सत्यमेव जयते

NATIONAL HEALTH MISSION
राष्ट्रीय स्वास्थ्य मिशन

Winds of Change

Good, Replicable and Innovative Practices

Government of India
Nirman Bhawan, New Delhi

Winds of Change

Good, Replicable and Innovative Practices

CONTENTS

Introduction

The National Summit on Best Practices and Innovations in Public Healthcare Systems in India, from where the case studies have been derived in this book, is in its third edition. Over the last three summits, flagship innovations under the ambit of National Health Mission have been showcased through this platform. The summit has also provided an opportunity for academia, civil society, development partners and programme implementers to share their ideas and learnings on the subject. To further streamline the documentation and evaluation of innovative and best practices in health, the National Health Innovations Portal was launched during the Shimla summit held in 2015. Since its launch the portal has seen an enthusiastic response and over 200 programme and product innovations were submitted for further evaluation. Not every change can be termed an innovation. For a change, either incremental or directional, to be considered an innovation it should benefit people, specially, those most disadvantaged, bring new knowledge, skills or new strategy or improve on the existing ones. Many of these innovations, though contributing to health systems, face the challenge of upscaling. To support such promising ideas and innovations, the Ministry identifies those initiatives that show potentials for wide-scale application. Through this book the effort is to showcase some of these ideas.

DEFINITION OF INNOVATION THAT ARE BEING CONSIDERED

Programme Innovations

Several programme innovations are existing or are facilitated at various levels of health care delivery as a response to specific problem, programme need or to achieve a better level of performance. This may include (but not limited to) innovations in service delivery, financing and governance.

Product Innovations

Health products including Medical Devices, innovative technologies in Healthcare IT, m-health, and tele-health/e-health form a bulk of product innovations. New vaccines and Drugs follow other regulatory routes and usually get well identified and incorporated.

Principles of Innovations Identification

Given that each category of innovations comes with its own strengths and challenges of identification and assessment, certain guiding principles for identification of innovations or potential innovations is a must, which also serve as proxy eligibility criteria.

Exclusion Criteria

- Specific drugs, surgical, medical procedures or practices that need evaluation through Randomized Control Trials or Systematic Reviews.
- Incomplete documentation of innovation: For any innovation to be reviewed the document should include adequate information on process, human resource and infrastructure need, capacity building strategies, cost, challenges and lessons.

Inclusion Criteria

- The programme or product innovations that are relevant to existing health care needs of the population, particularly those who are disadvantaged and marginalized.
- The programme or the product innovations that address the locally endemic health problems or diseases.
- The programme or the product innovation that facilitates better health care reach to people in terms of accessibility (including its reach to the rural areas, tier II and tier III urban settlements), affordability (including potential to reduce cost of care), quality (inclusive of safety of a health care product or process) and equity.
- The programme or product innovations which bridge a crucial specialized skill gap required in delivery of health care services.
- Innovations, which meet criteria for uniqueness of logic of initiative, system based approach, likely impact on health status of the population and scalability.

Evaluation of Innovations

Criteria for evaluation of proposed innovations include- as per norms- i) Strength of Evidence; ii) Scale of Coverage; iii) Impact iv) Replicability and Contextual Fitness.

Conclusion

The Sustainable Development Goals have brought to fore new ambitions for health sector and many of these aspirations can only be met through innovative and out-of-box thinking. Healthcare sector can benefit from innovative ideas in multifarious ways in multiple areas such as better referral systems, efficient ways of treatment adherence, or mechanisms to further reduce out of pocket expenditures on health etc. Future success of many of these innovative and best practices will depend upon the institutional support that is made available to those who look beyond the set norms and horizons. This remains the primary purpose of this dissemination.

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Free Diagnostics Initiative

Problem Statement:

Certain essential lab tests and qualified radiology services were not available 24*7 and are not free of cost in the primary and secondary care (FRUs) under the government health care institutes, which contributes substantially to out of pocket expenditure.

Programme Description

With the prime objective of reducing the OOPE, 7 health care initiatives launched in 2016 by Hon'ble Chief Minister of AP in all the 13 districts of Andhra Pradesh namely out of which Free diagnostics initiative is one which is running successfully with good public perception.

Under the name NTR Vaidya Pariksha, free diagnostics both the lab and radiology services are provided at all 1182 primary health centres, FRUs (192 CHCs), secondary care hospitals like 31 Area Hospitals and 8 District hospitals).

Tele-Radiology services are provided at 120 facilities where qualified radiology services were not available and around 1200 X-Rays being uploaded and reported as per the TAT by qualified radiologist on tele-mode.

4 new CT centres were established on PPP mode and the images uploaded and reported back on tele-mode by qualified radiologist. Existing 5 CT

Centres are provided tele-reporting services on PPP mode.

Programme Outcome

As of now, presently 45,000 to 55,000 testes are performed and 1200 X-rays per working day through this initiative. Around 60-70 CT studies are reported every day through tele-radiology services.

For Lab tests, costing is done per sample and not per test.

Impact on footfall: An increase of 16,07,004 out-patients and 2,72,120 in-patients recorded in the facilities as per HMIS sources during Jan-June of 2016 compared to the corresponding period of 2015.

Financial Implications

Cost of Rs 20.2 Crores for free lab tests and Rs 19.8 lac for free tele-radiology services were incurred during January to March 2016 (3 months). Since the programme got picked up with good public perception, presently with around 14,000 to 15,000 samples per day, it would cost around Rs 10 Crore per month for the whole state. (all primary and secondary care centres - 1400 centres).

> *As of now, presently 45,000 to 55,000 tests are performed and 1200 X-rays done per working day through this initiative*

Implementing Partners

Government of Andhra Pradesh on PPP mode under NHM.

Scalability

Andhra Pradesh is the first State to implement the free diagnostics initiative as per the national guidelines.The initiative is scalable and will be implemented by other States as well.

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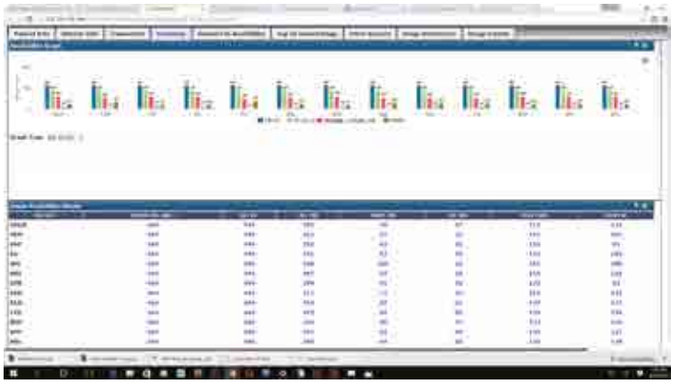

ANMOL (Auxillary Nurse Midwife OnLine)

Problem Statement

ANMs capture around 200 key indicators related to health, nutrition, immunization and family planning in their physical registers. To improve data collection and the overall standards of child and maternal health service provision in India it is important to digitalize.

Programme description

ANMOL (which stands for ANM On Line) is a tablet based application developed by MoHFW for collection of more comprehensive Reproductive and Child Health (RCH) related information and allows ANMs to enter and update data for beneficiaries of their jurisdiction. Further, ANMOL acts as a job aid to the ANMs by providing them with readily available services such as due list, dashboard and guidance based on data entered etc. This application works in the off-line mode

"ANMOL has been successfully piloted & currently 11585 ANMs are using the application"

also and the data is synchronised with the central server once the internet connectivity becomes available. The application is also Aadhaar enabled to help in authentication of the records of field workers and beneficiaries. ANMOL application was launched on World Health Day i.e. 7th April, 2016.

Programme outcome

ANMOL has been successfully piloted in Andhra Pradesh and currently 11,585 ANMs are using the application. More than 70% registration and service delivery updates are being reported by ANMs using ANMOL application.

Financial implication

Rs 19/-crores for 15000 TABLET PCs and Rs 55/-lakhs for trainings conducted for implementation of ANMOL.

Implementing Partners

Govt. of Andhra Pradesh

> *More than 70% registration and service delivery updates are being reported by ANMs using ANMOL application*

Scalability

This programme is scalable as it is an innovative initiative taken for ANMs.

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Sarathi 104 Health Information Helpline with Grievances Redressal System

Problem Statement

Lack of a single window system for accessing information on health care services, queries regarding minor ailments and grievance redressal was a deterrent to providing quality public health services.

Programme Description

Sarathi 104 Health Information Helpline is a health contact center that aims to reduce the load of minor ailment management on the public health system. Any citizen can request medical information and advice, avail counseling services, or lodge a service complaint against any public health facility with just a phone call. Sarathi 104 Health Information Helpline provide the following services:

a) Medical advice using triage,
b) Counselling and Advisory services for various healthcare services/disease conditions,
c) Directory information (information about health service providers)
d) Grievance redressal for: medical services, supply, quality of treatment, safety and supply, pollution, infrastructure, hygiene and sanitation, food safety, medical equipment, availability of drugs, diagnostics and consumables, delays in services, corruption, staff behavior, fire safety, drinking water, 108/102 services, 104/ sanjeevani services, non–adherence to official timings and other related issues.

Programme Outcome

Since the inception of this service in November 2010, it has gained increased acceptability and popularity among the public. The 104 service has been publicly recognized as a value added service under NHM and this initiative has been able to make a positive impact in improving the health status of the people of Assam. A total 1,02,39,495 calls were received in "Sarathi 104" between November 2010 to June 26, 2016. Out of total calls, 8850 complaints received up to June 26, 2016. During the last three years, the 104 number has also been widely used as the helpline number of the people of Assam for diseases like Japanese Encephalitis, Dengue, Malaria, Aids, Diarrheal diseases and also in case of tracking disease outbreaks. This helpline also collects information from rural health workers regarding epidemics and outbreak and passes the information along to the government. Grievance Redressal System facilitates and promotes equity and responsiveness of health services.

Financial Implications

The Complaint redressal system is a part of comprehensive set up of Sarathi 104. Total annual projected budget for 50 seats call center is approximately Rs. 4.38 Cr.

Implementing Partners

National Health Mission, Government of Assam and Piramal Swasthya Management and Research Institute.

Scalability

Helplines and grievance redressal mechanisms exist in various forms across the states. Sarathi represents a long standing and comprehensive model that has been institutionalized within the system, and its approaches could be scaled up within existing state health systems. The Grievance Redressal System, also lends itself to being scaled up, as the software application can function optimally even after change of transactional size and volume to meet user needs.

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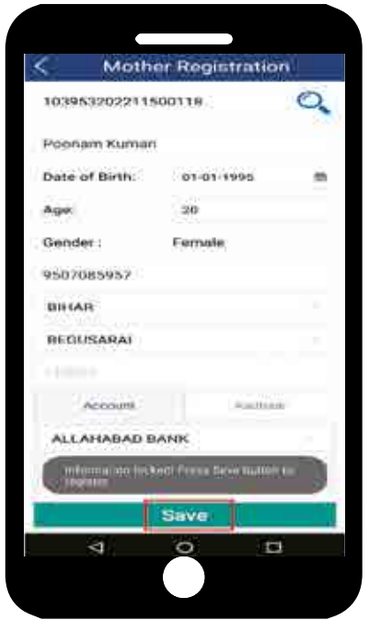
Government to Person-Health Payments Project: *Public finance management system health module*

Problem Statement

Delays in receiving incentive payments negatively impacts the morale of ASHAs and beneficiaries, thereby compromising programme quality and outcomes. This manifests in poor performance of ASHAs who become demotivated. There is also a lack of trust in the system by programme beneficiaries. Delayed payments also give rise to corruption, mismanagement of funds and missed programme targets.



Programme Description

The objective is to reduce payment delays by automating payment processes (calculation, validation and approval) and transferring payments directly into the beneficiary's bank account. The key components are:

- Developing a web based payment system PFMS HM (Public Financial Management System Health Module) to automate calculation, recording, and verification of all payments under the National Health Mission. The application is designed to dynamically configure and manage all the functionalities and features enabling use by multiple States, multiple Agencies, user types, and ensuring usability across schemes. Apart from the desktop version, the system is also available on mobile platform for data entry and approval.
- Training and capacity building of about 1500 users in Bihar at all ~700 payment units through a dedicated team of 130+ IT field resources stationed at Block PHCs. IT resources are trained regularly and monitored by 8 senior consultants stationed across the State.

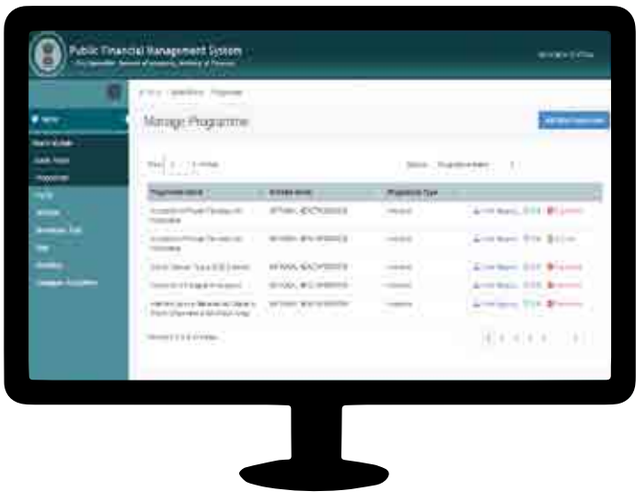
- Financial awareness campaign for frontline health workers (ASHAs) to facilitate opening bank accounts for women beneficiaries. As PFMS HM only allows payments into a recipient's bank account, having a bank account is a prerequisite for receiving payments. The programme focuses on building the confidence of ASHAs to advise beneficiaries in the community and assist them in the process.
- Creating a centralized fund management solution with a single bank account with State Bank of India for just in time payments. Consolidating over 2000 bank accounts of ~700 payment units in Bihar and into a single account for better cash management and resource allocation.

Programme Outcome

The programme was piloted in 3 districts in 2013-14, and a mixed method assessment of the pilot carried out by Population Council showed, a reduction in payment from an average of 176 days to 111 days with reductions in incidences of paying a "facilitation fee" for receiving payments, the proportion of ASHAs receiving payments in less than 30 days increased to 24% (midline) from 9 % (baseline), the model reduced paperwork, especially for the Block Accounts Manager, by eliminating cheques and issuance registers, brought transparency in payment processes and increased accountability at all levels.

Implementing Partner

International Finance Corporation (World Bank Group) in collaboration with the State Health Society, Bihar and PFMS cell, O/o CGA.



Training and capacity building of about 1500 users and creation of a centralized find management solution with a single bank account with SBI, consolidating cover 2000 bank acounts, by the initiative

Financial Implications

World Bank Group has invested USD 5.45 million in the project (Rs. 35.43 crores at 1USD: Rs. 65) for the period 2012-2017.

Scalability

The Health Module can be easily scaled across states. It is an integral part of PFMS and all codes are available with PFMS cell, O/o CGA. The HM can be configured for any state and any payment type with minimal effort. Training manuals and standard operating procedures are available with PFMS to facilitate training and capacity building.

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Human Resource Management and Information System (HRMIS)

Problem Statement

Despite the institution of a payroll module and a transfer posting module for regular and contractual employees of the state health department and NHM, the functionality and utility of the module remained underutilized. Thus efficient management of HR in the state continues to be a challenge.

Programme Description

A fully operational, accurate, real-time and robust Human Resource Management Information System (HRMIS) is critical for an effective health system. An optimal HRMIS system is expected to provide/facilitate: the availability of a complete, accurate and real-time database of Human Resources, the numbers of sanctioned, filled and vacant positions according to facility and category wise, facilitate recruitments, enable rational deployment, facilitate implementation of rational and transparent transfer/posting policies, provide information on training to enable capacity building, periodic skill/knowledge assessment and accreditation, enable leave management, payments, performance monitoring, career enhancement, and grievance redressal. The development of this system has been envisaged to be completed in four phases. The first phase

consists of building a complete and accurate real-time database for all categories of employees that is dynamically linked to payroll and transfer/posting modules. The second phase includes linkage of the performance of facilities/Directorates to the HR deployed and the addition of training data and capacity building modules. The third phase involves the digitization of service books, Annual Confidential reports (ACRs) and Performance Reviews. The fourth phase will enable online accreditation for skills and competencies that are linked to career opportunities.

Programme Outcome

To date the process of building complete and accurate real-time databases for all categories of employees which is dynamically linked to payroll and transfer/posting modules is complete, enabling all payments to take place through the payroll module; all transfers are undertaken through the transfer module; and the list of over 500 categories of staff have been sorted into functionally relevant categories, and the health facility HR linked with the HMIS report. The following reports are now being generated: Salary Report, Working Report, Qualification and Specialty details Report, Advance search options

> *HRMIS has helped in building complete & accurate real time databases for all categories of employees*

by Employee name/Employee ID; HR Updation Report, HRMIS employee reset page and Transfer tracking report. All of these could be tracked down to individual employees.

Financial Implications

Involves payment to an outsourced team of professionals assisting the state officials in development of various IT modules.

Scalability

Once the system is well established and uses the standardized data, it can be up scaled in other States as well.

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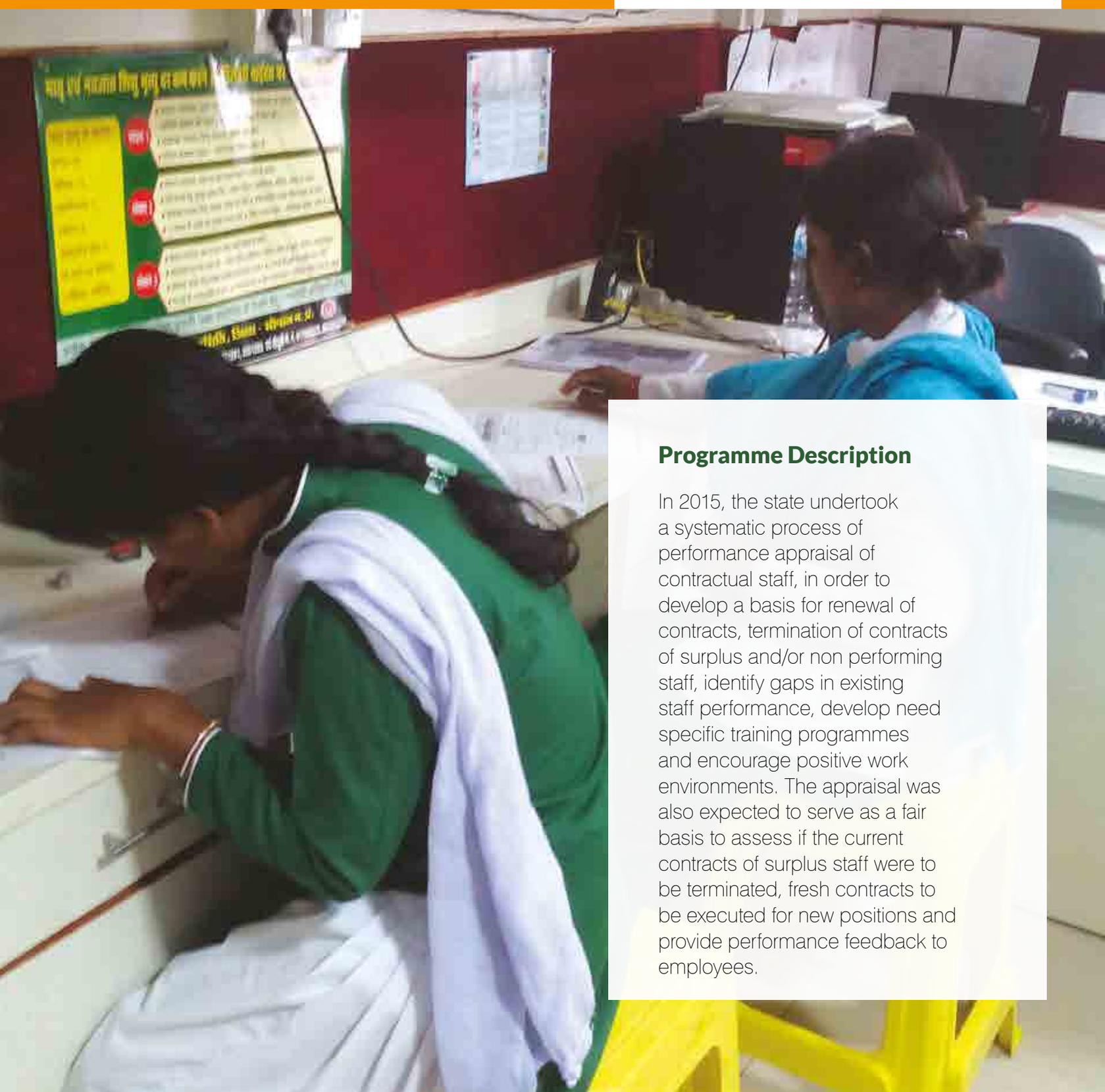
Operationalizing a Structured Performance Appraisal System

Problem statement

Despite a large workforce the state faces challenges such as unequal distribution of human resources, staff redundancy, often due to irrational deploymemt such as duplication, lack of synergy and adhocism in postings of regular and contractual staff.



Programme Description

In 2015, the state undertook a systematic process of performance appraisal of contractual staff, in order to develop a basis for renewal of contracts, termination of contracts of surplus and/or non performing staff, identify gaps in existing staff performance, develop need specific training programmes and encourage positive work environments. The appraisal was also expected to serve as a fair basis to assess if the current contracts of surplus staff were to be terminated, fresh contracts to be executed for new positions and provide performance feedback to employees.

The process included briefing of State programme heads and creation of monitoring teams at State and divisional levels. Guidelines were circulated in advance to enable preparedness of the apprasiers and the contractual staff. Appraisal Formats were prepared in Hindi & English and deisgned to assess knowledge and skills. Self Declaration Formats with information on residence at place of work and other Disciplinary Issues/Court Cases were also shared. While the techcnial cadres were assessed for knowledge and competences by appraisal teams from other districts at the district level, managerial Cadres were appraised at the State Level by a Committee comprising representatives of their Monitoring Officers. To encourage transparency and reduce bias, a provision for appeal after declaration of results was made available so that staff could appeal to the next level of authority. The contracts of those with a performance of 65% and above were renewed for a year, those obtaining between 55% and 64% were given a three month notice to improve performance and those with less than 54% were given termination notices.

Programme Outcomes

A performance appraisal such as this conducted for the first time, at scale within a time frame of less than 60 days, faced some challenges, including variations in understaning across the large numbers of appraisal teams, difficulties in developing TORs given lack of clarity/duplcation in the job descritons of staff, skewed ratings given the differential levels of understanding among appraisal teams, and slippage in schedules and

> *To achieve the desire goal, there is an urgent need to operationlizing a structured programme appraisal system*

timelines. Overall 5% of staff were classified as poor performers and 5% as excellent, 70% as Good performers, 10% as average performers and an equal proportion as very good performers.

Scalability

Once the process is institutionalized and the challenges addressed, this approach has significant scaling up and sustainability potential since it is conducted within the existing system by existing staff.

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Decentralized Health Planning:
The process of conversion of key community health demands into budget proposals (PIP)

Problem Statement

An important initiative of the National Health Mission is to support decentralized health planning to improve community involvement in the implementation of health services. The Project Implementation Plans are the instruments for decentralized planning and budgeting from the village to district level using a bottom up, participatory approach. However there is mismatch between the expectation and the deliverable.

Programme Description

The National Health Mission, Maharashtra in collaboration with the State Health Sysmtes Resource Center (SHSRC) and SAATHI Cehat (Nodal agency for Community Based Planning and Monitoring in State) undertook a "people's demand identification process" in three blocks (Armori, Kurkheda and Korchi) of Gadchiroli district in 2014. In Kurkhera and Armori, the process of communtiy based planning and monitoring, another NHM initiative is already underway. Korchi is a non CBMP block. Three PHCs in each block and two Sub Centre villages from each PHCs were selected. Thus in total 15 sub Centre villages, 8 PHCs, 2 Sub-districts hospitals and 1 Community Health Centres were identified for demand identification process. The Volunteers from "Amhi Amchya Arogyasathi", district level NHM officials, Chief Executive officer, Additional District Health officers, PRI and VHSNC members played a crucial role in ensuring the involvement of community in decentralized planning process. The steps involved in decentralized planning are:

A. Community mobilization for identification of people's demand.
B. Analysis and prioritization of demands.
C. Developing appropriate strategies/action plan to address those demands.
D. Developing mechanisms to implement the action plan.

Programme Outcome

Based on the decentralised participatory process, a total of 499 demands regarding various public services and programmes such as Health care, Education, Employment guarantee, Food security, Nutrition, Water supply and Sanitation, Transportation etc. emerged during the community demand identification process, out of which around 144 demands were related to health care. 60% of these health demands required monetary inputs for the resolution. In order to address monetary related demands a template was prepared and shared with district officials. Criteria

> *Based on the decentralized participatory process, a total of 499 demands from various sector were identified out of which 144 demands were related to health care*

to assess these demands related to specificity, appropriateness, contribution to improving the health indicators, number of people that would benefit, and funds availability. The process was facilitated by SHSRC representative, NHM officials, SAATHI representative and PRI members. Based on the scrutiny, demand was converted into budget proposals and submitted to the District Planning and Development Committee and State NHM.

Implementing Partners

National Health Mission, Maharashtra, State Health System Resource Center, SAATHI Cehat and District level Nodal agency "Amhi Amchya Arogyasathi".

Scalability

Drawing upon successful implementation of the pilot intervention of Decentralised Health Planning in Gadchiroli during 2013-14, Maharashtra State NHM has up-scaled this process to 14 districts of State.

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Strengthening Human Resource for Health in Remote and Difficult Areas of Odisha: *Systemic reforms and continuing challenges*

Problem Statement

A persistent challenge in Odisha is the shortage of doctors and paramedics across all levels of facilities, being more acute in the KBK districts where the vacancy rate of doctors is 45.45% compared to the state average of 27.67%. The overall vacancy of paramedical staff is over 20% in almost all categories. There is an acute shortage of specialists as well. The lack of a well-defined Human Resource (HR) and transfer policy also exacerbates the inequality in workforce distribution.

Programme Description

The state government undertook a series of systematic and progressive reforms that address structural and institutional challenges to enable a sustianable HR policy to address these challenges:

- Establishment of a State Human Resource Management Unit (SHRMU) is a key

> *Key features include establishment of State Human Resource Management Unit, Directorate for Nursing in service deputation of MOs for PG courses, among many others!*

institutional reform. Restructuring of the Odisha Medical Service Cadre and enabling promotional avenues has led to the creation and upgradation of new posts and restructuring of the Public Health Service by creating a Directorate of Public Health is expected to focus on public health improvements.

- Directorate for Nursing, with Programme Management Units has been set up to enable, inter alia, professional growth avenues for nurses, creating a Scholarship scheme for ST/SC students for GNM & BSC Nursing, and the setting up Comprehensive Skill Labs at selected Nurses training schools with NHM support to enhance skills.
- Preferential selection of Laboratory technicians for graduates from state government Institutions.
- Financial incentives for medical officers in the periphery and district hospitals, specific geographical area allowance, specialist allowances, and Post mortem allowances have been introduced.
- In-service deputation for doctors to Post Graduate courses and additional marks in PG entrance exam for doctors working in specific Institutions or areas.
- Rational deployment of specialists and trained paramedics prioritizing First Referral Units and 24x7 delivery points.
- Increasing the intake capacity of Govt. Medical Colleges and setting up Medical Colleges in partnership with the private sector.
- Retired Doctors being appointed on a contractual basis up to 68 years of age and multi-skilling of health personnel.
- Districts grouped into zones and norms for transfer and posting of Doctors after a three-year tenure been drawn up to ensure availability and retention of doctors in remote and rural areas of the State.

Programme Outcomes

Substantial decrease in vacancies of Doctors in KBK+ districts from 45.51% in 2014-15 to 32.75% in 2015-16; significant improvement in MCH indicators, and a substantial increase in outpatient and inpatient loads, Institutional deliveries and C-section rates.

A well defined HR & transfer policy has resulted in decrease of vacancies in staff

Financial Implications

Corpus fund of Rs. 11 Crores has been allocated for KBK and KBK plus districts @ Rs. 1 cr per district to be used for gap filling and provide support to service providers for accommodation, mobility and communication related expenses - based on local context.

Scalability

A holistic approach to reform in Human Resources for Health coupled with autonomy and financial flexibility to districts could be replicated in other states.

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Onsite Mentoring for Improving Quality of Perinatal Care in High Priority Districts

Problem statement

The delivery of high quality services depends as much on refresher training and regular skill upgradation as on one-time skill training. Beyond equipping service providers with appropriate knowledge and skills to improve the quality of service delivery, through supportive supervision and hands on training is undertaken, the skills of the health workforce remains stagnant and could even deteriorate. Building competencies in supportive supervision and skills to deliver on site, hands on mentoring in the workplace, is often an overlooked area of health systems, not least because of overcrowded workspaces and high patient loads. This has resulted in adverse effects on health care quality, particularly in MCH areas.

Programme Description

The aim of this intervention is to:

- Improve the skills and knowledge of labor room staff across delivery points (including medical officers, SNs, ANMs, GNM, MNS) on essential protocols and guidelines, based on the GOI MNH tool kit.
- Build capacity of medical officers, facility in charges, labor room in charges at all levels to undertake quality labor room assessment, corrective actions and monitor practices across all reproductive, maternal newborn, child and adolescent health areas.

A stakeholder consultation of local service providers at district and sub- district levels, state level managers and experts, formed the basis for the evolution of an onsite mentoring initiative for assessing and addressing bottlenecks identified through qualitative and quantitative methods. A roving mentoring team consisting of a nursing tutor, a staff nurse and a medical officer, assessed the physical status of labor rooms, postnatal wards, including the situation of water and sanitation and the knowledge, skills and practices of the staff from records, discussions and observations. This was followed by thematic training, using mannequins, videos and training materials. Facilities were selected, so as to cover around 70% of the total delivery load of the public health facilities in four high priority districts of Rajasthan. This intervention was initiated in 100 facilities and then scaled up to 140 health facilities.

Programme Outcomes

Internal evaluation demonstrates significant increase in availability of equipment at the facilities (e.g. weighing scale availability from less than 60% to almost 98%;), availability of bins for Biomedical Waste management (40 % to 80%.) and attention to privacy at labour rooms (32 % to 84%). The intervention also demonstrates that a low dose high frequency training model is useful for

> *Significant increase in availability of weiging scale at facility from less than 60% to almost 98% and Bio-medical waste management from 40% to 80%*

improving skills and practices, and that integrating technical, behavior change and organization development approaches enable better outcomes and are sustainable.

Financial Implications

Rs. 1.18 Crore were used for over a period of two and half years.

Implementing Partner

National Health Mission, Rajasthan.

Scalability

The intervention was implemented with existing HR and standard guidelines and training manuals were prepared. This is a potentially scalable approach.

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e-Upkaran:
An innovation in equipment management and maintenance systems

Problem Statement

One area that has not been addressed adequately in improving health service delivery is the inappropriate management of equipment and instruments. This has led to equipment/ instruments lying in storage and not being distributed to facilities, irrational and unplanned distribution of equipment/instruments without consideration of services delivered, and requirement and delays in repair of equipment. This also leads to unplanned procurements causing huge financial liabilities.

Programme Description

e-Upkaran is a centralized Equipment Inventory Management software. It allows a comprehensive inventory of equipment with details including commissioning, decommissioning, vendor details, AMC details, etc. It also allows for monitoring of the complaints received with ability to monitor equipment status, equipment usage, preventive maintenance, breakdown details, and service history, thus supporting decision making for repair, service, or condemnation of equipment. The software enables online updating of inventory, online monitoring and management of equipment including tracking of breakdown complaints, monitoring daily online reporting upto PHC levels, and identify requirement of new equipment. Other features of the software include:

- User Login at various levels for various authority types- There is facility of various user login at State Head Quarter level Authority, District level Authority and Block level Authority.
- User can perform data entry or use the System at the same time without any decrease of speed of each the System processes.
- It could also be used in the management of hospital furniture, infrastructure, consumables, etc.

An AMC/CMC with the Service Provider to cut down on the cost of repair and maintenance and to avoid discontinuance of services and reduced break down time is also a feature of the model.

Programme Outcome

Through e-Upkaran, the state has been able to map a total of 64,454 pieces of equipment and identified that 61,292 are functional, 87 for which installation is pending, 977 that are non- functional and beyond repair, 1174 that are non-functional but could be repaired and 920 that are not in use.

Financial Implications

No investment was required on Hardware, IT related equipment or HR, since the software was enabled using existing mechanisms.

Implementing partners

Department of Medical, Health and Family Welfare, Govt. of Rajasthan.

Scalability

e-Upkaran (EMMS) Software is scalable since it relies on existing systems.

E-Upkaran is a centralized equipment inventory management software, giving comphrehensive details on commissioning, de-commissioning, vendor details, AMC etc.

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RMNCH+A

RMNCH+A

Yukti Yojana: *A public private partnership initiative to increase access to comprehensive abortion care*

Problem Statement

The Government data for maternal mortality ratio for the state of Bihar (208 deaths per 100,000 births) is higher than the national maternal mortality ratio (167 deaths per 100,000 births)[i]. The high number of women seeking unsafe abortions in Bihar contributes significantly to the maternal mortality and morbidity figures. Each year, an estimated 3, 96,956 induced abortions take place in Bihar[ii]. Data from the State Government shows only 704 public sector facilities that are eligible to provide comprehensive abortion care (CAC) services[iii]. However, many of these facilities are unable to provide CAC services because of a shortage of trained certified providers[iv]. Although safe abortion services are available in private sector, very often poor and marginalised women turn to unsafe providers as they are unable to afford the high cost of services.

Programme Description

Acknowledging the gap in CAC services for women, the State government officials invited Ipas Development Foundation (IDF) to design and initiate an innovative scheme for accrediting private providers to make CAC services to women free of cost. Yukti Yojna was thus launched in Bihar in 2011 under the National Health Mission. It is a public-private partnership scheme in Bihar, under which eligible and interested private providers are accredited to provide free-of-cost CAC services

to women. The providers are then reimbursed by the Government of Bihar. The strategic intent of this scheme is to reduce the barriers that deter women from accessing CAC services from certified facilities.

Interactive Voice Response System (IVRS) technology is being used to record women's perceptions on the quality of the services received. The primary purpose of this initiative is to understand the quality of services currently being given at the accredited sites, and then use the feedback received to improve the quality further. Results show that 82% women called were satisfied with the services received under the Yukti Yojana scheme.

Programme Outcome

Till March 31st 2016, more than 52 thousand women have been provided services under the Yukti Yojna. Total 238 site applications have been received and 70 site accreditations have been given. Also, 88% claims have been reimbursed.

Implementing Partners

1. Government of Bihar,
2. Gramin Vikas Praudyogik Sansthan (Managing the Project Support Unit), and
3. Ipas Development Foundation (Technical Assistance)

Financial Implications

As on 31st March 2016, a total of 52, 541 women have been served under this scheme. A total of Rs. 4,33,55,700 have been claimed by the beneficiaries. The approximate cost per woman served under the scheme is Rs. 825.

More than 52 thousand women have been provided services under the Yukti Yojna

Scalability

Yukti Yojana is a unique programme and the only known example of a public-private partnership implemented at scale globally. Programme outcomes clearly show that Yukti Yojana has been able to meet its primary objective of serving the poor women by making CAC services accessible and available for them in the private sector. The potential to scale up this initiative in other states will definitely help increase access to CAC services and contribute to reducing the high maternal mortality and morbidity due to unsafe abortions. The successes of implementing this public-private partnership initiative in Bihar provides adequate evidence for adaptation and scaling-up this scheme in other States across the country under the National Health Mission.

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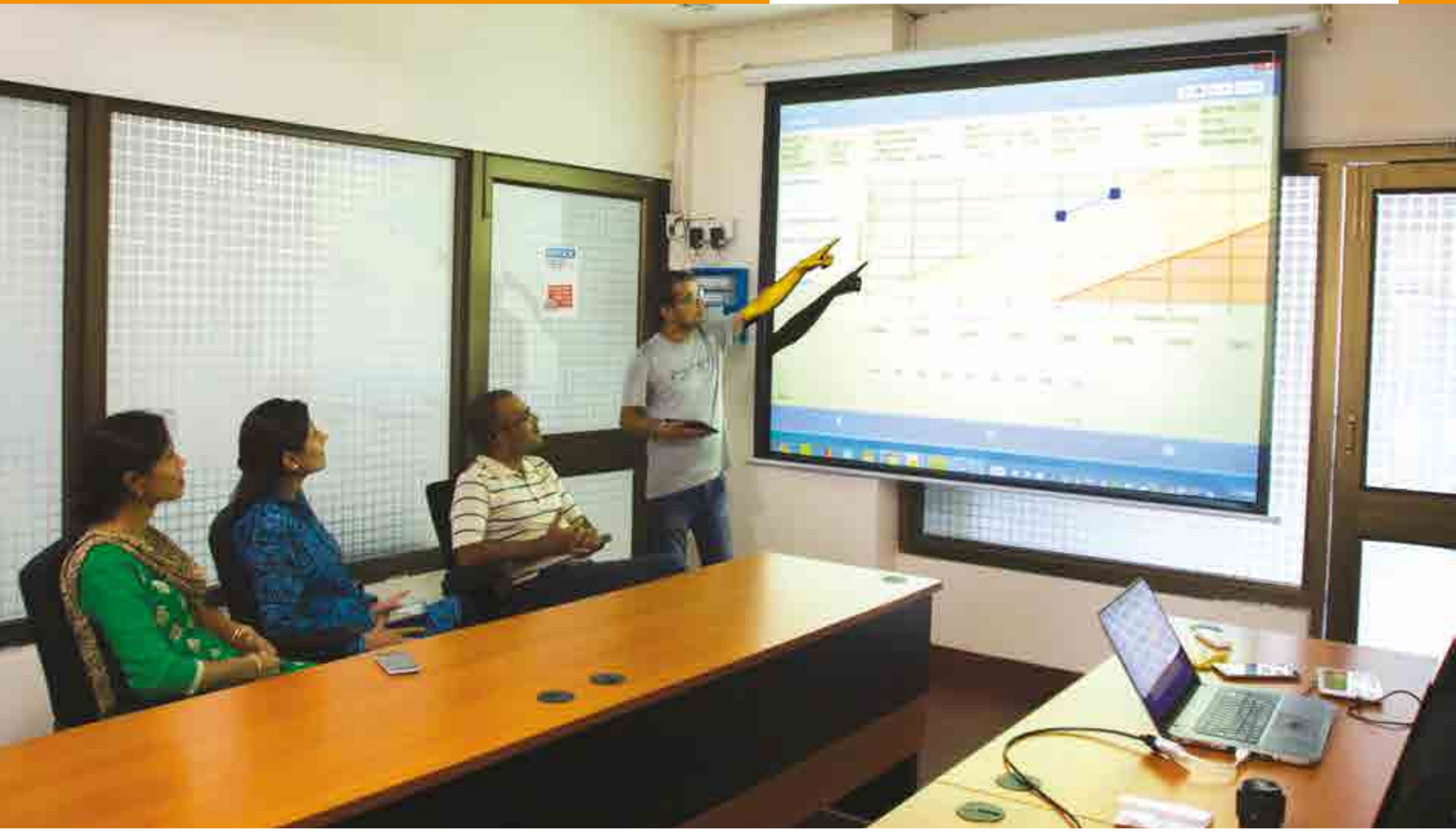
Feasibility of Engaging Nurses/nursing Students Posted in Labour Room to Plot ICMR Partograph (Prasavgraph):

An ICMR multi-centric study

Problem Statement

The woman in a labor pain undergoes a series of procedures in the labor room till the birth of the baby. The labor pain and the delivery process are also associated with multiple complications with the mother and the child in some of the cases which requires specialized care and urgent referrals. Thus, it is mandatory to engage nurses/nursing students to plot a partograph in the labor room to continuously monitor the process and notice any of the complications which requires immediate attention.



Programme Description

This study was conducted at PGIMER, Chandigarh from February 2015 to January 2016. The main objective was to assess the adequacy of completeness of ICMR partograph among nursing students/nurses and to assess acceptability of the ICMR partograph among the nursing students.

Nursing students posted in labour room were trained to plot the ICMR partograph. Each participant was allotted patients in labour room to complete the partograph plotting and was allotted a provider number. By the end of their posting each student had to submit 10 complete partographs. After the delivery of the baby and the placenta, stage 3 and 4 was completed in

the partograph. Complete partographs were submitted to the Research Associate for data entry and analysis.

They were given a questionnaire to assess the provider's perspective for the partograph used in the study. The research associate entered the allotted provider numbers on the proforma and distributed to the providers for recording their opinion. The questionnaire included parameters like appearance, adequacy of space, ease of understanding, usability to interpret the progress of labour, usefulness in second and third stage of labour etc.

Programme Outcomes

Total 37 nursing students participated in the study. Overall 302 partographs were filled and on average each participants filled 8 forms. In majority (74%) of the forms the plotting of the cervical dialatation was correct. In almost all partographs name of the patient, husband's name, age of the patient and CR number was mentioned.

90% of the partographs. Number of living children, hemoglobin level, blood group, presenting part, cervical dialatation was not mentioned in 10-20 % partographs. Almost half partographs didn't have the time of admission of patient entered in the partographs. Stage I details were recoded in more than half of the partographs. In 47% of

> *Over all 302 partographs were filled and around 74% of the partographs on cervical dialatation were correct*

partographs, FHR readings in stage 2 were not mentioned. 93% of the partographs had baby details and stage 3 entered. Majority (86%) of the students rated the ICMR partograph as good.

Implementing Partners

ICMR and IIT Delhi (Soft ware)

Financial Implications

Funded by ICMR

Scalability

This partograph can be a good substitute for monitoring the progress of Labour and whole delivery records including baby details. There would not be additional need of recording delivery notes if this is completed fully. Also digitalization of this would ensure the information is sent to referral institute well in advance so that proper measures can be instituted without any delay.

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Improving Quality of Care and Survival Beyond Newborn Period through Family Centred Care (FCC) Approach

Problem Statement

India's efforts to ensure survival of newborn have seen a paradigm shift in the last five years. Strategic low cost innovations are needed to overcome the universal problem of human resource constraints if we are to dent the global neonatal health outcomes favorably, especially in the resource limited countries. Today the family attendant has assumed an integral role along with nursing care provider in our nursery. The parents thus emerge from the NICU/Special Newborn Care Units (SNCUs) experience with better care giving competencies. The practice of FCC is likely to be the cornerstone of providing continuity of care at home after discharge.

Programme Description

Principles of family centered care were adopted for overcoming health workforce shortages in delivery of neonatal care at facility level. A unique simplified comprehensive Audio Visual Training Package for capacity building of the parent-attendants was developed. This audio-video training tool is sequentially structured to cover domains of hand washing and entry protocol, providing developmentally supportive care and activities of routine care to their sick neonate, kangaroo mother care, feeding (technique of breast feeding, expression of breast milk, and assisted feeding of a LBW baby), danger signs recognition and post discharge care of the baby at home. Also a `Training Guide' and `Operational Guidelines' for operationalisation of Family Centered Care of Newborn has been developed

in partnership with NIPI Newborn Project. This training package has been developed for the purpose of capacity building of parents-attendants accompanying the sick babies admitted to newborn care units.

Implementation of this indigenously developed innovation would thus also be the cornerstone of continuum of care at home, ultimately resulting in improved health outcomes of the newborns.

Programme Outcome

Internal evaluation study was done for measuring the output of the pilot from 2010 to 2012. Consenting parents of 295 babies were randomized at admission. In intervention arm, parent attendant were trained using an indigenously developed and pretested, culturally sensitive, simple audio-video tool that covered domains of personal hygiene, hand washing, danger signs recognition and feeding of sick neonate. Control group received care by nurse-doctor. Total NI (Nosocomial Infection) episodes were 75; 38 (culture positive: 22, culture negative: 16) in control and 37 (culture positive: 23, culture negative: 14) in study group. The mortality was 8.8% in control as compared to 6.8% in study group. It was 2 % less in the study group, ($p=0.5$). The breast feeding rate in study group was 80.4 % as compared to 66.7 % in control group.

Implementing Partners

Dr. RML Hospital Delhi & NIPI Newborn Project.

Financial Implications

FCC is a strategic low cost innovation that addresses unmet psychosocial needs of the family and developmental needs of the sick neonate. Not only is it culturally sensitive and responsive to family needs but also has the potential to compensate for human resource shortages in low and middle income countries (LMIC) like ours.

Scalability

MoHFW has approved FCC model to be piloted at five sites in four states for introduction in the public health setting at district level through RML and NIPI Newborn project. Three states (Madhya Pradesh, Odisha & Rajasthan) have taken the decision to upscale it to all SNCUs, for which TOTs are underway in 2016.

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Innovations in Implementation: *Community based distribution of misoprostol in Himachal Pradesh*

Problem Statement

State decided to rollout the programme in areas with high home delivery rate. One such area with very high home delivery rate (about 90%) i.e. Janjheli block in Mandi district was selected to initiate the programme which shall form basis for further scale up in the state. The guidelines for the programme were available from the Govt of India, but implementation learning and processes within India have not been set up yet in any state.

Project Description

Looking at feasibility of implementation and need of easing of difficult steps, following innovations have been done in the State.

Procurement of 600 mcg single dose Misoprostol tablets: The currently available pack of Misoprostol of four tablets of 200 microgram each poses a challenge in distribution in a pack of three to each mother. This is a first in country, as the single tablet pack of Misoprostol is still not used in public health supply in any state in India.

ASHA level line listing of pregnant women is being done to create a data base for estimation and distribution of Tablets as well as tracking the mothers receiving and consuming Misoprostol tablets in Janjheli block was prepared.

"SURKSHA – (A tablet, which is to be consumed by mother immediately after childbirth)": The district and state programme managers in consultation with field workers adopted the term SURAKSHA (Safety) for Misoprostol tablets. The communication name is being used on Tablet packs and IEC material provided to ANMs/ASHAs as well as the beneficiary Mothers.

In addition to the operational manual and facilitators guide following material has been developed and utilized for trainings and field communications. A flipbook as a counselling job-aid developed to facilitate the counselling of mothers and family members by ASHAs and ANMs during distribution and follow up for Misoprostol tablets. A separate programme booklet in Hindi for Front Line Workers– SURAKSHA booklet - contains the programme outline, roles and responsibilities of ANMs/ASHAs/ Supervisors and one master copy of all the recording and formats used at various levels in the program.

The single packs of 600 mcg Misoprostol tablets are packaged with SURAKSHA pamphlet with the instruction to the mother/family in easy to understand the language. Guidance leaflet in the tablet pack which enumerates the Do's and Don'ts about the tablet to the mothers and family members.

The health supervisors have been provided with a community monitoring tool and are mentoring and monitoring the ANMs and ASHAs.

The reporting formats of each level ANM, ASHA and block are refined to minute details and interaction with them is being done during every monthly meeting of PHC level to understand the nuances of the programme to learn lessons and to bring out the scalable model as soon as possible.

Programme Outcomes

1. Since 7th May-16 total reported deliveries are 160, out of which 60 % are institutional deliveries. The counselling done by ASHA to pregnant women for benefits of institutional delivery is working to a great extent. Earlier the institutional deliveries were only 10%.
2. 66% of home deliveries were distributed Misoprostol tablets out of which 98% consumed on time.
3. As per Ante-natal registration the block should be reporting about 375 deliveries in a quarter. According to HMIS in 1st quarter of last year only 137 deliveries were reported. In this quarter, 207 delivery outcomes in MIS of this programme were reported showing reduction in missing outcomes.

Financial Implications

The costs incurred in the programme so far are of trainings, procurement of single tablets of 600 mic gm tablets, ASHA incentives and monitoring visits, all of which are part of existing systems part from 600 mic gm tablets.

Although per tablet cost is higher for 600 mic gm, the ease of packaging, distribution, ease of remembering dose and higher possibility of better compliance by the mothers weigh out the cost implications.

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Improving Efficiency of Vaccine Logistics Systems through Electronic Vaccine Intelligence Network (eVIN)

Problem Statement

One of the key determinants of full immunization coverage in India is the availability of good quality and effective vaccines in every cold chain point. Vaccine supply chain management in India is challenged by the fact that programme mangers do not have real-time visibility of stock supplies and storage temperature of the vaccine across the vaccine stores and cold chain points. Stock keeping is done manually which is often inadequate and temperature monitoring is usually manual. Often times, despite adequate vaccine supply from national to state level there is an improper vaccine distribution within various health centers with some overstocked and some under-stocked and many instances of stock-outs occur. inter-state and inter-district variations in vaccine stocks are seen. There also exists a question mark on the quality of temperature monitoring of the cold chain equipment where vaccines are stored.

Programme Description

The State Health and Family Welfare Department is currently implementing the Electronic Vaccine Intelligence Network (eVIN) system that combines a strategic use of digital technology and human resources to strengthen the vaccine and cold chain logistics system in the state while providing programme managers a real-time view of the vaccine stocks and temperature across all cold chain points. The eVIN system digitizes the entire vaccine stock management and its temperature monitoring at all levels of vaccine storage – from state to the sub-district level. This is done by a trained vaccine cold chain handler in every cold chain point through a smartphone application and

the vaccine data is uploaded on a cloud server. Each cold chain equipment is also equipped with an electronic temperature monitoring device that is SIM-enabled. This device uploads temperature data to the eVIN website at regular intervals and also emits an alarm and sends SMS alerts to the responsible personnel in case of any breach in the normal range of storage temperature in the cold chain equipment for speedy corrective action. eVIN enables programme managers to have real time view of the vaccine stock position and their storage temperature at all the cold chain points in a district. State programme managers are able to visualize this information across all districts.

Programme Outcomes

Vaccine stock and storage temperature is now visible on eVIN website for every cold chain point and equipment in Madhya Pradesh. This is proving to be very useful in local and state level decision making which is now informed by high quality real-time data for the managers. Over 2100 government staff including vaccine store-keepers, data entry operators and cold chain handlers have been trained on the use of new standardized vaccine stock registers, mobile and Web-based eVIN application and the use of digital temperature loggers. Each cold chain point has been given a smartphone for this purpose. All 1600 vaccine storing cold chain points now have temperature loggers installed. eVIN system has shown a very high degree of adoption in the state with 95% of cold chain points 'going live' online with their vaccine stock within 24 hours of training and 100% were 'live' within a week.

Over the last six months of eVIN initiation in the state, the adherence rate very high with 99.5% of cold chain handlers entering data at least once in a week. this bodes very well for a long term sustainability and utilization of the system. During the period of its implementation, eVIN has helped visualize and reduce vaccine stock-outs by over 80% and improve 'healthy stock instances' in most of the cold chain points.

Implementing Partners

United Nations Development Programme (UNDP).

> *Over 2100 government staff including vaccine store-keepers, data entry operators and cold chain handlers have been trained, 1200 vaccine storing cold chain equipment now have temperature loggers installed and 95% of cold chain points 'going live' online with their vaccine stock.*

Financial Implications

Supported by Gavi-The Vaccine Alliance's Health System Support.

Scalability

eVIN is unique in that it is fully in line with the government's 'Make in India' initiative. The digital temperature loggers are made in India, the software development has been done in India. The eVIN data is stored in high quality Indian servers that match international standards.

eVIN a very affordable and cost-effective model of vaccine logistics and temperature management that is simple to use and scalable and sustainable. Starting from October 2015, eVIN has been rolled out across all the 160 districts of three states - Madhya Pradesh, Rajasthan and Uttar Pradesh. During this process over 7,100 government vaccine cold chain handlers were trained covering all the 4,500 cold chain points in these states. Over 6,400 temperature loggers have been installed in the three states achieving 95% of its target already. eVIN is now being rolled-out in all the 216 districts in nine additional states of the country - Assam, Bihar, Chhattisgarh, Gujarat, Himachal Pradesh, Jharkhand, Manipur, Nagaland and Odisha. In doing so, eVIN will support better vaccine logistics management for an additional 6,500 cold chain points by the end of this year. Over 10,000 government vaccine cold chain managers will be trained and 8,000 temperature loggers will be installed by June 2017 in these states. Thus by December 2016 eVIN footprint will cover 11,000 of the 28,000 cold chain points in the country.

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Strategic Scaling Up of Post-Partum Family Planning (Post-Partum IUCD and Post-Partum Sterilization) Services

Problem Statement

Postpartum period is an opportune time for women to adopt family planning method. Studies suggest that the unmet need for family planning in postpartum period is as high as 65% which if tapped can further break the vicious cycle of inadequately spaced, repeated and frequent pregnancies and child birth which many states are witnessing currently.

Programme Description

To significantly reduce the unmet need for family planning in the postpartum period and promote healthy spacing between children right after child birth, the state of Tamil Nadu strategically introduced and scaled up PPIUCD/PPS services in their public health system. To start with, high delivery case load facilities at the district level were saturated with trained providers for providing PPIUCD/PPS services followed by sub district level facilities and lastly the PHCs (wherever applicable). A meticulous district action plan for each district was developed and executed for the scale up of PPIUCD/PPS services in the state which was closely monitored through supportive supervision visits.

Programme Outcome

This model helped the state of Tamil Nadu to deliver PPFP services to over 3.5 lakh women in the year 2015-16. The acceptance rate for postpartum sterilization in Tamil Nadu is the highest in the country while it stands 2nd highest in case of PPIUCD services.

Financial Implications

The funds for postpartum family planning are routed through NHM State PIP.

Strategic scaling up of Post-Partum Familiy Planning helped to deliver PPFP services to over 3.5 Lakhs women in the year

Scalability

This presents a promising scenario to demonstrate and exemplify the health system strengthening through local commitments. The programme is easily scalable and has already been replicated by most of the states in the country.

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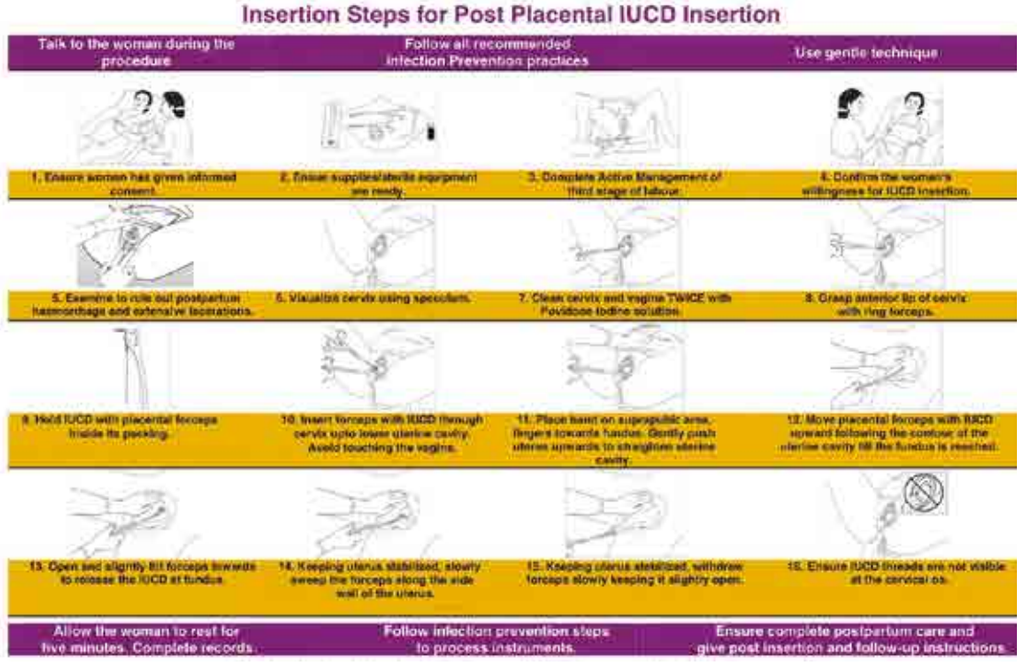

Strengthening RKSK: *Civil society partnership in West Bengal*

Problem Statement

DLHS-4 shows that 50% of adolescent boys and 65% girls are anaemic. Only 21% and 54% women heard about reproductive tract infection/STDs and HIV/AIDS respectively. Around 30% girls and 21% boys are married off before the legal age of marriage. In district Murshidabad, the percentage of Anaemia among boys and girls are 55% and 65% respectively. Approximately 39% girls and 25% boys are married off before the legal age of marriage.

There are several other areas where adolescents' health is affected due to lack of knowledge.

Project Description

Project was started in April 2015, adopting the 7C (Coverage, Clinic, Content, Communities, Counselling, Convergence and Communication) methodology. Various innovative processes and structures have been formulated by Child in Need Institute (CINI) which can be replicated. "Adolescent friendly drop-in-Centres", "drop box for adolescent issues", "Community resource mapping of adolescents. The result of such initiatives are Child budgeting" – a fund allocation for adolescents within few Gram Panchayats in Murshidabad, coining of "Adolescent Health Day"

where all stakeholders come forward and celebrate youth, regularized "First Saturday and Third Saturday meetings" where various health officials, parents and adolescents come together and collectively formulate solutions to adolescent problems or issues.

Programme Outcome

Within the 10 months of project implementation, CINI has trained 4,811 peer –educators(Saathiya) (Male = 2205, Female = 2606). Through various activities, meetings and training sessions overall 1,36,153 (Male = 61507, Female = 74646) adolescents have been sensitized about the RKSK components. About 16733 stakeholders and 2585 health service providers have been sensitized on the adolescent development issues and also ways to create a more enabling environment for them. Stakeholders were parents of adolescents, teachers, Self Help Groups (SHG) and members of Panchayati Raj Institution (PRI). 336 master trainers in schools have been trained covering 168 schools.

Implementing Partners

CINI and Government of West Bengal.

> *More than 16 thousand stakeholders and 2500 health service providers have been sensitized under the programme*

Scalability

The programme has shown improved outcomes in terms of trainings of peer educators, which may lead to increased utilization of RKSK services.

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NUHM

Urban Baseline Survey

Problem Statement

The National Urban Health Mission (NUHM) as a sub-mission of National Health Mission (NHM), envisages to meet health care needs of the urban population with focus on urban poor, by making available to them essential primary health care services and reducing their out of pocket expenses for treatment.

The programme requires baseline data on health indicators of the urban population which are crucial in designing the programme strategy.

Project Description

The broad objectives of the baseline survey was to collect information on the health status and utilization of health care facilities by the urban population living in both Slum households (HHs) and Non-Slum HHs of 28 cities of Madhya Pradesh and establish baseline indicators for both in all 28 cities covered in the study. Coverage of available drinking water and sanitation facilities was also surveyed. The data arising from the Baseline survey would help in planning outreach activities, Immunization Coverage in underserved and marginalised population etc.)

Programme Outcomes

Total 28 towns surveyed in which total 31738 eligible households (ever married women) were covered. Total anthropometric measurements (WOMEN): 31459. Total 7340 children between 6 to 59 months had Mid Upper Arm Circumference Measurement (MUAC) done. Data on various ANC & PNC services, Institutional deliveries, Immunization, Childhood diarrhea, ARI episodes, knowledge on AIDS, etc. was collected from slums and non-slum areas.

Implementing Partners

NHM Government of Madhya Pradesh with engagement of NGO.

Scalability

The survey to create a baseline data of health and other indicators of social determinants of health is imperative for effective implementation of NUHM.

> *Urban baseline survey has helped in establishing baseline indicators related to health status and utilization of health care facilities by urban population*

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Urban Health Kiosks

Problem Statement

Under National Urban Health Mission 40 cities have been covered including 3 cities with Million+ population. The challenge was how to provide the services in Urban Slums not-listed/unauthorized/ temporary/construction sites. Critical issues such as unavailability of land and HR are a deterrent in programme implementation.

Programme Description

In order to provide primary health care services in urban areas, State has established Health Kiosk in the heart of slums and the areas dominated by vulnerable population i.e. rag pickers, construction workers, street children etc. Kiosks are functional as per OPD timings. These Kiosks act as an entry point for service delivery to the poor population at their door step in inaccessible congested areas. The kiosks have been operationalized under the supervision & control of Medical Officer of the nearest Urban Primary Health Centre. Kiosk has been setup by using pre-fabricated material having dimension of 15' x 12' x 10' with a partition for ANM, privacy for examination room and immunization cabins, toilet & running water supply, electricity connection & power backup (inverter). Basic furniture i.e. examination table, table chair, patient stool, bench in waiting area etc., equipments such as BP apparatus, stethoscope, thermometer, weighing machines (adult & infant), vaccine carrier, HB meter, glucometer, needle hub cutter and other kits for tests have been made available. Services for ANC, PNC, immunization, RTI/STI, etc. are also provided at these kiosks.

Programme Outcome

On an average, OPD is 180 patients per kiosk (340 maximum, 100 minimum) and average OPD is 60 in weekly clinics. More than 97% pregnant women of the area are registered. More than 90% children are immunized. Percentage of home deliveries in the area is declining after operationalizing the Urban Health Kiosk as counselling and mobilization of pregnant women have increased. 80% deliveries are conducted in health institutions which were less than 65% previously.

Implementing partners

NHM Government of Punjab.

Financial Implications

Operational Cost is Rs. 20000/- per month per Kiosk (Rs. 2.40 lakh per year per Kiosk).

Scalability

The initiative is a State specific strategy for NUHM implementation and may be adopted by other States in similar settings.

"Health Kiosk in the area dominated by vulnerable population acts as entry point for service delivery to the poor population at their door step"

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Implementation of Community Processes in NUHM with MEPMA as Development Partner

Problem Statement

The State has total population of 351.94 lakh. Out of total population 38.66% (136.09 lakh) constitutes Urban population and 19.21 % (26.14 lakh) lives in slums. The state of Telangana has 67 Urban Local Bodies to manage them. The slum population is growing day by day. Implementation of NUHM in these Urban Local Bodies (ULBs) requires constitution of Mahila Arogya Samithis, positioning of ASHAs, conducting the UHNDs, and organising specialist outreach camps. State need an active partner who has experience of implementing the government programmes in the slums.

Programme Description

The Mission for Elimination of Poverty in Municipal Areas (MEPMA) is a Government body formed under the Department of Municipal Administration & Urban Development. Empowerment of urban poor women, especially those residing in slums, is the main objective of MEPMA. Major activities under MEPMA are:

- Forming the urban women Self Help Groups (SHGs) and encouraging them for internal savings and internal lending.
- Disability Intervention.
- Capacity Building of Community Based Organizations.
- Creating access to credit by providing Bank Linkage.
- Loans with Subsidies for self employment units.
- Other activities taken up under MEPMA are Placement linked skill training.
- Market linkage to the SHG entrepreneurs and their products.

MEPMA has helped in forming MAS in ULBs

Programme Outcomes

MEPMA is involved with responsibility of forming MAS in ULBs, Identification of persons positioning as ASHAs, Sharing database household on MIS based SHG. Training for ASHA, ANM, MAS, Mobilization of community in generating health seeking behaviour, mobilizing community for UHNDs and Maintaining MIS based workflow for community process in ULBs under NUHM.

Scalability

It is a newer approach wherein existing state agency/organization involving accountable stakeholders is utilized for effective NUHM implementation and may be explored in similar settings.

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HEALTH

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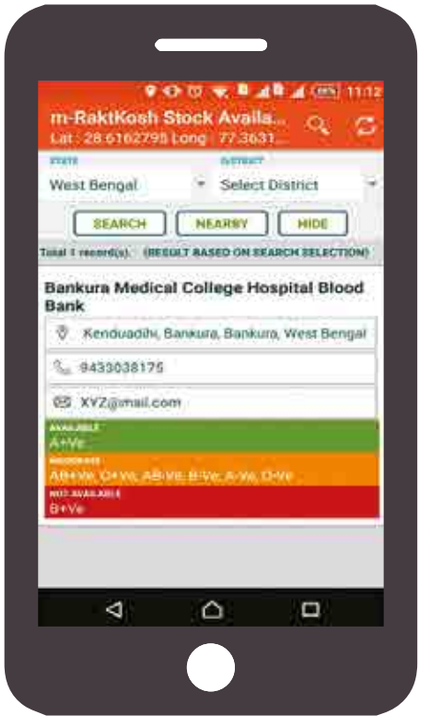
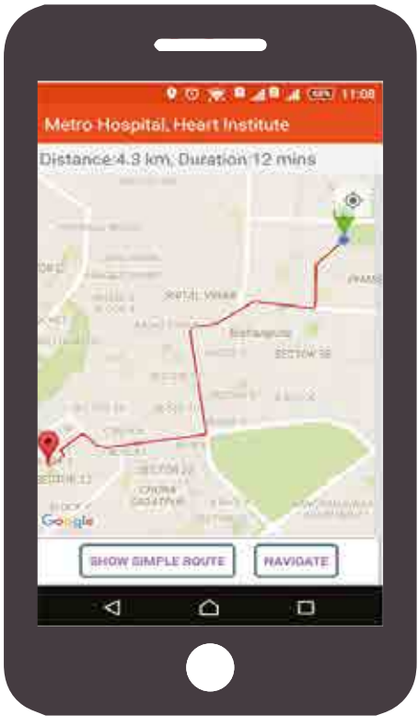
e-Rakt Kosh

Problem Statement

Despite support to blood banks, an efficient and integrated management system to link all blood banks in the country was lacking leading to poor access to blood and blood products.





Programme Description

e-Rakt Kosh is an integrated Blood Bank Management Information System that has been conceptualized and developed after multiple consultations with all stakeholders. This web based mechanism interconnects all the blood banks of the State/UT, including medical colleges on a single network. The integrated Blood Bank MIS incorporates the acquisition, validation, storage and circulation of various live data and information regarding blood donation and transfusion service. The system is able to assemble heterogeneous data into legible reports to support decision making from effective donor screening to optimal blood dissemination in the field.

Integrated Blood Bank Management Information System interconnecting blood banks of state on a single network

These electronic processes will help the public to easily access the blood availability status and requisition a particular blood group in nearby blood bank (especially rare groups). It includes online tracking and trailing system of the blood, blood components and blood products by the administrators at various levels. e-Rakt Kosh application facilitates compliance with the standards and guidelines of Drug & Cosmetic Act and adherence with the notified EHR standards so as to ensure consistency with other eHealth systems. m-Rakt Kosh app will also empower administrators and beneficiaries to access the availability of blood. The application was launched on World Health Day i.e. 7th April, 2016.

Scalability

Presently, e-Rakt Kosh is running in selected blood banks of Madhya Pradesh, West Bengal and one blood bank of Indian Red Cross Society in Delhi. Uttar Pradesh, Gujarat and Jharkhand are in the process of implementing e-Rakt Kosh application.

Telemedicine

Problem Statement

Expert and specialist consultations are limited to urban areas, and different socioeconomic factors act as barriers in accessing of the same by people living in rural/remote areas.

Programme Description

A pilot project in collaboration with ISRO started in Maharashtra on 7 sept 2006 in 2 district hospitals. This project expanded in 20 District hospitals, 2 Sub-district hospitals and 4 Medical Colleges in 2008. In year 2014-2015 – Telemedicine facility extended to 5 High focus/Tribal districts in Rural Hospitals (Manchar (Pune), Sangamner (A'Nagar), Chikhaldara (Amravati), Gokunda (Nanded) and Nanded). Objectives of this project is to provide expert consultation to patients in remote areas, provide video conferencing facility for online consultation and to provide continuing medical education for Medical and Para Medical staff.

Programme Outcome

Total 132101 patient referred & expert opinions given at District/Sub district/Rural hospital through telemedicine Centre. Online OPD conducted for paediatrics, sickle cell patients in remote and tribal area. Not only allopathic but ayurvedic, unani specialty consultation is given during video conversation.

Financial implication

Avg. cost of per patient for telemedicine consultation is Rs.862/patient, Out of this Rs.100/ patient for referral doctors and Rs.300/patient for Specialist doctors.

Implementing Partners

Sir J.J. Hospital, Mumbai and ISRO.

Scalability

This project followed holistic approach it included not only allopathic medicine but also AYUSH facilities and can be replicated in similar settings.

More than 1 lakh patients catered through telemedicine services

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Health Goes Green in Tripura

Problem Statement

There are many health institutions in Tripura situated in difficult & remote areas and uninterrupted power supply is one of the main constrain to provide smooth service delivery. As such, reliable/steady power supply is not available due to the frequent disturbance in transmission lines during the day & night time.

Power cuts in hospitals can have serious consequences. Although such failures are not a common occurrence in the State, but sometimes they represent a risk which all healthcare institutions must be prepared for.

Programme Description

There were two main objectives for installation of Alternative Solar Power System in all the functioning health institutions of Tripura:

- Hot water treatment system within the health institution.
- Uninterrupted power supply in the health institution (alternative power backup) to the Cold Chain System, wards & labour room.

More than 1000 PHCs 20 CHCs, 15 SDM and 03 DM covered under this programme of Alterneative Solar Power System

Commissioning the 1st Phase of the project was initiated in F.Y 2013-14 and it was completed in 2015 in 90 Primary Health Centers and 6 Community Health Centres (5 KWp SPV power plants, 6 CHCs, 10 KWp SPV power plants in 11 CHCs, 10 KWp SPV Power Plants in 13 Sub-Divisional Hospital and 25 KWp SPV Power Plants in 03 District Hospital.

Electrical connections from these Power Plants have been extended to patient wards, labour room, cold chain system, laboratory room, emergency, Computers etc.

2nd phase of installation is going on to cover the rest health institutions of Tripura. TREDA has the planning for installation of Solar Power Plants in all the heath establishments, presently, work for installation of Solar power Plant in 44 PHCs @ 5 KWp each, 13 Up-graded CHC @ 5 KWp each & 11 CHCs @ 10 KWp each and 2 Sub-divisional Hospitals @ 10 KWp each is under progress. Rogi Kalyan Samities of all Health Facilities will look after the maintenance of solar system at local level.

Programme Outcome

Deployment of Solar Photovoltaic Power Plant facility in different Government Hospitals has made it possible to provide uninterrupted power supply, which is beneficial for patients admitted in Hospital and for pregnant mothers to deliver newborn at labour room.

Financial Implications

The financial involvement made for installing the alternative solar power system at Health Facility level has been borne by Tripura Renewable Energy Development Agency (TREDA) and Health & Family Welfare Department both. The 90% expenditure in connection with installation of solar system has been borne by TREDA and 10% expenditure is incurred by Health & Family Welfare Department. Total Project Cost is Rs. 11.32 Crores, User i.e. Health Department share is Rs. 1.70 Crores.

Scalability

Tripura has become an inspiration to other states in the Northeast region to Go Green and make the entire region an even more Eco-friendly region in the country. The Solar Photovoltaic Power Plant of Tripura is a state of the art innovation, which may be replicated in other states, subject to local context.

Contact : shfws _ tripura@yahoo.co.in

DCP

DCP&

&

NCDs

NCDs

Prevention of Haemoglobinopathies

Problem Statement

The prevalence of beta-thalasemia and SCA in India varies between 3-17% and 5-34% respectively. Inherited haemoglobin disorders are an important cause of morbidity and mortality.

Programme Description

Programme covers the total population of around 60 million in entire state, targeting mainly specific community like Lohana, Sindhi, and tribal population. The programme was implemented in 2014 in entire state as per guidelines on prevention and control of Haemoglobinopathies develops by NHM Government of India. Under the programme new born screening is done by dried blood spot method on filter paper. All Antenatal mothers and STD VIII students are screened for thalassemia. If mother is found positive, her husband is also screened. If both parents found positive, they are advised for pre-natal diagnosis. If fetus is found

> *Programme covers the total population of around 60 million in entire state, targeting mainly specific community like Lohana, Sindhi, and tribal population*

positive, legal MTP is advised. All the patients are counselled regularly by trained counsellors at the door step of community and give colour coded card according to their status.

Financial Implications

For financial year 2015-2016 Rs.702 Lacs were approved in NHM Budget and Rs. 408 Lacs were expedited. Solubility Test and NESTSTROFF test for screening make this programme very cost effective.

Scalability

Prevention of Hemoglobinopathies programme of Gujarat has the potential to upscale it to National level.

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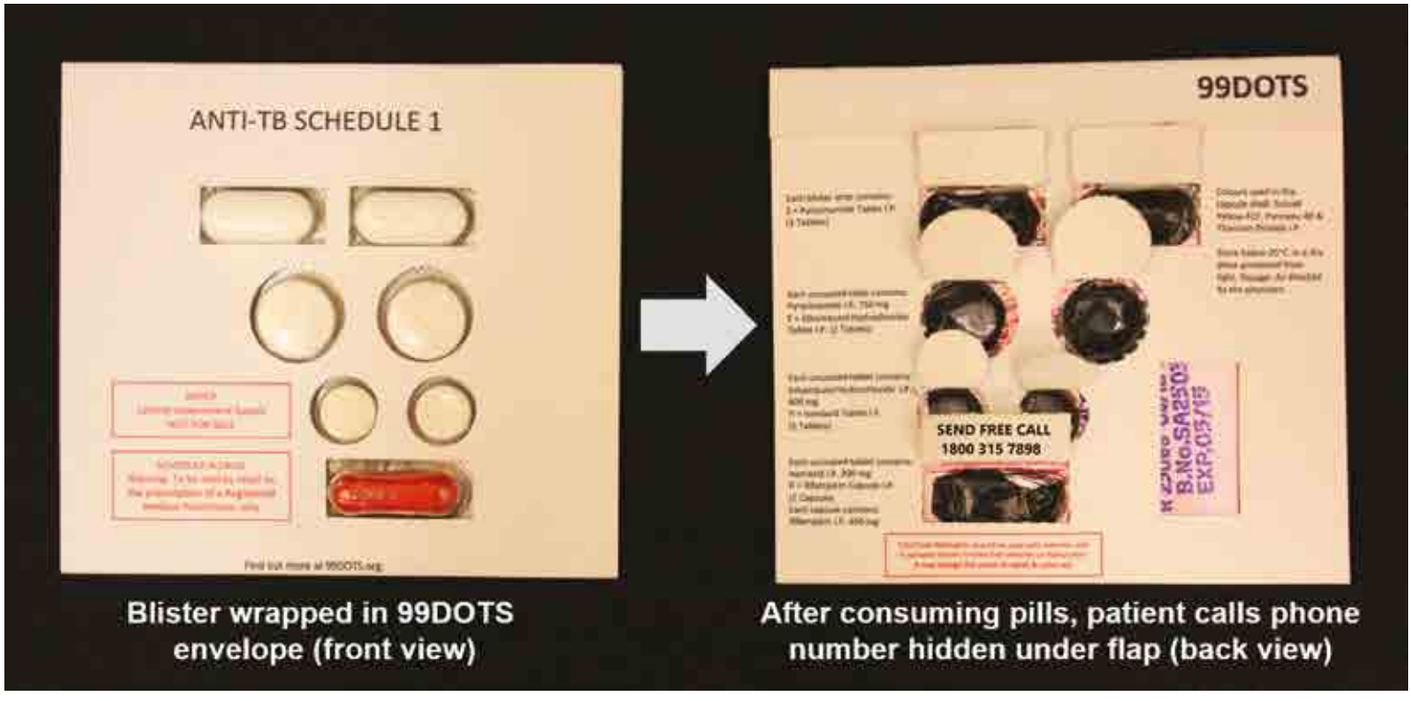
ICT Enabled Free Access to TB Drug for Private Sector Patients in Rajkot, Gujarat

Problem Statement

TB Patient diagnosed in private sector have to pay out of pocket expenses for diagnosis and treatment. Usually the TB patients undergoing treatment at the private facilities are most affected by the huge treatment costs.



Blister wrapped in 99DOTS envelope (front view)

After consuming pills, patient calls phone number hidden under flap (back view)

Programme Description

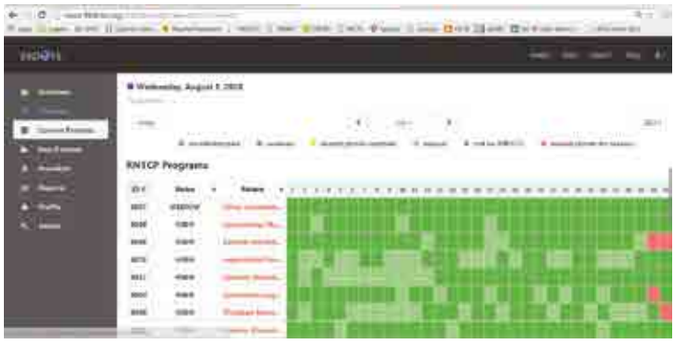
Free access to Anti TB drug for notified TB cases was initiated in Feb'2016 by providing RNTCP drug boxes wrapped in 99 envelopes. 99 DOTS is a low-cost approach for monitoring and improving medication adherence. Using 99 DOTS, each anti-TB blister pack is wrapped in a custom envelope, which includes hidden phone numbers that are visible only when doses are dispensed. After taking daily medications, patients make a free call to the hidden phone number, yielding high confidence that the dose was "in-hand" and has been taken.

> *Programme offers 3 benefits: reduced patients' burden of traveling, improves efficiency of care and enables differentiated care*

Patients call the hidden number under the pill flap, which sends a message to one of the virtual toll-free phone lines. This means that a patient will eventually call the same number more than once; however, the order in which the numbers appear is unpredictable to patients, which allow s to check that patient are dispensing doses on a requirement basis.

Programme Outcomes

Currently 75 patients initiated on RNTCP treatment by more than 19 private providers. Compared to the current standard of care, 99DOTS offers three key benefits. First, it reduces patients' burden: instead of traveling to a center for every dose, patients can provide evidence of dosing from the comfort of their home. Second, it improves the efficiency of care providers: instead of waiting weeks or months for adherence records to be digitized, supervisors can view real-time adherence data for every patient and ensure prompt response to every missed dose. Finally, 99DOTS enables differentiated care: instead of mandating that all patients receive frequent counseling, adherent patients can proceed with less supervision, while limited programme resources are focused on cases that need the most attention.



Implementing partners

State TB Cell, Gujarat and 99 DOTS team.

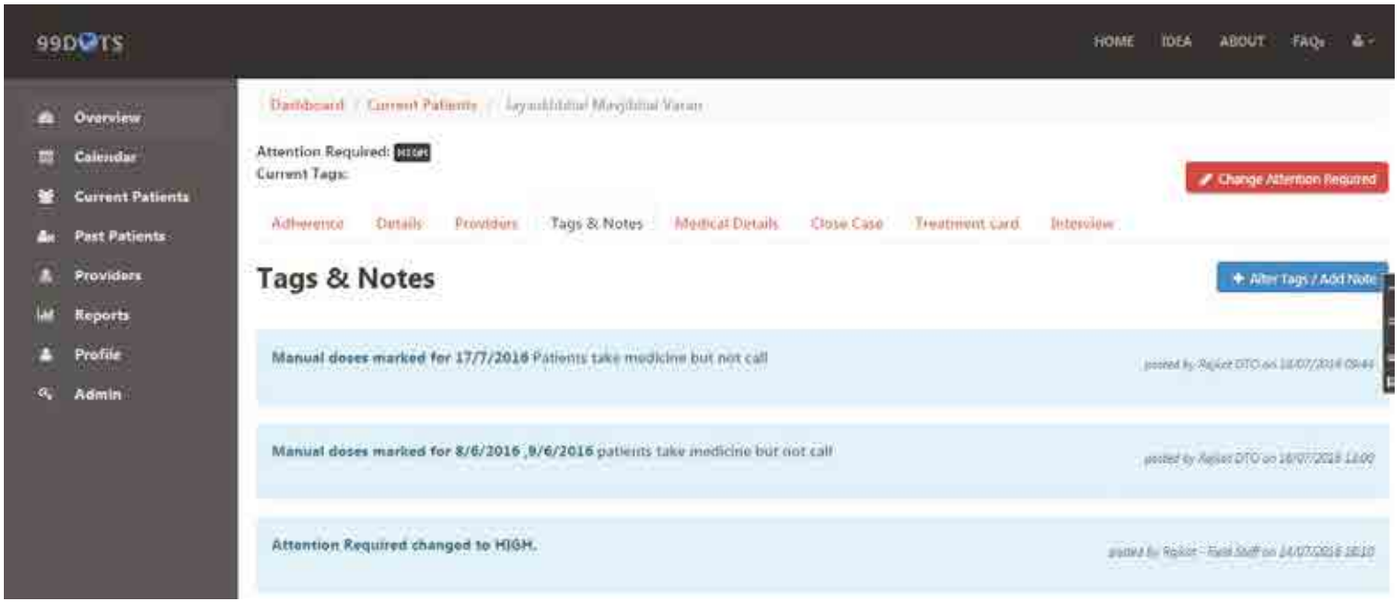
Financial Implications

The current costs for envelopes and telecom expenses are about Rs. 450 per patient for Cat I blister envelops. In addition, the cost of receiving calls and sending text messages to patients is approximately Rs. 25 for a full six-month course. The remainder of the per-patient expenses covers overhead as well as service tax incurred. Cost of envelops and ICT intervention was supported by 99 DOTS for currently registered 75 patients.

Scalability

99 DOTS intervention is implemented at various places. This can be scaled up easily.

Contact : stdcg@rntcp.org



Treatment Support Groups: *Innovative strategy to end loss to follow up during TB treatment*

Problem Statement

Kerala state was reporting 5% loss to follow up during treatment and 5% loss of patients before initiation of TB treatment.

Programme Description

Innovative strategy to support each needy patient with social support beyond direct observation of treatment was devised and piloted in Pathanamthitta district with a population of 12 lakhs, where initial loss and loss during treatment was 5% each. A treatment support group [TSG] is a non-statutory body of socially responsible citizens and volunteers to provide social support to each needy TB patient safeguarding his dignity and confidentiality by ensuring access to information, free and quality services, social welfare programs, empowering the patient for making decision to complete treatment successfully. The group is usually chaired by the president of Gram Panchayat (the lowest tier local

> *The district was reporting 5% loss in follow up during treatment and 5% loss of patients before initiation of treatment. Now the district is sustaining zero loss to follow-up after two years*

self-government), its health standing committee chairperson or a local opinion leader. Members of the group are the Medical Officer [MO], MPHW, community DOT provider, experienced informal counsellors, community based or faith based organization members, Janamythri police (citizen-friendly police), local philanthropists and other community volunteers. Routine house visits, contact screening, provision of DOT and follow up services delivery are done by the community DOT provider and Multi-Purpose Worker and clinical monitoring and screening for adverse reaction to drugs are done by the MO. Not all, but only the needy patients are provided additional support by TSG, the need being assessed by the MO, MPHW or DOT provider. TSG links the patient to social welfare schemes, District Panchayat's nutritional support project, Alcohol de-addiction or local benevolence. For example, a patient needs transportation support to go to DOT centre, a community volunteer or taxi driver may pick and drop him free of cost, or a local philanthropist may pay for the service. This support may further extend to management of comorbidities like diabetes or cardiovascular diseases, when treatment of such co-morbidities becomes costly. Programme started during end of 2012.

Programme Outcome

Initial loss to follow up and loss to follow up during treatment started falling down after a year's implementation of the strategy and touched zero by 3rd quarter 2013. The district is sustaining zero loss to follow up after two years.

An exceptional model of involving socially responsible citizen and volunteers to provide social support to TB patients

Implementing partners

General health system directly implements the program. Other stake holders are Local Self Governments, NGOs and Social Volunteers.

Financial Implications

No financial implications by the health system. Expenses are met through community sharing.

Scalability

Programme is being scaled up to the entire state. Loss to follow up rates were halved at state level. Country wide scale up is highly possible.

Contact : balkrishnans@rntcp.org

Development and Implementation of Tele-mentoring Network for Skilled Capacity Building and Quality Care in Addiction and Mental Health : *Virtual NIMHANS ECHO*

Problem Statement

The abuse of newer drugs, marijuana is on rise often affecting user's physical and mental health as well as causing devastating consequences for the family and society. The gravity of the problem of addiction on one hand (mainly in adolescents) and lack of trained service providers on the other hand has led to huge treatment gap causing an urgent need to bridge the gap in addiction mental health.

Programme Description

More than 900 health care professionals from all over India and neighbouring countries are connected to the Virtual NIMHANS ECHO. The duration of implementation of the programme is 24 months. Multipoint video conferencing was used to conduct virtual sessions with health care providers to improve their self-efficacy, further improving their interest and optimism in helping persons with addiction. The ongoing weekly NIMHANS ECHO tele ECHO sessions led by expert teams from the center for Addiction Medicine, NIMHANS consists of:

- Case based learning and Didactic learning sessions by experts.
- Seeking clarification regarding standard management.

Programme Outcome

Empowers health professionals to provide care in right place at right time to patients in their communities and to reduce health disparities, thus providing holistic specialty care in the community setting. Now NIMHANS has developed e-health materials which are useful in implementation.

Programme Output

Around 500 doctors from district and PHC have been trained.

Implementing Partners

Project ECHO, University of New Mexico, US is the intellectual partner of this initiative.

Financial Implication

Yearly recurring expenditure is Rs. 30,00,000.

Scalability

This programme can be upscaled to increase framing and skill building and generating awareness for psychological disorders and community needs on the larger scale within the country.

Programme empowers health professionals to provide care to patients and reduce health disparities within community setting

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Cancer Care Delivery at District Hospitals in Madhya Pradesh

Problem Statement

It was technically impossible to provide specialized cancer treatment (chemotherapy) services in public health facilities at District level. The reasons contributing to this were unavailability of specialized human resource, non-competitive cost of chemotherapy treatment, and poor effectiveness of services. Apart from this, a strong commitment from the Government was a must to establish such an affordable cancer treatment model.

Programme Description

This project is being implemented in 51 District Hospitals of State, providing free chemotherapy treatment to confirmed cancer patients. One month of academic training was given to MOs and nurses by Dr. Pendarkar regarding cancer awareness, quality treatment and palliative care. Cancer care camps were organized for screening and confirmed cases were referred to DH and those requiring radiotherapy and surgical intervention were referred to Tertiary centers. Patient's records were maintained using online portal (Practo) and tele-conferencing sessions were conducted by the nodal officer.

Programme Outcome

More than 130 cancer camps have been organized. More than 12,000 patients attended the camps, out of which more than 4000 have been provided chemotherapy at district hospitals. All complications were managed at district hospital which minimized the travelling cost.

Implementing Partners

Madhya Pradesh State government.

Financial Implications

Drugs worth approximately Rs 1.5 crore have been procured from April to December 2015. 19 chemotherapy drugs has been selected which will be available free of cost at chemotherapy centres of district hospitals.

Scalability

This idea has already been replicated in two districts of Odhisa. GoUP and GoWB have shown interest in replicating the model (as informed by State officials).

“More than 130 camps organized, screening 12,000 patients and providing free of cost chemotherapy to 4000 patients”

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Establishment of District NCD Complex Under NPCDCS and NPHCE in Odisha

Problem Statement

The NPCDCS and NPHCE were launched together during 2010-11 in the 5 selected districts in Odisha which were all KBK and most challenged districts as far as infrastructure and HR are concerned. Those districts were Malkangiri, Koraput, Nabarangpur, Bolangir and Nuapada. It was difficult to get the space for construction of 6 bedded ICU, 10 bedded Geriatric ward, 4 bedded Day Care Chemotherapy unit, PT unit and NCD clinic within District hospital.

Programme Description

An innovation was planned to utilize funds released Rs. 80 lakhs for construction of 10 bedded Geriatric ward under NPHCE and 20 lakhs for construction of 6 bedded ICU together. The engineering division of NRHM was requested to develop building plan of an integrated NCD Complex which will accommodate 10 bedded geriatric wards, 6 bedded ICU, 4 bedded Chemo unit, PT unit, NCD Clinic, Patients waiting space, Lab etc under one roof. Plan was drawn and with estimation within Rs.1.0 cr. The building plan was approved by State NCD Cell and Administrative approval was given to line department by DHH and funds were released from both the programs. The construction works were continuously monitored in every monthly meeting with Works department. In the mean time tendering process was initiated for procurement of ICU equipments, Geriatric beds, physiotherapy equipment, chemo equipments, lab equipments and furniture. Within one and half years the construction works completed. In the mean time the necessary staffs under NPCDCS for NCD clinic, district cancer facility and ICU. State govt created additional posts

for ICU @ 3 doctors, 10 staff nurses, 1 pharmacist, 1 lab. Technician, one X-ray technician, one gas technician and 3 ward attendants. A capsular course of 3 months on critical care and ICU management was developed and training was started at Apollo Hospital, Bhubaneswar. The NCD complex was made functional in all 5 districts with starting of ICUs in all 5 districts along with geriatric wards, physiotherapy unit, and NCD clinic.

Programme Outcome

Establishment of District NCD Complex and its operationalization within the District HQ Hospital premises resulted in development of one asset for district to deliver comprehensive care to NCD patients under one umbrella including critical care through ICUs and Cancer chemotherapy and counseling through NPCDCS staff and PT care and Geriatric medical care by NPHCE staffs. The tobacco cessation unit has also become a part of NCD complex. This complex has resulted in rational utilization of HR in a more comprehensive manner.

Implementing Partners

NPCDCS, NPHCE, District Health System and State Government will be implementing partners.

Financial Implications

Cost for setting up District NCD complex will cost Rs.1.20 crs on civil work and Rs.1.5 crs for equipments and furniture.

Scalability

Civil components of NPHCE and NPCDCS and other NCD programs can be clubbed and utilized to construct a comprehensive NCD Complex. Utilization of funds and HR will be more rational.

> *A unique approach to rationally utilize available resources and ensuring service availability under NPCDCS and NPHCE*

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District Public Health Laboratories

Problem Statement

Laboratory services are an essential component of disease surveillance, epidemiological surveys and operational research. There were no specified and functional district public health laboratories in the state to support the detection and control of epidemic prone diseases. The laboratories attached to the District Hospitals carry out diagnostic tests related to haematology and biochemistry only and were not equipped to conduct tests for the diagnosis of outbreak prone diseases. District Public Health Laboratories (DPHL) were established in each district under IDSP to support the disease control programme.

Programme Description

Under IDSP, the laboratories attached to District Head Quarters Hospitals at Cuddalore and Ramanathapuram were identified as Priority District Laboratories under IDSP by Government of India. In 2011, as part of the restructuring plan under IDSP, it was decided to set up the District Public Health Laboratories (DPHL) in the District Hospitals so that the laboratory would be beneficial to the OP/IP cases of the hospital and also to the community covering the entire district. Six District Public Health Laboratories (DPHLs) were established under NRHM in financial year 2011-2012. 24 DPHLs have been established in the remaining districts in year 2012-13. The labs at Cuddalore and Ramanathapuram were also upgraded to the modern DPHLs.

The DPHLs are functioning under the administrative control of the Director of Public Health and Preventive Medicine. The performance of all DPHLs is monitored by the Deputy Director (SPHL) and State Lab –coordinator. Specified % of positive and negative serum samples tested for epidemic prone communicable diseases like Dengue, Laptospirosis, Chikungunya, Scrub Typhus etc., by ELISA at DPHL is being sent periodically to the State headquarters viz. State Public Health Laboratory (SPHL) for cross-checking.

The laboratory is located and designed to provide suitable, direct access for patients and health staff, strategically located and well connected by road and allow for disposal of laboratory materials and specimens.

Programme Outcome

The District Public Health Laboratories are providing diagnostic services in following arena as specified in Government of India guidelines.

- Routine analysis covers blood smear examination of Malaria cases, Sputum for AFB smear examination of TB patient, Gram stain procedure for throat, Sputum, CSF, Stool culture, identification and sensitiviity testing for Vibrio cholera in case of ADD/Cholera cases, rapid serological diagnostic test and Blood Culture for Typhoid cases, IgM ELISA test for Dengue/Chkungunya, Viral Hepatitis-A & E, Measles and for other locally prevalent epidemic prone diseases, smear examination and culture for Diptheria cases, rapid Latex Agglutination Test (during suspected outbreaks) for Meningococcal disease cases.
- OT swab analysis : In addition to the above mentioned investigations, the DPHLs are playing major role in the prevention and control of nosocomical infections and surveillance and monitoring of antimicrobial drug resistance. Now periodic theatre swab analysis from PHCs and Government Hospitals is performed at the DPHL.

DPHLs providing routine lab services, OT swab analysis and outbreak investigations

- In suspected outbreaks of ADD/Cholera, drinking water sources are being investigated for faecal contamination and proper microbiological investigation of clinical samples is also being carried out to isolate the etiological agent.
- In food borne outbreaks caused by either food poisoning or food borne infections, the etiological agent are being isolated from suspected contaminated source of food samples.

Implementing partners

NHM Government of Tamil Nadu.

Scalability

This initiative is an excellent step to utilize available resources to provide public health services for detection and control of epidemic prone diseases and may be replicated by other States as well.

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Sampoorna: *Comprehensive women health care programme*

Problem Statement

Cancer is the second most common cause of death in India (after cardiovascular disease). More women in India die from cervical cancer than in any other country. One woman dies of cervical cancer every 8 minutes in India. Breast cancer is the most common cancer in women in India and accounts for about a quarter of all cancers in women in Indian cities. Therefore, Sampoorna Project has been launched with the goal to reduce mortality and morbidity due to Non communicable diseases in women. The project not only aims to screen for diseases but also makes women aware about life style modification and screening approaches which is important for prevention of Non Communicable diseases including cervical and breast cancers. The project aims to create awareness for preventive care amongst the women who are pivot of the family.

Programme Description

The project "Sampoorna" has been launched under the umbrella of NPCDCS Programme by Department of Health and Family Welfare, Uttar Pradesh which is unique, as it brings forth the preventive approach towards the non-communicable diseases (NCDs) in women. The project was launched initially in five districts as a pilot project for learning and based on the experience; it has now been expanded in further 23 districts. In this Project, "Sampoorna clinics" have been established at District women hospitals and CHCs for screening and management of women aged 30-60 years for diabetes, hypertension, Cardio Vascular Diseases, Cervical Cancer and Breast cancer. The clinics are being operationalised by female staff only, to provide women the utmost privacy and belongingness.

Training sites has been established at Medical Colleges for capacity building of different health care professionals on screening techniques and management of the diseases covered under the project.

Programme Outcome

Almost 15000 women have availed screening services in Sampoorna Clinics till now. 21% of the clients were found high risk for the cardiovascular diseases and thus referred for further investigations. Out of total 14500 screened cases for cervical cancer through VIA 2.8 % were found positive which means they had lesions in the cervix which may have develop into cervical cancer in future. These cases were treated with cryo-therapy or they were referred to the medical colleges for treatment.

Implementing partners

To roll out the program, a Memorandum of Understanding has been signed between National Health Mission, State Innovations in Family Planning Services Agency and Population Services International, India. SIFPSA leads implementation and PSI provides technical support.

Financial Implications

NHM, Government of Uttar Pradesh.

Scalability

The project has plans to reach remotest of the remote for early screening and management thus reducing heavy expenditure on treatment of Non communicable diseases including cervical and breast cancer. Project approach seems scalable.

“More than 15 thousand women screened in Sampoorna clinics and those found positive for CVD cancers or other NCDs were referred to tertiary centres”

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COMMUNITY

EMPOWERM

EMPOW

PROCESSES,

ENT & ASHA

Providing Comprehensive Primary Health Care through a Tiered Health Structure through Health and Wellness Centers with Special Focus on Screening and Management of Chronic Illnesses/NCDs

Problem Statement

Currently the care provided at the level of PHC and below is selective. With a growing burden of chronic diseases and the lack of comprehensive primary health care, such a selective package leads to fragmentation of care, patient hardship, and high out of pocket expenditure.

Programme Description

This model demonstrates the delivery of a package of comprehensive primary health care services through a health center, (Health and Wellness Center). Staffed by two ANMs and one Senior Health Worker and supported at the village/hamlet level by the Mitanin (ASHA). Through a mix of facility, community and household outreach, the center provides services for acute simple illnesses (Fever, diarrhea, cough and colds, allergy, mild pain abdomen, passing worms, mild or moderate anemia), animal bites, chronic illnesses, and a basic set of RCH services. The SHW-is a mid-level provider, trained by JSS for a nine month pre-service period, supported by a manager,

responsible for patient registration, logistics support and management of case records, and one support staff to carry samples/documents between the HWC and the referral facility. There is also a weekly visit by a team consisting of a doctor, coordinator/registrar, a pharmacist and a laboratory technician. The majority of the staff is locally recruited and deployed. There is a mandatory monthly visit by the VHW/Mitanin for every single household, with families at risk or being visited more frequently. The VHWs also undertake management of a large number of acute simple illnesses. Supervision of the VHWs is by a cluster coordinator, one HWC coordinator for four HWCs who support the chronic illness care and HWC functioning and a coordinator for women's health care. Outreach visits serve as opportunities for monthly drug distribution, patient education, and meeting of patient support groups. The principles of equity, responsiveness are integral to service delivery. The model includes an emphasis on social determinants and several innovations in tele- consultations, record keeping including birth and death registration and hospital information systems.

Programme Outcomes

Through outreach and facility visits, there are about 3.2 out-patient visits per capita per year. This is in line with the optimal clinical care patterns. Over half of the people needing care either for acute simple illness or for chronic illness get such care at their home or within their village. About one in three patients require care at the HWC, which is within 7 km, and one in ten need to travel about 50 kilometers to the Ganiyari health care facility.

Financial Implications

The programme is largely financed by sponsors interested in developing a model of primary health care delivery. There are no costs to the users within the primary care services. However, referrals to Ganiyari health care facility/hospital have to pay a level of user fees that covers a fair part of the running costs of the hospitals.

'The model is largely similar to NHM proposed comprehensive primary healthcare delivery through PHC and HWCs'

Implementing Partners

Jan Swasthya Sahyog, Government of Chattisgarh.

Scalability

The model is was partly the inspiration for and is largely similar to the NHM proposed comprehensive primary health care delivery through the Health and Wellness Centers and Primary Health Centres, and offers valuable lessons for rolling out the pilots proposed by several states. The challenges in scaling up will vary across contexts, and need to be recognized and tested in the design and scope of the pilots proposed by the states.

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Unique Institutionalization of ASHA Programme

Problem Statement

A key mechanism to address the issue of Human Resource shortages in the NHM was the recruitment of a large number of contractual staff encompassing a range of management and clinical positions. Over time however, the recruitment of contractual workers in certain positions resulted in senior and experienced field functionaries taking a back seat, a deepening of the dichotomy between the Directorate and the State Health Mission and conflicts at block and sub block levels between contractual and non-contractual employees, not just hampering implementation but also failing to productively use existing human resources.

Programme Description

In the state of Jammu and Kashmir, the support system for the ASHA programme requires 22 District ASHA Coordinators (DAC), 117 Block ASHA Coordinators (BAC) and 816 ASHA Facilitators (AFs). Instead of recruiting these personnel on contracts, as is being done in other states, the state nominated District and Block ASHA Coordinators from permanent cadre employees of the health department. These included Community Health Officers and health Extension Educators. Criteria for nomination included those who were already trained as District Resource Persons/District trainers and/or ASHA trainers demonstrated leadership ability, understanding of the ASHA programme, knowledge of various relevant guidelines/Government Orders and basic IT skills. ANMs who conformed to these criteria and who were also ASHA trainers were nominated to be AFs. District/block mentoring Groups/Grievance Committees were put in place as per GoI/State Guidelines. All support staff were oriented to the tasks of facilitation and supportive supervision.

Programme Outcomes

This institutional innovation resulted in the following outcomes: Improved functional Integration of functioning of Health Department at all levels i.e. village, cluster, block, and district/state, smooth operations of the ASHA programme, free of interpersonal conflicts, because the placement of cadres was based on merit, increasing sense of ownership among state health department officers for the ASHA programme, extremely low attrition among support staff, increased efficiency of support staff given existing orientation to the health system and community structures, and better accountability with respect to performance and review at all levels i.e., from village level to state level. This model also enabled elimination of demand for regularization.

Commendable example of functional integration of Health Department at all levels, resetting in better programme outcomes

Implementing partners

NHM, Government of Jammu & Kashmir.

Financial Implications

Since these staff were getting salaries from Health Department, only office expenses and mobility support were paid out of NHM funds. AFs were paid Rs. 600/pm, BAC were paid Rs. 1800/pm, and DAC were paid 3200/pm to meet the expenditures on account of undertaking additional functions.

Scalability

The model demonstrates an interesting institutional innovation with the potential to be scaled up by other States to strengthen ASHA and other Community Processes interventions, particularly with cadres such as Block Extension Educators and Health Education staff.

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Community Mobilization Using Participatory Learning and Action (PLA) Cycle Approach to Reduce Maternal and Neonatal Mortality in the High Mortality Areas

Problem Statement

A quarter of the world's neonatal deaths and 17% of maternal deaths occur in India. Apart from home-based newborn care, few community-based strategies to improve maternal and newborn health have been tested through the Community Processes component of the National Health Mission.

Programme Description

The intervention is based on the PLA method which has four phases. In the first phase, groups identify and prioritise common problems faced by mothers and infants during pregnancy, delivery and the neonatal period. The group facilitator shares stories and holds games that help group members identify the underlying (social) and immediate (medical) causes of their prioritised problems. In the second phase, groups identify and prioritise locally feasible strategies to address their prioritised problems. In the third phase they implement their strategies. Finally, in the four

phase, they evaluate the meeting cycle. ASHAs supported women's groups through the PLA meeting cyclex. We evaluated the intervention using a cluster-randomised controlled trial. We randomly assigned 30 geographical clusters in rural Jharkhand and Odisha, to intervention (participatory women's groups) or control (no women's groups) in a 1:1 ratio. Study participants were women of reproductive age (15–49 years) who gave birth between September 1, 2009 and December 31, 2012. Births, stillbirths, and neonatal deaths were identified, and mothers were interviewed six weeks after delivery. An interviewer checked all reports and conducted an interview with every mother. The primary outcome was neonatal mortality over a two-year follow-up period.

Programme Outcome

137 of the 152 ASHAs trained to support women's groups completed the meeting cycle, supporting 161 groups. Overall, ASHAs held 4903 meetings with an average attendance of 26 women per meeting. An average of 26 women participated in each meeting, and 66% of women who had given birth to a singleton infant during the evaluation period in the intervention arm reported ever attending a women's group meeting. 32% of meetings were attended by frontline workers such as Auxiliary Nurse Midwives and Anganwadi Workers. After two years, neonatal mortality was reduced by 31% reduction in intervention areas compared to control areas. This reduction was just as large among the most marginalised women (those belonging to Scheduled Tribes and in the two poorest wealth quintiles). We also found increases in birth preparedness and facility births among the most marginalised mothers.

Financial Implications

Each ASHA was paid an incentive of Rs. 200 for conducting each PLA monthly meeting.

Implementing Partners

"Ekjut" Chakradharpur, Jharkhand with the state governments of Odisha and Jharkhand.

Scalability

Study results indicate that ASHAs are successfully able to use PLA with women's groups to reduce neonatal mortality. This approach could be scaled to strengthen and complement interventions address the issue of neonatal and maternal mortality.

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EMERGING INITIATIVES

Health Systems Strengthening

ANDHRA PRADESH

Asara @ Araku Tribal Health Programme

Problem Statement

Araku valley is a remote hilly area covered with dense forest with no road network or connectivity making health care facilities very limited for the local tribal population.

Program Description

The Program has been in operation since 2010 in Araku Valley in Visakhapatnam District, Andhra Pradesh, India catering to a population of 43,000 spread across 181 difficult habitats. Due to the hostile terrain, people of Araku valley have very limited access to health care facilities resulting in poor health indicators. With an objective to reduce MMR and IMR, Piramal Swasthya conceptualized this project in 2010. In collaboration with Mc Arthur Foundation and Government of Andhra Pradesh, the project involves integrated approach using outreach, telemedicine and counselling sessions. These sessions are conducted by trained teams of medical and paramedical professionals.

Programme Outcome

Institutional deliveries improved to 64.7% in 2015 from 18.5% in 2010. 92.3% of the babies received breast feed within first 1 hour of birth and 97.5% of the neonates reported >2.5 Kgs birth weight. There was no report of maternal death during the past two years. Neonatal mortality has also shown reduction in the area. About 97.5% deliveries were attended by PHC doctors, Staff Nurses & trained dais.

Implementing Partners

The Government of Andhra Pradesh, Piramal Swasthya and Mc Arthur Foundation.

Financial Implications

The approximate cost per pregnant woman works out to be Rs 4125/- inclusive of providing food supplements and nutritive diet to pregnant ladies and free distribution of basic drugs.

Scalability

Project approach seems scalable but in-depth cost effective analysis is needed before wide-scale replication.

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CHANDIGARH

Alternative Medical Units: *Strengthening of sub centres in UT Chandigarh*

Problem Statement

Huge shortage of human resource affects implementation of various NHM programmes and service delivery to beneficiaries.

Program Description

Alternative Medical Units (AMU) were established as an innovation under National Health Mission, U.T., Chandigarh (NHM). These are being run by NHM in co-ordination with the Department of Rural Development. AMUs are the health facilities at village level, in which manpower is provided by National Health Mission, medicines by health department and the infrastructure is provided by the department of Rural Development. There are 17 sub centers in U.T. Chandigarh. Out of these 17 sub centres, 6 are co-located with Civil Dispensaries; as a result there is a provision of a Doctor along with the paramedical staff in these 6 villages (Dhanas, Kajheri, Hallomajra, Maloya, Kishangarh, Kaimbwala). Out of the remaining 11, 6 sub centres (Behlana, Khudda Lahora, Raipur Khurd, Khudda Alisher, Mauli & Daria) have also been strengthened by providing a Doctor along with a Pharmacist and a Helper under the innovation-Alternative Medical Units. For 7th AMU located at village-Dhanas, it has not been possible so far, to mobilise resources and support from other departments. 3 more Alternative Medical Units have been proposed in the PIP of NHM, U.T. Chandigarh (2016-17).

Programme Outcome

The success of the programme is reflected by the increase in the average OPD attendance at the AMUs. The total OPD attendance has increased from around 67 thousands in 2014-15 to more than 73 thousands in 2015-16.

Implementing Partners

National Health Mission, Chandigarh.

Financial Implications

No major costs are involved. Funds are approved for salary and operational costs under NHM.

Scalability

The approach has surely contributed in improving OPD attendance, but further outcomes need to be analyzed. The programme may be scaled up in similar settings of urban- rural mix.

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CHANDIGARH

Social Networking, Mission Convergence and Behavior Change Communication to Address Socio-Cultural Determinants of Health

Problem Statement

The health services do not effectively improve the desired health outcomes because the discrepancies between the formats for data generation and the desired outcomes are noticed in family welfare programmes. For example HMIS data shows 88% institutional delivery rates be it urban or rural, but actual home delivery rates in certain urban areas/slums are more than 65% in Chandigarh. Lack of human resources, effective IEC units, and inequity in distribution of health services to vulnerable population affect the health status of population. Lack of safe transport, poor telephone connectivity, and lack of social networking with other family members, neighbours and community may contribute to maternal and neonatal deaths in city like Chandigarh. A strong Behavior Change Communication, inter and intra-sectoral convergence, and an integrated approach is required to address the health issues and produce desired outcomes.

Programme Description

The situations analysis approach was adopted through gap analysis:

- Quality data generation, triangulation, and utilization for strategic interventions in a time bound manner. Every health worker is empowered to link one data element with other to check quality of his or her work.
- Extensive behavior change communication strategy through leadership, mentoring and supportive supervision, and administrative support.
- Reformulation of the existing formats/registers, which are not in consonance with the desired health outcomes and reports required by MoH & FW.
- GNATT/PERT application.
- Building a strong team for inter and intra-sectoral convergence.
- Building a strong referral system.
- Gaining administrative support to overcome resistance at various levels.

Programme Outcome

- Reduction in Maternal Deaths (calculated with absolute number of deaths against the deliveries amongst Chandigarh residents/birth data) from 18 to 9 in 2013 -14.
- The UT of Chandigarh worked for good governance within the existing resources and was able to get the desired number of doctors, staff nurse, ANMs. There is almost equitable distribution of health services to the vulnerable.
- Maternal, neonatal and infants deaths in Chandigarh reduced due to supportive and supervised implementation of prenatal, and early neonatal screening programme for the detection of genetically transmitted diseases.

Implementing Partner

Department of Health and Family Welfare, Chandigarh Administration.

Scalability

The initiative is fully sustainable, futuristic, replicable, feasible, and cost effective approach in health sector. It has been fully institutionalized and is successfully implemented even after the replacement of the team that started. The system has been operational for last three years and can be fully replicated by other departments and upscaled.

Contact : Director, Health & Family Welfare, Chandigarh Administration

GUJARAT

A Comprehensive Hub and Spoke Health Care Model

Problem Statement

Dharampur Taluka of Valsad district in southern Gujarat suffers from many disadvantages. Majority of people residing in and around Dharampur belong to below poverty line category, work as farm labourers with limited job opportunities and have poor access to health care services. Those inhabiting difficult to reach, far flung hamlets, specially, women and children and tribals are most vulnerable in absence of health care coverage.

Program Description

Shrimad Rajchandra Love and Care (SRLC) programme launched by Shrimad Rajchandra Mission undertakes need-based service/seva activities for the benefit of the underprivileged and tribal people of Valsad district. The health care services are provided adopting outreach and facility based mechanisms. Outreach care is provided by mobile medical units at different sites (Spokes) supported by fixed hospital facilities like Shrimad Raj Chandra and other tertiary hospitals (Hub). Primary, Secondary and tertiary care services are provided in an integrated manner by linking outreach care to hospital facilities.

Services at 'Hub' facilities include:
Tertiary care services, Neonatal Intensive Care Unit, Viklang Centre, District Early Intervention Centre, Child Nutrition Treatment Centre and Health Education Centre for Adolescents.

Services at the 'Spoke' include:
Outreach to more than 50 villages, Health Camps. Special Mother and Child Health Camps, Tie Ups with other NGOs and Government and Mobile Dental Van.

Programme Outcome

700 Surgeries, including 400 critical surgeries are conducted annually, 75 in-patients undergo treatment at any given point of time in Shrimad Rajchandra Multispeciality Hospital, 10-12 babies undergo treatment at NICU daily (annually 500 babies are treated). More than 65 Outreach Centres are visited, once a week on a "fixed-day-fixed-time" basis and over 80000 underprivileged tribal patients are being treated annually. Since 2014-15, there have been more than 50 Mamta Diwas and Maternal and Child Health Camps organized providing care to more than 1000 pregnant women children (more than 2000 in the age group of 0-5 years). The Mobile Dental Van has covered and screened almost 1500 patients and performed more than 300 procedures since its inception in January 2016. Till date, 874302 persons have been served by different departments of the organization (Outreach, OPD, IPD, Camps, Dental Van etc.).

Financial Implications

The annual need to raise donations exceed One Crore rupees (Staff salaries, Vehicle charges, Medicines and Treatment Charges, Miscellaneous). The treatment cost per patient for outreach service works out to be Rs.122 per patient.

Implementing Partners

State Government of Gujarat and Shrimad Rajchandra Mission.

Scalability

It can be easily replicated by any organization or State across the country.

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HIMACHAL PRADESH

Retention Policy for Doctors in Himachal Pradesh

Problem Statement

Himachal Pradesh is a predominantly hilly state, with exceptionally difficult terrain and harsh weather conditions. Many parts of the state regularly becomes gridlocked due to heavy snowfall. The community in the state mainly relies on the government health sector for service provision, particularly in rural and hard-to-reach areas. The state has had a perennial problem of shortage of health manpower, particularly doctors - both MBBS and specialists in these areas.

Project Description

The Government of Himachal Pradesh took cognizance of these unique challenges in providing general and specialist doctors in the state and formulated a three pronged policy to provide services of doctors in difficult areas:

1. The State has categorized various health institutions and facilties according to their location into urban, rural, hard and very hard institutions/facilities. Among these, the state has identified health institutions where doctors have not been willing to serve, over the years – and many of these are Primary Health Centres. The state has liberalized recruitment by conducting walk-in-interviews on every Tuesday at the Directorate of Health Services. The candidates appearing for interview are given the choice to work in pre-identified health institutions of their choice.
2. The state has two medical colleges where MBBS doctors can pursue post-graduation. In a year the total intake is 101 MBBS doctors for post-graduation. The state has reserved 66% seats for MBBS doctors who have served in rural, hard and very hard areas for 3, 2 and 1 year respectively. Further, after completion of post-graduation, the state has imposed a condition of serving in a CHC/DH in the same area, where they were earlier posted - and the candidate has to fill up a bond of Rs. 15 lakhs which is forfeited if they do not comply.
3. The state provides differential incentives to MBBS doctors and specialists for serving in rural, hard or very hard areas. A MBBS doctor gets Rs. 25000, Rs. 20000 and Rs. 10000 per month for serving in very hard, hard and rural areas respectively. A specialist gets Rs. 40000, Rs. 30000 and Rs. 20000 per month for serving in very hard, hard and rural area respectively.

Programme Outcome

Availability of medical officers and specialists has increased in the last 4 years in rural, hard to reach and very hard to reach areas significantly. The number of medical officers currently in position has increased from 124 to 150, and the number of specialists has increased from none to 9 in very hard to reach areas (from 2012 to 2016).

Financial Implications

The incentives to the doctors are given through the National Health Mission. The state has spent Rs. 1.46 crores in 2012-13, Rs. 4.90 crores in 2013-14, Rs 7.60 crores in 2014-15, Rs. 7.24 crores in 2015-16.

Scalability

In view of facts described above and limited implementation experience, this initiative by the state seems scalable.

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MAHARASHTRA

DHS-CPS Courses for Medical Officers

Problem Statement

Currently there is shortage of Clinical Specialists at all the hospitals run by the department of Health, government of Maharashtra, resulting in lack of specialist services at these institutes. The department gets around 80 to 90 Post Graduate in service candidates annually through Directorate of Medical Education and Research (DMER) but this is not able to fulfill the requirement of the Department as envisaged for the near future. Hence ,the need to carry out a post graduate course for doctors-DHS-CPS (Directorate of Health Services-College of Physicians and Surgeon) is strongly felt.

Program Description

Considering the need of the department to get more clinical Specialist manpower it was decided by the Directorate of Health Services to start CPS PG Diploma courses through College of Physicians & Surgeons, Parel, Mumbai.

List of Approved CPS Courses:

DOMS – Diploma in Ophthalmic Medicine and Surgery
DGO – Diploma in Gynaecology and Obstetrics
DCH – Diploma in Child Health
DPB – Diploma in Pathology and Bacteriology
DA – Diploma in Anaesthesia
DPM – Diploma in Psychiatry Medicine
DTD – Diploma in Tuberculosis Diseases
DTM – Diploma in Transfusion Medicine
DTMC – Diploma in Tropical Medicine & Health

Programme Outcome

As per the current position around 208 PG House Officers will be enrolled each year in 2 sessions (February and August) for DHS CPS Courses. After 2 years of DHS CPS courses it is expected that every year the department will get around 200 Specialist Doctors to serve in various Government Hospitals under the Public Health Department. These specialist doctors are expected to serve the government for 2 years or more as per mutual agreement (formalized by signing a bond) after completion of the course. The department will also get the qualified MBBS doctors for a period of 2 years during the residency course working as PG House Officers. Till date 2 batches have been successfully enrolled for the courses.

- In first batch (December 2015) 74 candidates were selected for CPS Courses.
- In second batch (February 2016) 41 candidates were selected for CPS Courses.

Financial Implications

- 40% seats were reserved for in service medical Officers under Public Health Department & 60% were open for Private Candidate.
- For 60% Private Candidates, the Fees charges will be Rs. 2 Lakhs per annum.
- After completing the Diploma tenure of 2 years the candidate will have to serve the government for 2 years as per mutual agreement (by signing a bond) failing which candidate is required to pay Rs. 5 lakhs as penalty.
- DHS CPS Courses has availed the facility of Honorary Physicians to be associated with this program as faculties on honorarium basis.

Implementing Partners

a) UNICEF Mumbai (Maharashtra) for state level technical manpower support.
b) CPS Office, Parel Mumbai.

Scalability

District Hospitals were identified for starting CPS courses based on the available clinical faculty with requisite teaching experience as per CPS criteria. At present 29 hospitals in 22 districts have been identified, assessed and DHS CPS Courses have been started out of total 36 districts of Maharashtra.

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MAHARASHTRA

Health Advice Call Center (104)

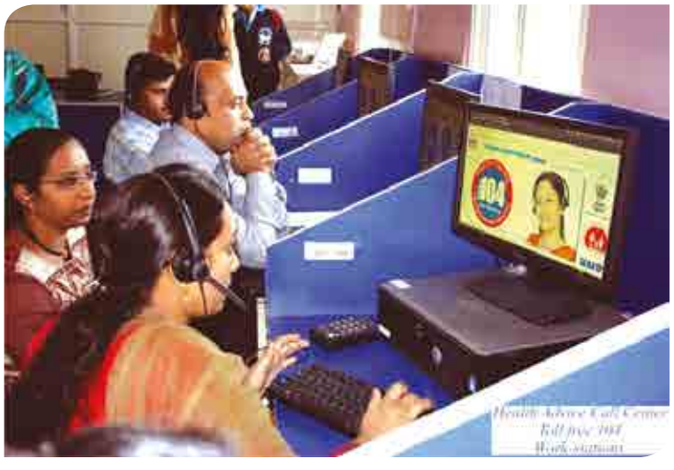
Problem Statement

Public healthcare delivery services have been strengthened through the National Health Mission. There is lack of appropriate information and knowledge among newly appointed Health Care Providers particularly those working in the remote areas. To provide real time and updated information of various Health Programs to the Health Care Providers 24x7, the National Health Mission, Government of Maharashtra has set up a 'Health Advice Call Centre'. This enables the health care provider to take quick decisions particularly at the time of emergency and provide smooth, effective and qualitative health care.

Programme Description

A caller can avail health advice by dialing 3-digit toll free number '104' from landline or any mobile phone from anywhere in the state of Maharashtra. Advice is given to caller in Marathi, Hindi and English as per request of caller. Specialist's advice by Paediatrician, Gynaecologist, Surgeon, Physician and Public Health Specialists is provided 24x7 to the caller.

Health Advisory Call Center (HACC) includes 10 seats for Health Advice for Health Care Provider,



8 seats for Grievance Redressal for frontline Health Worker and General Public, 2 seats for Blood on Call and 2 seats for Mental Health Help line.

Programme Outcome

Health care providers are availing the advices by Health Advice Call Center include-Medical Officer, PHC/PHU/AD/MMU/School Health & others, Health Staff from rural area, ANM/MPW/HA (M&F) - Regular as well as contract staff, Staff working for National Health Program - Regular as well as contract staff, ASHA and NGO Staff of MMU/School Health Team/ Sickle cell Program. Till May 2013, a total of 342118 calls were registered and attended.

Implementing Partners

NHM, Government of Maharashtra.

Scalability

As a part of an exercise of knowledge exchange and quick advice from experts, this initiative can be helpful. It could also help medical students as a part Continuous Medical Education to consult the experts.

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NATIONAL

360-degree Approach to Quality Management Systems (QMS) in Public Health Laboratories in India (Labs for Life)

Problem Statement

The quality assurance in laboratory systems and practices are very important in ensuring effective, efficient and quality health care outcomes. However, this is an area inadequately addressed in the public health care system. "Labs for Life" is a 3-year partnership initiative of the Ministry of Health and Family Welfare and Centre for Disease control and prevention (CDC), Atlanta to improve the quality of public health laboratories in India.

Programme Description

A lab for Life is a pilot initiative that is being implemented in 20 laboratories, in 11 non-metro districts, across 7 states in India; 10 in the secondary and 10 in the tertiary health care facilities. States from North, South, East and West have been chosen to represent all regions of the country. Districts with medical colleges were chosen so as to enable and demonstrate a quality assured district model for laboratory services. The Labs for Life project adopts a systematic multi-dimensional technical approach to ensure quality management systems in the identified public health laboratories, in line with the ISO 15189 and CLSI GP26; standards and guidelines. The following programmatic processes are involved in quality management system in Public Health Laboratories in India.

Baseline Assessment

The project carry out baseline assessments in all the identified facilities to understand the strengths and weaknesses; existing and emerging gaps and challenges. The District Hospital assessment tool that was designed by National Health Mission (NHM) was used for District Hospitals and the modified IDSP tool was used for Medical Colleges. Both the tools are based on ISO 15189.

Trainings : Once the gaps were understood, capacity building activities were defined and training plans developed. Training modules for the major gap areas were developed. Training of Trainers and onsite trainings were carried out for every activity. In addition, e-learning options were made available through webinars for the same topics as a reinforcement mechanism. The Labs for Life modules will be uploaded on to NHM website soon for wider reach.

Mentoring : Peer-mentoring is adopted as a key concept in the project. The project has placed regional consultants in all the chosen regions for mentoring and support. This enables the identified institutions to address the quality related issues on a day to day basis. These consultants are, in turn, mentoring the institutions to take over the onward training activities.

Implementing Partner

Ministry of Health and Family Welfare, Government of India, Centre for Disease Control and prevention (CDC), Atlanta and National AIDS Control Organisation, New Delhi.

Scalability

It is evident that this multidimensional approach of this initiative has resulted in significant changes in the participating laboratories. The evidence also indicate that the initiative can be scaled up to other parts of the country for reliable diagnostic facilities in public health sector.

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NATIONAL INSTITUTE OF BIOLOGICALS

External Quality Assessment Scheme (EQAS): *Towards making blood safer*

Problem Statement

While access to blood and blood components is critical, ensuring safe bloodis equally important. An EQAS will help prevent infections with life threatening diseases, such as Hepatitis B, Hepatitis C, HIV/AIDS, Syphilis and Malaria and even certain uncommon infections such as Toxoplasmosis, Filariasis, Leishmaniasis, etc.

Programme Description

External Quality Assessment Scheme (EQAS) is an important tool for improving quality through transfusion transmissible infection testing and blood group serology testing. The programme ensures a Comprehensive Quality Management System (QMS) in Blood Banks & Blood Storage Units to facilitate building a sustainable, integrated and standardized blood services mechanism. Under this project all government blood banks and bloods storage unites available in the state were covered. Duration of programme implementation is 2 years.

Objective: Access to safe supply of blood and blood components.

Methodology adopted: EQAS is an external assessment of a laboratory's performance in testing of known but undisclosed, content and comparison with the performance of other laboratories. EQAS plays a vital role in making blood safer.

Unique features/approach/methodology of innovative project:

- Use of standard operating procedures
- Staff Training
- Accurate and complete Documentation
- Validation of equipment, reagents, techniques and where applicable software
- Regular Monitoring of all critical Activities
- Quality control samples to monitor performance of critical activities
- Staff competency assessment
- Development of an internal audit system, using relevant standards
- A system in place for reporting, investigation and analysis of errors, with effective corrective and preventive action.

Programme Outcome

EQAS provides an opportunity for continuous quality improvement through the identification of laboratory errors to prevent their recurrence.

Financial Implications

20 lakhs for initiating in the state.

Scalability

Inter-Laboratory Comparison (ILC) will be done by the blood banks with the identified centres of the state which shall be linked with the National Coordination Centre (NIB, Noida).

The random collection of tested samples along with their results from blood banks shall be done by teams from other states identified by NIB. These samples will be tested at NIB to compare the results with those obtained from the blood banks. An analysis/audit of these results by NIB and follow up of gaps by teams from state wise training centres will help in improving the quality of TTI testing serology and Quality control of blood grouping reagents at Blood banks.

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UTTARAKHAND

HR Rationalization, NHM, Uttarakhand

Problem Statement

The country's progress towards Universal Health Coverage depends to a large extent on adequate and effective Human Resources for Health. Many states are grappling with the complexities of escalating human resource costs, additional demands on the available health workforce, uneven distribution, the issue of rationalization and skill mix imbalances.

Programme Descriptions

The State of Uttarakhand has initiated rationalization of Human Resources at the state level as periodic health system evaluations identified improper deployment of Human Resources leading to problems in service delivery. The objectives of HR rationalization include the recruitment of the right person at the right place, at the right time and with the right compensation/salary structure. An appropriate Record of Proceedings should be allocated in the budget for this.

The state has conducted rationalization by adopting a systems based approach, which in turn will affect the health status of the population by enabling better monitoring of service delivery and scalability of services. Rationalization has been carried out for the existing Human Resources by considering the following criteria: Qualification (highest), Salary (current), tasks/ functions performed and the programme in which the Human Resource is placed.

Programme Outcomes

HR Rationalization has been done to optimize the utilization of HR, which has resulted in creation of different functional cells consisting of uniform team structures. By restructuring, the current management workforce has been renamed into designations of Programme Management Coordinator, Assistant Programme Management coordinator and Data Entry Operator according to the workload in various cells.

Financial Implication

HR Rationalization at state level has resulted in savings of Rs 21.54 lakh in a year.

Implementing Partners

National Health Mission, Uttarakhand.

Scalability

Learning from good practice of the results of HR rationalization at state level, it has been extended to DPMU and BPMU levels also.

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UTTARAKHAND

Multi-purpose Welfare Camps (MPWC): *Opportunity for improving access of specialist health services to people residing in remote areas*

Problem Statement

The dispersed habitation in difficult terrain is one of the geographical features of the state of Uttarakhand. People living in upper part of hill or difficult valley could not reach to avail specialised services when they required. Also, the health department faces shortage of specialist doctors across the State. Thus many people get deprived of specialized health care services, which are available only in a few secondary and tertiary care level institutions. The multi-purpose Welfare camps provided an opportunity for the Uttarakhand State Health Department for taking specialty health services to the masses.

Programme Description

Multi-purpose Welfare camps were planned in Uttarakhand, with the prime objective of bringing and providing a range of welfare services under one roof especially in remote areas. During these camps specialist doctors from the health department were deputed for providing need based screening and therapeutic services, this initiative ensured that people residing in remote areas were able to get health consultations from specialist doctors (ENT Surgeons, Neurologists, Pediatricians, and Ophthalmologists) just by attending these Multi-purpose Welfare Camps. Key services that are being provided during these camps includes - Health Checkups and Treatment; Screening for illness and disability in children by specialist team; On spot Issue of Disability Certificates, Commodities, Financial Assistance as per need. These camps have also provided opportunity for increasing awareness and accessibility to flagship programs and schemes like JSY, JSSK, RBSK being run under NHM.

Programme Outcomes

27 Multi-purpose Welfare Camps (MPWC) have been successfully conducted across the State. 30520 Client registrations have been done over a period of one year.

Implementing Partners

Department of Health; Women and Child and Social Welfare department, ICDS, Samaj Kalyan, Education, Panchayati Raj, Revenue, Forest, Udyaan, Agriculture and Veterinary.

Financial Implications

No additional funds have been used for MPWC. Operational expenditure was done either through Corporate Social Responsibility (CSR) or using NHM funds already available in the pool.

Scalability

This innovation can be implemented in other hilly states or state with difficult terrain.

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WEST BENGAL

Development of Hospital Ranking System and Performance Score Cards by Data Triangulation of Standard Wise Quality Indicators and Key Performance Indicators

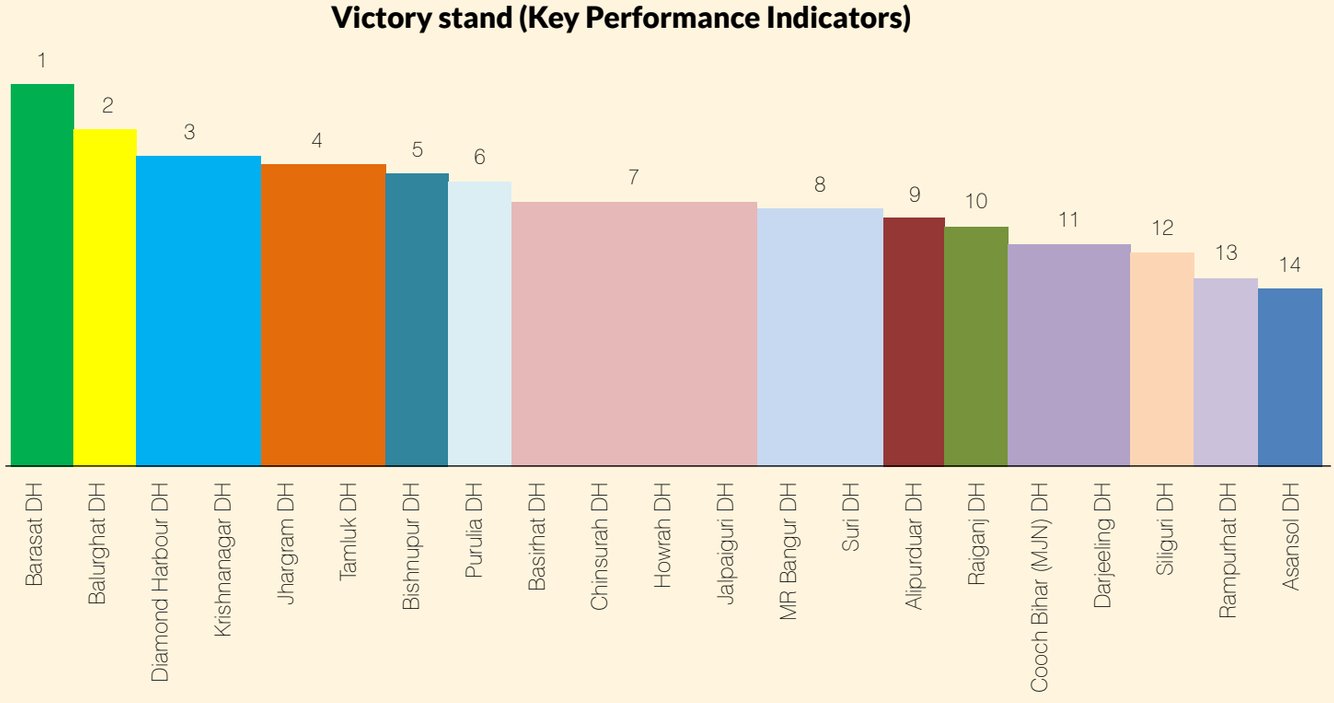
Problem Statement

Measurement is central to the concept of hospital quality improvement; it provides a means to define performance of hospitals, and it helps its comparison with set targets in order to identify opportunities for improvement. Many times quality initiatives fail to create any impacts due to inadequate focus on measuring the outcomes and reviewing the strategies accordingly.

Programme Description

With the introduction of National Quality Assurance Programme (NQAP), a set of Key Performance Indicators (KPIs) were introduced for monitoring of hospital performance, which included productivity, efficiency, clinical and service quality indicators. These are generated based on raw data input from hospitals, and are either calculated by hospital themselves or are calculated centrally. The 70 standards have been grouped within eight areas of concern. Each Standard further has specific measurable elements. These standards and measurable elements are checked in each department of a health facility through department specific checkpoints. Scored/filled-in Checklists generate department wise scorecards, total score of a hospital, area of concern wise score and individual standard wise score. This is used for

Ranking of District Hospitals Based on Key Performance Indicators



monitoring, within a hospital as well as for inter-hospital/intra-state comparison.

A system of triangulation of data derived from Key Performance Indicators and Standard wise Quality Indicators has been introduced as an innovative approach to measure performance of a hospital.

Under NQAP, KPIs were introduced in the month of January 2015. In first phase 21 District Hospitals were taken up for implementation. In July 2015, subsequently KPIs were also introduced in all Sub Divisional Hospital (SDH)s and State General Hospital (SGH)s. There are 52 raw data (either numerator or denominator) which are submitted by all hospitals every month along with calculation of 23 KPIs based on the raw data. The mean KPI values for entire year of a hospital are taken, and median value of each KPI is calculated. Weight-age criteria is decided at State level and fixed for all KPIs. Then scoring is done giving weight-age (3,2,1, and 0) accordingly for each individual KPI, and is uniformly applied to all category hospitals.

Annual performance scores are thus calculated and compared and ranking is made.

Programme outcomes

Result shows that most of the hospitals (64%) have shown a positive change (i.e. decrement of LAMA rate in current year). This may be treated as an indirect effect of this statistical intervention which has helped patients in hospitals regain confidence in the system of quality healthcare given.

Financial Implications

Cost involvement with application of this tool is nil.

Scalability

The process intervention is able to handle a growing amount of work, and its potential has been widened in order to accommodate that growth.

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Health Care Technologies

CHHATTISGARH

Addressing Reduced Power Shortage in Health Facilities by Using Solar Panels

Problem Statement

Electricity is most important and essential facility which was missing in the health facilities as result health facilities were hardly functioning during night time.

Programme Description

The State Health Department, Government of Chhattisgarh, has installed Solar Photovoltaic Power Plants in 565 healthcare institutions (466 PHCs and 99 CHCs) across the State over the past four years. The total installed capacity of the Solar Power Plants is 1,724 KW. This project aimed to enhance the capacity of health care institution with uninterrupted power supply which ensure increase in 48-hour stay after delivery, better functioning of NBCC and NBSU, cold chain maintenance and proper vaccine storage, Better implementation of Maternal and Child Health (MCH) and other national programmes and also increase functional status of health facility in night time.

Programme Outcome

The total consumption by these health institutions has been 16.95 lac units for the period up to September 2014.

Implementing Partners

National Health Mission - Chhattisgarh and Chhattisgarh State Renewable Energy development Agency (CREDA).

Scalability

It is a low cost model (only one time capital is involved) and feasible to implement specially in areas where there are difficulties in availability of conventional electricity.

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PUNJAB

Telemedicine Project

Problem Statement

About 70% of the population resides in rural areas lacking access to medical expertise and infrastructure. 90% of secondary and tertiary care facilities are in cities and towns. There are inadequate medical facilities, lack of investment in health care and low penetration of healthcare services in rural areas. The potential of telemedicine technology in providing healthcare access to rural populations and far-flung areas has long been realized, and many technical ministries of the Government of India such as Information Technology, Science and Technology, and Space have been experimenting with the telemedicine pilots. The Ministry of Health and Family Welfare has now adopted telemedicine into the NRHM as an important component for improvement of the rural health care delivery system.

Programme Descriptions

Telemedicine is an innovative healthcare delivery model which covers specialized skill gap and provides access of quality multi-specialty health

services to underprivileged population. It provides free of cost access to various specialties/Super specialties for Tele - consultation on six days of the week. The application of this involves Tele Consultation, Tele Diagnosis, Tele Treatment and Tele Education.

Telemedicine Project in state of Punjab was started in October 31, 2006 at the three hospitals (Mata Kaushalya Government Hospital Patiala, Sub-Divisional Hospital Dasuya and Ajnala) on pilot basis with the aid of ISRO and the assistance of PGIMER using Satellite technology (V-SAT). Currently, there are 27 nodes in total (I PGI, 3 GMCs, 18 District Hospitals, 2SDH). PHSC, Mohali monitors Telemedicine Centres. 22 Telemedicine nodes seek expert opinion for various specialities from tertiary care institutions. The implementation of Telemedicine has been done using a web based customized application e-Sanjeevani. Connectivity for Tele-consultations is established through BSNL Broadband.

Programme Outcomes

The health facility has enabled doctors to maintain electronic patient record (EPR). It refers patients to expert in the connected hospitals for specialized treatment or seek medical opinion. This ensured easily access to specialized health care services to under-served, marginalized, rural, semi-urban and remote areas. It reduces the visit to tertiary care hospitals and reduces travel expenses. Services under this project are free of cost and time saving. The early diagnosis and better treatment management reduces burden of morbidity.

Programme Output

There has been a steady increase in the number of consultations since the year 2008. In 2008 the number of consultations were 450 which increased 8641 in year 2015.

Financial Implications

The project is not only growing operationally but is being managed in the most economically feasible way by curtailing all extra expenditure. Provision

of contingency funds i.e Rs 1000/per month as and when required is given to facilities for the programme.

Scalability

Punjab Government is in the process of expansion of Telemedicine Project under National Telemedicine Network (NTN) : PHCs are to be included; Doctors will be incentivized; A mobile Telemedicine Unit will be provided in every district; expansion of Tele –education and modernization of telemedicine facilities keeping in view software based technologies. This scheme has been also taken up by other states also for implementation.

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RMNCH+A

MADHYA PRADESH

Strengthening Facility Based Pediatric Care & Emergency Triage & Treatment in District Hospitals

Problem Statement

An assessment conducted by NIPI Newborn Project in 2014 under the aegis of MOHFW and including paediatric experts, revealed that emergency services in addition to some other areas needed strengthening in all district health facilities resulting in delays of treatments.

District Hospital (DH) positioned in the continuum of care as a referral health facility is the most important unit in the district with regards to provision of specialist care under NHM.

Programme Description

With the support of NIPI Newborn Project, the state of Madhya Pradesh conceptualized an innovation of Emergency Triaging and Treatment (ETAT) to be implemented by trained nursesat select district hospitals.

Planning: Operational Guideline for Strengthening Facility Based Paediatric Care at District Hospitals (including ETAT) developed in 2015 by Government of India with support from NIPi Newborn Project facilitated the planning, operationalization and monitoring of services for children at District Hospitals.

Pilots for ETAT: District Hospitals at, Raisen and Hoshangabad were identified for establishing pilots for Emergency Triage & Treatment for children with support from NIPI-Newborn Project.

Infrastructure & equipment: Infrastructure was strengthened and Paediatriccare equipment mobilized for these hospitals as per facility based pediatric care guidelines.

Training package: ETAT Training Package for nurses and doctors was finalized by NIPI-Newborn Project Team and faculty from Lady Harding Medical College, KSCH, New Delhi.

Capacity building: All nurses and doctors from Raisen and Hoshangabad were trained at KSCH in two batches.

Laboratory & data management support: Swasthya Slate was installed in pilot district hospitals to provide on-site laboratory support and data recording.

Programme Outcome

Implementation results: Paediatric emergency services are now functional in district hospitals at Raisen and Hoshangabad. As per data available till end of May 2016, a total of 721 children presented to the paediatric emergency services in the two district hospitals, of which 192 (27%) had emergency signs requiring immediate care. Another 239 (33.15%)children had priority signs requiring immediate assessment and remaining were non-urgent cases.

Financial Implications

Budget items are provisioned in the GOI Operational Guidelines.

Scalability

Facility based Paediatric care requires strengthening across district hospitals statewide. This will be supported by dissemination of Operational Guidelines for Strengthening Paediatric Care to all districts.

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MADHYA PRADESH

Onsite Training for PPIUCD Services

Problem Statement

Training is an integral part of all public health programs but the dearth and unavailability of trainers often hampers the widening of scope for providing services. This is especially true in case of technical trainings which require the skills of the service providers to be honed for quality service delivery. Moreover, skill-based trainings require trainers to be away from their facility of posting thereby creating a lacuna for service delivery during this period.

Program Description

To combat the issue of dearth of trained service provider and interruption in routine clinical duties, onsite trainings for Postpartum IUCD services taken up in the state of Madhya Pradesh with support from GoI and Ipas Development Foundation (IDF). In this model, the mobile training team of IDF conducts onsite training of all the eligible staff in same facility while not interfering with their regular clinical work. This also ensures hands on experience of the trainee at their own places of work under supervision of the trainer. Onsite training not only improves the skills of the service providers but also the facility readiness to provide quality services to the clients. The trainer assesses the technical skills of the trainees at the end of the program before their empanelment with District Quality Assurance Committee (DQAC) for providing services independently. Additionally, this kind of training provides a robust platform to address the gaps instantly without any delay. Post training a nodal person is identified from the trained providers to provide regular mentoring support to other staff in the facility.

Another unique component of the program is post training support which IDF team undertakes in association with identified nodal person. IDF team visits the sites on a IDF team visits the sites on a periodic basis to mentor and clarify any doubts that the providers may have. The team and identified nodal facilitator ensure that all trained participants practice on high-quality training mannequins such as Zoe model and Mama U. This results in improved competency of trained providers and boosts their confidence in provision of IUCD and PPIUCD insertions.

Program Outcome

The onsite training has helped in increasing the pool of service providers with 878 providers trained in year 2015-16. The PPIUCD acceptance rate has increased from 2% in 2013-14 to over 15% in 2015-16.

Financial Implication

The operational cost for the program is funded under NHM PIP while the technical assistance and post training follow up cost is borne by the development partner (Ipas Development Foundation).

Scalability

This program is very easy to scale and has already started by most of the states in the country.

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MADHYA PRADESH

Mahila Swastya Shivir: *Health camps for women*

Problem Statement

There are approximately 56,225,000 women aged 15–19 living in India (as of 2014) and they do face inequalities in reproductive health services. Inequalities vary based on socio-economic status, education level, age, ethnicity, religion, and resources available in their environment.

Programme Description

Mahila Swasthya Shivir are the health camps which were conducted over a three months of period (august, September and October 2015) and covered 51 districts of the state, main objective of these camps was to ensure efficient health care delivery to women across the state. Camps were conducted for 5 days in blocks/villages and for 10 days in cities. In these camps women of all age group were screened to identify high risk pregnancy and reproductive health related complications/problems like menopause related

issues. Later these identified cases were referred to CHC or District hospitals.

Programme Outcome

An overall 23.21 lakh women from 55, 216 villages across the State were screened and examined by medical professionals. Of the 3.5 lakh pregnant women screened at the village level, nearly 67,000 women were identified as high risk cases. Nearly 10,500 of them were beneficiaries of blood transfusion at the CHCs and Civil Hospitals

Financial Implication

Total budget provisioned 74.66 lakhs,(Cost per client Rs. 3/-). Provision of Rs. 10,250 has been sanctioned for five days camp to each block.

Implementing Partners

State Government of Madhya Pradesh.

Scalability

This project conducted only for 3 months last year (2015), it's a very small duration to comment for up scaling this innovation.

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MAMTA DELHI-INTERVENTION STATE: RAJASTHAN & UTTAR PRADESH

Improving Sexual & Reproductive Health of Young Married Couples through Continuum of Care Approach with Focus on Pre-Conception Care

Problem Statement

Globally, adolescent and young married women (15-24 years) are less likely to have access to family planning and reproductive health services as compared to older women in the same community. Early childbearing among young married couples poses one of the major challenges in developing countries that have adverse reproductive health consequences in low resource settings. Limited contraceptive usage due to lack of proper knowledge, family pressure, husband's objection, poor access to family planning and other related health services often lead to early child bearing, short inter-pregnancy intervals and related morbidities & mortalities. Improving intra-spousal communication and community sensitization can be one of the key strategies to improve contraceptive use and pregnancy planning and access to reproductive health services among young married couples.

Program Description

MAMTA with support from MacArthur Foundation (USA) implemented a project- "Strengthening district health care facilities for improving the sexual reproductive health choices of young married couples" for three years (2011-2014) in Saharanpur district of Uttar Pradesh (27 villages) and Sri -Ganganagar (47 villages) district of Rajasthan, India. The project aimed to reach young married women (15-24 years) from the vulnerable communities through community based interventions for improving their reproductive health choices and improving the quality and utilization of reproductive Health care services and products provided by the public Health care facilities.

The project interventions were primarily aimed at providing education and information to young married women, their spouses and other family members along with sensitization of other community stakeholders towards improving their attitudes and behaviours on broader issues of reproductive health of young married women.

Programme Outcome

- The program was successful in engaging 3396 young married women in project activities.
- A total of 5866 individual counselling sessions were conducted for couples for adopting safe and healthy sexual reproductive health practices.
- 121 cluster level meetings with community were conducted where 2088 members were sensitized.
- Inter—spousal communication on use of contraception had improved in the intervention area as compared to baseline and control area at end-line.
- The contraceptive use increased significantly from the 40.8% (baseline) to 69.6% (end-line) in Saharanpur, whereas it is increased from 24. 2% to 48.8% in Sri Ganganagar.

Implementing partners

MAMTA with support from MacArtur Foundation (USA).

Scalability

Project approach is scalable.

Contact : mamta@yrshr.org

MIZORAM

Innovative Approach under Adolescent Health

Problem Statement

The most common and challenging problems faced by adolescents in Mizoram alcoholism, drug abuse, teenage pregnancy, abortion, STIs/RTIs – HIV, Hepatitis B & C, depression/mental problems, anaemia, under nutrition/under weight.

Program Description

Under the programme, sensitization and awareness was provided to adolescents using churches as a platform. The population of Mizoram is predominantly Christians, and church gatherings are held for youth members across the state every Sunday afternoons and Monday Nights. Participation in these gatherings has always been high, especially among adolescents. The programme targets to create awareness among the adolescents on various issues on menstrual hygiene, anaemia, substance misuse, mental health and healthy lifestyle among the youth. In co-ordination with the church, interactive discussions are held and engaging demonstrations are provided in these gatherings. The programme is able to carry out this innovation by listing the help of RKSK District Co-ordinators, Adolescent Health Counsellors and RMNCH+ Counsellors. Adolescents who attend these services are also encouraged to spread the awareness among their peers. A handout with necessary information on adolescent health is developed which are given to district level RKSK Coordinators. The handout is read out and distributed in the youth gatherings in churches. To create awareness among the parents and reach out to\ wider audience, it is also distributed in normal church services held on Sunday mornings.

Programme Outcome

The impact is reflected in steady increase in number of clients in the Adolescent Friendly Health Clinics (AFHC)/Youth Clinics in the RKSK districts. Since the start of the programme, there number of AFHC clients has increased by over 300% as shown in the graph below.

Implementing Partners

Government of Mizoram.

Financial Implications

No costs involved.

Scalability

The intervention can easily be scaled up in other States using the platform of Church or other religious platforms for improving uptake of adolescent health services.

Contact : schoolhealth.mizoram@gmail.com

ODISHA

SNCU Quality Care Index (SQCI)

Problem Statement

The state of Odisha has been able to saturate most of the District Hospitals with a functional Special New-born Care Unit (SNCU) and has an elaborate plan to strengthen these SNCUs. Ensuring regular mentoring and monitoring these units to ensure quality of care was the challenge faced by the State.

Programme Description

In this regard a State new born care Resource Centre at "Shishu Bhawan, Cuttack" was established for providing mentoring support. The state also has a SNCU online web portal to capture data against all the key indicators. However, it was observed that focussed and measurable mentoring activity leading to informed decision making, based on the real time data by the mentors and providers was not happening. Thus, a SNCU Quality of Care Index (SQCI) was developed with support from NIPI new born care project. This index comprises of 7 indices on quality of care in SNCUs. This index is calculated based on data reported from SNCU online. The SQCI was successfully rolled out in Odisha during 2015 and since then the Index has been used to evaluate the performance of all SNCUs across the state. Based on the analysis of SQCI, specific recommendations were prepared and corrective actions to improve the quality care in SNCUs are taken by the Odisha state Government. This process empowered the providers and mentors equally and in making informed decisions based on the evidence generated from their own data sets.

SNCU Quality of Care Index (SQCI)

SQCI is a composite index of 7 indices based on key indicators of assessing the quality of services in SNCUs.

The outcome indicators are also reviewed in light of the data on total number of beds, % bed utilization, % Out-born Admission, % Referred to higher facilities and % LAMA case, for decision making process.

Programme Outcome

The values of the SQCI are divided into three categories based on the range of values as mentioned below:

Performance	Range of SNCU performance Index value
Good performance	0.71 – 1.0
Satisfactory performance	0.4 – 0.7
Unsatisfactory performance	<0.4

This snapshot clearly depicts the areas which need improvement by the team and hence the skilling by the mentors need to be done and evaluated in these areas. Above table and attached excel sheet shows the analysis of SNCUs from high priority districts.

Scalability

This is a good example of utilizing the available data into generating evidence for bottleneck analysis and better planning at facility level.

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RAJASTHAN

Social Audit of Maternal Deaths

Problem Statement

Rajasthan has a high Maternal Mortality Ratio with a slow pace of decline. State has a well established maternal death review system as per guidelines but an in-depth analysis of social factors leading to death of a pregnant woman is imperative.

Program Description

The state initiated the process of social audit of maternal deaths in 2014 to use it as a platform for Behaviour Change Communication and inform the community about probable causes of death. The process of social audit of maternal deaths includes in-depth discussion of the audit team and the community representatives on the probable social causes of the pregnant woman's death. The committee includes PHC MO, Block health worker, ANM, AWW, ASHA, family members of the deceased woman, and community representatives. The ASHA has the responsibility of organising the meeting on a fixed day where the health workers also take the opportunity of imparting knowledge on preventive measures on maternal death, by quoting example of the deceased woman.

Programme Outcome

From September 2014 to February 2016, 521 maternal deaths have been reported, out of which 403 (78%) have been audited.

Implementing Partners

Government of Rajasthan.

Financial Implications

No major costs involved.

Scalability

Though the mechanism of social audit has been put in place the objective of conducting these audits is not being achieved. The audit does not have enough participation from the community. Thus this opportunity to identify the delays and address the systemic social loopholes is not delivering the expected results. The scalability of the programme is thus questionable.

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Community Processes, Empowerment and ASHA

BIHAR

PAHEL: *Towards empowering women*

Problem Statement

The Gender Development Index (GDI) places Bihar state fairly low among all the states of the country. Women's participation in governance and access to health services is low, as is manifest by low performance on indicators such as female literacy rate, maternal mortality rate, and early marriage.

Programme Description

It has been proven in several contexts that women's empowerment is intrinsic to women's health and well-being and a critical pathway to women's overall development. The Pahel Project aimed to build capacities of elected women representatives (EWRs) of Panchayati Raj Institutions (PRI) and to enable improvements in use and quality of Sexual Reproductive Health (SRH) services. A key platform in Pahel was the Mahila Sabha – a three day residential for EWRs covering a range of topics such as: orientation to PRI and linkage to health, understanding of the health services, family planning, gender inequity, roles and responsibilities of PRI members and the skill of auditing of health services by using pictorial check lists. "M-Shakti" is a feedback generation tool that used a toll free number to help EWRs exchange information, provide feedback and to collect data for evaluations.

Programme Outcomes

"Pahel" activities empowered EWRs to participate actively in meetings of Gram Sabha (GS)/ Panchayat and VHSNC. Awareness levels of EWRs have increased to 84% regarding female sterilization, contraceptive pills, government schemes and RCH services. EWRs have also started supporting ANMs, AWWs and ASHAs in their day to activities, improving convergence and effectiveness, and strengthening community

support. Coverage of M-Shakti was across 415 VHSNCs, 94 SCs, 6 PHCs, 115 Gram Panchayats, 415 villages and 800 elected members of PRI.

Implementing partners

Bihar State Government, Centre for Catalyzing Change (C3) and David Lucile Packard Foundation.

Scalability

The model demonstrates a method to engage EWRs in health related interventions, though sustained capacity building and mentoring, as well as enabling programme monitoring. The intervention has a potential to be scaled up across states with PRI, provided there is training support.

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DCP - CD & NCDs

ANDHRA PRADESH

TB Reach Wave 4 Project: *To track missing cases using innovative E & M health solutions*

Problem Statement

Along the journey of a TB patient under RNTCP, there are gaps which lead to loss of patients along the diagnosis to treatment initiation pathway.

Programme reports only registered cases whereas diagnosed TB cases (that may not be registered on treatment) are not reported.

Program Description

Project implementation period: 1-11-2015 to 31-03-2016

Project Intervention:1) Devising an electronic Lab register (e-Lab register) similar to the paper based Lab register being used currently- http://rntcp.ap.gov.in/2) Sending SMS/Voice calls at various points along the diagnostic pathway to track patients so that they are not missed; they complete diagnosis and start early treatment. 3) Linking all this electronic database to a web server 'E-Smarts'

275 DMCs across all 104 units of 6 Districts are included in the project.The target population in the proposed project are TB suspects attending the MC for sputum microscopy.

Computers were procured and supplied to 275 selected microscopy centres. Details of all TB suspects attending these centres were entered on a real time basis by trained Lab technicians into the 'e-Lab register' application developed for the project. The server connected to the application sent auto SMS/voice calls to track patients at pre decided time points.

Programme Outcome

- No. of TB suspects whose data digitalized: 65,953 (5 months' data)
- No. of SMS sent out: 3,25,370
- No. of patients receiving SMS/Voice calls: 51,887
- TB cases diagnosed: 7240
- Patients who acted upon SMS received: 3778
- Patients put on treatment: 6780
- TB cases tracked (from initial loss to follow up): 498
- Estimation of pediatric TB suspects: 2362
- No. of repeat sputum examinations: 1566 (39% Increase)
- Patients with valid Mobile numbers: increased from 27% to 93%

Implementing Partners

RNTCP, NHM, Government of AP including IT department.

Financial Implications

Cost of hardware procurement and software development was met out of the TB Reach Grant. (Government of AP). As a part of sustainability plan of the project Rs. 9 Lakh/annum has been budgeted in the State PIP for 2016-17 and has been approved at the centre.

Scalability

Project has potential to extend further to accelerate efforts to identify track and follow-up TB & MDR TB Suspects & Cases. AP State Government is currently planning to scale up to all the 611 DMCs in the State.

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GUJARAT

Certificate Course in Gestational Diabetes Mellitus (CCGDM)

Problem Statement

International Diabetes Federation (IDF) estimates that 21.4 million or 16.8% of live births to women in 2013 had some form of hyperglycaemia in pregnancy. An estimated 16% of those cases were due to diabetes in pregnancy and would require careful monitoring during the pregnancy and follow-up post-partum. In India alone an estimated 4 million women have Gestational Diabetes Mellitus (GDM). It accounts for 90% of all cases of diabetes in pregnancy, and if unrecognised and untreated, threatens the lives of both mother and baby.

Programme Description

It is a 3 years Certificate Course started in December 2012 in Gestational Diabetes Mellitus (CCGDM) and was conceptualized to train Primary Care Physicians and Obstetricians and Gynaecologists for the practice of GDM and create a cadre of manpower who would be trained in latest advances of screening, diagnosing and management of GDM. Country wide initiative in 55 Regional Training Centres in India spread across 16 states, 1 Union Territory and 39 cities.

Programme Outcome

From December 2012 it has trained 1465,928 doctors in its Cycle I and Cycle II respectively and currently 364 physicians underwent training in its third cycle. Out of total trained participants 85 agreed that CCGDM Program helped them in professional network building with GDM Physicians and 93% will recommend this course to peers as well.

Financial Implication

The overall cost incurred on a participant is 30,000 approximately but the physicians for enrolment have to pay nominal fees of Rs. 7000. The educational grant for the program has been provided by Johnson and Johnson (J & J) Medical India.

Implementing Partners

Public Health Foundation of India (PHFI), International Diabetes Federation, Dr. Mohan's Diabetes Education Academy (DMDEA).

Scalability

Various State Govts like Gujarat Government and Madhya Pradesh Government has also accepted the CCGDM Model to train their Medical Officers under National Health Mission. This project has the potential to benefit the large population.

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GUJARAT

Intensified Blinded Re-checking System to Improve Quality Assurance in Sputum Microscopy under Revised National TB Control Programme

Problem Statement

Quality assurance (QA) is a key component in smear microscopy services so it is an important part of diagnostic services under RNTCP. The QA system has been revised in 2005 and Random Blinded Rechecking (RBRC) besides the on Site Evaluation was introduced as External Quality Assurance component. In the year 2014, 1,89,090 slides were rechecked through RBRC process in state of Gujarat and the proportion of slides with errors in results of smear examination at DMCs when compared to RBRC was less than 0.2%. This low proportion of errors suggests that the existing RBRC procedures may have not been followed as per the RNTCP guideline. Hence, it is important to validate the system.

Program Description

This cross sectional study was conducted in 11 randomly selected districts of Gujarat out of 33 administrative districts. Sputum smear microscopy slides examined by Laboratory Technicians during April to Sep'2015 at all the DMCs were selected for study. Number of slides selected was as per the RBRC (old) protocol based on Annual Negative Slide Volume (ANSV) & Slide Positivity Rate (SPR) during the previous year for the respective DMC. Based on the number of Senior TB Laboratory Supervisor (STLS) available in district, IRL Microbiologist has again selected random slides considering daily cross checking capacity of 40 slides per STLS. Coding of individual slides was done and result of re-checking was captured by STLS. Definition of discordant was used as per the current RNTCP guideline. Discordant between LT and STSL results, were subjected to umpire reading by Microbiologist. Two cycle was carried out in each selected district, one for 2Q15 slides and second in for 3Q15 slides. Additionally, diagnosed patient after rechecking of slides are traced out from the community and assess for treatment. No additional budget was asked for proposed activity and it was carried out within the routine monitoring visits of districts.

Programme Outcome

Total 4037 slides were cross examined through two visits carried out in selected 11 districts. Out of total, here were 499 (12.3%) low false negative errors and 358 (8.9%, range = 3-16%) high false negative errors reported. False positive results were identified among 17 (2%) cases only.

Implementing Partners

IRL- Ahmedabad.

Financial Implications

No additional financial implication, if this intervention (IBRC) is replaced with current intervention (RBRC) overall cost will be less than the current cost. More effective utilization of STLS is estimated under IBRC compared to RBRC.

Scalability

EQA activity is a part of routine RNTCP activities. Slight modification is introduced in methodology, which is possible to scale up even at most peripheral and remote places where DMC is located.

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JAMMU AND KASHMIR

Infographics in Integrated Disease Surveillance Programme (IDSP)

Problem Statement

Frequent outbreaks of ADD, Acute Respiratory Infections, VPD, and Water Borne Diseases etc. are reported in Kashmir valley. These infographics can be printed and displayed at Health institutions and at the time of outbreaks distributed among the community.

Program Description

These infographics are printed as Flyers/Posters and displayed in all District Surveillance units (DSUs) under IDSP of Kashmir Division and flyers distributed to the community at the time of relevant outbreak.

Programme Outcome

Awareness progammnes are regularly organized to create awareness regarding the prevention of outbreaks given by health care professions (HCP) in the form of Focus group discussion and distribution of flyers (Infographics) among the community, Schools in all 12 districts of Kashmir Division of Jammu and Kashmir.

Reduction in the number of outbreaks comparing previous years is reported, however data is not provided.

Financial Implication

Within the NHM Funds for IEC.

Scalability

Use of infographics to create awareness is a common and regular feature of any health initiative.

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MAHARASHTRA

Organization of Epilepsy Camps

Problem Statement

Epilepsy is associated with stigma and, hence, it remains largely undiagnosed. During routine school examination under RBSK, it was found that many students had epilepsy and required proper diagnosis and treatment. Adding to this, there are many adults who suffer from epilepsy.

Program Description

Under this project, one day epilepsy camps were organized in different parts of Maharashtra since 2011. The objective was to educate the community about awareness, prevention and treatment of epilepsy. In these camps, 8-10 neuro physicians examined the patients. EEG test was performed for diagnosis and as intervention, physiotherapy, speech therapy and occupational therapy were provided by the experts. Counseling was also provided to the patients and patient's relatives by trained counselors. Medicines were provided for free. CME of public and private doctors was conducted at the epilepsy camp site.

Programme Outcome

From 2011 to 2016, 49 such camps were organised and 20032 persons attended, of which 10004 were examined under RBSK and 9553 were other patients. 2488 EEGs were conducted, 1339 received counselling and 4554 were given OT/PT/ Speech Therapy.

Financial Implication

Budget allocated for each camp was to the tune of Rs. 4.15 lakh and average number of patients treated in camp was 365 which incurred an average per patient cost of Rs. 1105.50.

Implementing Partners

National Health Mission, Government of Maharashtra and Epilepsy Foundation, Mumbai.

Scalability

Similar camps can be organized in areas with reported high prevalence of epilepsy in different states.

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MAHARASHTRA

Palliative Care Project

Problem Statement

Palliative Care is a multi-disciplinary approach to alleviate the suffering of patients with chronic life limiting illnesses and their families. Palliative care is required in terminal period of cancer, neurological and cardio respiratory diseases. This area of health care is largely unattended to or not given priority.

Program Description

The project is implemented in *Jawhar* block of Thane and *Igatpuri* of Nashik district through NHM, with technical support (Partnership) from Tata Memorial Center, Mumbai. Both the blocks are tribal blocks. The Pilot Project in *Jawhar* block of Thane District is being implemented since 2011-12 and was expanded to *Igatpuri* block of Nashik District in the year 2012-13. Capacity building of Medical Officers and other Health Care provider in the project area is done by Tata Memorial Center, Mumbai. Medicine required for Palliative Care such as Morphine is provided to the patients. Kit of other medical items such as dressing materials and analgesic is provided to health workers for daily care of the patients. The list of medicine is made as per recommendations of Palliative Care department, TATA Memorial Hospital, Mumbai.

Programme Outcome

The Palliative Care unit has been established at both hospitals (Thane and Nasik) for hospices services. Palliative Care is provided to OPD patients, IPD patients and by home visits. Counseling to the patients and their relatives is provided in the hospital as well as in the field (at home) by trained counselors. The patients are provided Palliative Care and counseling under the supervision of TMC team. Till date, 5044 patients have received Palliative Care in *Jawhar* and *Igatpuri* blocks.

Financial Implications

On an average, a patient spends Rs. 444/- and Rs. 302/- in Thane and Nashik districts respectively; an average expenditure of a patient in Maharashtra is calculated as Rs. 360/-.

Implementing Partners

National Health Mission, Government of Maharashtra with technical support from Tata Memorial Centre, Mumbai.

Scalability

Such evidence-based, holistic, scalable and sustainable models to be replicated in different states through Government-Civil Society partnership.

Contact : ppp.nhm@gmail.com

TELANGANA

Social & Nutritional Support to TB Patients

Problem Statement

TB cases among children <14 years of age is seen to the level 4-6% of all new TB cases being diagnosed in the Telangana State. 99% of the paediatric TB cases diagnosed under RNTCP are put on RNTCP regimen successfully. However; treatment adherence has been a major issue observed among these patients mostly due to the poor economic conditions of the family members where the paediatric TB cases are diagnosed.

Program Description

Government of Telangana has been supporting the families of the children less than six (<6) years of age who are diagnosed with TB through provision of double quota of ration through anganwadi system as they already have supplies necessary for the children and cater to the health needs of different age groups in a structured food supplementation program. The advocacy of State TB Cell led to release of the memo from the office of department of women and child welfare to the districts for provision of double nutrition to the paediatric TB patients as shared by the RNTCP at district level. The methodology planned was that the district TB cell in collaboration with the district level authorities for nutrition supplementation through anganwadi system (ICDS) will implement the initiative.

Programme Outcome

Telangana State has been implementing a state level initiative of providing double Ration to Paediatric TB patients currently on treatment under RNTCP since August 2015. So far the 45 such children have been supported through this initiative as shown in the table below:

The results in terms of adherence to the treatment are encouraging at the moment and need further evaluation.

Implementing partners

- RNTCP
- DWCD
- Anganwadi workers

Financial Implications

To be borne by state DWCD.

Scalability

Can be scaled across the country wherever the system of civil supplies exists which can cater to the needs of all children <6 years.

Same system can be expanded if the state is willing to all children up to 14 years or for all the patients depending on the on resources available and the administrative commitment of the state.

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PUNJAB

TB-HIV Intensified Activity in District Modern Jail Faridkot

Problem Statement

It was seen in 2013 few Jail inmates have a high incidence of TB due to high incidence of HIV in Jail inmates.

Program Description

Special camps were held in District Modern Jail Faridkot in 2015-16. Idea was to have early detection and early treatment and also to make Jail inmates aware about symptoms of Tuberculosis, so that next time anybody having symptoms of TB shall report to Jail Hospital or Civil Hospital Faridkot themselves on their own.

Programme Outcome

Over 2320, Jail inmates were tested for HIV and 353 inmates were found HIV positive. Out of these HIV positive inmates near about 50 inmates were started on Anti Retroviral Therapy. From HIV reactive inmates 36 prisoners were detacted suffering from Pulmonary TB and they are taking their both ART and TB treatment by admitting in TB ward Jail Hospital Faridkot.

In 2015, 220 chest symptomatic patients were examined and 37 patients were referred for sputum for AFB and free X-ray chest was done with the help of Medical Mobile Unit Faridkot. This camp yielded 15 TB cases and 5 EP TB cases and they have completed their treatment.

Because of increasing incidence of HIV and TB in Jail separate TB ward, HIV ward and De-addiction centre were established with intervention of DTO and DACO Dr. Mandeep Kaur and with the support of Jail Authorities.

Implementing Partners

District AIDS Control Programme.

Financial Implications

Funds from RNTCP and District Aids Control Society.

Scalability

In Jail more awareness regarding TB & HIV can be provided to the inmates by conducting awareness sessions, which includes Nukkar Nataks on TB & HIV by magic shows in Jail. And intervention of Axshay Project on regular basis by conducting camps regarding awareness and diagnosis and TB & HIV.

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NUHM

HARYANA

GIS Mapping of Urban Health Facilities and Urban Slums: *A tool for better planning of healthcare services to the Urban Poor*

Problem Statement

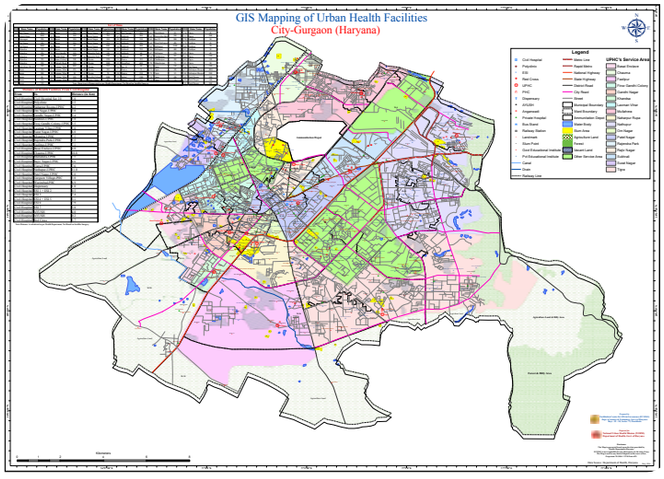
The placement, geographical location and over-all coordination of health facilities is important in ensuring that the health system can fulfil its public health function, especially in times of public health emergencies and crises. Although it is well documented how many Public health facilities are there across Haryana, no geographical representation is available of where each of these facilities is located and how easy or difficult it is for the population to access them.

Program Description

The programme had objectives of listing, identification and plotting of listed & unlisted slums on administrative level, along with spatial extension and plotting population distribution in slums on GIS maps. 29 cities were covered (21 districts and 8 cities) for GIS mapping where surveys were conducted by going directly to the field and using a GPS device or smart phone with GPS functionality to locate the health facility and measure the distance to the District Hospital/Sub divisional hospitals in each region for 29 cities. Also data was collected from the current available documents of District Programme Management Units (NUHM) and Municipal Councils and Corporations.

Programme Outcomes

1. Digital maps of all the 29 cities comprising of latitude and longitude values, service areas with transport and network layer of all the health facilities in the state of Haryana.
2. Shape files comprising of all the details of the health facilities for integration to the GIS web based programming.



Program Impact

GIS Maps have helped in rationalization of U-PHCs which are now 95 in number from earlier 130 operational U-PHCs, depending upon the location, close proximity to other existing public health facilities. Many of the Urban PHCs have been relocated, according to the NUHM framework of implementation. This activity has effectively showcased the capability of GIS as a veritable tool for decision support system for site selection for new health centres.

Implementing Partners

HSHRC, NHM and Departnemt of Science and Technology Harayana (FCGISG, HARSAC).

Scalability

Such model of GIS based mapping of the health facilities can be implemented in all the states for better planning of healthcare services to the urban poor and vulnerable population.

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