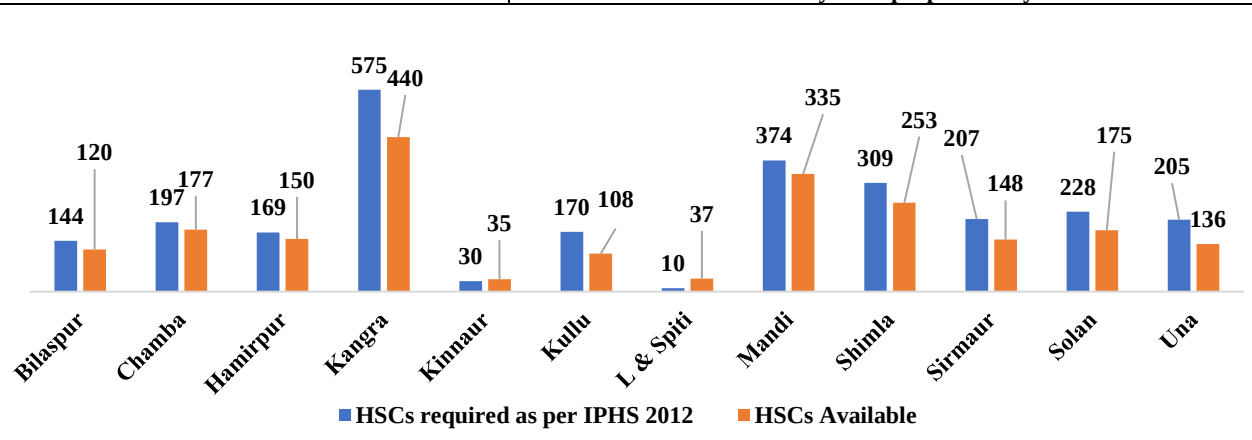
As seen from **Table 5.1**, the number of DHs had remained constant in the State, whereas increase in the number of CHs, CHCs, PHCs and HSCs was by 50.85 *per cent*, 17.98 *per cent*, 7.81 *per cent* and 1.49 *per cent* respectively.

5.1.2 Availability of HIs in all districts in the State

The availability of Primary and Secondary HIs (HSCs, PHCs, CHCs and CHs) in all districts w.r.t IPHS norms 2012 are shown in **Chart 5.2**.

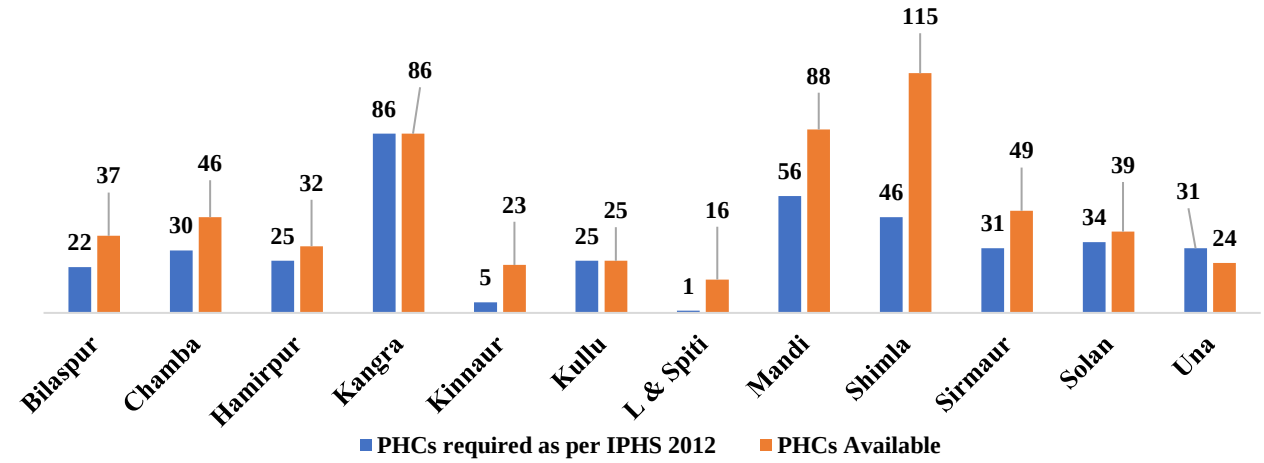
Chart 5.2: Number of HIs available w.r.t IPHS norms 2012 in all districts as of March 2022

HIs	IPHS norms 2012
HSC	One HSC for every 3000 people in hilly/tribal areas

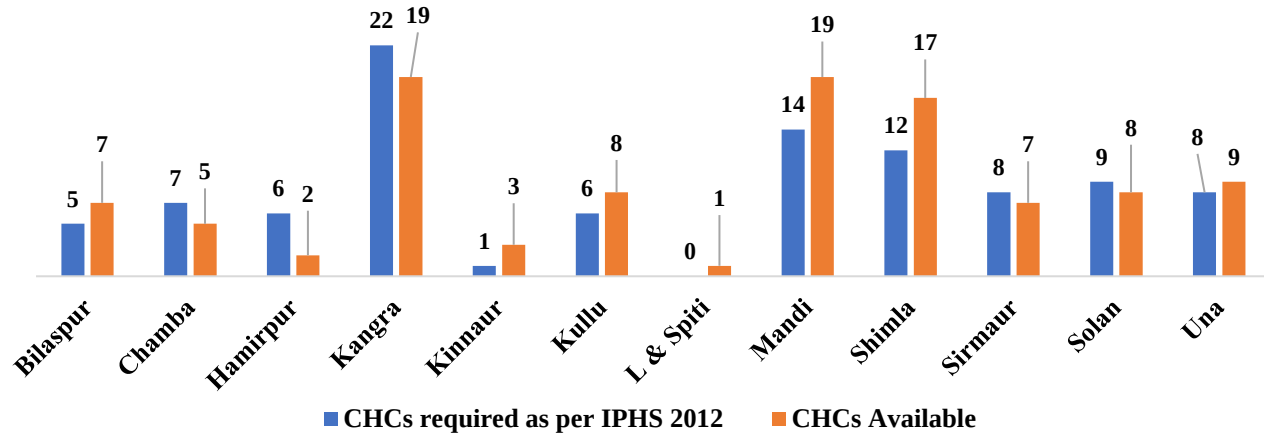


[3] YSPGMC Nahan- 2016, RKGMC Hamirpur- 2018, SLBSGMC Mandi- 2017 and PJLNGMC Chamba- 2017.

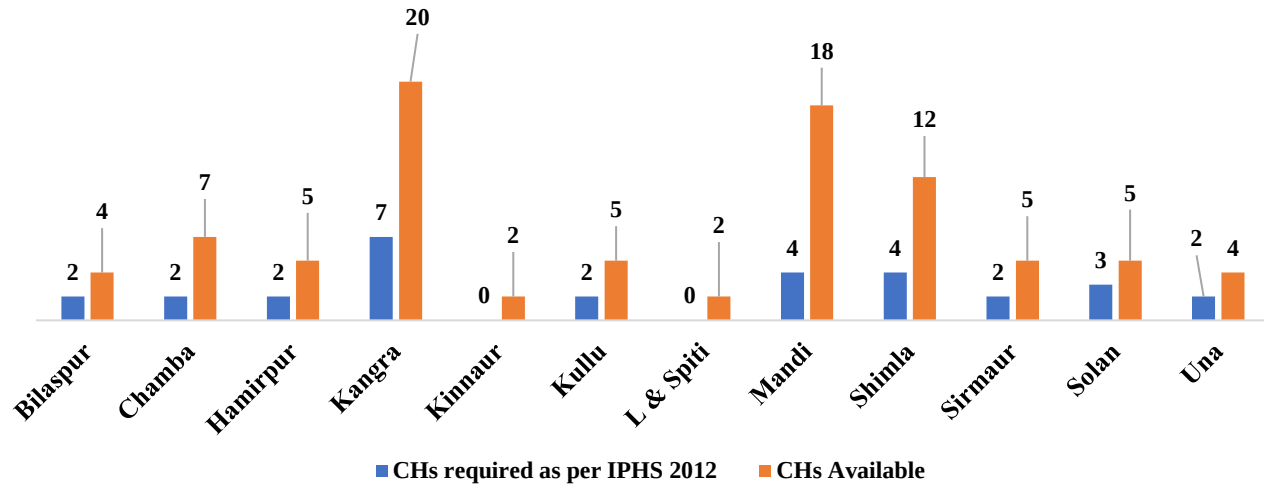
PHC	One PHC for every 20,000 people in hilly/tribal areas



CHC	One CHC for every 80,000 people in hilly/tribal areas



CH	One CH for every 2.5 lakh people



Source: Health Department directory 2021-22, HP.

From **Chart 5.2**, it can be seen that:

i. HSCs were less when compared to IPHS norms 2012 in all districts except in Kinnaur and Lahaul & Spiti.

ii. PHCs were more than or equal to IPHS norms 2012 in all districts except Una.

iii. CHCs were less in five districts[4] and more in seven districts[5] when compared to IPHS norms 2012.

iv. CHs were more when compared to IPHS 2012 norms in all the districts.

It was noticed that the number of HIs at every level in all districts were more w.r.t IPHS norms 2012 except in HSCs and CHCs, but the available facilities and infrastructure to be provided were not adequate as described in the succeeding paragraphs.

5.1.3 Distribution of HIs in selected districts

Details of distribution of HIs in the selected districts as of March 2022 are shown in **Appendix 5** and based upon the data, it was noticed that:

- In Kangra district, maximum number of HIs (25.13 *per cent*) were present in three[6] areas. The areas with least number of HIs (three[7]) comprised only 15.22 *per cent* of total HIs.
- In Solan district, two[8] constituencies had 49.78 *per cent* HIs while one[9] out of five constituencies has less than 15 *per cent* HIs.
- In Kinnaur district, there is only one constituency, having one DH, two CHs, three CHCs, 23 PHCs and 35 HSCs.

  Thus, in Kangra and Solan districts, there was lack of uniform distribution of HIs.

5.1.4 Availability of residential accommodation (DHs, CHs, CHCs and PHCs)

5.1.4.1 DHs

As per IPHS norms 2012, all essential medical and para-medical staff should be provided with residential accommodation. If accommodation cannot be provided due to any reason, they should stay in the vicinity, so that essential staff is available 24x7.

In the three selected DHs, it was noticed that as on 31 March 2023, residential accommodation was available only for 32 doctors out of 97 doctors and 38 out of 236 nurses and paramedical staff as detailed in **Appendix 6**.

In the Exit Conference (January 2023), the Secretary (Health) stated that the matter of accommodation of the doctors and staff will be looked into and necessary action will be taken in this regard.

5.1.4.2 CHs

In the six selected CHs, it was noticed that as on 31 March 2023, residential accommodation was available only for 12 doctors out of 71 doctors and 16 out of 169 nurses and paramedical staff as detailed in **Appendix 6**.

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4 Chamba, Hamirpur, Kangra, Solan and Sirmaur.
5 Bilaspur, Lahaul & Spiti, Kullu, Kinnaur, Mandi, Shimla and Una.
6 Baijnath (50), Jaisinghpur (46) and Sullah (46).
7 Kangra (28), Indora (29) and Dharamshala (29)
8 Arki (58) and Nalagarh (55)
9 Kasauli (34).

5.1.4.3 CHCs

In the seven selected CHCs, it was noticed that as on 31 March 2023, residential accommodation was available only for nine doctors out of 34 doctors and 16 out of 64 nurses and paramedical staff as detailed in **Appendix 6**.

5.1.4.4 PHCs

As per IPHS norms 2012, decent accommodation with all amenities like 24-hours water supply, electricity etc. should be available for Medical Officer, nursing staff, pharmacist, laboratory technician and other staff. If the accommodation cannot be provided due to any reason, they should be staying in the vicinity of PHC so that they are available 24 × 7, in case of need.

In the selected PHCs, it was noticed that in case of eight[10] out of the selected 17 PHCs, residential accommodation was available as on date of audit.

5.1.5 Joint physical verification of PHCs/HSCs

IPHS norms 2012 prescribe that PHCs/HSCs should have their own building located in an easily accessible area.

During test check of records and as per information provided by the Medical Officer, PHC Chamia (Solan District), it was noticed that the PHC was previously running in three rooms, which were in deteriorating condition as seen in **Picture 5.1**. The building got damaged due to heavy rains in August 2018 and the roof of the building was damaged as 2/3rd of the ceiling had fallen off. The PHC was shifted to Panchayat building having two rooms only as seen in **Picture 5.2** during December 2019. Thus, the PHC did not have its own permanent building for attending to the patients.

During joint physical verification of PHCs and HSCs, Audit observed abandoned quarters in PHC Chhausha (Solan District) as seen in **Picture 5.3,** and dilapidated buildings of HSC, Boh and Basnoor (Kangra District) as seen in **Pictures 5.4** and **5.5** respectively.

		
Picture 5.1: Old building of PHC Chamia in need of repairs	**Picture 5.2: PHC, Chamia currently running in two rooms of GP Bhawan**	**Picture 5.3: Abandoned quarter at PHC, Chhausha under BMO Syri**

[10] PHCs- Chari, Seon, Darini, Spillow, Rakchham, Chhitkul, Bheri and Bandian Khopa.

		
Picture 5.4: HSC Boh	**Picture 5.5: HSC Basnoor under BMO Shahpur**	**Picture 5.6: HSC Bhaled running in one room of GP Bhawan under BMO Shahpur**

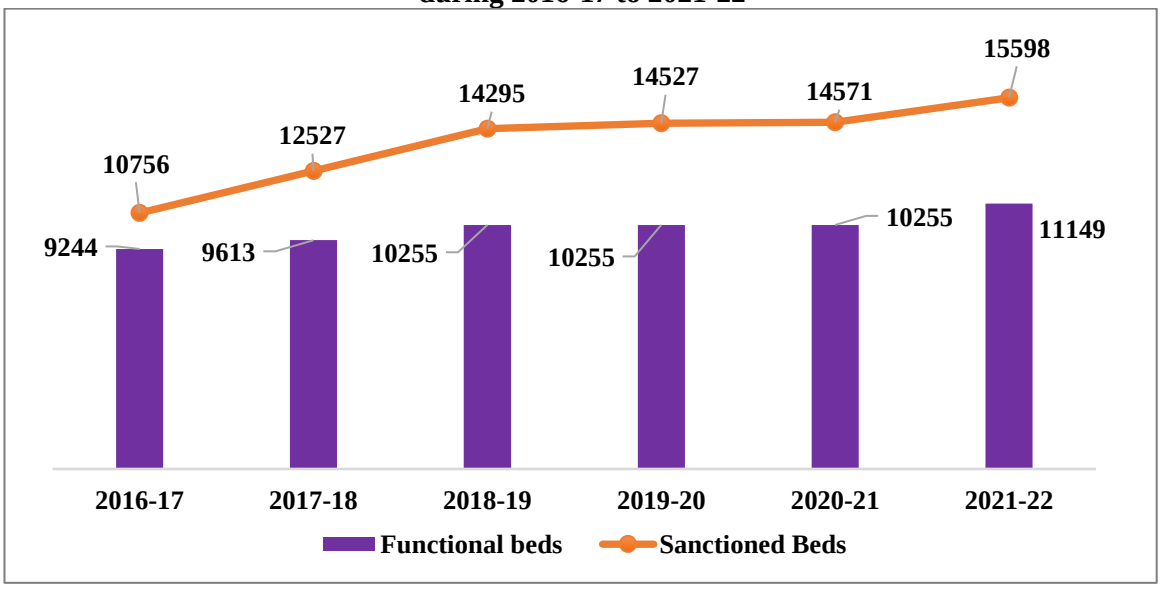
Also, Audit noticed during joint physical inspection that nine[11] out of 32 selected HSCs[12] did not have their own buildings and were running in private/other departmental buildings. HSC Bhaled (Kangra District) was running in one room of Panchayat Bhawan as seen in **Picture 5.6**.

5.2 Availability of beds in HIs (DHs, CHs, CHCs and PHCs) in the State

IPHS norms 2012 prescribe that the total beds required in HIs (DHs and CHs) should be based on local population. In case of CHC, 30 beds and in PHC, 4-6 beds should be available. The Department had neither prescribed any standard/criteria nor adopted IPHS norms 2012 for providing hospital beds in the HIs.

In the State of Himachal Pradesh, the number of functional beds available against the sanctioned beds during 2016-17 to 2021-22 is given in **Chart 5.3**.

Chart 5.3: Availability of functional beds in the State against the State sanctioned beds during 2016-17 to 2021-22



Source: Director Health Services

From **Chart 5.3**, it can be seen that the number of functional beds was not in conformity with the sanctioned beds during 2016-17 to 2021-22. The State had increased the

[11] Kinnaur- Pangi, Kangra- Nausera, Sakoh, Bharanta, Boh, Bhaled, Sadoon, Panjala, Ghirhol.
[12] Kinnaur-eight, Solan -eight and Kangra-16.

sanctioned strength of beds by 45.02 *per cent* from 2016-17 to 2021-22 but the actual availability of beds increased by only 20.60 *per cent* during this period. Thus, the actual availability of beds did not increase proportionately. Also, there were overall savings of ₹ 1,427.03 crore during 2016-17 to 2021-22 against the budgetary allotment as commented in **Para 6.4**. Out of this, there was overall savings of ₹ 148.40 crore under capital expenditure as commented in **Para 6.5.1.** These savings could have been utilised for ensuring availability of sanctioned number of beds.

In the Exit Conference (January 2023), the Secretary (Health) said that the shortage in availability of functional beds with reference to sanctioned beds was due to ongoing civil works.

5.2.1 Availability of beds in Medical College Hospitals (Tertiary Level)

National Medical Commission (NMC) vide notification dated 28th October 2020 notified that every MCH should have an attached Teaching hospital with at least 300 beds and in hilly and North Eastern States, with 250 beds.

In the two selected MCHs, availability of beds w.r.t. sanctioned strength as of March 2021 is shown in **Table 5.2**.

Table 5.2: Status of sanctioned beds and functional beds

Name of MCHs	Sanctioned beds	Available beds
Indira Gandhi Medical College & Hospital (IGMC) including Kamla Nehru State Hospital (KNSH)	1,124[13]	1,120[14]
Dr. Rajendra Prasad Government Medical College & Hospital (RPGMC) (including SSB and Covid beds)	866	866

Source: Respective Medical College

From **Table 5.2**, it was evident that the Government had provided the hospitals with sufficient beds as per the NMC norms. However, during joint physical inspection in different in-patient wards of IGMC, it was noticed that there was double and triple occupancy on a single bed. This indicated that though sufficient beds were available as per NMC norms, these were insufficient to handle the actual in-patient load.

In MCHs, double and triple occupancy could be due to lack of healthcare facility/beds/ human resource at secondary level HIs as discussed in succeeding paras and Chapter II-Human Resources.

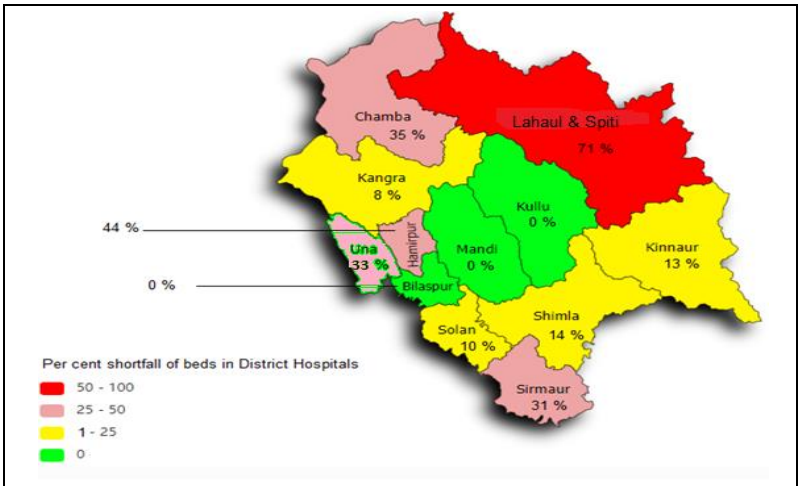
5.2.2 Availability of beds in DHs (Secondary level)

As per IPHS norms 2012, the size of a district hospital is a function of the hospital bed requirement, which in turn is a function of the size of the population it serves. Based on the assumption of the annual rate of admission as one per 50 population and average length of stay in a hospital as five days, the number of beds required for a district having a population of 10 lakh will be around 300 beds. So, DHs were divided into five grades having 100-500 beds.

i. Shortfall in availability of beds in all the district hospitals.

[13] IGMC-850, KNSH-274.
[14] IGMC-873, KNSH-247.

The shortage of beds in District Hospitals has been depicted in **Map 5.1** and details are given in **Appendix 7**.



Map 5.1: Shortfall of beds in all the district hospitals

Scrutiny of statistical data revealed that the number of available beds in the DHs did not conform to the State sanctioned beds as there was significant shortage of beds in all DHs except DHs at Bilaspur, Mandi and Kullu, which ranged between eight *per cent* and 71 *per cent* as of March 2022.

ii. Audit observed in the three selected DHs that the functional beds were less than the sanctioned beds as detailed in **Table 5.3**.

Table 5.3: Status of functional beds against sanctioned beds during 2016-17 to 2021-22

Year	DH Kinnaur			DH Solan			DH Kangra		
	Sanctioned beds	Functional beds	Shortfall (*per cent*)	Sanctioned beds	Functional beds	Shortfall (*per cent*)	Sanctioned beds	Functional beds	Shortfall (*per cent*)
2016-17	100	100	0 (0)	200	180	20 (10)	300	225	75 (25)
2017-18	125	109	16 (13)	200	180	20 (10)	300	225	75 (25)
2018-19	125	109	16 (13)	200	180	20 (10)	300	225	75 (25)
2019-20	125	109	16 (13)	200	180	20 (10)	300	225	75 (25)
2020-21	125	109	16 (13)	200	180	20 (10)	300	225	75 (25)
2021-22	125	109	16 (13)	200	180	20 (10)	300	275	25 (8)

The minimum requirement of functional beds in district hospitals as per IPHS norms 2012 is 100. Audit observed the following:

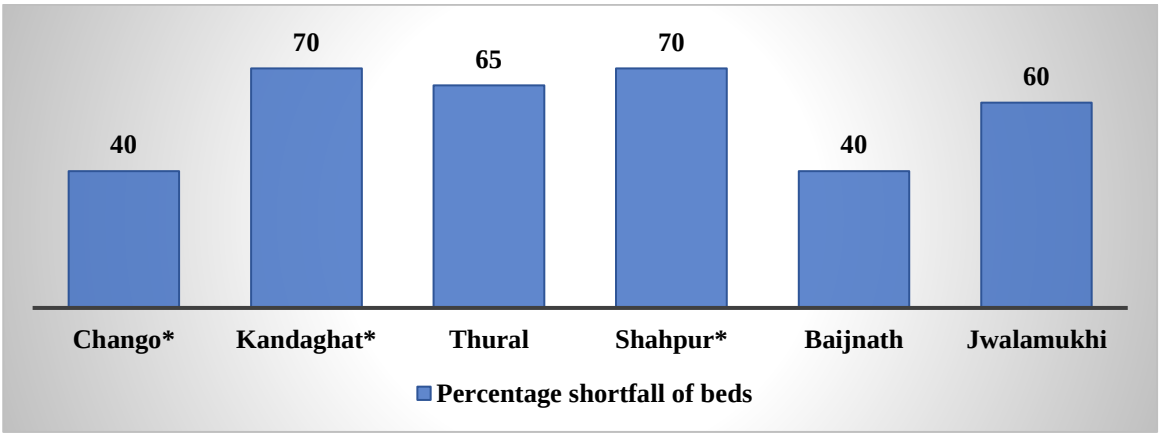
- In DH Kinnaur, beds were available as per IPHS norms 2012 (20-25 beds)[15] but the number of functional beds were not as per the sanctioned beds, and there was shortfall of 13 *per cent*.
- In DH Solan, beds were available as per IPHS norms 2012 with 80 *per cent* occupancy (150-187 beds) but were less than the sanctioned beds by 10 *per cent*.
- In DH Kangra, beds were not available as per IPHS norms 2012 (378-472 beds). Also, the number of functional beds were not as per the sanctioned beds, as shortfall ranged between eight to 25 per cent during 2016-22.

[15] Calculated on the basis of projected population of the district in 2022 having bed occupancy of 80 *per cent* and 100 *per cent.*

5.2.3 Availability of beds in selected CHs (Secondary level)

As per IPHS norms 2012, the availability of beds in CHs should be ranging from 31 to 100 or more. It was observed that in three[16] out of six selected CHs as on 31st March 2022, there were less than 31 functional beds as per the details given in **Appendix 7**. Audit further observed in the selected CHs that there was shortage of functional beds ranging between 40 *per cent* and 70 *per cent* against the State sanctioned beds as of March 2022 as shown in **Chart 5.4**.

Chart 5.4: Percentage shortfall of beds in selected CHs w.r.t to State sanctioned strength

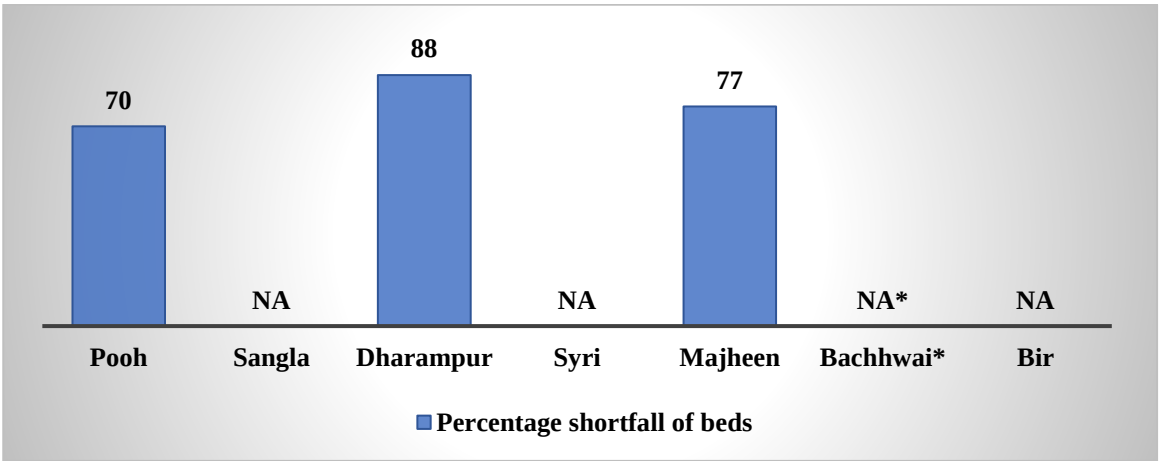


***** *CHs having less than 31 functional beds*

5.2.4 Availability of beds in selected CHCs (Secondary level)

As per IPHS norms 2012, CHCs should have 30 beds. In four out of six CHCs having sanctioned beds, the sanctioned bed strength was lower than IPHS 2012 norms and no sanctioned strength was prescribed for one CHC. In three out of six CHCs, there was shortfall of functional beds between 70 *per cent* and 88 *per cent* w.r.t to State sanctioned strength as on 31st March 2022 as detailed in **Appendix 7** and shown in **Chart 5.5**.

Chart 5.5: Percentage shortfall of beds in selected CHCs



**No sanctioned beds. NA= Not applicable as in Sangla, Syri and Bir there is no shortfall*

[16] Chango (six), Kandaghat (15), Shahpur (30).

5.2.5 CHCs (Secondary level) and PHCs (Primary level) in selected districts running without beds

As per IPHS norms 2012, CHCs should have 30 beds and PHCs should have four to six beds.

Audit noticed that in selected districts as of 31 March 2022, six CHCs and 101 PHCs were running without any beds as detailed in **Table 5.4**.

Table 5.4: CHCs and PHCs running without beds as of March 2022

District	Total CHCs	CHCs running without beds	Total PHCs	PHCs running without beds
Solan	8	2	39	21
Kangra	19	4	86	63
Kinnaur	3	0	23	17
Total	**30**	**6**	**148**	**101**

Source: Health Department Directory 2021-22, HP.

Non-availability of functional beds restricts access to health treatment and contributes to poor quality of healthcare.

5.3 Status of execution of works of HIs in the State

Details of completed works, works not started and works in progress in the HIs in the State are shown in **Table 5.5**.

Table 5.5: Details of works completed, in progress and not started

(₹ in crore)

Year	Works Sanctioned		Works completed		No. of works not started		No. of works in progress	
	No. of works	Amount released	Total works	Amount utilised	Works	Amount involved	Works	Amount involved
Upto 2016	191	246.68	125	130.18	23	11.10	43	105.40
2017	66	115.49	25	31.39	21	9.02	20	75.08
2018	81	146.40	37	53.52	22	17.61	22	75.27
2019	46	114.16	7	7.24	18	8.74	21	98.18
2020	29	37.90	5	1.76	10	2.61	14	33.53
2021	36	66.97	5	12.73	19	11.41	12	42.83
Total	**449**	**727.6**	**204**	**236.82**	**113**	**60.49**	**132**	**430.29**

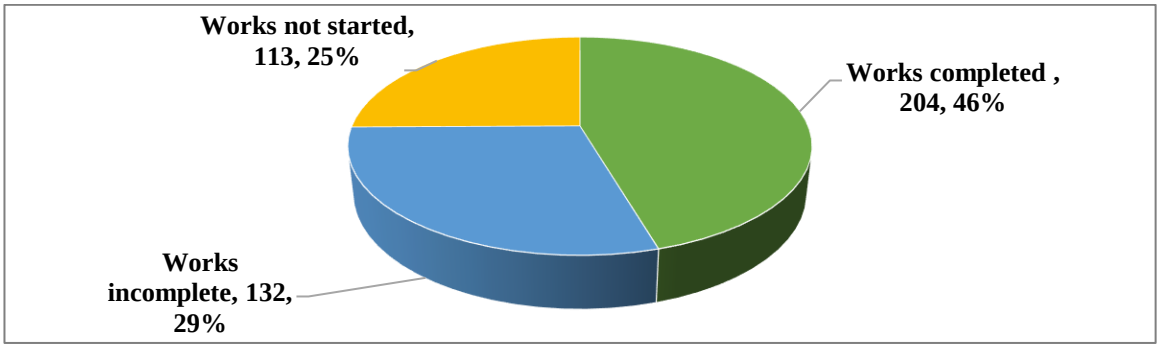
Source: Departmental figures

As can be seen from **Table 5.5**, 191 works were sanctioned upto 2016 (sanctioned during 1998 to 2016), of which 66 were under execution/had not started. Thereafter, 258 works were sanctioned during 2017-21 by the State Government for construction of different HIs under State and GoI schemes. These works included construction and upgradation of HIs. It was further noticed that out of the total 449 works, 204 works were completed, 132[17] works (43 sanctioned during 1998-16, 89 sanctioned during 2017-21) were incomplete and 113[18] (23 sanctioned during 1998-2016, 90 sanctioned during 2017-21) works were not started as shown in **Chart 5.6**.

[17] HSCs-33, PHCs-35, CHCs-18, CHs-25, DHs-one, Staff quarters-16, Others-four

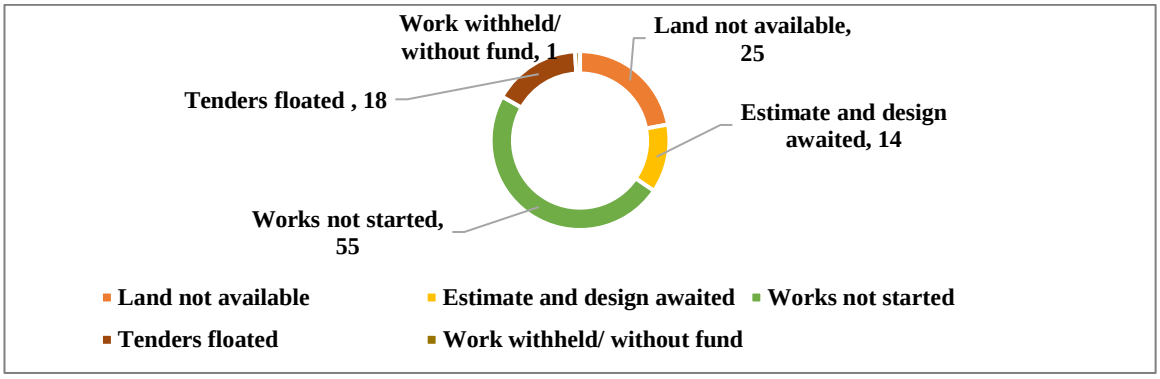
[18] HSCs-46, PHCs-31, CHCs-13, CHs-seven, DHs-two, Staff quarters-11, Others-three

Chart 5.6: Status of works in State as a whole



Reasons for non-starting of 113 works included non-availability of land, estimates and designs and non-execution of works by contractors as shown in **Chart 5.7**.

Chart 5.7: Number of works not started

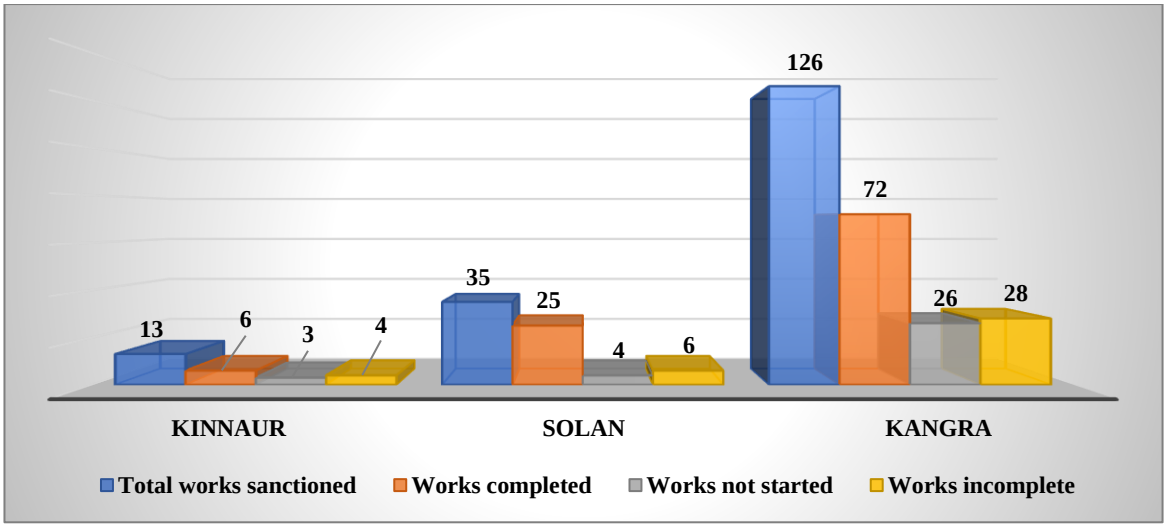


In the Exit Conference (January 2023), the Secretary (Health) stated that the delay was due to procedural issues which would be expedited for timely completion of works in future.

5.3.1 Status of execution of works of HIs in the selected districts

Position of the works sanctioned (during 1998 to 2020) in the three selected districts is shown in **Chart 5.8**.

Chart 5.8: Status of work in selected districts



In the selected districts, Audit noticed that funds amounting to ₹ 12.88 crore involving 33 works[19] (14 HSCs, eight PHCs, two CHCs, three CHs, five Staff quarters and one laboratory) were blocked due to non-commencement of works in Kinnaur (three works of ₹ one crore), Solan (four works of ₹ 1.45 crore) and Kangra (26 works of ₹ 10.43 crore).

Thus, lack of monitoring by CMOs and sanctioning of works without ensuring encumbrance-free land and non-commencement/delays by contractors resulted in blocking of funds of ₹ 12.88 crore in the selected districts.

5.3.2 Execution of works in selected Tertiary and Secondary level HIs

In secondary and tertiary level HIs, Audit examined the records pertaining to execution of the works. The results of the scrutiny are given in **Table 5.6**.

Table 5.6: Execution of works in selected Tertiary and Secondary level HIs

(₹ in crore)

Sl. No.	Name of HIs	Sanction Amount	Issue
Tertiary Level HIs			
1.	Centre of Excellence in Mental Health at Kangra	35.39	Administrative Approval (AA)/ Expenditure Sanction (ES) for ₹ 27.80 crore was accorded by the State Government during April 2017 for Centre of Excellence in Mental Health at Kangra. Additionally, AA for ₹ 7.59 crore was also granted by the State Government during March 2021 for provision of electrical works. An amount of ₹ 35.39 crore was deposited with HPPWD division, Kangra during 2016-22. The construction work was started by the contractor during September 2018. As of May 2023, expenditure of ₹ 35.39 crore had been incurred against the deposit of ₹ 35.39 crore. It was further noticed that GoI, time and again asked the State Government for timely completion of the project. As of May 2023, 98 *per cent* civil work had been completed. Thus, due to slow pace of execution of the work coupled with lackadaisical approach of the department, construction work of the project was still incomplete even after five years from the date of sanction.
2.	Upgradation of IGMC Shimla	213.01	GoI approved (January 2014) the upgradation of IGMC Shimla, at a cost of ₹ 150.00 crore (Central share: ₹ 120.00 crore and State share: ₹ 30.00 crore) within the campus of college under PMSSY-III. The State Government decided (December 2016) to shift the proposed site of Super speciality block to another site at Chamiana (Shimla district) due to inadequate land on the college campus. Forest clearance under Forest Rights Act (FRA) and Forest Conservation Act (FCA) was obtained in December 2016 and March 2018 respectively. In the meantime, GoI enhanced the project and approved to make a stand-alone hospital at a cost of ₹ 213.01 crore (June 2017). The project involved upgrading of existing departments, procurement of medical equipment and services, construction of trauma centre and super-speciality block. HSCC was appointed by GoI as consultant/executing agency for civil works and HLL Infra Tech Services Limited (HITES) (PSU of GoI) was the supporting

[19] Land not available- eight, non-execution of works by contractor, tender floated-25.

Sl. No.	Name of HIs	Sanction Amount	Issue
			agency for the procurement of medical equipment. The work was started in October 2019 and completed in September 2022 but not yet operationalised. The approach roads (two km) connecting to the hospital is not widened (as of May 2023) as work is yet to be started by the PWD. In reply, Principal Atal Institute of Medical Super Specialities stated (May 2023) that as intimated by the PWD authorities, the tender for metalling & widening of road has been awarded and work will be started soon. Considering the narrow road coupled with high traffic the department should initiate construction of the above road immediately so that patients could reach the hospital in time.
3.	Sarai Bhawan at RPGMC, Kangra under Corporate Social Responsibility	2.50	 Proposal for the construction of four storied Sarai building (guest house for 54 medical attendants) at RPGMC, Kangra for ₹ 6.20 crore was submitted by college authorities for which Government had accorded AA of ₹ 2.50 crore in August 2017. Funds of ₹ 2.40 crore (₹ 1.57 crore under CSR from M/s BHEL and ₹ 0.83 crore under MPLADS) was received. The construction work was awarded by HPPWD in June 2018. The construction work of ground floor and 1st floor was not complete, though expenditure to the tune of ₹ 2.40 crore had been incurred as of June 2022 and fund of ₹ 40.00 lakh was required to complete the ground floor and 1st floor. Thus, due to paucity of funds, the ground and first floor could not be completed and resultantly, construction of 2nd and 3rd floor could not be started.
Secondary Level HIs			
1.	CH Kandaghat	16.90	 Administrative Approval (A/A) of ₹ 16.90 crore for the construction of CH building at Kandaghat was granted in August 2016. After incurring expenditure of ₹ four crore, the construction work was lying pending due to paucity of funds since August 2018. The DHS during September 2021 requested the State Government to provide additional funds but the funds were not provided. The MO, CH Kandaghat stated (May 2023), that work is still held up and no funds have been received till date.
2.	CH Jawalamukhi	14.25	 Initially A/A was accorded for the construction of CHC Jawalamukhi during March 2009 for ₹ 2.49 crore (the existing CHC was shifted to Matri Chhaya Yatri bhawan) and ₹ 1.08 crore was incurred till March 2013. In February

Sl. No.	Name of HIs	Sanction Amount	Issue
			2014, it was decided to upgrade the CHC Jawalamukhi to 50 bedded CH and subsequently to 100 bedded CH in March 2017 followed by proposed change in site in January 2018. The construction work was further delayed due to change of site, court case and change in scope. The revised estimate of the work was sanctioned during August 2020 for ₹ 14.25 crore. As observed by Audit (May 2023), 70 *per cent* work has been completed after incurring expenditure of ₹ 1.75 crore and CH was running in a dilapidated building. In reply, BMO Jawalamukhi stated (January 2022) that the delay was also due to court case and work was restarted during September 2021.
3.	CH Shahpur	12.09	CHC Shahpur was upgraded to 100 bedded CH during February 2019. The preliminary estimate amounting to ₹ 12.09 crore was sent to DHS Shimla in February 2020, which was approved during March 2020 and the budget of ₹ 87.50 lakh was allotted. Subsequently, ₹ 1.28 crore was released during 2020-22 (₹ 78 lakh in August 2020 and ₹ 50 lakh in July 2021). The construction work was started during December 2021 and the structural work upto plaster of wall completed (May 2023). The department, in its reply stated (March 2022) that due to administrative reasons, there was delay in sanctioning of the estimates by the higher offices. The reply was not acceptable as due to delay in completion of the work, the intended benefit through upgradation of the hospital could not be extended to the beneficiaries.
4.	CH Thural	18.42	CH Thural was upgraded to 100 beds in September 2018. However, AA/ES for construction of additional block for newly upgraded hospital was granted only during May 2021 for ₹ 18.42 crore, after a lapse of 32 months. An amount of ₹ 2.30 crore was deposited with the executing authority during June 2021 and the construction work of the building was started by the executing agency (PWD) during November 2021. The construction work was in the initial stage at time of audit (December 2021). In reply, the BMO Thural stated (February 2022) that the delay in obtaining the A/A was due to covid. The reply was not acceptable as notification of upgradation of CH was issued during September 2018 and the department had ample time to obtain the AA/ES before Covid-19, which was during March 2020.
Staff Quarters			
1.	Types I, II, III and IV Staff Quarters in CH Jawalamukhi	3.77	AA/ES for ₹ 3.06 crore was accorded for construction of staff quarters at CH Jawalamukhi during May 2013, which was revised to ₹ 3.77 crore during March 2018. Construction work was completed (Types I, II and IV) and handed over to the Health Department during September 2019. These quarters were allotted during March 2020 and June 2020. Audit noticed that: Although the quarters were constructed and allotted, they were not provided with sewerage connections as a result of which:

Sl. No.	Name of HIs	Sanction Amount	Issue
			(i) The possession of four Type IV quarters was not taken up by the officials of the hospital due to non-availability of sewerage connection. Thus, these accommodations remained unoccupied. Sewerage connection has now been provided on 16/05/2023 after lapse of nearly 3.5 years (May 2023) and the department is yet to allot the accommodation. (ii) The possession of Type I and Type II quarters was taken up by the employees without sewerage connections by making their own arrangements nearly for a period of 3.5 years. However, sewerage connection has now been provided in May 2023. (iii) Type III quarters could not be allotted due to non-completion of building. Thus, due to non-provision of sewerage connections, the Type IV quarters remained unutilised and Type I and II were occupied by residents by making their own arrangements for nearly three and half years.

5.4 Availability of water and power back-up in selected HIs

5.4.1 Availability of water supply (Tertiary level)

As specific norm for water availability was not mentioned in NMC norms, therefore, water availability was checked on the basis of IPHS norms 2012 for DHs which provide that water requirement per bed per day should be 450 to 500 liters.

In selected MCHs, Audit noticed that:

- In IGMC, the water capacity of the overhead tank was 3.8 lakh litres as of July 2022, which was not proportionate (450 to 500 litres of water per bed per day) to the bed strength (873) of the hospital which was therefore dependent on water supply from Municipal Corporation, Shimla. Further the hospital did not have any back-up arrangements for water supply.
- In KNSH, the water capacity of the overhead tank was 1.74 lakh litres as of August 2022 and was proportionate to the bed strength (247) of the hospital. The hospital was dependent on supply of water from MC Shimla.
- In RPGMC, Kangra the water capacity of the overhead tank was 4.35 lakh litres as of July 2022 and was proportionate to the bed strength (866) of the hospital.

5.4.2 Availability of water supply (Secondary level)

As per IPHS norms 2012, in DHs and CHs, arrangements should be made for round-the-clock piped water supply along with an overhead water storage tank with a provision to store at least three days water requirement and it should have pumping and boosting arrangements. Approximately 450 to 500 litres of water per bed per day is required. For CHCs, as per IPHS norms 2012, arrangements shall be made to supply 10,000 liters of potable water per day to meet all requirements (including laundry) except firefighting.

Scrutiny of records of the selected HIs (DHs, CHs and CHCs) revealed that sufficient water tank capacity was not available in 11[20] out of 16 selected HIs as of March 2021 as per the details given in **Appendix 8**.

In the Exit Conference (January 2023), the Secretary (Health) stated that supply is constrained due to the topology of the State.

5.4.3 Availability of Power and backup (Tertiary level and Secondary level)

As specific norms for power availability and backup were not mentioned in NMC norms, therefore, power availability and backup were checked on the basis of IPHS norms 2012 for DHs.

As per IPHS norms 2012, in DHs, there should be 24-hour uninterrupted stabilised power supply with three phases, capacity of 25-50 KVA capable of taking up additional load. Generator back-up with 25-50 KVA capacity was essential. In CHs, standby generator to cater for the full load of the hospital should be provided. In CHCs, generator back-up should be available. All the equipment should be covered under AMC in DHs and CHs only.

The status of power availability and back-up in selected HIs is shown in **Table 5.7**.

Table 5.7: Status of power availability and back-up as of March 2021

Name of HIs	Availability of 24 hours uninterrupted stabilised power supply	Availability of generator and inverters installed in the hospital	AMC of generators and inverters was done
IGMC, Shimla	✓	10	✓
KNSH, Shimla	✓	5	✓
RPGMC, Kangra	✓	18	Yes, DG sets only
DH Kinnaur	✓	2	✓
DH Solan	✓	8	✓
DH Kangra	✓	1	✓
CH Chango	×	1(not working properly)	×
CH Kandaghat	×	3	×
CH Thural	×	2	×
CH Jawalamukhi	×	1	×
CH Shahpur	✓	1	×
CH Baijnath	✓	3	×
CHC Pooh	×	2	Not applicable
CHC Sangla	✓	1	Not applicable
CHC Syri	×	0	Not applicable
CHC Dharampur	×	2	Not applicable
CHC Bachhwai	×	1	*
CHC Majheen	×	0	Not applicable
CHC Bir	×	0	Not applicable

*Source: Information supplied by selected Health Institutions. * Though not mandated, CHC Bachhwai had AMC.*

It can be seen from **Table 5.7** that:

- In the selected MCHs and DHs, there was availability of 24 hours uninterrupted stabilised power supply, power back-ups and the generators/inverter were covered under annual maintenance contract (AMC) except in RPGMC, Kangra where AMC of only the DG set was done.

[20] DH Solan, DH Kangra, CH Chango, CH Shahpur, CH Baijnath, CH Jawalamukhi, CHC Pooh, CHC Sangla, CHC Dharampur, CHC Bachhwai and CHC Majheen

- In four out of six selected CHs, 24 hours uninterrupted power supply was not available as they were dependent on generators and inverters and two[21] CHs had uninterrupted power supply. All the generators/inverters of selected CHs were not covered under AMCs.
- In three[22] out of seven selected CHCs, both uninterrupted stabilised power supply and power backup were not available. In one CHC (Sangla), 24 hours uninterrupted stabilised power supply was available. In three[23] out of seven CHCs, only power backup was available.

5.5 Conclusion

The health infrastructure in the State was not up to the mark as the number of Health Sub Centres were less than prescribed in IPHS norms 2012. Also, the number of functional beds were not in conformity with the sanctioned bed strength during 2016-17 to 2021-22. The State had increased the sanctioned strength of beds by 45.02 *per cent* from 2016-17 to 2021-22 but the actual availability of beds was increased only by 20.60 *per cent* during this period. There was shortfall of residential accommodation in selected HIs for doctors[24] (67 *per cent* to 83 *per cent*) and nursing & paramedical staff (75 *per cent* to 91 *per cent*) at secondary level, which hampered the availability of staff at all levels for uninterrupted and effective delivery of healthcare services. In both the MCHs, double/triple occupancy was observed in beds in a few wards. Nine out of 32 selected HSCs did not have their own buildings and were running in private/other departmental buildings. During joint physical verification, buildings of PHC/HSCs were found to be in dilapidated condition.

There were 191 number of works sanctioned during 1998 to 2016 which were under-execution/ had not started upto 2016. Thereafter, 258 works were sanctioned during 2017-21 by the Government for construction of different HIs under State and GoI schemes. Out of these, 113 works were not started due to various reasons such as non-availability of land, estimates and designs awaited, non-execution of work by contractors etc. Water storage capacity was not proportionate in one MCH (IGMC, Shimla) while in 11 out of 16 selected HIs (DHs, CHs and CHCs), sufficient water tank capacity was not available. Uninterrupted electricity supply, essential for efficient healthcare service delivery, was not available in four out of six CHs and in three out of seven CHCs, generators/inverters were not available.

5.6 Recommendations

Government may ensure the following:

- *HSCs are available in each district as per IPHS norms 2012.*
- *Availability of beds as per sanctioned number of beds in deficient HIs, considering the patient load.*

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21 CH Shahpur and CH Baijnath.
22 CHC Syri, CHC Majheen and CHC Bir.
23 CHC Dharampur, CHC Bachhwai and CHC Pooh.
24 Doctors (CHC- 74 *per cent*, CH- 83 *per cent*, DH- 67 *per cent*), Paramedical staff (CHC-75 *per cent*, CH- 91 *per cent*, DH- 84 *per cent*).

- *Adequacy of residential accommodation for doctors and paramedical staff at all levels so that 24x7 delivery of healthcare services is achieved.*
- *The bed strength of the MCH be revised/considered as per IPD patient load so as to avoid double/triple occupancy in beds.*
- *Proper monitoring of the works related to health institutions in co-ordination with executing/funding agencies and addressing the issue to expedite the timely completion of work.*
- *Adequacy of water supply and uninterrupted electricity supply so that quality healthcare can be provided.*