Exploring health inequities amongst Particularly Vulnerable Tribal Groups: Case studies of Baiga in Chhattisgarh

INTRODUCTION

In 2016-2017,Public Health Resource Network and State Health Resource Centre with the support of Achutha Menon Centre for Health Science Studies, Trivandrum undertook a research study on "Exploring health inequities amongst Particularly Vulnerable Tribal Group: Case studies of Baiga in Chhattisgarh". The primary aims of the study were-

- To understand health and nutrition status of the selected Particularly Vulnerable Tribal Groups (PVTGs): Baiga in Chhattisgarh
- Analyze the barriers and facilitators to accessing public health and allied services
- Understand their perception of health system
- Document their experiences in accessing health and nutrition services

The findings of the research were shared with the various stakeholders in civil society, Baiga community and the health department in a dissemination event in Circuit House in Raipur on 6th November 2017. Subsequently the findings were shared with MD National Health Mission who requested PHRN and SHRC to develop an action plan for the area based on the study.

METHODOLOGY OF FORMULATING THE ACTION PLAN

The Action plan has emerged out of the findings of the study mentioned above and further interactions by the research team with the Baiga community, health workers, NGO workers and district health administration. PHRN members involved in the research study made visits to Kukdoor PHC, Pandariya (that caters to the region) and interacted with the PHC Medical Officer Dr. B L Raj to discuss recommendations based on the evidence from the study and the discussions in the event disseminating the findings.

The team interacted with around 40 members from mitanin programme including mitanin trainers, Baiga mitanins and district coordinator Alka Dubey who added specific issues faced by them in the hamlets and village level. They also supported in developing lists of villages/hamlets for handpump, mitanins, AWC etc.

After initial brain-storming by PHRN and SHRC members on a draft plan, anothervisit was made by PHRN and SHRC members to Kabeerdhaam district. During this visit, they interacted with the CMHO, Dr. Akhilesh Tripathi and shared the draft plan. Dr. Tripathi gave his suggestions and ratified the plan.

The following plan is a result of study evidence and of all the interactions and feedback.

I. MITANINS IN BAIGA HAMLETS

A SELECTION OF BAIGA MITANINS AND TRAINING

Situation Analysis

During the research study it was observed that a few Baiga hamlets were still left uncatered or being catered by non Baiga mitanins. Though the process of selection of Baiga mitanins in order to fill this gap, is already ongoing, few Baiga hamlets are still covered by non-Baiga mitanins. There has been evidence to show that for equitable and responsive service delivery at village level, the population should be served from the same community preferably. As per the list provided by mitanin programme members, 15 Baiga mitanins need to be selected for Baiga hamlets.

Main issue /gaps/problems to be addressed

- Ensuring that the Baiga hamlets are served / catered to by Baiga mitanins

Plan

1. Selection of Baiga mitanins in identified villages (The list of hamlets is attached in Annexure 1).
2. Additionally, two more Mitanin Trainers need to be selected for training and supportive supervisions of these Mitanins and also for effective geographical reach
3. Training for new Baiga Mitanins
4. Separate training module (mainly pictorial) may have to be developed for the new Baiga mitanins.
5. Refresher trainings for all Baiga Mitanins on conditions most affecting that area (malaria, pneumonia, diarrhoea etc)

Existing opportunities- SHRC is already going to undertake refresher course for existing mitanins. The old Baiga mitanins can be included in this for the refresher training**.**

Budget (given below after II)

B SHORTAGE OF MEDICINES WITH MITANINS

Situation Analysis

- Currently Mitanins have RD Kits and ACT but Mitanins don't have paracetamol, cotrim or metronidazole. Moreover, in the past two years, it has been observed that there is irregular supply even of ACT.
- Some Mitanins currently have amoxicillin, not all

Main issue /gaps/problems to be addressed

- Ensuring regular and need-based medicine supply.

- Removing delays/hurdles involved in medicines reaching the mitanins when needed (especially during the more vulnerable seasons, like monsoons).

Plan

1. Two suggestions/recommendations came up for the shortage of medicines with mitanin-

(i) Medicines for mitanin kit can be distributed from PHC Kukdoor rather than CHC Pandariya and District Coordinator of Mitanin Programme agreed on the same. The sector meeting is also held in the PHC Kukdoor (now CHC).

(ii) However, on discussion with the CMHO, he said that issue of medicine supply in general has been resolved recently (in the district) and especially after the Chhattisgarh Medical Services Corporation Ltd (CGMSC) drug warehouse has opened in Kabeerdham.

(During the discussion with PHC MO also, it was told that in the recent supply, the supply to CHC Kukdoor was as per the indent. PHC Kukdoor was having difficulty earlier as instead of sending online indent directly, they would route it through CHC Pandariya).

CMHO suggested that there are four sector meetings in a month and the third sector meeting is a coordination meeting for different departments. The Mitanin Programme members and District Coordinator can raise the issue of shortage of mitanins (beforehand) and accordingly the supply for mitanin drug kit can be made.

However, as per mitanin programme members, raising the issue of medicine shortage in sector meetings has not yielded results, as the shortage or irregular supply is often from CGMSC itself.

2Advocating with CGMSC- The shortage of medicine from CGMSC and the differences in indent versus supply seems to be common. It has to be seen whether this issue is resolved for Kabeerdham block as suggested else advocating with CGMSC had to be done to ensure supply of medicines.

Existing opportunities- After PHC Kukdoor has been upgraded to the CHC, the CHC can also indent for the mitanin medicine if it goes for the plan (i).

Table 1: Budget (for I and II)

Item	Unit	Unit cost (Rs.)	Total for 1 year (Rs)
New Mitanins- Incentive	15	24000	3,60,000
Drug kit	15	1000	15,000

New MT	2	7800	1,56,000
Training of new Baiga mitanins (7 days)	15	2100	31,500
Separate Training module for Baiga mitanins		To be developed by SHRC	
Training of Old Baiga mitanins		Budget not required as old Mitanins will be covered under regular training	
Total	**5,62,500**		

II. SUB CENTRES

Situation Analysis

- There are two sectors under which Baiga population resides- Kukdoor sector and Cheerpani-Kodwagodan sector
- There are currently 11 sub centres under PHC/CHC Kukdoor sector and 2 under PHC Cheerpani that cater to Baiga villages (list of SHCs in Table 2).
- New proposal was sent by PHC MO Dr Raj to the health department for new SubCentres at six places in both the sectors- Kandavani, Amaniya (approved), Teliyapani Ledra (approved), Putputa, Manjoliraman and Saraiset. The two above SHC which seems to have beenapproved, have been sanctioned or budgeted formally.
- The hamlets and population are quite spread-out with difficult geography and as such in some villages people have to travel long distances for the nearest SubCentre.
- Quite a few hamlets get left out from regular immunisation (List of hamlets attached in Annexure 2).

Table 2: HR situation of existing 13 SHC (11 under Kukdoor sector and 2 under Cheerpani Kodwagodan sector)

S.	SHC	Female worker	Male worker	Remarks
	KUKDOOR SECTOR			

1	Kukdoor	Y	Y	ANM to retire in one year. Also currently attached in Kukdoor PHC.
2	Munmuna	Y	Y	
3	Kamthi	Y	Y	
4	Polmi	N	Y	ANM left in October.
5	Bhakur	Y	Y	Currently attached to Kukdoor PHC.
6	Bhelki	Y	Y	Workers not functional or active
7	Sendurkhar	Y	Y	ANM on emergency leave
8	Rukmidadar	N	N	MPW relieved, ANM transferred
9	Pandripani	Y	Y	
10	Badna	Y	Y	
11	Neur	N	Y	ANM promoted one month back
New	Amaniya (Under Kukdoor sector)			Approved but no formal/written sanction yet
	KODWAGODAN CHHERPANI SECTOR			
12	Kodwagodan Cheerpani (approx 8 Baiga villages under the SHC)	Y	Y	Active (HR status informed by community members)
13	Chhiadand (12 villages under the SHC)	Y	Y	Active (HR status informed by community members)
New	TeliapaniLedra (under Cheerpani Kodwagodan sector)			Approved but no formal/written sanction yet

HR issues:

- ANMs (mostly from other districts) who get recruited to the region, do not want to stay there for long and apply for transfers after two years.
- There are 29 Mitanins in the district who have undergone ANM course, and are still unemployed. As per the list provided by mitanin programme members, in Pandariya block there are eight mitanins (three SC, two ST and three OBC) who have undergone ANM course and are unemployed. In the whole district, there are a total of seven SC, four ST and 18 OBC mitanins who are trained but unemployed.

Main issue /gaps/problems to be addressed-

- There are vacant ANM posts against sanctioned posts.
- Even where the posts have been filled the SHC are not fully functional due to various reasons such as staff being on leave, posted in a higher facility etc.
- ANMs hired from outside the block/state do not stay for longer.
- In none of the SHCs is a second ANM posted.

Plan

State level

1. Formally sanction the Amaniya SHC and Teliapani Ledra SHC and budget for it. This includes infrastructure for building and residence for staff (Table 3).
2. Training of ANM on skilled birth delivery, Intra uterine copper device, managing new born, stabilisation of severe malaria, infection management etc to be given
3. Consider relaxing the population norms for health facilities given the specific issues in the area and consider sanctioning for the feasibility of the already proposed four SHCs (Kandavani, Putputa, Manjoliraman and Saraiset) and budget for it.
4. Support the district health administration in recruitments of ANM/MPW.

District level

5. Advertise and recruit to fill vacant post (ANM/MPW) which is done from district level, with preference to mitanins who have undergone ANM course. (List of mitanins who have done ANM course and belonging to Kabeerdham/Pandariya and their status of employment is attached in Annexure 3).

6. Sanction and recruit two ANMs in each SHC.

7. Ensuring regular immunisation in left-out hamlets. (List of hamlets of Annexure 2 will be shared with CMHO and added to action plan of ANMs)

8. As a long-term, plan 12th pass Baiga women (non-mitanins) should be actively identified and enrolled for ANM course, with scholarship by government.

Challenges-The CMHO informed that the major challenges in filling HR vacancy has been because of age criteria and roster requirements. When told that there are Seven SC, four ST

from Kabeerdham who have been mitanins and have done ANM course, he said that they could be immediately recruited. He further said that second ANM s can be posted if trained Baiga ANMs are available.

Budget

Table 3: Budget to make one Sub Centre Functional

A. Item (Recurring Costs)	**Unit**	**Unit cost**	**Total for 1 year**
ANM	2	10000	240000
MPW	1	7500	90000
Sweeper	1	5000	60000
Meals for IPD patients	10	100	12000
Housekeeping			30000
Water & Electricity			200000
Total (A)			**632000**
B. Training	**Unit**	**Unit cost**	**Cost**
SBA	2	25000	50000
NSSK	2	3000	36000
IUCD	2	5200	62400
IMEP	2	1000	12000
Immunization and cold chain	2	1000	1000
Total (B)			**161400**
C. Building and equipments (one time purchase)	**Unit**	**Unit cost**	**Cost**
Building	1 (Double store building with accommodation)	2288000	2288000
BP apparatus with table model	1	1200	1200

Stethoscope	2	1000	2000
Nebuliser	1	2000	2000
Sub Total (I)			**2293200**
Labour ward & Neo Natal Equipment			
Emergency Resuscitation Kit - Baby*	1	36750	36750
Standard weighing scale	1	7000	7000
Radiant Warmer	1	58123	58123
Room Warmer	2	1250	2500
Nebulizer baby	1	2100	2100
Weighing machine adult	2	300	600
Sub Total (II)			**107073**
Other			
Auto Clave HP Vertical (1 bin)	1	10000	10000
Suction Apparatus - Electrical	1	11000	11000
Sub Total (III)			**21000**
Glucometer	1	1000	1000
Haemoglobinometer	1	2500	2500
Refrigerators	1	35000	35000
Oxygen cylinder	1	10000	10000
Sub Total (IV)			**48500**
Total C (I+II+III+IV)			**2469773**

Grand Total (A+B+C)			**3263173**

Table 4: Recruitment of Human Resource

Head	**Unit**	**Unit Cost**	**Total for 1 year**
Salary for second ANM	15 (if two new sub-centres are approved)	As per existing norms	
Training of the 2nd ANMs	15	As per existing norms	
Sponsoring 12th pass Baiga women for ANM course	5	75,000	3,75,000

IV. REFERRAL TRANSPORT

Situation Analysis

Currently there is one 102 vehicle stationed at PHC Kukdoor that takes a lot of time (1 or more than 1 hour) to reach the Baiga villages, even if called. Sometimes they also refuse to go to the villages farther away. Further the vehicle takes 1-2 hours to reach a village.

One year back, after a spate of Baiga deaths in the area, the district administration provided for bike for community at Kandavani, however, no arrangement for fuel was made. The MO said that the bike had stopped working, however, Mitanins told us that the driver of the bike ended up paying for fuel and now has stopped driving the bike. The administration assumed that the patient's family will pay while the community assumed that the government will provide for fuel.

In the visit to CHC Pandariya it was found that the 108 vehicle had been in the garage for one month. The CMHO said that there are currently only 3 drivers against 14 sanctioned driver posts in the district health department.

There is no drop-back facility for patients (other than maternity cases, from any health facility). During the study, this emerged as a major barrier in access of the Baiga patients to higher level facilities.

Gaps

- Refusal of emergency vehicle to cater to difficult villages.
- Delay in reaching by the 102/108 vehicle.
- No drop back services for non-JSSK patients
- Some remote villages are not connected by motorable roads at all.

Plan

1. **Additional vehicles/bikes for referral- One of the following two recommendations may be considered**

1.1 Two additional four wheeler vehicles could be stationed at selected HSCs.

Mitanins suggested vehicles to be kept at Badua SHC (to cover Sendurkhar and nearby villages) and Chhiadand SHC (to cover Teliyapani and nearby villages).

While PHC MO suggested that vehicle can be kept at Rukmidadar SHC which covers 17 villages and other vehicle can be kept at Sendurkhar or Bhelki.

Challenges- To keep a 108 vehicle at a designated place, minimum of five trips are required per day. The CMHO informed that they were struggling to make it five trips per day for the whole Pandariya block. So stationing a vehicle at a lower level may not be feasible. A feasibility study of the above plan may have to be done at the block/district level.

1.2 A bike ambulance can be proposed at the SHC level as suggested above instead of a four wheeler vehicle. Time period of wait for patients can be reduced in this manner and community will be less vulnerable to refusal from 108. Already bike ambulances are successfully running in Dantewada and Narayanpur[1]. In Narayanpur, it is funded by NHM, money has been given to a local NGO that manages the ambulance.The bike ambulance in Dantewada is supported by UNICEF.

In case of Pandariya, as previous experience shows, regular and adequate funds need to be provided for the bikes to operate successfully.

2. Recruitment of drivers for 11 vacant sanctioned posts in the district.

3. Drop-Back facility to be provided to all Baiga patients irrespective of delivery or non-delivery case.

As 108 policy does not have a drop back facility, special relaxation/provision needs to be made for the patients in the region that dropback facility for 108 or any other vehicle be provided to attract community to avail government health services(irrespective of delivery or non-delivery case). As suggested by the CMHO the non-108/102 government ambulances could provide drop-back facility from JDS money.

[1]https://yourstory.com/2016/02/motorbike-ambulances-chhatisgarh/

4. Further, in the inaccessible villages where even two wheelers cannot reach provision of *Doli* can be made. *Dolis* can be stationed at these areas and whenever required community can get the pregnant woman /patient to the motorable road from where the 102/108 takes the person to the facility.

5. Proper monitoring and tracking of existing 108 vehicle is required so that.

Budget

Table 5: Budget required for improving referral facilities

Item	**Unit**	**Unit cost (Rs)**	**Expense per year (Rs)**
Bike Ambulance			
Bike purchase (Bajaj Pulsar)	2	100000	200000
Monthly recurring cost (Driver, Petrol, maintenance)	2	20000 per bike per month	480000
Doli			
One time cost of Doli	10 (no. of inaccessible hamlets)	6000 per stretcher	60,000
Maintenance	10	2000 anually	20000

V. PRIMARY HEALTH CENTRE

Situation Analysis

- There are 2 PHCs in the area- Kukdoor and Cheerpani.
- Kukdoor PHC has recently been upgraded to a CHC
- PHC in Neur has been proposed but not approved.

Main issue /gaps/problems to be addressed

- PHC Kukdoor manages most of the patients in the area.
- One MO, 3 RMA, 1 Dental, 1 Ayush MO.

- 2 staff nurses out of sanctioned 10 posts, 3 Lab technicians.
- CRMC incentives have not been received since Feb 2017.
- Autoclave available.
- No food is provided to non-maternity patients as no funds (MO).
- Issue of language & communication between staff and patient.
- Situation of medicines better than before.
- MO suggested that some medicines should be given to Mitanin by PHC to ensure zero stock-out.
- Women have to go as far as District Hospital for complicated delivery services where poor treatment is meted out to them. Plus DH is more alien space for Baiga women.

Plan

1. Approve the PHC in Neur (since Kukdoor PHC is upgraded to CHC).
2. Already one MO for PHC Rengakhar and One for Kukdoor PHC have been planned. Their salary of Rs. 70,000 is to come from the DMF fund (as informed by CMHO).
3. Ensure Emoc facilities in CHC Pandariya. An MBBS can be trained for it or a gynaecologist can be posted from DMF funds
4. Appoint 2 more RMAs for Kukdoor PHC and one MO for Cheerpani PHC. That ways they can serve in the PHC and also the Health and Wellness centres that have been initiated.

(Challenges–There are no more RMAs outside the health department in Chhattisgarh. RMAs will have to be transferred from some other place)

5. **Health and Wellness centres**- RMAs from Kukdoor PHCs can be sent on rotation to the select SHCs for managing weekly health and wellness centre clinics. Provision for medicines, consumables and travel have to be ensured. As a long term plan for health and wellness centres, upgradation of nurses for health and wellness centres could also be done through enrolment of nurses in the IGNOU bridge course.
6. Regular school health programme in all schools and monthly clinics in all Ashramshalas of the area.
7. Training of all health staff (ANMs, Staff Nurse, RMA, MOs) needed on dealing with severe complicated malaria, diarrhoea, pneumonia, emergency care and other medical conditions that are most prevalent in the area.
8. **Maternity waiting room in Kukdoor PHC-** For pregnant women from remote villages, a maternity waiting room can be built so that she could travel to the health facility a couple of days before expected due date. The advantages of such an intervention are well known globally in reducing inequity in health access[2]and it has already been tried out in the state in Narayanpur and Dantewada districts[3]. The CMHO

[2]https://academic.oup.com/heapol/article/32/10/1354/4430324?searchresult=1

[3]Three Maternity waiting rooms are functioning in two districts. Two in Narayanpur one in Dantewada. Non recurring cost i.e. building maintenance, Beds, Fridge, Kitchen set up etc are supported by SATHI and running cost i.e. care taker, cook, food etc are supported by UNICEF. Running cost is currently 15000/month but, this is notadequate.

proposed that they already have an existing built up area opposite Kukdoor PHC which can be utilised as a maternity waiting room.

Existing Opportunities

SHRC is already facilitating skill-based trainings of RMAs at the state level. The existing three RMAs in Kukdoor PHC can be one by one called in different batches and specialisations of training in January. The CMHO has requested that he be contacted and he would send the RMAs from the Pandariya/Borla block.

Budget

Table: Budget for improving PHC services

S. No.	Item	Unit	Unit cost (Rs)	Expense per year (Rs)
1	New PHC in Neur	1	As per existing norms	
2	Posting lady Gynaecologist or providing Emoc training to MBBS in Kukdoor CHC.	1	As per existing norms	
3	Salary of HR			
	MO in Cheerpani PHC	1	As per existing norms	
	RMAs in Kukdoor PHC	2	As per existing norms	
4	Health & Wellness Centres	6	As per existing norms	
5	Training of ANM and Staff Nurses in dealing with common diseases and managing complication before referrals		As per existing norms	
6	Upgradation of Nurse for H & W centre	6	As per existing norms	
7.	Maternity waiting room			
A	Renovation of existing structure with PHC	1	As per existing norms	
B	Beds	4	As per existing norms	

C	Recurring costs	1 (in Kukdoor)	20000 per month	2,40,000
8	Screening of Children for diseases in schools		Through RBSK	
9	Monthly health Clinics in Ashramshalas		Through RBSK & PHC	

VI. IMPROVING FACILITIES AT ALL FACILITIES FOR BETTER RESPONSIVENESS TO COMMUNITY AND BETTER OUTCOMES

Situation Analysis

A lot needs to be done to make the government health facilities friendlier, responsive and accessible for Baiga community. Out of Pocket expenditure in transport and non-medical expenditure is one major barrier. Food is not provided for non-JSSK cases which deters patient from accessing health facilities. Further the geographical and cultural distance and poor behaviour of the staff adds to the alienation towards health facilities.

District health administration informed that they had already written to the state health department several times for providing meal budget. Of Rs.160 meal budget Rs. 60 is received from NHM. Even their JSSK meal budget is running on credit. They informed of a positive experience of Borla CHC where after delivery Chhuaari ladoo is being provided to women after the initiative of block health administration.

The study also highlighted the problems being faced by Baiga families in accessing contraceptive services, especially sterilisation services that are restricted for them. This was having a negative impact on health of women and their children. High infant and child mortality along with instances of unsafe abortion were also seen.

Gaps

- Non provision of return transport and food for IPD patient (recommendations made above for referral transport).
- Poor behaviour of the staff especially towards adivasi communities.

Plan/Recommendation

1. All restrictions on access of PVTGs to contraceptive services needs to be removed. The condition of taking ‘permission’ from SDM for undergoing sterilisation should be removed and universal access to free and quality contraceptive services needs to be ensured.

2. Ensure there is no delay in funds in providing budget for meals at health faciltiies (as is happening for meal budget from the state health department)

3. Meal Budget- Food for IPD patients and attendant for non-JSSK cases is a mustat PHC and CHC (PHC Kukdoor and Cheerpani and CHC Pandariya). At the district hospital, food for the attendant must be ensured.

4. Traditionally, Baiga women deliver in a squatting or sitting position, however, health facilities in the area do not provide this option for women. The "World Health Organisation Recommendations on Augmentation of Labour[4] states that, "Encouraging the adoption of mobility and upright position during labour in women at low risk is recommended". It further notes that: "GDG (Guideline Development Group) noted that in many settings, traditional practices of enforcing bed rest for all women in labour are common, rather than allowing women's choices to be informed by their knowledge of the benefits of mobility and upright position. The GDG put its emphasis on providing women with the choice of an intervention that is beneficial, cheap and easy to implement, and therefore made a strong recommendation for this intervention". And that, "This recommendation should inform and support women's choices on what position to adopt during the first stage of labour".

   Therefore, such culturally appropriate services need to be provided at all facilities. Such an option should be provided to Baiga women during delivery at the health facilities and imparted in training of nurses, doctors and ANMs.

5. Help desk with a Baiga facilitator at DH. Currently the help desk facilitator in DH is not from ST community. As it is difficult for Mitanins from rural areas to come to Kawardha DH and work in help desk, the mitanin programme members have taken responsibility to identify a Baiga /adivasi from Kawardha town who can be posted at the help desk.

6. BCC training for health staff members for better sensitivity and empathy in behaviour towards Baigas and other STs.

5. Budget

S. No.	Item	Unit	Unit cost (Rs)	Expense per year (Rs)
1	Meals for IPD patients	IPD patients in PHC Cheerpani, CHC Kukdoor and CHC Pandariya	Rs. 160 per patient	As per number of patients

[4]http://apps.who.int/iris/bitstream/10665/112825/1/9789241507363_eng.pdf

	Meals for IPD attendants		Rs. 100 per attendant	As per number of patients
2	Incentive for Baiga mitanin for being at the help desk in Kabeerdham District Hospital	2	Rs. 300 per day, per mitanin	1,74,000
3	BCC Training for Health staff at PHC and CHC		As per existing norms	