



January 31, 2011.

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Reference: *Inputs on the 12<sup>th</sup> Five year plan W.R.T.* (1) Eradicating under-nutrition and malnutrition in India through restructuring of ICDS or other means and (2) Suggestions for improvement in the present structure of NRHM.

Dear Dr. Hameed,

I am sure that this finds you doing well. This has reference to the mail from your office on 5<sup>th</sup> January 2011, requesting me to provide inputs on the 12<sup>th</sup> five year plan w.r.t.(1) Eradicating under-nutrition and malnutrition in India through restructuring of ICDS or other means and (2) Suggestions for improvement in the present structure of NRHM.

At the outset, let me put my deep appreciation for the NRHM (National Rural Health Mission) and its positive impact on the healthcare of the rural population. I had a chance to visit many rural pockets over the past few years, and my inputs are based on the reality as seen by a commoner, and I do hope it is insightful along with being helpful.

**Policy Changes:**

To me, there appears to be no single prescription for addressing the diverse healthcare needs of this country, which is as big as a continent, but NRHM has made its presence felt even in the remote parts of the country. Seeing that the NRHM was launched only in April 2005, and would be around till 2012, with a possible extension for another five years, one of the **key policy action items that might be worth considering to create a pro-active Rural healthcare system in another six years ( assuming that the NRHM is discontinued in its current form by 2017 ), is to be able to sensitize the population on the adoption of basic standards of personal hygiene, nutrition & lifestyle necessary for fitness ( wellness) that makes our population less dependent on hospital care . This should be one of the key goals of the NRHM for the 12<sup>th</sup> Five year plan .The current NRHM has put the onus & financial burden on the centre, as the centre and state partnership in terms of the financial outlay is 85: 15 . Second important consideration , this also must get a key policy shift for the 12<sup>th</sup> five year plan which should have one more stakeholder i.e. center : state : Beneficiary .**

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### **Funding for NRHM:**

We need to see a financial participation from the beneficiaries of the NRHM, as they would have got used to the services offered via NRHM centers ( ASHA , ANM, Sub Centers , PHC , CHC & District hospitals ) , and the value of offering would have increased through NRHM centers. In addition to this, per capita income will also go up in the next five years if the country continues to grow at the current pace. So we must consider if we can increase the fees for basic services towards the 10<sup>th</sup> year of NRHM; even a token increase by one rupee can deliver a quantum leap. Besides, we must keep reducing the financial incentives gradually every year to phase it out eventually. Still, the people would enjoy the safe healthcare services which are subsidized or offered at a very low cost. Villagers are getting used to these services , and I am sure that in the 10<sup>th</sup> year of NRHM , it might be a right time to bring down some of the subsidies and incentives , as the trust would have built up considerably .

NRHM should welcome 'tax free' donations from individuals and corporates: This should be publicized and could become a good way to raise funds in a step towards building a financially sustainable healthcare model for rural India

With a gradual reversal in the expense funding between center and the state, the expense part needs a micro planning as, though the hard infrastructure expenses might not be as high as it is now (since we are constructing sub centers & upgrading some existing centers ), but the maintenance of the infrastructure built will become a huge financial burden, and knowing that the divestment & auctions are not routine incomes for the government, this would lead to a huge deficit in the budgets over the next six years if financial planning of NRHM is not planned and managed well.

Also, one of the key considerations for the policy makers is to look at converting NRHM into NHM ( National Health Mission ) , as the conditions remain deplorable for urban poor , and the private facilities are not going beyond tier 1 & 2 towns .

### **Structural changes:**

It would be worth considering replacing the hierarchical designations to functional designations to have a clearly defined role and an outcome driven responsibility

Mission Steering Group (at the Centre) could consist of the following :

Director for Planning & Forecasting,  
Director for Strategy  
Director for Analysis & Research (One who looks into the regular reporting & review)  
Director – Innovation & Program improvisation (Program will certainly improvise with regular feedback & inputs)  
Director – IT

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Director – Procurement  
Director – Logistics  
Director – Finance & Accounts  
Director – Standards - Medical Protocols, GCP (Good Clinical Practices) & Quality Control  
Director – IM (Infant Mortality)  
Director – MM (Maternal Mortality)  
Director – Nutrition  
Director – Immunizations  
Director – Preventive Care  
Director – Mental Health  
Director – TB- DOTS  
Director - ART  
Director – NCD  
Director – Anemia & Related Disorders (This needs a special focus, as more than 50 % of women are Anemic)  
Director – Oral Care  
Director – De-addiction (De-addiction must also be a focus area, as the consumption of alcohol has been on constant rise, and wife beating is prevalent in most of the households)  
Director – Ophthalmology  
Director – Ambulatory services  
Director – Pharmacy  
Director – NGO & Alliances  
Director – Media & Communication  
Director – Human Resources & Training

More people can be added depending upon the focus areas for NRHM. In fact, I would strongly recommend that all the national health programs be merged with the NRHM one by one to ensure that health & wellness issues are addressed holistically in rural India

The reason I am recommending a dedicated resource for each action area like Director – MM, Director IM etc. is that, then we have people with specific deliverable, and outcomes would be better. Currently, at the centre, we have four Joint Secretaries and four directors with multiple responsibilities . These might leave them with delivering outstanding results in some areas, and with serious gaps in some!!

The above mentioned Central Committee (Mission Steering Group ) , should be overseen by the board or committee which has members from Public Health, doctors from modern medicine, Ayush, Nursing, Public representative, patient groups & people from different walks of life, who bring diverse capabilities to the team with proven competence in envisioning and executing projects on mass scale or of making a social impact. 1/3<sup>rd</sup> of these representatives must change every two years (rotating public participation). 50 % of the members must be from the government and 50 % from the private sector. Also, of the total members, 50 % must be practicing doctors and remaining non-medicos.

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Further, a similar structure needs to be set up at the state level. At the District level, the work gets delivered via same field workers.

While the PHC's & Sub centers are done up very well, some gaps remain, like;

- There is a mismatch in the requirement & stocks of medicines. All the PHC's get similar stocks of medicines irrespective of the load in OPD. So , whereas some PHC have more stocks , some have stock outs – More of Forecasting and logistics issue
- Supplies of nutrients is insufficient & inconsistent - Once we have a focused resource ( Director – Nutrition , Director – Forecasting & Director – Logistics ), these problems would reduce drastically
- Need is for three doctors instead of the two currently at the PHC, so that the load can be handled well. Currently, at times, the wait period for a patient to be seen could go beyond 4 hours at times in OPD. Also, with this, the PHC can operate 24 X 7 , since doctors can do an 8 hour shift each
- It would be good to have the doctor's residence attached to the PHC
- Biomedical waste disposal has to be given priority to avoid infections in villages.

**Challenge: Nutrition** given during ANC / PNC is consumed by the family and not by the mother.

**Solution:** If ASHA can monitor this during visits or otherwise, it would be effective or the gender specific nutrition packs could be made to ensure that the females consume what is meant for them. Self Help Groups have emerged as the new power centers in the villages and every village has Self Help groups. ASHA's must work with SHG's to address this issue and oversee that the diet meant for the lactating mother is given to her in presence of a SHG member

**Challenge: Electricity** – Load shedding in villages: This leads to lack of storage conditions in PHC's & Sub centers

**Solution:** India has adequate sunshine for 9-10 months in a year, for rest of the months, the load shedding is less, so it is worth considering having solar panels as an integral part at all the PHC's & Sub Centers for generating electricity needed for storage and other requirements

**Challenge: Poor Quality of Medicines:** It is observed that the qualities of medicines are poor, and it is procured by the district Health committee. Poor quality of medicine is a serious issue, as the patients are given medicines for treatment, and if the medicines are not effective, it will lead to mistrust in the entire system, and the poor people will have to move towards private practitioners or quacks and suffer more

**Solution:** Since all the companies in pharmaceuticals have national level operations, it will be good if the national level tie up is done for procurements of medicines at the NRHM rates, and the order, supplies & payments happen locally. With this, we will be able to get



the best rates and also give the best quality of medicines to the needy poor patients. Also, generic medicines should only be allowed to be used under NRHM. This will help to save enormous costs to the government. Also, all the PHC's & sub centers must set up ROP's (re-order points for all the requirements, factoring in the time lag for supplies based on past trends. This will ensure that there are near zero stock outs).

It was observed that the specialists (Gynecologist ) in one of the model PHC (Wardha district) comes only for two hours and that too, to direct patients to private practice. This must be avoided at all costs, as this will eventually make ASHA's & ANM's, agents for private clinics for all the wrong reasons & erode the trust in the NRHM

**Challenge: Absenteeism in PHC:** It is a common problem to see that doctors are missing or come only for a few hours or few days in a month.

**Solution:** It is suggested that the entire NRHM attendance moves paperless (biometric attendance be made compulsory). With this, the problem of absenteeism will come to an end

**Challenge:** Preparing reports and paper work takes most of the productive time of the health workers

**Solution:** With the advent of low cost tablet PC's & low price 3 G enabled phones; it might be worth considering giving these devices to health workers like ASHA's. Also, if these mobiles / tablets have a GPRS connection, it can mean live data updates, thereby, reducing the three month gap between the village data entry and the central review points at Delhi

When I visited the residence of one ASHA worker, she had more registers to maintain records than her daughter would have used in her studies! In all, she had about six registers to maintain records and spent 2-3 hours daily to just fill in her records. I believe that just one register should have been good enough , with name of the beneficiary , under which head ( disease or operation ) , visit for the purpose of , repeat visit , action taken, next steps, and next due visit etc.....The register given by NRHM was in English with words like Vulnerable men / women . I believe that the language used should be bilingual and not just in English .... This needs immediate attention. Digitizing the records through mobile phones would be great, as has been done in Wardha district for IM & MM programs. The data is updated live and the impact is significant with no chances of multiple entry and errors, and also real time actions happens due to SMS based follow up and care.

Ground reality: I visited one centre in a rural area, and I was surprised to see the PHC decked up to welcome the Health & Sanitation committee that was to visit the centre. I was told by the centre staff that they have been waiting since past one week, expecting this committee and they had bouquets etc ready to welcome them. Such visits do not reveal anything and add no value to the working of the village sub centers or the PHC but work only for photo-ops!! Only surprise visits must be under taken with no formal information given in advance, so that the right picture is presented during the visit, and the action oriented steps can be taken to fill the gaps, if any.



**Pharmacies** are present in every part of India .It is believed that India has about 7.5+ lac pharmacies across the country, and most of the villages have a pharmacy. All the Pharmacists must work as ASHA support systems due to their knowledge and skills, being the trusted touch point for basic health problems. Focus through pharmacists should be on chronic diseases and paternal care, and through ASHA's on child and maternal health

Medicine kits given to ASHA should have all the instructions in English, where as all the pharmaceutical companies are expected to carry the same bilingually (English & Hindi). For NRHM supplies, pictorial presentation along with bilingual labeling must be mandated.

**Tribals & Upper caste:** Despite the best efforts of the government, tribals are still called the 'Black castes' and live in a separate area demarcated for them. One of the biggest challenges is that ASHA from a lower caste would still find few takers amongst upper caste households, and vice versa. This is one issue that needs to be addressed. It would be wrong to create two ASHA's and further the divide , but some really significant work can be given to ASHA , so that it appears to be compelling enough for everyone to seek ASHA's assistance- Like the entire village birth certificates must have ASHA's signature etc.

### **Changes in the delivery of services**

#### **New Opportunities:**

**Community Radio:** This is being experimented in Baramati, and must be looked into. Similar services can be started in villages to drive healthy behaviors. I had visited a few villages in north, where a simple awareness campaign (pictorial & through songs in local dialect) have reduced the maternal mortality by 93 %. The expenses in this project were not more than Rs.5000.00 per village. Such models need to be adopted

**Toll free based IVR Multilingual helpline:** NRHM must initiate this to help reach the right people for the right inputs

**m-Health based Jeevandaini scheme :** This has been piloted in Wardha district , with good results in institutional deliveries and drastic improvement in MMR. The simple mobile based applications have lead to live data upload and follow up via SMS, leading to good compliance amongst ANM's & ASHA's . This health based model needs to be made an essential part of NRHM . Since 3G & WIMAX is now a reality , the rural health information flow and delivery of few basic services must be done adopting m-Health ( mobile health platform ).

**Mobile Sub centers:** Sub centers are built at a cost of Rs.8.5 – 13.5+ Lacs. It might be worth considering to set-up mobile sub centers( Mobile Vans ) that can go across to the remotest areas and conduct outreach programmes. So the cost of operating the sub center ( rental , electricity etc ) gets consumed in the form of fuel expenses for the mobile health center and also, these sub centers can be used as an ambulance in case of medical emergencies . Thus it would save Rs.300 that is given for transferring patients to the referral centre. The cost of

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mobile centre is expected to be much lower than the cost of a physical centre. Location of PHC's & Sub Health Centers is mostly around a few Km's from the residential areas, and this needs to be corrected or filled up with such mobile health center

**Digital Training of Health workers:** It might be worth considering creating a TV programme on doordarshan modeled exclusively for training ASHA, ANM & for increasing awareness amongst NRHM beneficiaries. Also the same should be made available through mobile phones as 3G is now a reality. Expecting mothers must be able to see the demo & programme clippings via their handsets or through ASHA's handsets, which could be upgraded to a 3G enabled mobile handsets for live reporting or for delivering video content for various programmes.

Technology must be leveraged in NRHM for accountability, transparency and telehealth. **12<sup>th</sup> five year plan must consider opportunities to digitize NRHM in all spheres of its implementation**

**Minor surgeries in PHC:** Now that that PHC's have facilities for delivery, minor surgeries must be allowed in the PHC. So far, minor surgeries are not allowed in PHC. This is one important decision that can help save a lot for hassles for villagers and bring revenue for the government. The PHC's can enroll patients for minor surgeries, and then get a surgeon on call for a day from a nearby town and complete the minor surgeries at the PHC to function as day care centers .

Reporting of NRHM across states should be on the same format as of KPI's (key performance indicators) so that it leads to apples to apples comparison and this could be on these indicators

- Structural : Setting up and maintenance of the facilities
- Functional : Human resource management and flow of instructions and funds
- Fund utilization: special focus must be paid as to why the funds could not be used, as the money is meant to be spent with an outcome allocated to every rupee spent.
- Outcomes : Measurable outcomes in improvement in the village / Taluka health must be done every quarter

Reporting and review must be

- Weekly for Talukas
- Fortnightly for Districts
- Monthly for states
- Quarterly at the centre

This timely reporting will itself bring out better outcomes. It was sad to learn that during the mid-term review of the 11<sup>th</sup> five year plan in July 2009, the ministry of health & family welfare was not even aware of any targets. The reality is that, the files from the planning commission were not even looked into by the ministry of health & family welfare until the mid-term review of the plan started. One of the senior official of the MOHFW had revealed to me that rarely MOHFW looked into the files from the planning commission , and they

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were not even aware of any targets set by the planning commission , and that if the MOHFW did not respond to the plan targets set by the Planning Commission , the planning commission assumed the targets as accepted by the Ministry of Health & family welfare .This is a structural and procedural lacunae and needs to be addressed from the planning stage for the 12<sup>th</sup> five year plan , so that the ministry does not question in the meeting who set the targets for them ??

### **Administrative changes:**

**Financial planning and flow of funds:** The fund flow on time is the biggest problem. I have met people working at the lowest level in PHC & Sub centers, where the salary has not been paid for months, and the funds for 2010 were received in mid – Jan 2011. This clearly will encourage corruption. People drawing a monthly salary of Rs.5000-8000 cannot sustain their family without salary for months. Either they will resort to bribing; selling the government supplies or starts absconding and working for employers in parallel. The fund meant for a sub Center or PHC must be transferred in advance for the quarter if not half yearly. This is one single biggest action item to make a sub center or PHC Staff working 6 days a week

Referral centre: It has been found that the referral centre in Panvel (district Raigad) does not even accept patients & turns them away from the door itself ( this is a reality ), and the patients are routed to the Alibag referral centre. Such centers must be a common occurrence across India. Government is paying for them, but they are operational only on paper. Such center must be tracked down, and either made fully operational or closed down. As not only they cause a loss of money to the exchequer, but also diminish the trust of the common man in government's flagship schemes like NRHM

**Why programmes succeed or why they fail- Lessons to learn:** Let's take a look at the successful programmes like NACO for Aids, National TB control programme & the Pulse Polio programmes. All these programmes have worked well because of the fact that they have proper structure and resources allocated. In the ministry of health & family welfare, the programmes are fantastic announcements, but the human resources required are not properly allocated in the ministry to handle such programmes; only the funds are transferred in the bank for the programme. So the department handling the programme is under resource crunch , they do not even have people to handle the communication , and most of their time goes in reporting ; Result – the funds remain un-utilized and are returned back in case of calamity announcement from the PM's fund or for other reasons and thus programmes fail to leave an impact . Planners must study the success of National TB control programme & NACO and implement the learning's in all the programmes for Health & family welfare

**Incentive to health workers ASHA's ANM's & other Sub center & PHC staff:** It is expected that since ASHA's and ANM's are incentivized for institutional deliveries, referral etc. The incentive might also make them turn to private practitioners over a period of time, as the lure of money will drive them to recommend private gynecologists & give less focus to home visits and counseling, and this might be happening even today as well. It is

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suggested that the ASHA's & ANM's must be incentivized for counseling, home visits, immunization & preventive checks as a routine part of their job and the incentive must be paid for each home visit ( even Rs. 2 to Rs.3 per visit is good enough ) . This will lead to a fixed remuneration to ASHA'S & ANM's. Certain Evaluation parameters for the success of an ASHA must be established like how many households are aware of sanitation, hygiene, preventive health and healthy lifestyle. Since the NRHM has a huge outlay of funds for the national healthcare, a 'dip-stick' audit using random sampling must be done with the households, and this must be done every quarter across the states where NRHM is currently operational.

ASHA is not paid a salary but is paid incentive for institutional deliveries (Rs.100), DOT treatment (Rs.250), meetings for once a month (Rs.150, out of which Rs. 100 is for travel and Rs.50 for refreshments). A supervisor is above ASHA's and she handles about 30 ASHA's. She is paid Rs. 3000.00 per month. She is supposed to be meeting two ASHA's a day. Since both the ASHA's and Supervisor have to travel long distances by road , and keep in constant touch with each other , I would recommend free local roadways pass to NRHM workers , and a mobile connection with CUG ( Closed user group , that allows free calls between users ) for NRHM staff. The cost of which could be less than Rs.75 per month

**NRHM Handbook :** Since the NRHM programme is the biggest healthcare programme so far, it is imperative that a detailed multi lingual NRHM Handbook, manual or ready reckoner be brought out for all those involved in the programme , covering basic protocols, bio medical waste disposal , do's & don'ts dealt with FAQ's . Also, the digital version must be available on mobiles and internet.

1-3 months rural posting of nurses, pharmacist and doctors must be made mandatory for the courses to fill the resource crunch, and the professionals must be remunerated for these postings along with free accommodation on site at the sub center and PHC.

**Awareness & sensitization:** Since NRHM is addressing the key areas when it comes to health and hygiene, it is imperative that a chapter on NRHM is added in secondary education (class 6<sup>th</sup> onwards). This will lead to awareness and sensitization amongst children to adapt to healthy habits

**Role model & Case studies approach:** People believe in facts, and the case studies & success stories of ASHA & ANM's must be shared nationally to make the acceptance more impactful for behavioral change. I must share with you something interesting that I witnessed in north India. I was visiting rural belt in north India, and came across an ancient custom called 'Shourey pratha'. Under this , when the lady delivers a child , she is confined to a room for 40 days , and cow dung is plastered on the walls ,and baked cow dung cakes are burnt non-stop to fumigate the room, automatically the mother and child suffocate to death . Now we can well imagine why the IM &MM (Infant Mortality & Maternal Mortality) was very high in the rural belt in north India. With simple explanations and scientific explanations with the help of the Self Help Groups (SHG's), this tradition is on its way out. SHG's is the most powerful change agent in rural India and the NRHM must use this channel to drive a behavioral change in rural India.



### Eradicating under-nutrition and malnutrition

The issue of under-nutrition and malnutrition is not just an issue associated with poverty . If I were to say that malnutrition is also prevalent due to the lack of sanitation facilities, people would not believe it, leave alone talking about linking the two.

Here is an interesting linkage : Females in the village have to defecate in the open , and for that , they either go out in early mornings or late evening when it gets dark . To avoid going in between , the women not only eat little , but also feed children just good enough so they do not go out and defecate too often , and this has been a cause of malnutrition and under-nutrition . There is a common habit amongst girls studying in schools with no proper toilets that , they seldom drink water during school hours to avoid going to toilet !! Strange but true . Similarly , mal-nutrition and under-nutrition has become a sanitation issue . *This calls for the involvement of the ministry of rural development to address the sanitation issue in rural India to completely address the issue of malnutrition & undernutrition . Also, the ministry of food processing to work with the players for producing locally fortified foods to reduce the cost of ready-to-use therapeutic foods (RUTF).*

Nutrition is often overshadowed by other medical conditions, like malaria or diarrhea, despite the fact that malnutrition, combined with these conditions, can more often be fatal." A "severe acute malnourished child" is more than nine times more likely to die than a well-nourished one, & malnutrition from any means retards normal growth .

*Besides sanitation , societal traditions that female child is a burden still plagues the nation* ,and there is a bias towards the male child who is treated as an inheritor and an insurance in the old age for parents . Government needs to step its machinery on all fronts . It is a known fact that, *a weak female will never bear a healthy male child* , and this should form the basis of the Healthy India campaign as the discrimination against the female child is rampant in every part of the nation . The issue needs to be attacked multi-fold ;when the mother is expectant , post child birth , adolescent years, post puberty age in girls . Special focus has to be given to the female child , who bears a male child in future .

One of the key pillars of NRHM must be eradication of anemia amongst women with the focus on the girl child. Special fortified biscuits or snacks with calcium, iron and zinc need to be made available for the girl child ( developed specially for females, so that male child is not given those products ! ) and separate packing for boys to be given as mid day meal or as packaged snacks made especially for children fortified with nutrients ; ready-to-use therapeutic foods (RUTF). For boys, the nutritional support must continue till the age of 6 years but for females , this support must continue till 16 years in age

The deficiencies varies with the region , like Vidharbha region has a severe issue of sickle cell anemia , and this is becoming a serious genetic health issue . Similarly, deficiencies in every region needs to be addressed region-wise.



Diet charts are as important as immunization charts and needs to be given together during child birth based on the physique of the newly born

RDDA's ( Recommended Daily Dietary Allowance ) should be worked out specific to each child . The role of the nutritionist gains significance in NRHM and is central to the issue . The diet plan must be made for each new born and followed under the directions of ASHA locally . So far, I have not seen a prominent role of a dietician in either the sub center or the PHC

I would recommend national health planners to tie up with WFP ( World Food Programme ) to provide daily nutrition for as low as Rs.5 per day . Even companies like Unilever are working on creating BOP Healthcare ( Bottom of Pyramid Healthcare ) models focusing on healthcare basics for the rural masses. It might be worth exploring PPP ( Public Private Partnerships ) to address this issue & come out with ready-to-use therapeutic foods (RUTF)

Indian Pediatrics has brought out a Special Issue (August 2010) on Severe Acute Malnutrition, which deliberates in detail on the global and national evidence relating to pertinent issues on this subject.

Severe acute malnutrition (SAM) in children is recognized as a major underlying cause of death amongst under-five children. These deaths are preventable provided timely and appropriate actions are taken.

According to National Family Health Survey-III, conducted during 2005-2006 in India, 6.4% of children below 60 months of age were suffering from this malady . With the current estimated total population of India as 1100 million, it is expected that there would be about 132 million under-five children and amongst these about 6.4% or 8.1 million are likely to be suffering from SAM.

With the emergence of home based management approach for SAM children, which includes the use of Therapeutic Nutrition (TN) as part of Medical Nutrition Therapy (MNT), it is possible to address this issue in a cost-effective manner. More than 85 % of total SAM cases are without medical complications and can be identified through active case finding in community to be successfully managed at the home level. Global evidence suggests that with integrated management of SAM children, case fatality rates can be reduced to less than 5 percent. Short-term therapeutic nutrition for *6-8 weeks is an integral component of home-based management of SAM. There is an urgent need to develop an indigenous preparation of therapeutic nutrition in the country and operationalize the community management of SAM. Exploring a tie up with WFP / Unilever might be a good start.* Also NRHM can start a **mission GYM ( Grow Your Medicines)** at the PHC , Sub centers and in every households ,as most of the green vegetables and fruits can be grown locally , and can be used for fighting mal nutrition and under nutrition . On one side , fortified snacks could be given , and also the NRHM can distribute seeds for growing vegetables and fruits that can mean much cheaper source of right nutrition .



Height weight charts must be distributed in all households to keep them aware of age-weight –height ratio and the relation to malnutrition . Automated SMS based service could help in ensuring compliance as seen in the case of Wardha pilot for MM /IM.

Awareness and sensitization must happen through short films and pictorial comics about the deficiency of Iron & Calcium in females

**ICDS :** Policy makers must consider merging ICDS with the NRHM , as it might be worthwhile to double the number of ASHA's and allocating more high priority job to ASHA's.

Health Fairs must be organized locally to create awareness on the issue of malnutrition . Those parents who have the healthiest girl child must be made 'Role Model's' for others to follow . A 'healthy girl child award' must be instituted in each village ( Say Rani Laxmi Bai Award ,Sarojini Naidu or Indira Gandhi award etc) , and the government must recognize the mother and father ( Good Parenting ) for healthy upbringing of the female child ,along with a cash award of say Rs.1000.00 , or other incentives like 2 KG extra ration at the PDS shops, free bus travel for parents for one year in ST ( state transport ) bus , 50 % fee reduction in graduation of the child ,if studying in government college etc, could also be considered depending upon the consensus of the relevant stake holders. This can be a good competition to start with, which will drive home the message that bringing up a healthy girl child is beneficial in the short run and in the long run & the responsibility of the parents , with the Government acting as an enabler for this . To start with, if each of the 6 lac + villages gives this award to one girl ( parents ) , and each encourages 10 people to take care of their girl child , we would have got 6 crore healthy females in the next 10 years !! If we want faster results , we can fix the criteria for a healthy girl child for the age group 1- 16 years , all those who qualify can get incentives for the healthy upbringing of the girl child like free travel on ST bus etc . Ministry of women and child development might like to take this up in the 12<sup>th</sup> five year plan.

NRHM must insist with the ministry of education to include in the curriculum few chapters on micro nutrients and their role in healthy living , and this should start from class eight onwards.

I do hope that these inputs are of some help .I remain at your disposal should you need more inputs on other aspects of healthcare & rural economy

With best regards

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