



Capacity Building for Human Resource Management

Developed by





People for Health

This document is a product of the People for Health Project, and developed by Swasti, Health Resource Centre. The People for Health project is jointly implemented by Swasti Health Resource Centre and Public Health Foundation of India with financial support from the European Union.

This document provides an insight into the Capacity Building of health HR in public, private, and NGO managed health sector and presents recommendations for improvements in the public sector.

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Capacity Building for Human Resource Management

*A Study of Health Systems in Government, Non-
Government and Private Sectors*

Acknowledgement

This document is developed by Swasti, Health Resource Centre as a product of the People for Health Project.

This study has given us a better understanding of the human resource management practices adopted across the country and helped us get a deeper perspective of the challenges faced in this space. Through this process we have gained an appreciation for all efforts being made both by public and private healthcare players.

We thank all the organisations that have shared information on their HR practices to help us complete this study. Given the sensitive nature of human resources, we appreciate the honesty and willingness displayed by them. We also thank representatives from the Department of Health & Family Welfare, Madhya Pradesh, Kerala, and Jammu & Kashmir as well as the Indian Railways for being forthcoming in sharing their HR practices and for spending their valuable time with us despite their busy schedules. We also thank participants from Chirayu Medical College & Hospital, Jawaharlal Nehru Cancer Research Centre, Lourdes Hospital, and Kerala Institute of Medical Sciences for sharing HR practices from the private sector. We understand their difficulty in sharing this information and we truly appreciate it, as without their inputs, this report would be incomplete. We consider ourselves lucky to have had the opportunity to capture civil society contributions in this report by documenting practices at Aravind Eye Care System, Karuna Trust, and IntraHealth. We would like to thank their representatives for supporting us. We also acknowledge Public Health Foundation of India, whose contribution through the literature review was well appreciated.

We must make a mention of Mr. Shiv Kumar, President and Chief Executive Officer of Swasti, for his advisory support in designing the study in the limited time available.

We hope readers of this report will find the analysis presented here useful and also sincerely hope that healthcare organisations will adopt some of the recommendations detailed in this report. We were delighted to conduct this survey and hope it will guide organisations move towards better HR practices and eventually towards delivering better health outcomes.

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Introduction

Swasti, is a Health Resource Centre working in South and South East Asia. The Public Health Foundation of India (PHFI), is an Indian network of institutions responding to India's public health challenges through education, training, research, communication, and advocacy. Together, Swasti and PHFI are partnering to implement this initiative within a time frame of 2011–14, to advance Human Resources for Health in India, funded by the European Union. This initiative seeks to engage civil society organisations and other non-state actors (including the private sector), and networks to strengthen health workforce policies, strategies, and practices through effective knowledge management and capacity building at the national level and in two Indian states, Madhya Pradesh and Kerala.

This document details the study and the findings of HR planning in public, private, and NGO-managed health sector and presents recommendations for improving HR planning in the public sector.

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Acronyms

| | |
|-------|--|
| ANM | Auxiliary Nurse Midwife |
| ASHA | Accredited Social Health Worker |
| AYUSH | Ayurveda, Unani, Siddha and Homeopathy (Alternate systems of Medicine) |
| CME | Continuing Medical Education |
| CB | Capacity Building |
| CBNA | Capacity Building Needs Assessment |
| CHC | Community Health Centre |
| CME | Continuing Medical Education |
| CMD | Chief Medical Director |
| DHS | Director of Health Services |
| DFID | Department of International Development |
| DMO | District Medical Officer |
| FHI | Family Health International 360 |
| GoI | Government of India |
| GoMP | Government of Madhya Pradesh |
| HR | Human Resources |
| HRH | Human Resources for Health |
| HRMIS | Human Resource Management Information System |
| HRM | Human Resources Management |
| IMG | Institute of Management in Government |
| JICA | Japan International Cooperation Agency |
| KIMS | Kerala Institute of Medical Sciences |
| LHV | Lady Health Volunteer |
| MCI | Medical Council of India |

| | |
|-------|---|
| MIS | Management Information System |
| MLOP | Mid Level Ophthalmic Personnel |
| MO | Medical Officer |
| MP | Madhya Pradesh |
| NGO | Non-Governmental Organisation |
| NIHFW | National Institute of Health and Family Welfare |
| NRHM | National Rural Health Mission |
| P4H | People for Health |
| PG | Post Graduate |
| PIP | Programme Implementation Plan |
| PHFI | Public Health Foundation of India |
| PHC | Primary Health Centre |
| RCH | Reproductive Child Health |
| RIHFW | Regional Institute of Health and Family Welfare |
| SBA | Skill Birth Attendant |
| SC | Sub-centre |
| SC | Scheduled Castes |
| SIHFW | State Institute of Health and Family Welfare |
| SIHMC | State Institute of Health Management and Communications |
| ST | Scheduled Tribes |
| ToT | Training of Trainers |
| TNA | Training Needs Assessment |

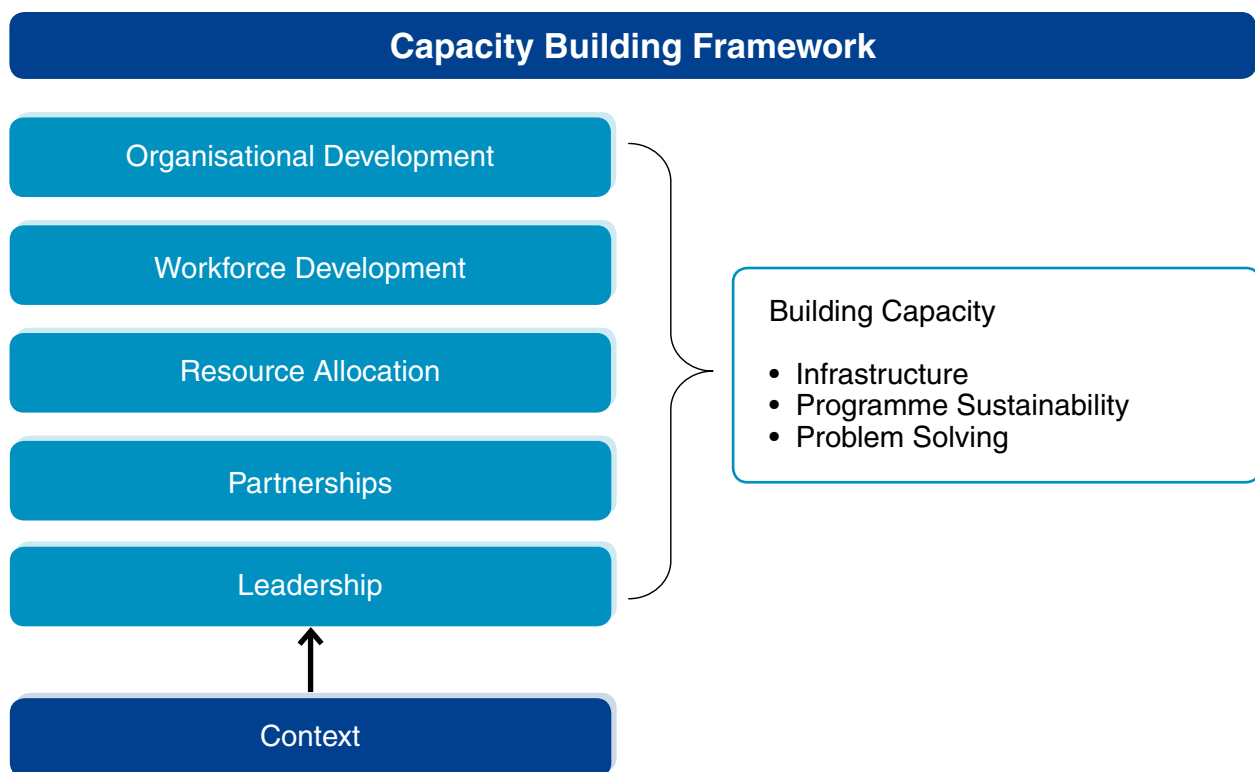
1. Capacity Building for Human Resource Management

Capacity Building (CB) is defined as the process of developing and strengthening the skills, instincts, abilities, processes, and resources that organisations and communities need to survive, adapt, and thrive in the fast-changing world.ⁱ This involves developing skills and systems within health services in order to enable them to increase communities' ability to foster good health.ⁱⁱ It is the process by which individuals, organisations, institutions, and societies develop abilities to perform functions, solve problems, and set and achieve objectives. It needs to be addressed at three inter-related levels: individual, institutional, and societal.ⁱⁱⁱ

Capacity building in a broad sense is concerned with:

- **Human resource development:** The process of equipping individuals with the understanding, skills, and access to information, knowledge and training that enables them to perform effectively
- **Organisational development:** The elaboration of management structures, processes, and procedures — the management of relationships not only within organisations but also between the different organisations and sectors (public, private, and community).
- **Institutional and legal framework development:** The process of making legal and regulatory changes to enable organisations, institutions, and agencies at all levels and in all sectors to enhance their capacities.

Figure 1: Capacity Building Framework



The scope of this study is limited to human resource development aspect of capacity building and does not throw light on organisational and institutional development. The capacity building process for human resource development involves:

1) Defining policies and guidelines: The rules laid down for capacity building of employees includes selection, type of training, leave from regular duties, per diems, linking enhanced capacities with promotions, increments, and fund allocation, among others. The policies and guidelines should identify the various recipients for capacity building, varying needs at national, state, and district block levels of the system

2) Planning: This involves multiple processes and assigning responsibilities at various levels:

- Identifying the data that is available and required for planning
- Assigning accountability—person in charge of planning, implementing, monitoring, and evaluating the plan
- Defining the cycle and timing of planning
- Allocating resources for material, venue and trainers
- Determining a prioritised list of recipients/participants based on seniority or need

3) Implementing the CB interventions: The process of implementation involves various steps which include:

- Capacity Building Needs Assessment (CBNA) involves determining the gaps in capacities through appraisals, structured questionnaires, or other approaches needed
- Determining the type of training required—whether technical or managerial, among others
- Developing curriculum—training modules and content
- Assessing the requirement for trainers—which trainers, how many, and for what duration
- Ensuring the quality of trainers—technical knowledge and experience
- Opting for the appropriate training

methodology—develop tools, models, and aids, and finalise suitable methodologies such as induction training, mentoring, on-job learning, exposure visits, and adult learning techniques, among others.

4) Monitoring, Evaluation and Sustainability: To ensure ongoing capacity building, it is imperative to identify indicators of performance for the CB system. The process of monitoring includes:

- Carrying out follow-up to training to assess improved capacities or need for additional activities
- Monitoring utilisation of learnt skills
- Measuring if the enhanced capacities lead to improved outcomes at individual, institutional, and community level.

2. Capacity Building in Health Sector—Situation in India

Health care systems in most countries have undergone reform processes with the intention to improve the efficiency, equity of access, and quality of public services in general. A critical ingredient for building an effective and responsive health system is the health workforce which includes medical, paramedical, managerial, and administrative staff. The National Rural Health Mission (NRHM), a flagship programme of the Government of India, therefore underlines the importance of systemic reforms especially those which improve governance and human resource management.

The National Rural Health Mission, a flagship programme of the Government of India, is a comprehensive response to achieving maternal and child health goals. Availability of skilled human resource therefore becomes critical and a set of

of technical and institutional strategies have been formulated in the national and state Programme Implementation Plans (PIP) to achieve these goals. NRHM further emphasises that the effectiveness of the technical strategies will largely depend on harnessing the full potential of health functionaries. It recognises the need for addressing their knowledge and skill gaps through well designed CB interventions.

Several gaps continue to exist despite the impetus provided by the NRHM and comprehensive health systems reforms are required to overcome them. These include:

- Lack of comprehensive HR and capacity building policies
- Lack of strong leadership and leadership development efforts
- Complicated and complex organisational structures within the public sector
- Very limited CB analysis, planning, implementation, and evaluation

- Rudimentary performance management systems which are compounded by non-transparent transfer and posting policy; there are very few career progression opportunities, incentive and promotional avenues
- CB is limited to training and is not adequately funded. The training is mostly medical and programme driven
- Absence of public health cadre in several states, relegating the task to medically skilled but managerially inept workforce
- Low quality of training infrastructure and material
- Absence of a database of training institutions, training history and MIS

It is within this context, that the People for Health team undertook a study of the capacity building systems of health departments in public, private and NGO sectors with the aim to understand and analyse the existing systems, document areas of learning, and provide recommendations for improvement.

3. The People for Health Project

The People for Health Project, implemented by Swasti and its partners, aims to build an evidence base of good HR practices and systems from the different sectors, from different Indian states. This knowledge will be used to build capacities of health managers, advocate management systems and practices at national and state levels.

Objectives of the People for Health Project:

- Construct a comprehensive knowledge base on key human resource issues
- Build capacities of key stakeholders to advocate, absorb, and learn from each other
- Build and operate cross-learning platforms

The Project specifically targets:

- Government: National Ministry of Health, GOI, two State Governments — Madhya Pradesh and Kerala
- Civil Society Organisations
- Other non-state actors (private for profit and not-for-profit)

4. Scope of the Current Study

An in-depth study of the HR planning processes was carried out in the government, private, and NGO sectors and the state health departments of Madhya Pradesh and Kerala were selected, as these are the focus states for the European Commission programmes, for the study. In addition, the Indian Railways was also included to understand the Central Government HR practices. This report:

- Highlights the experiences and practices pertaining to health HR planning in the government sector departments, civil society organisations, and private organisations
- Lists the current practices being followed by these organisations and concludes with a set of recommendations on improving HR planning
- Analyses the HR Planning System in the following private and NGO-managed hospitals:

| Body | Function |
|--|--|
| Chirayu Medical College and Hospital, Bhopal | Lourdes Hospital, Kerala |
| Jawaharlal Nehru Cancer Hospital & Research Centre, Bhopal | Aravind Eye Care System, Tamil Nadu Karuna Trust, Karnataka |

This study explored the following aspects of the HR planning process:

| Planning Processes | Basis of Planning | Micro Planning | Challenges |
|--|---|--|--|
| <ul style="list-style-type: none"> • At what level of the organisation is the planning done? • Who is involved in developing the strategic and operational plans? • What is the planning cycle for both strategic and operational plans? • What is the approach to planning — top-down or bottom-up? | <ul style="list-style-type: none"> • What type and source of data is used for developing the plan? • What are the tools that are commonly employed in the planning process? | <ul style="list-style-type: none"> • How are HR needs of the health facility/ department estimated (staff and skill sets)? • How are requirements of special cadres estimated? • How is planning done for different geographies? • Are change management plans adopted? • What is the budgeting process of the HR department? | <ul style="list-style-type: none"> • What are the challenges faced in developing and implementing the plan? • What are the steps introduced to address these challenges? |

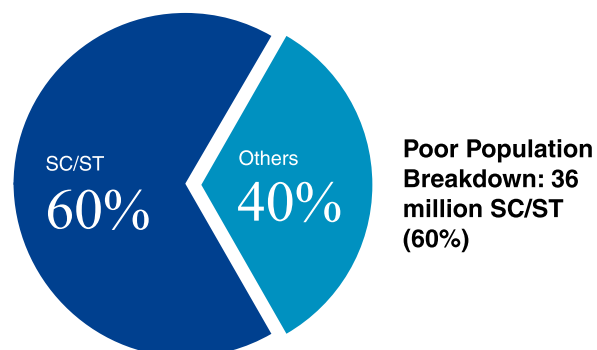
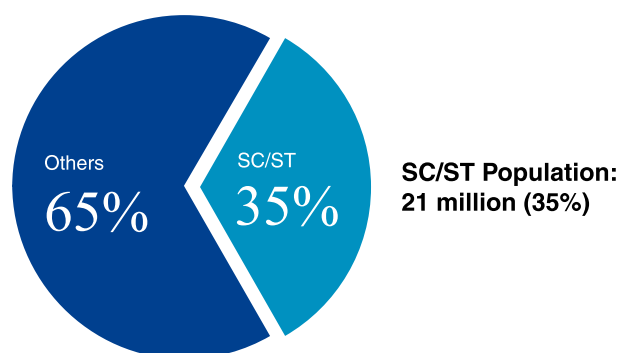
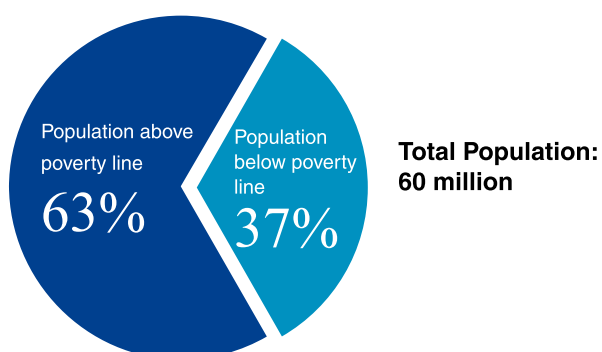
Details of methodology are presented in Annexure 1.

5. Findings From the Government Sector

The four organisations chosen for this study of capacity building systems were forthcoming with information and clearly expressed their views of the perceived gaps and challenges. The study found that these organisations have a comprehensive understanding of the capacity building system. The officers interviewed acknowledge CB as a comprehensive system to build the individual and organisational capacities, through strategies as well as through trainings. However, resource constraints, both funds and time, limit the ambit of the capacity building efforts. The report presents a systematic analysis of various parameters observed in the four government health organisations.

5.1 Madhya Pradesh Health Department

Madhya Pradesh (MP) is one of the poorest states in India with a total population of 60 million. MP is a large state and is divided into 50 districts. Each district has a district hospital with capacities ranging from 100 to more than 300 beds. The districts are further divided into 313 administrative units — the blocks. Each block has a Community Health Centre (CHC) with a capacity of 30 beds. In addition, the State has over 1,400 Primary Health Centres (PHC), each with a capacity ranging from 6–10 beds. The state also has 65 civil hospitals with approximately 100 beds in each. Hence, planning health HR in MP is a humungous task.



The on-going Madhya Pradesh Health Sector Reform Programme (MPHSRP) supports, among others, reforms to improve equitable access to quality public healthcare services, accountability of staff, organisational development and human resource management. The GoMP has taken a number of steps in the recent past to improve the functioning of the health system and facilities the same through increasing public expenditure on health, decentralisation and community participation, providing funding for community level health workers, and granting functional autonomy to local health facilities.

The Health and Family Welfare department of Madhya Pradesh caters to the health of a state with a huge and varied geography. There is a large percentage of backward classes and tribal population. The health indicators are still much below the country targets and Millennium Development Goals. There has been a

recent improvement in the scenario with MP receiving attention from external funding agencies and many public health organisations. This has also brought about changes in the resources required for improving health programmes, service delivery and to some extent capacity building.

5.1a Policies and Guidelines

Currently, the CB efforts of the department mostly involve training. Capacity building is a lower priority when compared to service management, fund allocation to HRM, promotions, and transfers. There is limited focus on:

- Trainers
- The quality of trainings
- Regularity of inputs
- Adoption of a basket of learning systems

While the State does not have an exclusive training policy, some guidance is drawn from the draft training policy of the National Institute of Health and Family Welfare (NIHFW). The State Institute of Health Management and Communications (SIHMC) plans all training events as per the guidelines issued by the state government.

Resources

MP allocated approximately Rs. 12.6 crores for CB under the 2012-13 NRHM budget. However, informants reveal that the allocations are not sufficient to meet requirements. The provision for high level trainings and availability of expert trainers or training internal trainers to build expertise is hampered by the paucity of funds and resources. The state government has been known to allocate additional CB funds when training events are organised in partnership with other external organisations. Though the earmarked funds have been utilised to develop training infrastructure, adequate funds have not been dedicated to development and procurement of trainers.

Cadres and Levels

The State guidelines include capacity building for all cadres, at all levels such as:

- Doctors
- Nurses

- Auxiliary Nurse Midwives (ANMs)
- Data Management Officers
- Managers
- Frontline Workers

However, as is the case elsewhere in India, the clinical staff receives more trainings as compared to the non-clinical staff.

5.1b Planning

The State develops annual training plans and has a system of allocating annual budgets as well. The SIHMCs follow the guidelines issued by the state government to develop the training plan for the health department. The 'Training Coordinator' of the SIHMC develops a training plan based on the kind and number of training programmes requested by the department. The data provided within the State's comprehensive training plan is utilised by the SIHMC as the basis for its plan.

However, the CB plan has several gaps. Most training events are programme driven, based on roles and technical requirements of the programmes and therefore, build capacities of the trainee to effectively implement the programme. Inputs for planning technical trainings are also gathered through review meetings. A 'needs assessment' is carried out prior to some technical training. However, this is not the case for planning and implementing administrative training.

The training plans and other preparatory plans are developed regularly and in a timely manner. This does not always lead to timely implementation of the events. There are delays in carrying out the actual training owing to delayed release of funds, paucity of trainers, and inadequate priority assigned to the activity by the District Collector (DC), the Chief Medical Officer (CMO) Health or the State Institute of Health and Family Welfare (SIHFW).

MP has adequate training facilities. The SIHFW at the state level is supported by three regional training institutes. In addition, there are three well equipped district training centres within the office of the CMO of Health and 29 ANM training centres. Improvements in training infrastructure are attributed to funding from development agencies. However the training facilities are under-utilised. The training

training facilities are under-utilised. The training centres lack libraries and there is little use of technology for knowledge management and information sharing.

There is no established mechanism to maintain the quality of trainings, trainers or the training environment. While the health department maintains a data base of training provided and trainers, it does not maintain a data base of trainees. Furthermore the State has not delineated performance indicators for the CB system.

5.1c Implementation

Selection of Candidates

Trainees are generally selected through recommendations of the senior officers for performance. The selection does not employ any system or criteria. The absence of a trainee database makes it difficult to organise training as per deficits and requirements.

Needs Assessment and Types of Training

Annually, technical and managerial training along with induction training (for newly recruited medical officers) are planned. Furthermore, the State conducts a Post-Graduate Diploma in Public Health Management to ensure personnel posted in managerial positions are skilled in the tenets of public health management. However, the CB exercises are based on programmatic needs and not informed by structured needs assessments of various cadres or departments.

Curriculum

The State mostly relies on training curriculum developed by the Government of India (GOI). However, it does also develop its own curriculum when required. The State has a well organised system to develop training modules and does so with external funding and support from public health partners. Modules on skilled birth attendance, antenatal, intranatal, and postnatal care, and lifesaving skills have been developed at the state level.

Quality of Training

The State has five 'Master Trainers' available for the

various training requirements. In addition, it receives support from the Public Health Foundation of India, in the form of two regular trainers or faculties to manage the Public Health Management Diploma Course. However, the State does not have master trainers for domains such as 'Functionality of Instruments' (Laboratory Technician) and 'Dengue and Chikangunia' (Entomologist).

Trainers are deputed from the district hospitals, Regional Institute of Health and Family Welfare (RIHFW), and the medical college for the planned training events. The quality of training is not adequately monitored and there have been instances reported where training has been administered in the absence of key resource persons and inadequate logistic arrangements, such as food and seats for trainees. The state of MP has an established system of Quality Assurance Committees (QACs) to assess the quality of various sections of the health department. Capacity building initiatives fall under their purview. However, these committees are not functional due to lack of capacities, resources, and political will.

Methodology of Training

The methodology of training for a particular curriculum is determined by the SIHMC. In addition to traditional training methods, other methods such as learning from observation of programme implementation and visits to model facilities such as Public Health Centres (PHCs) and Community Health Centres (CHCs) are also employed. Adult learning techniques have been successfully employed and appreciated during the SBA training sessions. However, these have not translated into a norm or a regular practice.

Supportive supervision, which can act as a capacity building tool, is not adequately utilised, as supervision is generally interpreted as inspection. Furthermore, as in the case of ASHAs and ANMs, supervision of their work falls short owing to several vacancies in supervisory positions.

5.1d M&E and Sustainability

The capacity building system in the health department of MP has inadequate focus on sustainability. The CB efforts are not bolstered by an M&E or an evaluation system. Except for feedback collected following the completion of training, there is no other follow-up to gather data on utilisation or

effectiveness of the skills acquired. Though each training session has an in-built pre and post test, the results of these tests are not utilised for assessing the trainings. There are specific cases of collecting feedback such as in Skilled Birth Attendance training in Damoh District, where trainees provide feedback directly to trainers on the training methodology, process, and facilitation. There is no link between capacity building and placements. Successful completion of training does not necessarily translate into deployment into positions which utilise the acquired skills.

The Reproductive and Child Health Consultants of the SIHMC are responsible for monitoring the training events. They monitor the districts training centres as per the instructions from the National Institute of Health and Family Welfare (NIHFW). However, there are no clear guidelines for carrying out the monitoring visit.

The SIHMC has internal challenges which influence its capacity to plan and implement the CB plan. The challenges are in the form of vacancies being filled through deputation, leading to:

- The posting of a person with very little experience in capacity building at SIHMC
- Lack of co-ordination between the teams within SIHMC; and limited accommodation facility

It is becoming difficult for SIHMC to meet training targets. Consequently, less than 50% training events have been planned in 2012-13 in comparison to 2010-11. Some of the critical reforms required are:

- Systematic plan for CB
- M&E mechanism
- Staff structuring and modification
- Centralised and electronic compilation of training data
- Regular refresher training and
- Fixed norms for accommodation

The state government will benefit by involving SIHMC in the process of PIP development, especially the training plan, annually.

5.2 Department of Health and Family Welfare, Government of Kerala

Kerala is a relatively smaller State than MP and is divided into 14 districts. Kerala has achieved good health indicators compared to other Indian states. It has become important to sustain the achieved levels of success at a time when the State is facing the emergence and re-emergence of some of the communicable diseases along with problems resulting from the epidemiological and demographic transition.

Kerala became the first state in the country to initiate administrative decentralisation in an extensive way including that in the health sector. All health care institutions except general hospitals, women and children hospitals, and speciality hospitals have been transferred to the three-tiered Panchayati Raj Institutions. Up to 40% of the plan fund of various sectors including that of health sector has led to gaps in administration. This is being addressed by establishment of public health cadre in the state.^{iv}

5.2a Policies and Guidelines

The Health Department in Kerala has not delineated a policy on training and capacity building. Few guidelines for training are however in place to implement capacity building efforts. These efforts, as in the other states of India, are largely limited to training events. Capacity building is not as prioritised as service management, recruitments, transfers, or fund allocation. Often, training becomes one activity among a larger list of activities related to services delivery.

The employees are provided the opportunity to participate in courses and training programmes organised by external organisations. The department further organises training events in partnership with organisations such as Access Health, Institute of Management in Government (IMG), and Trivandrum Medical College. Training is considered as an integral part of an employee's duty and thus, he/she receives adequate support from the department in the form of monetary allowances (travel and per diem). However, participation in training or built capacity training are not linked to promotions and increments.

Resources

The new Kerala health policy, recognising these gaps, has included a note by SIHFW on the need to prioritise reforms pertaining to HR system strengthening. Furthermore, the health department, in the recent times, has invested in infrastructure development for capacity building. The State has allocated Rs. 3 crores in addition to the 2 crores requisitioned through NRHM for the year 2012-13.

Cadres and Levels

Capacity building is applicable to all cadres of the health department. Regular in-service trainings are being organised in various categories for all staff cadres. Supervisory and administrative staff receive managerial training. However, the training events are focused on doctors, nurses, and ANMs and to a lesser extent on cadres such as data personnel, and dieticians. The training events are conducted at the state, regional, and district levels. Training for national programmes is conducted at the district level under the supervision of the District Training Officer. Addressing the gaps in induction training, the State has introduced regular training programmes for newly recruited medical officers within a year of joining services.

5.2b Planning

Though the State prepares a comprehensive training plan that allocates budgets annually, planning for capacity building is not systematic currently. Despite the presence of a database of employees, it is not utilised for planning CB efforts. The training requirements are determined at the monthly DMO conference and discussed by senior health officials. This does not take into account feedback from the training events or the trainees.

There is an ongoing effort to restructure the planning for capacity building. To address the backlog of planned training events the state is trying to establish an automated trainee data base. This would ensure that all trainees receive equal opportunity for capacity building. The state finds that the lack of a post for District Training Coordinator, under the NRHM, a constraint in strengthening the CB process.

The training infrastructure for health includes the State Institute of Health and Family Welfare (SIHFW), located in the capital city and two regional centres, in Kozhikode and Ernakulum. The latter are not easily accessible to the entire state as they are located at the geographical ends of the State's border. The state does have a training institution in the geographical centre, Kochi. However, it is not operational and few training events that are organised here use private venues. In addition to the training centres, each district has a training hall at the DMO's office which is utilised for non-residential trainings. The current infrastructure in the state is grossly inadequate to meet the training needs of 47,000 employees, which is compounded by the absence of libraries and knowledge management systems in the existing facilities.

5.2c Implementation

Selection of Candidates

Recommendations of the reporting officer or the senior officers such as the DMO in the district form the basis for selecting candidates for training. The list of trainees available at the training centre is also utilised to identify trainees who have not attended a particular training, which has been deemed essential to fulfil their job roles. This database is not maintained or managed centrally. In summary, the criteria for selection are subjective and do not follow a structured and logical process. An updated functioning database would better organise a minimum number of training programme for each staff and would decrease the incidence of the same staff attending training repeatedly.

Needs Assessment and Types of Training

Training requirements are identified by senior health managers, (Principal Secretary, Director of Health Services, Additional Directors, etc.) through field reviews and shared with the district administration during District Medical Officer's meetings. The state does not carry out structured needs assessment to assess gaps in capacities required to achieve articulated health goals. There is an existing training package based on which training plans are made every year. Training curriculum includes events

such as induction training for new staff, skill based training, management and accounting training, training on national programmes, and Kerala Service Rules. New training modules are added based on current directives for epidemics such as dengue, H1N1, etc. Besides this, institutes also conduct regular long term certificate training course for health inspectors and Public Health Nurses (PHNs) among others.

Curriculum

Most training modules are adapted from existing packages and very little new content is developed by the State. However, there have been instances (development of maternal health module) where the state has employed external expertise to develop new modules.

The State has allocated NRHM funds for developing curriculum this year. Development of a module for training medical officers is afoot. The process of content development is participatory, workshops are organised to involve key stakeholders, and the subject matter is vetted by experts. Though there is a module advisory committee in the department, it is not active. Sometimes, technical experts (who may or may not have experience in pedagogy) are recruited for developing material and training modules.

Quality of Training

The department has a pool of resource persons, who are deputed as trainers for different training programmes. Though the department maintains a list of trainers, it is not automated. Most of the trainers are from IMG, medical colleges, and the District Health Services. The trainers receive training in training methodologies. However, the system of selection of trainers, the development of trainers, quality checks, development of data base of trainers, and adequacy of funds to recruit trainers, are fraught with challenges. The quality of training, training methodology, skills of the trainers, and training environment are reported to be less than optimal, even though ample time is allocated for preparation during the pre-implementation phase.

The funding limitations result in the absence of quality models and tools for training. The quality of the training often depends on the inherent skills of trainers. Resources also limit the opportunity to develop highly skilled trainers internally, affecting the quality of training in the health department of Kerala. While the department has taken steps to address the quality of capacity building to a certain extent by improving trainers' capacity and use of standard training modules, there are not many initiatives to improve training methodologies and ensuring regularity of efforts.

Methodology of Training

In addition to organising traditional training events, capacity building efforts include exposure visits to model health facilities to understand the process of programme operationalisation and learn best practices. New training methodologies such as adult learning techniques are not in frequent use. Training institutes are also involved in adaptation, translation, printing, and distribution of various modules for health workers prepared by National Institute of Health and Family Welfare.

5.2d M&E and Sustainability

While individual feedback and assessments are carried out for trainees, the health department does not have a comprehensive monitoring and evaluation system for measuring capacity building outputs and impact. It is not clear whether the data collected during training sessions is utilised to improve future training inputs. The absence of an evaluation system means that the health department misses the opportunity to understand the improvements in capacities and their linkage to impacts on the health indicators.

5.3 Health Directorate, Ministry of Railways

The Health Directorate of the Railway Board controls and supervises the Medical Department of the Indian Railways. The Indian Railways is divided

into 16 zones. Each zone is under the administrative control of the Chief Medical Director (CMD) who is supported by the Chief Health Directors in some zones, about two to three Deputy CMDs and a few Group B officers. The zones are further divided into divisions and headed by the Chief Medical Superintendents. In some places however, Senior Medical Superintendents are in-charge. Indian Railways has a huge independent healthcare infrastructure which caters to its employees. There are 125 Railway Hospitals and 133 private recognised hospitals under the Railways. These hospitals have a total bed capacity of 13,969 beds. The workforce consists of 2,506 Medical Officers, 194 Group B officers and 54,337 non-gazette cadre staff members.

5.3a Policies and Guidelines

The organisation considers the period of absence from duty on account of training as 'duty' and therefore, supports training of staff to ensure upgraded skills and improved outcomes.

The guidelines stipulate that each doctor undergoes or repeats training once in five years. While nominating or selecting a candidate, the department ensures that the subject of study or training is linked to the type of duties performed by that staff. It further ensures that not more than one doctor is sent on a study leave from the same department or speciality at one time. Candidates who have served more than five years and are younger than 55 years of age are prioritised for training. The candidates are required to sign an indemnity bond prior to being nominated, which mandates them to serve five years following the training.

Study outside the normal duty hours is permitted after two years of service and with prior approval of the department. Study abroad is permitted under specific circumstances and if the candidate has qualifications and experience to benefit from the identified training. Candidates who wish to complete higher studies through distance courses, (such as those offered by the Indira Gandhi Open University) are financially

supported until they complete the course.

Senior doctors above the designated age group are allowed observational tours abroad. Guidelines facilitate study allowance and scholarships for trainees. Successful completion of training and upgraded skills is linked to promotions. This supportive environment instils and promotes confidence among employees, and results in increased commitment to enhancing their knowledge and skills.

Resources

The organisation allocates ample budget for capacity building efforts. All nine zonal headquarters' hospitals organise training events regularly. Furthermore, it is associated with NIHFW, The National Institute of Communicable Diseases, and the Zonal Productivity Councils for specific trainings. The system encourages attendance at conferences, meetings and congresses, and seeks membership of professional bodies as well.

Cadres and Levels

Capacity building inputs are available for all cadres of staff. The availability of CB inputs is widely disseminated and made known to all employees. The system ensures that everyone is exposed to new learning and skills. In addition to the induction course, the health directorate organises a job orientation session for doctors, training for probationary Assistant Divisional Medical Officers, and training sessions for Group D staff and other cadres as well.

5.3b Planning

Capacity building inputs for the health employees of the Railways is ascertained on the basis of a structured and systematic Capacity Building Needs Assessment (CBNA) by the Health Directorate. The current and future roles of staff are assessed before developing the training plan and the plan is guided by the trainee database. The database lists job responsibilities of the staff, skill requirements and types of trainings already received. This enables the process of

matching the trainees with training opportunities. The process is efficient and makes maximum utilisation of resources. All Zonal Railway units prepare a yearly prospective plan for training of different categories of staff as per modules, and submit them to the Health Directorate and the Training and Manpower Planning Directorate.

5.3c Implementation

Selection of Candidates

The selection process is comprehensive and uniform. For example, potential health managers are selected from among the doctors and provided managerial training at the central training institute or at the staff college. Some receive higher level training from international universities as well. Furthermore, well-performing nurses and paramedical staff are also given the opportunity to be trained as health managers in the Railways. Since there is an equitable distribution of training opportunities, the system of selection for trainings is fair and devoid of favouritism. Selection criteria for doctors include:

- Existing academic qualification and performance in the past examinations
- Service rendered outside the headquarters and divisional hospitals, particularly in difficult areas
- Capacity to complete the course successfully
- The utilisation of the doctor after the completion of the training

Age limit for the training, the person's seniority, service record, and age are other parameters for selecting a candidate.

Needs Assessment and Types of Training

As described earlier, a comprehensive CBNA is carried out to ascertain CB needs. There are various training opportunities available to the employees. They include 'Staff College' courses, seminars and training on hospital administration, public health, medical care, family welfare,

and control of communicable diseases, among others. The training plan includes the duration and methodology of training. The CMD of each zone decides the broad guidelines for the training sessions and content of the training. Dates of trainings are determined in coordination with other zones, to avoid overlaps.

Quality of Training

The organisation has articulated guidelines to ensure the availability of adequate facilities such as library and reference books, within the training centres. The training logistics are planned meticulously by a designated training coordinator, ensuring comfort, and transport of the trainees. The trainers are selected based on an aptitude for training. The pool of trainers includes senior railway doctors and honorary consultants who are remunerated as per the stipulated guidelines.

Methodology of Training

Training inputs are comprehensive and utilise various training methodologies for all cadres. Training of probationary Assistant Divisional Medical Officers includes training in the central hospital, followed by supervised placement at a large divisional hospital and a final assessment at the CMD office. The one month induction course consists of training in administrative requirements, rules and regulations, and team work. Most of the clinical training courses utilise lectures ward rounds, case presentations, and practical exercises to impart the complete knowledge and skills in the domain.

5.3d M&E and Sustainability

Training sessions in the health department are regularly assessed and evaluated through pre and post tests, the results of which are analysed to understand the progress of trainees and effectiveness of the trainings. The railways also follow a unique method of peer review to assess the capacity building efforts.

5.4 Armed Forces Medical Services

The Army is a good example of a well-functioning health system. The P4H team studied the capacity building mechanisms and found a well-oiled system which favours institutional strengthening and promotion of skills among employees such that they deliver services confidently. The Armed Forces Medical Services is unique to the Army as the Navy and the Air force do not have similar units.

5.4a Policies and Guidelines

The Armed Forces Medical Services believe that capacity building enhances the personal capacities of staff and makes the system and institution more robust. Capacity building is a structured and comprehensive exercise in the health department of the Army. It is given its due importance and the system is coordinated at the National level. Every year, a training directive and policy is issued based on the outcomes of the training directive and policy of the previous year. The new policy further addresses gaps that are identified. Funds allocated for capacity building are adequately available within the constraints.

The employees receive departmental support at all levels including from the Army Headquarters, Military Training Directorate and all its Line functions. Staff can avail study leaves for as long as two years. Training inputs feed into performance management. Doing well in a course can be rewarded with a good posting in a good place (maybe foreign country) as an instructor. Monetary incentives are given to lower ranks for motivation, and are generally not institutionalised.

Cadres and Levels

The institution invests in systematically building the capacities of its entire staff including:

- Doctors (officers)
- Nursing officers
- Junior commissioned officers (supervisory staff)
- Other staff members (administrative, registrars, deans and heads of departments)

5.4b Planning

The planning process is structured. It is top-down as well as bottom-up. Capacity building is planned

at the National, Command, Corps, Brigade, Unit, and at the Regimental Centre level. This results in concurrent planning which is coordinated at the Military Training Directorate and the Line Directorate level. The responsibility for implementing the training plans is shouldered by the Unit Commander at all levels. The Unit Commanders prepare plans and are collated to develop an overall plan at the Line Directorate centrally. Along with developing annual plans, the organisation develops a five-year prospective plan for CB as well. The training courses are conducted every three to six months.

Capacity building plans for doctors, officers, and the subordinate staff members are prepared centrally. The subordinate staff's capacity building plans are also prepared locally and by the Line Directorate (medical). Data such as number of new units being raised, new facilities made operational, new operational plans, new equipment introduced, new technology introduced along with personnel data, is used for planning. The existing skills, competency, education qualifications, and experience of staff members are reviewed before planning for training.

5.4c Implementation

The selection process is categorised by cadre. The selection process for the doctors and other officers are managed centrally and is based on the inputs and recommendations from the annual appraisals. Selection of non-officer cadres is completed locally, by the Line Directorate and also at the central level. The system ensures clarity and a bias-free selection, and each staff gets an equal opportunity to receive training inputs.

The needs assessment is an inclusive approach and relies on the feedback from subordinate units, hospitals, and students attending the training. The curriculum is developed centrally and is improved utilising feedback from former students and advancements in pedagogy. Training is conducted by trained instructional staff members, who are assessed for their capacities and are required to qualify as an instructor or faculty.

There are 2 types of training establishments:

- Category A (for training officers)
- Category B (for training all others cadres)

Training inputs are provided in the domains of management, skill development, leadership development, competency development, capability development, and management. Various courses are available under each domain. Management training is limited to senior and junior officers.

In addition, doctors are given specific 'theatre level' training. This equips them to performing surgeries in special geographical conditions such as high altitude, jungle terrain and desert regions. The health services in the Army utilise multiple modes for capacity building. Adult training methods are used for trainings regularly. They include informational classroom and out-of-classroom activities, demonstrations,

audio-visual presentations, and practice-evaluation-reflection-mastery exercises. Continuous Medical Education (CME) and seminars at the national level are the other modes through which capacities of doctors and nurses built.

5.4d M&E and Sustainability

The CB system in the Army is structured and includes processes of monitoring and evaluation, and is linked to the achievement of health outcomes. Each training event is assessed and followed up for changed capacities and improvements in service delivery.

6. Findings From the Government Sector

The capacity building systems were explored in the private and corporate sector by studying the following hospitals:

- Chirayu Medical College and Hospital, Bhopal
- Jawaharlal Nehru Cancer Hospital and Research Centre, Bhopal
- Kerala Institute of Medical Sciences (KIMS), Thiruvananthapuram

Private medical colleges are generally autonomous entities and are affiliated to a recognised university. They follow standards that are defined by the university and its management. The P4H team found that the private institutions were not open to sharing internal data and therefore, this section is limited by this constraint. Once again, as in the study of hospitals in the private sector, respondents were not forthcoming with information. Consequently, the team could not develop a clear understanding of the HR and CB systems.

6.1 Chirayu Medical College and Hospital, MP

The hospital was established 15 years ago and has been operational since. It has a capacity of 100 beds. In the light of the government's interest in expanding medical education facilities in the State, and the resultant invitations to the private sector to establish medical colleges, the Chirayu Group established a Medical College.

6.1a Policies and Guidelines

Chirayu Medical College and Hospital believes that capacity building of the workforce increases the institutional capacity resulting in improved service delivery and business gains. This is the guiding principle for conducting intensive induction training for each employee. The institution earmarks specific funds for capacity building each year. Enhanced staff capacities and performance

are recognised through incentives (financial and non-financial), postings, and promotions. Trainees receive departmental support while attending training events. These policies create a positive environment for capacity building systems. All cadres of staff receive the induction training. Additional training is organised for the clinical and technical staff members.

6.1b Planning

The CB plan including budgetary allocation takes place annually. Budget planning is done during the annual meeting. The director and the HR cell coordinator are responsible for planning, implementing, and monitoring capacity building efforts.

The plan includes induction training of one month, and includes strengthening of skills in software usage, clinical, and administrative procedures. In addition, Continuing Medical Education (CME) sessions are organised on a weekly basis to upgrade knowledge on technical topics. The relevant staff members receive training following the installation of new equipment and updates on existing medical equipment ensuring improved functioning and utilisation of staff and resources. The planning cycle and allocation of resources for capacity building in the hospital could not be determined.

6.1c Implementation

Selection of Candidates

Evaluation of departmental needs forms the basis of the CB plans. Candidates are selected on the basis of feedback from the departmental heads. Each department carries out an assessment to understand if the needs can be fulfilled by training existing staff members or if it requires recruitment of new personnel. The staff database maintained by the HR Cell serves as an input to this process.

Needs Assessment and Quality of Training

The needs of the employees are assessed every month, during the monthly review meetings and employing checklists. In addition, staff members

conduct self-appraisals of training needs bi-annually which are endorsed by the departmental head. The hospital depends on in-house experts for capacity building and CMEs. The hospital employs doctors who are senior, retired from government services, and those with active practice, as senior faculty. The training for nurses involves trainers from the college of nursing. Content for training is developed in-house as per requirement. Sometimes, external consultants are invited to train the staff and their training material is used during these sessions. The CB system is linked to recognition and awards such as 'Employee of the Month' award. The trainers are exposed to workshops and CMEs to help strengthen their capacities. However, it could not be ascertained whether these lead to improvements in the quality of training.

Training Methods

The training is delivered through a combination of classroom activities and clinical exposure in the outpatient and inpatient settings of the hospital. Trainees are also sent for learning visits to sites outside the hospital. These methods have been effective in building knowledge and skills comprehensively.

6.1d M&E and Sustainability

The hospital monitors the CB efforts during the monthly review meetings. Respondents shared that marked improvements in performance and confidence levels are experienced among staff members following training events. However, information pertaining to evaluation of training, its utilisation and impact on the institution and the individuals could not be determined.

6.2 Jawaharlal Nehru Cancer Hospital, MP

Jawaharlal Nehru (JNU) Cancer Hospital in Bhopal specialises in cancer treatment and has a capacity of 100 beds. The hospital headed by a senior journalist is managed by a Trust. The organisation is driven by the motto to serve people.

6.2a Policies and Guidelines

Capacity building of staff members, in the JNU Cancer Hospital, is ongoing and continuous. The hospital organises induction training for the new recruits and regular refresher training events, drills, and CMEs are conducted to maintain and update staff capacities. This comprehensive mechanism of capacity building enhances employee performance.

CB is not linked to promotions and incentives in a structured manner, though some high level technical training may lead to promotions. For instance, the existing chemotherapy professional (doctor) receives additional specialised training in radiotherapy to fill in an open post for a Radiotherapist. He was consequently promoted and was made responsible for both the departments. Capacity building opportunities are available to all cadres of staff. This includes the induction training. High level specialised training is available mostly to doctors.

6.2b Planning

The Director and Additional Director Planning are responsible for developing the CB plan, based on the needs of the hospital. There is a composite and well formulated plan for capacity building in the hospital. The plan is developed annually for all cadres of staff. The induction training is incorporated into the plan for all the lower cadres, while refresher training and drills are planned regularly. CMEs are organised weekly, mostly on Wednesdays. Well performing trainees are trained to become trainers later.

The capacities of the senior doctors are enhanced by encouraging them to attend specialised training programmes, seminars, and conferences in India and abroad to expose them to the latest developments in medical practice. These doctors are expected to share their experiences, new information and skills to other staff members by conducting training or through presentations.

6.2c Implementation

The need for training determines the selection of candidates. Furthermore, candidates are selected on a rotation basis. Based on needs, few candidates may also be selected and sent for external training courses.

All cadres are oriented in infection control, hygiene practices, and bio-medical waste management. Training in technical protocols is different for the different cadres. There are specialised technical training events for doctors including the medical officers. Most of the capacity building activities are undertaken by the senior doctors in the hospital. Sometimes, external specialists are also invited as trainers. Trainers use self-developed training material for refresher training programmes. Curriculum for specific training is developed by internal or external specialists in consultation with the management. Lectures, demonstrations, on-the job training, seminars, and conferences are some of the methods employed to build capacities of staff members.

6.2d M&E and Sustainability

Although there is very little assessment of trainees' knowledge and skills pre and post training, trainees' feedback is sought to evaluate the training event. The feedback is utilised to improve future training material and methods. Improved job performance of staff is ultimately considered an indicator of the success of the trainings. There is no established method to measure the impact of trainings or quality assurance of the trainings.

6.3 Kerala Institute of Medical Sciences Thiruvananthapuram

KIMS is a 600 bed multi disciplinary, super speciality hospital with a capacity of 600 beds. The staff members include experienced doctors and consultants, nursing personnel, and paramedical workforce.

The hospital has a specific plan for implementing training for all staff members. Induction training is

mandatory for newly recruited employees. The system of capacity building in KIMS is comprehensive and includes training events, CMEs, and refreshers. The institute's academic wing is responsible for planning and implementing capacity efforts. All cadres are eligible for CB inputs. KIMS has a designated panel of trainers which decides the training requirements for each category of staff.

The institute offers different post graduate diploma courses for nurses and doctors. CME programmes are conducted regularly for the doctors. Paramedical staff too receives regular training through standard training packages. Training sessions incorporate modules on soft skills, people management, and effective communication. Career counselling is considered an integral part of capacity building.

7. Findings from the NGO Sector

This study reviewed the CB practices of three NGO-managed hospitals as well. The respondents were more forthcoming in sharing information and offer several positive experiences that can serve as a model for the public sector.

7.1 Aravind Eye Care System, Tamil Nadu

Aravind Eye Care System is an assemblage of facilities which includes eye care hospitals, research institutes, manufacturing labs, and eye banks among other structures. Established three decades ago with the mission to eliminate preventable blindness, the System offers free and low cost care. The organisation has a network of 10 hospitals, with the main hospital based in Madurai, Tamil Nadu.

7.1a Policies and Guidelines

Aravind Eye Care System recruits inexperienced and fresh graduates/postgraduates as a policy. This unique policy is followed to ensure that all employees are groomed and nurtured in the philosophy and values of Aravind. The increased capacity levels of staff members and their improved

performance are directly linked to promotion, rewards, and recognition. This motivates employees to upgrade their skills. Capacity building is perceived as an opportunity. Trained staff members who acquire higher skills are posted in specialty clinics or super specialty departments. Sometimes trained staff receive financial incentives as well. Trainings are mostly need based. Employees are nominated to attend trainings and receive departmental support. Aravind allocates adequate funds training, refreshers, and CMEs.

All staff members receive training. Senior positions are filled from among internal candidates creating an avenue for aspiration for employees. This also ensures that teams are led by senior and long standing members of the organisation who are capable of instilling and nurturing teams with the philosophy of Aravind System.

The organisation invests in developing new skilled workforce through its training programme for Mid-Level Ophthalmic Personnel (MLOPS). The MLOP programme trains young female candidates selected from rural and impoverished households as ophthalmic technicians through intense on-the-job training. This in turn promotes efficient use of time

and skills of doctors and also provides employment to girls from rural areas.

7.1b Planning

Training is organised through training calendars. Plans for capacity building are prepared for need-based training. In addition, the MLOP training department prepares plans for induction trainings, mentoring, and specific ones as the MLOP training. While the current system has been training staff namely managers, who efficiently organise and facilitate trainings, the hospital does not have a specific team dedicated to managing the training of all Aravind staff.

Different types of trainings are available for the different category of staff at Aravind. Doctors receive mandatory training and structural training. Training for refreshers and MLOPs is technical and job specific. The induction training is based more on operationalisation and functioning. Also, there is leadership training for doctors.

7.1c Implementation

Selection of Candidates

The hospital estimates a requirement of 700 MLOPs annually and this requirement is met by administering a training course free of cost to young unmarried girls from the catchment area. The trainee is inducted into the hospital following the completion of the training course. Criteria for selecting of candidates for MLOP training include:

- Age: 17-19 years old
- Should have completed secondary plus examinations
- Ranking based on marks
- Science students are accepted for clinical courses, whereas students from the humanities and commerce streams are accepted for non-clinical activities

Candidates for skill upgradation or refresher training events are selected on the basis of performance and need. Selection for a training in this case acts as an incentive.

Type and Quality of Training

Curriculum development process is specific to the type of training. The curriculum for the MLOP training is prepared internally and inputs are invited from the affiliate university, since this is a certification programme. The training process differs based on the size of the class which may range from 300-100. This is a residential in nature and the girls are trained in the functioning of nine key departments of the hospital. The training along with being technical, focuses on soft skills and personality development conducted by both external experts and internal management personnel.

Components of MLOP Training at Aravind Hospital

Orientation and Basic Training
(4 Months)



Assessment (Theory and Skills)



Specialty Training
(8 Months)



Practical Training
(6 Months)



Probation
(6 Months)



Final Assessment

Every staff member receives induction training which includes:

- Induction into the vision and mission of the organisation through videos

- Orientation to the organisation (2-7 days)
- Orientation to the department (1-4 weeks)
- Tour of buildings to understand the layout and departmental structures
- Meeting with the relevant senior members of organisation

Trainers are chosen from among the internal experienced MLOPs, doctors, and the heads of departments. External specialists are invited as trainers for technical training of doctors. Majority of the medical staff receive mentoring and supervision from the senior medical staff, which Aravind considers as the best method of capacity building.

There is no mechanism to determine the quality of trainings and trainers. Furthermore, training quality varies by location of the hospital. The management has articulated the need for standardised training processes across all hospitals and assigned a dedicated team to

manage training of incoming employees.

Training Methods

The Aravind hospital employs different strategies for capacity building of its staff. These include classroom and on-the-job training, demonstrations, mentoring, guidance, twinning, and making job guidelines available. Exposure visits and shadowing a staff member in the same department are some other methods of induction training. Doctors are encouraged to attend conferences and seminars to acquire knowledge pertaining to recent developments in technology.

7.1d M&E and Sustainability

The M&E system includes pre and post tests during training sessions and periodic assessments of MLOPs. The hospital group has however not developed a well defined mechanism for evaluating the outcomes of the CB efforts.

8. Case Studies

Case Study 1: Karuna Trust

Handholding for change - improving primary healthcare systems through supportive supervision

Profile: The Karuna Trust is a public charitable trust, instituted in 1986. It implements health, education, livelihood, and advocacy interventions. Its programmes serve people in remote, inaccessible hilly and tribal regions. It provides primary and secondary health care through public-private partnerships. It manages 72 PHCs across eight states of India. In addition, it also runs an ANM training school in Karnataka.

Need for the initiative: The Karuna Trust works in partnership with the government to improve the health care delivery at Primary Health Centre (PHC) and Sub-Centre (SC) level. In difficult-to-reach regions, the government facilities are often dysfunctional therefore rendering primary health care ineffective.

Description of the uniqueness of the approach: One of the key differences between government and Trust managed PHCs is the supportive supervision provided to the staff members of PHCs. There are two technical and three administrative supervisors to supervise 28 Trust PHCs in Karnataka. Each technical supervisor visits 5-6 PHCs every month and has a detailed checklist of support that he/she provides. They check the infrastructure facilities available, interact with the community, visit the SCs, interact with the ANMs, and recheck their registers. They also provide on-site supervision to the PHC staff. In addition they attend the monthly meetings at each PHC as well as at the Arogya Raksha Samiti meetings to address issues related to staff management. The supervisors form the feedback link between the PHC staff and the head office, therefore communicating technical issues faced by the staff to the higher management. The supervisors are responsible for monitoring staff performance which becomes the basis for specific capacity building requirements at each PHC.

The administrative supervisors are in charge of monitoring administrative and including financial systems. They regularly oversee the availability of funds at PHCs and salary disbursement of staff members.

Outcome: The PHCs managed by Karuna Trust assure quality primary care to populations which did not earlier have access to services. All Karuna PHCs successfully offer preventive, promotive, curative, and rehabilitative health services. Essential medicines and lab tests are available at all PHCs. The success of the first PHC at Gumaballi in Karnataka in 1996 and its impact as a 'Model PHC' has enabled the model to be scaled up in eight states of India.

Key Lesson: Supportive supervision of staff can ensure better productivity and improved service delivery. Though the PHC staff members are paid salaries as per government norms and do not receive additional incentive for performance, they are capable of and are motivated to deliver services effectively.

Case Study 2: Damoh, Madhya Pradesh

Skilled Birth Attendance Training

Profile: Madhya Pradesh ails from poor reproductive health indicators and has been concertedly addressing the gaps in programme implementation to achieve better outcomes. The Japan International Cooperation Agency's (JICA) study (2000-2002) which explored Reproductive Child Health (RCH) and women empowerment issues led to the implementation of a pilot project in the Sagar District. The project developed a training package for promoting skilled birth attendance as one of the interventions. The training was later scaled up to other districts as well. Following the close of the project the training module continued to be implemented in the Damoh District of the State.

Need for the initiative: Increased number of institutional deliveries and skilled birth attendance were expected to reduce maternal mortality. SBA training was identified as a low-cost and quickly implementable intervention.

Uniqueness of approach: The Skill Birth Attendant (SBA) training is being conducted in the Damoh District Hospital since 2006. This is a unique training model that emphasises hands-on experience of the delivery process, under the supervision of a senior nurse who is designated as the training coordinator. The training is imparted to ANMs, Lady Health volunteers (LHVs), and staff nurses through a 21-days round-the-clock schedule. Each batch of trainees is restricted to six to maintain the quality of training.

Each batch is divided into day and night shifts with two and four participants respectively in each shift. Each trainee is mandated to complete at least nine night duties which allows them exposure to emergency situations. The trainees are provided accommodation near the hospital. The trainees on day shift attend class room sessions along with practical sessions at the hospital. Class room training uses mannequins to teach essential skills such as Infection Management and Environment Plan¹, and employs tool such as the 'Snakes and Ladder Approach' among others.

The trainers are from among the medical and the nursing cadres. A gynaecologist supports the staff nurse in organising and facilitating the training. The trainers monitor the progress of practical skills every day. The participants maintain a log of their participation in sessions and practical activities. The trainee is required to take a pre and post test and is awarded a certificate upon successful completion of the course. Candidates not qualifying for certification are required to attend an additional week of training. The trainers submit a training report upon the completion of the course.

Both trainers are available on the phone 24/7 to resolve problems and provide support that trainees may require following the completion of training. The training aims to make the participants independent in delivering babies by the end of the course.

Outcome: Successfully certified candidates have reported increased confidence levels and have been observed to deliver services effectively in their respective facilities. The referrals for high risk pregnancy in these districts have improved, signifying improved identification and management of early labor. Patient feedback suggests improvements in staff behaviors as well.

Key Lesson: Provision of adequate supervision, materials, and training tools along with hands-on training creates better training outcomes.

¹The Infection Management and Environment Plan (IMEP) is an approach and guideline for managing – avoiding, reducing and controlling health and environmental risks arising from healthcare facilities.

9. Summary of Lessons Learned

Several important lessons emerge from the study of capacity building in the health sector.

Capacity building is an investment: It is evident from the study of health systems in private and NGO sectors that capacity building is regarded as an investment and a critical input to achieving the articulated outcomes. Highly trained and capable managers and leadership contribute to quality delivery

of health care service. Investing in the capacity building of human resources should therefore, be considered a critical function of institutions and organisations.

Capacity building has to be relevant: Capacity building is relevant when there is a belief in its worth to the organisation and to the individuals. The Railways and the Army are string systems in which every member of the staff is proud of his/her work. There is a

high level of ownership, pride, and a sense of belonging. It is vital that the organisation views CB as a means of improving business and delivering outcomes, promoting the articulated organisational values.

Autonomy of the system facilitates CB: The Railways provides an excellent example of autonomy. The Railways is insulated from political interference and utilises its own funds for providing health services. It has complete control over allocation and expenditure of resources. This has helped in maintaining set standards in the delivery of quality care. Moreover, Health Directorate's administration is managed by personnel who are trained as managers by the department. This significantly streamlines the system and helps avoid many administrative hurdles.

Good induction programmes foster a sense of ownership and confidence: A good induction programme leads to retention, motivation, and improved performance of employees as is seen in the case of the Aravind Eye Care System. The employees develop a sense of confidence and having acclimatised quickly to the new work environment, begin delivering services. Time and crucial resources are also saved when new employees are familiarised with existence and functioning of systems, equipments, and services. The states studied under this effort have identified this as an imperative requisite and have introduced induction programmes for medical officers. This however, needs to be extended to all employees at recruitment and when they make transitions to higher levels of responsibility.

Demand for capacity building has to be generated: Demand for CB is generated when employees perceive that improved capacities provide an avenue for personal growth. Opportunities for utilising improved capacities constitutes a 'pull strategy' and is more effective than the 'push strategy' where employees are mandated to attend training events which are not adequately or logically linked to growth. CB opportunities were clearly perceived as the path to professional growth in health systems of private and NGO sectors that were studied. Linking upgraded skills and capacities to promotions, incentives, recognition, and rewards creates a demand for capacity building opportunities and exercises among the staff members. The

personnel begin to believe that personal growth becomes possible through improved capacities. In addition, departmental support to CB activities creates a positive environment and an impetus for learning.

Capacity building should be tailored to roles and competencies: In the absence of needs assessments, trainees of varying competencies are often trained together resulting in varying levels of capacities at the end of the training. In addition, newly acquired skills suffer from disuse atrophy when trainees are not posted in positions where the skills can be employed. The case study of SBA training is an example of how continued support provided to trainees after the completion of training entrenches and sustains newer capacities. It is therefore, a vital element of planning to tailor make CB efforts based on current or future anticipated roles and competencies.

Structured CB inputs sustain and build institutional capacity: Refresher training events and on-the-job training facilitate sustenance of knowledge and skills. Stronger teams are built when supervisors and supervisees are trained together. Updates on recent developments and inputs such as CMEs, research opportunities, knowledge resources, and conferences gradually build institutional capacities. Follow-up training events, refreshers, and continuing hand-holding after the training sustain the inputs of CB efforts. In addition, it is critical to focus on innovative and tailor-made adult-learning training methodologies and not restrict training methods to classroom activities alone. The example of training MLOPs in a real life setting, which allows them to be responsible for portions of service delivery is an excellent example of training methodology that is structured and geared towards the adult learner.

Quality of CB can be enhanced through robust M&E: Timely evaluation of capacity building initiatives have helped in improving the quality and methodology. The quality of CB can be maintained and improved by:

- Analysis of pre and post test results to assess training outputs
- Seeking and incorporating feedback pertaining to training techniques and trainers
- Continuous assessment of capacities to prioritise training needs

Without critical data on who needs to be trained, why and in what areas, health systems will set themselves for budgetary inefficiencies. The challenges articulated by the government health systems underscore the importance of a HRM dataset for making evidence based planning.

Quality of CB can be enhanced by improving the quality of trainers: Most public sector organisations failed to emphasise on the quality of trainers. The position of trainers in training institutions is considered as a disincentive for staff members. Most trainers lack pedagogy skills as presence of clinical skills among doctors and nurses do not necessarily ensure teaching skills in them. It can be seen from the examples of the private sector that where an

organisation invests in training of trainers, inclusive of pedagogy training, the effectiveness of the training improves.

Management and leadership skills are integral to CB efforts: Organisations which invest in developing managerial skills of employees and post them in administrative positions, contribute to the overall efficiency of the system. In addition, it is important to nurture leaders from among the employees to manage HRM and overall service delivery. A good example is the Aravind Eye Care system where MLOPs can aspire to become administrators by enhancing their capacities facilitated by organisations CB inputs.

10. Recommendations for Strengthening the Health HR Planning Processes

The study of capacity building processes reveals that several challenges are experienced by health systems in making capable HR available to deliver quality health services.

| Capacity Building Challenges | |
|--|--|
| <ul style="list-style-type: none">• Absence of comprehensive policies and guidelines on capacity building• Insufficient fund allocation• Ineffective utilisation of funds resulting in absence of training tools and collaterals• Absence of clear linkages between improved capacities/performance to incentives | <ul style="list-style-type: none">• Ad-hoc assignment of CB leadership role to senior members/teams that may lack HRM/CB experience• Subjective selection criteria for being nominated to training• Differing quality of training delivery within the state• Quality issues pertaining to content, methods and trainers' capacities |

While this study throws light on innovative approaches adopted by organisations to overcome challenges, it is imperative that health systems adopt comprehensive CB policies as an integral part of HRM to reach the millennium development goals.

Long term Measures to Strengthen Capacity Building

Most health departments in the Indian states implement

ad-hoc training events and are challenged by severe budgetary constraints for capacity building. Strengthening the training processes require that capacity building be made an integral part of the departments' activities. Each staff member must have access to adequate capacity building inputs to meet their performance objectives. These opportunities should be

closely linked to improvements in performance, efficiency, and effectiveness. The CB framework must be determined through extensive CB needs analysis.

In the long term, the health departments require a comprehensive CB policy that defines the objectives of workforce development. This policy should serve as guidance and define the parameters such as

types of training, needs identification processes, plan, calendar, budgets, delivery mechanisms, monitoring and evaluation approaches, and infrastructure. The CB strategies should span the three key action areas of organisational development, workforce development, and resource allocation.



Immediate Measures for Capacity Building

While it is desirable to define and commit to a comprehensive CB policy, states which are resource constrained can consider introducing CB measures in a phased manner as well.

Establish a HRM Cell within the department: To overcome the ad-hoc nature of CB planning and implementation, states need to establish a dedicated HRM cell which includes a designated person

responsible for Capacity Building. Care should be taken to designate a person with HRM skills or such a person should be first trained in HRM. This ensures that the CB efforts of the state receive dedicated attention.

Incorporate training data into the HR database:

The existing training data can be compiled centrally and data parameters can be introduced to build a capacity building database. This could be a part of the overall HRM database.

Identify and monitor performance indicators for capacity building: Key Performance Indicators help to maximise the utilisation of information generated for decision making, feedback and further planning. Performance indicators developed by Family Health International 360 (FHI) for the Government of Andhra Pradesh under the Department of International Development (DFID) supported health reforms programme is listed in Annexure 2.

Prioritisation: Each state can define a list of functions which are critical to achieving the most important health indicators. Cadres who are vital to delivery of these functions can then be prioritised for immediate CB inputs. For example, the state may initiate comprehensive CB measures for midwives to improve maternal health indicators.

Explore low-cost CB interventions: Organising training programmes for all employees can be resource intensive. However, developing guidelines for supportive supervision from capable and trained staff members can act as a low-cost CB intervention.

Review and improve quality of ongoing CB

measures: Several training events are held with funding support from NRHM and national health programmes. In-depth reviews based on check-list of quality measures, will result in better training outputs and outcomes. Measures can be taken to localise the training, improve trainer quality, and introduce innovative training methods and tools.

Introduce incentives and recognition: While the long term goal of a CB intervention is to link enhanced capacities with avenues for career progression, in the short-term, incentives recognising improved capacities facilitate a demand for training.

Develop a network of partners: Many states have successfully developed training packages and implemented CB interventions in partnership with external technical agencies. The states can leverage existing networks of agencies to support infrastructural needs as well.

Annexure 1: Methodology and Discussion Guide

The study was planned in four stages.

1. Stage 1 : Inventory of existing best practices in the country

A detailed listing of various initiatives that are relevant to the study was carried out. The list was created with the help of literature review, and consultations with stakeholders and HRH experts. Four regional workshops were conducted as part of the People for Health Project across India from June 2011–12, with stakeholders representing the government and the NGO sector. An inventory was developed consisting of all the policies

and government orders, key organisations and programmes from government and non-government sectors, and successful employers (such as the Railways, Military, Wipro, and Accenture, among others).

Best practices were shortlisted from within the inventory based on a set of criteria to select areas for field visit and further learning. The criteria ensured that the sample would be representative of a range of players such as the type of sector, stage of reforms, geography of operation, and government or non-government led programme. The study employed the convenience sampling technique to select the institutions.

2. Stage 2 : Field level documentation of the selected best practices

The study team visited the selected organisations and programmes between August and October, 2012. The team met with organisation leaders, programme managers and interacted with various stakeholders within the institution to better understand the practices related to HR. A semi-structured interview protocol was used to collect data.

The study used key informant interviews, group discussions, and report reviews as key tools of qualitative methodology. Following the field visits, a detailed analysis of various learning points was carried out and these were synthesised to arrive at the major learnings from each initiative. This led to the identification of challenges of each programme and distillation of best practices that could be recommended to other institutions.

3. Stage 3 : Presentation to Partners for Health Team and Project Advisory Committee

The key analysis of the visits will be presented to the Partners for Health (P4Health) Team and the Project Advisory Committee. It will focus on the evolving patterns across the best practices and the recommendations to improve HR practices. This is scheduled to be held in August 2013.

In joint consultations with the Partners for Health (P4Health) Team, preliminary strategies will be evolved on what practices work and which ones can be taken forward by other institutions. The team will also look at applicability of these recommendations in the context of different states.

4. Stage 4: Dissemination and the way forward

The report will be disseminated by the P4Health Team at the national level to Government of India and multilateral and bilateral donors. The emerging strategies for improving HR will be presented and discussions will be held in that meeting on devising short, medium and long term strategies for HR for Health.

Data Management and Analysis

With consent from the participants, the study team recorded the interviews on tape and also took notes to understand emerging themes and patterns in the data. The recorded data was transcribed verbatim. The team conducted a thematic data analysis manually, which aided in systematising and structuring the data under codes and themes.

Limitations of the Study

Following are the limitations encountered during the course of this study:

1. **Time:** It took a long time to finalise interview appointments with organisation leaders and managers. The team was left with little time to conduct the interviews. Even during the interactions, the interviewees could spare very limited time
2. **Sensitivity of HR issues:** Given the sensitive nature of HR issues, most corporate and private run hospitals were unwilling to share their information with the team. This was also true for the non-health corporate sectors
3. **Verification of facts:** Due to shortage of time and resources, all the facts that were shared during the interview could not be verified. Furthermore, documented information on human resources was very limited
4. **Sampling:** The team could not meet with organisations that would have benefited this study as the selection of organisations was done largely based on the social capital of the existing team. Contacting organisations where the team did not have direct contacts was difficult and hence, some such organisations could not be included in the study
5. **Government information:** The HR data received from government departments was disaggregated owing to the involvement of multiple sub-departments in the process of recruitment and management of medical staff. Also, loss of institutional memory resulted in dearth of information (following the changes in informed staff)
6. **Meeting with Medical Council of India (MCI):** MCI could not be met due to various reasons. Hence, the inputs from MCI on medical education could not be included in this study

Discussion Guide

-
1. Respondent's Name: _____
 2. Place of Interview: _____
 3. (Level - National, State, District, Block): _____
 4. Full Designation of Respondent: _____
 5. Date of visit (dd/mm/yy): _____
 6. Name of Interviewer: _____
-

1. Is there any induction training programme in your department?

a. Yes

b. No

2. What is the content and duration of the induction training (Give details please)

3. Have you been formally involved in any training needs assessment exercise prior to development of any training plan?

a. Yes

b. No

4. How many training programmes related to job responsibility (refresher trainings) were imparted to the employees in last 3 years? Please provide following details.

| Year | Topic of Training | | |
|-----------|-------------------|--|--|
| 2011-2012 | | | |
| 2010-2011 | | | |
| 2009-2010 | | | |

5. Were there any other training programme in the last 3 years apart from the one related to your job responsibility?

a. Yes

b. No

6. If yes, please mention details of the other training received.

| Year | Topic of Training | Training received from |
|-----------|-------------------|------------------------|
| 2011-2012 | | |
| 2010-2011 | | |
| 2009-2010 | | |

7. What are the methodology being used –

a. Training through demonstrations (Who are the demonstrators?)

a. Yes

b. No

b. Any training module being used (Who developed it?)

c. OJT (On-the-Job)

d. Adult learning

e. Exposure visit (give details please)

8. Are you satisfied with the current training methods?

a. Yes

b. No

If No, please specify the reason for the same.

9. What is the batch size for the trainings?

10. Is there arrangement for residential training and whether the trainees are made to strictly adhere to night stay norms during the training programmes? (Give in details)

11. Do you feel the need to have more trainings (new or refresher courses)?

a. Yes

b. No

Please specify 5 most important thematic areas of training.

| Thematic area | How this would help in your performance enhancement/why is it necessary for you and your colleagues? |
|---------------|--|
| | |
| | |
| | |
| | |
| | |

12. Do you think that field level trainings should also be incorporated in the plan?

13. What is current mechanism for the follow-up of the trainings imparted?

a. Is there any supervision and feedback mechanism from the field level supervisors?

(if yes then what is the time line for the feed back?)

14. Who are the resource persons for the trainings?

15. Is there any incentive or honorarium given to the resource persons:

a. Yes

b. No

16. What are the provisions of honorariums to either of the resource persons (kindly elaborate)

17. Is there any assessment of trainees done before and after the training (pre/post tests conducted)

18. Is there any award for the best performances during the training?

a. Yes

b. No

19. Is there any linkage between the training and promotions or choice postings?

20. Are the good trainees mentored to become trainers in future?

Annexure 2: Performance Indicators for the Capacity Building System

| Performance Area | Basket of Indicators |
|---|--|
| Needs Analysis | |
| Identifying training needs | <ul style="list-style-type: none"> • Number (%) of training needs identified through formal Training Needs assessment (TNA) process • Number of training needs identified through TNA process • Number of thematic areas identified and in practice (Example: technical skills, essential skills, soft skills, managerial skills, leadership skills) • Number of new thematic areas identified for any cadre during the reporting period • Number of sub-departments having TNA exercise as a system during the reporting period • % of sample used to determine the training needs against the total number of staff belonging to the cadre |
| Planning | <ul style="list-style-type: none"> • Number of thematic areas taken up in the plan identified through TNA process • Number of thematic areas taken up in the training calendar • Number of batches planned to be trained for the reporting period (or year) • Total Number of training days (calendar days) planned for a year • Total Number of persons planned to be trained for a year • Total Number of person days planned for supportive service delivery personnel • Number of Thematic areas executed against total number of thematic areas identified through TNA |
| Infrastructure and Resources | |
| Physical availability of Infrastructure | <ul style="list-style-type: none"> • Number of training centers having basic amenities (electricity, water, toilets) • Number of training centers having equipment including AV available as per standards • Number of training events receiving feedback about non functional equipment while conducting training • Number of new equipment procured during the reporting period for the purpose of training (non-consumables) • Number of new equipment under annual maintenance contract during the reporting period |
| Financial resources | <ul style="list-style-type: none"> • Budget allocated for hiring/purchasing the equipment useful for training during the reporting period |

| Performance Area | Basket of Indicators |
|-------------------------------------|--|
| Infrastructure and Resources | |
| Financial resources | <ul style="list-style-type: none"> • Amount spent for maintenance of equipment • Budget allocated for civil construction which will be useful for training during the reporting period • Expenditure on civil construction • Budget allocated for civil construction maintenance which will be useful for training during the reporting period • Expenditure on civil construction maintenance • Budget allocated for preparation of training modules • Expenditure on preparation of training modules • Budget allocated for maintenance of equipment • Amount spent on maintenance of equipment • Budget allocated for travel expenses for trainees • Amount spent towards travel expenses for participants • Budget allocated for external resource person fee/honorarium • Amount spent on external resource person fee/honorarium • Budget allocated for internal/departmental resource persons fee/honorarium • Amount spent on internal/departmental resource persons fee/Honorarium |
| Trainers - Resource Persons | <ul style="list-style-type: none"> • Number of resource persons available to provide training within department • Number of resource persons identified through ToT to provide training as external resource • Number of resources persons actually conducted training after ToT • Number of institutions used for outsourcing the technical training components • Number of training institutions available along with infrastructure and training personnel for technical subjects internally • Number of training institutions available along with infrastructure and training personnel for technical subjects externally • Number of trainers joined/added as new resource persons during the reporting year • Number of thematic areas have shortage (less than xx%) of resource persons within department • Number of thematic areas have shortage (less than xx%) of resource persons within State externally. |
| Delivery of Training | |
| Training Events | <ul style="list-style-type: none"> • Number of batches provided training for direct service providers • Average batch size of direct service providers • Number of batches provided training for supportive service providers • Average batch size of supportive service providers |

| Performance Area | Basket of Indicators |
|-----------------------------------|---|
| Delivery of Training | |
| Training Events | <ul style="list-style-type: none"> • Number of batches conducted training for front end supervisors (medical officers) • Average batch size of front end service supervisors (medical officers) • Number of visioning or planning workshops organised for planners and head of departments • Number of technical, research results, best practice dissemination workshops organised by the Health department • Number of technical, research results, best practice dissemination workshops attended by the planners, head of the departments of health department in national and international forums • Number of workshops attended by planners, head of the departments on leadership, management, personality development • Number of trainings outsourced • Number of trainings held at external institutions which are also outsourced • Total number of direct service providers trained • Total number of front end supervisors (medical officers) trained • Total number of supportive service provider trained • Total number of planners/head of departments/managers participated in capacity building exercises • % of persons fully attended the course against total persons attended the course |
| Training Period | <ul style="list-style-type: none"> • Number of days (calendar days) • Number of person days (persons * calendar days of training) |
| Training modules available | <ul style="list-style-type: none"> • Number of technical training modules available for direct service delivery cadres • Number of technical training modules available for supportive service delivery cadres |
| Training material newly developed | <ul style="list-style-type: none"> • Number of technical training modules newly developed for direct service delivery cadres during the reporting period • Number of technical training modules newly developed for supportive service delivery cadres during the reporting period |
| Training modules | <ul style="list-style-type: none"> • Number of modules developed for induction • Number of modules developed for orientation • Number of modules developed as refresher course • Number of modules developed for career development related • Number of modules developed to use for transfer to other cadres related • Proportion of inmates given induction before reporting work |

| Performance Area | Basket of Indicators |
|--|--|
| Participation | |
| Participants | <ul style="list-style-type: none"> • Number of nominations received voluntarily by participants as per the training calendar minimum three months in advance • Number of participants referred by their supervisors for the training |
| Training pre / post tests | <ul style="list-style-type: none"> • Number of training programmes pre tested to gauge competency levels before conducting the training • Number of training programmes post tested to gauge competency levels after conducting the training • Number of training programmes conducted both pre and post tests to gauge competency levels before conducting the training |
| Availability of training material for participants | <ul style="list-style-type: none"> • Number of copies of training material available prior to training • Number of copies of training material distributed during the training and accounted • Number of copies available as extra or in reserve / library |
| Participants - Feedback | <ul style="list-style-type: none"> • Number of participant forms responded for feedback • Number of feedback for improvement on functioning of equipment (on common rated scientific scale) • Number of feedback for improvement on physical infrastructure-space (on common rated scientific scale) • Number of feedback for improvement on curriculum (on common rated scientific scale) • Number of feedback for improvement on availability of training material (on common rated scientific scale) |

Reference

ⁱ Ann Philbin, “Capacity Building in Social Justice Organisations”, Ford Foundation, 1996

ⁱⁱ King L & Ritchie J 1999, Promoting Health in the Northern Territory: A Review, Report prepared for the Territory Health Services by the WHO Regional Training Centre for Health Development, University of New South Wales, Sydney.

ⁱⁱⁱ http://en.wikipedia.org/wiki/Capacity_building#cite_note-United_Nations

^{iv} Health Policy document 2013, Kerala



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