Summer Training at
National Health Mission Odisha, India
(April 1-May 31, 2014)

Community Linkage of NRC and Follow up Mechanism for Beneficiaries of NRC at Community Level: A Study in Mayurbhanj District, Odisha

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MBA- Hospital & Health Management (MBA-HM)
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CERTIFICATE

This is to certify that **Nethaji Bolla** student of Post Graduate Programme in Health Management, Institute of Health Management Research, Jaipur, batch 2013-– 15. He has done his summer training for the period **of April 1st to May 31st, 2014 with NHM, Odisha** under my guidance. During this period he has completed his study as a part of partial fulfillment of the course requirements, recommended for the Post Graduate Diploma in Health and Hospital with specialization in Health Management. Topic of study given by NHM, Odisha during his summer training was **"To study the Community linkage of NRC and follow up mechanism for beneficiaries of NRC in Baripada Block" , Mayubhunj district.**

All the data related to the study is the Primary data. His approach to the projects has been sincere, scientific and analytical.

I wish him all the best for his future endeavor.

Col. (Dr.) Ashok Kaushik
Dean (Academic & Students Affairs)
IIHMR, Jaipur

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Acknowledgement

At the onset of the report I would like to express my special gratitude and appreciation smt Roopa Mishra, Mission Director for allowing me to pursue my summer internship from National Rural Health Mission, Odisha.

I would also like to acknowledge with much appreciation the crucial role of Dr Biswajit Modak, Senior Training Consultant, SHSRC, NHM, who despite of other pre occupations and busy schedule was there to guide me and whose stimulating suggestions and encouragement helped me complete my training.

This training wouldn‟t have been completed without a substantial support from Dr D K Panda, Team leader and a great number of people so I would like to thank all the consultants in various departments and other staff members at NHM for being so helpful all the time and making this summer training project an unforgettable experience.

I express my gratitude and respectful regards to my mentor Prof. Anoop Khanna, IHMR, Jaipur for her able guidance and useful suggestions, which helped me in completing the project work .

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I would also like to thank my institution and faculty members without whom this project would have been a distant reality. My colleagues, Dr.Atul Rairker , Dr.Pankaj Mahure and Dr.Ankur Khare also hold a special mention here for believing in me and supporting me throughout the summer internship training.

Nethaji Bolla
IHMR, Jaipur

PREFACE

Summer internship is an integral part of the PGDHM currriculum.As a part of the course;students of the first year are required to undergo summer training at an organization to get in depth exposure of various departments in the organization to get a better understanding of the health care delivery system.
The major objectives of the summer training programs are as follows:

1) To better understand the existing health delivery system including public and private sectors.
2) To observe the implementation of various National Health Programmes at National/State/District levels.
3) To understand various functions of health systems by interactions with key stakeholders, policy makers, programme managers,academicians and researchers
4) To work on the project/task assigned by summer training organizations.

During my training period I had an overview of various programmes undertaken in National Rural Health Mission,Odisha including the current status of the programmes. I also carried out a small study on-

"Community linkage of NRC and community follow up mechanism of nrc beneficiaries**"**

In Mayurbhanj district , Odhisa

Abbreviations

AIDS	Acquired Immuno Deficiency Program
ANC	Ante Natal Check
ANM	Auxiliary Nurse Midwife
ASHA	Accredited Social Health Activist
AWW	Angan Wadi Worker
AYUSH	Ayurveda, Yoga and Naturopathy, Unani, Siddha, SowaRigpa and Homeopathy
CHC	Community Health Center
CLMIS	Contraceptive Logistic Management Information System
CUG	Closed User Group
DHH	District Health Hospital
GIS	Global Information System
GODMAN	Govt. Doctor‟s Information Management
HBPNC	Home Based Post Natal Care
HRMIS	Human Resource Management Information System
IMNCI	Integrated Management of Neonatal and Childhood Illnesses
IMR	Infant Mortality Rate
ITEMS	Integrated Training & Evaluation Management System
JSSK	Janani Shishu Surakhsha Karyakram
LBW	Low Birth Weight
MAS	Mahila Arogya Samitis
MDG	Millennium Development Goals
MoHFW	Ministry of Health and Family Welfare
NGO	Non Governmental Organization
NHM	National Health Mission
NHSRC	National Health Systems Resource Centre
NRC	Nutrition Rehabilitation Centre
NRHM	National Rural Health Mission
NUHM	National Urban Health Mission
OSMIS	Odisha State Malaria Information System
OVLMS	Odisha Vaccine Logistic Management System
PHC	Primary Health Center
PRI	Panchayati Raj Institutions
RKS	Rogi Kalyan Samiti

RMNCH+A	Reproductive Maternal Newborn Child Health+ Adolescent
SAM	Severe Acute Malnutrition
SC	Sub Center
SDH	Sub Divisional Hospital
SHSRC	State Health Sytems Resource Center
SIHFW	State Institute of Health and Family Welfare
TFR	Total Fertility Rate
THR	Take Home Ration
TT	Tetanus Toxoid
UHC	Universal Health Coverage
ULB	Urban Local Bodies
UPHC	Urban Primary Health Centre
VHND	Village Health & Nutrition Day
VHSNC	Village Health Sanitation & Nutrition Committee
WHO	World Health Organization

Introduction

National Health Mission ,Odhisa

The Hon'ble Ex-Prime Minister of India Dr.Manmohan Singh launched NRHM on 12 April 2005 in the country, with special focus on 18 states including Odisha. It is the *Biggest ever health project in the health sector in the last 50 years. It recognizes the importance of health care in the process of economic and social development and improving the quality of lives of our citizens. It provides effective health care to rural population throughout the country with focus on 18 states, which have weak public health indicators and weak infrastructures.*

The Hon'ble Chief Minister of Odisha Shri Naveen Patnaik in presence of the Union Minister Health & Family Welfare, Shri Anbumani Ramadoss launched the NRHM programme throughout the state on 17th June 2005 with goal of "Healthcare to All". The NRHM got changes in recent years and renamed as NHM which comprises of both rural health and urban health.

Outcomes for NHM in the 12th Plan are synonymous with those of the 12th Plan, and are part of the overall vision. Specific goals for the states will be based on existing levels, capacity and context. State specific innovations would be encouraged. Process and outcome indicators will be developed to reflect equity, quality, efficiency and responsiveness. Targets for communicable and non-communicable disease will be set at state level based on local epidemiological patterns and taking into account the financing available for each of these conditions.

Background :

This Framework for Implementation lays out the broad principles and strategic directions of the National Health Mission (NHM) encompassing two Sub-Missions, National Rural Health Mission (NRHM) and National Urban Health Mission (NUHM). It is both flexible and dynamic and is intended to guide States towards ensuring the achievement of universal access to health care through strengthening of health systems, institutions and capabilities.

This Framework draws on several sources. First, it builds on the Framework for Implementation approved by the Cabinet in 2006, for the first phase of the NRHM. The second is the learning from NRHM implementation over the past seven years, documented in several evaluation reports and studies and the experiences of people and practitioners across the rural areas of the country. Third, the Chapter on Health of the Twelfth Plan provides the broad guidance for this Framework. Finally, it also incorporates the comments and suggestions from the Planning Commission, various Ministries, and state governments.

This Framework document is intended to lay out the approach for the National Health Mission for the period 2012-2017 and beyond.

The 2006 Framework for Implementation has served the Mission well and has guided the NRHM so far. The Framework for Implementation of NUHM has been approved by the Cabinet on May 1, 2013. These Frameworks will continue to guide the NRHM and the NUHM in so far as they are not inconsistent with any of the provisions of the NHM Framework.

Vision of the NHM :

"Attainment of Universal Access to Equitable, Affordable and Quality health care services, accountable and responsive to people"s needs, with effective inter-sectoral convergent action to address the wider social determinants of health".

Core Values :

Safeguard the health of the poor, vulnerable and disadvantaged, and move towards a right based approach to health through entitlements and service guarantees.

Strengthen public health systems as a basis for universal access and social protection against the rising costs of health care.

Build environment of trust between people and providers of health services.

Empower community to become active participants in the process of attainment of highest possible levels of health.

Institutionalize transparency and accountability in all processes and mechanisms.

Improve efficiency to optimize use of available resources.

Guiding Principles :

1. Build an integrated network of all primary, secondary and a substantial part of tertiary care, providing a continuum from community level to the district hospital, with robust referral linkages to tertiary care and a particular focus on strengthening the Primary Health Care System including outreach services in both rural areas and urban slums.

2. Ensure coordinated inter-sectoral action to address issues of food security and nutrition, access to safe drinking water and sanitation, education particularly girls education, occupational and environmental health determinants, women‟s rights and empowerment and different forms of marginalization and vulnerability.

3. Incentivize states and UTs to undertake health sector reforms that lead to greater efficiency and equity in health care delivery.

4. Ensure prioritization of services that address the health of women and children and the prevention and control of communicable and non-communicable diseases, including locally endemic diseases.

5. Reduce out of pocket expenditure on health care, eliminate catastrophic health expenditures and provide social protection to the poor against the rising costs of health care, through cashless services delivered by public health care facilities, supplemented by contracted-in private sector facilities wherever necessary.

6. Ensure that all public health care facilities or publicly financed private care facilities provide assured quality of health care services.

7. Ensure increased access and utilization of quality health services to minimize disparity on account of gender, poverty, caste, other forms of social exclusion and geographical barriers.

8. Plan for differential financial investments and technical support to cities, districts and states with higher proportions of vulnerable population groups, urban poor and destitute, and with difficult geographical terrain that face special challenges to meeting health goals.

9. Strengthen state level implementation capacity to progress towards achievement of universal health care through flexible and responsive resource allocation, the creation of efficient institutional mechanisms, rules, regulations and processes to enable effective decentralized health planning and management.

10. Incentivize good performance of both facilities and providers.

11. Address shortages of skilled workers in remote, rural areas, and other under-served pockets through appropriate monetary and non-monetary incentives.

12. Promote partnerships with private, for profit, and not for profit agencies including civil society organizations to achieve health outcomes.

13. Facilitate knowledge networks and create effective public health institutions.

14. Encourage and enable the involvement of Panchayati Raj Institutions (PRIs) /Urban Local Bodies (ULBs) representatives in the governance and oversight of health services, and undertake proactive efforts for convergence and concerted action on social determinants of health such as food and nutrition, safe drinking water, sanitation and hygiene, housing, environment and waste management, education, child marriage, gender and social inequity.

15. Establish an accountability and governance framework that would include social audits through people"s bodies, community based monitoring and an effective mechanism of concurrent evaluation.

16. Mainstream AYUSH, so as to enhance choice of services for users and to learn from and revitalize local health care traditions.

17. Expand focus beyond maternal and child survival to ensuring quality of life for women, children and adolescents.

Goals, Outcomes and Strategies :

1. The key goals of this phase of NHM will be towards enabling and achieving the stated vision, making the system responsive to the needs of citizens, building a broad based inclusive partnership for realizing National health goals, focusing on the survival and well being of women and children, reducing existing disease burden and ensuring financial protection for households.

2. To achieve these goals, NHM will implement the following strategies:

2.1. Support and supplement state efforts to undertake sector wide health system strengthening through the provision of financial and technical assistance.

2.2. Build state, district and city capacity for decentralized outcome based planning and implementation, based on varying diseases burden scenarios, and using a differential financing approach. There will be a focus on results and performance based funding including linkage to case loads.

2.3. Enable integrated facility development planning which would include infrastructure, human resources, drugs and supplies, quality assurance, and effective Rogi Kalyan Samitis (RKS).

2.4. Create a District Level Knowledge Centre within each District Hospital to serve as the hub for a range of tasks including inter alia, provision of secondary care and selected elements of tertiary care, and the site for skill based training for all cadres of health workers, collating and analyzing data and coordinating district planning.

2.5. Improve delivery of outreach services through a mix of static facilities and mobile medical units with a team of health service providers with the skill mix and capacity to address primary health care needs.

2.6.Strengthen the sub-centre/Urban Primary Health Centre (UPHC) with additional human resources and supplies to deliver a much larger range of preventive, promotive and curative care services- so that it becomes the first port of call for each family to access a full range of primary care services.

2.7. Prioritize achievement of universal coverage for Reproductive Maternal, Newborn, Child Health + Adolescent (RMNCH+A), National Communicable Disease Control and Non Communicable Diseases programmes.

2.8 Expand focus from child survival to child development of all children 0-18 years through a mix of Community, Anganwadi, and School based health services. The focus of such services will be on prevention and early identification of diseases through periodic screening, health education and promotion of good health practices and values during these formative years and timely management including assured referral for secondary and tertiary level care as appropriate.

2.9. Achieve the goals of safe motherhood and transition to addressing the broader reproductive health needs of women.

2.10. Focus on adolescents and their health needs.

2.11. Ensure the control of communicable disease which includes prompt response to epidemics and effective surveillance.

2.12. Use primary health care delivery platforms to address the rising burden of Non-Communicable Diseases (NCD).

2.13. Converge with Ministry of Women & Child Development and other related Ministries for effective prevention and reduction of under-nutrition in children aged 0-3 years and anaemia among children, adolescents and women.

2.14. Empower the ASHA to serve as a facilitator, mobilizer and provider of community level care.

2.15. Strengthen people‟s organizations such as the Village Health Sanitation and Nutrition Committees (VHSNC) and Mahila Arogya Samitis (MAS) for convergent inter-sectoral planning to address social determinants of health and increasing utilization of health and related public services at the community level.

2.16. Create mechanisms to strengthen Behaviour Change Communication efforts for preventive and promotive health functions, action on social determinants and to reach the most marginalized.

2.17. Enable Social Protection Function of Public Hospitals through the universal provision of free consultations, free drugs and diagnostics, free emergency response and patient transport systems.

2.18. Develop effective partnerships with the not-for-profit, nongovernmental organizations and with the for-profit, private sector to bring in additional capacity where needed to close gaps or improve quality of services.

2.19. Improve Public Health Management by encouraging states to create public health cadre, and strengthening/ creating effective institutions for programme management, providing incentives for improved performance and building high quality research and knowledge management structures.

2.20. Support states to develop a comprehensive strategy for human resources in health, through policies to support improved recruitment, retention and motivation of health workers in rural, remote and underserved

areas, improved workforce management, required staff to help achieve IPHS norms of human resource deployment, development of mid level care providers and creation of new cadres with appropriate skill sets, and in-service training.

2.21. Enhance use of Information & Communication Technology to improve health care and health systems performance.

2.22. Strengthen Health Management Information Systems as an effective instrument for programme planning and monitoring, supplemented by regular district level surveys and a strong disease surveillance system.

2.23. Ensure universal registration of births and deaths with adequate information on cause of death, to assist in health outcome measurements and health planning.

2.24. Establish Accountability Frameworks at all levels for improved oversight of programme implementation and achievement of goals. Mechanisms for accountability shall range from participatory community processes like Jan Sunwais/Samwads, Social Audit through Gram Sabhas to professional independent concurrent evaluation.

2.25. Implement pilots for Universal Health Coverage (UHC) in selected districts in both EAG and non EAG States to test approaches and innovations before scaling up.

To ensure equitable health care and to bring about sharper improvements in health outcomes, a systematic effort to effectively address the intrastate disparities in health outcomes would be undertaken. 25% of all districts in each state that are in the lowest quintile of composite health index have been identified as high priority districts. All tribal and LWE affected districts which are below the state‟s average of composite health index have also been included as high priority districts. Further, all the LWE districts have been identified as special focus districts. These districts would receive higher per capita funding, relaxed norms, enhanced monitoring and focused supportive supervision, and encouraged to adopt innovative approaches to address their peculiar health challenges. Technical support from all sources is being harmonised and aligned with NHM to support implementation of key intervention packages.

There is a shared conviction among policy makers and public health experts that it would be at least two to three plan periods before India can provide UHC to all its citizens. NHM represents the prime vehicle for achieving UHC. The government has already taken steps towards provision of free maternal, and child health services, including newborn care, immunization, adolescent health, and family planning.

Free diagnostic and treatment services are provided for major communicable and a selected range of non communicable diseases. These need to be further expanded and strengthened.

The NHM will essentially focus on strengthening primary health care across the country. The emphasis would be on strengthening health facilities and services upto the district level in urban and rural areas. The Twelfth Plan document states that expenditures on primary health care should account for at least 70% of the health care expenditure. Tertiary care and regulatory functions should be a part of the other Central Sector and/or Centrally Sponsored scheme, namely, Human Resources & Medical Education.

Outcomes for NHM in the 12th Plan are synonymous with those of the 12th Plan, and are part of the overall vision. Specific goals for the states will be based on existing levels, capacity and context. State specific innovations would be encouraged. Process and outcome indicators will be developed to reflect equity, quality, efficiency and responsiveness. Targets for communicable and non communicable disease will be set

at state level based on local epidemiological patterns and taking into account the financing available for each of these conditions.

1. Reduce MMR to 1/1000 live births

2. Reduce IMR to 25/1000 live births

3. Reduce TFR to 2.1

4. Prevention and reduction of anaemia in women aged 15–49 years

5. Prevent and reduce mortality & morbidity from communicable, non- communicable; injuries and emerging diseases

6. Reduce household out-of-pocket expenditure on total health care expenditure

7. Reduce annual incidence and mortality from Tuberculosis by half

8. Reduce prevalence of Leprosy to <1/10000 population and incidence to zero in all districts

9. Annual Malaria Incidence to be <1/1000

10. Less than 1 per cent microfilaria prevalence in all districts

11. Kala-Azar Elimination by 2015, <1 case per 10000 population in all blocks

STATE INITIATIVES

- *Swasthya Kantha* Campaign: To provide health related communication information to rural population by writing the information on specific walls meant for the purpose. The walls are located at strategic points in most villages. The major issues tackled are "maternal health, child health, malaria and tuberculosis".
  As a result of the *Swasthya Kantha* campaign, there is increased knowledge on health and sanitation issues of the village with improved health seeking behaviour of the people.

- Innovations in relation to ASHA workers
  - ASHA HBPNC : Home based post natal care for mother and infant by ASHA.
    ASHAs are being trained for home based post natal care which has increased record keeping of immunization, breast feeding and better reporting of LBW babies.
  - Bicycles to ASHAs : ASHAs have been provided with cycles so that they can deliver better services. Cycles help in easy commuting of the ASHAs to the areas that she covers, even in areas where roads are not available. After provision of cycles, there has been an increase in immunization coverage, ANC and institutional delivery.
  - ASHA fixed day payment : To address the grievances of payment of incentives, the government has come up with the policy of having a fixed day for payments of incentives. There are 32 different incentives for ASHA workers.
    With this innovation there has been an increased motivation of ASHA workers towards their work.
  - ASHA *Gruha* : It is a resting place for ASHAs who accompany pregnant women to the hospitals for their delivery.
    The ASHAs feel very secure to accompany pregnant women even at night. As she feels safety for herself during the visit to district hospitals.

- The Government of Odisha has started the 108 Ambulance Service this year

- *Gramsat* to promote health provisions was put up to disseminate innovations and information of health issues and to review the various programmes in place. It is an excellent opportunity for discussions with block and district health officials.

- Public- private partnership:

    1. Urban Slum Health Project: Targeted for outreach and vulnerable areas. Provides services for health, hygiene, sanitation and nutrition.
    2. *AROGYA* Plus project: Specially targeted at Naxalite areas for providing health services to these areas. This project functions similarly as mobile health units
    3. PHC New project: 32 PHC (New) in very outreach areas
    4. Vulnerable Group Project : Meant for primitive tribe groups
    5. Maternity Waiting Home: Providing PNC support to pregnant women in outreach areas. Providing temporary home for expectant mothers living in hard to reach tribal areas, where they come 5-7 days before EDD and can wait for delivery

- Mobile Health Unit : To provide preventive, promotive & curative health services in the inaccessible areas and difficult terrains which are un-served /underserved under usual circumstances. With the advent of MHU‟s there has been an increase in the number of cases treated and referred. The MHU‟s function for 22 days in a month, reaching far of villages to provide quality services to them.

- *Janani* Express: Free referral transport system to promote institutional delivery and reduce out of pocket expenditure by providing nonstop free transport facility and contributing in reduction of infant and maternal mortality. The average patient load has been on a gradual increase.

- Mobile Boat Clinic: To provide basic health services to people of most inaccessible and difficult areas of *Malkanagiri* district (Naxalite area). But after its introduction, giving services to the outreach people has become easier.

- *Tika* Express: An alternate vaccine delivery system for children of difficult and tribal dominated pockets to enhance immunization coverage and strengthen routine immunization programmes. Due to this initiative, percentage of full immunization has been on a constant increase.

- Sick New Born Care Unit: To improve neonatal survival and provide special level- II care to neonates including low birth weight and sick neonates. Special initiatives like “autoclaved cotton dress”, “kangaroo care bag” and “oil cloth – with key message” are taken up. It has led to an increase in successful management of a huge number of babies.

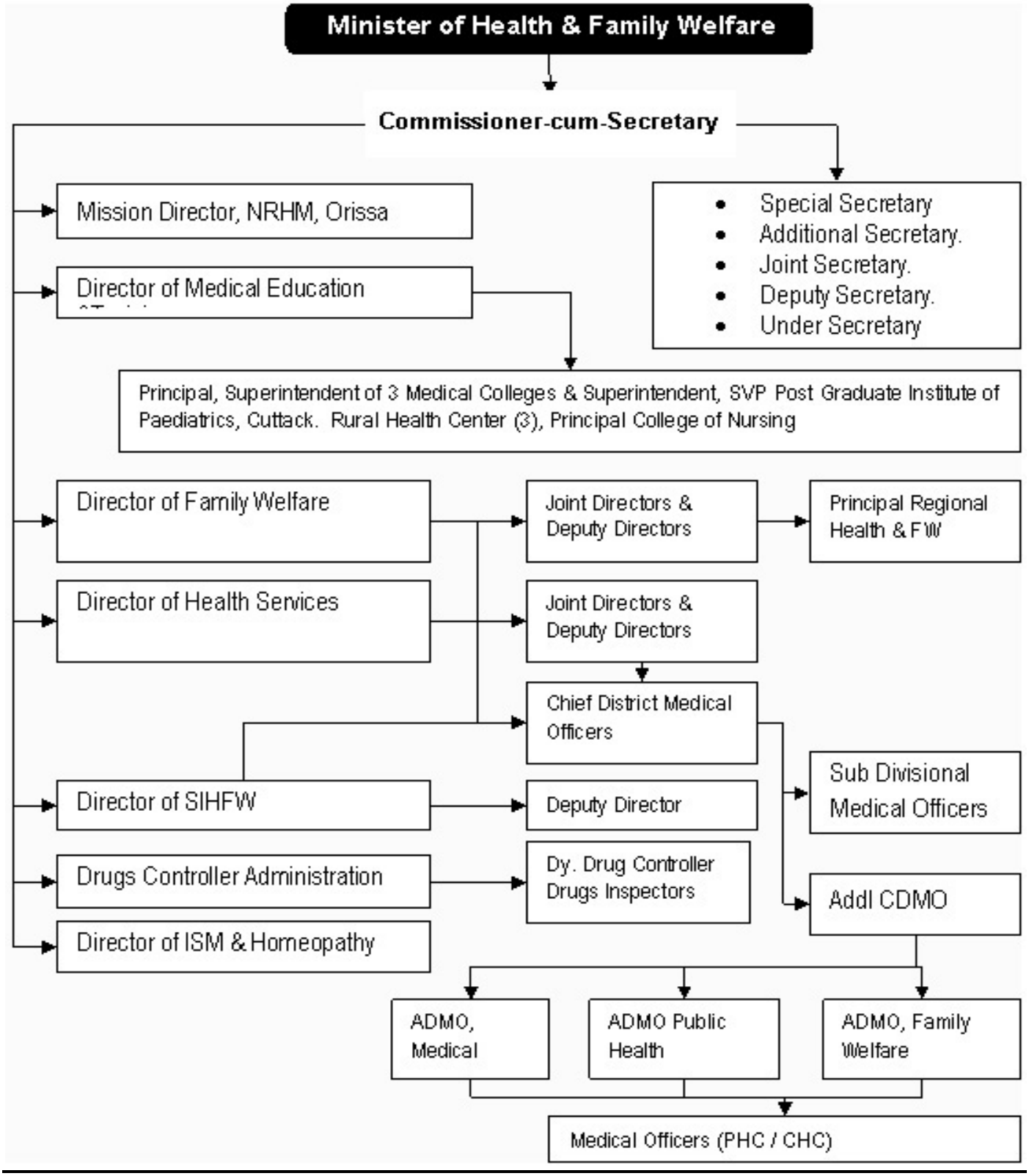
- Single Window: *Janani Sewa Kendra* for JSY beneficiaries to reach upto a mark of 100% birth registration and to provide all major MCH related benefits at facility level. With this service in place, there has been an increase in distribution of birth certificates and delivering of other services to the beneficiaries.

- IT initiatives: Various IT applications have been used to achieve the desired objectives.

    - Program monitoring applications
        - *E Swasthya Nirman*
        - Drug Testing and Data Management System
        - *E Sanjog*

        - FRU Montoring System
        - Contraceptive Logistic Management Information System (C LMIS)
        - Odisha Vaccine Logistics Management System (OVLMS)
        - Integrated Training & Evaluation Management System (ITEMS)
    - Human Resource Monitoring & Management
        - E Attendance
        - Human Resource Management Information System (HRMIS)
        - Govt. Doctor"s Information Management (GODMAN)
        - Mission Connect (CUG)
    - Citizen Centric Applications
        - E Blood Bank
        - Grievance Redressal System for JSSK Scheme
        - Telemedicine
    - Applications for Planning and Management
        - Odisha State Malaria Information System (OSMIS)
        - GIS in Odisha State Healthcare Planning & Management

ORGANOGRAM OF NHM ODISHA



List of people interacted during training period

S.No	Name	Designation
1.	Smt. Roopa Mishra, I.A.S.	Mission Director
2.	Dr. D. K. Panda	Team Leader
3.	Mr. Biswajit Modak	Senior Training Consultant
4.	Dr. P.K. Senapati	Sr. Maternal Health Manager
5.	Mr. Adait Kumar Pradhan	State Programme Manager
6.	Dr . B.P. Mohapatra	Deputy Director of Nutrition
7.	Dr. Shridhar Kadam	Associate professor, IIPH, Bhubneswar
8.	Ms. Mithun Karmakar	GIS Mapping
9.	Mr. Deepak kumar Sahu	DPM- Mayurbhanj
10	Mr. Bhagaban Meher	Deputy Manager (RCH) - Mayurbhanj
11	Dr. P.K.B. Patnaik	Jt. Director Public Health (NCD)
12	Mr. Chandanesh Mishra	Consultant Adolescent Health
13	Dr. Bikas Patnaik	Jt. Director Public Health (IDSP)
14	Dr. Prameela Baral	Dept. Director IDSP (Disaster management)
15	Mr. K. K. Das	Deputy Director SIHFW (Training)
16	Mrs. Ranjita Patnaik	Jt. Director Health services (Rural Health)

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Research Summary

Research Topic:

To study the Community linkage of NRC and follow up mechanism for beneficiaries of NRC in Baripada Block, Mayubhunj district.

Background: Even after 67 years of independence India is still struggling to fill some of the basic requirements out of which malnutrition major concern.

In India, the prevalence of SAM in children remains high despite overall economic growth. The National Family Health Survey-3 revealed that 6.4 percent of all children under-five years of age are severely wasted. (1)

According to the National Survey (NFHS-3, 2005-06)

- 43 percent children under age of five years are underweight (low weight for age).
- 48 percent children under five are stunted (low height for age).
- 20 percent children under five years of age are wasted (low weight for height);
- Over 6 per cent of these children are severely wasted (<-3SD). Since „wasting" denotes acute malnutrition, these children are said to have **Severe Acute Malnutrition or SAM**

India has the largest child development program in the world, yet the progress on malnutrition is limited. A new study says 42% of children in India under the age of five are underweight, and nearly 60% are stunted. The prevalence of underweight children in India is highest among the world and nearly double that of sub-Saharan Africa. (2)

40.7% of the children in Odisha are underweight and more girls than boys suffer from severe malnourishment in the state.(3)

Management of the severely malnourished children does not require sophisticated facilities& equipments or highly qualified personnel. It does require that each child be treated with proper care & affection, and that each phase of treatment be carried out properly by approximately trained and dedicated health personnel"s. When this is done, the risk of death can be substantially reduced and the opportunity for full recovery greatly improved.

Nutrition Rehabilitation Centre (NRC) is a unit in a health facility where children with SAM are admitted & managed. Children are admitted as per the defined admission criteria & provided with medical & nutritional therapeutic care. Once discharged from the NRC, the child continues to be in the Nutritional Rehabilitation program till she /he attains the defined discharge criteria from the program.

The centre is only component of a larger child survival strategy called Integrated Management of Neonatal and Childhood Illnesses (IMNCI). In October of 2005, UNICEF and the Government of India partnered to implement IMNCI in 25 districts across the country.(4)

Severe acute malnutrition is defined by very low weight-for-height/length (Z- score below -3SD of the median WHO child growth standards), a mid-upper arm circumference <115 mm, or by the presence of bilateral pitting edema.

Children are admitted as per the defined admission criteria & provided with medical & nutritional therapeutic care. Once discharged from the NRC, the child continues to be in the Nutritional Rehabilitation program till she/he attains the defined discharge criteria from the program.(WFH -1SD)

Development of emotional & physical stimulation, capacity building of the primary caregivers of the child with SAM through sustained counseling and continuous behavioral change activities are part of NRC activities. Hence, NRC will be a short stay home for children with SAM along with the primary care givers.

The children with SAM are at first screened by AWW in the community.

↓

Identified SAM children admitted to NRC

↓

After reaching the discharge criteria (15% target weight gain , no pitting edema) the child will be discharged from NRC.

↓

Discharged children come for follow up in NRC.

↓

Follow up support by ASHA/ AWW at community level.

Follow up of children discharged from NRC:

As per the standard guidelines Children discharged from NRC should be followed up at the community level to ensure appropriate feeding, follow up at NRC for scheduled visits and to identify children who are not responding to treatment for referral to the facility level.

Discharge from the facility (NRC)

→

- Enrolment in AWC
- Supplementary nutrition
- Home visits by AWW/ASHA (Every week in the first 4 weeks and then once in 2 weeks till the child is discharged from program)

→

- Timely follow up
- ASHA to accompany the child to NRC

→

- AWW & ANM to conduct follow up assessment and monitoring of growth & development during VHNDs till child recovers completely.

Review of literature:

- According to HNP the World Bank report, In India, child malnutrition is responsible for 22 percent of the country‟s burden of disease. Under nutrition also affects cognitive and motor development and undermines educational attainment; and, ultimately impacts on productivity at work and at home, with adverse implications for income and economic growth. Micronutrient deficiencies alone may cost India US$2.5 billion annually.(5)

- Under nutrition is associated with high rates of mortality and morbidity and is an underlying factor in almost one-third to half of all children under five years who die each year of preventable causes.(1)

- According to J.M.Bengoa, In a study carried out at the centre in Guatemala city , 8.1% of patients had to be readmitted to NRC because of relapse of SAM (6)

Research question:

- What is the linkage of NRC with community and community follow up mechanism for NRC beneficiaries ?

Objectives:

- To study the linkage between NRC to community.
  Indicator-

  % of care givers/ mothers called up by NRC about follow up visit after discharge.

  % of AWW contacted by NRC about follow up visits of discharged children .

  % of discharged children visited to NRC for follow up visits.

- To assess the follow up mechanism of discharged children from NRC, at community level.
  Indicator-
  % of children accompanied by ASHA to NRC for follow up.
  % of Home visits by AWW/ ASHA to NRC discharged children.
  % of discharged children from NRC enrolled at AWC.
  % of children visited to VHND after discharge from NRC.
  % of beneficiaries received supplementary food/ take home ration.

Rationale for the study:

- MDG-4 to reduce child mortality by two thirds cannot be achieved without tackling malnutrition.(7)

- Malnutrition during childhood has an impact later in life as it is associated with significant functional impairment, to treat these children it doesn‟t require sophisticated equipment or long stays at hospitals, all they need is proper care and timely visit to doctor as per requirement.

- There by the conclusions obtained from the study can help in improving quality of follow up mechanism at community level.

Research methodology:

Study design:

- Quantitative research design
- Descriptive study

Study time line:

- 2 months

Study area:

- Baripada DHH & Rairangpur SDH
  Mayurbhanj district, Odisha

Study population:

- *Mother /Caregiver of Beneficiaries of NRC (Discharged children from NRC in the months of December 2013 & January 2014)
- *ASHA/AWW of identified sub centre‟s
- NRC counselor
  *who are willing and satisfying the criteria.

Sample size:

- Caregiver/ Mother - 14
- ASHA -05
- AWW- 05
- NRC counselor/ staff- 02

Sampling technique:

- Non probability sampling (Purposive sampling)

Sources of data:

- Primary data – will be collected in the form of face to face interview through semi structured questionnaire and in depth interview.
- Secondary data from NHM – odisha

Data collection:

- **Technique-** Direct interview
  In depth interview
- **Tool –** Semi structured questionnaire.

Data analysis plan:

- Filled questionnaire will be checked on the spot for its completeness.
- Coding of all the answers.
- Data entries, editing, coding/recoding will be done in Excel.
- After testing association and differences, interpretations and conclusions will be made.

Limitations:

The following limitations of the survey were identified:

a) Sample sizes taken was small and the size might not represent the entire universe of the study.

b) Time constraints limited the various activities of the project.

c) Language barrier acts as hurdle for data collection.

Ethical Considerations:

- Informed consent will be taken from respondent
- Purpose and objectives of the research will be explained before to the respondents.
- Privacy and confidentiality will be maintained.

Work Plan:

	Week1	Week2	Week3	Week4	Week5	Week6	Week7
Document study and development of study design and tools							
Field testing of tools ,field study and data collection							
Data analysis							
Finalization of Data And Presentation							
Relieved from NRHM							24th May‟14

Results

The analysis of results mainly covers two parts. First, the percentage increase/decreases over time in the various indicators to be measured. And secondly, to understand and interpret the qualitative information obtained from the structured questionnaire and in depth interviews, bring them out in support of the quantitative data.

Out of total discharges of 20 children from NRC's in the months of December, 2013 and January, 2014 the children turned up for follow up visits

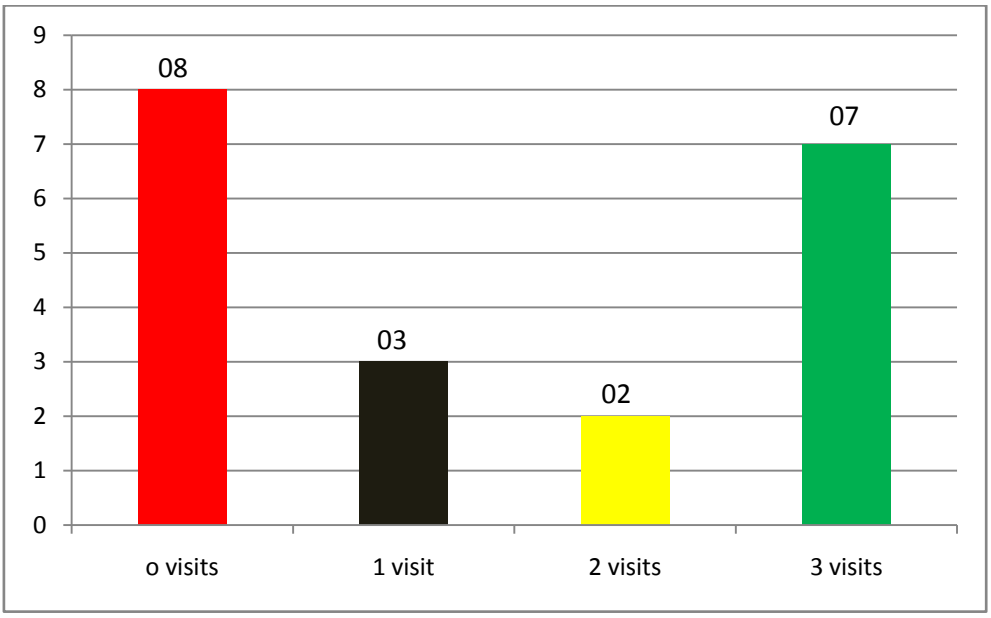

Figure : 01

The question of number children visited the NRC after discharge. As per the standard guidelines schedule of the follow up visits is as follows.

First visit – 15 days from the discharge
Second visit – 15 days from the first visit
Third visit – 30 days from the second visit

Which in total comes as in 2 months. As per the data received from the NRC counselors of two NRC centers of Baripada and Rairangpur from Mayurbhanj district. The data clearly shows that there large propotion of drop outs from the follow up visits. Out of 20 discharges in the months of December, 2013 and January , 2014 only 07 children had three complete follow up visits.

Children visited NRC after discharge (N=14) (Mothers as respondents)	
Yes	06
No	08

Table no : 01

This question was asked to mothers of beneficiaries. Out of 20 children questionnaire was asked to 14 as per the availability. So as to assess the follow up rate. Out of 14 children only 6 children completed the 3 follow up visits, despite of the receiving Rs. 100/- fro transportation cost as incentives during each visit.

Children accompanied by ASHA during NRC follow up visits

The question regarding number of children accompanied by the ASHA during follow up visit to NRC, which is recommended to follow according to standard guidelines. The same question was asked to mothers of beneficiaries who completed the 3 follow up visits to NRC and to the ASHA in the respective community.

Children accompanied by ASHA during NRC follow up visits (Respondents were mothers , N= 06)	
Yes	02
No	04

Table no: 02

Children accompanied by ASHA during NRC follow up visits (Respondents were ASHA , N= 05)	
Yes	01
No	04

Table no: 03

As per the response received from mothers and ASHA, both the tables no. 02 and 03 shows that less number of the children were accompanied by ASHA during the follow up visits to NRC.

Calls received from NRC about NRC follow up visits

This question is asked to assess the follow up the mechanism followed by NRC counselor to remind the family members of the beneficiaries, and the ASHA/ AWW about the schedule of visits to NRC. Again this question was asked to both mother of beneficiaries and community level ASHA/ AWW.

Calls received from NRC about NRC follow up visits (Respondents were mothers, N=14)	
Yes	00
No	11
NA (no mobiles)	03

Table no. 04

Calls received from NRC about NRC follow up visits (Respondents were AWW/ ASHA, N=10)	
Yes	04
No	06

Table no. 05

The data received from the respondents illustrates interesting facts about the follow up mechanism from the NRC to community. In the table no. 04 it clearly shows that none of the mothers or any family members received phone calls from NRC to remind about the visits and some of the respondents don‟t have the mobile to contact them. Table no.05 shows the response of ASHA and AWW in which only 04 respondents received the phone calls from respective NRC.

Home visits by AWW/ ASHA to NRC beneficiaries

This question was asked to assess the community level mechanisms to keep the track of children discharged from NRC. As per the standard guide lines the AWWs should prioritize these children for home visits, every week in the first 4 weeks and then once in 2 weeks till the child is discharged from the program.

Home visits by AWW/ ASHA to NRC beneficiaries (Respondents were mothers, N= 14)	
Yes	11
No	03

Table no: 06

Home visits by AWW/ ASHA to NRC beneficiaries (Respondents were ASHA/AWW, N= 10)	
Yes	08
No	02

Table no: 07

The data received from the both the respondents shows that significant number of AWW and ASHA workers were regularly taking the home visits to the NRC beneficiaries after discharge. Which is a good sign to look after the children and make sure mothers following the standard practices in providing nutritious food .

Enroll the children discharged from NRC

After discharge from NRC, beneficiaries need to register at the AWC in their community for different activities like VHND, for providing the Take Home Ration (THR) and for the ASHA/ AWW home visits. So registration at the AWC after discharge from NRC is necessary step.

Enrolling of children discharged from NRC at AWC (Respondents were AWW/ ASHA, N= 10)	
Yes	07
No	03

Table no: 08

When this question was asked to mothers the response was different from the response of AWW/ ASHA at their community. According to mothers of beneficiaries all the children were registered at AWC of their respective community. But when the same question was raised at AWW/ ASHA out of 10 AWC visited 3 centers do not have the proper documentation and registers were maintained.

Children visited the VHND after discharge from NRC

NRC discharged children were suppose to visit the VHND (Thursday or Friday) which happens weekly once at AWC. Through which the health status of the child updated to mother and depending on it necessary actions will be taken if required. During the time of visit to VHND the children were weighed, look for any medical complications and appetite test conducted by asking the history to the mothers. So weekly visit VHND to important to maintain the health status of children.

Children visited the VHND after discharge from NRC (Respondents were mothers, N= 14)	
Yes	11
No	03

Table no: 09

The data shows that attendance rate of NRC beneficiaries to VHND was high and only 3 respondents out of 14 were not attended the VHND. Which was a good sign to indicate community level follow up mechanism. This follow up at community level was recommended till the child reaches -1 SD. (z score, weight for height)

Growth monitoring chart maintenance

The growth monitoring chart is one more tool to find out the status of the children. It clearly gives the picture of weight for height proportion. So it is important to maintain the growth monitoring chart for every child and it has to be compare with the previous weight. Growth monitoring chart has to be plotted for each child on each visit.

Maintenance of growth monitoring chart (Respondents were AWW/ ASHA, N= 10)	
Yes	07
No	03

Table no: 10

Out 10 AWC visited during the data collection 03 centers were found without growth monitoring chart.

Children received Take Home Ration

To continue with the supplementary nutrition even after discharge from the NRC, these children were provided with Take Home Ration (THR). It includes “chotua” which is a mixture of grains , helps in providing nutrients required to child and along with “chotua” they get eggs from respective AWC. The THR helps maintaining the weight of the child as per the age. The “chotua” provided once in two weeks and eggs once in a week as per the guidelines.

Children received Take Home Ration (mothers as respondents N=14)	
Yes	13
No	01

Table no: 11

Distribution Take Home Ration from AWC (AWW/ ASHA as respondents N=10)	
Yes	09
No	01

Table no: 12

This question was asked to both the respondents. As per the response received shown in the tables 11 and 12 it shows that almost all the children receiving the THR with exception to one centre. Which was due to lack of supply of THR to AWC from the state office .

Weight status of the children discharged from NRC

This question was asked to mothers of beneficiaries to assess the THR and community level follow up at AWC on VHND. The status of weight is a good indicator to explicit the appetite habits of the child.

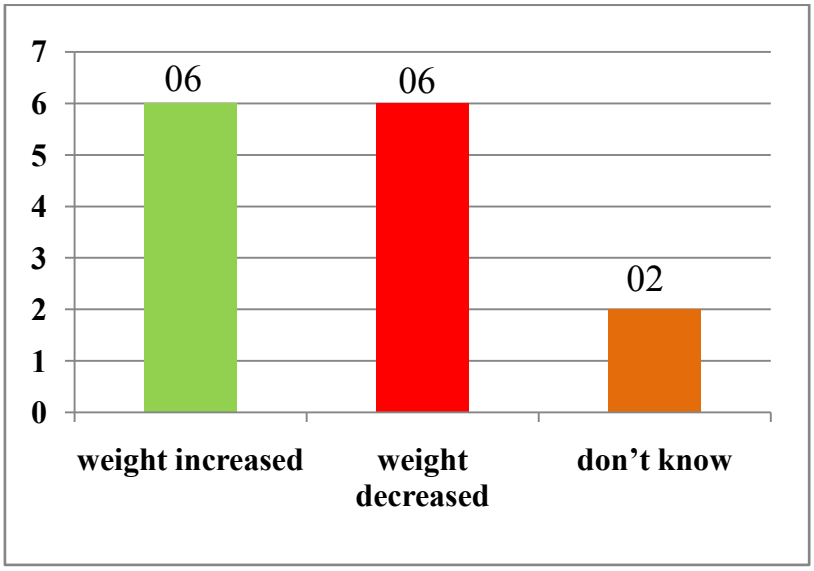

Figure : 02

In the figure no. 02 the data shows that there was 06 children gained the weight and equal number of children weight decreased. 02 respondents don"t know the weight status. The reason found for this was that THR received for a child in a family was distributed among siblings. So there was a decrease in some children even though they were receiving THR.

Findings:

- 13 children out of 14 discharged from NRC children are receiving THR.
- 11 children out of 14 discharged from NRC are visiting the VHND.
- Children were regularly home visited by AWW/ ASHA at community level.
- Gaps found at NRC & AWC:
    - No documentation found whether the child was accompanied by AWW/ ASHA during follow up visits.
    - No proper documentation regarding Take Home Ration (THR) & growth monitoring chart.

- Rairangpur NRC:
- Issue of human resource- No ANM at NRC.
- No follow up mechanism was followed for children discharged before January.
- No supply of THR (Take Home Ration) since two months at Totanetra AWC, Rairangpur Block.

Recommendations:

- Routine monitoring is required to address the gaps.
- Bring down the drop out rate by making the family members aware of importance of follow up visit at NRC.
- Tele counselling to family may strengthen follow up visits at NRC & community level.
- NRC needs to keep the track of discharged children till <-1SD attained.

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NRC discharged children

Annexures:

Questionnaire for mother / caregiver

Informed consent: I would like to thank you for taking the time to meet me. My name is Nethaji Bolla. I would like to ask you some questions about your child‟s follow up at NRC and at home. The interview should take about 10 minutes. The responses will be kept confidential. This means that the interview responses will be shared only with the research team and we will ensure that any information that we include in our report does not identify your details.

Do you have any questions about what I just explained?

Are you willing to participate in the interview?

Sub center	
Village	
Serial No	
Date of discharge from NRC	

Q1- Did NRC provide you with child‟s follow up schedule card?

1- Yes
2- No

Q2- Have you visited the NRC after discharge for follow up? (if „yes‟ skip question 3)

1- Yes
2- No

Q3-Why you didn‟t visited the NRC?

1- No time
2- Not interested
3- Not aware
4- Family issues

Q4- Have you been called up by NRC for follow up visit?

1- Yes
2- No

Q5-Were you accompanied by ASHA during the visit to NRC for follow up?

1- Yes
2- No

Q6-Are you aware of incentives (transportation charges) that you are supposed to get during your visits to NRC ? (If „no‟ skip question 7)

1- Yes
2- No

Q7- Are you getting those incentives (Transportation charges) ?

1- Yes
2- No

Q8-Was your child enrolled at AWC after discharge from NRC?

1- Yes
2- No

Q9- Did ASHA/ AWW visited your home for follow up of child? (if „no‟ skip Q10)

1- Yes
2- No

Q10- How often did ASHA/AWW visit your home for follow up of child?

1- Weekly
2- 15 days
3- Monthly

Q11- Was the child taken for regular check up on VHND?

1- Yes
2- No

Q12- What is the weight of your child after discharge and now?

Q13-Do you get „take home ration‟ from AWC?

1- Yes
2- No

Questionnaire for ASHA/ AWW

Informed consent: I would like to thank you for taking the time to meet me. My name is Nethaji Bolla. I would like to ask you some questions about your child‟s follow up at NRC and at home. The interview should take about 10 minutes. The responses will be kept confidential. This means that the interview responses will be shared only with the research team and we will ensure that any information that we include in our report does not identify your details.

Name:	
Designation:	
Name of the sub centre:	
Years of Experience	
Contact number	

Q1-Did you accompany the child to NRC for follow up? (if „yes‟ skip question 2)

1- Yes
2- No

Q2- Why you didn‟t accompany the child during follow up to NRC?

Q3- Have you received call from NRC regarding follow up visit of the discharged children?

1- Yes
2- No

Q4- Do you get incentives for finding SAM children and accompanying them to NRC?
(if „no‟ skip Q4)

1- Yes
2- No

Q5-Do you enroll all the discharged children from NRC? (if „yes‟ skip Q6)

1- Yes
2- No

Q6- Do you take home visits for the children discharged from NRC? (if „yes‟ skip Q9,

1- Yes
2- No

Q7- why you don‟t take the home visits?

Q8- How frequently do you take the home visits?

Q9-Do you distribute “take home ration” for beneficiaries of NRC?

1- Yes
2- No

Q10- Do you maintain the growth monitoring chart for the beneficiaries of NRC ?

1- Yes
2- No

Questionnaire for NRC counselor / staff

Informed consent:

I would like to thank you for taking the time to meet me. My name is Nethaji Bolla. I would like to ask you some questions about your child‟s follow up at NRC and at home. The interview should take about 10 minutes. The responses will be kept confidential. This means that the interview responses will be shared only with the research team and we will ensure that any information that we include in our report does not identify your details.

Name (optional):	
Educational qualification (optional):	
Designation:	
Name of the centre:	
Contact number:	

Q1- What are the mechanisms do you use for the follow up of children discharged from NRC?

Q2- Do you make calls to the parents of the child? (if „yes‟ skip Q3)

1- Yes
2- No

Q3- Why you didn‟t make calls to parents?

Q3- Do you call up AWW/ ASHA for follow up of discharged children from NRC? (if „yes‟ skip Q4)

1- Yes
2- No

Q4- Why you didn‟t make calls to ASHA/ AWW?

Q5-Do you give incentives to ASHA/ AWW for accompanying the child to NRC for follow up visit?

1- Yes
2- No

Q6- Why the incentives are not provide to ASHA/ AWW for accompanying?

Q7-Do you give incentives (transportation charges) to parents for visiting the NRC for follow up? (if „yes" skip Q10)

1- Yes
2- No

Q8- Why the incentives (transportation charges) are not provided to parents for visiting the NRC for follow up?

Q9- What is the number of children suppose to come for the follow up visits ?

Q10- What is the rate of children came to NRC for follow up ?

Q11- What is the rate of children came for all three follow up visits?

Q12-What is the rate of drop outs from follow up?

Q13- What are the barriers in the follow up mechanism of discharged children?