

First Common Review Mission, NRHM: **Report from Andhra Pradesh Team**

To begin with the team wants to extend sincere thanks to Andhra Pradesh Health & Family Welfare Department for excellent support provided to the review process. What was most apparent was that the establishment is already in the introspection mood and was ready to accept where they stand. This is the sign enough that from here they can only make progress.

2. The CRM team visited the Districts of Nalgonda and Kurnool, apart from the State Head Quarters at Hyderabad from 14-19th November, 2007. The team consisted of Dr. I.P. Kaur (DC-Maternal Health), Dr. Manish Kakkar (Public Health Foundation of India), Shri Rajesh Kumar (National Consultant-Finance, FMG, MoHFW) and Dr. Kamla Mohan (Regional Director, MoHFW).

3. The team was impressed with the following aspects which it observed during its short visit and for which the State Government should be commended:

- A state-of-the-art emergency ambulance service.
- A 24X7 toll free call centre for disease monitoring and basic & intermediate level medical advice (and over the counter drug prescription) on health issues.
- Quality of training of ASHAs at training centres.
- Rapid improvements in reporting timeliness to GOI. The Commissioner Family Welfare has directed, and is receiving, fortnightly Financial Monitoring Reports (FMRs) from Districts, against the national guidelines of once every month. The FMRs are coming by e-mail from all 23 Districts.
- Provision of computers at all Area Hospital, CHCs and many PHCs. A computer operator has also been provided (@ Rs.3000 per month) along with the computer from State Government budget to computers to be used regularly. All the reports and accounts were found to be prepared on the computers in all such institutions.
- Medicine in adequate supply at all the levels.
- Quality of accounts in Area Hospitals and Project Hospitals being prepared by Jr. Assistants was appreciable.
- Cleanliness in the health facilities (with one glaring exception) and even more so in the villages.
- Dedicated and well informed ANMs, ASHAs and Staff Nurses at all the locations where the team went. In Villages visited in both the district people are familiar with ANMs/ASHA and they recognize the person and the place of service delivery. Almost every one was aware of JSY money.
- A steadily increasing State health budget:

State Budgetary support to Health Sector

	State Budget	Increase in budget	% increase
2005-06	1824.48		
2006-07	2113.23	288.75	15.83
2007-08	2726.11	612.88	29.00

Rs. In Cr.

4. ***However, in the report only those aspects are being elaborated upon where scope of improvement was there. The main observations in this regard are as follows:***

Rationalisation of manpower:

The lack of it is affecting the poorer sections the most

5. In most of the facilities that the team visited, it observed manpower shortage or mismatches in specialists' deployment. Presence of gynaecologists was not matched by presence of anaesthetist, for instance. In effect, the C-sections are not being done at most of the public facilities, leaving aside District Hospitals and a small number of lower institutions. Even though the facilities are empowered to hire specialists from market, it has not been made possible primarily due to two reasons:

- i. The specialists are not ready to join in interior areas at the remuneration offered to them.
- ii. The facility level management has not made enough effort to hire specialists, especially anaesthetists, from market.

6. While the first reason can be addressed by rationalisation of remuneration offered to the specialists by paying them market rates, it is the second reason which seems more worrisome.

7. Andhra Pradesh allows private practice to its government doctors. It was observed at most of the places that the same doctors, and especially gynaecologists, who are not performing C-section in public hospitals, are performing it in their private clinics. It was also observed, especially in Nalgonda, that only 4-5 normal deliveries are taking place in PHCs in a month, while a large number of tubectomies are taking place in these hospitals. A number of women having tubectomy reported that they went to private clinics for normal deliveries as well. The charges for a C-section in a private clinic uniformly ranged between Rs.4000 to Rs.5000. For normal deliveries the charges in the Private Sector ranged from Rs.1600 to Rs.1800.

A case of privately provided health facility by Public Health Providers.

A women in a village recognised the MO-in-Charge of a PHC and informed that she delivered at the Private Clinic run by the MO. While she got Rs.800 of JSY benefits, the MO got Rs.4,000. The incentive to ANM in this unorganised sector may also be higher as compared to Rs.100 she gets to take the delivery cases to a public facility.

A non-performing Public health facility is beneficial to Public Health Providers.

8. This has created a vested interest in the public health providers not to operationalise EmOC, and in effect, the CEMONC centres. To make the matter worse, the ANMs and ASHAs under the MO-in-Charge may become the agents for taking the caesarean cases to the private clinics being run by them and earn some extra bucks.

9. In this scenario it is imperative that the management in addition to empowering the facilities to hire specialists from market, also monitors that the specialists are actually hired and C-sections have started in the public facilities.

Where there is a will, there is a way

In Project Hospital, Shreeshelam, where neither a gynaecologist nor an anaesthetist is posted, C-sections are taking place. The lady doctor with some training is performing the C-section with spinal anaesthesia.

10. The deliveries taking place in the private clinics were specially found significantly higher in Nalgonda District during interaction in villages. This has been confirmed by the '**Baseline Survey on RCH-II**' undertaken by Indian Institute of Health and Family Welfare, an independent survey constituted by Andhra Government. The comparative data of the two districts as per this survey is as under:

Districts		Deliveries in Public Facilities	Deliveries in Private facilities	Domiciliary/Other deliveries
Nalgonda	TOTAL	27.9%	53.4%	18.8%
	RURAL	27%	48.4%	24.5%
	URBAN	29.1%	60.7%	10.2%
	SC	35%	44.4%	20.6%
	ST	24.2%	36.7%	39.2%
	BPL	30.5%	50.9%	18.6%
Kurnool	TOTAL	25.5%	26.7%	47.8%
	RURAL	19.9%	16.4%	63.7%
	URBAN	33.8%	42%	24.2%
	SC	29.3%	18.1%	52.6%
	ST	14.6%	25%	60.4%
	BPL	26.6%	23.3%	50%

11. Even though the public – private divide in Kurnool District looks more equitable, what is striking is that the percentage of deliveries taking place in public facilities in both the Districts is more or less similar. It is in the cases going to private sector that the difference is wide, with Kurnool showing only 26.7% as compared to 53.4% in Nalgonda. If the non-institutional deliveries in Kurnool (at 47.8% overall and a whopping 63.7% in rural areas) were to come down due to improvement in socio-economic conditions, it is likely that the trend may follow the same pattern as in Nalgonda, seeing the unprepared public facilities, inflating the percentage of deliveries in private sector facilities. The team also interacted with several tribal women (Lambada tribe) who were getting the ante-natal checkups done in private clinics by paying almost Rs.800 to Rs.1000 per visit.

12. It is the majority of SC/ST and BPL families that are bearing the brunt due to poorly equipped public sector facilities who either have to approach the private sector (in case of Nalgonda) or not go for institutional deliveries at all (as in the case of Kurnool). Most of the women interviewed in villages informed that they have to borrow money (at the rate of 24% - 30% per annum) to avail the facilities in private sector. This will further bring down the standard of living of these communities in due course.

Suggestions:

13. Based on the limited exposure of the team to two districts, Andhra Pradesh seems to be a fit case where Mandal-pooling of public health resources should be attempted. The scenario today is that in our endeavour to provide health services in all the public health facilities, we are not able to provide comprehensive health facility at majority of the locations. In the process majority of the facilities visited could not be certified as 24X7 or FRUs or CEMONC in strict sense of the terms.

14. If we are able to provide comprehensive round the clock services at one institution in a Mandal (which is an even smaller unit than a Block in other States), it will be a big assurance to people giving them a sense of security and faith on the public health system. In the PHCs weekly or bi-weekly OPDs can be held to screen cases and deserving cases can be referred to the Mandal level PHV/CHC/Area Hospital. In addition normal deliveries can be continued by the ANMs and Staff Nurses in all the PHCs.

15. The manpower requirement at such functional 24X7 institutions at Mandal level can be augmented by hiring required paramedics, doctors and specialists by paying them competitive rates, as the General Financial Rules-2005 of GOI now allows hiring of consultants at market rates.

16. The possibility of Mandal-pooling of manpower resources in Andhra Pradesh acquires special significance due to availability of international-level referral transport system in the State which has a response time of 15-20 minutes as observed by the team in villages it visited. A simple call to toll free number 108, will take care of the complicated cases being referred to the Mandal-level institution. What is more assuring

is the fact that even before reaching the referral institution, mere boarding the referral transport fitted with state-of-the-art equipments and trained attendant ensures the safety of the patients who can be maintained during the journey.

Preparedness of Health facilities:

Manpower shortage is not only to be blamed for lack of preparedness

17. OPD Case Load handled by the Public Health System has shown an increase at all level of facilities. There is no provision of delivery at Sub-centre level and most of the deliveries are being conducted at home and private facilities.

At PHCs deliveries are being conducted but the case load is low. PHCs which are designated 24X7 are also not providing facilities round the clock due to shortage of manpower.

Innovations can help:

In the vicinity of CHC, Atmakur, District Kurnool, a sub-center has been converted in to delivery room where deliveries are being conducted round the clock by ANMs on rotation.

18. ANM has bank account and has utilized untied grant for buying furniture, BP Apparatus etc but most of the sub-centers are functioning from rented building Panchayat Ghar. Usually they have one room but they have a month wise display bag for immunization which they have to carry out.

19. In both the districts it is seen that C-sections are being performed at district hospital, project hospital and few of the facilities below district level. CHCs Bhongir in Nalgonda district visited by the team is having a good labor room, operation theatre and a gynaecologist is also available. But the institution is not performing C-section due to non availability of anaesthetic 'even on payment'. As a result the cases needing C-sections are being referred to district hospitals. In addition to the infrastructure available, another CEMONC building is coming up. However, just adding a building may not be the answer to non-delivery of comprehensive emergency obstetric care. In the other CHC (Devengonda) C-section is being performed by the Mo-in-charge of the CHC, but there is no Resident Medical Officer as only four MO/Specialist are posted and they do call duties. Thus, the provision of C-section totally seems dependant on the initiative taken by MO-in-Charge which may get discontinued in case of his transfer. Thus institutionalisation of the service through proper planning is required. Numbers of normal deliveries conducted in the CHCs in general seem to be lower than expected.

20. Blood Bank/Blood storage facilities are functional at few places while at other places infrastructure/equipment is available but due to non availability of license/approval the units are not functioning. Some of the buildings i.e. of District Hospital, Project/ Area hospital, CHC, PHC are lacking the basic infrastructure like Labor Room, OT, etc. However, it was found out that the infrastructure is being upgraded under NRHM.

21. New- Born Corner is absent in almost all the facilities. In one rare case (in a CHC of Nalgonda District) equipments for new-born resuscitation including CPAP were found available but the same are not being utilized even as a pediatrician is posted who has not been trained to use them.

22. State Government has issued free bus passes to pregnant women for 3 to and fro visits for ANCs. However, it is not helping much in remote areas where the bus service is limited.

Rogi Kalyan Samiti:

Corpus Grants and Untied Funds: Utilization at the optimal level but quality of accounts and book keeping ranged poor to very poor

Status of establishment of RKS in State:

Type	Total	Achieved	%
CHC	167	126	75%
PHC	1570	1190	76%
Area Hospital	56	49	87%
Dist. Hospital	23	19	83%
Total	1816	1384	76%

23. The Rogi Kalyan Samities are known as Hospital Development Societies (HDS) in Andhra Pradesh. The only source of financing for the HDS is the grants received under NRHM. The levy of User Charges has been stopped altogether in all the institution a couple of years back by the State Government.

24. In almost all the facilities visited by the team, the HDS funds (Corpus Grants and Untied Grants) were being utilized for the intended purposes. However, the decision making processes in the HDS looked erratic and will take time to evolve to a more mature system of discussions and decision making when the requirements of the facility would be analysed in a realistic manner and a part of funds would be kept for rainy days.

Extreme Case:

In one of the PHCs it was found that they received Rs.1.9 lakhs (Corpus and Untied Grants) on 23.3.2007 along with a letter from Commissioner FW which mandated utilization of funds by 31.3.2007. The entire fund has actually been 'utilized' within these 7 days. The HDS took hasty decisions to spend the funds in one sitting by allocating ad-hoc approximate amounts in round figures for different activities. Interestingly, payments have also been made to vendors and contractors for these activities in round figures without calling for any quotations. Since April

25. But the greatest cause of concern is the quality, or the lack of it, of accounts keeping. Invariably at all the facilities, especially at the CHC and PHC levels, a considerable lack of accounts keeping and book maintenance protocols was observed by the team. Not only there are deficiencies

Extreme Case:

In one Subsidiary Health Centre (Bairluti) Rs.1.1 lakh out of Rs.1.6 lakh received has been 'Utilized'. However, no physical record whatsoever could be found available, although physical inspection confirmed that work has been carried out. Neither the cash book, nor the ledger, nor any voucher or receipt could be produced. The bank passbook had only credit entry of March 2007. After that the passbook has not been updated.

In another case (CHC, Atmakur) the outgoing doctor was maintaining all books of account and even after 2 months, the new MO does not have an inkling about the fund position of the HDS. All records and passbook was reported to be with the doctor who has gone out on deputation.

at the facility level, it points towards insufficient monitoring mechanism in the area of finance and accounts available at the District level, which is allowing such crucial deficiencies to go unnoticed.

26. On the contrary, the team would like to put on record that quality of accounts keeping observed in the Area Hospitals and the Project Hospital, Shreeshelam by Jr. Assistants was impressive.

Suggestions:

27. As regards quality of decision making and a more realistic assessment of the requirements to be met out of these grants, it is suggested that both the Health Department functionaries at the District and facility levels as well as community representatives need to be oriented about the intended purpose of these grants. As revenue department officers are also involved in HDSs, a communication from District Collector may also be of big help in this regard.

28. In the case of improvements in the area of book keeping and accounts, the about to be formed State and District Programme Management Units have the role cut out for them. In the area of financial management, their first responsibility seems to be skill upgradation of accounts and finance personnel at the facility levels. They should commence their job of training the District hospital/Area Hospital, CHC/PHC accounts personnel as soon as their own training is completed. The accounts personnel of the Area Hospitals, who are maintaining quality accounts, could have been utilized to train the staff of CHCs and PHCs. However, the independent reporting of all sub-District level units directly to District has robbed this opportunity from the system.

29. It is also suggested that in the training of PMU staff, the FMG, MOHFW, GOI may be involved which would impart TOT module on the PMU staff which in turn would train the accounts personnel of lower units. Under NRHM, as more and more funds are being devolved to grassroots levels, this training would have a critical impact on the Mission to maintain a healthy fund flow and quality of book keeping.

29.1 Area Hospitals are 100 bedded facilities. However, as under NRHM framework there is no mention of this type of facilities, the RKS of Area Hospitals are only getting Rs.1 lakh per annum as corpus grant at the rate of a CHC which is a 30 bedded facility. There is a need to consider the Area Hospitals in the category of 'Rural Hospitals' and give them at least 50% of Corpus Grant available to District Hospitals, i.e, Rs.2.5 lakh per annum.

Sub-Centre Untied Fund & VHSC Untied Fund:

Funds being utilized but quality of decision making by community needs improvement

Sub-Centre Untied Fund

30. In the case of Sub-Centre Untied Fund, the level of fund utilization has been high. However, it was observed that the Sub-Centre Untied Fund of Rs.10,000/- has been sub-divided as per number of villages served by the Sub-Centre on the basis of population. If the Sub-Centre has 4 villages, 4 separate bank accounts have been opened with ANM as a common signatory and separate concerned Surpanches as second signatory. The Sub-Centre village has been allocated slightly extra funds to take care of the requirements of the Sub-Centre.

31. It was also observed that majority of the funds allocated to each village has been used for sanitation purposes. This is confirmed from nature of expenses which mainly included purchase of bleaching powder, hiring of a person for chlorination of water tanks.

32. This practice has adversely affected the intended purpose for which the Sub Centre Untied Fund was created. The requirement for sanitation in villages has already been addressed by making Rs.10,000/- available to each village Health and Sanitation Committees (VHSCs). The Sub-Centre Untied fund was provided to take care of the incidental expenses of the Sub-Centre for the entire year. By dividing the amount village-wise and spending them on sanitation, it has been ensured that the funds received have

been spent within 1-2 months of its receipt and the Sub-Centre is functioning without any Untied Fund for the most part of the year.

VHSC Untied Fund

33. In the case of VHSC Untied Fund it was observed that the utilization has been uniformly very high. However, the quality of decision making, as in the case of other untied funds available at various levels, is not up to the mark. Funds made available in April 2007 has been finished by May, 2007 in most of the cases leaving the VHSCs without any fund for rest of the 10 months to meet any unforeseen exigencies.

34. From the vouchers available with ANMs it looked as if in a single sitting the VHSC has decided to spend the fund, mostly on bleaching powder and chlorination of water tanks. It is expected that the VHSCs will mature over a period of time to optimally utilize the funds spread over the whole year. Here again the need to orient the VHSC members is felt necessary by the health functionaries.

Suggestions:

35. State needs to orient the functionaries of the health department as well representatives of the community about the intended purposes for which these funds have been devolved to them.

ASHA Training:

36. ASHA/WHVs have been selected and are being trained at designated Training centers. The team visited Durga Bai Mahila Shisu Vikasa Kendram, Nalgonda and found the selected ASHAs very enthusiastic and keen to learn for working in the respective villages. The quality of training including methodology was found of very high standard. The amount of enthusiasm in the trainers also was infectious. It was also due to these residential training of 23 days that we could not interact with ASHAs in many villages that we went to in both the Districts.

Horizontal segregation of Public Health hierarchy:

It is creating breach in command structure in the fields

37. There are at least three entities among which the doctors and staff of sub-District facilities are reporting:

Institution	Reporting channel		
	Doctors reporting to	Staff Nurses reporting to	ANMs reporting to
Sub-Health Centre	-	<ul style="list-style-type: none"> ▪ Commissioner FW at State level ▪ DMHO at District level 	<ul style="list-style-type: none"> ▪ Commissioner FW at State level ▪ DMHO at District level
PHCs	<ul style="list-style-type: none"> ▪ Director Health at State level ▪ DMHO at District level 	<ul style="list-style-type: none"> ▪ Commissioner FW at State level ▪ DMHO at District level 	<ul style="list-style-type: none"> ▪ Commissioner, FW at State level ▪ DMHO at District level
CHCs (in most of the cases)	<ul style="list-style-type: none"> ▪ Commissioner, APVVP at State level ▪ DCHS at District level 	<ul style="list-style-type: none"> ▪ Commissioner, APVVP at State level ▪ DCHS at District level 	<ul style="list-style-type: none"> ▪ Commissioner, FW at State level ▪ DMHO at District level
Area Hospitals	<ul style="list-style-type: none"> ▪ Commissioner, APVVP at State level ▪ DCHS at District level 	<ul style="list-style-type: none"> ▪ Commissioner, APVVP at State level ▪ DCHS at District level 	<ul style="list-style-type: none"> ▪ Commissioner, FW at State level ▪ DMHO at District level

APVVP = Andhra Pradesh Vaidya Vidhana Parishad, DMHO = District Medical & Health Officer (reports to Director Health Services, DCHS = District Coordinator of Health Services (reports to Commissioner APVVP).

38. Due to this multiple channel of reporting which is cutting into horizontal layers of health delivery system's hierarchy, the unity of command is missing with different layers of staff in the same facility responsible to different authorities both at the District and State levels.

39. This results in unity within the health department hierarchy being established only at the District Collector level in the Districts and at the Principal Secretary level at the State level, both of whom are very senior positions at their levels and are overburdened with other important jobs. At the State level due to special efforts of the Principal Secretary coordination meetings are being held between various Directorates and Commissionerates of the Health Department which is the only opportunity of coordination available in the system. In addition, Andhra Pradesh has three Ministers in the Department of Health & Medical Education.

Suggestions:

40. Process reengineering was not the mandate of this review. Any efforts towards this would require special study giving considerable time. Secondly, the present structure may have come in existence due to several historical reasons, which need to be analysed to arrive at a new structural solution.

41. However, it is suggested that the integrated approach of NRHM has provide an opportunity for the State to analyse the administrative structure of the health delivery system and the State Health Mission may constitute a special study by a consulting organisation having expertise in this field to restructure the administrative hierarchy.

Fund Flow & Reporting of Expenses:

42. The team observed that the fund flow down to the grassroots level was smooth. This was confirmed in the case of RKS Corpus Grants, Untied funds for Sub-Centre and VHSC as well as in the case of JSY payments. All the women interviewed in the villages confirmed that they have got JSY benefit and that too the entire amount as per the programme guidelines.

42.1 However, the following aspects need improvement in the case of fund flow:

- **Cash handling in JSY cases need to be discouraged:** JSY funds are being distributed directly to ANMs from Districts in cash. Thus, ANMs are handling cash disbursements which should be discouraged at any cost. Even if JSY bank accounts are there, it was informed that the cheque takes 15-30 days to get cleared and thus to avoid delays cash disbursement is adhered to. GOI has recently advised all the States to pay JSY benefits only through account payee cheques. This will mandate opening of bank accounts by the beneficiaries. The State and District authorities need to negotiate with lead banks in the districts for facilitating hassle free bank account opening and, if possible, a centralised system of fund disbursement to beneficiaries at the District level.

The hospitals are today issuing certificates of delivery. The ANMs are paying the cash benefits to the beneficiaries on production of these certificates. In the centralised fund disbursement scenario, these certificates may also have the bank accounts details of the beneficiaries (bank accounts may need to be opened during the ante-natal checkup phase of the beneficiaries) and may be sent to the DMHO Office in the district instead. The lead banker in the district would then will centrally credit all these accounts and give a certificate that all the accounts have been credited. This is just a suggestion and more appropriate model may be devised by the State in this regard.

- **ASHAs need to be paid in full based on their performance:** It has been conveyed through semi-formal channels (training, workshops, etc.) that every ASHA should get at least Rs.350-400 per month so that her interest in the programme is maintained. (Whether this has been conveyed through formal channels could not be confirmed). The budgeting for each facility has also been done by this ballpark figure. For example, if 5 ASHAs are working in the catchment area of a facility, the budget for incentive to ASHA is provided at Rs.350 (and now Rs.400) per month per ASHA, totalling to Rs.5250 per month. This has given an impression at many places that a particular ASHA need only be paid Rs.350 (and now Rs.400) per month irrespective of the delivery cases they bring for institutional delivery.

The State Government need to immediately clarify that there is no cap on the total incentive provided to ASHAs and it is totally performance based. If an ASHA brings 10 delivery cases to an institution, she will be entitled to be paid Rs.1000. All other incentives under Family Planning services, immunization, National Disease Control Programme, etc. will again be payable based on number of cases assisted by ASHA, in addition to incentives under delivery cases.

For example, ASHAs working in the area covered by Project Hospital, Shreeshelam, District Kurnool, have been paid Rs.350 per month since the beginning of the JSY programme (now for the last few months they are getting Rs.400 per month), even though they are entitled for much more based on their performance. An order may be passed by Commissioner, Family Welfare that in all such cases, a due and drawn statement may be made and the extra amount due may immediately be paid to them as arrears.

42.2 Reporting of Expenditure:

42.3 Expenditure reporting was in general found to be satisfactory. Especially with the new directive from Commissioner, Family Welfare to send the Financial Monitoring Reports on a fortnightly basis, the system has started gearing up for regular expenditure reporting. The encouraging aspect is that the FMRs are being received from all the Districts by e-mail.

42.4 From the State level now it is being ensured that all the reports to GOI, both physical and financial, are being sent in time. This is a big improvement as earlier reports from Andhra Pradesh was being delayed on many occasions.

42.5 **Suggestion:** Computers are now available up to PHC level. Around 1387 out of 1570 PHCs have computers installed. This gives us an opportunity to computerise the expenditure reporting PHC upwards. Almost 600 PHCs are already doing data entry on computers. Thus, with a little more effort, the electronic data entry and management system can be made operational by the State which will put the entire system from State upto the PHC on electronic system.

Establishment of Programme Management Units:

43. The structure of the proposed Programme Management Units looks functional. The State has already started the recruitment process and has reached the stage of short- listing of candidates who have applied. A Project Officer for the SPMU is already in place on deputation from State Administrative Service.

Suggestions:

44. At this stage the following suggestions are made to the State:

- The screening team for selection of candidates both for the SPMU and DPMUs should inter alia include: a management expert from a good management

school, a chartered accountant from a reputed organisation dealing in health activities, programme managers from the directorates and commissionerates of the Health Department.

- A detailed training module may be decided in advance for the training of the PMU staff. GOI had got a module developed from the Administrative Staff college of India, Hyderabad through the help of UNFPA and was used to train the PMU staff in other states. The same may be shared with the State Government for training purposes. This will provide base for developing a Andhra Pradesh specific training module for the HLPPT.

The Financial Management Group (FMG) of Government of India may be involved in training on finance and accounts related matters as the ASCI module only talks about the theoretical aspects and the specific requirements of the Mission is explained by the FMG. As in Jharkhand, Chhattisgarh & Rajasthan, the FMG would like to have an interface with even DPMU staff during training.

- Retired government officials may be considered for the PMU posts only in very exceptional cases. The PMUs are being created for lateral induction of professionals previously not available in the health system. Not only that, the PMU personnel are supposed to work not out of chairs and tables but are supposed to proactively move around in the field to hand-hold and show results. Secondly, the official command structure does not always work in the case of a senior colleague who has joined on contract after serving on a senior post.
- The costing of the PMU, shown in the presentation at the State level, only calculates salary of the staff. Other components like their TA / DA, office expenses, telephone expenses, etc. of the PMU staff does not seem to be included. The State and District Health Societies need to specially clarify their TA / DA rules as it has created problems in many other States where it is still not clear. The GOI had suggested a TA /DA rule in its Framework for Delegation of Administrative and Financial Powers. The same may be referred to in this case.

'Call 108':

The emergency transportation system has empowered people

45. The emergency transportation system put in place through EMRI (Emergency Management and Research Institute) by Government of Andhra Pradesh is a big success. This fact is best conveyed not by the State Government or by the EMRI mandarins, but by the smile on the faces of men and women in villages of Andhra Pradesh. Wherever the team went, in each village or Tanda, the people are actually using this service and are grinning from ear to ear describing the service offered and quick response time of 15-20 minutes. Delivery cases, snake bite cases, accident cases, and any other emergency are being taken care of by this highly efficient emergency management and transportation system.

46. In a few of the cases tracked by the team at the central call centre of the facility at Hyderabad, it was observed that within 90 seconds of receiving the call the help seeker, the pilot (the driver of the ambulance) and the call centre person were in tele-conference and the ambulance had started moving towards the help seeker. The state-of-the art GPS system tracks all the ambulances constantly and the nearest ambulance from the help seeker's place is despatched to the site. The GPS system is sensitive enough to know whether the engine of the vehicle is start and which direction it is moving. The ambulances are fitted with sophisticated equipments like defibrillator, heart monitor, BP monitor, electronic vacuum aspirator and other equipments and instruments to tackle accident cases. The pilot and the attendant of the ambulances are fully trained to tackle

any emergency. In many cases we found out that women had their delivery in the ambulances before reaching a facility.

47. This is an excellent example of Public – Private partnership and also of putting use of technology to the benefit of multitude of masses. (State Government estimates say that 70% of the trips are towards transportation of SC/ST and BPL pregnant women and children). The initiative has blurred the digital divide by benefiting the masses who only need an omnipresent telephone to get connected to this highly sophisticated emergency management system being driven by GPS and digital circuitry on the one side and equally efficient people with grit on the other. The realistic funding of the scheme by Andhra Pradesh Government has ensured that even in a system driven by private sector, the economic background of the beneficiary is not important and each and every person is being offered world class emergency transport. This has empowered the poor who can sleep with a little less worry.

48. The team put on record on the visitor's register in EMRI that *"if our founding fathers were drafting the Constitution today, they would have included this facility as one of the fundamental rights"*.

Suggestions for improvements:

49. It was observed that even though the Call Centre of EMRI is in conference with the help seeker (caller) and the pilot of the ambulance, a very important player in the whole scheme is excluded in those crucial minutes of emergency. It is the health facility on the other end which is going to receive the emergency case. Emergencies being emergencies warrant that the health facility going to receive the case is in the state of preparedness. In the case of public health facilities, this preparedness may even mean a very elementary aspect as to whether a doctor is available in the facility or not. Thus, if the call centre is able to map the telephone numbers of PHCs, CHCs, Area Hospitals, District Hospitals and other public and private hospitals, it will be able to alert the facility concerned beforehand and if necessary divert the emergency case to some other nearby facility if the nearest facility shows unpreparedness.

50. At many of the public health facilities, disembarkment from the ambulance may lead to down-gradation of maintenance support being provided to the emergency help seeker. Thus, it is imperative that these facilities are spruced up and made to address emergency cases of all sorts. Otherwise, people would be forced to approach a private health facility in these cases which will economically burden the poor the most. *In any case, the response time of the 108 ambulances does not allow the poor help seekers to arrange money from market to pay the private sector.*

"Call 104":

The counselling call centre promises to become disease surveillance and monitoring tool

51. The "Call 104" is just not giving advice on health matters by Doctors and paramedics, but is also filtering data of diseases being reported forming a pattern. If more calls for seeking advice on eye watering is reported from a focal area, it confirms that a conjunctivitis outbreak is being reported. It is true for any other communicable or non-communicable disease.

52. In addition, people have also started giving complains regarding absence of doctors and other paramedics in the public health facilities as well as non-availability of other medical services on this number. This opens up the possibility of monitoring the public health delivery machinery through this facility. As in the case of 108, this number is also gradually becoming a household number and as such would be an excellent tool of getting feedback on the quality of service being delivered in the peripheries.

Suggestions for improvement:

53. The 104 facility may be integrated with the IDSP by State Government by developing appropriate interface for the purpose of disease surveillance.

54. **Need to develop an interface between 108 and 104:** If we are striving for one of the best emergency management systems in the world, it would be advisable to develop an interface between the 108 and 104 facilities. This could be as simple as the pilot or the attendant of the ambulance giving a call on 104 to seek doctor's advice on emergency management in exceptional cases. However, on the sophisticated side of the scheme of things, by fitting digital interface between the ambulance and the 104 call centre we would be able to get a more conclusive expert advice during the transportation phase of emergency management.

For this it would be necessary to equip the ambulances with digital x-ray, ultra sound machine, etc. The digital heart and BP monitor is already available in the ambulances. The digital pictures and information may be made available on the computer screens of the doctors manning the 104 call centre who can then give a more conclusive and considered advice on the emergency cases.

55. **108 Ambulance as Mobile Tele-medicine Kiosks:** This would also make the ambulance a mobile tele-medicine kiosk which can give tele-medicine advice when it is not managing emergencies. The State Government may even agree to provide medicines advised by the 104 Call Centre from the pharmacies of the public health facilities, if a small printer kept in the ambulance can give a printout of the advised medicines. The attendant of the ambulance will be able to advise the patients about the doses of the prescribed medicines as mentioned in the printout. The printouts can be taken to a public health facility where it can be used as a voucher in lieu of dispensed medicines. As the supply of medicines in all the public health facilities visited was found excellent, this model may be a feasible model.

56. **104 Call Centre as a tool for monitoring public health facilities:** The Health Department may establish a monitoring cell in its directorate where the complaints regarding non-availability of public health functionaries and other medical provisions can be diverted by the Call Centre. The Monitoring Cell can then get the complaints processed in the concerned directorates and issue letters to the concerned in-charge of the public health facility regarding the action taken on the complaints and also inform the complainant about it. This would aid in NRHM's philosophy of community monitoring of public health facilities and will act as deterrence to the erring functionaries.

Disease surveillance and control programs:

57. **Objectives of the initiatives:**

- i. To establish a decentralized, district-centred system of surveillance for communicable and non-communicable diseases so that timely and effective public health actions can be initiated in response to health challenges in the urban and rural areas.
- ii. To integrate existing surveillance activities so as to avoid duplication and facility sharing of information across all disease control programs and other stake holders so that valid data are available for decision making at district, state and national levels

58. The team visited various health facilities including state HQ, district HQ, district hospital, district public health laboratory, community health centre, primary health centre and sub-centres. The team also took key informant interviews with health functionaries, lay public and private practitioners in villages and districts. The objectives of the mission were:

- i. To **review the steps taken for strengthening of the surveillance system** under the IDSP
- ii. To **assess the performance of various elements of the surveillance system** as per IDSP framework
- iii. To **review efforts towards integration of surveillance and disease control programs** as per strategic framework of NRHM
- iv. To **make recommendations on strengthening disease surveillance** efforts and their integration under the NRHM.

Salient observation:

59. Surveillance data collection, analysis and transmission:

59.1 Sources of surveillance data:

- Major source of surveillance data is the public health system which has been set up as per IDSP norms.
- Vertical programs (RNTCP, NVBDC and HIV/AIDS) are other sources of surveillance information feeding in to the IDSP. There is however, no perceptible increase in their data (e.g. increased case detection of TB due to increased OPD attendance following NRHM) as expressed by the program officers.
- Health Management Research Institute (HMRI) is a source of community based reporting. The system (a PPP) uses a toll free number to provide medical advice on health related problems of the community. The call centre has detected outbreaks/ clusters of acute conjunctivitis, diarrheal disease, acute jaundice and chikungunya in the past. The information is also communicated on regular basis to IDSP cells in the districts.
- Infectious Disease Hospital, Hyderabad is a source of sentinel surveillance for communicable disease surveillance; data is fed to the state surveillance unit; the team could not visit this hospital.

59.2 Quality of surveillance:

- Random interviews with the peripheral staff such as ANMs, PHC laboratory technicians and Medical Officers demonstrated knowledge on reporting e.g. the ANM catering to Chenchu tribe cluster in Nagalutty Gudam village in Atmakur PHC.
- Average weekly reporting from sub-centres and PHCs is over 85%; from L1 laboratories >46%; L2 labs 45%; L3 labs >100%. This is reflective of the administrative hierarchy and training status of manpower.
- Record keeping needs improvement, especially where they are kept manually; the functionaries were not able to retrieve the information for the team in time (Yadagirikutta PHC, Nalgonda district); some of the archived records of S-forms registers and P-forms had been updated in registers recently, although the information had been transmitted in time to the next higher level unit e.g. District hospital lab in Kurnool district, Yerarrum PHC in Nalgonda District. Record keeping was found satisfactory for RNTCP data across facilities visited; less so in case of malaria microscopy.
- 4 outbreaks (2 acute diarrheal diseases, 1 viral hepatitis and 1 malaria) were reported by the District Surveillance Officer of Nalgonda. Additional outbreak of measles occurred and was informed by PHC MO; DSO was not aware of the same. 2 outbreaks (1 acute diarrheal disease and 1 viral hepatitis) were reported by DM & HO of Kurnool. Additional cluster of suspected malaria cases could be elicited by private practitioner in a village in the vicinity of

CHC, Atmakur in Kurnool district. All the reported outbreaks were captured by media and then responded to by the health authorities. In both the districts specimens were reportedly collected for laboratory confirmation. However, the DSOs had not followed up the diagnosis.

- Key informant interviews in the community including those with private practitioners at village levels demonstrated that clusters of disease events are possibly being missed by the surveillance system e.g. a RMP in the village in Kurnool district reported a cluster of 26 malaria cases (slide confirmed in private lab and responding to anti-malarial treatment) in the month of November, 2007 while the district report presented to the state HQ reflected only 21 cases of malaria in the entire district.

59.3 **Data analysis:**

- Satisfactory analysis of surveillance data for public health action could not be observed e.g. In one of the PHCs visited, health supervisor has been submitting aggregated data of s-forms from all the sub-centres to the PHC which is transmitted by the staff to the district; corrective action had not been taken to ensure disaggregated data from sub-centres, essential component of IDSP data collection. Positive Widal results in a PHC lab are not followed up in the community to look for similar cases or cases of fever.
- Information on health events in community is largely captured by media, as per the information from DSO, Nalgonda. This is then followed by action from the district authorities.

59.4 **Response:**

- **Multidisciplinary rapid response teams** at State and all districts have been formed and include members from across the hierarchy of health system including medical college faculty.
- **Response to public health events such as outbreaks of communicable diseases is well coordinated** e.g. a recent outbreak of acute hepatitis in mining belts of Kurnool district (appx. 10 cases and 2 deaths) was a coordinated response of health department, medical college faculty and public health engineering department and regional water quality monitoring labs of IPM, Hyderabad.
- **Concept of laboratory confirmation of outbreaks needs strengthening** at district level. Laboratory results of ADD and jaundice outbreaks were not available with the DSO in Nalgonda district.
- **Guidelines on management/ treatment of patients by vertical program are not being adhered to** by peripheral units. Notably, mono-therapy with injections of Artemesin is being prescribed for management of malaria cases as was observed in subsidiary health centre Atmakur district and also by private practitioners.
- **Rapid kits for malaria diagnosis** have originally been supplied for difficult areas, field investigations and in situations where malaria microscopy cannot be done due to lack of technical staff. Some of the units are using these kits for testing in labs despite the presence of qualified LTs (subsidiary health centre in Atmakur district)

60. **Monitoring and supervision:**

- **Impact of segregation of public health system hierarchy**, attrition of manpower and transfer to various segments of the hierarchy, lack of training in IDSP could be observed in this component

- **Regular feedback and on-site visits from state and district level officials has not been a feature.** District surveillance officer, Nalgonda is newly appointed and has not visited the PHCs or conducted a regular telephonic review of surveillance activities in the last 3-4 months.
- Efforts towards **strengthening of reporting units and utilization of funds lacks coordination** e.g. district public health laboratory in Nalgonda district hospital has not received any inputs from the IDSP in the last 3 years which is also reflected in the non-release and non-expenditure of funds in expenditure statement of the district.

61. **Laboratory strengthening and surveillance:**

The team was able to visit some of the laboratories at PHC and CHC levels and district laboratory of Nalgonda district.

- Adequate **space, equipment and infrastructure** were available at the PHC and CHC labs. Each of the laboratories at PHC is staffed with one lab technician and at CHC level with 3-5 technicians. These labs have the capacity to carry out **routine haematology, biochemistry (blood sugar, blood urea, serum bilirubin in CHC), urine analysis (dipstick method), sputum microscopy and peripheral smear examination for malaria parasite, Widal and VDRL test.**
- On an average each of the laboratories handles a **mild to moderate load of clinical specimens per day:** PHC handles specimens from 20-30 patients/ day and CHC handles specimens from 50-60 patients/ day.
- **Integration of laboratory resources** was observable at most PHC and CHC labs in Kurnool district with the same technician or pool of technicians performing all of the above investigations including those from the VCTCs and blood banks supported by NACO and Red Cross respectively. The same was less observable in Nalgonda district where PS for MP is being referred to private labs despite there being 5 qualified LTs including one each from RNTCP, Blood bank and VCTC.
- **District laboratory** has been identified in the district hospital, Nalgonda (250 bedded hospital with ICU facility). The laboratory is staffed by a qualified pathologist, 4 LTs and 5 lab attendants with round the clock lab facilities. The lab performs tests similar to CHC with few additional biochemical parameters. No confirmatory tests such as stool culture and blood cultures are performed. Water testing for chemical and microbiological quality is not being conducted. Reports on water testing done by regional laboratories of IPM are also not reflected in the laboratory reports
- **Record keeping** was not found to be satisfactory; e.g. the formats in the district hospital lab Nalgonda had recently been updated; number of positive results was more than the number tested etc.
- **Communication to the epidemiologists** and participation in outbreak investigation and control is lacking; the pathologist does not actively participate in IDSP activities as she has not been trained and the activities are entrusted only to the LT trained in IDSP. Confirmatory tests are not carried out and therefore referred to Hyderabad.
- **Standard procedures manuals** were not in place in PHC and CHC labs **except** for the RNTCP microscopy centres; district lab could not demonstrate IDSP lab manual.
- **Quality assurance of laboratory procedures** was adequate for TB microscopy and malaria microscopy (average reported disagreement in results as cross checked by district and state level officers being <5-6%). Visits of the state and district level officers are affected by the long distance required to be covered between microscopy centres. Reagent controls for

other investigations are limited to controls which are part of kits; QC for most equipment was not found to be in order except the ones supplied by RNTCP.

- **Laboratory biosafety and biomedical waste management** was lacking generally across all facilities visited by the team in both districts; non-display of guidelines, lack of waste containers, needle/ syringe destroyers, non-use of burial pits, general inadequate supervision, lack of staff awareness on role of waste management etc. were some of the observations made by the team.
- **Informed consent** from patients in laboratory testing procedure is not being followed in some of the units e.g. CHCs testing patients for HIV antibodies and HBsAg antigen before family planning procedures, essentially without their knowledge and to safeguard doctors against infection during procedure (sentiment also expressed by MO PHCs).

62. **Manpower planning and capacity building:**

- The team could find that some of the peripheral staff including peripheral staff and medical officer not trained under IDSP. The post of training consultant at state Surveillance unit is vacant as of August 2007. Additional training requirement as proposed by the SSU is: 2236 Health workers; 34 L2 lab technicians (Progress Report on IDSP for WB Mid-term Review Mission on 22.11.07 prepared by AP Government)
- District surveillance officers in both district and state surveillance have also not been trained under IDSP
- Administrative support in SSU as reported by SSO is lacking due to non-availability of funds from CSU
- With the up-gradation of health care delivery services under NRHM, laboratories under CHCs and District hospitals are adequately staffed with laboratory technicians. However, samples like PS for MP are referred to private labs.

63. **Integration and inter-sectoral coordination:**

- The **overall focus of the public health initiatives** seem to be on **NRHM** with a view to integrate services and programs under this broader umbrella. However, **MCH activities and curative components have achieved more attention**. Disease surveillance and control programs have a direct bearing on the morbidity and mortality in the community which will feed increasingly in to the curative services, if kept unchecked.
- **Integration of resources** under various vertical programs was better observed at the district and sub-district level as compared to state level; more in Kurnool district as compared to Nalgonda district.
- Notably, **surveillance data** from malaria and TB control programs finds its way into IDSP wherever resources such as laboratory technicians are integrated; reports of water quality monitoring, essential for decision making and prevention and control measures are not reflected in the surveillance data.
- **Coordination in the hierarchy of the public health administrative structure** in the state needs more attention. Directorate of health in charge of surveillance and disease control programs lack of administrative control over district hospitals, laboratories and medical colleges which are under the APVVP and Directorate of Medical Education, respectively but have a critical role in public health response.

64. **Suggestions/ recommendations:**

64.1 **Improvements in the breadth and depth of surveillance system:**

Given the available opportunities, surveillance base needs to be expanded in the state.

- Most disease events are currently captured by informal sources such as media and smaller events are contained by the private health care providers. The state may consider developing models for **rumour reporting by the media**. This will facilitate capturing disease events early, as could not be observed in both the situations.

Involvement of private sector as sentinel sites e.g. HLPPT's ongoing efforts on building awareness among RMPs on condom promotion, use of oral rehydration therapy etc. can be used as a channel.

Data from 1056 of HMRI should be tailored and used more efficiently by IDSP. The future plan of HMRI to extend their network to private practitioners and private laboratories will add to the surveillance capacity.

- Greater **monitoring and supervision of reporting units** required from the SSO/ DSO. Regular onsite visits and quality audit of surveillance reports, frequency of reporting, cross checking by field visits in the community, and other formal/ informal sources of disease information should find a greater role to capture disease events in initial stages.
- **Laboratory confirmation of outbreaks is essential** to guide response and preparedness. This needs to become part of the M&E mechanism. Review should be done at all levels: principle secretary, state surveillance unit and district surveillance unit; feedback should be provided promptly through personal and official communication; **SSU may consider developing newsletter** to constantly update the knowledge and information of the health functionaries in the state; this could be part of NRHM bulletin; **lessons can be learnt from Maharashtra State** and their feedback strategy.

64.2 **Improving laboratory surveillance and confirmatory diagnosis:**

- Greater on the ground attention needs to be given to integration and rationalization of laboratory manpower and resources. All investigations as expected under IPHS should be ensured in PHCs and CHCs and cases not referred to private labs.
- **Integration of resources and allocation of workforce** can be further rationalized and their roles clearly defined e.g. qualified LT from APSACS and RNTCP should contribute to other activities of the laboratory and vice versa. This needs to be done at the state and district level; as an attribute of coordination at state and district level this needs to be a regular agenda for review at coordination meetings chaired by Principle Secretary at state level.
- **Water quality monitoring** is an essential component of public health laboratory surveillance. Since close coordination with IPM network at peripheral levels is difficult to achieve, **rapid H₂S kits and chlorine testing kits should be made available at PHC level. District laboratories should perform these tests and MPN test regularly** and as part of outbreak investigation, wherever required. IPM Hyderabad may introduce this as part of laboratory trainings.
- **Quality assurance of laboratory** services including standard procedures manuals may be entrusted to **medical colleges and state level laboratories**. State laboratories such as IPM, Hyderabad and Osmania Medical College can supervise QA in district laboratories. To begin with, there could be mechanism for cross checking sample every 1-2 months coupled with regular on-site visits.

64.3 **Biohazard waste management:**

- Bio-waste management needs **urgent attention in the state**, both within the laboratories and health facilities; Kurnool district plans to outsource the clearing of waste to a private agency; the model should be extended to other districts wherever applicable. At the same time training and **constant monitoring and supervision** needs to be undertaken at the health worker level also.

64.4 **Advocacy and coordination:**

- **Overall focus** of the state health machinery has switched gears to attend to **MCH and NRHM activities**. Relaxation on disease surveillance and control front can potentially reverse the achievements made in vertical programs e.g. RNTCP functionaries at district level already feel that integration of laboratory resources is affecting the quality of diagnosis.
- Regular advocacy, **engagement across vertical programs and capacity building of the health staff** will maintain the quality of surveillance system. The CSU may consider the request of the state on bridging the gap in health workforce surveillance capacity.

64.5 **Role of Central Surveillance Unit (CSU):**

- A need was felt to strengthen monitoring-supervision and feedback mechanism from the CSU. The CSU may consider state wise allocation of central officers for closer cooperation and attendance to issues of the state; if already in place then it needs to be a more regular feature.
