Report

on

Human Resource for Health (HRH) Planning in Dantewada, Bijapura and Sukma Districts of Chhattisgarh

State Health Resource Centre, Chhattisgarh

and

WHO, India Office

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Executive Summary

It is widely recognized that remote and rural areas are chronically short of the essential Human Resources in Health (HRH). There are challenges in attracting qualified HRH for recruitment. Further, retention of HRH in such areas poses another challenge. The above situation is common globally in Low and Medium Income Countries (LMICs), including India. Chhattisgarh state in central India has a health system with significant shortages of HRH. The state was carved out of the parent state Madhya Pradesh in year 2000 and inherited many of the HR gaps. Further, the state witnessed an exodus of doctors as many doctors chose to shift to the parent state at time of bifurcation. The state had a lone medical college at that time. Shortages were not limited to doctors and vacancies of nurses and midwives were also very common.

Over the years, the state has managed to cover some of the above HRH gaps. The state was a pioneer in creating a 70,000-strong workforce of Community Health Workers, known as Mitanins. Another significant innovation in Chhattisgarh was the three-year course for rural practitioners. The state also introduced Chhattisgarh Rural Medical Corps (CRMC) to improve recruitment and retention of doctors and other HRH in remote areas.

While there were some significant improvements, the remotest and toughest areas of the state continued to face several challenges. Dantewada is one such district. In 2010, Bijapur was carved out of Dantewada as a separate district. Later in 2013, Dantewada was further subdivided and Sukma district got formed. The above three districts occupy the southern-most part of Chhattisgarh. They represent a set of the most difficult areas in Chhattisgarh for multiple reasons including the following:

a) The three districts are very far from the state capital and urban centres, at around 400 to 500km distance. The nearest town of Jagdalpur is also around 200km from Bijapur and around 100km from Dantewada or Sukma. The three districts do not have any cities or towns.
b) The three districts have been badly affected by conflict related to extreme left-wing insurgency.
c) The districts have relatively sparse population and large proportion of land under forest cover. The infrastructure is poor in terms of roads, phone network or access to internet, electricity etc.

In India, National Health Policy 2017 includes Comprehensive Primary Health Care (CPHC) as a key intervention for achieving Universal Health Coverage aimed in the SDGs. The operationalisation of CPHC is based on developing sub-centres as Health and Wellness Centres (HWC). HWCs in order to function need a Mid-level Healthcare Provider (MLHP) who has requisite skills for primary level curative care. The strategy also includes having atleast two ANMs per HWC improving infrastructure, availability of free drugs and access to free diagnostics along with greater community-participation and health-promotion.

The HWC initiative aims to provide a wide range of primary care services to the people, closer to where they live. Further it includes the ambition to build in continuity across levels of care and continuous care for chronic conditions. Chhattisgarh initiated its first set of HWCs in Korba district in 2017. The state has gained some experience of implementing HWCs. The state had started around 300 centres in 2017-18, which were increased to 650 in 2018-19. This planning exercise paid In addition, there were 250 PHCs and Urban PHCs also declared as HWCs. The role of MLHP for the initial set of 650 HWCs was played by Assistant Medical Officers (former designation RMA), who conduct biweekly clinics. The AMOs continue to be posted in PHCs but spend two days per week in a designated sub-centre HWC. Part of the exercise was focused on planning for current and future needs of HR for HWCs, especially the MLHPs.

State has also started a 6 months bridge course to staff nurses and GNMs and post them in HWCs to work as Community Health Officers (CHO). The first batch of 70 CHOs has passed out in January 2019. A second batch of 274 participants has started bridge course training from January 2019.

The aim of the current exercise was to develop a comprehensive human resource for health plan for most remote and southern three districts of Chhattisgarh i.e. Bijapur, Dantewada and Sukma. The major focus was on to comprehensive review of the existing plans for Health Facilities being upgraded to HWCs (March 2019), with a focus on contingencies for making MLHPs available for these centers. This study applied mixed methods, using review of secondary data available, primary data collection from health facilities and qualitative findings from the in-depth interview of district health officials and health care staff.

For year 2018-19 from these three districts 69 HWCs were included in plan for operationalization, 55 were sub-health centers and 14 primary health centers (PHC) with target up to 2022 is to develop all the sub-health centers and PHCs to operationalize as HWCs.

- 55 HWCs in existing Sub-health centers(SHC) (Bijapur-25, Sukma-10, Dantewada-20)
- 14 HWCs in existing Primary health centers (PHC)(Bijapur-6, Sukma-3, Dantewada-5)

Human resource available for operationalization of HWCs- In state most of the PHCs are now managed by Assistant Medical Officer (AMO) and few are managed by Medical Officers (MO) & Staff nurses and in sub-health centers 2 ANMs are needed. In these three districts total 36 PHC and 255 Sub-health centers are operational and in that total 15 Medical officers, 73 Assistant Medical Officers, 51 staff nurses and 394 ANM are currently working and there are vacant post for health staff are as follows: 21 medical officers, 57 staff nurses and 188 ANMs are needed in these three districts to provide the provision of comprehensive primary health care.

Table 1: District wise sanctioned Vs posted Vs vacant post of primary health care staff

Dantewada												
Health facility	**MO**			**AMO**			**Staff Nurses**			**ANMs**		
	Sanctioned	**Posted**	**Vacant**	**Sanctioned**	**Posted**	**Vacant**	**Sanctioned**	**Posted**	**Vacant**	**Sanctioned**	**Posted**	**Vacant**
PHC (13)	**13**	9	4	26	20	6	39	23	16	26	25	1
SHC (76)	**0**	0	0	0	0	0	0	0	0	152	150	2
Total	**13**	**9**	**4**	26	20	6	**39**	**23**	**16**	**178**	**175**	**3**
Bijapur												
PHC (11)	**11**	5	6	22	16	6	33	10	23	22	0	22
SHC (93)	**0**	0	0	0	0	0	0	0	0	186	133	53
Total	**11**	**5**	**6**	22	16	6	**33**	**10**	**23**	**208**	**133**	**75**
Sukma												
PHC (12)	**12**	1	11	24	15	9	36	18	18	24	3	21
SHC (86)	**0**	0	0	0	0	0	0	0	0	172	83	89
Total	**12**	**1**	**11**	24	15	9	**36**	18	18	196	**86**	**110**

Comprehensive review of Health and Wellness Centers with Focus on MLHP: Each HWC should have one full time MLHP posted with 2 ANM and 1 MPW- Male. As per current criteria of HWC functionality of state in 2019 Dantewada can operational 17 SHC-HWC with 2 days

OPD clinic by AMOs. In Bijapur- 15 SHC-HWC can be made functional and in Sukma- 6 SHC-HWC can be made functional. These three districts need 188 bridge course nurses as MLHP to operationalize all the Sub health centers as HWC till 2022-

- Dantewada needs 46 MLHP,
- Bijapur needs 69 and
- Sukma needs 73 Bridge Course Nurses (MLHP).

Supply side analysis nursing staff and of number of colleges – In entire division 10 GNM and 10 BSc nursing college are there with 305 GNM and 480 BSC seat intakes. Currently 268 staff nurses are posted in these 3 districts against 335 required positions. From these 3 districts in last 2.5 years total 263 (115 GNM and 148 BSc nurses) got registered in state nursing council and 63% (163) are from schedule tribe (ST) communities. To meet the IPHS standards (in all PHC CHC and DH) 43 and 35 staff nurses are needed at Bijapur and Sukma districts. State decided to train GNM and BSc nurses as MLHP to post in HWC. These 263 nurses can be absorbed in same districts as Staff nurses or as MLHP if confirmed job securities can be given through bridge courses. Also in Dantewada 2 ANM, Bijapur 53 ANM and Sukma 89 ANM (Total- 144) are needed at SHC to full fill the criteria of 2 ANMs whereas 193 ANMs have been registered in last 2.5 years from these districts. For community process activities Mitanins (ASHA) are posted in each hamlet of the village. Dantewada has 18 mitanin per sub-health centre, Bijapur has 17 mitanin per sub-health centre and Bijapur has 17 mitanin per sub-health centre.

Table 2- District wise sanctioned Vs posted Vs Market availability of Staff nurses

District	Sanctioned post (PHC+CHC+DH)	Currently posted in districts (Regular+ contractual)	Market availability in last 2.5 years	Availability of Schedule Tribe (ST) Nurses
Bijapur	118	75	**78**	56
Dantewada	117	143	**140**	85
Sukma	100	50	**45**	26
TOTAL	**335**	**268**	**263**	**167**

Health facility mapping with available HR (MO, Specialist) for continuum of care- As per IPHS standards in Sukma 9 specialists are posted against requirement of 45 and 23 medical officers are posted against requirement of 24. In Bijapur 14 specialists are posted against requirement of 81 and 28 medical officers are posted against 45 as per IPHS standards. In Dantewada 20 specialists

are posted against requirement of 69 and 35 medical officers are posted against 38 as per IPHS standards. No potential private clinic and hospitals are in these 3 districts.

Enablers and barriers (Human resource perception)-qualitative findings: District collector of Bijapur took the initiative to strengthen health care services in district. This same initiative was later followed by Dantewada and Sukma also. District advertised the post of specialists and medical officers in social media and in prominent news papers of nearby states. Meanwhile district started renovation of district hospital and CHCs with proper infrastructure, living quarters, transit hostels, equipments and started filling contractual paramedical staff from NHM and district mineral funds (CSR funds available in district). District offered Rs. 2.3 to 2.5 lac per month salary to Specialists and Rs. 0.9 to 1.1 lac per month to medical officers. Salary composition is NHM money with inbuilt CRMC incentive plus additional 30-40 thousands from DMF funds.They also provided stay quarters, transit hostels, library, and Gymnasium and job security to their partners of health staff.

CRMC implementation: CRMC was designed in a comprehensive manner for the attraction and retention of health staff in underserved areas with provisions of financial incentives, insurance, educational benefits for children, housing, leave, etc. CRMC incentive should be de-linked from performance. This can reduce some of the delay in payment of CRMC incentive. There are large delays in payment of CRMC incentive. The current amount of CRMC incentive is inadequate to be attractive enough in the current scenario. The CRMC amounts need to be increased substantially.

Transit hostels: These districts have built a transit hostel in the hospital campus in most of the CHCs and all the district hospitals. District also provided stay quarters, transit hostels, library, and Gymnasium and job security to their partners of health staff.So this provides them safe and good accommodation and food facility within the hospital campus.

Medical officers and specialist who joined in these areas get some additional marks in their PG entrance examination apart of good salary. Also schooling to the children was a big concern to all of them. Assistant medical officers were given postings by the department. The motivation to work them in those areas is more salary in terms of CRMC incentive and residential facility. They are not forced to do post mortems and medico-legal cases and other administrative duties.

There were also few good practices to retain the health staff as they provide assured job to their spouses, good residential in-campus staff quarters and transit hostels and one week leave in after 2 months.

Assistant medical officers who were working in contractual positions were getting less salary for same work as compare to regular postings. In this cadre there was a clear demand for the regularization of all AMOs who are working as contractual. Most of the staff nurses working in these areas are local from those districts. They of them working in district hospital and CHCs were contractual nurse hired by NHM and district mineral funds (DMF). Regular staff nurses were getting more salary in terms of CRMC incentive. Both regular and contractual were provided residential facility either in staff quarters or transit hostels. In case of staff nurses contractual ones are not given any CRMC incentive and their salary is also less 10000-15000 rupees per month.

Suggestions:

Meeting HR needs of Health and Wellness Centers:

1 a. MLHPs:

- The existing number of Assistant Medical Officers (AMOs) can manage around 50 centres. The districts have to rely on training of 6 month certificate course designed for the purpose. The three districts require 17 MLHPs to meet HWC operationalisation target of March 2019 and a total of 188 MLHPS to convert all sub-centres into HWCs.
- There are enough registered nurses who belong to the three districts. Nursing schools in Bastar are producing enough nurses to fulfill the needs of the division including the three districts.
- We recommend district-wise quotas at the time of selection for Bridge Course. The quotas need to be proportionate to the number of HWCs planned and number of MLHPs needed in each district. In case enough candidates still do not join from the concerned district, division level quota can be applied at second stage.
- In addition to above, we recommend that greater publicity and communication effort be exercised so that most of the registered nurses from Bastar region get to know about the opportunity, including possibility of earning a substantial incentive. There is a need to target the communication to Nursing Colleges in Dantewada and Jagdalpur. Final Year students in Nursing can be informed about the opportunity.

- There is one District Hospital (Bijapur) amongst the three, that has been approved as a Study Centre so far. It can absorb upto 60 students. So far, the operations of the centre have remained uncertain due to limited number of candidates. We recommend that Dantewada district hospital should also get necessary approvals as Study Centre. It can improve the chances of having batches of around 30 each in the two centres.
- Another aspect is of quality. The following measures are recommended for that:
    - Convince Medical Colleges including Jagdalpur to start the bridge course. The Nursing College associated with the Medical College can play the lead role. The quality of training is likely to be better in teaching institutions.
    - A sample assessment of Technical Competence of MLHPs should be taken-up once they get recruited after Bridge Course.
    - MOs and AMOs should be assigned the role to act as mentors for the fresh MLHP nurses.
    - On the Job training should be started for MLHPs in collaboration with technical partners and medical colleges. The refresher training should focus on strengthening skills relevant to their role as MLHPs in HWCs.
    - MLHPs should be provided residential facility at sub-centre level. The place of posting for MLHPs should be finalized before they complete the course.

Background

Sufficient and qualified Human Resources for Health (HRH) are indispensable for achieving Universal Health Coverage (UHC) as envisaged by World Health Organization (WHO) and included in Sustainable Development Goals (SDGs). WHO recommends a threshold of 4.45 physicians, nurses and midwives per 1000 population to meet the SDGs by 2030 [1]. The shortage of health workers in rural areas is a global problem, but its effects are particularly harsh in developing countries [2, 3]. Inappropriate distribution of health workers is a serious concern in the Asia Pacific region. The majority of health workers tend to be concentrated in urban areas, leaving a shortage of health workers in remote and rural areas. This geographical imbalance is more serious in low and middle-income countries (LMICs). For example, in India in 2015, the doctor-patient ratio was 1:2000 in urban areas, in contrast to 1:20,000 in rural areas. Mal-distribution of health workers results in poor availability of health services and negative health outcomes, particularly for vulnerable populations in rural and remote areas [1]. Specialist allopathic doctors are particularly in short supply in the public sector. In the situation of failures of publicly provided health services have also resulted in the majority of rural households receiving care from providers with little or no formal qualification, with detriment to their health [4, 5].

State governments in India have adopted various strategies to resolve issues of access and quality of healthcare in rural and remote areas. Lately, attention has been drawn to needs of HRH

serving in rural areas, to promote greater motivation and likelihood of retention. A global review of approaches to health workforce retention in developing countries variously identifies factors such as financial reward, better resources and infrastructure, and opportunities for career development as being instrumental in the retention of health workers [6].

In India, National Health Policy 2017 includes Comprehensive Primary Health Care (CPHC) as a key intervention for achieving Universal Health Coverage. Followed by a national flagship program Ayushman Bharat was launched in 2018 and CPHC is one of two key pillars. While CPHC is meant to focus on primary care, the second pillar of PMJAY is focused on insurance based inpatient services.

The operationalisation of CPHC is based on developing sub-centres as Health and Wellness Centres (HWC). The HWC initiative aims to provide a wide range of primary care services to the people, closer to where they live. Further it includes the ambition to build in continuity across levels of care and continuous care for chronic conditions. Although the policy includes PHCs also as HWCs, most of the addition in services is expected at sub-centre level. HWCs in order to function need a Mid-level Healthcare Provider (MLHP) who has requisite skills for primary level curative care. The strategy also includes having atleast two ANMs per HWC improving infrastructure, availability of free drugs and access to free diagnostics along with greater community-participation and health-promotion.

The operationalisation of CPHC part of this is based on making available at sub-centre level, a Mid-level care provider who has requisite skills for primary level care. The strategy also includes improving infrastructure, availability of free drugs and access to free diagnostics along with greater community-participation and health-promotion.

Upgrading the Sub-Health-Centres (SHCs), each covering around 5000 population into Health and Wellness Centres (HWCs) providing and linking with comprehensive primary care has been articulated as the key strategy for CPHC, along with making some improvements in PHCs. It aims to provide a wide range of primary care services to the people, closer to where they live. Further it includes the ambition to build in continuity across levels of care and continuous care for chronic conditions.

So far, very limited experience is available on implementation of HWCs. Tamilnadu piloted implementing HWCs in year 2017 and its experience has been studied. Apart from Tamil Nadu, Chhattisgarh is a state with more than one year experience of implementing HWCs. Chhattisgarh is one of the younger states of India. It was carved out of Madhya Pradesh and was one of the most backward regions. The shortage of qualified doctors is among the most acute in the entire country. It is also one of the biggest impediments to universalizing access to health care. The shortfall of specialists is around 82%, and of medical officers is around 29%. The shortfall in doctors is more severe in rural and tribal areas as existing availability of the doctors is concentrated in urban areas. Even as the production of doctors increased in the state, the numbers joining government service in rural areas has remained very limited. To fill up the gap of clinical need in rural areas, Chhattisgarh designed a special cadre of health care providers was called 'Rural Medical Assistant' (RMA) to provide primary care in rural Primary Health Centres (PHCs). RMA is basically a three year class room course with one year internship. The first batch of RMA passed out in year 2007 and started practicing in PHCs. State has total 1200 RMA's (now Assistant Medical Officers ,AMO) working in the field, mostly placed in PHCs (Primary Health Centre) to provide Preventive and treatment services to the rural population. Korba district of Chhattisgarh was a pioneer in initiating Health and Wellness Centres (HWCs). The district initiated 70 HWCs in May 2017 at rural sub-centres across the five blocks of the district. In financial year 2018-19 Chhattisgarh has to operationalize 650 sub-health centers and 150 Primary health centers in to HWCs.

Current model for operationalization of HWC in Chhattisgarh:

Currently in state Assistant Medical Officer (AMO) are conducting two days weekly OPD clinics in selected health and wellness centre. One AMO from the PHC visit the sub-center being selected as HWC for two days in a week and provide clinical services to the people there and rest 4 days ANM with the help of MPW is following up those patients and provide OPD services along with outreach activities.

State has also started a 6 months bridge course to staff nurses and GNMs and post them in HWCs to work as Community Health Officers (CHO). The first batch of 78 CHOs has passed

out in January 2019. A second batch of 228 participants has started bridge course training from February 2019.

Proposal for Human Resource Plan for Bijapur, Dantewada and Sukma districts of Chhattisgarh

About Bijapur: Bijapur is one of the 27 districts of the state of Chhattisgarh in central India. The Bijapur district occupies the South Western part of Chhattisgarh state. It is one of the two new districts created on May 11, 2007. It is one amongst the districts identified as 'Aspirational districts' by Government of India. As of census 2011 it is the second least populous district (255,230) of Chhattisgarh. It is the second-least literate district in India, with a literacy rate of at 41.58%, according to the 2011 census. The percentage of urban population is 11.6 %. The proportion of Child population (0-6 age group) is 16.6 %. The percentage of Scheduled Castes population to total population is 4% whereas, that of the Scheduled Tribes population is 80%.

Table 1: Demographic Profile of Bijapur district (Census 2011)

S.N.	Demographic Indicator	Population	SC population	ST population
1	Total population	255,230	10,122	204,189
2	Rural population	225,630	**Number of Villages**	**Number of Towns**
3	Urban population	29,600	694	3

The government health facilities include a district hospital, 5 CHCs, 10 PHCs, and 87 HSCs.

About Dantewada &Sukma: Dantewada district is located in the southern most part of Chhattisgarh State. The town is named after the goddess Danteshwari, the presiding deity of the Danteshwari Temple located in the town. It is one amongst the districts identified as 'Aspirational districts' by Government of India. Sukma District is the southern part of Bastar and it is newly formed on 16th January 2012 from Dantewada. In 2011 census Dantewada has included the population of Sukma also. Total populationof Dantewada is 2,15,403 and Total populationof Sukma 2,21,957.

As combine of both districts as per census 2011, the percentage of urban population is 18.0 percent .The percentage of Scheduled Castes population to total population is 2.4 % whereas, that of the Scheduled Tribes population is 76.9%. Total literacy rate is now 42.1%. Female literacy rate of the district is 32.5%. It has famous Bailadila iron mines in Bacheli block.

Table 2: Demographic Profile of Dantewada and Sukma district (Census 2011)

S.N.	Demographic Indicator	Population	SC population	ST population
1	Total population	533,638	12,996	410,255
2	Rural population	437,405	**Number of Villages**	**Number of Towns**
3	Urban population	96,233	608	8

Dantewada has 4 block i.e. Geedam, Katekalyan, Kuwakonda and dantewada. The government health facilities in Dantewada include a district hospital, 4 CHCs, 13 PHCs, and 76 HSCs. Sukma has 3 blocks i.e. Chhindgarh, Konta and Sukma. The government health facilities in Sukma include a district hospital, 2 CHCs, 12 PHCs, and 86 HSCs.

Aim of the project: To develop a comprehensive human resource for health plan for thre districts of Chhattisgarh i.e. Bijapur, Dantewada and Sukma.

Scope of the work:

- Comprehensive review of the existing plans for Health Facilities being upgraded to HWCs (March 2019), with a focus on contingencies for making MLHPs available for these centers
- Assess the supply side of: Staff Nurses currently working in the three districts and freshly graduated/graduating GNMs and BSc nurses, who can be trained as MLHPs; ANMs and MPWs in the three districts and in the neighboring districts; ASHAs (Mitanins).
- Health facility mapping with catchment population and Mapping availability/ vacancies of: Medical Officers & Specialists (for continuum of care at higher centers); AMOs (for

deployment in HWCs); Community Health Officers (CHOs); ANMs & MPW(P) who can complement service delivery at HWCs and ASHAs (Mitanins). Plotting of private health facilities

- Forecast need (according to HWCs staffing norms) and demand of MLHPs, ANMs, MPWs and ASHAs (Mitanins) - including availability of funds in the districts to meet the demands - keeping in mind, the target of HWCs for March 2022.
- Identify District Hospitals/Medical Colleges in the 3 districts or neighboring districts, which can be developed as Program Study Centers for the IGNOU conducted Bridge Program in Community Health; and support required for accreditation of center/initiation of Bridge Program
- Focus Group Discussions and individual interviews/questionnaires with AMOs/ Staff Nurses on their perception of enablers and barriers of serving at HWCs and their preferences in terms of health facilities where they want to serve in, especially those in difficult-to-access areas.
- Summary of good practices on HRH attraction/ retention/ deployment including their strengths & weaknesses - Chhattisgarh Rural Medical Corps (CRMC); use of District Mining Funds (DMF); Transit Hostels for doctors/ families etc.
- Preparation of the HRH Plan and a briefing note with key recommendations for senior officials.
- Joint presentation with the WHO, of the HRH plan to District and State stakeholders for discussion and approval

Methodology

This study applied mixed methods, using review of secondary data available, primary data collection from health facilities and qualitative findings from the in-depth interview of district health officials and health care staff.

A: Review of secondary data-Existing plan for number of HWC to be made operationalization was collected from state orders and from the NHM Program Implementation Plan (PIP). To assess the supply side of nursing staff data from nursing council was collected in structured format and analyzed. Bridge course details were collected from office of National health

Mission. Published literature on human resource for health in India and Chhattisgarh was reviewed.

B: Primary data collection- Primary data collection was done by visiting health facilities of these 3 districts. Health facility mapping and availability of medical officers, specialists, AMO, Staff nurses, ANM and MPW was done by collecting data from health facilities in a prescribed format. Qualitative data was collected by focus group discussions and by individual in-depth interviews with medical officers (7), specialists (10), AMOs (9), Staff nurses (11) and ANMs on their perception of enablers and barriers of serving at health facilities of these district and their preferences in terms of health facilities where they want to serve in, especially those in difficult-to-access areas.

A teams of researchers conducted in-depth interviews with health care staff in January 2019. The researchers were trained in qualitative research, with a minimum of a Master's level qualification in public health. All interviews were conducted privately in the participants' respective places of work – usually clinics or government offices. It was often a challenge to ensure the privacy of participants, since superiors and colleagues frequently desired to be in the room at the time of the interview.

Details about Chhattisgarh Rural Medical Corps (CRMC); use of District Mining Funds (DMF); Transit Hostels was collected during field visit to these districts. Strengths and weakness of these schemes were also discussed during Focus Group Discussions (FGDs) and individual perception about these good practices was also collected during in-depth interview of healthcare staff.

Findings

Human resource available for operationalization of HWCs- As per IPHS standards one medical officer, 3 staff nurses, 2 Female health workers (ANM) should be posted at PHC. In state most of the PHCs are now managed by Assistant Medical Officer (AMO) and few are managed by Medical Officers (MO). Whereas in sub-health centers 2 ANMs are needed.

Table 3 & 4 shows the availability and vacancy of primary care staff in primary health centers.

Table-3 Availability of Primary health care Staff

Dantewada								
Health facility	**MO**		**AMO**		**Staff Nurses**		**ANMs**	
	Regular	**Contract**	**Regular**	**Contract**	**Regular**	**Contract**	**Regular**	**Contract**
PHC (13)	0	9	8	12	7	16	9	16
SHC (76)	0	0	0	0	0	0	76	74
Total	**0**	**9**	**8**	**16**	**7**	**16**	**85**	**90**
Bijapur								
PHC (11)	1	4	8	8	4	6	0	0
SHC (93)	0	0	0	0	0	0	87	46
Total	**1**	**4**	**12**	**22**	**4**	**6**	**87**	**46**
Sukma								
PHC (12)	0	1	5	6	5	13	2	1
SHC (86)	0	0	4	0	0	0	37	46
Total	**0**	**1**	**9**	**6**	5	13	**39**	**47**

Table-4 Current availability Vs positions vacant for Primary care staff

Dantewada						
Health facility	**MO**		**Staff Nurses**		**ANMs**	
	Posted	**Vacant**	**Posted**	**Vacant**	**Posted**	**Vacant**
PHC (13)	9	4	23	16	25	1
SHC (76)	0	0	0	0	150	2

Total	**9**	**4**	**23**	**16**	**175**	**3**
Bijapur						
PHC (11)	5	6	10	23	0	22
SHC (93)	0	0	0	0	133	53
Total	**5**	**6**	**10**	**23**	**133**	**75**
Sukma						
PHC (12)	1	11	18	18	3	21
SHC (86)	0	0	0	0	83	89
Total	**1**	**11**	18	18	**86**	**110**

In these three districts total 36 PHC and 255 Sub-health centers are operational and in those total 15 Medical officers, 73 Assistant Medical Officers, 51 staff nurses and 394 ANM are currently working. Vacant post for health staff is as follows: 21 medical officers, 57 staff nurses and 188 ANMs are needed in these three districts to provide the provision of comprehensive primary health care. In comparison of districts shows that Sukma has more vacant posts of Medical officers and ANMs,

Comprehensive review of Health and Wellness Centers with Focus on MLHP: For year 2018-19 from these three districts 69 HWCs were included in planning for operationalization, 55 were sub-health centers and 14 primary health centers (PHC).

- 55 HWCs in existing Sub-health centers(SHC) (Bijapur-25, Sukma-10, Dantewada-20)
- 14 HWCs in existing Primary health centers (PHC)(Bijapur-6, Sukma-3, Dantewada-5)

Target up to 2022 is to develop all the sub-health centers and PHCs to operationalize as HWCs. This target is planned with the availability of expected number of MLHPs to these districts.

Table- 5 Targets for HWCs up to 2022

Dantewada					
Health facility	**HWC Target 2019**	**HWC functional**	**HWC Target 2020**	**HWC Target 2021**	**HWC Target 2022**
PHC (13)	**5**	**5**	**5**	**13**	**13**

SHC (76)	**20**	**10**	**35**	**55**	**76**
Total	**25**	**15**	**40**	**65**	**89**
Bijapur					
PHC (11)	**6**	**6**	**10**	**11**	**11**
SHC (93)	**25**	**5**	**30**	**60**	**93**
Total	**31**	**11**	**40**	**71**	**104**
Sukma					
PHC (12)	**3**	**3**	**6**	**10**	**12**
SHC (86)	**10**	**4**	**25**	**50**	**86**
Total	**13**	**7**	**31**	**60**	**98**

Plan to operationalise the HWC target for 2018-19 -

Dantewada-

- In 2019:- 17 SHC-HWC can be made functional with 2 days OPD clinic by AMOs.
- In 13 PHCs 9 Medical officers and 20 AMO are posted and they have 5 HWC target in 2019.
- In 9 PHCs one MO and one AMO can be posted and 5 targeted HWC (PHC) can be made functional.
- In rest 4 PHCs 8 AMO can be posted 2 per PHC and 2 days OPD in 8 HWC-SHC of respective PHC can be done.
- 3 free AMO can do 2 day clinic in 9 HWC-SHC. Thus from current AMO 17 SHC-HWC can be made functional.

Bijapur-

- In 2019:- 15 SHC-HWC can be made functional with 2 days OPD clinic by AMOs.
- In 11 PHCs 5 Medical officers and 16 AMO are posted and they have 6 HWC target in 2019.
- In 5 PHCs one MO and one AMO and in 1 HWC- PHCs 2 AMO can be posted therefore 6 targeted HWC (PHC) can be made functional.

- In rest 3 PHC 6 AMO can be posted and 2 days OPD in 6 HWC-SHC of respective PHC can be done
- 3 free AMO can do 2 day clinic in 9 HWC-SHC. Thus from current AMO 15 SHC-HWC can be made functional.

Sukma-

- In 2019:- 6 SHC-HWC can be made functional with 2 days OPD clinic by AMOs.
- In 12 PHCs 1 Medical officers and 15 AMO are posted and they have 3 HWC target in 2019.
- In 1 PHCs one MO and one AMO can be posted and in 2 PHC 4 AMOs can be posted and 3 targeted HWC (PHC) can be made functional.
- In rest 8 PHCs 10 AMO can be posted 1 per PHC and 2 free AMOs can do 2 days OPD in 6 HWC-SHC of respective PHC.

From first batch of 90 MLHPs 17 (3- Dantewada, 10-Bijapur and 4- Sukma) can be posted fulltime to operationalize 55 targeted SHC-HWC with a mix of 2 days OPD clinic with full time 17 MLHP posted.

By 2022 target is to operationalise all 29 PHC and 255 Sub-health centers as HWC in these districts. Target is planned based on the availability of MLHP is districts. Major challenge is to operationalise all sub-health centers as HWC. Experience with the two batch of MLHP admission in bridge course shows that very few have opted these three districts for their place of postings. Bijapur district hospital has only 10 candidates in this batch for MLHP training. It would be an more practical suggestion that if district itself can do the admission and teaching of MLHP course then local candidates would be more encouraged to apply and join the course.

Supply side analysis nursing staff and of number of colleges: State decided to train GNM and BSc nurses as MLHP to post in HWC. The availability of nursing staff from these 3 districts has been calculated as number of total registration of nurses in last 3 years. As these 3 districts are tribal districts the availability of Schedule Cast nurses was also noted.

Table 6- Number of nursing staff registered in nursing council from 2016 to August 2018

District	GNM			BSc			Currently posted in districts	Total number needed as per IPHS (PHC+CHC+DH)	Total number of registration	No of ST Nurses
	2016	2017	31-Aug-18	2016	2017	31-Aug-18				
Bijapur	6	12	23	20	9	8	75	118	**78**	56
Dantewada	15	14	31	28	27	25	143	117	**140**	85
Sukma	6	5	3	9	13	9	50	100	**45**	26
TOTAL	**27**	**31**	**57**	**57**	**49**	**42**	**268**	**335**	**263**	167

Table 6 shows that- Currently 268 staff nurses are posted in these 3 districts against 320 required positions. From these 3 districts in last 2.5 years total 263 (115 GNM and 148 BSc nurses) got registered in state nursing council and 63% (163) are from schedule tribe communities. To meet the IPHS standards 43 and 35 staff nurses are needed at Bijapur and Sukma districts. State decided to train GNM and BSc nurses as MLHP to post in HWC. These 263 nurses can be absorbed in same districts as Staff nurses or as MLHP if confirmed job securities can be given through bridge courses. Also in Dantewada 2 ANM, Bijapur 53 ANM and Sukma 89 ANM (Total- 144) are needed at SHC to full fill the criteria of 2 ANMs whereas 193 ANMs have been registered in last 2.5 years from these districts. For community process activities Mitanins (ASHA) are posted in each hamlet of the village. Dantewada has 18 mitanin per sub-health centre, Bijapur has 17 mitanin per sub-health centre and Bijapur has 17 mitanin per sub-health centre.

Table -7 Availability of ANMs

	ANM			Total number of registration
	2016	2017	31-Aug-18	
Bijapur	29	19	21	**69**
Dantewada	51	12	4	**67**

Sukma	18	17	22	**57**
TOTAL	**98**	**48**	**47**	**193**

Table 7 shows that in Dantewada 2 ANM, Bijapur 53 ANM and Sukma 89 ANM (Total- 144) are needed at SHC to full fill the criteria of 2 ANMs whereas 193 ANMs have been registered in last 2.5 years from these districts.

Table -8 No of Mitanins (ASHA)

District	Mitanin	SHC	Mitanin/SHC
Dantewada	**1372**	**76**	**18/SHC**
Sukma	**1190**	**93**	**13/SHC**
Bijapur	**1461**	**86**	**17/SHC**

Table 8 shows that for community process activities Mitanins (ASHA) are posted in each hamlet of the village. Dantewada has 18 mitanin per sub-health centre, Bijapur has 17 mitanin per sub-health centre and Bijapur has 17 mitanin per sub-health centre.

Table 9- Number of colleges in entire Jagdalpur division (neighboring districts)

Name of district	No of GNM colleges	Type of college	Total seat intake
Kondagaon	1	1-government	30
Dantewada	2	1-private, 1 government	70
Bastar	4	3-private, 1 government	115
Kanker	3	1-private, 2 government	90
Total	**10**	**5-private, 5 government**	**305**
Name of district	**No of BSc colleges**	**Type of college**	**Total seat intake**
Dantewada	1	1-private	40
Bastar	8	7-private, 1 government	400
Kanker	1	1-private	40

Total	**10**	**9-private, 1-government**	**480**

Table 9 shows that in entire division 10 GNM and 10 BSc nursing college are there with 305 GNM and 480 BSC seat intakes yearly. Dantewada itself has 2 GNM and 1 BSc nursing college with 70 GNM and 40 BSc nursing seat intakes yearly. In those colleges mostly students from these divisons are taking admission. This entire analysis shows that these districts itself has enough registered nurse, even enough schedule cast nurses which can be recruited by districts locally with job security as MLHP and nursing staff in public health facilities.

Forecast need according to HWC staffing norm: From these 3 districts only Dantewada has 2 GNM and 1 BSc nursing colleges with 70 GNM and 40 BSc seat intakes. In entire division 10 GNM and 10 BSc nursing college are there with 305 GNM and 480 BSC seat intakes. These 3 districts have target of 255 SHC and 37 PHC to develop as HWCs. Each HWC should have one full time MLHP posted with 2 ANM and 1 MPW- Male. These three districts need 188 bridge course nurses as MLHP to operationalize all the Sub health centers as HWC till 2022.

-Dantewada needs 46 Bridge Course Nurses
-Bijapur needs 69 Bridge Course Nurses
-Sukma needs 73 Bridge Course Nurses

In January a batch of 90 has trained and 78 passed out as Community health officers and ready to join HWCs by April 2019. In second batch of bridge course training 228 candidates opted to join in 5 training centers. In Bijapur training site 10 candidates has joined the course. Government has prioritized that after passing out from bridge course they will be first posted in PHCs (developed as HWC) then SHCs. Posting will be done by counseling of candidates based on their merit.

Table -10 Plan for CHO study centers in Bastar division

Financial Year	No. of Program Study Centres at District Hospitals	No. of candidates to be enrolled
2018-19	Bijapur	40
2019-20	Bijapur, Jagdalpur (MC)	80

2020-21	Dantewada, Bijapur, Jagdalpur	110
2021-22	Dantewada, Bijapur, Jagdalpur	110

Table 10 shows the plan for developing the Community Health Officers (CHO) study centers in Bastar division. In 2018-19 Bijapur is the only district designated for MLHP training with seat intakes of 40. We propose in our strategy that district itself should start the MLHP training course. In these 3 districts total 255 CHO are needed to operationalise all sub-centre as HWCs. We propose to increase two more MLHP training centers in division i.e. Jagdalpur and Dantewada. In 2019-20 we propose Jagdalpur (seat intake- 40) additional to Bijapur and in 2020-21 Dantewada (30) can also be added.

Health facility mapping with available HR (MO, Specialist for continuum of care: To ensure the continuum of care secondary and tertiary care health facilities were also mapped and their available HR was reviewed. As per IPHS standards 21 specialists and 10 medical officers are needed at district hospitals and 12 specialists and 12 medical officers are needed at each community health centers (CHC).

Table -11 Filled positions Vs Vacancy of specialist and medical officers at CHS and DH

Sukma							
Name of the health facility	**Specialist posted**		**Specialist needed as per IPHS**	**Medical Officers posted**		**Medical officers needed as per IPHS**	**Remark on filled position of specialists**
Sukma	**Regular**	**Contract**		**Regular**	**Contract**		In DH-1 Medicine, 1 Pediatric, 1 OBG, 1 General Surgeon, 2 Ophthalmic, 1 Ortho, 1 Anesthesia, 2 BDS
District Hospital (1)	3	6	21	5	7	10	
CHC (2)	0	0	24	3	8	14	
Total	3	6	45	8	15	24	
Bijapur							
Name of the health facility	**Specialist posted**		**Specialist needed as per**	**Medical Officers posted**		**Medical officers needed**	**Remark on filled position of specialists**

Bijapur	Regular	Contract	IPHS	Regular	Contract	as per IPHS	In DH- 2 General Surgeon, 1 ENT, 1Radiologist, 3 OBG, 2 Ophthalmic, 2 Ortho, 2 Anesthesia, 1 Microbiologist, 2 Pathologist, 1 BDS
District Hospital (1)	1	13	21	0	12	10	
CHC (5)	0	0	60	9	7	35	
Total	1	13	81	9	19	45	

Dantewada

Name of the health facility	Specialist posted		Specialist needed as per IPHS	Medical Officers posted		Medical officers needed as per IPHS	Remark on filled position of specialists
Dantewada	**Regular**	**Contract**		**Regular**	**Contract**		In DH-1 ENT, 1Radiologist, 2OBG, 1 Ophthalmic, 3 Ortho, 2 Anesthesia, 2 Surgeon , 1 BDS In Kuakonda CHC- BMO is MD medicine
District Hospital (1)	1	15	21	15	7	10	
CHC (4)	1	3	48	6	7	28	
Total	2	18	69	21	14	38	

In sukma 9 specialists are posted against requirement of 45 and 23 medical officers are posted against 24 as per IPHS standards. In Bijapur 14 specialists are posted against requirement of 81 and 28 medical officers are posted against 45 as per IPHS standards. In Dantewada 20 specialists are posted against requirement of 69 and 35 medical officers are posted against 38 as per IPHS standards.

Note : No potential private clinic and hospitals are in these 3 districts.

5- Enablers and barriers (Human resource perception)-qualitative findings

District health officials- District health officials (Chief Medical & Health Officer, Civil Surgeon, District Programme Managers and Hospital managers were interviewed.

Efforts made to recruit health HR-

- District collector of Bijapur took the initiative to strengthen health care services in district. This same initiative was later followed by Dantewada and Sukma also.
- He advertised the post of specialists and medical officers in social media and in prominent news papers of nearby states. He was a doctor himself so he contacted his own peer circle to recruit doctors.
- Meanwhile he started renovation of district hospital and CHCs with proper infrastructure, living quarters, transit hostels, equipments and started filling contractual paramedical staff from NHM and district mineral funds (CSR funds available in district).
- He offered Rs. 2.3 to 2.5 lac per month salary to Specialists and Rs. 0.9 to 1.1 lac per month to medical officers.
- Salary composition is NHM money with inbuilt CRMC incentive plus additional 30-40 thousands from DMF funds.
- They also provided stay quarters, transit hostels, library, and Gymnasium and job security to their partners of health staff.

Challenges faced

- Initially it was difficult to retain doctor for long time.
- Maintenance of Hospital and transit hostels.

CRMC implementation

To address this critical lack of HR, the Department of Health and Family Welfare, Chhattisgarh and the National Rural Health Mission (NRHM) introduced the Chhattisgarh Rural Medical Corps (CRMC) in 2009. Under CRMC, health facilities are categorized into three zones according to difficulty levels and various incentives, including financial support and extra marks for postgraduate (PG) admission, are provided for each level. Since its inception, no formal assessment of CRMC has been done, which is required in the context of the deployment of HR in large numbers.

Under this scheme Medical officers and specialists will be entitled to get Incentive money under CRMC Scheme of state based on their place of posting given the below criteria-Normal area- No money, Difficult area- 20000, Most Difficult area- 25000, Inaccessible -30000

- AMOs regular and contractual both are given 10000 - 5000 rupees per month as CRMC incentives.
- Regular Staff nurses are given 5000 per month as CRMC incentive.
- CRMC incentives are not given regularly in any districts. It is given in 3 to 6 months.
- Sukma district has not given any CRMC incentive to AMO and Staff nurses in 2018-19.
- There was a demand in health staff to revise the CRMC incentives and all the healthcare staff including paramedics should get a fixed CRMC incentive on regular basis.

Extent of CRMC implementation

CRMC was designed in a comprehensive manner for the attraction and retention of health staff in underserved areas with provisions of financial incentives, insurance, educational benefits for children, housing, leave, etc. However, in practice it was limited to providing financial incentives and certain advantage for entry into PG admission. Housing, educational facilities, transport, and security are basic essentials demanded by staff working in any area. Though the financial incentives have led to retention of staff, the non provision of facilities such as housing, educational facilities for the workers' children, transport, and insurance has affected the morale of the staff in the CRMC areas, resulting in a lack of interest in joining CRMC areas. The non-provision of residential accommodation, educational facilities, transportation allowances, and life insurance could be the reasons for eligible health workers not finding CRMC attractive enough to join for working in remote and difficult areas. Many provisions are not adhered to on part of the Government despite the agreement signed between the parties [7].

Transit hostels

These districts have built a transit hostel in the hospital campus in most of the CHCs and all the district hospitals. Most of the specialists, medical officers, AMO, Staff nurses stay free of cost in these transit hostels. For each staff one bed room & hall furnished accommodation is provided.
In transit hostels all the facilities i.e. air conditioner, bed, table, chair, TV and internet services are provided. For food there is joint kitchen and a cook cum care taker is also hired in these transit hostels. For food every staff has to pay some basic amount and cook makes the food collectively. Most of the staff staying in these transit hostels were either unmarried or do not stay with family. So this provides them safe and good accommodation and food facility within the hospital campus.
One of the pediatrician who was working in one CHC staying in transit hostels told during discussions that "……..in transit hostel all the facilities are given to live a decent life. We all live to gather like a family, we do dinner at the night together and this make us to feel like that we are not away from the family."
One of the young medical officers who live in district hospital transit hostels since last two years also shared his experience and told "first thing this is within the hospital campus, second we get good quality food like our home and as we prepare for PG exams and we can get tea or snacks even at night."

Qualitative findings from Interview of health care staff - Focus group discussions and interviews on their perception of enablers and barriers of serving at HWCs and their preferences in terms of health facilities where they want to serve in, especially those in difficult-to-access areas. Qualitative data was collected from 10 Specialists, 7 Medical officers, 9 Assistant medical officers and 11 staff nurses of these three districts.

Specialists and medical officer: - Enablers

Expressed need: Job opportunity and compensation

Specialists who are working in these districts are mostly young and fresher PG pass out. Most of them joined as contractual doctors and (8/10) were from other neighboring state i.e. Andhra Pardesh, Orrisa, Madhya Pradesh and Tamilnadu. According to them reason to join these districts according to them were opportunity to learn and practice and good satisfactory salary. A specialist is paid 2.3 lac to 3 lac per month. One of the anesthesiologist who was from Andhra Pradesh told that "yes, I joined here because there is very good salary and ample amount of

opportunity to learn." One orthopedic surgeon who is from Orrisa also told that " I joined here because I wanted to work in a remote needy area in early phase of my carrier, in this part of Chhattisgarh there is huge need of specialist care, I am satisfied with salary and residential facility." One general medicine physician who was from Andhra Pradesh told "this place is best to learn in early part of our carrier, hospital administration is very supportive and there is good work environment, end of the day we feel very satisfied with our services" Most of the staff who were in contractual positions were from other states and those who joined as regular positions were from Chhattisgarh. But all were in more favor of contractual postings, as one of them replied that "In contractual position there is more salary and less administrative pressure. We are not forced to do post mortems and medico-legal cases"

There were also few good practices to retain the health staff as they provide assured job to their spouses, good residential in-campus staff quarters and transit hostels and one week leave in after 2 months. One of the Microbiologist who is working in Bijapur told that "First my husband came and joined as medical officer and then he told me to visit and join this place. Now I and my husband both are working here for last 2 years." For some clinicians inclination to work in underserved area is the reason to work in these districts. One pediatrician who was from Chhattisgarh itself and working here since last 3 years told that "earlier I came here to work for few months, but after working here I realized that there is huge problem for pediatric specialist care in this area and this motivates me to work day and night to provide better services to poor and tribal people in this area".

Medical officers who joined in these areas mostly were from Chhattisgarh and few were from Andhra Pradesh, Orrisa and Kerala. Most of them were fresher and joined because they did not the seats in PG examination. In these districts salary for medical officer is in a range of 0.9 lac to 1.3 lac per month and they get some additional marks in their PG entrance examination. One of the female medical officers who were from Chhattisgarh itself told that "….. I was trying hard for PG seat but this time I didn't get. I joined here because salary is very good in compare to other part of the state and I will get some additional marks in PG entrance as an experience to work in this difficult area." One of the male medical officer told that "this place is best to learn and prepare for the PG exam" hone of them also told that " …here I get enouth time to study for my PG entrance as there is less work load after OPD hours".

Specialists and medical officer: - Barriers

Expressed need: personnel and social problems

Most of them told that before joining this place they were having various security issues in their mind as these districts are highly affected by left wing extremist. Mostly were from outside to this place, they were not living with their family and sometimes they miss their family and kids.

Schooling to the children was a big concern to all of them. One of Gynecologist told that "I wanted to work here but schooling for the kids is big problem here. My kids and family stay in Raipur and I will also join them very soon as now my child has started schooling and I have to be with them."

One clinician also told that "there is problem of home servants in this area, we both are working in the hospital and it's difficult to manage work at home without any servant."

Some of the clinicians also told that many times there is mobile network and internet problem in this place where as some were missing their favorite homemade dishes and poor personal life.

Assistant Medical officers and staff nurses: - Enablers

Assistant medical officers were given postings by the department. Mostly were outside from these three districts. The motivation to work them in those areas is more salary in terms of CRMC incentive and residential facility. In Bijapur and Dantewada contractual AMOs are given additional incentives from DMF funds. One of them told that "I am working here since last seven years, I am getting additional 10000 rupee per month as CRMC incentive and have been given a staff quarter in PHC".

Most of the staff nurses working in these areas are local from those districts. They of them working in district hospital and CHCs were contractual nurse hired by NHM and district mineral funds (DMF). Regular staff nurses were getting more salary in terms of CRMC incentive. Both regular and contractual were provided residential facility either in staff quarters or transit hostels.

Assistant Medical officers and staff nurses: - Barriers

In Assistant medical officers who were working in contractual positions were getting less salary for same work as compare to regular postings. In this cadre there was a clear demand for the regularization of all AMOs who are working as contractual. One of them told that "….. I am from northern part of state and working here since last 6 years as contractual AMO. My batch mates who also joined the service are regular and getting much better salary than me in plane area whereas I am working day and night in this highly remote area and still getting 23500 per month, thus is very frustrating." In Sukma district AMOs were not given CRMC funds in 2018-19 and also they did not get DMF incentive. They were also having issues regarding more work load and less leave. One of them told "We are very over worked, after managing OPD in PHC I have to do night duty in CHC and it's very difficult to get leaves even in urgent situations also."

Some were suggesting that after 3 years of posting our place of posting should be changed. One of them suggest that "I am working here for last 6 years, there should be a policy that after serving 3 years in bastar division that AMO should be transferred to other part of state. This rotation should be followed so that everyone should get equal opportunity to work in all areas of the state."

In case of staff nurses contractual ones are not given any CRMC incentive and their salary is also less 10000-15000 rupees per month. During discussion when we asked them to join MLHP bridge course as there is 15000 incentive apart of salary per month their concern was that they are working in district hospital and CHCs and we have been provided residential facility also if they will join bridge course they don't know where they will be posted and they have to work in sub-health center which is remote in the village and there is no additional quarters for MLHPs.

Table-12 Enablers and barriers to health care staff to work in difficult areas

Health Staff	Enablers	Barriers
Specialists (10) (most of them from Andhra Pradesh, Tamilnadu, Orrisa, Madhya Pradesh and Chhattisgarh)	• Most are fresher PG pass out and young • Opportunity to learn and practice • Good satisfactory salary (2.3 to 3 lac) • Good quality in-campus staff quarters and transit hostels. • Supportive hospital administration and good work environment • Assured Jobs to their spouses • One week leave in 2 months • Inclination to work in underserved areas. • Work satisfaction • More interested to join contractual job as more salary and less administrative pressure. • Those who joined as regular were local from the area	• Before joining an initial mental block as districts are violence areas. • Schooling problems to kids therefore do not plan for long term stability • Away from the family and friends • Not availability of home servants (to those who lived with their wife and kids) • Poor mobile network and internet
MO (7) (most of them from Chhattisgarh, Andhra Pradesh, Orrisa and Kerla)	• Most were joined as they did not get PG seats. • Good satisfactory salary (0.9 lac to1.3 lac) • Good quality in-campus staff quarters and transit hostels. • Additional marks are given in PG entrance • Less work load to get enough time for preparation.	• Before joining an initial mental block as districts are violence areas. • Away from the family and friends • Away from the family and friends • Some were having food problems and poor personal life.
AMO (9)	• They have been given postings by the department. • More salary in terms of CRMC incentive • In Bijapur and Dantewada contractual AMOs are given additional incentives from DMF funds. • Staff quarters in PHCs.	• In contractual position salary is less 23500/month • In Sukma no DMF incentive • Most of them were from plane area so less social engagements • More work load and less leave.

SN (11)	• Most of them were local from those districts. • To regular SN, more salary in terms of CRMC incentive • Staff quarters and transit hostel facilities.	• In contractual positions no CRMC incentive is given • In contractual position salary is less 10000-15000

Recommendations

1. Meeting HR needs of Health and Wellness Centres:

1a. **MLHPs:**

The existing number of Assistant Medical Officers (AMOs) can manage around 50 centres. There is no possibility of the districts to get more AMOs posted in them. The districts have to rely on training BSc/GNM (Nursing) candidates in 6 month certificate course designed for the purpose. The number of such candidates these districts are able to train and recruit, will be the key. The three districts require 17 MLHPs to meet HWC operationalisation target of March 2019 and a total of 188 MLHPS to convert all sub-centres into HWCs.

There are enough registered nurses who belong to the three districts. Nursing schools in Bastar are producing enough nurses to fulfill the needs of the division including the three districts. However, attempts so far have resulted in less than 10 nurses recruited for these districts. There is a need to attract more candidates from these districts to apply for Bridge Course. We recommend district-wise quotas at the time of selection for Bridge Course. The quotas need to be proportionate to the number of HWCs planned and number of MLHPs needed in each district. In case enough candidates still do not join from the concerned district, division level quota can be applied at second stage. This measure can ensure that enough candidates get recruited from the concerned district/division.

In addition to above, we recommend that greater publicity and communication effort be exercised so that most of the registered nurses from Bastar region get to know about the opportunity, including possibility of earning a substantial incentive. There is a need to target the communication to Nursing Colleges in Dantewada and Jagdalpur. Final Year students in Nursing can be informed about the opportunity.

There is one District Hospital (Bijapur) amongst the three, that has been approved as a Study Centre so far. It can absorb upto 60 students. So far, the operations of the centre have remained uncertain due to limited number of candidates. We recommend that Dantewada district hospital should also get necessary approvals as Study Centre. It can improve the chances of having batches of around 30 each in the two centres.

Another aspect is of quality. The following measures are recommended for that:

1. Convince Medical Colleges including Jagdalpur to start the bridge course. The Nursing College associated with the Medical College can play the lead role. The quality of training is likely to be better in teaching institutions.
2. A sample assessment of Technical Competence of MLHPs should be taken-up once they get recruited after Bridge Course.
3. MOs and AMOs should be assigned the role to act as mentors for the fresh MLHP nurses.
4. On the Job training should be started for MLHPs in collaboration with technical partners and medical colleges. The refresher training should focus on strengthening skills relevant to their role as MLHPs in HWCs.

MLHPs should be provided residential facility at sub-centre level. The place of posting for MLHPs should be finalized before they complete the course.

1b **ANMs:** All sub-centre based HWCs need two ANMs each. The three districts in question already have the necessary sanction for the positions. There is enough production of ANMs from within the districts to fill these positions. There are enough candidates registered including from Scheduled Tribes category. Filling the positions will depend upon the efficiency of the concerned authorities in recruiting them. The districts need to recruit 144 more ANMs so that all sub-centres can have two ANMs.

While the first ANM in each centre is supposed to be a regular appointment, the second ANM is contractual. However, it was found that the current vacancies amongst the regular cadre are greater than the contractual ones. Sukma illustrates this situation. The regular ANM appointments involve state-level test (through VYAPAM –Vyavsayik Preeksha Mandal i.e. State Vocational Examination Board) and the recruitment drives tend to be once in two to three years.

We recommend that the three districts be allowed to carry out their regular cadre ANM recruitments at district level. ANM is a district cadre and such a change is administratively

feasible according to the current rules. District level recruitment can attract more candidates from within the district.

The three districts have recruited some ANMs under the District Mineral Fund (DMF) despite vacancies in sanctioned posts from health department. The districts tend to go for local recruitment through DMF instead of NHM or Directorate based recruitments. They find several barriers in filling the health department vacancies - the state guidelines are often unclear or there is dependence upon the state level to take the initial steps. The DMF route has severe pitfalls too. It is poorly institutionalized. Staff recruited this year by one administrator can lose their jobs in next as administrators change. Further, the staff recruited under DMF are paid less than what health department norms are. We recommend that DMF should be used for gap-filling in HR needs and should not be treated as the mainstream measure. There should be an attempt to fill the health department vacancies, rather than continuing indefinitely with DMF based recruitments.

2. HR needs of PHCs, CHCs and District Hospitals in the three districts:

2a. **Staff Nurses**: As stated earlier, there is enough availability of qualified nurses from the region who can recruited. There are a large number of vacancies in regular cadre of SNs. Their selection is handled by state-level. The state level examination needs to be expedited. The division can then try to fill the contractual posts. The DMF related issue mentioned above applies very much to Staff Nurse cadre as well. Dantewada has enough SNs now but it may need to recruit them into regular appointments. Sukma district needs to recruit atleast 35 and Bijapur 43 more SNs.

2b. **MBBS and Specialist Doctors**: The three districts have managed to attract a substantial number of doctors including Specialists. In order to have one MO in each PHC, the three districts need 21 more MOs.

The following factors were helpful, which can be continued by the three districts and replicated by other districts of the state:

a) Financial factors: The salaries paid in the three districts were around Rs.90,000 for MBBS and around 2.5 lakh for specialists. Currently around 10% of the amount for some posts is being met through DMF. Greater institutionalization of remuneration can be achieved if entire salary gets met through NHM. Salaries can play a big role in attracting more doctors. The contractual salaries allowed by NHM for other districts may need upward revision to attract more doctors, especially the specialists with required qualifications.
b) Supportive factors part from Salaries: A number of measures can help in attracting and retaining doctors and specialists in such areas. Many of these measures have been used in the three districts, especially Bijapur:
    - For attracting doctors, contacting Medical Colleges in different states
    - Providing Transit Hostels with food facilities
    - Jobs for spouse
    - Flexibility in sanctioning leave
    - Relative freedom from administrative tasks such as Medico-legal duties
    - Ability of district hospitals to arrange other supportive services e.g. diagnostics that allow a doctor to make use of their skills
    - Quality of Leadership at Facility and District Level can help retention

Advertising and Recruitment methods: For recruiting MBBS and specialists, use campus interviews. Issue attractive advertisements for Medical Officers (MBBS) for both Regular vacancies and NHM Contractual Posts in Hindi and English newspapers with current applicable salary range. For regular posts, the CRMC amounts need to be mentioned prominently. All incentive provisions should be mentioned, including the incentive under RSBY/MSBY, where part of the claim amount in public hospital goes to the concerned doctor. Display it prominently on department website (Current advertisement on the site is hard to locate). Publicise it through Facebook and Twitter, including through messages by Secretary/Commissioner/MD

inviting doctors to serve in Chhattisgarh. Deans and students of Medical colleges in neighboring states can be contacted.

3. Cross-cutting Issues

3a. Salaries and CRMC Incentives:

- The contractual salaries for AMOs, ANMs and Staff Nurses are nearly 50% of the salary paid to regular cadre. The social security and leave benefits are also poor. The difference between regular and contractual salaries needs to be reduced. Further, it was learnt that AMOs, ANMs and SNs recruited under DMF were not given CRMC benefits and many contractual nurses under NHM were also deprived.
- For MOs and Specialists, the salary differential between regular and contractual appointments is the other way around. MOs and Specialists are earning far less than the new contractual entrants. This discrepancy needs to be addressed by increasing salaries for regular MOs/specialists and by increasing the CRMC amount.
- AMO Incentive for HWC work: Since July 2018, many AMOs have played the role of MLHP in HWCs. According to NHM approval and state guidelines for HWCs, they are to receive an incentive between Rs.3000 to 15000 per month, based on performance. However, none of the three districts had started paying this incentive till March 2019. This needs to be implemented soon in order to avoid de-motivation amongst AMO cadre.
- CRMC Incentive Amount and Timely Payment: For contractual positions of MOs and specialists, the CRMC incentive has been inbuilt into the total salary. They thus get this benefit without having to go through the barrier of proving their performance. The other staff face the barrier of getting the necessary verifications from their superiors. CRMC incentive should be de-linked from performance. This can reduce some of the delay in payment of CRMC incentive. There are large delays in payment of CRMC incentive e.g. in Dantewada AMOs not received it for 10 months. The delay needs to be monitored and reduced.

The current amount of CRMC incentive is inadequate to be attractive enough in the current scenario. The CRMC amounts need to be increased substantially.

Currently, many of the contractual staff have not received this incentive. It has to be ensured that all regular staff and all contractual AMOs, ANMs and SNs receive the CRMC incentive.

3b. Task Division:

- The AMOs need to be free from any duties at CHC level. This cadre should be focused on PHCs and HWCs. Last year a guideline was issued to stop assigning night duties in VHCs to AMOs posted in PHCs. The order remains poorly implemented. There is a tendency amongst Block Medical Officers to assign such duties to AMOs. This affects the motivation levels of AMOs adversely and the functioning of PHCs and HWCs also suffers.
- The Administrative burden of medico-legal cases needs to be reduced on Specialists and should be borne largely by MOs. This will allow the specialists to focus on clinical work.

3c. Availability of Diagnostics and other necessary support services for Clinical work: It is often seen as a chicken and egg problem. However, the three districts have managed to build both dimensions simultaneously – as the number of specialists increased in district hospitals, the diagnostics and other support services for surgical and clinical work improved.

3d: Improving Skills and Quality: Staff from the three districts need to be prioritized for refresher training. There should be ideally at least one week of training input on clinical skills for each ANM, Staff Nurse, MLHP, AMO, MO and specialists.

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