Block Public Health strategies
An Action Plan
Narayankhed

2014-2015

Model Districts Health Project
Columbia Global Centers | South Asia (Mumbai)
Earth Institute, Columbia University
Express Towers 11th Floor, Nariman Point, Mumbai 400021
globalcenters.columbia.edu/Mumbai

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The Earth Institute team in Telangana is led by State Technical Consultant, Dr Chetan Purad based in Hyderabad, two District Project Co-ordinators Mr Rajesh Kumar and Dr Vikram Reddy based in Medak and Mahbubnagar respectively.

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List of Abbreviations

CGC |EI	Columbia Global centres | Earth Institute
AH	Area hospital
ANA	Accredited nutrition activist.
ANM	Auxiliary nurse and mid-wife
APVVP	Andhra Pradesh vaidhya vidhana parishat
ASHA	Accredited social health activist.
AWC	Anganwadi centre
AWW	Anganwadi worker
AYUSH	Ayurveda, Unani, Siddha, Homeopathy
BB/BSU	Blood bank / blood storage unit
BEmOC	Basic emergency obstetric care
CEmOC	Comprehensive emergency obstetric care
CH	Civil hospital
CHC	Community health centre
CHNC	Community health and nutrition cluster
DEO	Data entry operator
DH	District hospital
DHAP	District health action plan
DM&HO	District medical and health officer
DP	Delivery point
FRU	First referral unit
GA	Gap Analysis
GoI	Govt. of India
GoT	Govt. of Telangana
HRC	High risk condition (in pregnancy)
HRP	High risk pregnancy
IMR	Infant mortality rate
IPHS	Indian public health standards
LHV	Lady health visitor
MCH	Maternal and child health
MDG	Millennium development goals
MDHP	Model district health project
MMR	Maternal mortality ratio
MNH	Maternal and New-born health
MO	Medical officer
MoHFW	Ministry of Health and family welfare
NHM	National Health Mission
NRHM	National rural health mission
NUHM	National Urban health mission
PHC	Primary health centre
PIP	Programme implementation plan
RCH-II	Reproductive and child health – phase II
RI	Routine immunisation
RMNCH+A	Reproductive, Maternal, New-born, Child health and Adolescent health.
SC	Sub-centre
SDH	Sub district hospital
TFR	Total fertility rate.
UHC	Universal health coverage.

Summary of Recommendations

In view of the data from HMIS and the primary data from the field survey we can conclude with reasonable accuracy that, **Strengths**

1. There are sufficient facilities and infrastructure, including HR available at the PHC level.
2. At the Sub centre level adequate HR (ANMs) and equipment are available for conduct of Maternal and child health services.

Draw backs

1. Limited facilities for conduct of quality Ante natal and post natal care at the sub centre level.
2. Limited utilisation of services at the PHC level.
3. The infrastructure at the Sub centre level needs significant investment.
4. Confidence and skill for conduct of MCH services at the Sub centre level needs strengthening.
5. Referral and transport system.
6. One 108 are stationed at CHC Narayankhed catering to the cluster; the other is stationed at Kangti.
7. There is no paediatrician and gynaecologist in the CHNC.

Glimpse of the Recommendations,

	Theme	Strategy	
		Immediate	Long term
1	Sub centre Infrastructure	To make available a safe place to conduct ANC, PNC, and FP by hiring.	Plan for New SCs and ANM quarters, *2nd SC* within the SC area can be considered in areas where accessibility is an issue.
2	Hands on Training of ANMs	On site / block level hands on training	Establishment of a peer and expert trainers pool and mobile training unit for continuous sustained training effort
3	Referral advice and follow-up	To strengthen the MCP card use	To establish a three tier documentation referral system
4	Enhance Demand at PHC	IEC for enhanced visibility and interim accommodation arrangements for MO / SN	Have an equipment repair mechanism in place and New buildings for qtrs.
5	Strengthen the SPHO office	Strengthen SPHO by trained supervisory staff and vehicle provision	Exclusive and full-fledged health office with dedicated HR and transport. Posting of public health specialists.
6	Home Deliveries and Maternal Deaths	Training of ASHA / CHV in SBA and HBNC. Encourage Maternal death report and audit.	Establish high risk identification and referral to FRU / PHC using dedicated transport arrangement.
7	Transport services	Consider additional 108 services from nearby CHNC	Establish PPP for local transport with involvement from PRI.

Introduction

The Earth Institute at Columbia University collaborated with the MOHFW to work towards the Model Districts Health Project to provide technical support in implementing the recommendations from the mid-term evaluation of NRHM, conducted by the Earth Institute. More specifically the focus was on the Millennium Development Goals 1, 4 and 5: improving the nutrition status of women and children and reducing maternal and child mortality by 2015. Currently Earth Institute supports three states- Rajasthan, Telangana and Jharkhand. Within these states EI works in two districts. In Telangana, Mahbubnagar and Medak were selected for implementation of Models District concept.

The Model Districts Project focuses on health systems strengthening through implementation research, strategic technical advice, monitoring and evaluation, and policy advocacy to help ensure the successful scaling up of services. It is ultimately the district governments and district health units that are responsible for implementing the quality improvements, best practices, and innovations based on the situational analysis. State governments and NRHM offices have a key role to play in driving innovations at a district level, and providing additional funding on evidence based need.

The **Block Health Strategies** is an attempt to look down at the pillars of health care services namely the sub centres and primary health centres with an intention to understand the constricts in the delivery of effective and efficient health care services to the people. The document lays special emphasis on the maternal and child health services as it is widely known that the MCH service parameters are a sensitive indicator for the utilisation of services and are in line with the current intervention areas of MDG's 4 & 5.

The **Approach** has been to collect the primary data through field survey of the primary health centres and sub centres in the block, both qualitative and quantitative. Secondary data, which is complimentary, has been taken from the public domain of HMIS. The analysis of the data is listed in chapter-3.

As part of the block health strategies, Narayankhed CHNC has been identified in consultation with the District Medical and health officer for case study as the services of MCH are low despite having relatively good infrastructure at the PHC level.

In this document we look at various possible solutions within the ambit of the opportunities and limitations in the CHNC.

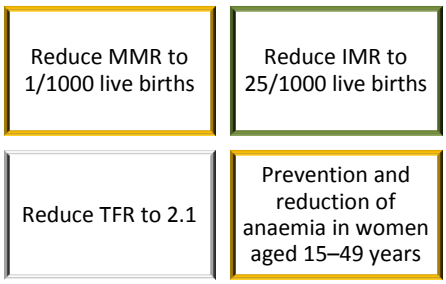
We also explore some unconventional approaches as an interim to mid-term solution to address MMR and NMR till the time the health infrastructure is completely functional.

1. Back ground - Health

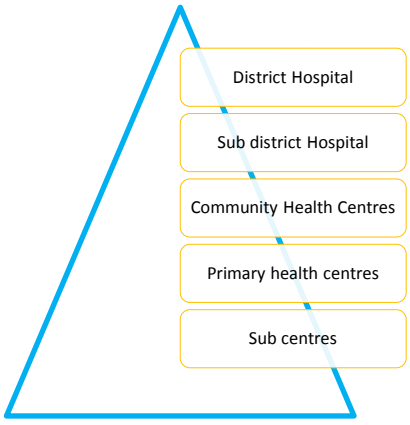
In the wake of the 'call to action' conference at Mahabalipuram in February 2013, the MoHFW developed an action plan to strengthen the maternal and child health services through the 'life cycle approach' under the flagship programme of the national health mission (NHM), the RMNCH+A strategy to focus on all aspects of the life stages of reproductive, maternal, new born, child and adolescent health to achieve the millennium development goals of MDG 4, MDG 5 & MDG 6 with an intention of having an immediate and long term impact aimed at reducing the Maternal and childhood mortality rates.

In any country the mothers, children and women in the reproductive age constitute the largest consumers of health services. The health of this vulnerable group also sets standards of the health care services available and delivered.

National Health mission is committed and essentially focuses on strengthening the primary health care across the country with emphasis on strengthening health facilities and services up to the district level in urban and rural areas.



The Twelfth Plan document states that expenditures on primary health care should account for at least 70% of the health care expenditure. Tertiary care and regulatory functions should be a part of the other Central Sector and/or Centrally Sponsored scheme, namely, Human Resources & Medical Education.



The health delivery system in the country is structured at three tiers as Primary, Secondary and Tertiary care levels. The District hospital is at the top of the hierarchy and the sub centre is foremost post of service delivery. In general the different levels of health care are directed towards promotive, preventive, curative and rehabilitation services.

As the deadline for the achievement is fast approaching, it is common knowledge that India in general has a long way to go before there is significant and sustainable impact in the maternal mortality ratio and the child mortality rate.

As part of this document we take a closer look at the pillars of health care namely the sub centres and the primary health centres to understand the constricting factors affecting the effective and efficient delivery of health care services and seek implementable steps for accelerating the efforts.

2. Block Profile – Narayankhed

1	No of PHC's	7 (Existing) 1 (Newly constructed)
2	No of S/C.	51
3	Total Population (2011 Census)	2,90,617
4	Total No Of House Holds	58,914
5	No Of GP's	124
6	No Of Villages	174
7	No Of Tandas	102
8	0-5 Years children(2011 census)	32101
9	No of Schools (Primary, Secondary, High)	321
10	Total No School Going Children	29416
11	No Aww Centers (Both AWW& mini AWW)	412
12	No Aww Teachers	412
13	Total no of sectors	6
14	No of KGBV residential schools	6
15	No of Private Nursing Homes	4
16	Total No of private hospitals	2
17	Total No Boys Hostels (Govt)	7
18	Total No Girls Hostels (Govt)	11(including KGBVs)
19	Sex Ratio of NKD	966
20	No Of Asha Workers	229
21	No of CHC	1
22	No AYUSH Centers	1
23	Age at Marriage	16 Years for girls, 20 Yrs. for boys.

3. Analysis and Discussion

3.1 Snapshot of MCH services: [1]

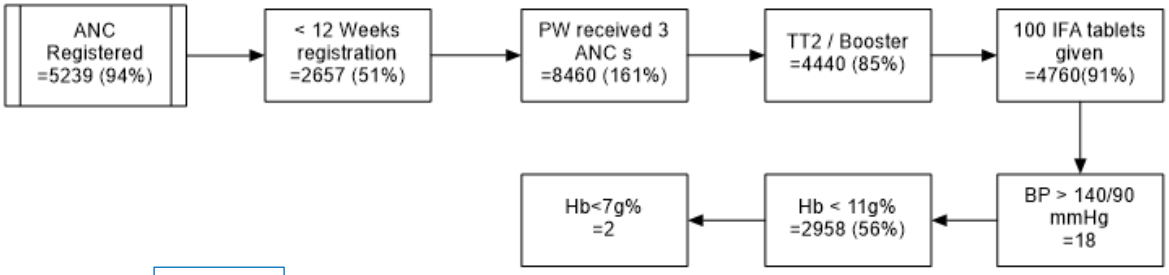
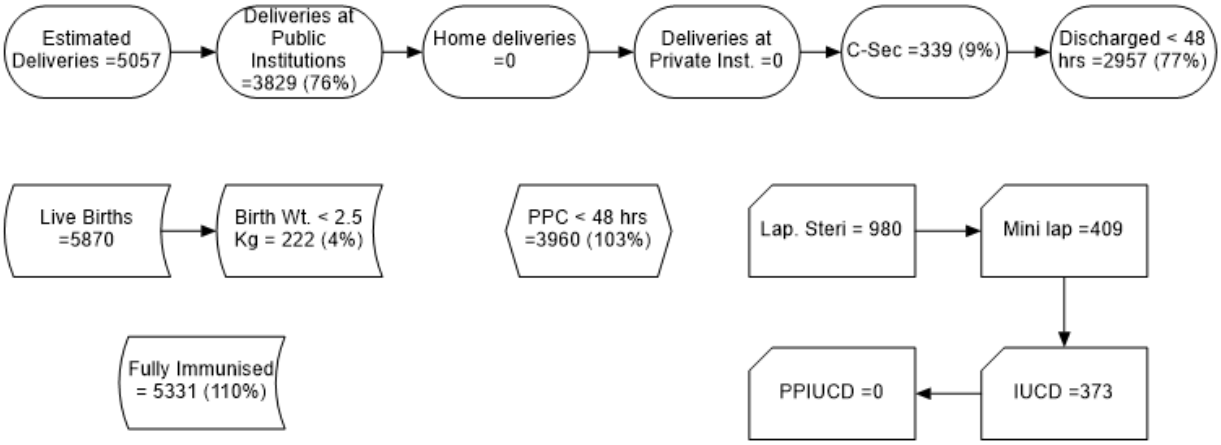


FIG-3.1



3.2 Sub-centre:[2] (Table 3.1)

	Theme	Inference
1	Accessibility	SC Near main habitation 100% (↑)
2	Building	43% functioning in Govt. building and 57% are in good condition.(↔)
3	Infrastructure – support	No power, water, toilet, labour room and ANM quarters -0% (↓)
4	ANM quarters	0% (↓)
5	Human Resource	80% of 2nd ANM and 57% of 1st ANM are present (↑)
6	Equipment	100% Hb, BP and weighing machines available. (↑)
7	Drugs	IFA, Vit A, Zn (84%), ORS, Antibiotics and other drugs are available 100% (↑)
8	Family planning	PTK – 80% ;OCP's 100%; Urine albumin and sugar testing kit – 45%; IUCDs -4% ; EC Pills -10% ; Sanitary napkins -0%(↗)
9	Pick n Drop	Ambulance (108) – H2F 45% ; F2F 25%; F2H 4% (↓)
10	IEC	SBA Posters -0% ; JSY entitlements – 10% ; JSSK entitlements -0% (↓)

3.3 Primary Health Centres:[2] (Table 3.2)

	Theme	Inference
1	Accessibility	PHC is accessible – 100% (↑)
2	Building	100% are in Govt. building and in good condition (↑)
3	Infrastructure – support	86% - power back up; 71% - 24x7 running water; 57% functional clean labour room; 14% clean separate toilets; 0% -separate male and female wards. (↗)
4	Quarters	14% SN quarters, 0% MO and other staff quarters (↓)
5	Human Resource	MO, SN, ANM, LT, Pharmacist available – 100%
6	Training	3/7 MOs are trained in BEmOC; 47 people are trained in SBA; 64 are trained in IMNCI; 2 are trained in IUD (↓)
7	Equipment	76% delivery kits; 86% radiant warmer; Oxygen -71% ;Suction apparatus - 57% ; 29% have functional autoclave; 71% have functional ILR and 43% have functional deep freezer. (↗)
8	Drugs	Most of the drugs are available (↑)
9	Family planning	100% PTK and OCPs; 29% EC pills and IUDs; 0% sanitary napkins. (↔)
10	Lab services	Basic lab services are available. (↑)
11	Skills and record maintenance	There is huge range of the proportion 0-100%, over all there is scope for significant improvement. (↓)
12	IEC	Scope for improvement (↔)
13	Other services	Dietary services -57%; Regular sterilisation of LR -43% ;Drug storage facilities -29% (↓)

Text Box 3.1 (DHAP 2014-17)

The major challenge for Medak District has been a stagnating IMR at 46/1000 Live Births (SRS-Dec 2013), with 76% contributed by Neonatal Mortality. Rural / urban disparities, inter district disparities and inequity in access to health care contribute largely to the stagnating rates. Hence a special emphasis has been given to improve rural / tribal health, and adolescent health with special focus on underserved SC/ST population groups.

The quality of public health services is not satisfactory, resulting in poor utilization of the Primary Health Care System especially for Emergency Care of women, new-born's and children. Only after NRHM came into existence this is improved.

3.4 Following is the discussion and possible recommendations:

1. **Sub centre Infrastructure[2]** (Refer Table 3.1) There is a need to improve the SC infrastructure as majority of them are not in govt. buildings and 0% have any kind of basic facilities of water or electricity. Most of the sub centre buildings are located within the habitations and are accessible to the HQ village. Considering accessibility and the tardiness of constructing the new buildings involving huge financial burden which invariably would be located in the outskirts, it is strongly advocated that proper and suitable for use with water and electricity buildings may be hired for rent.

- **C**urrently the practice of paying rent towards the rented building is from OPE of the ANM or under a phantom head of untied funds.
- This calls for a need to streamline and formalise the process of renting the buildings.
- Additionally where such buildings are not available at the HQ villages, other villages within the SC area may be explored for suitable buildings.
- Such rented buildings may also be hired as an *additional SC* in areas which are far to reach and have poor transport facilities.
- ANM can conduct the ANC, FP and other services at these additional SC's during her fixed tour.

2. **Hands on Training of ANMs for Confidence:** There appears to be no clear data available at the CHNC on the training status, however even if there has been training conducted (unless < 1 year) there is a need to retrain the ANMs for ANC, FP, HBNC and identification of high risk pregnancies. This stems from the view that if a skill is not practiced regularly then the quality and confidence will gradually wane away.

   For this we recommend that a training be conducted (at least hands on) ideally at the district level. If this is not possible then a CHNC level training may be done which is spread over a few weeks for a few days which are fixed in a week. The ANMs can learn a skill every week. The pool of trainers from the district level, competent staff from other PHCs and from within the CHNC area may be identified.
   The emphasis is to be on a continued skill improvement and update on newer practices and strategies.
   Field experience has shown that the sub centre staff are not aware of most of the new strategies including the RMNCH+A.

3. **Referral advice and follow-up:** The data available points towards the underutilisation of services at the PHC level even though the PHCs are adequately equipped in terms of HR, infrastructure, equipment and logistics. There is an urgent need to generate demand to enhance utilisation. One of the ways to do it is to refer the eligible beneficiaries for the services available at the PHCs through a documented referral mechanism.
   For this a three copy referral paper may be adopted. One stays with the ANM, one at the PHC through the patient and one for the patient's record. After the consultation the mother or other beneficiary brings back the referral slip to the ANM so as to complete the loop.
   In case of pregnant women and mothers the **MCP card** has to be made operational with sufficient quantity made available at the SC s and PHCs.
   ASHA's as a referral system needs to be strongly encouraged and closely monitored with prompt payment of honorarium (E.g.: payment decentralised to the CHNC level). Well educated, trained and motivated ASHAs can serve as a sustainable referral

mechanism. Additionally ASHAs may be trained in SBA and HBNC to attend to the home deliveries.

4. **Enhance Demand at PHC:** Current data suggests there is huge potential for the PHCs to function optimally. However there seems to be less utilisation of services despite the fact the PHC s are relatively well equipped.
   The low utilisation may be due to,
   - Non availability of staff or available for shorter period of time. This could probably be due to the time spent in transit, as there are no quarters available.
     A long term plan is inevitable for the provision of quarters, but that should not deter in identifying tailor made solutions on a stop gap basis including the provision of HRA to staff nurses to enable them to find local hired accommodation.
   - A second reason seems to be the lack of transport services locally for travel to the PHC. This needs to be addressed by encouraging the **involvement of PRIs** and other health activists locally *to find a sustainable way for transportation* including the possibility of identifying local private vehicle which may be used and reimbursed either from the PRI or the untied / HDS funds etc.
   - IEC campaigns need to be conducted to create awareness among the target population regarding the available services in the PHCs. PRIs needs to play a pro-active role in being and ensuring accountability by participating in the VHSNC and health related IEC. Strong local political will needs to be an enabling factor for the demand generation and utilisation of services.
   - Finally training of the MO and SN in BEmOC, SBA.

5. **Strengthen the SPHO office:** The senior public health officer is the nodal person of all health related activities at the sub district level. SPHO is entrusted with the responsibility of ensuring that the health systems functional smoothly. One of the purposes of creating this relatively new post was to facilitate seamless implementation of activities and act as a local trouble shooting person.
   SPHO's office in general suffers from,
   - Lack of public health specialist, clinical specialist as an SPHO has limited utility.
   - Shortage of support staff.
   - ASHA honorarium payment process may be decentralised to SPHO as it be easy and quick disbursement with limited or no hassles.
   -

6. **Home & Private facility Deliveries:** Analysis of the data shows that, **(Refer text box and Annexures) – Table 3.2**
   - 94% (5239) OF pregnant women are registered for ANC.
   - 51% (2657) of ANC registrations are registered in the first trimester.
   - 76% (3829) of the estimated pregnancies (5057) are delivered in the public health facilities.

- As per the delivery load analysis, the bulk of deliveries are conducted at Narayankhed CHC, Kangti and Manoor PHC's. There is a significant opportunity for enhancing the services at other PHC's.
- There are no home deliveries or private sector deliveries reported from the CHNC. *Hence the fate of 24% (1228) pregnant women is not clear.*

(Table 3.3) – Delivery Load

2014-15	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
*NIZAMPET (Non 24*7)*	0	0	0	0	0	0	0	1	1	2
KARASGUTTI	6	6	14	8	7	4	7	13	1	66
SIRGAPUR	6	9	10	8	8	6	8	10	2	67
KALHER	8	11	12	9	7	9	8	7	4	75
SHANKARAMPET-A	9	14	13	11	12	9	13	4	5	90
MANOOR	8	11	9	22	18	24	15	22	6	135
KANGTI	46	63	54	64	75	33	33	36	16	420
NARAYANKHED -CHC	89	81	109	108	100	91	87	89	47	801

Manoor PHC located 24 Kms away from CHNC Narankhed. Most of C Section cases are referred to either Zaheerabad Area hospital (46 Km's) away from PHC or Bidar District hospital (55Kms) away from Manoor.

PHC Karasgutti is 32 Km's away from CHNC Narayankhed, Very poor transport to this PHC from CHNC, Absolutely no public transport up to this PHC. Most of the cases referred to Bidar district hospital (23 Km's away from PHC).

Most of the SC are near to CHNC Narayankhed rather PHC Nizampet, in that view the utilisation of PHC services are underutilised, No deliveries at PHC.

Under Sirgapur PHC , SC are placed in villages but the catchment villages are scattered with in the radius of 20kms from the SC, Many villages are thandas, no roads and no transport, This factor is hampering the Immunisation sessions and NHP implementation and ANC follow up.

At PHC Kalher the PHC building and two SC are not placed in Habitation places, It is not near to Habitations , ANM feels always unsecured and SC are not entitled with any Water and Electricity facility, only building was given.

PHC Kangti No public transport to PHC and SC are located in Private houses, for spec wise it is not all sufficient to do ANC examination. For immunisation sessions at every designated location ANMs are spending 1000-1500 INR as out of pocket expenditure on autos and other travelling. It was not reimbursed and House rent is being paid by ANMs for their stay at SC at respective villages.

At PHC Nizampet most of the SC are near to CHNC Narayankhed rather PHC Nizampet, In that view the utilisation of PHC services are poor, No deliveries at PHC.

(Table 3.4) – Pick n Drop Services[2]

	Kalher	Kangti	Karasguti	Manoor	Nizampet	Shankarampet	Sirgapur	
Home to facility	0	0	0	0	0	0	0	0%
Inter facility	0	1	0	0	1	1	0	43%
Facility to Home	0	0	0	0	0	0	0	0%

*(1 = Govt.; 0= private provider / Own)

The delayed registration of ANC's, unreported cases of deliveries (24%), the lower service delivery at the PHC level, the delivery of services predominantly at Narayanked CHC and Kangti PHC all point towards the difficulty in reaching and or utilising the services.

As discussed in the earlier paragraphs, the significant problem is that of non-availability of any kind of suitable transport services in the CHNC area.

Three 108 vehicles have been allotted to whole Narayankhed block, one of the three 108 vehicle's is at shed since few months, one is at Kangti and one is at Narayankhed. There are no sufficient vehicles to provide pick and drop services to pregnant women. Out of 6 Mandals only 2 mandals are having 108 vehicles. Hardly 20-30% delivery cases are benefitted by this service rest is through private vehicles as OPE for the family.

The inter-facility referral service is being put in practice (43%) at Kangti, Nizampet and Shankarampet PHCs, whereas there are nil pick up from home and back.

There is an urgent need to explore other modes of PPP to address this constraint, including holding discussions with the state public transport for plying of buses in the hospital route.

In light of the above it would be unfair to assume that all pregnant women have the resources, accessibility or family support to undertake such a journey, however that's not to say that no pregnant women approach the above mentioned facilities, which we believe they do, but the proportion of such women may be small.

More than the need, affordability is the biggest factor while choosing health care services and naturally , except the few who can afford qualified private care, the choice is for the birth attendant's (trained / untrained).

Hence there is reason to believe that in rural Narayankhed, significant number of deliveries are conducted at home and are often unreported.

As the public health sector is currently unable to provide services close to the patients home and in view of a high maternal mortality rate due to preventable causes as shown in the figure,

below, we are left with no option but to recommend for safe home deliveries till the time there is demand and service provision enhancement in the PHC s of the CHNC.

(Table 3.5) – Type of private provider

	Type of private provider	Implication – Health	Implication - OPE
1	Qualified and registered medical professional – MBBS and above	↑ Quality, minimal morbidity and mortality.	↑ expenditure
2	AYUSH qualified	Minimal morbidity and mortality	↗ moderately high
3	Untrained SBA	↑↑ Morbidity, mortality	↗OPE is present
4	Trained SBA	↔ MMR may not increase	↔ OPE mild to moderate

Encourage home deliveries by trained SBA:

- Identify amongst the ASHA pool that are eligible and committed to conducting deliveries.
- Train the ASHA and other eligible CV in SBA, HBNC.
- Provide safe delivery kits well in advance, prevent stock outs.
- More than one person can be trained in each village.
- The trained SBAs should display their certificate on request to the pregnant women so that the untrained BA‘s are not encouraged.
- The SBA and HBNC trained volunteers are to be monitored by the PRI.
- An exclusive honorarium is to be paid for the SBA conducting SBA and HBNC. This honorarium to be ideally delegated to the SPHO office for efficient payment.

Encourage private facility reporting:

- Steps are to be taken to ensure monthly reporting of the deliveries and sharing of relevant demographic details of the mother with the health authorities.
- This activity needs thrust from the district and where needed from the state health authorities.

Delivery by a trained person not only improves the maternal health indicator s but also child health mortality indicators mainly the Infant mortality rate, but more importantly the now stagnant Neonatal mortality rate (NMR) for which the main causes are asphyxia, sepsis. Deaths due to Asphyxia and sepsis are due to prolonged labour and faulty delivery techniques.

Additionally the trained SBA can identify any complications of labour and promptly refer them to the FRU or nearest PHC for further management and can function as a liaising person for this purpose.

A trained person can also conduct home visits post-delivery for **PNC** and **HBNC** and refer promptly when needed.

We believe that the above intervention has the potential to reduce MMR and NMR quickly and sustainably till the time institution and other transport facilities are available.

7. Reporting of Maternal and Child deaths

Text Box (3.2)

District Maternal deaths reported for 2014-15 FY = 51.
Narayankhed Block Maternal deaths reported for 2014-15 FY =07
District Infant deaths reported for 2014-15 FY = 967.
Narayankhed Block Infant deaths reported for 2014-15 FY = 93

(Table 3.6) - Deaths

PHC	Infant deaths	Maternal deaths	Reason
Kangti	17	2	Obstructed labour with PPH
Kalher	14	1	Renal Failure
Sirgapur	13	0	
Karasgutti	5	0	
Nizampet	14	0	
Shankarampet	27	2	Severe anaemia
Manoor	3	1	MI
CHC Nkd	0	1	Cardio pulmonary arrest
Total	93	7	

Analysis of the block health infrastructure has led to the understanding that the CHNC has,

- Significant access constraint to health care service utilisation.
- The available 108 services are insufficient
- Limited number of private players
- Relatively well positioned PHC s in terms of HR and equipment.
- Poor infrastructural and quality of services at SC level.

Hence there is reason to assume that a significant proportion of deliveries happen at homes or at unqualified rural health providers. Any referral is too late and ends with the mother /child losing their life.

The above Table 3.6, depicts those numbers which are reported. Primi facie it appears to be on the lower side. As such there is an urgent need to implement the system of Maternal and child death reporting not only for recording but with a view to analyse, review and plan for interventions.

We strongly advocate not only the reporting from the government functionaries but also from the citizens directly to a toll free number. Such an initiative in rolled out recently in Rajasthan, which incentivises the information provider with Rs.200 mobile talk time currency for every case of reported and validated maternal death.

h) Human Resource and Rationalization: The process of rationalization of HR and equipment's has been initiated in the district for all the blocks. This activity of data collection is expected to be completed by the end of 1Q15. Following which the process of rationalization would take - up by the district health authorities and is expected to address the HR and equipment related constraints in the district on an immediate basis. Earth Institute will provide technical assistance to the district where requested.

i) PPP at the Primary health centre level: Public–Private Partnerships: PPPs offer an Opportunity to tap the material, human and managerial resources of the private sector for public good. Tamil Nadu has issued *(planning commission – 12th plan)* guidelines to authorise Medical Officers in charge of particular healthcare facilities to enter into MoUs with interested persons to receive contributions for capital or recurrent expenditure in the provision and maintenance of facilities.
Similar PPP's can be explored at the block level for bio-medical waste management, Annual maintenance contracts for equipment's and so on.

j) **Human Resource:**

- 80% of 2nd ANM and 57% of 1st ANM are present at the Sub centre level.
- No paediatrician or gynaecologist available in the block.
- Single MO posts at all the PHCs.

Efforts are required to expedite rationalisation of HR process in the district which has been initiated.

4. Operational Plan

Theme	Recommendation		Partnership needed with	Responsibility		
	Immediate / Interim	**Mid to Long term**		**Primary**	**Secondary**	**Overall**
Sub centre Infrastructure	a) Hiring of fit for use building	d) New SC buildings	1) PRI of the village.	MO - PHC	SPHO	DMHO
	b) Ensuring availability of water and Electricity	e) New ANM quarters	2) Electricity & water departments			
	c) Equipment and logistics availability					
	f) Rent payment through untied funds					
Training of ANMs	a) Line list the training status of ANMs in SBA, FBNC and HBNC	d) Establishment of Trainers pool from amongst the peer.	ASHA / ICDS			
	b) Plan for hands on CHNC level training	e) Establishment of the continuous monthly training mechanism at the block level.				
		f) Mobile training units may be established *				
Referral advice and follow-up	a) Train ANMs , ASHAs and Identified CHVs in identification of high risk and referral	b) Introduce three tier referral documentation				
	c) Strengthen MCPC card use by ensuring quantity and monitoring					
Enhance Demand at PHC	a) Enhance demand by enhancing visibility - of the available services through IEC at village level.	g) Equipment repair mechanism for all the essential equipment	Engineering division / HMIDC	DMHO	SPHO	

	b) liaison with the local transport department to ply buses via the PHC (Enhance public transport connectivity)	h) Special travel allowance or mobility support through provision of vehicles for MO & SN.	NRHM / State Govt.	MO	SPHO	DMHO
	c) Address the HR vacancy through rationalisation	i) identify locally sustainable transport mechanisms E.g.: Auto rickshaws / tractors and a mechanism to reimburse based on distance	PRI	DMHO / MO	MO / SPHO	DMHO / SPHO
	d) Ensure round the clock availability of staff by strengthening the SPHO office.	j) New staff quarters MO / SN	HMIDC			
	e) House rent allowance for Staff nurses - to hire rented houses					
Strengthen the SPHO office	a) Public health specialist as SPHO	e) Exclusive SPHO office with trained staff		DMHO		
	b) Supportive supervisory staff	f) Direct budget release to SPHO.		DMHO		
	c) Vehicle and pol for mobility - exclusive	g) Process and payments to ASHAs - delegated to SPHO.		DMHO	SPHO	
	d) Office equipment - where needed			DMHO	SPHO	
Home Deliveries and Maternal Deaths	a)Encourage maternal death reporting and audit - irrespective of the place of origin or delivery	d) Transport mechanism for complicated cases / emergencies to the nearest FRU.		SPHO	PRI	
	b) Train the ASHAs and CHVs in SBA and HBNC			MO PHC	SPHO	DMHO
	C) Delivery kits for home delivery to SBAs			MO PHC	SPHO	DMHO

(Annexures as separate attachment)

5. Concluding Remarks:

The wide range of recommendations discussed on SC infrastructure, Capacity building, Referral advice and transport, Enhancing demand of PHC, Home and institutional deliveries are the potential game changers. The above discussion proposes ways in which to improve or modify existing strategies in a widely discussed area of health systems strengthening all over the world.

No single strategy employed in the block has been indisputably successful in enhancing the efficiency and significant strides are necessary to strengthen the strategies in place.

At its core, the issue stems from the inherent lack of elementary infrastructure, equipment and facilities which compound the unattractiveness of working and living in rural areas for the health staff and doctors.

As discussed the key ingredient to all systems is the 'motivation' and 'will' to bring about a significant and sustainable change. There is no better place than to start with a strong political and administrative commitment to develop this under developed block.

The Interim recommendations have the potential to enhance the efficiency of the system almost on an immediate basis, while the long term and medium term strategies need to be implemented in a systematic manner to achieve universal health coverage.

Trainings both induction and continued needs emphasis. A system of peer learning at the PHC level on a continuous basis has been advocated. As a first step, educating and empowering the ANM and nursing cadre to provide primary and basic care is necessary to reduce the burden on higher level facilities and ensure that only the complicated or severe cases are referred.

Motivation by means of acknowledgements, appreciations and growth aspects for the frontline health workers and providing Hard reach allowances and some reservations for higher studies/ Promotions to all nursing staff. ASHAs are mandatory to enhance the service delivery and utilisation in terms of quality and numbers.

The way data is reported and handled is pivotal in the sense that all planning, monitoring, logistics and control when digitised will strengthen the system and enhance its efficiency.

Over the years the private health sector in the block has grown remarkably. There is no paediatric or Gynac advanced care available in the public health care facilities at Narayankhed block. PPPs offer an opportunity to overcome the 108 ambulances services issue, Ultrasound and specialist service availability issues at block level.

Strengthening of the SPHO office to undertake designated monitoring and supervision activities with a view of providing mentoring support needs to be given highest importance. The

competency of the SPHO has to be enhanced by posting public health qualified doctors and reserving the other specialist cadre to clinical services. Certain administrative privileges to the SPHO who needs to function as the sub-district health officer will go a long way in enhancing the credibility of the M&E system.

We conclude by recommending that all the long-term and interim recommendations mandate at the block to improve the health care services. Districts and states need to be aware and empowered about the hurdles in achieving universal health care. The DHAP, BHAPs are very much needs to be used as an effective tool for projecting the requirements of the blocks and making an effective case for mobilisation of funds from the central, state governments and the private sector to health care facilities.

Analysis of field survey data:

Table -1	Primary Health Centres	Kalher	Kangti	Karasguti	Manoor	Nizampet	Shankarampet	Sirgapur	Total	%
1.1	Health facility easily accessible from nearest road head	1	1	1	1	1	1	1	7	100
1.2	Functioning in Govt building	1	1	1	1	1	1	1	7	100
1.3	Building in good condition	1	1	1	1	1	1	1	7	100
4.1	Functional BP Instrument and Stethoscope	1	1	1	1	1	1	1	7	100
4.15	Functional Hemoglobinometer	1	1	1	1	1	1	1	7	100
4.18	Reagents and Testing Kits	1	1	1	1	1	1	1	7	100
5.3	IFA tablets	1	1	1	1	1	1	1	7	100
5.6	Vit A syrup	1	1	1	1	1	1	1	7	100
5.7	ORS packets	1	1	1	1	1	1	1	7	100
5.8	Zinc tablets	1	1	1	1	1	1	1	7	100
5.9	Inj Magnesium Sulphate	1	1	1	1	1	1	1	7	100
5.1	Inj Oxytocin	1	1	1	1	1	1	1	7	100
5.13	Antibiotics	1	1	1	1	1	1	1	7	100
5.15	Drugs for hypertension, Diabetes, common ailments e.g PCM, anti-allergic drugs etc.	1	1	1	1	1	1	1	7	100
5.17	Pregnancy testing kits	1	1	1	1	1	1	1	7	100
5.19	OCPs	1	1	1	1	1	1	1	7	100
5.23	Gloves, Mckintosh, Pads, bandages, and gauze etc.	1	1	1	1	1	1	1	7	100
6.1	Haemoglobin	1	1	1	1	1	1	1	7	100
6.3	Urine albumin and Sugar	1	1	1	1	1	1	1	7	100
6.5	Blood Sugar	1	1	1	1	1	1	1	7	100
6.7	Malaria (PS or RDT)	1	1	1	1	1	1	1	7	100

6.9	HIV (RDT)	1	1	1	1	1	1	1	7	100
7.1a	All mothers initiated breast feeding within one hr of normal delivery	1	1	1	1	1	1	1	7	100
7.2a	Zero dose BCG, Hepatitis B and OPV given	1	1	1	1	1	1	1	7	100
7.4a	Counseling on Family Planning done	1	1	1	1	1	1	1	7	100
7.7a	Mode of JSY payment (Cash/ bearer cheque/Account payee cheque/Account Transfer)	1	1	1	1	1	1	1	7	100
8.2	Provide essential newborn care (thermoregulation, breastfeeding and asepsis)	1	1	1	1	1	1	1	7	100
8.6	Correctly administer vaccines	1	1	1	1	1	1	1	7	100
9.3	ANC Register	1	1	1	1	1	1	1	7	100
9.25	Vaccine Supply register	1	1	1	1	1	1	1	7	100
9.2	Inter facility	0	1	0	0	1	1	0	3	43
11.3	Timings of the Sub Centre	1	1	1	1	1	1	1	7	100
11.8	Immunization Schedule	1	1	1	1	1	1	1	7	100
11.9	JSY entitlements	1	1	1	1	1	1	1	7	100
12.2	SNs/ GNMs	1	1	1	1	1	1	1	7	100

Table -2	Primary Health Centres	**Kalher**	**Kangti**	**Karasguti**	**Manoor**	**Nizampet**	**Shankarampet**	**Sirgapur**	Total	%
1.4	Habitable Staff Quarters for MOs	0	0	0	0	0	0	0	0	0
1.6	Habitable Staff Quarters for other categories	0	0	0	0	0	0	0	0	0
1.15	Separate Male and Female wards (at least by Partitions)	0	0	0	0	0	0	0	0	0
1.16	Availability of complaint/suggestion box	0	0	0	0	0	0	0	0	0
1.17	Availability of mechanisms for waste management	0	0	0	0	0	0	0	0	0

1.18	Equipment's for Panchkarma	0	0	0	0	0	0	0	0	0
4.13	MVA/ EVA Equipment	0	0	0	0	0	0	0	0	0
5.2	Computerised inventory management	0	0	0	0	0	0	0	0	0
S.No	**Supplies**	**Yes/No**	**Yes/No**	**Yes/No**	**Yes/No**	**Yes/No**	**Yes/No**	**Yes/No**	0	0
5.22	Sanitary napkins	0	0	0	0	0	0	0	0	0
S.No	**Essential Consumables**	**Yes/No**	**Yes/No**	**Yes/No**	**Yes/No**	**Yes/No**	**Yes/No**	**Yes/No**	0	0
6.4	Serum Bilirubin test	0	0	0	0	0	0	0	0	0
6.12	Hepatitis C	0	0	0	0	0	0	0	0	0
7.8a	Any expenditure incurred by Mothers on travel, drugs or diagnostics(Please give details)	0	0	1	0	1	0	0	2	29
8.7	Alternate Vaccine Delivery (AVD) system functional	0	1	0	0	0	0	0	1	14
8.8	Segregate waste in colour coded bins	0	1	0	0	0	0	0	1	14
9.5	Indoor bed head ticket	0	0	0	0	0	0	0	0	0
9.9	OT Register	0	0	0	0	0	0	0	0	0
9.13	Drug Stock Register	0	0	0	0	0	0	0	0	0
9.16	Untied funds expenditure (Check % expenditure)	0	0	0	0	0	0	0	0	0
9.17	AMG expenditure (Check % expenditure)	0	0	0	0	0	0	0	0	0
9.18	RKS expenditure (Check % expenditure)	0	0	0	0	0	0	0	0	0
	Accounts Register	0	0	0	0	0	0	0	0	0
9.19	Cash Book Register	0	0	0	0	0	0	0	0	0
9.2	Stock Register	0	0	0	0	0	0	0	0	0
9.26	MCP cards	0	0	0	0	0	0	0	0	0
9.27	Work Plan	0	0	0	0	0	0	0	0	0
11.13	RBSK	0	0	0	0	0	0	0	0	0
11.15	ASHA incentives	0	0	0	0	0	0	0	0	0
12.5	Equipment maintenance and repair mechanism	0	0	0	0	0	0	0	0	0
12.6	Grievance redressal mechanisms	0	0	0	0	0	0	0	0	0

12.7	Tally software implemented	0	0	0	0	0	0	0	0	0

Table - 3	Primary Health Centres	Kalher	Kangti	Karasguti	Manoor	Nizampet	Shankarampet	Sirgapur	Total	%
1.7	Electricity with functional power back up	1	1	0	1	1	1	1	6	86
1.12	Functional New born care corner(functional radiant warmer with neo-natal ambu bag)	1	1	0	1	1	1	1	6	86
	Running 24*7 water supply	1	0	0	1	1	1	1	5	71

Table -4	Primary Health Centres	Kalher	Kangti	Karasguti	Manoor	Nizampet	Shankarampet	Sirgapur	Total	%
1.5	Habitable Staff Quarters for SNs	0	1	0	0	0	0	0	1	14
1.9	Clean Toilets separate for Male/Female	0	0	0	0	0	0	1	1	14
5.11	Misoprostol tablets	0	1	0	0	0	0	1	2	29
5.2	EC pills	0	1	0	0	0	0	1	2	29
5.21	IUCDs	0	1	0	0	0	0	1	2	29
6.2	CBC	0	0	0	0	0	0	1	1	14
6.1	Others	1	0	0	0	0	0	0	1	14

Delivery Load

Table -5	Name of the PHCs	April	May	Jun	July	August	September	October	November	17th December	Total
24x7	KALHER	8	11	12	9	7	9	8	7	4	75
	SIRGAPUR	6	9	10	8	8	6	8	10	2	67

	KARASGUTTI	6	6	14	8	7	4	7	13	1	66
	KANGTI	46	63	54	64	75	33	33	36	16	420
	MANOOR	8	11	9	22	18	24	15	22	6	135
	SHANKARAMPET-A	9	14	13	11	12	9	13	4	5	90
Non 24x7	NIZAMPET	0	0	0	0	0	0	0	1	1	2
CHC	NARAYANKHED	89	81	109	108	100	91	87	89	47	801

Analysis of HMIS Indicators:

Table – 6			CBR	17.4	
Narayankhed CHNC - 2014-15 HMIS -L - Upto March 2015			IMR	39	
	POPULATION	290617			
		2014-15	Proportion	Estimate of	
1.1	ANC Registered	5239	94%	Pregnancies	5562
1.1.1	< 12 Weeks registration	2657	51%		
1.2	PW Registered under JSY	4318	82%		
1.3	PW received 3 ANC s	8460	161%		
1.4.2	TT2 / Booster	4440	85%		
1.5	100 IFA tablets given	4760	91%		
1.6.1	BP > 140/90 mmHg	18	0%		
1.7.1	Hb < 11g%	2958	56%		
1.7.2	Hb<7g%	2	0%		
1.8	PTKs used at SC Level	0			
2.1.1.c	Home deliveries (SBA /Non-SBA)	0			
2.2	Deliveries at Public Institutions (Including C-Sections)	3829	76%	Deliveries	5057

2.2.1	Out of 2.2, Number discharged under 48 hours of delivery	2957	77%		
2.2.2.a	Number of mothers paid JSY Incentive for deliveries conducted at Public Institutions	1160	30%		
2.3	Deliveries conducted at Private Institutions (Including C-Sections)	0			
3.1.5	C-sec at Public health facilities	339	9%		
4.1.1.c	Total number of male and female live births (4.1.1.a and 4.1.1.b)	5870			
4.2.2	Number of Newborns having weight less than 2.5 kg	222	4%		
6.1	Women getting post partum check-up within 48 hours after delivery	3960	103%		
6.2	Women getting a post partum check up between 48 hours and 14 days after delivery	267			
9.2.1.a	Number of Laparoscopic sterilizations conducted at PHCs	461			
9.2.1.b	Number of Laparoscopic sterilizations conducted at CHCs	519			
9.2.1.e	No. of laproscopic sterilizations (all levels) at public health facilities	980			
9.3.1.e	No. of minilap sterilizations (all levels) at public health facilities	409			
9.5.1.f	No. of IUCD insertions (all levels) at public health facilities	373			
9.5.1A	Out of above total, Post Partum (within 48 hours of delivery) IUCD insertions	0			
10.1.12	Number of Infants (0 to 11 months old) received Measles immunisation (First Dose)	5331	110%	Infants	4860