

Improving management of Facility Based Newborn Care (FBNC) in Bihar

***Quarterly Monitoring and Mentoring Visit
Report 1st. Quarter 2012***

(April 2012)

Background

- The report is prepared based on the findings of Quality Assurance Toolkit (QAT) filled in by the SHSB officials, SIHFW officials regarded as State QA Monitors; Medical College Professors, Regional Deputy Director, RPM, RM&E, RAM, who are regarded as Regional QA Monitors and the Medical Officers and Grade-A/ANMs being trained in NBCC regarded as District QA Monitors.
- This External Quality Monitoring of NBCC was conducted by SHSB supported by UNICEF STF team (State Task Force- QA FBNC).
- Major observations were noted related to **infrastructure, equipment maintenance, manpower, supply of drugs and consumables, adherence to protocols and record keeping**. Data related to management of newborn in NBCC were taken from the PHC Monthly NBCC Report submitted to DHS and SHSB.

Objective of External Monitoring:

- To identify gaps/weaknesses in the quality of care and provide onsite corrective action.
- To assess the units for clinical care against common norms and standards
- To assess the knowledge & skill level of NBCC staffs
- To understand the Recording, Reporting & Feedback mechanisms in the units

Categorization of status of NBCC- 3 categories with color coding

Fully Functional (Fulfilling all 5 criteria)	<ol style="list-style-type: none">1. Equipment : All equipment are functional2. Human Resources :All staff are trained & skilled (at least 4 ANM /Grade-A)3. Protocol :Asepsis maintained & Protocols followed strictly4. Records & reports :Record keeping good & report sent to SHS regularly5. Newborn Care :Newborn babies provided with Essential Newborn Care
Partially Functional	Any one but including 5th Criteria
Not Functional	Not fulfilling any of these criteria

Period of Reporting: **April 2012 (3rd & 4th week).**

Facilities Visited: A total no. of 464 NBCCs were monitored all across Bihar.

S.No.	Name of district	No. of NBCC monitored	S.No.	Name of district	No. of NBCC monitored
1	Patna	19	21	Sitamarhi	13
2	Buxar	08	22	Sheohar	04
3	Bhojpur	13	23	Darbhanga	11
4	Nalanda	12	24	Madhubani	19
5	Kaimur	11	25	Samastipur	20
6	Rohtas	19	26	Purnia	13
7	Arwal	04	27	Kishanganj	09
8	Nawada	14	28	Katihar	16
9	Aurangabad	11	29	Araria	09
10	Gaya	18	30	Madhepura	14
11	Jehanabad	07	31	Supaul	11
12	Bhagalpur	15	32	Saharsa	10
13	Banka	11	33	Munger	9
14	Saran	15	34	Jamui	10
15	Siwan	15	35	Sheikhpura	06
16	Gopalganj	14	36	Khagaria	07
17	Muzzaferpur	16	37	Begusarai	18
18	Vaishali	15	38	Lakhisarai	04
19	East Champaran	18	39		
20	West Champaran	06	40	Total	464

Persons Interacted:

1. *Division level Officials :* RDD(Health),RPM,RM&E,HMIS supervisor
2. *District Level Officials :* Civil Surgeon, ACMO, DS & DPMU staffs
3. *Block Level Officials :* MO I/C,MOs, BHM,BCM, Hospital Managers
4. *Labour Room Staff-* ANM/Staff Nurses & ancillary staffs

NBCC STATUS AT A GLANCE

(Source: QAT Data of April 2012)

A. Fully Functional*: 124

PHC Bishpi, Ladania, Benipatti, Khajauli & Rajnagar (Madhubani), PHC Ujiyarpur, Dalsingsarai & Hasanpur (Samastipur), PHC Ghanshyampur, Kiratpur, Benipur, Manigachi, Bhadurpur, Jale & Baheri (Darbhanga), Shambhuganj, Amarpur, Dhoraiya, Barahat, Bounsi & SadarHospital (Banka), Pirpainti & Sultanganj (Bhagalpur), Raghobpur, Basantpur (SUPAUL), Murliganj, Kumarkhand, Singheshwar, Bihariganj (MADHEPURA), Bariyahi, Salkhua, Simri-Bakhtiyarpur, Sourbazar, Panchgachia, Nauhatta (SAHARSA). Piligrim, Manpur, Tekari & Konch (Gaya), Rajuli (Nawada), Sadar Hospital, Madanpur & Hoh (Aurangabad), Okari (Jehanabad), Kaler (Arwal), Sadar Hospital, Uchkagaon, Kuchaikot, Baikhuntpur, Bhore (Gopalganj), Ekama, Rivilganj, Sadar Hospital, Marhouraa, Dighwara, Sonpur (Saran), Siswan, Darauli, Mairwa, Barharia, Raghunathpur, Basantpur (Siwan), Aurai, Marwan, Meenapur, Gaighat, Mushahri, Kurahni, Sakra, Motipur (Muzaffarpur), Sadar Hospital, Dumra, Majorganj, Bajpatti, Pupri, Parihar, Bairgania, Belsand, Runni Saidpur (Sitamarhi), Piprahi, Tariyani, (Sheohar), Sadar Hospital SNCU, Jandaha (Vaishali), Forbesganj (Araria), Thakurganj, Bahadurganj, Pothia, Chattargach, Sadar Hospital (Kishanganj), Sameli, Falka (Katihar), Bhawanipur (Purnea), Bhipur, Matihani, Mansurchak, Bhagwanpur, Gardhpura, Nawkothe, Bachwara (Begusarai), Khaira, Gidhaur, Jhajha (Jamui), Sadar, Dharhra (Munger), Barbigha, Sekhopursarai (Seikhpura), Alhasi, Surajgarha (Lakhisarai), Rajpur, Itarhi, SDHDumraon (Buxar), Koilwar, Bihia, Shahpur (Bhojpur), Naubatpur, SDH Danapur, Phulwarisharif, Punpun (Patna), Bikramganj, Sadar Hospital, Dinara, Nauhatta (Rohtas), Kundra, Mohania (Kaimur).

B. Partial Functional:

C. Non Functional: 26

PHC Bithan & Singhia (Samastipur), Madhepur, Jhanjharpur, Basopatti, Laukahi, Babubarahi & Phulparas (Madhubani), Sadar Hospital (SUPAUL) and Sadar Hospital (SAHARSA), Meskaur & Kawakol (Nawada), Sadar Hospital (Arwal), Fatepur (Gaya), Madhuban, Pahadpur, Ghoresahan & Dhaka (East Champaran), Rupoli, Baisa, Amour (Purnea), Hasanganj, Kadwa (Katihar), Dandari, Shamho (Begusarai), Ekangarsarai (Nalanda).

* Fully functional is defined as those NBCCs fulfilling all the 5 criteria as given below, Non-functional are those which do not fulfil any of these criteria & partial functional are the ones that fall in-between these two extremes.

Criteria for Defining NBCC Fully Functional:

1. All equipment are functional
2. All staff are trained & skilled
3. Newborn babies provided with Essential Newborn Care
4. Asepsis maintained & Protocols followed strictly
5. Record keeping good & report sent to SHS regularly

Major Observations:

1. Equipment	No. of NBCC Monitored	Available	%	Functional (%)	%
Radiant Warmer	464	482	104	447	93
Oxygen Concentrator	464	420	90	361	86
Phototherapy	464	430	93	417	97
Suction Machine	464	415	89	359	86
AMBU Bag	464	429	92	427	100
Weighing Machine	464	504	108	493	98
Stabilizer	464	313	67	301	96

Major Observations

- Neonatal equipment were available and functional in most of the NBCC. But still in some districts like Samastipur, Nalanda, Purnea, West Champaran Oxygen concentrator need to be installed.
- Only 2/3rd (67%) NBCCs have voltage stabilizers for power backup.
- Room Thermometer was not available in any NBCC.
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2.Location of NBCC

	Available
Inside Labour Room	245 (53%)
Outside Labour Room	219(47%)

Major Observations

- Out of 464 NBCC monitored 219 are located outside the Labour room.
- Still some NBCCs are located outside of the labour room premises.
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3. HR

	No. of NBCC Monitored	Available	Trained	Possessing the required Skill
ANM/Staff Nurse(4)	464	1856	1730(93%)	519 (30%)
Medical Officer(2)	464	928	884 (95%)	301 (34%)
Ancillary Staff(3)	464	1392	NA	NA

Major Observations

- ANMs are frequently deputed/changed between SCs and PHCs which affect the Essential Newborn care Services and retention of skills.
- A majority of staff in spite of trained showed poor skill

* Skills were assessed by direct observation and through practically

4. Drugs & Consumables	No. of NBCC Monitored	Available	Regular Supply
Adrenaline	464	119 (26%)	No
Normal Saline	464	333 (72%)	Yes
Antibiotics	464	408 (88%)	Yes
Dextrose 5 & 10%	464	322(69%)	Yes
Vitamin K	464	14 (3%)	No
Sterile Gloves	464	350 (75%)	Yes
Syringe & Needle	464	420 (90%)	Yes
Wrapping Towel	464	184 (40%)	No
Soap & towel for basin	464	290 (62%)	No
Colour coded Bins	464	161 (35%)	No
Hub cutter	464	301 (65%)	One time supply

Major Observations

- Essential life-saving drugs and consumables like adrenaline and Vitamin-K Injection are almost not available.
- Baby wrapping towel, soap and towel for hand wash were not available in more than 50% facilities.
- Colour coded bins are available only in 1/3rd of NBCCs and none of them following the proper biomedical waste management
- Hub Cutter was available in only in 2/3rd NBCCs.
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5. Protocols' Display	No. of NBCC Monitored	Available	Displayed Properly	%
Resuscitation	464	309 (67%)	230	74
Hand wash	464	419 (90%)	292	70
KMC	464	423 (91%)	324	77
Breast Feeding	464	439 (95%)	338	77

Major Observations

- Resuscitation tin plates were present in 2/3rd of NBCCs but only 74% of the available Resuscitation protocols displayed properly in the NBCC.
- Though Hand Wash, KMC & Breast feeding tin plates are available but they were not displayed in proper place as per the guideline.
- Impact on adherence on protocol was poor.

6. Records/Reports	No. of NBCC Monitored	Available	Updated
Patient Register	464	391 (84%)	354 (90%)

Equipment Register	464	3 (0.64%)	3 (100%)
Monthly Report	464	427 (92%)	426 (99.9%)

Major Observations

- *Equipment register was not available in almost all NBCCs.*
- *Patient registers were not available in 16% of NBCCs and 90% of the available registers were updated.*

AREAS OF IMMEDIATE ATTENTION

Equipment maintenance

- **Oxygen concentrator :-**

Not supplied to *Samastipur District*, Sadar Hospital Madhepura, Sadar Hospital Supaul, Sadar Hospital Saharsa, Lady Elgine and Pareya of Gaya district, Hisua, Kawakoul and Meskar of Nawada district, Sadar Hospital Siwan, Mainatand, Sikta (Champan W), Sadar Hospital (Muzaffarpur), Desri (Vaishali), Nalanda District, Sadar Hospital, Jagdishpur RH, Tarari (Bhojpur), Baisee & Dagarwa (Purnea), Jokihat (Araria), District Hospital NBCC (Araria), Bhawanipur, K.Nagar, Rupoli (Purnea), Dandari, Barouni (Begusarai), Sadar, chakai (Jamui), Chewara (Seikhpura).

Not functional In *PHC Jhanjharpur (Madhubani), Singhwara (Darbhanga), Amarpur (Banka) & district hospital (Samastipur), Udakishanganj (Madhepura), Kisanpur, Saraigarh, Marauna, Pipra, Triveniganj, Pratapganj (Supaul) and Mahisi (Saharsa), Wazirganj and Atri of Gaya district, Haspura of Aurangabad district, Govindpur, Sirdella, Kasichak and Pakrivarwa of Nawada district, Ghosi, Hulasganj, Kako and Ratni-Faridpur of Jehanabad district, Panchdevri (Gopalganj), Sadar Hospital (Champan E), Sadar Hospital (Sheohar), Lalganj (Vaishali), Sadar Ara prakhand (Bhojpur), fatua, Bakhtiarapur (Patna), Nuawn (Kaimur), Chenari (Rohtas), Cheria Bariyarpur, Sahebpur Kamal, Teghra, Chourahi, Sadar (Begusarai), Korha (Katihar), Dighalbank (Kisanganj), Sameli (Katihar), Sikti, Raniganj, Narpatganj (Araria), Amour, Baisa, B Kothi (Purnea), Mansurchack PHC (Begusarai) Sono PHC (Jamui), Kadwa (Katihar), Mansi, Alouli, Ghogri (Khagaria), Haweli Kharagpur, Jamalpur (Munger).*

- **Radiant Warmer :-**

Not functional In *PHC Jainagar (Madhubani) & PHC Bahadurpur (Darbhanga), Rangra Chowk (Bhagalpur), Alamnagar, Gamharia (Madhepura), Chatapur, Pratapganj, Sadar Hospital (Supaul), Mahisi, Sadar Hospital (Saharsa), Khizarsarai and Atri of Gaya district, Akbarpur, Govindpur and Hisua of Nawada district, Ghosi of Jehanabad district, Hathua and Panchdevri (Gopalganj), Paharpur (Champan E), Charpokhari, Sandesh RH (Bhojpur), Choutham & Beldar (Khagaria), Jokihat (Araria), Baisa (Purnea), Raniganj (Araria), Haweli Kharagpur, Jamalpur (Munger), Ariari (Seikhpura).*

- **Suction Machine**

Not Available in *PHC Bithan, Vidyapatnagar, Singhia & Mohanpur (Samastipur district), Aandhrathadi (Madhubani district) and in PHC Bahadurpur Darbhanga district, Sadar Hospital, Murho, Gwalpara (Madhepura) and Sadar Hospital, Kisanpur, Saraigarh (Supaul), Atri, Pareya and Gurua of Gaya district, Hisua of Aurangabad district and Makhdumpur of Jehanabad district, Guthani, Panrukhi (Siwan) and Thawe (Gopalganj), Madhuban, Areraj, Patahi,*

Ghoresahan, Raxaul, Chiraiya, Dhaka, Ramgarhwa, Sugauli (Champan E), Mainatand, Sikta, SDH Bagha, Narkatiyaganj, Gaunaha (Champan W), Purnahiya (Sheohar), Sursand (Sitamarhi), Sahebganj, Muraul, Kanti, Saraiya (Muzaffarpur), Patepur (Vaishali), Nalanda District, Sandesh RH(Bhojpur), Harnaut, Giriyak(Nalanda), Pandarak, Khusrupur(Patna), Aghaura (Kaimur), Bikramganj, Nasirganj, Akhourigola(Rohtas), Baliya (Begusarai), Korha, Manashi, Prampur, Kadwa, Amdabad (Katihar), Jokihat&Palasi (Araria), Sadar hospital, Sikti (Araria), Amour (Purnea), Cheriya bariyarpur and Dandari PHC (Begusarai), Barahat (Jamui), Tetyabamber, Asarganj (Munger).

Not functional in Udakishanganj, Chousa (Madhepura), Mahisi, Sonbarsa (Saharsa), Haspura of Aurangabad district, Govindpur, Roh, Kauwakoul and Pakrivarwa of Nawada district, Manjhi (Saran), Paharpur, Kesariya (Champan E), Bochahan (Muzaffarpur), Bhagwanpur (Vaishali), Chapokhari, Barhara (Bhojpur), Bakhtiarapur (Patna), Mansi, Beldaur, Choutham, Ghogri, Parbatta (Khagaria), Bariharapur, Haweli Kharagpur (Munger), Aliganj (Jamui), Ariyari, ShekhopurSarai (Seikhpura), Sadar, Bhakri, Barouni, Teghra, Chriya Bariyarpur (Begusarai), Baisee, Rupoli (Purnea), Hisua (Nawada), Dighalbank (Kisanganj), Telta, Falka, Manihari, Dandkhora, Azamnagar, Kursela (Katihar), Kursakanta, Raniganj, Bhargama (Araria), Bhagawanpur (Begusarai), Jamalpur (Munger), and Jamui Distict Hospital, Barhiya (Lakhisarai).

- **AMBU Bag :-**

Not available in PHC Phulpars, Basopatti, Jhanjharpur & Harlakhi in (Madhubani), Bibhutipur, Bithan & kothia (Samastipur), Pratapganj (Supaul), Hisua, Nardiganj, Kauwakoul of Nawada district and Kurtha of Arwal district, Guthani(Siwan) Vijaypur, Sidhwalia, Hathua(Gopalganj), Pakridayal, Madhuban, Areraj, Paharpur, Turkauliya, Ghoresahan, Raxaul, Chiraiya, Dhaka, Ramgarhwa, Sugauli, Kesariya, Mehsi, Chhauradano (Champan E), Mainatand, Sikta, SDH Bagha, MJK Hospital (Champan W), Patedhi Belsar (Vaishali), Sahar, Sandash (Bhojpur), Hlisa (Nalanda), Dharahara, Jamalpur (Munger), Mansi (Khagaria), Baisa, Bhawanipur, K.Nagar (Purnea), Sameli, Kadwa (Katihar), Kursakanta, Sikti, Bhargama (Araria), Khudawanpur (Begusarai), Surygarha and District Hospital (Lakhisarai), Barbigha (seikhpura).

- **Phototherapy**

Not available Navinagar, Kutumba, Dawoodnagar, Barun, Haspura and Rafiganj (Aurangabad), Madhuban, Paharpur, Patahi, Ghoresahan, Chiraiya, Dhaka, Mehsi (Champan E), Patepur, Bhagwanpur, Vaishali, Goraul, Mahnar, Rajapakar, Sahdae Bujurg, Desri, Lalganj, Patedhi Belsar, Chehrakala, Raghopur, Bidupur (Vaishali), Sarmera, Islampur, Hilsa, Giriyak (Nalanda), District Hospital NBCC (Araria).

Not functional in Lady Elgine and Fatepur of Gaya district and Akbarpur of Nawada district, Bochahan (Muzaffarpur), Mansi, Choutham (Khagaria), Haweli Kharagpur, Jamalpur (Munger).

- **Weighing Machine**

Not available in Sonbarsa, Riga (Sitamarhi), Parihar, Bajpatti (Sitamarhi), Purnahiya (Sheohar) & Shiv Sagar (Rohtas), Dandari (Begusarai).

Not Functional in Madhuban (Champan E), Lalganj (Vaishali), Bathnaha, Majorganj (Sitamarhi), Jhajha (Jamui).

- **Neonatal Equipment installation** is in process at East and West Champan.

Human Resources

NBCC training is not conducted in Rohtas, East & West Champan District.

Specific recommendation

1. *Essential drugs and consumable items like sleeper, gown, mask, gloves, syringe, needle, feeding tube, suction tube, mucous sucker etc. should be ensured in every NBCC.*
2. *Daily once cleaning of all equipment in NBCC should be ensured.*
3. *For equipment maintenance all NBCC should keep separate register.*
4. *Requires a uniform register for all NBCCs.*
5. *The instruction like mandatory use of Warmer to all Hypothermic, premature & LBW newborn is still not followed by most of the PHCs.*
6. *Power backup available for most NBCCs is poor.*
7. *Most of the NBCCs door and windowpanes needs essential packing's and repairs to prevent dust & moisture.*
8. *Required IEC materials on Handling all six equipments/NRP/Guidelines for entry into the baby care area for each NBCCs.*
9. *For asepsis control running water supply/elbow operated taps/liquid soap/strict hand washing/supply of disposables equipments (sleeper/gown/mask/gloves/mucous sucker/suction tube etc), strict adherence to good housekeeping and asepsis routines required for all NBCCs.*
10. *Continuous Training and orientation is required for enhancement of skills and knowledge.*
11. *Ownership should be created by fixing responsibilities of treating staffs, selecting a nodal person for each NBCC and fixing responsibilities of Health Managers for equipment maintenance.*