

**Summer Training at
National Health Mission Odisha, India
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**Major issues in providing Diagnostic services under JSSK: A case study of
Rayagada, Odisha**

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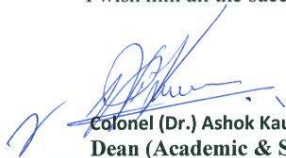
CERTIFICATE

This is to certify that Dr. Pankaj Mahure, has completed the summer training at National Health Mission, Odisha from 1.04.14 to 31.05.14

And have conducted the following project under guidance and supervision of Dr. Biswajit Modak. All the data related to the study is the first hand data collected by Himself .

Project-A study on assessing diagnostic services under Janani Shishu Suraksha Karyakram (JSSK).

His approach to the projects has been sincere, scientific and analytical. This work is partial fulfilment to the course requirements, recommended for the Post Graduate Diploma in Health and Hospital With specialization in Health Management.
I wish him all the success in future endeavours.


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

Mentor Name

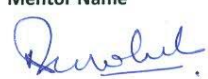

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Preface

The PGDHM course is well structured and integrated course of business studies. The main objectives of practical training at PGDHM level is to develop skill in students by supplement to the theoretical study of business management in general. Professors give us theoretical knowledge of various subjects in the institute. But we are practically exposed of such subjects when we get the training in the organization. It is the training through which we come to know that what an organization is and how it works. During this whole training I got a lot of experience and came to know about management practices in real that how it differs from those of theoretical knowledge and the practically in the real life.

It's very beneficial to learn health care delivery system at various levels. I observed the implementation of various National Health Programmes at National/State/District levels, I understood various functions of health systems by interactions with key stakeholders, policy makers, programme managers, academicians and researchers.

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-

“Major issues in providing diagnostic services under Janani Shishu Surakshya Karyakram (JSSK)”

I have tried to put my best effort to complete this task on the basis of skill that I have achieved during my studies in the institute.

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 Health Mission, Odisha.

I would also like to acknowledge with much appreciation the crucial role of Mr. Biswajit Modak, Senior Training Consultant, SHSRC, NRHM, 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 NRHM 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 Dr. Neetu Purohit, IHMR, Jaipur for her able guidance and useful suggestions, which helped me in completing the project work .

A special thanks to Mr. Prashant Mishra, DPM, Rayagada and Mr. Vishvaranjan Raut, Deputy manager, RCH, Rayagada and Mr. Kishor Patnaik, BPO, Kolnara CHC for guiding me throughout my field visit.

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

Finally, and most importantly, I would like to thank God for allowing me to complete my project, my beloved parents for their blessings and my friends for their help and wishes for the successful completion of this training.

Dr. Pankaj K. Mahure

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Abbreviations

AIDS	Acquired Immuno Deficiency Program
ANC	Ante Natal Care
APH	Ante Partum hemorrhage
ASHA	Accredited Social Health Activist
AYUSH	Ayurveda, Yoga and Naturopathy, Unani, Siddha, SowaRigpa and Homeopathy
BB	Blood Bank
BEmOC	Basic emergency Obstetric Care
BPO	Block Program officer
BSU	Blood Storage Unit
BTCT	Bleeding Time Clotting Time
CBC	Complete Blood Count
CDMO	Chief District Medical Officer
CHC	Community Health Center
CLMIS	Contraceptive Logistic Management Information System
CRP	C-Reactive Protein
C-Section	Cesarean Section
CSF	Cerebro Spinal Fluid
CUG	Closed User Group
DHH	District Health Hospital
DPM	District Program Manager
EAG	Empowered Action Group
ECG	Electrocardiography
EDD	Expected Date of Delivery
ELISA	Enzyme-Linked Immuno Sorbent Assay
EmOC	Emergency Obstetric Care
EQAS	External Quality Assessment Scheme
ESR	Erythrocyte Sedimentation Rate
FRU	First Referral Unit
GIS	Global Information System
GODMAN	Government Doctor's Information Management
Hb	Haemoglobin
HBPNC	Home Based Post Natal Care
HBs Ag	Hepatitis B surface Antigen
HIV	Human immune Deficiency
HRMIS	Human Resource Management Information System
ICTC	Integrated Counseling and Testing Centre
IIPH	Indian Institute of Public Health
IMR	Infant Mortality Rate
INC	Intra Natal Care
IPHS	Indian Public Health Standard

IT	Information Technology
LWE	Left Wing Extremism
ITEMS	Integrated Training & Evaluation Management System
JSSK	Janani Shishu Surakhsha Karyakram
JSY	Janani Surakhsha Yojana
LBW	Low Birth Weight
LT	Laboratory Technician
MCH & FP	Maternal Child Health and Family Welfare
MHU	Mobile Health Unit
MMR	Maternal Mortality Ratio
NBCC	Newborn Care Corner
NBSU	Newborn Stabilization Unit
NCD	Non Communicable Diseases
NHM	National Health Mission
NRHM	National Rural Health Mission
NUHM	National Urban Health Mission
OPD	Out Patient Department
OSMIS	Odisha State Malaria Information System
OVLMS	Odisha Vaccine Logistic Management System
PHC	Primary Health Center
PNC	Post Natal Care
PPH	Post Partum Hemorrhage
PRI	Panchayati Raj Institutions
RKS	Rogi Kalyan Samiti
RMNCH+A	Reproductive Maternal Newborn Child Health+ Adolescent
SBA	Skilled Birth Attendant
SC	Sub Center
SDH	Sub Divisional Hospital
SDMO	Sub Divisional Medical Officer
SNCU	Special Newborn Care Unit
TFR	Total Fertility Rate
UHC	Universal Health Coverage
ULB	Urban Local Bodies
UPHC	Urban Primary Health Centre
USG	Ultra sonography
UTs	Union Territories
VDRL test	Venereal Disease Research Laboratory test
VHSNC	Village Health Sanitation & Nutrition Committee
WHO	World Health Organization

Introduction

National Health Mission ,Odisha

Background

- 1.1 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.
- 1.2 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.
- 1.3 This Framework document is intended to lay out the approach for the National Health Mission for the period 2012-2017 and beyond.
- 1.4 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 Monitoring 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

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. Jyoti Prakash Samal	MCH & FP Expert
7.	Dr. Manoranjan Mohapatra	Consultant QA & QI (Management), NHM
8.	Dr. Shridhar Kadam	Associate professor, IIPH, Bhubneswar
9.	Ms. Mithun Karmakar	GIS Mapping
10	Mr. Vishwaranjan Raut	Deputy Manager, RCH, NHM Rayagada
11	Mr. Prashant Mishra	DPM, Rayagada
12	Mr. Kishor Patnaik	BPO, Kolnora CHC
13	Mrs. Kalpana Mishra	BPO, Jemadeipentho
14	Mr. Jitendra Tripathi	BPO, Ramanaguda
15	Mrs. T. Satyavati	BPO, Bissamcuttack
16	Dr. P.K.B. Patnaik	Jt. Director Public Health (NCD)
17	Mr. Chandanesh Mishra	Consultant Adolescent Health
18	Dr. Bikas Patnaik	Jt. Director Public Health (IDSP)
19	Dr. Prameela Baral	Dept. Director IDSP (Disaster management)
20	Dr. M. M. Pradhan	Dept. Director NVBDCP (Malaria)
21	Mr. K. K. Das	Deputy Director SIHFW (Training)
22	Mrs. Ranjita Patnaik	Jt. Director Health services (Rural Health)

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Research Summery

Research Topic

A study on assessing Diagnostic Services under “Janani Shishu Surakshya Karyakram (JSSK)”

Introduction

Janani Shishu Surakshya Karyakram (JSSK) launched on 1st of November, 2011 in Odisha is a new approach to healthcare, which supplement the cash assistance given to a pregnant woman under **Janani Suraksha Yojana** and is aimed at mitigating the **burden of out of pocket expenses incurred by pregnant women and sick newborn**.

Entitlements for ANC and PNC Women (42 days) and Sick Newborns till 1 year after birth:

- Free Transportation Services (1st, 2nd & drop back)
- Free Drugs & Consumables
- Free Diagnostics
- Free Blood if required
- Free Diet
- Free admission

Both essential and desirable investigations are required to be conducted free of cost for pregnant women during ANC (Ante natal care), INC (Intra natal care), PNC (Post natal care) up to 6 weeks after delivery which includes investigations required prior to both normal delivery and Caesarean Section. Similarly when a neonate is sick and needs urgent and priority treatment for conditions like infection, pneumonia etc is to be conducted free of cost. (1)

Over 1,00,000 medical testing laboratories provide diagnostic services in India. Over 80% are small, 18% medium and less than 2% are large in number. (2)

Level 1 – All sub-centres and some PHCs which have not yet reached the next level of 24 x 7 PHC, deliveries are conducted by a skilled-birth attendant (SBA). An NBCC must be established in all such facilities.

Level 2 – (Basic Level): All 24 x 7 facilities (PHC/Non-FRU CHC/others) Providing BEmOC services; conducting deliveries and management of medical complications not requiring surgery or blood transfusion and have either a NBCC or NBSU.

Level 3 – (Comprehensive Level-FRU): All FRU-CHC/SDH/DH/area hospitals/referral hospitals/tertiary hospitals where complications are managed including C -section and blood transfusion. Such an FRU would be equipped also with a Newborn Stabilization Unit (NBSU) at CHC/SDH/others or Special Newborn Care Unit (SNCU) at DH and above. A District Hospital irrespective of caseload has to be a Level 3 institution.

Table No. 1: Ensured diagnostic services for PW:

Diagnostic Services	Levels of Institutions (Certified under JSSK)		
	Level-1	Level-2	Level-3
Essential Tests (For PW during Delivery):			
1. Blood Analysis			
Haemoglobin Estimation	Yes	Yes	Yes
Bleeding Time & Clotting Time	Yes	Yes	Yes
Malaria/Filaria/Parasite	Yes	Yes	Yes
Blood Grouping & RH Typing			Yes (if BB/BSU present)
HIV Test			Yes (if ICTC present)
HBs Ag			Yes (if BB/BSU present)
Sickle-cell Test			Yes
2. Urine Analysis			
Urine for Albumin & Sugar	Yes	Yes	Yes
3. Biochemistry			
Random Blood sugar		Yes	Yes
4. ECG			Yes
5. Ultra sound			Yes

(4)

Table No. 2:Ensured diagnostic services for newborn up to 1 year of age:

Diagnostic Services	Level		
	1	2	3
Essential Tests (For New Born up to 1 year of age)			
1. Blood Analysis			
CBC	Only Hb%	Yes	Yes
BT CT			Yes
Blood grouping-RH typing			Yes
Serum Billirubin		Yes	Yes
ESR			Yes
HIV/AIDs			Yes (If ICTC present)
Blood Glucose		Yes	Yes
CRP			Yes
Coomb Test			Yes
2. Urine Analysis			
Sugar Albumin, Microscopic			Yes
3. Biochemistry			
Renal funtion Test			Yes
Serum electrolyte			Yes
CSF Study			Yes
4. Ultra Sonography			Yes
5. Chest X ray			Yes

N.B: List given above are only indicative in nature, however if the treating physician advices Other tests, these are also to be taken up if available with the certified institution or at its' empanelled Private Clinical Lab/s. (4)

Table No. 3: Facilities in laboratories in level 1, level 2 and level 3 institutions

	Level 1	Level 2	Level 3
Clinical Laboratory	- Material needed For mandated lab test at each level - Haemoglobinometer (Sahilis kit) with reagents and lancet - Strips for testing urine albumin and sugar - Reagents such as sulphuric acid, acetic acid, Benedict solution. - Specimen collection bottle (in case testing strips are not available) - Test-tubes, holder, test-tube stand, match box, spirit lamp - RDK for malaria Testing	Same as in Level 1, plus the following: - Trained laboratory technicians - Lab should be operational during OPD hours and emergency lab facility available after routine working hours - Lab test reports reach a centralized OPD counter directly - Lab is located near OPD area and should have a toilet nearby - Lab should have marble/stone top platform and wash basin with running water supply - Critical equipment – sequencing of the above red content	Same as in Level 2, plus the following: - USG facility/outsourced should have a declaration displayed: sex determination of the foetus is not done at this facility - Autoanalyser
Clinical Laboratory		Semi Autoanalyzer	

(5)

Review of Literature

All lab services are available in routine working hours, emergency lab services are available for selected tests of Haematology, biochemistry and serology 24X7, laboratory has system to ensure the confidentiality of the reports generated, availability of sitting arrangement of sub waiting area are some standards of quality in diagnostic centres. (6)

BTCT test, Hb gm%, blood grouping-Rh typing, ELISA for HIV, Urine for albumin and sugar, HBs Ag, USG should be available at laboratory in DHH.(7)

One wash basin, one water tap and electric fitting as per requirement should be available at laboratory in CHCs. (8)

One Talquist Hb scale, one haemoglobin colour scale (WHO approved) should be available at SCs. (9)

Objectives of quality in lab

- Support provision of high quality health-care
 - Reduce morbidity
 - Reduce mortality
 - Reduce economic loss
- Ensure credibility of lab
- Generate confidence in lab results

Consequences of poor quality

- Inappropriate action
 - Over-investigation
 - Over-treatment
 - Mistreatment
- Inappropriate inaction
 - Lack of investigation
 - No treatment
- Delayed action
- Loss of credibility of laboratory
- Legal action (10)

External quality assessment schemes (EQAS)

Aims to analyse the accuracy of the entire testing process from receipt of sample and testing of sample to reporting of result. (11)

Laboratory quality control is designed to detect, reduce, and correct deficiencies in a laboratories internal analytical process prior to the release of patient results, in order to improve the quality of the results reported by the laboratory. (12)

Achieving quality control in medical laboratory requires the use of many tools. These include procedure manuals, maintenance schedules, calibrations, a quality assurance programme, training and quality control. (13)

About 67,000 women in India die every year due to pregnancy related complications. Similarly, every year approximately 13 lakhs infants die within one year of birth. Out of the 9 lakhs newborns who die within four weeks of birth and about 7 lakhs i.e. 75% die within the first week.(4)

37% of cases shows anaemia, APH/PPH, Eclampsia, sepsis are the major causes behind maternal deaths.(3)

Hypertensive disorders of pregnancy contributes 32.6% of maternal deaths, Malaria and Anaemia contribute 9.3% and 7% of maternal deaths respectively in Odisha.(14)

The infants having mortality rate Male-52, Female-54 per 1000 live births. 6 out of 10 women (61.2%) in the reproductive age are anaemic in Odisha. (15)

Research Question

1. What is the availability of diagnostic services under JSSK?
2. What is the quality of diagnostic services under JSSK?

Objectives and indicators

1. **To identify the availability of diagnostic services under JSSK at level 2 and level 3 government institutions.**

Indicators:

Service Availability

- Number of institutions having 24x7 diagnostic services.
- Number of vacant post of pathology technicians.
- Number of USG machine available at level 3.
- Number of functional USG machine at level 3.
- Number trained person conducting USG examination at level 3
- Number of diagnostic centres having adequate reagents at level 2.
- Number of diagnostic centres having adequate reagents at level 3.
- Number of diagnostic centres having required equipments at level 2
- Number of diagnostic centres having required equipments at level 3
- % of ANC women undergone BTCT
- % of ANC women undergone Blood grouping and Rh typing
- % of ANC women undergone HIV Test and
- % of ANC women undergone USG examination

2. To assess the extent to which quality parameters are followed to the expected level in providing diagnostic services

Indicators:

Service Quality

- Number of lab technicians maintaining register of expiry reagents
- Number of lab technicians doing waste segregation
- Number of institutions doing disposal of lab waste
- Number of diagnostic centres having hand washing facilities
- Number of diagnostic centres having 0.5% Bleaching powder solution
- Number of lab technicians maintaining register of JSSK services

Free services as per mandate

- % of ANC women paying for diagnostic services

Research Methodology

Study type- Descriptive study

Study Duration- 2 months

Study Area- DHH Rayagada, SDH Gunupur, CHC Kolnara, CHC Jemaidepenthoo, CHC Ramanaguda & CHC Bissamcuttack of Rayagada district

Sample Size Determination

Sampling technique- Non-probability, purposive sampling

Study Respondents-

- District level: Lab technicians, post natal mother having 1 month child with MCP card and CDMO.
- Sub district level: Lab technicians and post natal mother having 1 month child with MCP card .
- CHC level: Lab technicians and post natal mother having 1 month child with MCP card .

Table No. 4: Sample size

	Level 2 of health institutions	Level 3 of health institutions	Total
PNC mothers having one month old child	19	21	40
Laboratories	4	2	6
Lab technicians	4	2	6
CDMO		1	1

Tools and techniques-

It is a Qualitative and Quantitative data collection. Data was collected by using face to face interview as a technique and semi structured interview schedule as a tool for lab technicians and PNC mothers and also in-depth interview as a technique and checklist as a tool for CDMO. Primary and secondary data was used for data collection.

Primary data was collected from all the respondents regarding availability and quality of diagnostic services in government institutions (level 2 and level 3).

Inclusion/Exclusion criteria

All the laboratory technicians and PNC mothers having 1 month old child with MCP card were included and all those not involving under diagnostic services and not receiving benefits of diagnostic services and those who refused to take part were excluded.

Table No.5: DHH, SDH and CHCs visited during scheduled timeline of study

DHH		Rayagada
SDH		Gunupur
CHC		Kolnara
CHC		Jemaidepenthro
CHC		Ramanaguda
CHC		Bissamcuttack

Data Analysis Plan

The data was entered into MS Excel and percentages of various indicators were found out. The data was compared with the guideline of diagnostic services under JSSK and the gaps and causes of gaps in diagnostic services were seen. Also, the qualitative data was analyzed and interpretations were made.

Limitations

- Two months time period was very less to do study.
- Sample sizes is small and the size might not represent the entire universe of the study.
- Language was the barrier during data collection period.

Ethical Considerations

- Confidentiality of the respondents was maintained during the study.
- Respect and dignity of the respondents were taken care during the study.
- Information received by the respondents will not be misused in any form.

Work Plan

S No.	Task	Timeline	Duration
1)	Document study and development of study design and tools	2 nd April'14 to 23 rd April'14	3 weeks
2)	Field testing of tools ,field study and data collection	24 th April'14 to 7 th May'14	2 weeks
3)	Data analysis	8 th May'14 to 15 th May'14	1 weeks
4)	Finalization of Data And Presentation	16 th May'14 to 23 rd May'14	1 week
5)	Relieved from NRHM	24 th May'14	

Result-

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

On Service Availability:

Table No. 6: Institutions having 24x7 diagnostic services at level 2 & level 3

Institutions having 24x7 diagnostic services (N=6)		
	Available	Not available
	4 (67%)	2 (33%)

This question was asked to lab technicians at level 2 & level 3 to know the availability of 24x7 diagnostic services. According to JSSK guidelines of Odisha, institutions should give 24x7 diagnostic services at level 2 and level 3.

The study showed that

4 institutions are providing 24x7 diagnostic services at level 2 and level 3.

At level 2, out of four CHCs, two CHCs don't have pathology technician.

Limitation of sample size and selection method could be a reason for this percentage.

Table No. 7: Laboratories having vacant post of LTs at level 2 & level 3

Laboratories having vacant post of LTs (N=11)		
	Vacant	In position
	4	7
Percentage	36%	64%

This question was asked to lab technicians to know the vacant post of lab technician in the laboratory. According to JSSK guidelines,

For DHH- 2LTs +1LT + 1LT

For SDH- 1LT + 1LT + 1LT

For CHC- 1LT + 1LT + 1LT

The study showed that 33% vacant post of laboratory technicians are present at level 2 and level 3.

Limitation of sample size and selection method could be a reason for this percentage.

Table No. 8: Availability of USG machine at level 3

Availability of USG machine at level 3 (N=2)		
	Available	Not available
	2	
Percentage	100%	0%

This question was asked to lab technicians to know the availability of USG machine at Level 3.

The study showed that two USG machines are available at level 3 but these two USG machines are present at DHH, Rayagada only, there is no USG machine available at SDH, Gunupur.

Table No. 9: Functional USG machines out of available at level 3

Functional USG machines out of available at level 3 (N=2)		
	Functional	Not functional
	1	1
Percentage	50%	50%

This question was asked to lab technicians to know the functional USG machines out of available at level 3.

The study showed that out of two available USG machines, only one is functional.

Limitation of sample size and selection method could be a reason for this percentage.

Table No. 10: Trained persons conducting USG test at level 3

Trained person conducting USG test at level 3 (N=2)		
	Available	Not available
	0	2
Percentage	0%	100%

This question is asked to lab technician and CDMO to know the availability of trained persons conducting USG test at level 3.

The study showed that, no trained person is available at level 3 to conduct the USG test of ANC women.

Limitation of sample size and selection method could be a reason for this percentage.

Table No. 11: Diagnostic centres having adequate reagents at level 2

Diagnostic centres having adequate reagents at level 2 (N=2)		
	Available	Not available
	2	0
Percentage	100%	0%

This question is asked to lab technicians at level 2 to know the availability of adequate reagents in diagnostic centres to conduct the tests of ANC women.

The study showed that 100% diagnostic centres at level 2 have adequate reagents to conduct the tests of ANC women.

Table No. 12: Diagnostic centres having adequate reagents at level 3

Diagnostic centres having adequate reagents at level 3 (N=2)		
	Available	Not available
	2	0
Percentage	100%	0%

This question is asked to lab technicians at level 3 to know the availability of adequate reagents in diagnostic centres to conduct the tests of ANC women.

The study showed that 100% diagnostic centres at level 3 have adequate reagents to conduct the tests of ANC women.

Table No. 13: Diagnostic centres having required equipments at level 2

Diagnostic centres having required equipments at level 2 (N=2)		
	Available	Not available
	2	0
Percentage	100%	0%

This question is asked to lab technicians at level 2 to know the availability of required equipments in diagnostic centres to conduct the tests of ANC women.

The study showed that 100% diagnostic centres at level 2 have required equipments to conduct the tests of ANC women.

Table No. 14: Diagnostic centres having required equipments at level 3

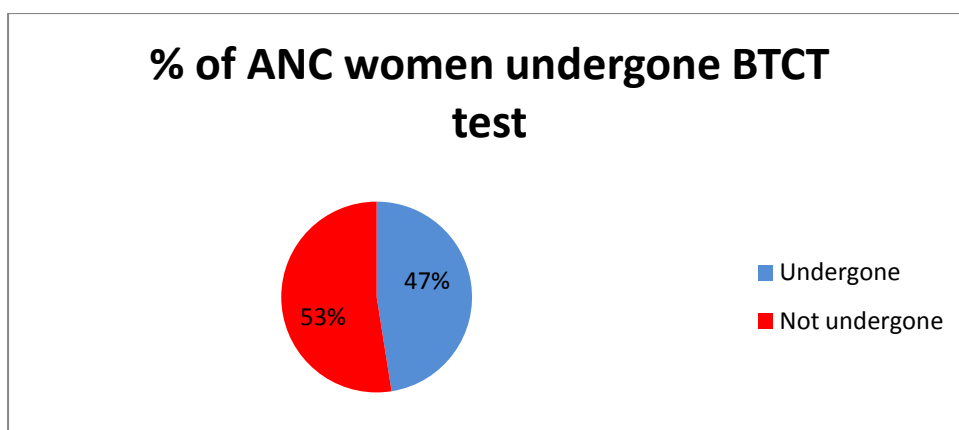
Diagnostic centres having required equipments at level 3 (N=2)		
	Available	Not available
	2	0
Percentage	100%	0%

This question is asked to lab technicians at level 3 to know the availability of required equipments in diagnostic centres to conduct the tests of ANC women.

The study showed that 100% diagnostic centres at level 3 have required equipments to conduct the tests of ANC women.

Table No. 15: ANC women undergone BTCT test

ANC women undergone BTCT test (N=40)		
	Undergone	Not undergone
	19	21
Percentage	47%	53%



This question is asked to PNC mothers to know the number of PNC mothers who have undergone BTCT test during their ANC period at level 2 and level 3.

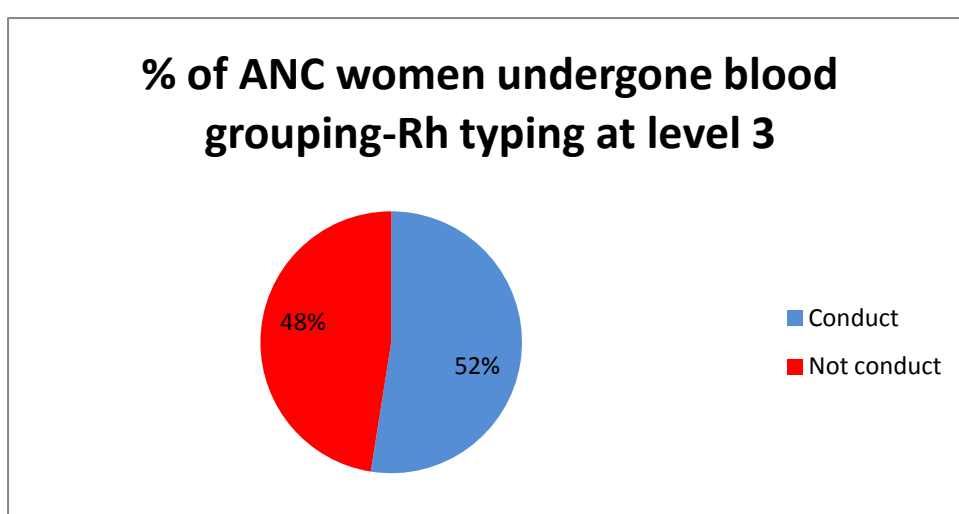
The study showed that,

47% of PNC mothers have undergone BTCT test during their ANC period at level 2 and level 3.

Limitation of sample size and selection method could be a reason for this percentage.

.Table No. 16: ANC women who have undergone blood grouping-Rh typing

ANC women who have undergone blood grouping-Rh typing (N=40)		
	Undergone	Not undergone
	21	19
Percentage	48%	52%



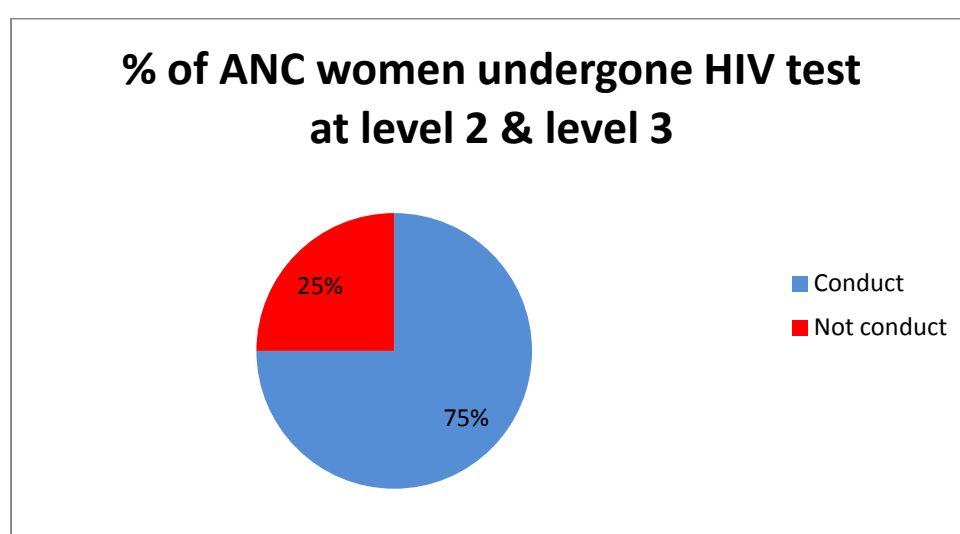
This question is asked to PNC mothers to know the number of PNC mothers who have undergone blood grouping-Rh typing test during their ANC period at level 3.

The study showed that 52% of PNC mothers have undergone blood grouping-Rh typing test during their ANC period at level 3.

Limitation of sample size and selection method could be a reason for this percentage.

Table No. 17: ANC women who have undergone HIV test

ANC women who have undergone HIV test (N=40)		
	Undergone	Not undergone
	30	10
Percentage	75%	25%



This question is asked to PNC mothers to know the number of PNC mothers who have undergone HIV test during their ANC period.

The study showed that 75% of PNC mothers have undergone HIV test during their ANC period.

Limitation of sample size and selection method could be a reason for this percentage.

Table No. 18: ANC women who have undergone USG examination

ANC women who have undergone USG examination at level 3 (N=40)		
	Undergone	Not undergone
	0	40
Percentage	0%	100%

This question is asked to PNC mothers to know the number of PNC mothers who have undergone USG examination during their ANC period at level 3.

The study showed that 0% of PNC women have undergone USG examination during their ANC period at level 3.

Limitation of sample size and selection method could be a reason for this percentage.

On Service Quality:

Table No. 19: Laboratory technicians maintaining expiry record

Laboratory technicians maintaining expiry record (N=6)		
	Maintaining	Not maintaining
	2	4
Percentage	33%	67%

This question is asked to laboratory technicians at level 2 and level 3 to know the maintenance of expiry record.

The study showed that 33% lab technicians maintain the expiry record of reagents in laboratory.

Limitation of sample size and selection method could be a reason for this percentage.

Table No. 20: Lab technicians doing waste segregation

Lab technicians doing waste segregation (N=6)		
	Following	Not following
	6	0
Percentage	100%	0%

This question is asked to laboratory technicians at level 2 and level 3 to know the number of lab technicians doing waste segregation.

The study showed that 100% laboratory technicians are doing waste segregation.

Table No. 21: Diagnostic centres doing waste disposal

diagnostic centres doing waste disposal (N=6)		
	Following	Not following
	6	0
Percentage	100%	0%

This question is asked to laboratory technicians at level 2 and level 3 to know the number of diagnostic centres doing disposal of lab waste.

The study showed that 100% diagnostic centres are doing waste disposal.

Table No. 22: diagnostic centres having hand washing facility

diagnostic centres having hand washing facility (N=6)		
	Available	Not available
	5	1
Percentage	83%	17%

This question is asked to laboratory technicians at level 2 and level 3 to know the availability of hand washing facility.

The study showed that 83% diagnostic services have hand washing facility.

Limitation of sample size and selection method could be a reason for this percentage.

Table No. 23: diagnostic centres having 0.5% bleaching solution

diagnostic centres having 0.5% bleaching solution (N=6)		
	Available	Not available
	6	0
Percentage	100%	0%

This question is asked to laboratory technicians at level 2 and level 3 to know the availability of 0.5% bleaching solution.

The study showed that 100% diagnostic centres have of 0.5% bleaching solution.

Table No. 24: Laboratory technicians maintaining JSSK record

Laboratory technicians maintaining JSSK record (N=6)		
	Maintaining	Not maintaining
	2	4
Percentage	33%	67%

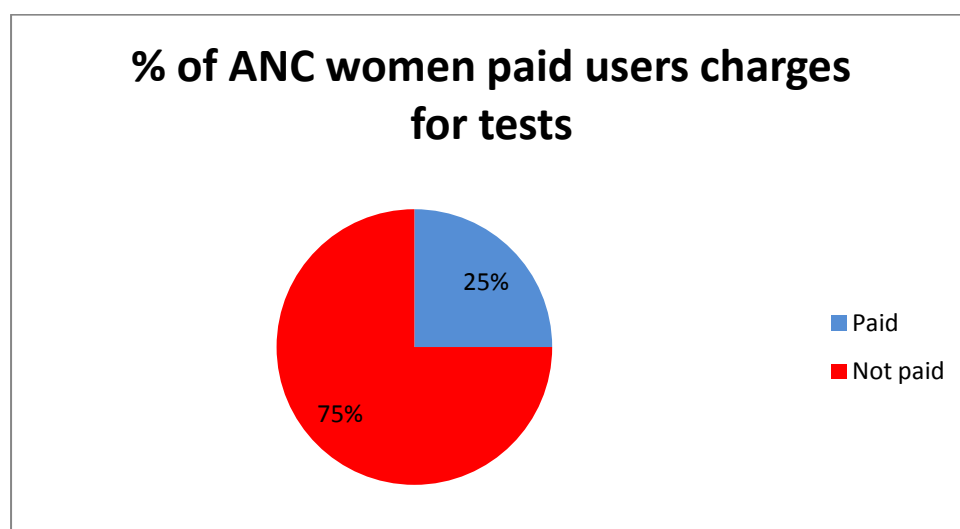
This question is asked to laboratory technicians at level 2 and level 3 to know the % of lab technicians maintaining the JSSK record.

The study showed that 33% lab technicians maintain the record of diagnostic services under JSSK.

Limitation of sample size and selection method could be a reason for this percentage.

Table No. 25: ANC women who paid users charges

ANC women who paid users charges (N=40)		
	Undergone	Not undergone
	10	30



This question is asked to PNC mothers to know the number of PNC mothers who paid users charges during their ANC period at level 2 and level 3.

The study showed that 12% of PNC mothers paid users charges for tests during their ANC period.

Limitation of sample size and selection method could be a reason for this percentage.

Finding and discussion

- 33% institutions don't have 24x7 diagnostic services.

In Kolnara CHC, there is a vacant post of pathology technician to conduct the tests of ANC women and Malaria technician conduct Malaria and HIV test of ANC women. In Ramanaguda CHC, there is no pathology technician available to conduct the tests of ANC women. Malaria technician and additional ANM conduct the Malaria tests and Hb% estimation, Urine for albumin & sugar at CHC. Because of the shortage of laboratory technicians, laboratories under CHCs are not working 24x7.

- 33% posts of pathology technicians are vacant.

According to CDMO, lab technicians are not ready to do job at government institutions due to less salary.

- At Rayagada DHH, only 50% USG machines are functional.

In Rayagada DHH, one USG machine is functional & other is not functional. In SDH Gunupur, USG machine is not present.

According to CDMO, fund is not available to repair and to buy the machine.

- Trained person is not available at DHH to operate USG machine.

According to CDMO, trained person is not available easily to operate USG machine.

- 53% ANC women not undergone BTCT test
- 48% ANC women not undergone blood grouping-Rh typing.
- 25% of ANC women not undergone HIV tests.
- USG examination of ANC women not observed.
- 67% of lab technicians do not maintain register of expiry reagents.
- 17% of diagnostic centres don't have hand washing facilities.

- 67% of lab technicians do not maintain register of JSSK services.

According to CDMO, there is no need to maintain the records of diagnostic services under JSSK because they are giving free services to all the patients.

- 12% of ANC women paid for diagnostic services.

According to laboratory technician, if the tests charges are more than Rs. 50, then they will charge 50% of user's fee. According to CDMO, they are taking charges because of misinterpretation of guidelines.

Suggestions on service availability

- Multi skill training to laboratory technicians may be given more importance.
- Recruitment of laboratory technicians is an urgent need.
- Continuous orientation on JSSK should be reinforced.
- Provision of functional USG machines is an urgent need.
- At least one Ultrasound examination of PW should be done.

Suggestions on service quality

- Separate record of JSSK services may be maintained at labs.
- Record on expiry date of reagents at labs is need to be ensured.
- Running water at labs to be ensured.

Conclusion

After assessing the diagnostic services under JSSK, in Rayagada district of Odisha, post of lab technicians are vacant at some CHCs or some lab technicians are not trained to do the tests. Also in quality services, proper documentation is not done.

Annexure 1

ROGI KALYAN SAMITI, RAYAGADA
(DISTRICT HEAD QUARTER HOSPITAL)

INVESTIGATION SLIP

Name of Patient: Sumantra Pandey
OPD/P.D No: 642 M.R. No/Date: 21/5/14

PATHOLOGICAL: Blood: Hb%, DC, TLC, ESR, BT/CT, Sickling, MP Slide, ICT, Widal for microfilariis, Peripheral Smear count Stool: R/M, Occult blood, Stool Sugar Urine: R/M, Urine BS & BP, Urine Sugar, Pregnancy test Other: Montoux test, Sputum for AFB, Skin smar for AFB, CSF study, Semen Analysis X-RAY : ECG : USG : Any other Investigation : (Details to be specified)	Biochemical : FBS, PPBS, S. Urea, S. Creatinine, S. Bilirubin, S. Cholestrol, RA factor, ASO, CRP, Lipid profile <u>AB - go ant dia</u> <u>for JSSK</u> <u>for JSSK</u>
--	--

CERTIFIED THAT THE PATIENT IS POOR/B.P.L/M.L.C.

Signature of Doctor: [Signature]

FREE OR PAYMENT

Asst. Dist. Medical Officer (Med)
Cum-S.D.M.O., Rayagada

S. D. Hospital Development Society
GUNUPUR, Dist. Rayagada

B. No. 7 FREE RECEIPT R. No. 74
Date 21/5/14

Name: Sumantra Pandey
Investigation: HB, Urine
OPD/IPD No. 112/21.1.14

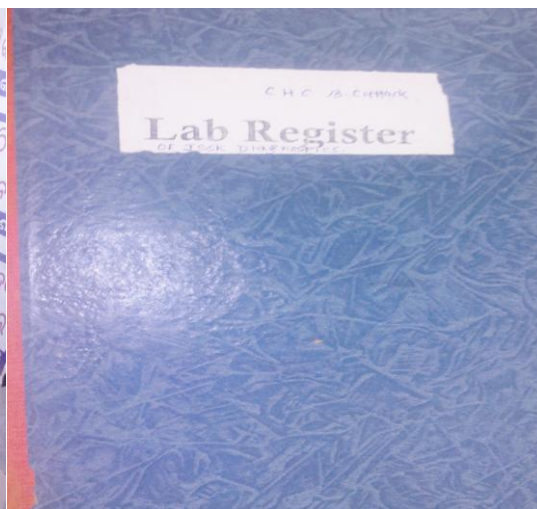
Signature: [Signature]

Free receipt of JSSK at DHH, Rayagada

Free receipt of JSSK at SDH, Gunupur



Waste segregation



Lab Register of JSSK in Bissamcuttack CHC



Laboratory at Bissamcuttack CHC

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Annexure 2

Questionnaire for Post natal women having MCP card

A Study on Major Issues in Providing Diagnostic Services under JSSK

Questionnaire schedule

Informed consent : I would like to thank you for taking the time to meet me. My name is Pankaj K. Mahure. I would like to talk to you about your experience regarding your the ANC visits in diagnostic lab. The interview should take about 5 minutes. The responses will be kept confidential. This means that the interview responses will be shared only with the research team. Remember, you don't have to talk about anything that you don't want to and you can end the interview at any time.

Do you have any questions about what I just explained?

Are you willing to participate in the interview?

Interviewee Signature

Date:

DHH/SDH/CHC	
Name of city/town	
Serial No	
Date of Interview	
Duration of interview (in minutes)	

1. Name

3. Age.....

Q.1 Do you have MCP card?

a) Yes b) No

Q.5 Are the diagnostic services available for 24x7?

a) Yes b)No

Q.6 which tests are you undergone?

- a) BTCT
- b) Blood grouping and RH typing (at level 2 & 3)
- c) HIV Test

d) Ultra sound (at level 3)

Q.7 Did you pay any charges for the tests?

a) Yes b) No

Interviewer : Pankaj K. Mahure

Starting Time : _____

Closing Time : _____

Questionnaire for Lab technician

A Study on Major Issues in Providing Diagnostic Services under JSSK

Interview schedule

Informed consent: I would like to thank you for taking the time to meet me. My name is Pankaj K. Mahure. I would like to talk to you about your experience regarding diagnostic services under JSSK. 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. Remember, you don't have to talk about anything that you don't want to and you can end the interview at any time.

Do you have any questions about what I just explained?

Are you willing to participate in the interview?

Interviewee Signature

DHH/SDH/CHC	
Name of city/town	
Serial No	
Date of Interview	
Duration of interview (in minutes)	

1. Name

3. Mobile No

Q.1 Are the diagnostic services available for 24x7?

a) Yes b) No

Q.2 Is there any vacant post of lab technician?

a) Yes b) No

Q.3 Which tests do you conduct of ante natal women?

a) BTCT

b) Blood grouping and RH typing (level 3)

c) HIV Test

d) Ultra sound (at level 3)

Q.4 Is there shortage of reagents to conduct the tests?

a) Yes b) No

Q.5 Do you have equipments to conduct the tests?

a) Yes b) No

Q. 6 Do you maintain the record of expiry and near expiry reagents?

a) Yes b) No

Q. 7 Do you follow waste disposal?

a) Yes b) No

Q. 8 Does the laboratory have hand washing facilities (basin, water, elbow tap, soap or hand washing solution)?

a) Yes b) No

Q. 9 Is there bleaching solution (0.5%) in laboratory?

a) Yes b) No

Interviewer : Pankaj K. Mahure

Starting Time : _____

Closing Time : _____

Questionnaire for CDMO

A Study on Major Issues in Providing Diagnostic Services under JSSK

Interview schedule

Informed consent : I would like to thank you for taking the time to meet me. My name is Pankaj K. Mahure. I would like to talk to you about your experience regarding diagnostic services under JSSK. The interview would take about 15 minutes. The responses will be kept confidential. This means that the interview responses will be shared only with the research team. Remember, you don't have to talk about anything that you don't want to and you can end the interview at any time.

Do you have any questions about what I just explained?

Are you willing to participate in the interview?

Interviewee Signature

DHH/SDH/CHC									
Name of city/town									
Serial No									
Date of Interview	<table border="1"><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>								
Duration of interview (in minutes)	<table border="1"><tr><td></td><td></td><td></td></tr></table>								

1. Name-

2. Mobile No.

Q.1 What is the reason behind no USG technician in DHH and no USG machine and technician in SDH?

Q.2 Where do you refer the ante natal women for USG?

a) Empanelled Private laboratory b) Private laboratory

Q. 3 Only SDH and Bissamcuttack CHC have 24x7 diagnostic services, why don't DHH and CHCs have?

Q.4 There is no lab technician at Kolnara and Ramanaguda CHCs, what are the reasons?

Q.5 In SDH, if the tests charges are gone above Rs 50, they are taking 50% of users charges

from ANC women, Why?

Q.6 What is the reason behind not maintaining of JSSK register in laboratories?

Interviewer : Pankaj K. Mahure

Starting Time : _____

Closing Time : _____