

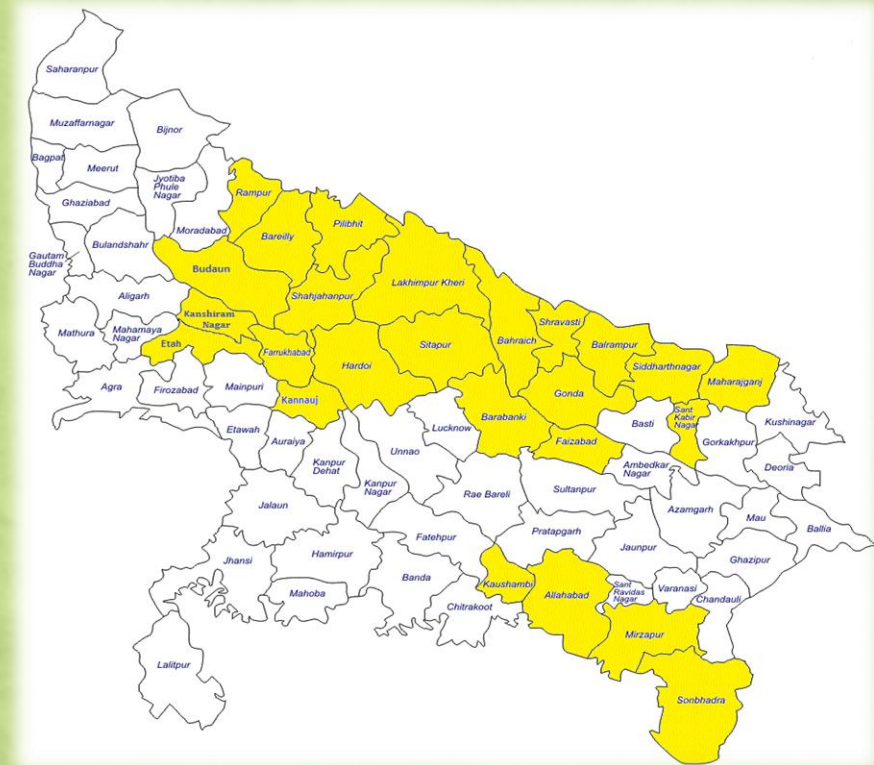
Mapping of Human Resource Availability and facilities on FRUs (First Referral Units) in 25 HPDs of Uttar Pradesh

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Assessment objective

- To map the availability of maternal and newborn services in the 25 high priority districts of Uttar Pradesh as per Maternal and Newborn Health tool Kit by Government of India (GoI).
- To map the availability of Human resource services at the facility level of 87 first referral units in High priority districts of Uttar Pradesh.
- To compare the availability of 9 signal functions at the facility level of 87 first referral units in High priority districts of Uttar Pradesh.

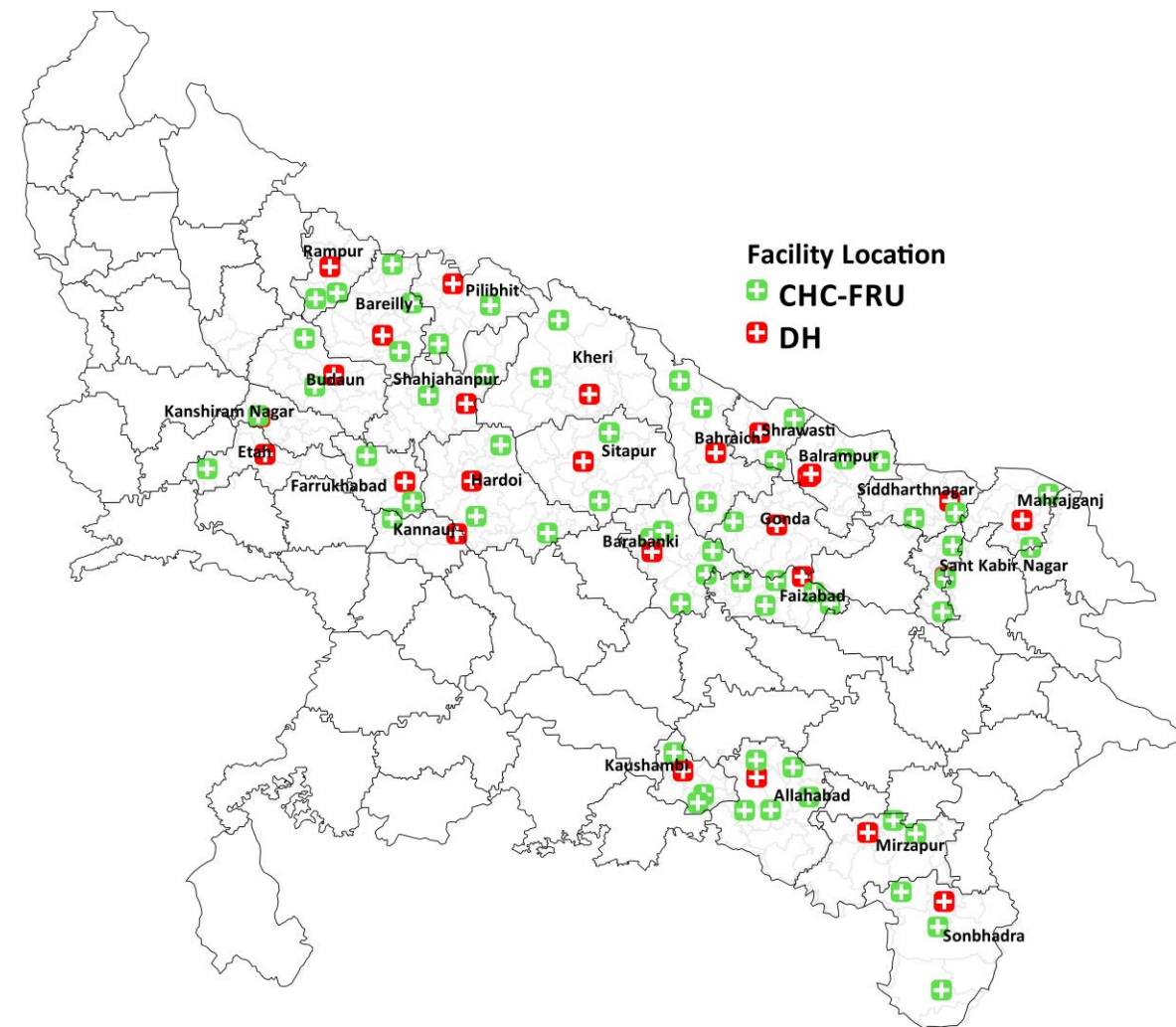


Assessment Methodology

- The research study was descriptive study. Questionnaire was design to collect the data from 87 facilities in HPDs (High Priority districts).
- **Sampling size:** All FRU's in 25 HPDs (87 Facilities across the FRU'S)
- **Sampling Method:** Purposive Sampling
- **Study Area:** Study was conducted on 87 FRUs in 25 HPDs of Uttar Pradesh
- **Study Duration:** 3 months
- **Data source:** Primary data
- **Data collection tool:** Questionnaire (FRU Assessment tool)
- **Data Collected by:** ZTS &DTS

Assessment Scope

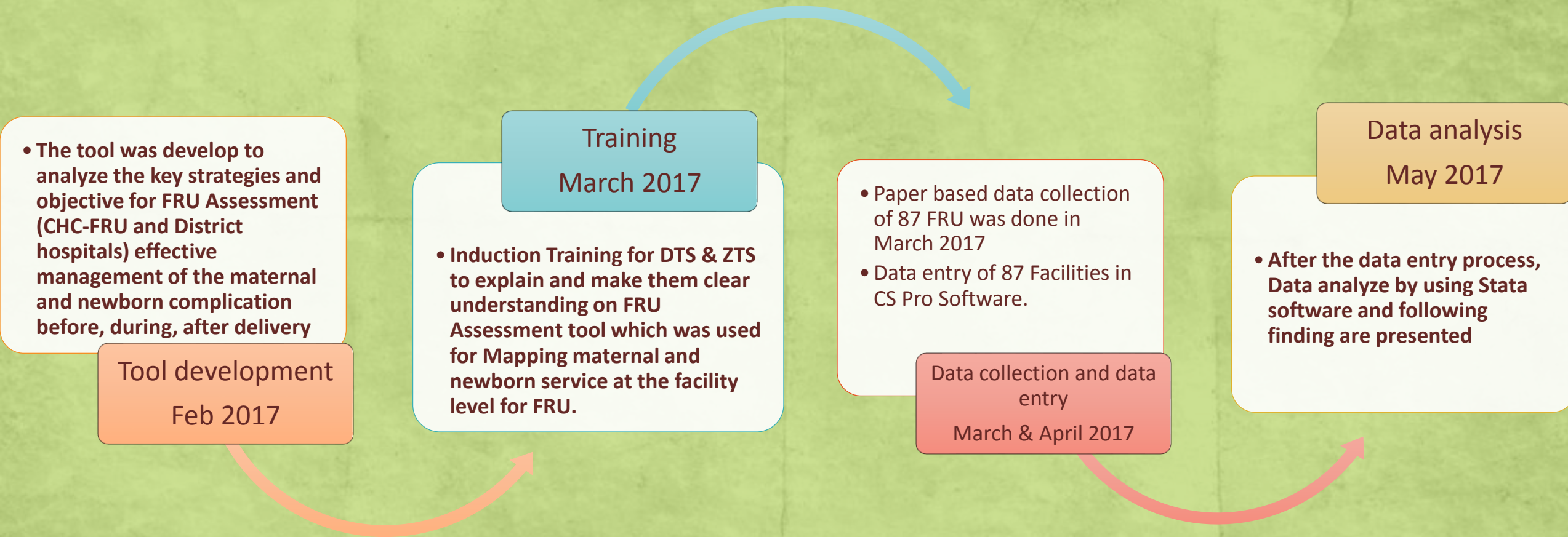
- 25 high priority districts with 294 Blocks
- 87 First referral units (FRU) health facilities
 - 61 Community Health centers-FRUs (CHC-FRUs)
 - 26 District Hospitals (DCH,DWH,DH)



Information Collected

- Identification details
- Human resource Availability (Clinical staff)
- Human resource training status.
- Human resource service status
- Signal functions (9 signal functions)

Process Flow of FRU Assessment



Tool Development: Tool developed based on the MNH tool kit, GoI, January 2013
Operational Guidelines for Quality Assurance, GoI, 2013
Guidelines For Operationalizing First Referral Units, GoI, 2004*

Background status of 87 FRU's IN 25 DISTRICTS

Distribution of 87 FRU's in 25 HPDs on the basis of these four regional resource training centers.

AMU Aligarh (7):

Bareilly, Budaun, Etah, Farrukhabad, Kasganj, Pilibhit, Rampur

KGMU Lucknow (7):

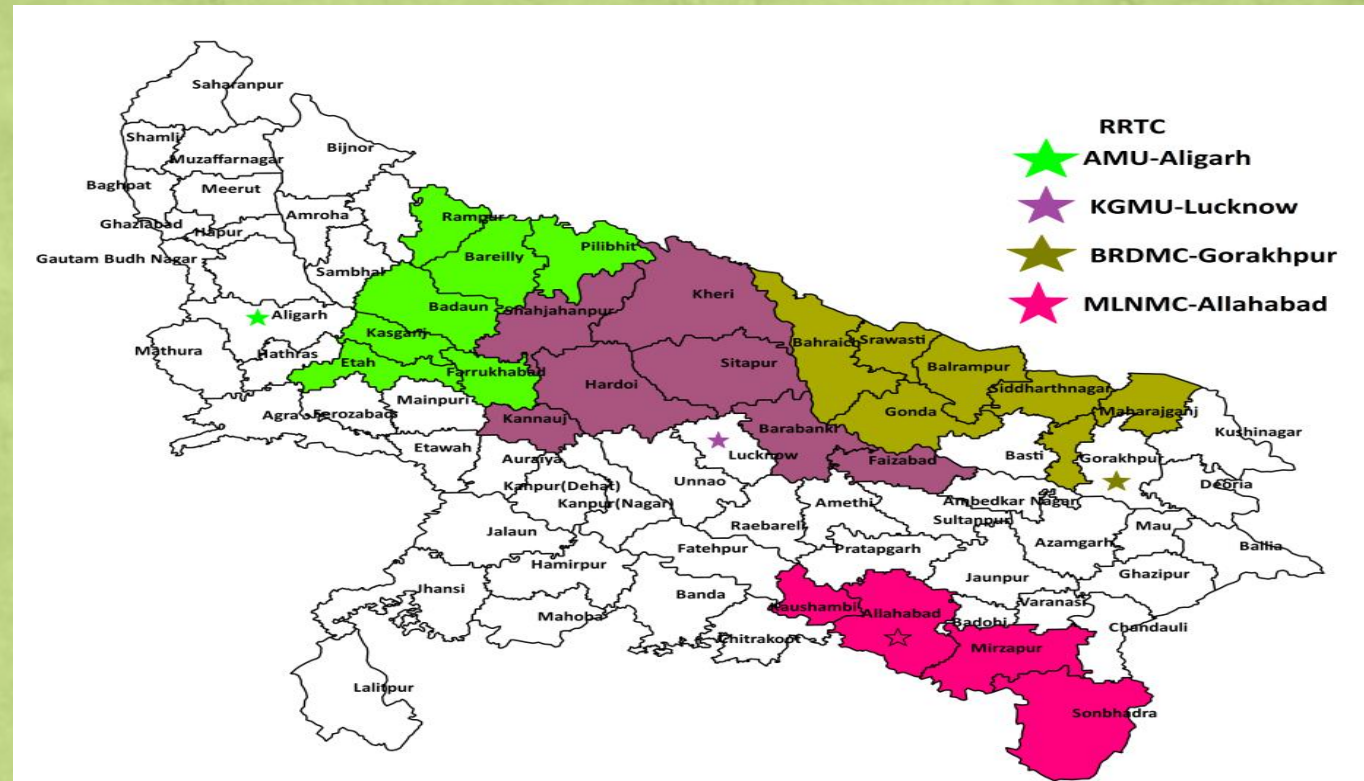
Barabanki, Faizabad, Hardoi, Kannauj, Kheri, Shajahanpur, Sitapur

BRDMC Gorakhpur (7):

Bahraich, Balrampur, Gonda, Mahrajganj, Sant Kabir Nagar, Siddharthnagar, Shrawasti

MLNMC Allahabad (4):

Allahabad, Kaushambi, Sonbhadra, Mirzapur



Regional Resource Training Centers

Distribution of 87 FRU's in 25 HPDs-by Facility type & Delivery Load

Facility type	# Facilities
CHC FRU	61
DH	26

Delivery (Average)	# Facilities
Less than 200 per month (Category 1)	34
Between 200 and 500 per month (Category 2)	43
More than 500 per month (Category 3)	10

RRTC	# CHC FRU	# DH	Total
KGMU	20	07	27
AMU	13	07	20
BRDMC	15	08	23
MLNMC	13	04	17
Total	61	26	87

Delivery Cat	KGMU	AMU	BRDMC	MLNMC	Total
Cat 1(<200)	12	3	8	11	34
Cat II (200-500)	10	16	13	04	43
Cat III (>500)	05	01	02	02	10
Total	27	20	23	17	87

Findings on Human Resource Assessment

Assessment Analysis

Expected* Clinical Human Resource availability as per delivery load

Category-1

(<200 deliveries/month)

- MO=4 (For round the clock duty)
- SN=4 & ANM=4
- LT=2, DEO=1, Sweeper=4 & Guard=4

Category 2

(200-500 delivery/month)

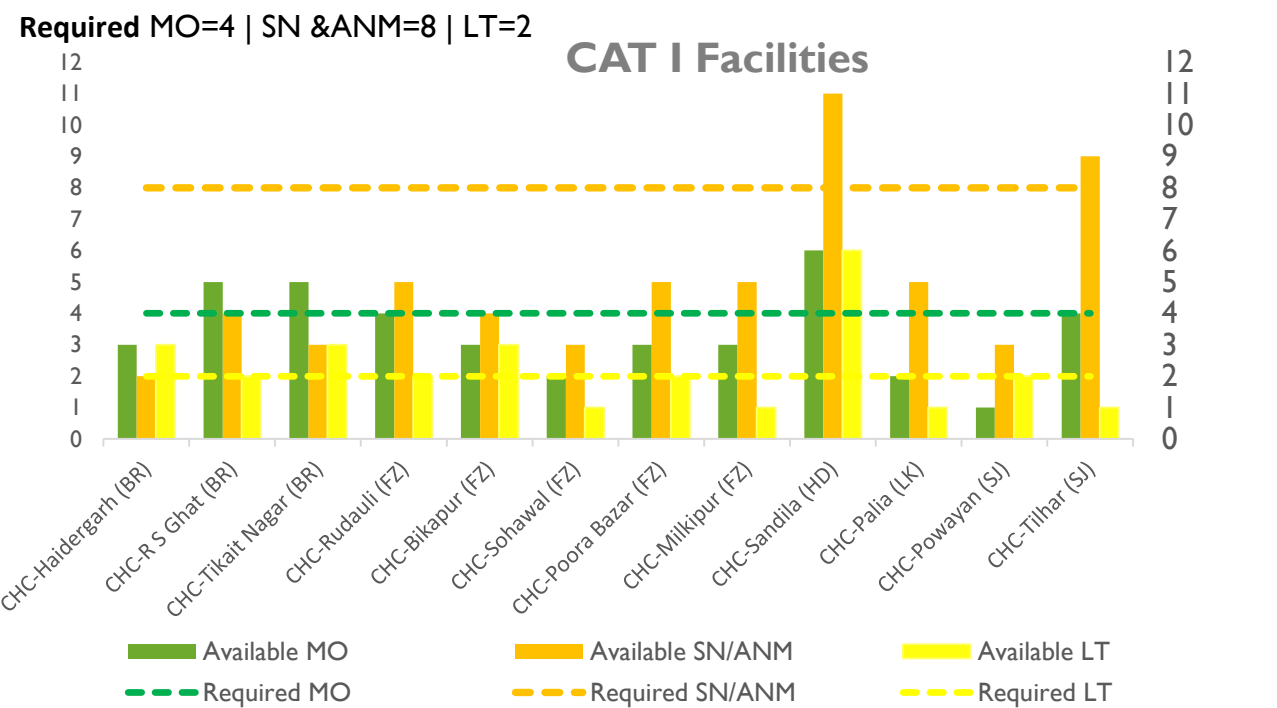
- OBG=1 (Mandatory), OBG/EmOC=4 (for round the clock service)
- Anesth=1& Peads.=1
- LSAS=4, MO=4
- SN=8, ANM=4
- LT=4
- Sweeper=4
- DEO=1 & Guard=4

Category 3

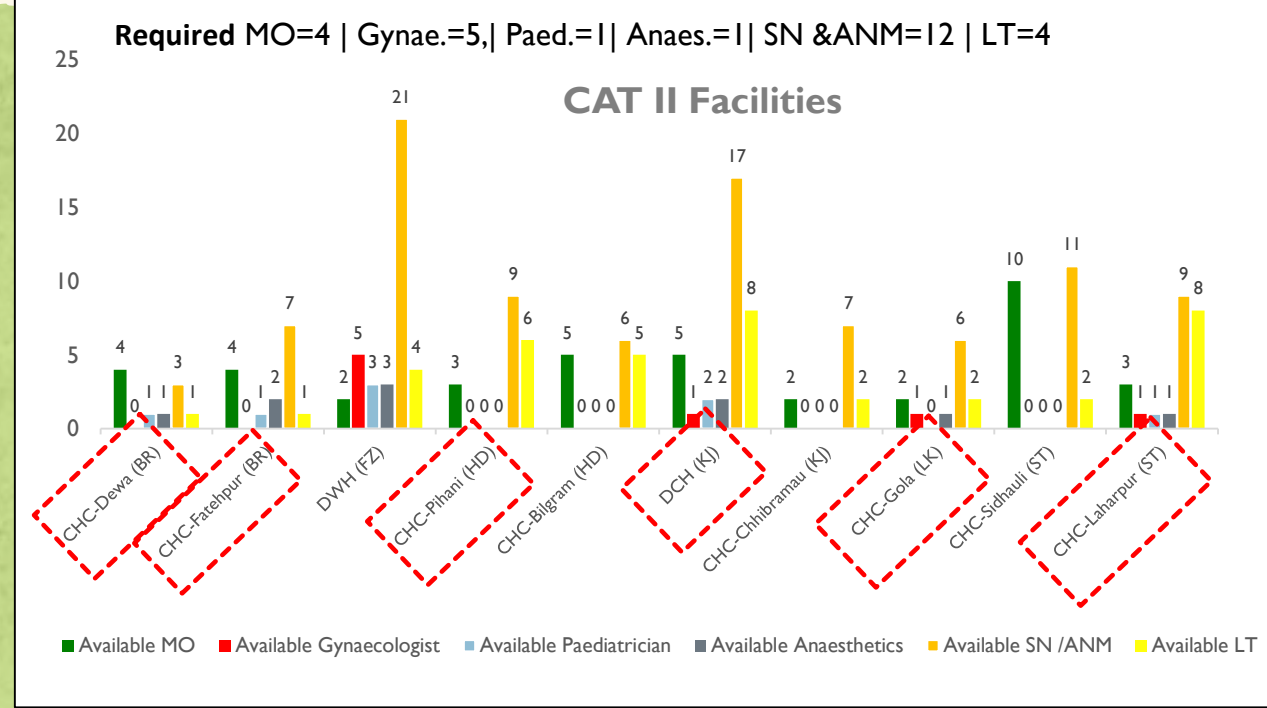
(500 delivery and more/month)

- OBG=3 (Mandatory)
- EmOC=4 (for round the clock service)
- Anesth=1& Peads.=1
- LSAS=4, MO=4
- SN=10, ANM=6
- LT=4
- Sweeper=4
- DEO=1 & Guard=4

Analysis of Facilities under Lucknow Zone (Human Resource Availability)

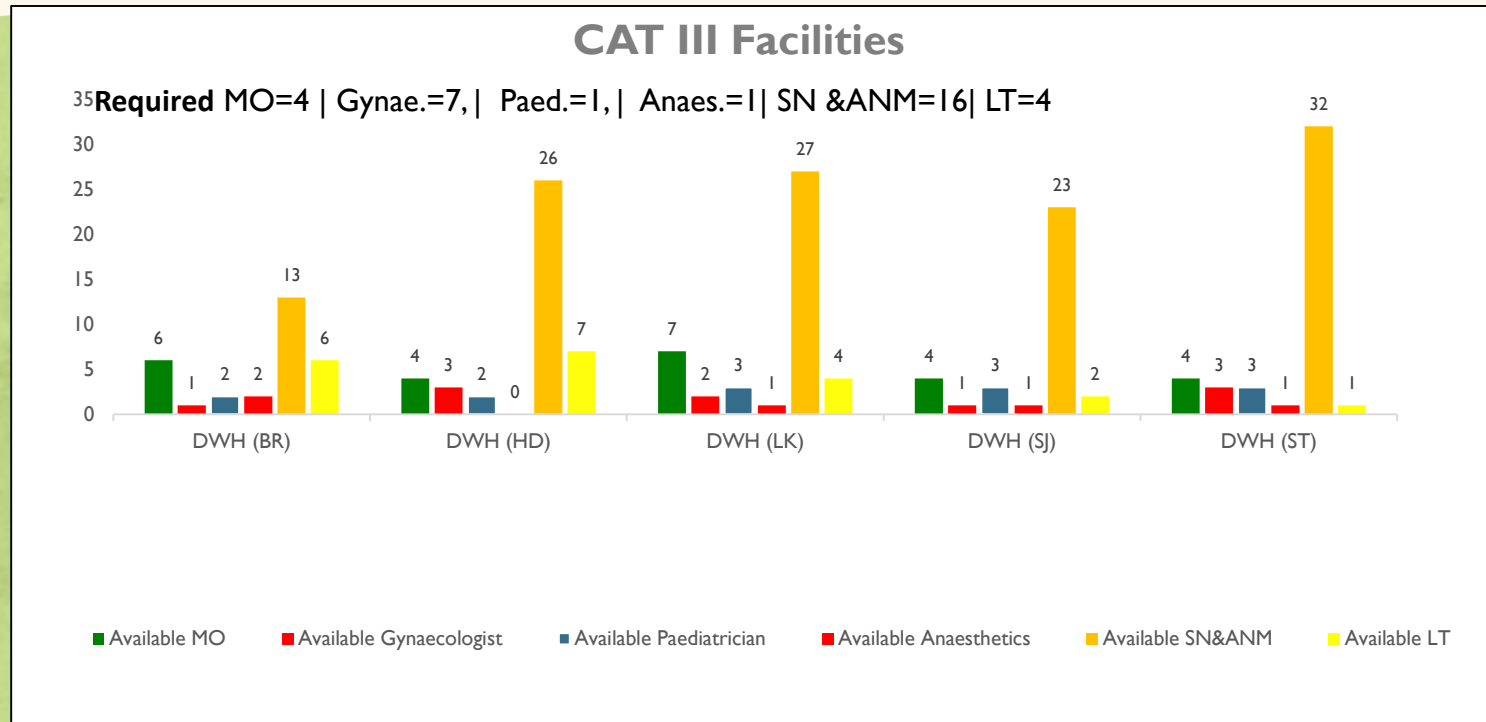


Interpretation: This analysis shows that in category I (<200 delivery/month) majority of facilities have required number of MO MBBS and SN/ANM, but some facilities do not have required number of lab technicians (LT).



Interpretation: In this graph of Category II, Majority of highlighted facilities don't have required number of Gynaecologist and Anaesthetics which is a concerning issue for these facilities.

Cont.



Interpretation: This analysis shows that in category III (<500 delivery/month) majority of facilities have required number Human Resource availability. So, the status of Cat III facilities in Lucknow zone is good.

Training status (Lucknow Zone)

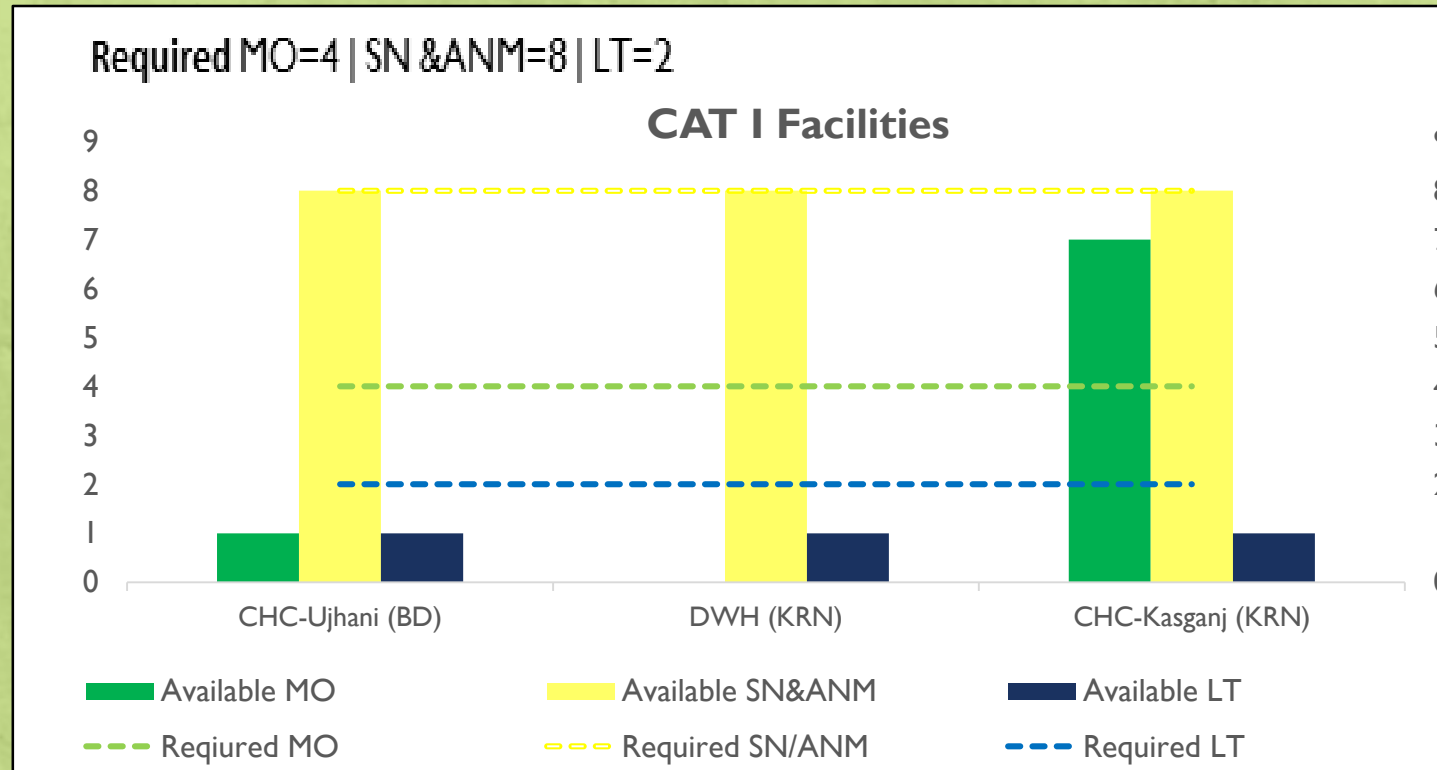
Training status of Clinical Human Resource (Lucknow zone)

Lucknow Zone	# of MO Required	# of MO Available	# of MO trained in BEmonC	# of MO trained in CEmonC	# of Mo trained in FIMNCI	# of MO trained in FBNC	# of MO trained in MTP	# of MO trained in NSSK
Cat.1 (# of Facilities 12)	44	41	4	1	4	1	1	3
Cat.2 (# of Facilities10)	40	40	2	3	6	4	3	5
Cat.3 (# of Facilities 5)	20	25	0	1	0	0	6	1

Interpretation: This table shows that in Cat 2 & 3 the training status for BEmonC is not appropriate as compared to the availability of staff.

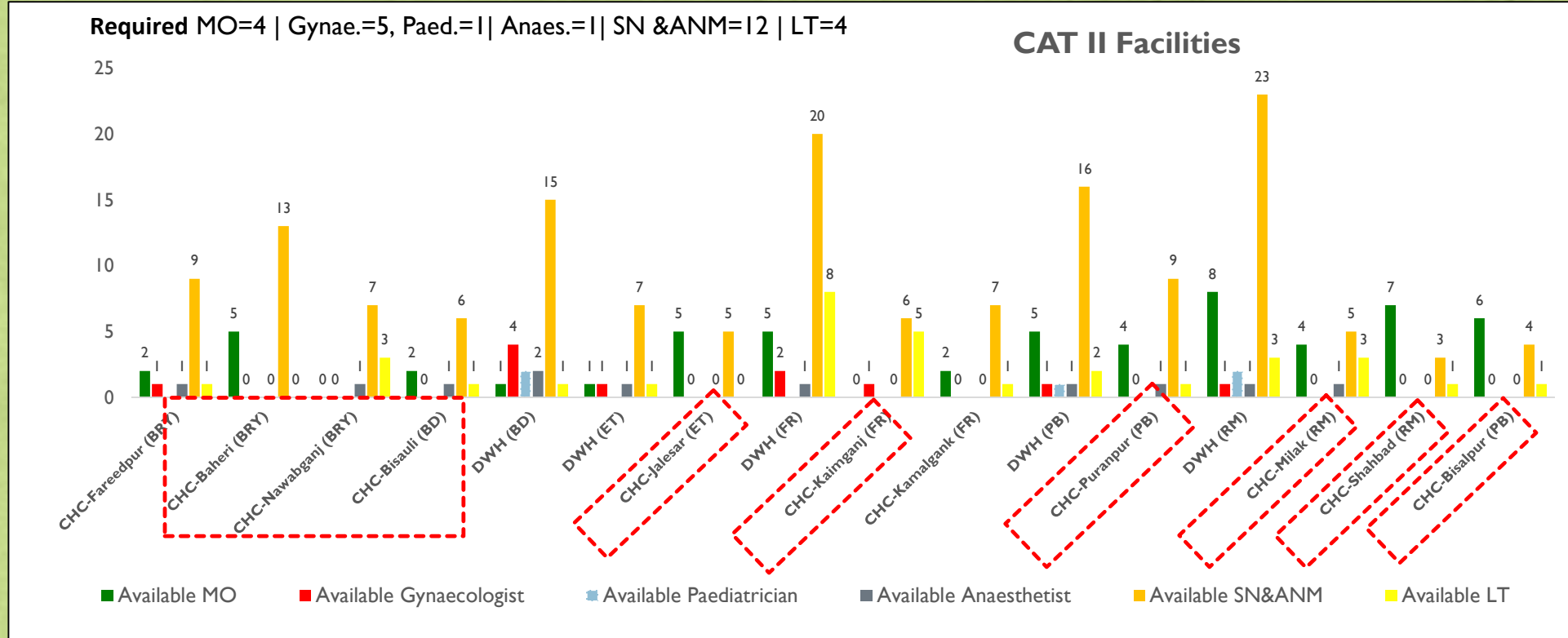
BEmonC training is required Specifically for MO for the duration of minimum 10 days and the trainers are Gynaecologist and Pediatricians.

Analysis of Facilities under Aligarh Zone (Human Resource Availability)



Interpretation: This analysis shows that in category I (<200 delivery/month) First two facilities do not have required number of MO MBBS and lab technicians (LT).

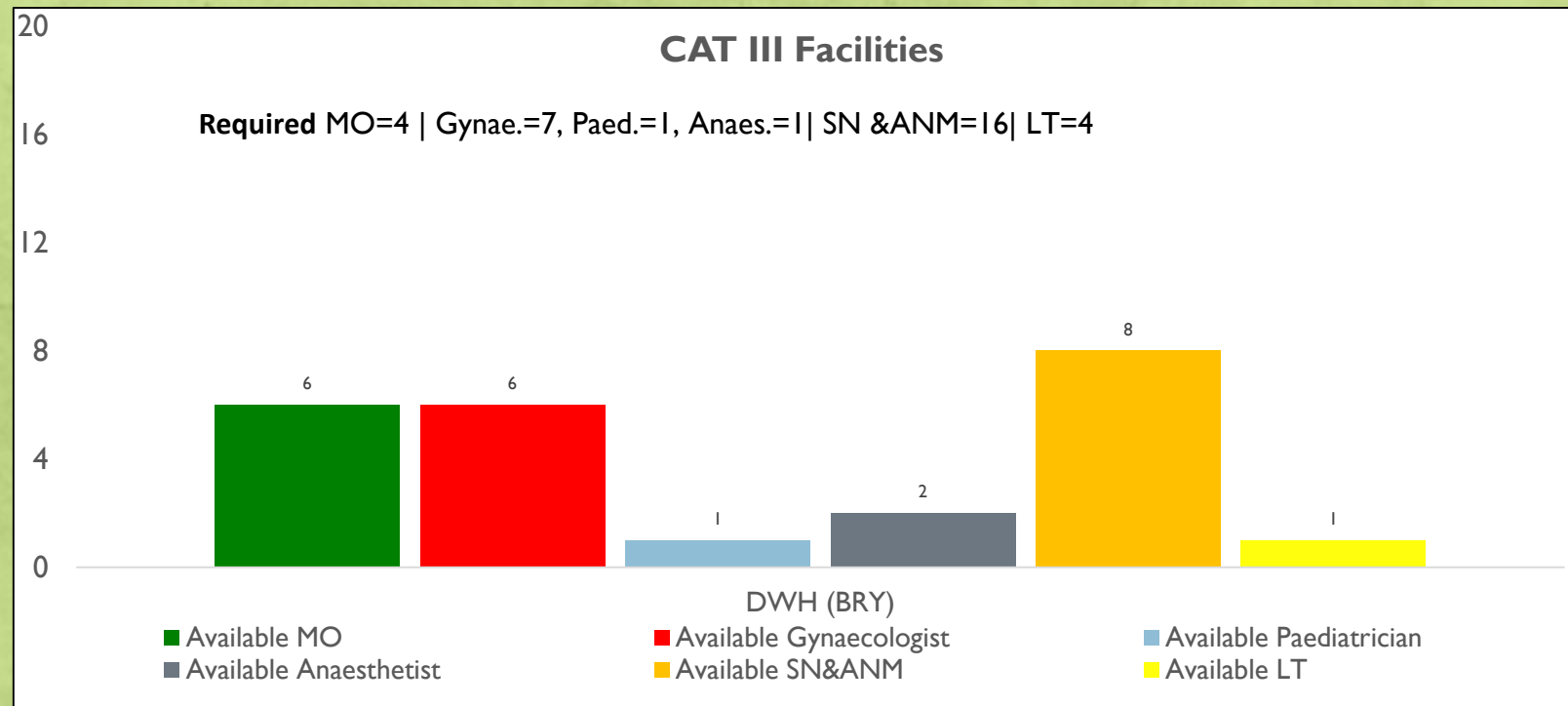
Analysis of Facilities under Aligarh Zone (Human Resource Availability)



Interpretation: This analysis shows that in category II (200-500 delivery/month)

Majority of highlighted facilities do not have required number Gynaecologist.

Cont.



Interpretation: This analysis shows that in category III (>500 delivery/month) District Hospital Bareilly have required number of clinical staff except SN & ANM.

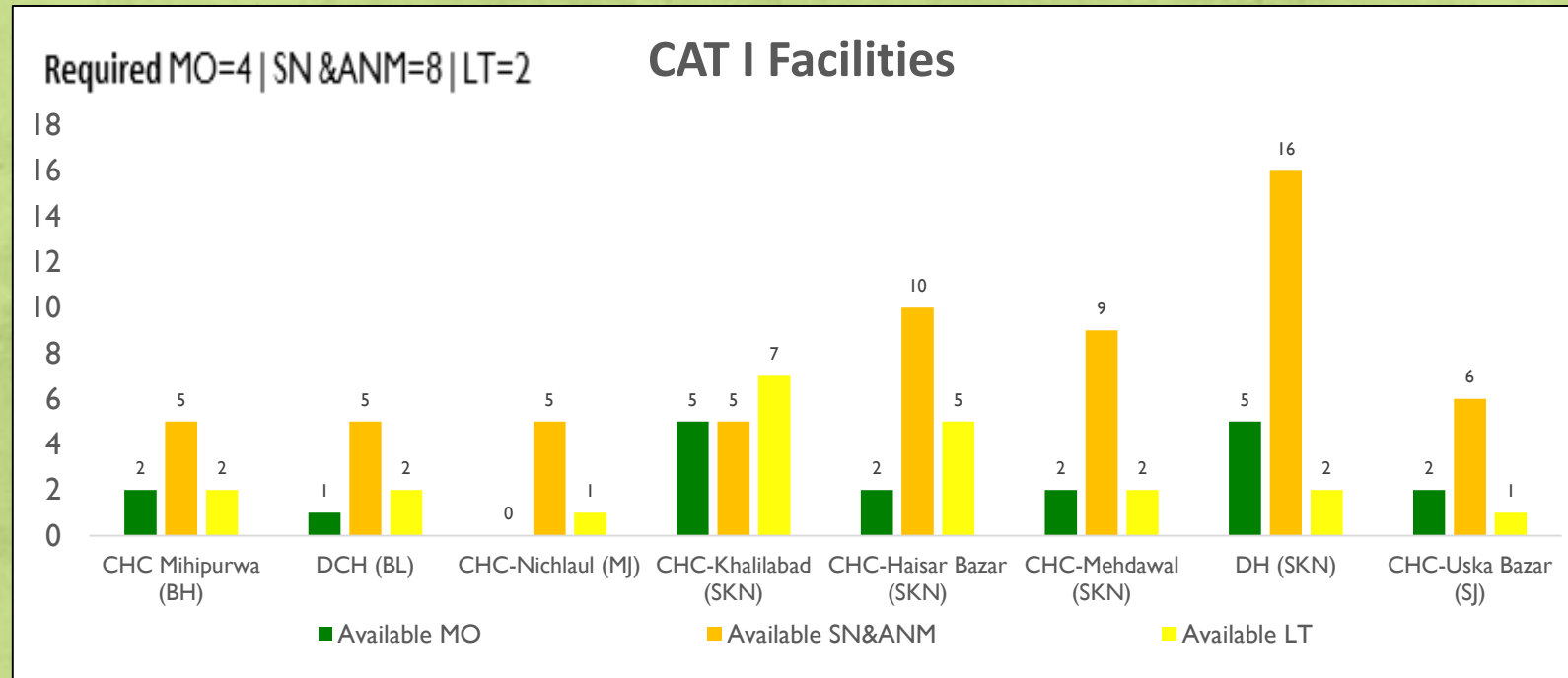
Training status (Aligarh Zone)

Training status of Clinical Human Resource (Aligarh zone)								
Aligarh Zone	# of MO Required	# of MO Available	# of MO trained in BEmonC	# of MO trained in CEmonC	# of Mo trained in FIMNCI	# of MO trained in FBNC	# of MO trained in MTP	# of MO trained in NSSK
Cat.1 (# of Facilities 12)	14	8	7	7	0	0	0	2
Cat.2 (# of Facilities10)	64	57	0	2	5	0	3	6
Cat.3 (# of Facilities 5)	4	4	0	0	0	0	0	0

Interpretation: This table shows that in Cat 2 & 3 the training status for BEmonC and NSSK is not appropriately administer at the facility level.

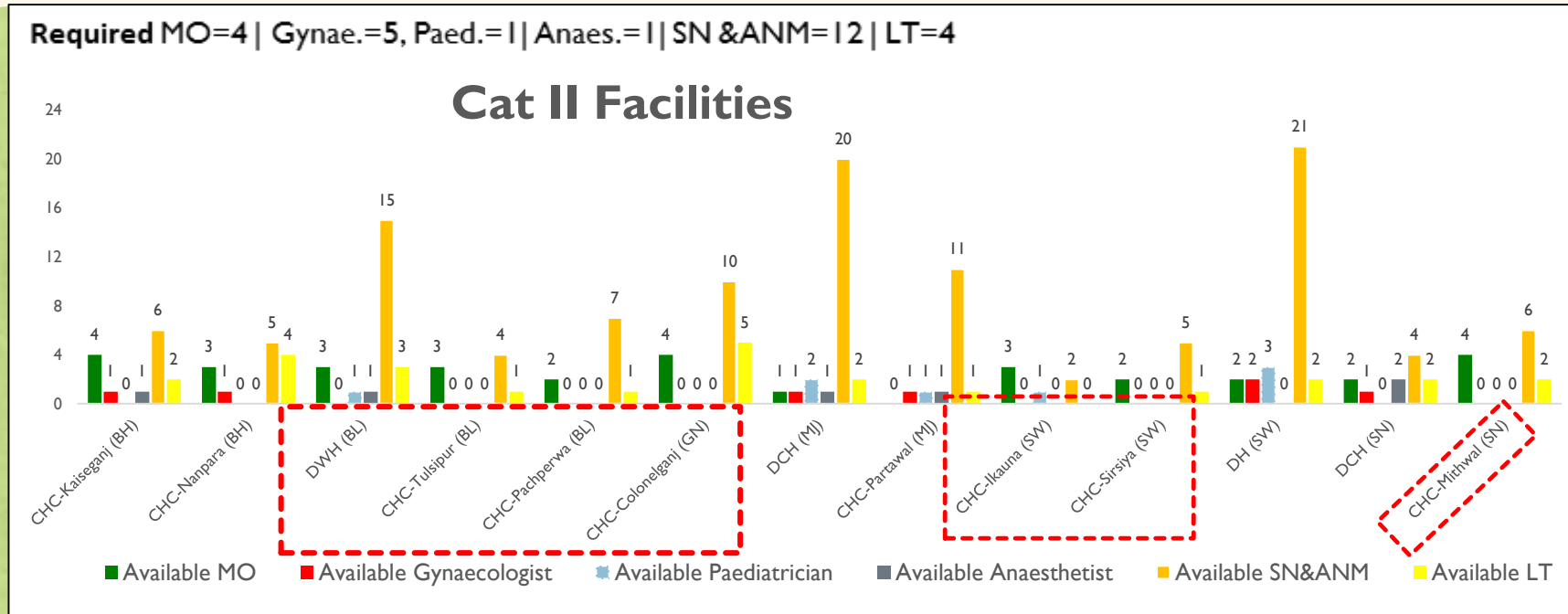
NSSK training is required Specifically for MO, ANM, and SN for the duration of minimum 2 days and the trainers are MO and Pediatricians.

Analysis of Facilities under Gorakhpur Zone (Human Resource Availability)



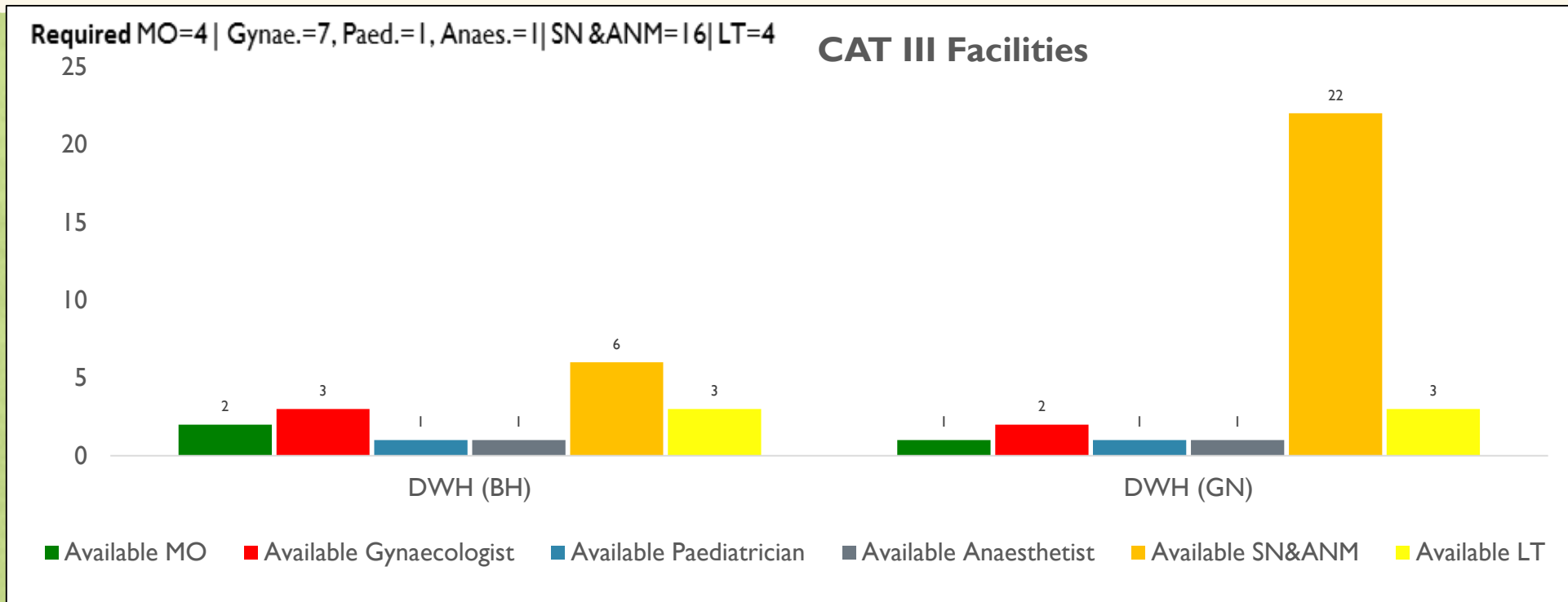
Interpretation: This analysis shows that in category I (<200 delivery/month) of Gorakhpur zone, Majority of facilities do not have required number of MO MBBS.

Analysis of Facilities under Gorakhpur Zone (Human Resource Availability)



Interpretation: This analysis shows that in category II (200-500 delivery/month) of Gorakhpur zone, Majority of facilities do not have required number of Gynaecologist and Anaesthetics at the highlighted facilities in the graph which is highly required of any facilities that indirectly increase the quality of maternal services.

Cont.



Interpretation: This analysis shows that in category III (>500 delivery/month) of Gorakhpur zone, facilities do not have required number of Gynaecologist and SN/ANM at the facilities.

Training status (Gorakhpur Zone)

Training status of Clinical Human Resource (Gorakhpur zone)								
Gorakhpur Zone	# of MO Required	# of MO Available	# of MO trained in BEmonC	# of MO trained in CEmonC	# of Mo trained in FIMNCI	# of MO trained in FBNC	# of MO trained in MTP	# of MO trained in NSSK
Cat.1 (# of Facilities 12)	32	19	0	0	0	0	0	2
Cat.2 (# of Facilities 10)	52	33	2	2	6	2	2	7
Cat.3 (# of Facilities 5)	8	3	0	0	0	0	0	0

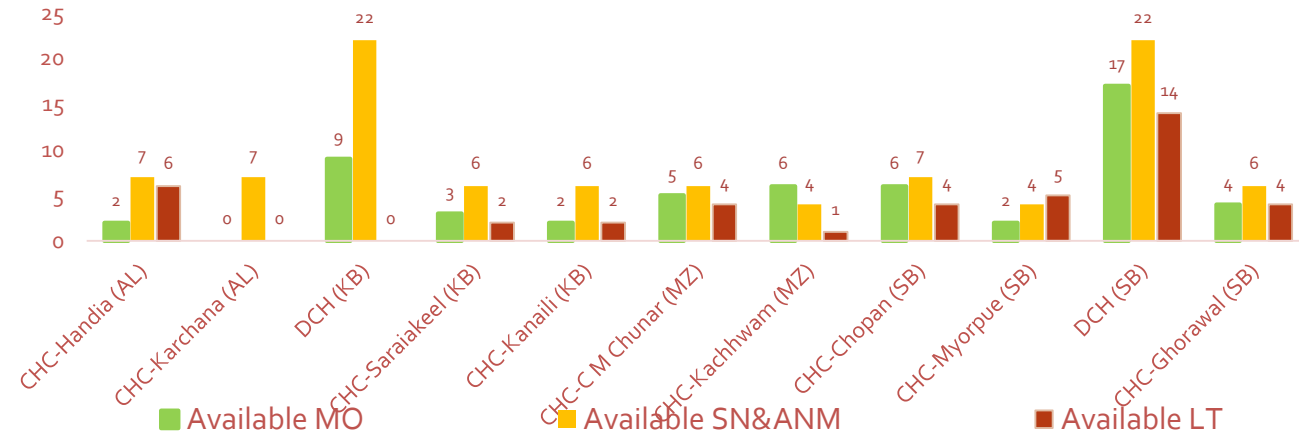
Interpretation: This table shows that the training for BEmonC, FBNC and MTP is not properly administer at the facility level which is needed for MO's.

FBNC training is required for Pediatricians., MO and SN for the duration of minimum 4 days and the trainers are Pediatricians.

Analysis of Facilities under Allahabad Zone (Human Resource Availability)

Required MO=4 | SN & ANM=8 | LT=2

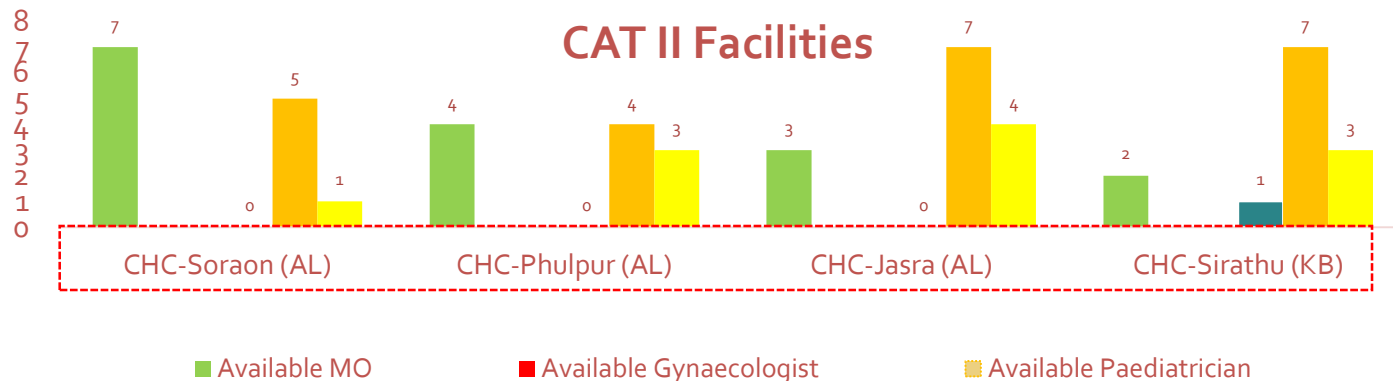
CAT I Facilities



Interpretation: This analysis shows that in category I (<200 delivery/month) of Allahabad zone, Majority of facilities have required number of clinical human resource

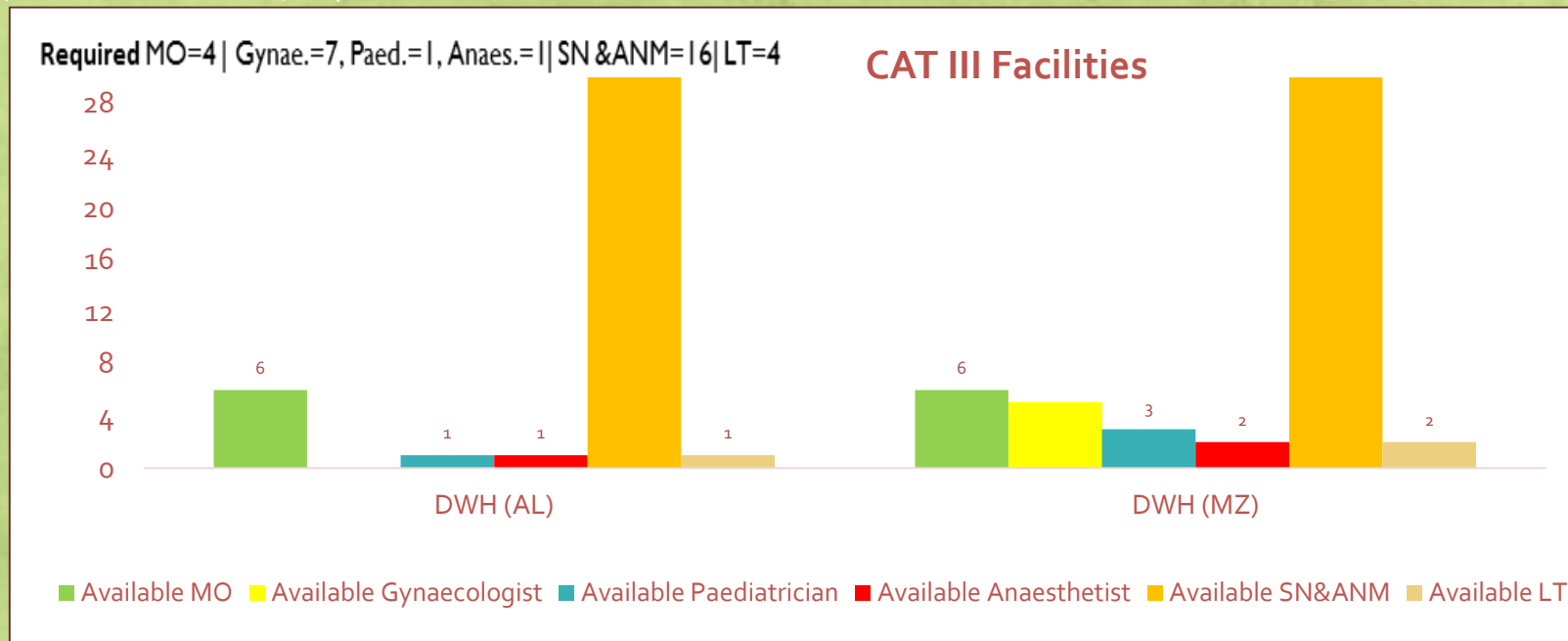
Required MO=4 | Gynae.=5, Paed.=1 | Anaes.=1 | SN & ANM=12 | LT=4

CAT II Facilities



Interpretation: This analysis shows that in category II (200-500 delivery/month) of Allahabad zone, all four facilities do not have required number of Gynaecologist and Anaesthetics at the highlighted facilities in the graph.

Cont.



Interpretation: This analysis shows that in category III (>500 delivery/month) of Allahabad zone, facilities do not have required number of Gynaecologist which is highly required of any Cat III facilities that indirectly increase the quality of maternal services.

Training status (Allahabad Zone)

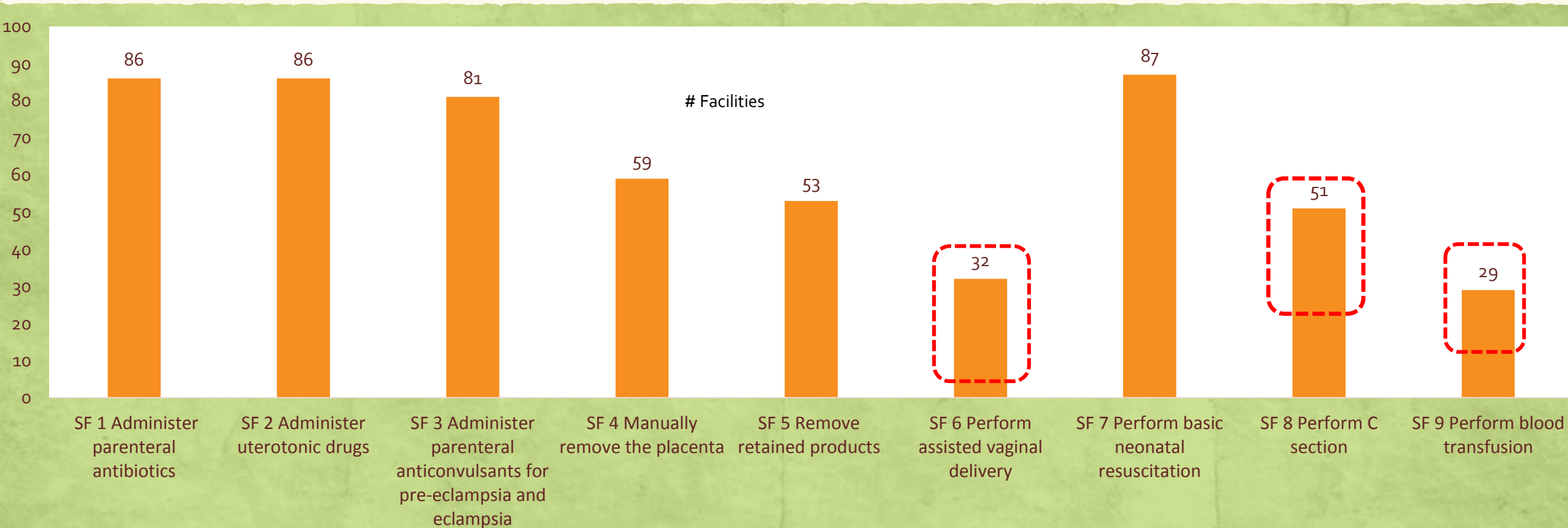
Training status of Clinical Human Resource (Allahabad zone)								
Allahabad Zone	# of MO Required	# of MO Available	# of MO trained in BEmonC	# of MO trained in CEmonC	# of Mo trained in FIMNCI	# of MO trained in FBNC	# of MO trained in MTP	# of MO trained in NSSK
Cat.1 (# of Facilities 12)	30	56	0	0	3	3	1	8
Cat.2 (# of Facilities10)	16	16	0	5	0	1	1	4
Cat.3 (# of Facilities 5)	8	12	0	1	0	0	0	0

Interpretation: This table shows that the training Status for BEmonC and MTP is not appropriate among the facilities. There should be need of 2 weeks (extendable to 3) training for MO's in BEmonC and MTP.

Findings on Signal Functions

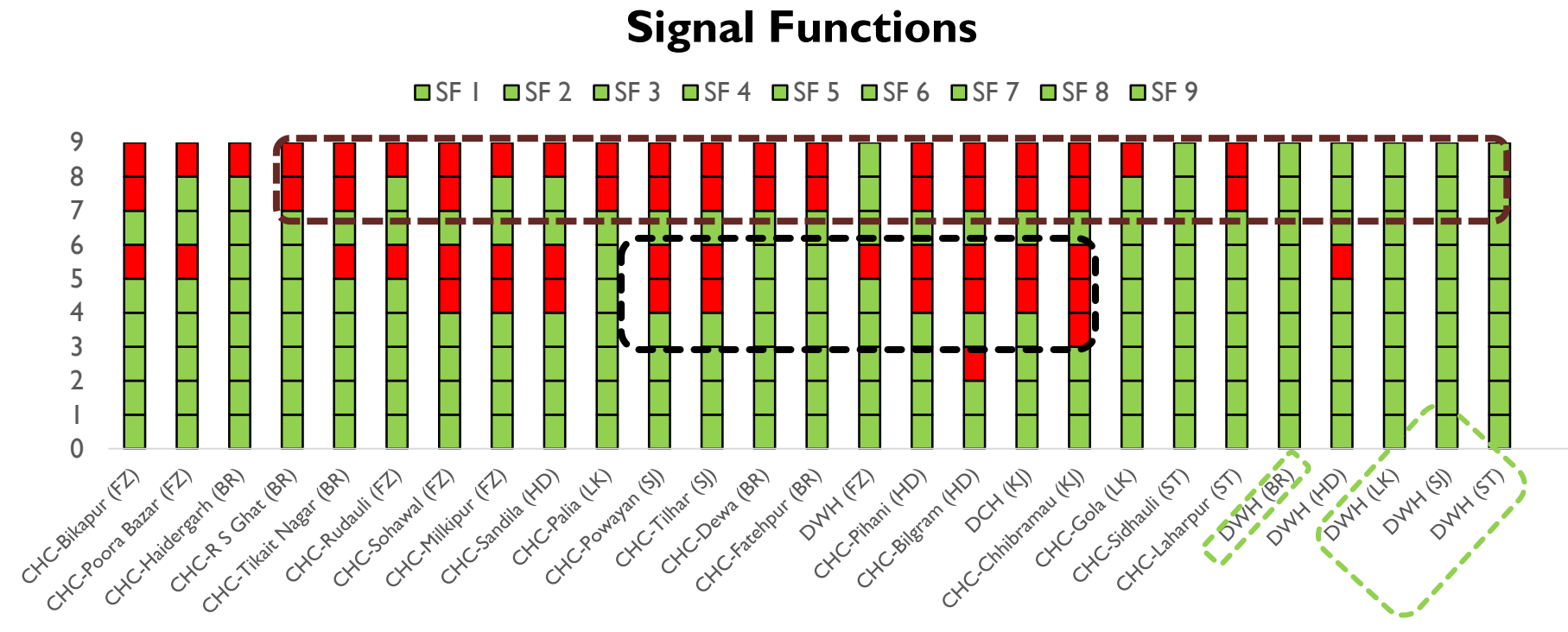
Assessment Analysis

Status of 87 facilities with 9 signal functions



Only 13 facilities (11 DH & 2 CHC FRU) of 87 have all 9 signal functions

Lucknow Zone : 9 signal functions available in FRU's

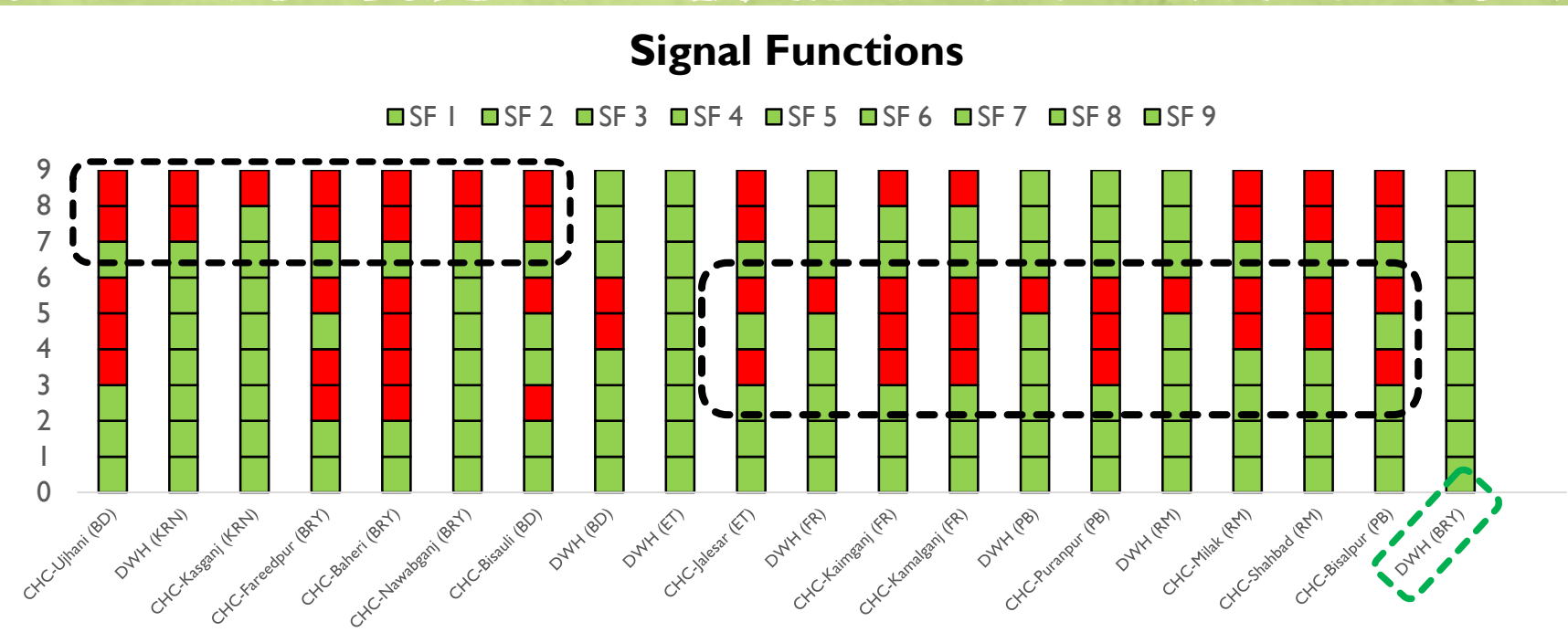


Interpretation: This analysis shows that in Lucknow zone, only five facilities have all 9 signal functions and other highlighted facilities do not have all 9 signal functions in the given graph.

SF1 :Administer parenteral antibiotics
 SF2: Administer uterotonic drugs
 SF3: Administer parenteral anticonvulsants for pre-eclampsia and eclampsia
 SF4:Manually remove the placenta
 SF5: Remove retained products (e.g. manual vacuum extraction, dilation and curettage)
 SF6:Perform assisted vaginal delivery (e.g. vacuum extraction, forceps delivery)
 SF7: Perform basic neonatal resuscitation (e.g., with bag and mask)
 SF8: Perform surgery (e.g., caesarean section)
 SF9: Perform blood transfusion

■ Available
■ Not Available

Aligarh Zone : 9 signal functions available in FRU's

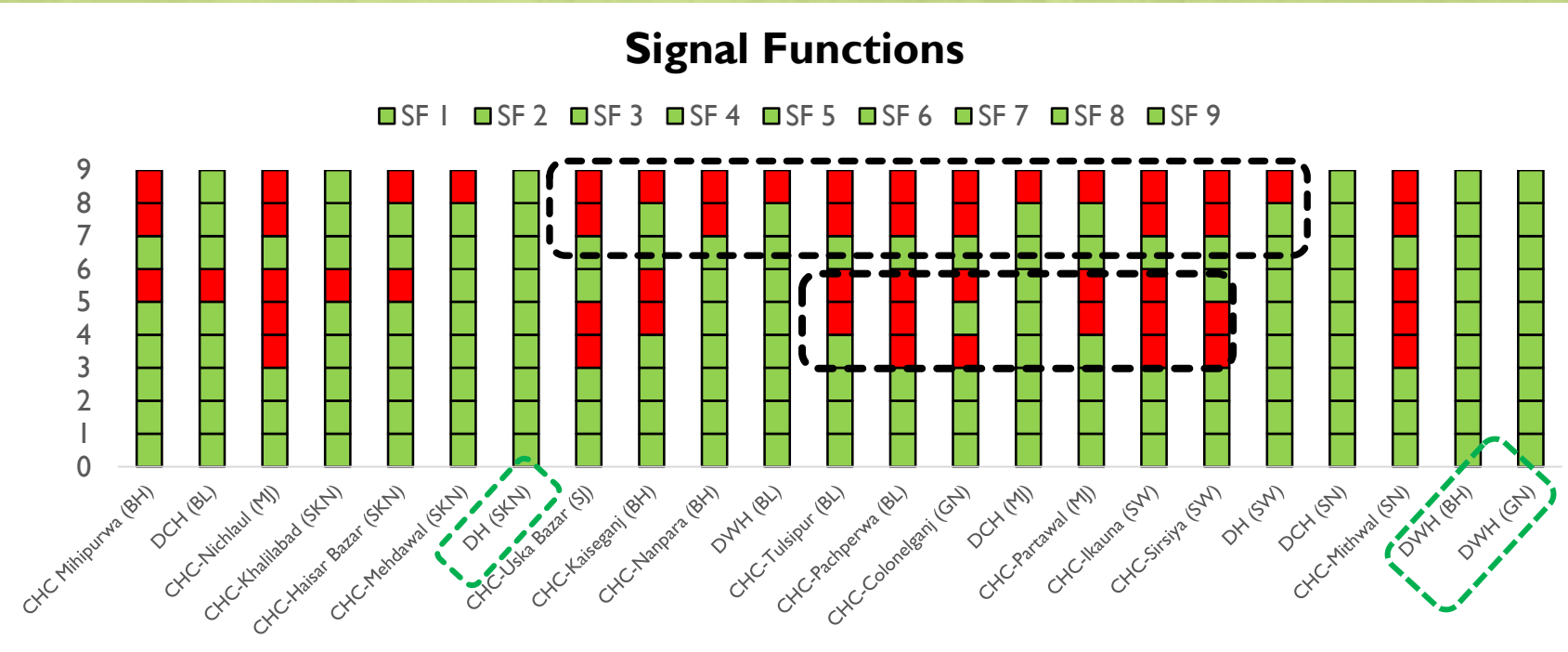


Interpretation: This analysis shows that in Aligarh zone, only two facilities (DWH-Etah & DWH-Bareilly) have all 9 signal functions and other highlighted facilities do not have all 9 signal functions in the given graph.

- SF1 :**Administer parenteral antibiotics
- SF2:** Administer uterotonic drugs
- SF3:** Administer parenteral anticonvulsants for pre-eclampsia and eclampsia
- SF4:**Manually remove the placenta
- SF5:** Remove retained products (e.g. manual vacuum extraction, dilation and curettage)
- SF6:**Perform assisted vaginal delivery (e.g. vacuum extraction, forceps delivery)
- SF7:** Perform basic neonatal resuscitation (e.g., with bag and mask)
- SF8:** Perform surgery (e.g., caesarean section)
- SF9:** Perform blood transfusion



Gorakhpur Zone: 9 signal functions available in FRU's



Interpretation: This analysis shows that in Gorakhpur zone, only three facilities (DWH-Bahraich, Gonda & DWH-Sant kabir Nagar) have all 9 signal functions and other highlighted facilities do not have all 9 signal functions in the given graph.

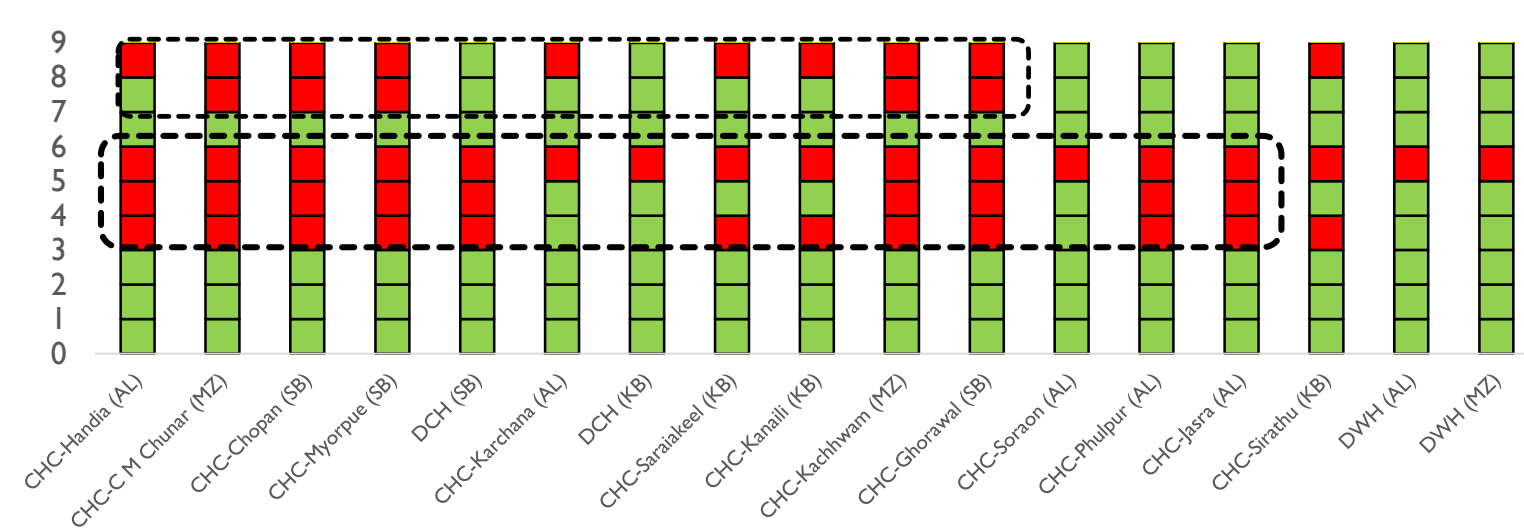
- SF1** :Administer parenteral antibiotics
- SF2**: Administer uterotonic drugs
- SF3**: Administer parenteral anticonvulsants for pre-eclampsia and eclampsia
- SF4**:Manually remove the placenta
- SF5**: Remove retained products (e.g. manual vacuum extraction, dilation and curettage)
- SF6**:Perform assisted vaginal delivery (e.g. vacuum extraction, forceps delivery)
- SF7**: Perform basic neonatal resuscitation (e.g., with bag and mask)
- SF8**: Perform surgery (e.g., caesarean section)
- SF9**: Perform blood transfusion



Allahabad Zone: 9 signal functions available in FRU's

Signal Functions

SF 1 SF 2 SF 3 SF 4 SF 5 SF 6 SF 7 SF 8 SF 9 Cat



Interpretation: This analysis shows that in Allahabad zone, only three facilities have all 9 signal functions and other highlighted facilities do not have all 9 signal functions in the given graph.

SF1 :Administer parenteral antibiotics

SF2: Administer uterotonic drugs

SF3: Administer parenteral anticonvulsants for pre-eclampsia and eclampsia

SF4:Manually remove the placenta

SF5: Remove retained products (e.g. manual vacuum extraction, dilation and curettage)

SF6:Perform assisted vaginal delivery (e.g. vacuum extraction, forceps delivery)

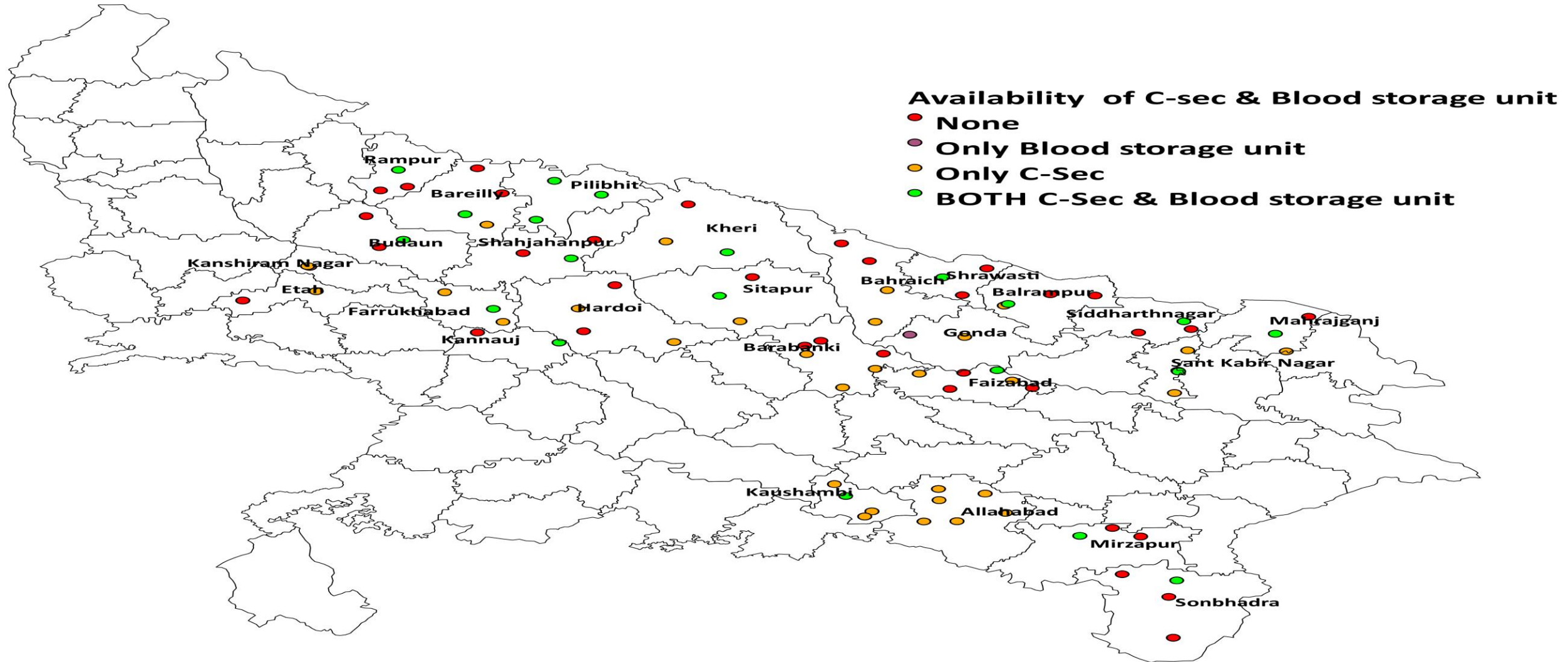
SF7: Perform basic neonatal resuscitation (e.g., with bag and mask)

SF8: Perform surgery (e.g., caesarean section)

SF9: Perform blood transfusion

Available
Not Available

Signal function 8 & 9 available 20 facilities (17 DH) and none in 34 facilities



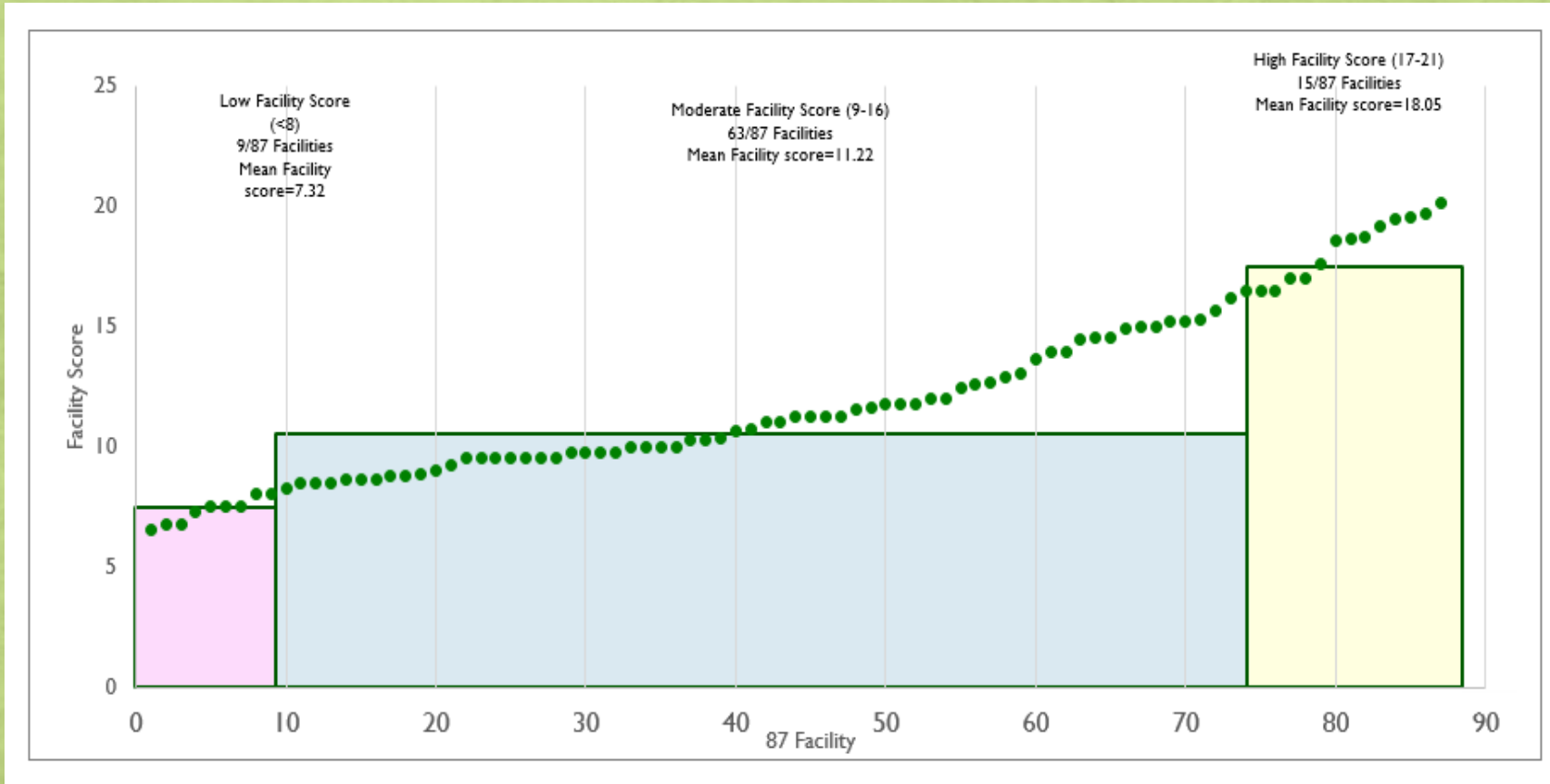
Facility Scoring for Human resource availability with delivery load and signal functions

On the basis of above segmented analysis of 87 FRU's on the status of Clinical human resource, the analysis undergoes facility scoring for human resource availability, with the help of facility score we can easily find out the number of facilities needs to be focus to boost the human resource availability at the facility level and map the facility level service by identify the 9 signal functions.

- This facility scoring helps to identify gaps and prioritize districts, blocks, facility level intervention to address the gaps.
- Enhancing the quality level in Facilities.

Selection Criteria of Facilities			
Criteria	Classification/Score	Selection criteria	Benchmark
Delivery load	Cat 1 (<200 per month)-1 Cat II (200-500 per month)-3 Cat III (>500 per month)-5	Cat I, Cat II and Cat III	FRU must cater to 340 deliveries per month as per MNH tool kit, GoI
Availability of maternal and newborn services	9 signal functions Maximum Score 9	Facilities with maximum score	FRU must provide all 9 signal functions
Availability of Human resource	Cat I Maximum score-4 Cat II Maximum score-5 Cat III Maximum score-7	Facilities with maximum score	Maximum score 7

Facility Score ranges from 6 to 20 in the 87 FRU Facilities (Max. score 21)



- Low Facility Score (<8) and Mean Facility Score 7.32
- Moderate facility Score (9-16) and Mean Facility Score 11.22
- High facility Score (17-21) and Mean Facility Score 18.05

Low Score Facilities

Low Facility Score Districts (Lucknow Zone)		
District	Block	Total Score
Faizabad	CHC-Sohawal (FZ)	6.8
Faizabad	CHC-Milkipur (FZ)	8.5
Shahjahanpur	CHC-Powayan (SJ)	8.0
Shahjahanpur	CHC-Tilhar (SJ)	8.8

Low Facility Score Districts (Gorakhpur Zone)		
District	Block	Total Score
Bahraich	CHC Mihipurwa (BH)	7.5
Balrampur	CHC-Pachperwa (BL)	8.9
Mahrajganj	CHC-Nichlaul (MJ)	6.5
Siddharthnagar	CHC-USka Bazar (SJ)	7.3
Shrawasti	CHC-Sirsiya (SW)	8.6

Low Facility Score Districts (Aligarh Zone)		
District	Block	Total Score
Budaun	CHC-Ujhani (BD)	6.8
Etah	CHC-Jalesar (ET)	8.8
Farrukhabad	CHC-Kamalgank (FR)	8.6
Kanshiram Nagar	DWH (KRN)	7.5
Rampur	CHC-Shahbad (RM)	8.6

Low Facility Score Districts (Allahabad Zone)		
District	Block	Total Score
Mirzapur	CHC-C M Chunar (MZ)	8.5
Mirzapur	CHC-Kachhwam (MZ)	7.5
Sonbhadra	CHC-Chopan (SB)	8.3
Sonbhadra	CHC-Myorpue (SB)	8.0
Sonbhadra	CHC-Ghorawal (SB)	8.5

Results and Findings

On the basis of analysis, overall Clinical HR status is fall under three criteria:

- **First,** Low scoring facility with less than 8 score in which the human resource status is not appropriate as per the requirement at the facilities and around 19 facilities fall under this category.
- **Second,** Moderate scoring Facility with (9-16) score in which the human resource status is somehow appropriate as per the requirement at the facilities and around 57 Facilities fall under this category.
- **Third,** High Scoring Facility with (17-21) Score in which the human resource status is good as per the requirement at the facilities and around 11 Facilities fall under this category.

Cont.

- As training is the most important part to pick the right path towards the professionalism so, overall training status for Clinical Human Resource showing a huge gaps in between the availability of staff and training received.
- 9 signal functions are the key interventions for treating the vast majority of maternal complications and for resuscitation of the newborn after birth and these functions serve as indicators of the level of care being provided. So, the gaps find out that only 11 Facilities (10 DH and 1 CHC-FRU) of 87 facilities have all 9 signal function and other 76 facilities majorly lacking in the area mainly three signal functions:
 - Perform assisted vaginal delivery (e.g. vacuum extraction, forceps delivery)
 - Perform surgery (e.g., caesarean section)
 - Perform blood transfusion

Conclusion and Summary

- The availability of Staff Nurses & ANM in Cat II & III Facilities is inadequate compared to the Cat III Facilities. So, need to increase the availability of SN and ANM in Cat II & III at least up to the required number.
- The availability of Gynaecologist, Paediatrician & Anaesthetics in Cat II Facilities is inadequate compared to the Cat III Facilities.
- There is need to improve the training status of MO's specifically in BEmonC & CEmonC training.
- Majority of Facilities do not have all signal functions. Specifically, focus more on C-section and Blood Transfusion to increase the maternal health services.

Thank You