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Can PHC system in India deliver Emergency Obstetric Care? : A management perspective on child survival and safe-motherhood programme

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India has an extensive network of hospitals and health centres with a large field staff in the government sector, which has been providing primary health care. Of late this infrastructure has been effective in delivering immunization services to the community. The Child Survival and Safe Motherhood (CSSM) programme envisages to strengthen this infrastructure to provide Emergency Obstetric services (EOC) which is the heart of the Safe Motherhood initiative. This paper reviews the state of the PHC system in India from a management perspective to assess its capability to deliver effective EOC. We analyze the 'strengths and weaknesses' of the PHC system and the 'threats and opportunities' that the environment offers with regards to the development of an EOC facilities. Following the strategic management framework we analyse the safe motherhood programme as it is currently planned.

Analysis of CSSM programme based on strategic management framework shows that the programme has not planned to achieve congruence between Environment Structure, Strategy and Processes. It is following a blueprint approach. This is likely to lead to sub-optimal performance. Major inputs are focusing on orientation training and supply of consumable only. Training mainly focuses on technical aspects neglecting the organizational and human aspects. The key management systems such as referral, supportive supervision, problem solving, skill-based training, participation, motivating and rewarding as well as monitoring are very weak in the government PHC system, which will hamper the effective implementation of Safe Motherhood programme. We suggest some management interventions based on strategic management framework, which will support the Safe Motherhood, programme strategy and make it more effective.

Present PHC system in India

India has a mixed system of health care where most of the preventive and promotive care is provided by the government health services where as majority of curative care is through private medical practitioners and institutions. The

government health system consists of teaching hospitals, district hospitals, Community Health Centres, Primary Health Centres and Sub-centres, which are distributed usually on a population norm through out the country. Services at the government facilities are mostly free or at a very low charge. Some sort of private health services are also available in most parts of the country. They include tertiary care, secondary care and primary care through qualified and unqualified practitioners. The level of care, the quality in terms of qualification and the density of practitioners usually decline as one goes away from metropolitan areas to rural hinterlands. It is a fact that in spite of a reasonable mix of health services the maternal mortality in India is high [1]. Government of India has embarked on the Child Survival and Safe Motherhood (CSSM) programme to reduce maternal mortality. Emergency Obstetric Care (EOC) forms one of the parts of the Safe Motherhood (SM) programme.

This paper analyzes the PHC system in India from a management perspective to see if it can deliver EOC required for SM programme and how best to ensure that it does actually deliver EOC efficiently to reduce maternal mortality.

Present status of maternal health programme

Since decades the PHC system is providing "maternal care" to rural women under the MCH programme. Such a care in functional terms is mostly Antenatal care (ANC), some Intra-Partum Care (IPC), and Post-Natal Care (PNC). The ANM who is a full time employee of the government is suppose to register all the pregnant women and provide them ANC, IPC, and PNC. The main focus of the current maternal care programme is on TT vaccination and Iron folic acid tablet distribution. Service statistics report 77% and 47% target achievement (1991-92) for these activities respectively [2]. Of late targets are equal to the estimated number of pregnant women in that area. Survey based estimates of coverage are lower and indicate that substantial proportion of pregnant women are not covered. It is estimated that about 30-50% of women are delivered by adequately trained persons like doctors, nurses, ANMs etc. Data on coverage of post-natal care is not available.

High risk approach and referral, even though talked about, is not systematically practised due to several reasons - some related to health system and some related to the community.

Family planning, which is one of the most important programmes and has potential to save maternal lives is going on at full speed. The main focus in the programme is to achieve targets of female sterilization and spacing methods of FP. Most of the PHC staff is very busy from September to March each year in FP work. The current effective CPR is about 44% and about 80% of it is due to

sterilization. Hence FP programme does contribute to saving maternal lives M by preventing unwanted births.

Under the Medical Termination of Pregnancy programme (under the MTP act of 1971) every year about 5-6 lakh MTPs are performed. It is also believed that many more induced abortions are performed in the country by private practitioners who are qualified but not licensed and a large number may be performed by unqualified village practitioners. The latter contributes to the maternal mortality up to 11% [3].

The quality of services in most government and private facilities are low and need to be improved. The problem with government services is that there is no incentive for staff to perform well as the salaries and promotions are not linked to performance. While in the private sector the problem is reverse - there is likelihood of over-intervention and abuse of drugs and technology as payment is directly in proportion of the intervention done for individual patients.

Changing understanding of Maternal Mortality Prevention

Pioneering work of the Maternal Mortality Prevention Programme at Columbia University has led to a change in understanding about the best way to prevent maternal mortality in the community [4]. In the 1970s and 1980s there was emphasis on High-Risk approach for improving maternal and child health. Now it is becoming clear that given the epidemiology of maternal mortality, preventing complications during birth or predicting who will develop them is not possible in majority of the cases, hence the only alternative is to identify complications early and treat them effectively in time to prevent mortality. And for doing this most cost-effective strategy seems to be development of effective EOC facilities.

Given this change of understanding about maternal mortality it is important to assess capability of the current PHC system in India to deliver effective EOC. Here we present Strengths, Weakness, Opportunities and Threats (SWOT) analysis of the current PHC system in India vis-a-vis performance of EOC functions. Then we look at the Safe Motherhood programme from the Strategic Management Framework proposed by Samuel Paul for development programmes and point out which areas need strengthening.

SWOT analysis of PHC for delivering EOC

The PHC programme in India has its internal (organizational) strengths and weaknesses and the environment poses opportunities and threats. Analysing this is crucial for strategy development.

Organizational Strengths

Current strengths of the PHC system must be first assessed, as future programmes must build on them. The PHC system in India has following strengths:

Large number of health centres established (20,847 PHCs- one of 20,000 - 30,000 population; 1,30,782 sub-centres each for 3-5000 population having one male and one female paramedic); large and well established bureaucracy in health; reasonable pays and salaries are offered to the staff, many curative centres such as teaching hospitals, district hospitals, CHCs Rural Hospitals. Many training centres available for health workers; logistics systems established for supplies; Most PHCs have physical infrastructure; Jeeps available in many health centres; substantial achievements in Family Planning & Immunization programmes.

Organizational Weaknesses

Weakness in the PHC systems are the areas which need strengthening so that they don't hamper the SM programme implementation.

Many health centres and hospitals nonfunctional or function only few hours a day; many a times staff does not stay at the headquarters; In difficult areas staff shortages are common; equipment inadequate and often out of order; supply of drugs and consumable is irregular and there are shortages from time to time; Training is poor and lacks skill development, team building and motivational components; The link between training, equipping and monitoring/supervision is weak; The whole health programme in rural areas is focusing on FP-sterilization; Monitoring is limited to target achievement for sterilization, spacing method distribution, and immunization; Quality of services are neglected; IEC and counseling are weak and not integrated with service delivery; The programme administration is centralized with little decision making at the periphery; Planning is blue-print based with little flexibility at local levels. Coordination within the various levels of health department and between departments is limited; In service delivery human approach is lacking; Staff commitment and feeling of ownership is lacking; Resources are limited and tightly linked to specific activities; Financial procedures are long and slow; Political interference in administrative decisions is common; Referral and feed back system are lacking; Some critical needs for EOC are weak such as Blood banking services; Surgical and anaesthesia skills are in short supply; transfers and turn over in the government system weakens the continuity of care; Recognition of good work is absent and punishment for not working is also absent.

Opportunities in environment

Opportunities in the environment should be effectively utilized to strengthen the programme. The current environment of the SM programme offers following opportunities:

International and national attention is currently focused on Safe Motherhood programme; More funding is available through government and international agencies; Many government aided NGO/Trust hospitals (at least in Gujarat) can offer EOC; Many private practitioners and specialists in small towns also can offer basic EOC; Reasonably good communications and transportation in most areas; Quite a few Research and Training Institutions in the country that can help SM programme; women's status in some States is not so low and is improving; Urbanization is increasing; Many good NGOs are present who can help in community mobilization; Need for emergency surgical care is increasing due to accidents and injuries; National AIDS control programme provides opportunities to improve blood banking system.

Threats in the environment

Threats in the environment have to be guarded against in developing any programme. The environment poses following 'Threats' in the context of SM programme:

General culture of governmental organizations is not geared to emergency services; Administration is not able to take strict action to activate the services due to unionization of staff and political interference in day to day administration; Several bureaucratic and administrative hurdles hinder the administrative reforms. Health is not a political priority and women's health is the lowest priority; Poverty and female illiteracy is yet high; In some areas access is difficult, status of women is low.

The government should take in to account the 'strengths' and 'weaknesses' of the health department as an organization and 'opportunities' and 'threats' in the environment in planning the strategy for Safe Motherhood programme.

Difference between Immunizations and Safe Motherhood

In some policy making and administrative circles a concept has developed that for Safe Motherhood programme we need to build on the strategy of the immunization programme which is quite successful [5]. Here we must understand the important differences between the two programmes and take

them into account in designing the intervention strategy. Immunization is primary prevention while EOC strategy, which is the mainstay of Safe Motherhood is providing curative (secondary prevention) services after the problem has developed. Same is also true for ORS for diarrhoea and antibacterials for ARI. This means that the EOC facilities must be available and function effectively through out the day and night, all 365 days in the year. And should be geared to treat emergency case immediately. While this is not required for achieving high level of immunization coverage. In vaccination a missed opportunity does not mean disease but in EOC missed opportunities would be disastrous. The current strategy of fixed day clinic - once a month in each village will not work for EOC or even ARI control. Lastly EOC requires much high level of skills including surgery, anaesthesia and blood transfusion etc. even though only few centres with such facilities are required in a given district or subdistrict. Teamwork is crucial in EOC and any member of the team missing will make it dysfunctional. Based on understanding of these fundamental differences between immunization and EOC the programme must take full advantage of relevant management systems of supply and monitoring built for the immunization programme and adapt them to be used in developing effective EOC.

Current planning for SM in CSSM programme

Low priority to SM and EOC as compared to Child Survival: Currently, in the CSSM programme much more emphasis is given on child survival, especially immunization, as compared to Safe Motherhood activities [6]. This is perhaps because CSSM is seen as an extension of UIP/EPI, which preceded it. Part of the problem for Safe Motherhood programme is that it is grouped with the child survival programme. Within SM programme the focus seems to be on antenatal activities such as registering pregnancies and ANC coverage (including TT, IFA coverage) rather than problems during, delivery. GOI's National Child Survival and Safe Motherhood Programme document [7] mentions that the goal of SM Programme is to reduce maternal mortality ratio to 2 per 1000 and the strategies for it are a) Early registration of pregnancies, b) Universal coverage with TT and IFA, c) Timely identification and treatment of maternal complications, d) Promotion of clean deliveries and deliveries by trained personnel, e) Promotion of institutional deliveries, f) Management of obstetric emergencies, g) Birth spacing, h) Improvement of infant survival rate by establishing essential newborn care including exclusive breast feeding, so as to promote birth spacing and reduce fertility. The same document lists ten "Essential Maternal Care" elements, which are 1. Early registration of pregnancy, 2. At least three antenatal visits, 3. Universal coverage with TT, 4. Universal coverage with IFA tablets. 5. Advice on adequate food and rest, 6. Early detection and referral of maternal complications, 7. Delivery by trained personnel. 8. Institutional deliveries for

women with bad obstetric history and risk factors. 9. Management of obstetric emergencies. 10. Birth spacing. Thus EOC is one of the 8 or 10 elements of the essential maternity care or strategies for SM. And hence there is likelihood that it may not receive due importance that it deserves even if Safe Motherhood receives proper attention in the CSSM package.

Some issues in Safe Motherhood programme

Culture of Emergency Care and Guidelines: Under the SM programme to provide EOC facilities First Referral Units (FRU) are to be established. Government of India has issued guidelines for operationalizing First Referral Units [8] which covers important issues like selection and functions of FRUs, Drugs required and steps for operationalizing FRUs, maintenance of facilities, monitoring of EOC facilities, Monitoring operationalization and brief note on funding EOC. This is a useful start but much more detailed work will be required at the state levels in actual operationalization of FRUs. Operationalizing primary preventive services is difficult enough for the government, operationalizing EOC will be much more harder. Besides the physical infrastructure and supplies EOC requires culture of emergency care and concern for life of individuals. This means that the work culture in government will have to change so that women in obstetric complication are attended to immediately. This will require close supervision and accountability in the staff. It will also require establishing procedures, manuals and standing orders to ensure that all emergencies are dealt with appropriately. In this regard it may be useful to learn from Army Medical Corps's procedure for treating battlefield emergencies which are very systematic and well organised.

Training and Supervision: Training is another important input for EOC. The current CSSM training, which is more like orientation, tries to include salient features of all the CSSM activities, but the component of skill development needs much more emphasis especially for the manual skills required. The current one time training of five days is inadequate. Skill based training requires adequate care loads at clinical facilities. Clinical facilities with such clinical loads should be identified and used as training facilities. Training schedule should be phased based on such caseload, which are available. Classroom training can not substitute for practical training. Models should be developed to teach some of the manual skills. Training should be closely linked to supply of equipment and medicines, and should be followed up with appropriate supportive supervision to ensure that the skills are used in treating obstetric emergencies. Check list should be prepared for each level of supervisors to use when he/she visit the worker or the facility to check the performance of emergency obstetric tasks.

Selection of FRUs: Location of FRUs should be chosen keeping in mind the roads and transportation network of the area so that it provides best possible access to the people of the catchment area. FRUs should be located at local transportation hubs (main centres). This will help ensure that facilities are accessible and at such locations availability of staff and other facilities will also be more. Facilities that are not located at strategic locations should not be selected for upgradation as FRU. In some places there are hospitals run by public charitable trusts or NGOs, many of which receive government grant-in-aid, such hospitals should also be considered for upgradation and designation as FRUs. This will help avoid duplication of facilities and wastage of resources. Resources so saved can be used to upgrade other facilities or provide more services.

Staff Attitude: One of the important reason that Government facilities are under used (or people come there as a last resort and hence many a times come late) is their impression that in government facility no one will pay any attention to them or treat them properly. Studies from West Africa have listed number of health services related factors that act as barriers to treatment of obstetric emergencies, which include shortage of staff, supplies, costs and staff attitudes [9]. The CSSM programme must build in to its training and supervision systems efforts to chance negative staff attitudes towards patients. Attitudes and behaviour of the staff, which is welcoming and helpful to the patients will go a long way to improve use of EOC facilities.

Referral system: Referral has an important role in prevention of maternal mortality. Developing effective referral systems should receive importance in the CSSM programme. Referral system requires quick and proper assessment of the case, first aid, transport and close cooperation between different levels of the health care system. If community awareness is more, then people will directly come to FRU as and when problems develop. Hence the health care providers in the community including the TBAs should be oriented to the danger signals during delivery and criteria for when and where to refer in case of emergency. Obstetric first aid before referring is also very important so that the woman will survive till she reaches the FRU. Primary health centres and sub-centres can play important role in this regard. They should be equipped and staff trained for such emergency obstetric first aid.

Flexibility and problem solving at local levels

EOC requires complex activities from a team of skilled persons. Any one person or skill if lacking will disrupt the functionality of the whole FRU. For example if an anaesthetist resigns or is transferred out, the functioning of the FRU will be hampered. This may also happen if any one of the team members leaves. To deal with such situation one must ensure that transfers are not unplanned (without

proper replacement). It should also be thought of to hire people on part time or ad hoc basis to avoid disruption of EOC services. This also applies to procurement of essential medicines and supplies in case of shortage and repair of equipment and facilities. The local officers should be administratively and financially empowered to take immediate action to solve such problems without much delay. Such flexibility and problem solving authority will be required to ensure that the EOC facility functions uninterruptedly. It is heartening to note that GOI has made arrangements for some contingency funds, which linked to number of Emergency procedures performed. State Governments must use and expand such flexibility and decentralise administration.

EOC in the strategic management frame work

Strategic management framework proposed by Samuel Paul [10] states that for successful management of development programmes the top management must continuously ensure congruence between Environment, Strategy Structure and Processes of the programme. And that such congruence leads to synergistically enhanced performance. Here we apply these concepts to the organization of EOC facilities within the structure of PHC in India and highlight the areas of the Safe Motherhood programme that needs change.

Environment

The environmental threats and opportunities for the SM programme have been analyzed above in the SWOT analysis. Here we highlight how environmental variables have to be taken in to account in designing the SM programme. The scope of SM programme is national, with wide diversity of situations. We feel that SM programme faces at least 4 types of environments based on geography, transportation facilities, availability of private care and socio-economic status of people. They are: (i) urban and peri-urban areas, (ii) developed rural areas, (iii) backward rural areas, and (iv) tribal and desert areas.

This diversity has to be addressed in designing the SM programme. Uncertainty in the environment of SM programme comes from three dimensions, one is quality of communications transportation and secondly availability of private and NGO services and thirdly changes in socioeconomic settings. Such changes in the environment have to be constantly watched and responded to by the programme managers. This requires substantial flexibility to district level managers in the health system and constant assessment of the environment.

Structure

Organizational structure is very difficult to change in the government but new programmes some times offer opportunity to incrementally improve some aspects of the structure. EOC being an emergency service there has to be substantial decentralization of powers and organizational autonomy to the local facility managers and the district health officers. Flexibility in staffing should also be available at the local level so that the required persons/skills for offering EOC can be organized through ad hoc and part-time or case-fee basis. For example where full-time anaesthetist is not available in the government system but it is possible to get services of private one on fee basis such arrangement should be allowed. This would also apply to procuring Blood in emergency. Structural flexibility will help the managers (DHO/RDD) to plan FRUs based on assessment of the local environment, which as we saw varies tremendously between areas.

Building functional teams is required for EOC. After training and equipping when a team is fully functional then arbitrary and sudden transfers of the members should not be allowed so that the team function is not disturbed. Multifunctionality must be emphasised so that work is not hindered because one particular member of the EOC team is not available.

Strategy

Strategy is one of the most important variables in strategic management framework and it is possible to modify strategy within the government system. Strategy for SM programme in India is to some extent yet unclear and includes multiple operational goals. As stated before EOC is only one of the eight elements of the strategy which includes early registration of pregnancy, TT coverage, birth spacing, essential newborn care etc. Given the complex environment trying to achieve such multiple goals will overburden the health system and due emphasis on EOC may not be operationalized. In the strategic management framework strategy can be analyzed in two sets of components the Service-Beneficiary-Sequence (SBS) strategy and the Demand-Supply-Resource (DSR) strategy. Here we analyze the SM programme strategy in this framework.

Service-Beneficiary-Sequence

SBS specifies what is the service? For whom is it meant and when is it to be provided? More clarification of the Service-Beneficiary-Sequence strategy in SM programme is required. The services to be developed are Emergency Obstetric Services as defined by WHO. They are being developed for all women with complications of childbirth and especially the poor women. The services have to

be operational at all times as they are emergency services. The last part is very important and differentiates it from other primary preventive services like immunization. Development of EOC should be considered with development of other emergency surgical and medical services e.g. for road accidents or myocardial infarction as these services will require similar infrastructure and systems, even though the skills differ. Out of all the EOC functions the easier to operationalize should be started first and the more difficult like cesarean section and blood transfusion should be added later on following policy of sequential diversification.

For effective functioning of the EOC various inputs are required including staff, supplies, and facilities. Besides this for women to reach EOC in time early identification of complications at the village level and effective transportation is required. It is not possible to provide ambulance to each woman with obstetric complications hence community arrangements have to be worked out at each village level for transportation. Such arrangements should be well publicised in the village and rates for the transport should also be fixed by the community. The community should also develop mechanisms to finance the transport if the family does not have money. SM programme strategy has not paid adequate attention to the transportation needs and unless this is done systematically the EOC may remain underutilized.

The second aspect of the SBS strategy focuses on the beneficiaries of the programme. Most of the government programmes neglect the beneficiaries. It is vital for programme management to understand who are the beneficiaries and what are their needs. All mothers need safe motherhood, but EOC is required by only those who develop complications. Again usually only the poor will use government services. The needs of women with various complications differ. And hence the services have to be organized in such a way to meet the need of all sections. When a particular need cannot be met locally, for example cesarean section, then the woman should be properly referred to the appropriate centre. Another need of the poor in emergency is financial credit to meet the transport and treatment related expenses. This need cannot be met by the health department but by reducing the direct and indirect costs of treatment the need for such credit can be minimised. Need for services may differ depending on availability of alternate services and pattern of complications seen in an area. The programmes must continually try to understand the needs of the women and the difficulties they face and try to improve the services so that it matches the expectations of the people.

Sequencing of the programme's activities are also crucial so that they don't over load the system. CSSM has already planned for phased expansion, which is very thoughtful. But within the geographical (district wise) phasing it is useful to first

concentrate on establishment of EOC facilities rather than other interventions like ANC coverage whose contribution to maternal mortality reduction is unclear. And in establishment of EOCs preference should be given to areas of the district where no facilities exist. In areas where comprehensive EOCs are not possible due to shortage of staff or buildings preference should be given to setting up basic EOC facilities with good transport to comprehensive care facility. The other advantage of sequencing is that lessons can be learnt from the implementations of the project in first phase and the subsequent implementation and even project design can be changed. This means that the programme managers should set up the first districts as pilot projects and continuously evaluate them to learn lessons from them for application in subsequent phases. The programme design should have such flexibility and the top managers from central government should encourage such learning. Unfortunately such learning approach seems to be missing in the current CSSM programme.

Demand-Supply-Resource strategy

The Demand-Supply-Resource (DSR) strategy help specify the operational goals of the project. The demand for maternal health care will determine whether the services will get used or not. From demand point of view maternal care can be divided in to two parts, demand for care in uncomplicated pregnancy and delivery, and demand for care in complicated pregnancy and delivery. From some studies it seems that there is no or low demand from the community for care in uncomplicated pregnancy and delivery and hence acceptance of ANC is not very high [11]. While demand for care in complicated pregnancy and delivery is obvious even though some of the complications of pregnancy and delivery may not be perceived by the community as serious. For example in some area bleeding after delivery is seen as a good sign, logic being that it is the old, dirty blood that had accumulated during pregnancy that is coming out. Hence the demand generation for EOC should focus on such wrong beliefs and try to educate people about when to seek care and what obstetric first aid should be done.

The second reason for non-use of the EOC could be people's perception about the cost of services and fear of the health centre based on previous experiences. This has to be systematically dealt with by involving the community in organization of the services and improving the quality of the services. Periodic visits of women's group to the EOC facility and explaining them about its function, importance etc., may help decrease fear or misconceptions in the community. Trying to understand why women are not able to or not willing to use EOC facility will tell how to improve the services to make more impact on maternal mortality.

The supply side of the strategy should be developed based on understanding of the demand and alternative sources of supply of the same services. The current CSSM programme is following a blue print approach in organizing services. The programme should rather adopt a local planning approach where services are planned for each district based on local geography, communications network and availability of alternate NGO or private services. Here the first phase districts could be used as pilot project to learn from and modify the project design in the subsequent districts. The aim should be that the programme should become more effective and more efficient as it expands and matures. Planning supply of EOC should take into account synergy between it and other emergency services like care for accident victims. Integration of such services will make the investment in EOC much more productive and easier to sell to policy makers.

The third important component of the DSR strategy is resource mobilization. Even though some of the resources for CSSM programme will come from the central government cost of FRUs will have to be borne by most States except some backward States. Hence to operationalize FRUs State health departments, will have to lobby with the policy makers for resources. CSSM programme guidelines have stated that existing institutions should be upgraded to FRU level. Currently the government is only looking at the government CHC and hospitals for upgrading to FRU level. In some parts of the country there are hospitals run by charitable non-profit organizations that can be upgraded to FRU levels. Many of such organizations receive government Grant-in-Aid. This option should be explored which will reduce the cost of developing new FRUs. Secondly, resources for FRUs could come from philanthropists, industries, local self-governments or community in form of donations if they are properly approached. There are already traditions of voluntary blood banks run by the Red Cross Society and other organizations. Encouraging such NGOs to provide such complementary services will reduce the burden on the Government system for such components of EOC. Charging fees to those who can afford and cross subsidizing those who can't should also be considered given the resource constraints. Resources should also be planned for maintenance of facility and equipment's, and supply of consumable for the FRUs so that the services are not interrupted due to shortages.

Processes variables

Organizational process is an instrument by which managers influence behaviour of the employees and the beneficiaries. It is an important variable in the strategic management framework, which is directly under control of the managers. It is the process by which goals and objectives are converted in to results using the strategy. The process variables greatly determine success of the project. They include Human Resource Development, Motivation, Monitoring and control and

Participation as major elements. Here we discuss each element and its relevance to provision of EOC.

HRD process includes staff selection and development through training. In ongoing government programmes there is not much choice in staff selection as the programmes use the existing staff. For selection of new staff for FRUs it should be made clear that they are providing emergency service and hence they have to be stationed at the FRU premises. ANMs and doctors not staying in the premises can not provide real emergency services. Secondly in staffing adequate arrangements have to be made for providing additional staff to cover the FRU during leave/vacancy of the regular staff to ensure that it functions all year round. Transfers is a major problem in maintaining continuity of services in government. Transfer system has to be streamlined so that they are well planned with adequate arrangements made for replacement so that the functioning, of the FRU is not affected even for a single day due to lack of staff.

Training and development, the second important element of HRD, is incompletely understood in the government system. All staff have to be oriented and trained to perform their functions. The CSSM programme has been doing a modular training of all the staff in a cascading manner, which is a good idea. But the training is short (4-5 days) and one time only. It covers some knowledge and skills development. But the skills development component seems to be weak. The problem with skills development training is that it is time consuming and requires adequate case loads at the training centre. Secondly many of the young doctors and nurses have not done a single delivery before they join the services; such defects of the basic training have to be made up by in-services training. Sending staff way for long duration training imposes new problems in the organization and personal life of the employees. Hence strengthening basic training and pre-service training in the area of EOC skills should be the long-term strategy.

Second important aspect of training is building human skills like staff-patient relationship, and counseling, which is completely missing from all levels of training. Training is only seen as learning some new things or gaining technical skills. Training also can be used to build proper attitudes towards the work, conducive work culture, create commitment to the organization and develop pride in the job. All this needs to be incorporated in to the training process only then will the CSSM programme function well.

The third aspect of training, which is often neglected, is follow up to ensure that training is used and it serves its purpose. This means that training should be followed by equipment and supplies required for performing the job and proper monitoring to ensure that the job is being done as it was supposed to be done.

This means that training should be coordinated with logistics supervision and monitoring. The follow up should also feed back in to the training process so that the training improves for the next batch. Supervisors should also be seen and should act as trainers who provide continuous guidance to the staff in performing their tasks. The CSSM programme needs to set up systems such as supervisory checklists and provide training to supervisors in supportive supervision. Innovative thinking is required to ensure that the staff is meaningfully trained in the needed skills and to ensure that the training is used.

Beneficiaries should also be covered in the HRD process. The more we can develop the beneficiary the less will be the burden on the staff. In EOC it is important for the women and the TBAs to recognize the danger signals and identify the problems which need referral. This will reduce the first two delays in the 'three delays' frame work and make the job of the EOC more effective and rewarding. This aspect of community awareness has to be well worked out for SM programme to succeed.

Monitoring and Control: Generally in government the monitoring is more towards implementation of procedures and rules rather than for results. Perhaps FP and immunization programmes are exceptions where targets of acceptors are monitored. Over emphasis on targets without monitoring the process has introduced undesirable elements in the programme. The CSSM programme must monitor process of service delivery, the output and the quality of services, as the outcomes (maternal mortality rate) are difficult to measure. Process and output indicators need to be developed to ensure that proper attention is paid to the development of correct process of service delivery and ensure adequate use of services. The monitoring system should be simple, compact but sophisticated and should include quantitative and qualitative parameters. Control must be the outcome of monitoring and for which administrative courage and knack are required, as many a times hard decisions have to be taken to punish the erring staff to maintain discipline and accountability. No monitoring system will work unless the top management uses the information to control and direct the organization. CSSM programme has incorporated periodic surveys to assess coverage of immunization and ANC but these will not give indication of use of EOC facilities. A new set of indicators, which are being developed by WHO and UNICEF to measure operationalization of FRU should be tried out in CSSM districts. Monitoring should also include surprise visit and observations of actual service delivery. Many times problems can be observed easily but many be missed if one looks only at the data.

Motivation process: Motivation of the staff is critical in getting work done. In EOC if the staff is not motivated then services will not function effectively. In Government services this is a major problem and unless the CSSM programme

addresses itself to this issue operationalization of FRUs will only remain on paper. Financial incentives are not usually possible in the government, but non-financial incentives in terms of recognition of good work (e.g. Best FRU award), providing autonomy of work, inculcating sense of pride in the work, building correct values in the staff, linking good performance to promotions or other opportunities may have to be used to motivate the staff. Centres doing good work can be provided additional assistance to improve services or facilities for staff while centres that are under-used could face financial and staff cuts. Involving communities in the management of FRUs may bring some indirect pressure for performance. Effective supervision and monitoring is required to motivate the staff. The CSSM programme should think innovatively to improve motivation of the staff

Participation: Another important process variable which is usually neglected in government programme is participation. CSSM programme is very much dependent on participation of the people and the programme design has included some activities like mothers meetings, communication and social mobilization. These are very important components and have to be very actively operationalized. Participation of the community can help in better understanding the needs of the community, better compliance with health advice and may also help in generating resources for the programmed or other components like transport to the FRU. In Africa several interesting experiments are going on to mobilize the community to set up mechanisms for taking care of transportation and financing of the EOC. NGOs can play an active role in these efforts. And the programme should actively, collaborate with community groups to increase participation of the community in the programme.

Conclusions

Strategic management emphasises congruence of Environment, Structure, Strategy and Process to achieve synergistic and multiplicative results. The SM programme must follow this logic and try to alter the programme design and implementation based on local environment. Unfortunately CSSM programme seems to follow a blue print approach and hence may lead to poor or sub-optimal performance. The lesson from above analysis is that the strategy should be modified based on local situation. Similarly process should also be modified based on local organizational capabilities and environmental realities. Unless such strategic thinking is adopted and the programme is operationalized flexibility it will be fossilised in to a typical government effort where resources are spent without commensurate output and outcomes.

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